

A Global Famous Brand  
An International Excellent Enterprise



**CRG Gripper Systems s.r.o.**  
Bánovce nad Bebravou, Slovakia  
Tel: +421 918 350 425  
crg@grippers.eu  
www.crg-grippers.eu

Distributed by

All stated here is subject to change without advance notice.

All rights reserved

CRG

ROBOTICS PARTS CATALOG 4.0

Complex gripper, flexible assembly



4.0

ROBOTICS PARTS CATALOG





CRG has been involving in EOAT design, development, sale and service. We have been operating in the field of injection automation for more than ten years. Base on module design concept, to makes automation design simpler、 more flexible and more reliable.



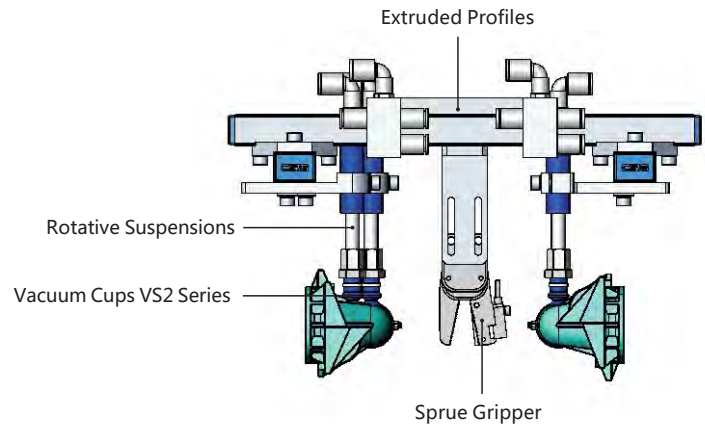
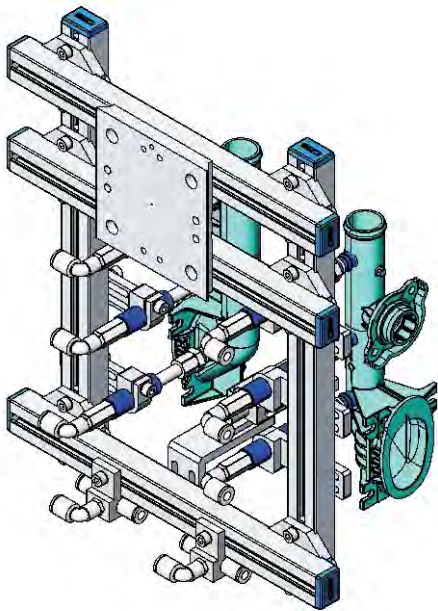
An innovative enterprise; a company specializing in automation technology; a trusted partner.

Operation Concept :Repeating simple things , you are the expert. Repeating what you do attentively,and you will be the winner.

Sales Idea :To provide customers with the best service, so that customers worry free.

# Application examples

## Base Frame



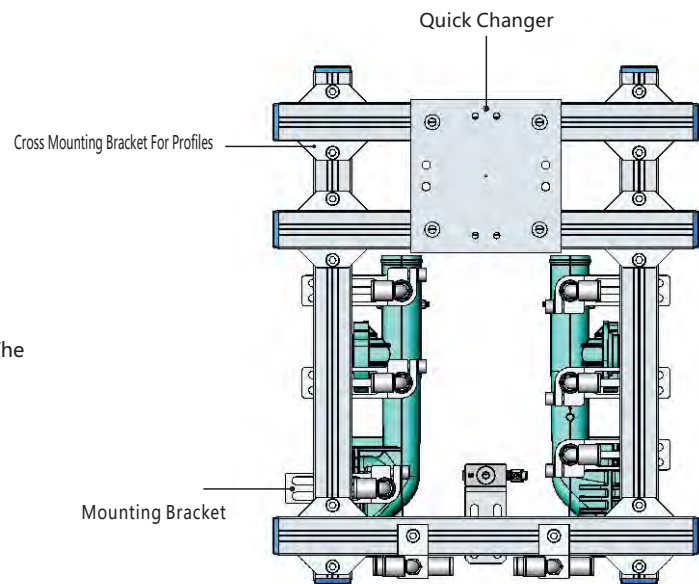
### Product Description:

Two caves in one mold.

Take product out with vacuum cup;

Take sprue gate out with sprue gripper.

Gas circuit divides into two suction and one gripping. The weight is about 2 kg.



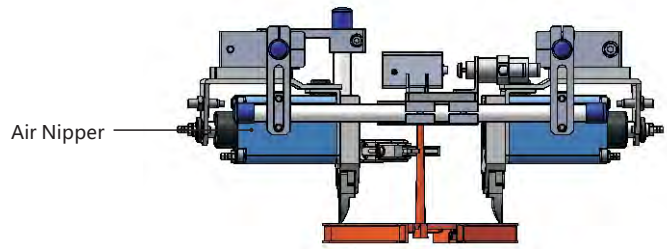
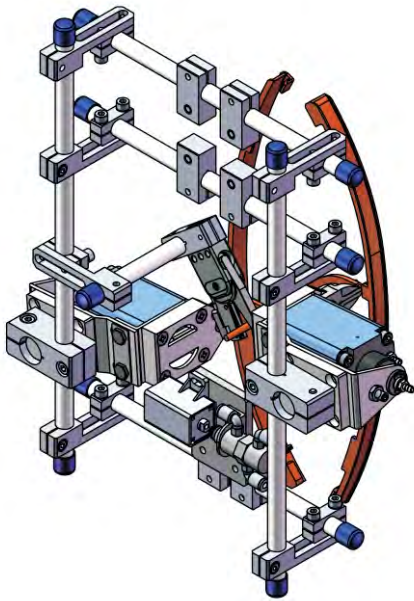
### BOM List

(Product Name)	(PN)	(Model)	(Quantity)	(Product Name)	(PN)	(Model)	(Quantity)
Quick Changer	7.Y00175	QCS-G100	1	Rotative Suspensions	8.Y00061	VFR1421-G18	6
Sprue Gripper	8.Y00050	GR12-12-CP	1	Mounting Bracket	7.Y00200	SMBE1-1440T	6
Plugs for profile	4.Y00069	PEP2518	10	Connector	1.Y02510	APF-M5	2
Cross Mounting Bracket For Profiles	7.Y00194	SMBA-2525T	6	Side Manifold Block	7.Y00157	SMB-06M5	2
Extruded Profiles	4.Y00455	PEP2518-1000	2	L-type Threaded Hose Fitting	1.Y02722	APL6-01	8
Vacuum Cups VS2 Series	1.Y03085	VS2-SA11	6	Straight Threaded Hose Fitting	1.Y02725	APC6-01	6
Vacuum Cup Fitting	7.Y00703	VM-02-G18	6				

The list contains only CRG standard parts.

# Application examples

## Base Frame

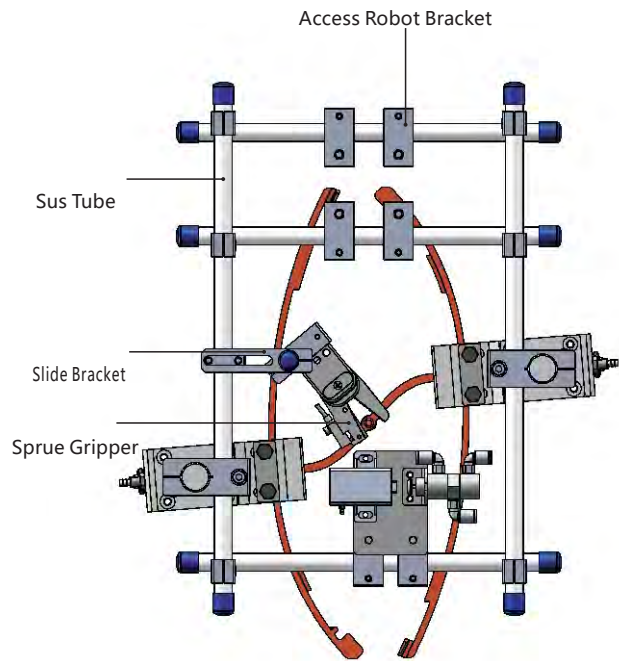


Air Nipper

**Product Description:**

Two cavities in one mould; Taking products out and clamping the sprue by sprue gripper.

The weight is about 1.5 kg.



Access Robot Bracket

Sus Tube

Slide Bracket

Sprue Gripper

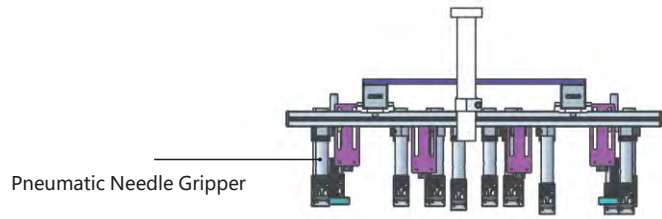
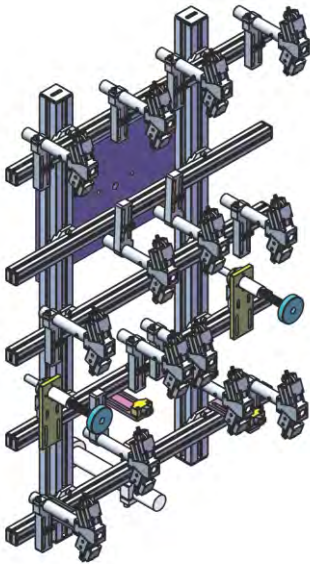
### BOM List

(Product Name)	(PN)	(Model)	(Quantity)	(Product Name)	(PN)	(Model)	(Quantity)
Sus Tube	4.Y00021	PST12-1500	2	Access Robot Bracket	7.Y00002	SMBH1-12M6	6
Air Nipper	1.Y00004	GT-NY25	2	L-type Threaded Hose Fitting	1.Y02809	APL6-M5	3
Straight blades for plastic	1.Y00037	NY25AJ	2	Slide Bracket	7.Y00004	SCF4-1240W16	7
Fixing Block	7.Y00633	SCE2-25	2	Slide Bracket	7.Y00001	SMBS-12T16	7
Tube Plugs	1.Y03638	PST12-1500	11	Sprue Gripper	8.Y00091	GR12-12-CN	1
Cross Connector	7.Y00027	SMBT-2012	2	Cross Connector	7.Y00020	SMBT-1212	1

The list contains only CRG standard parts.

# Application examples

## Base Frame

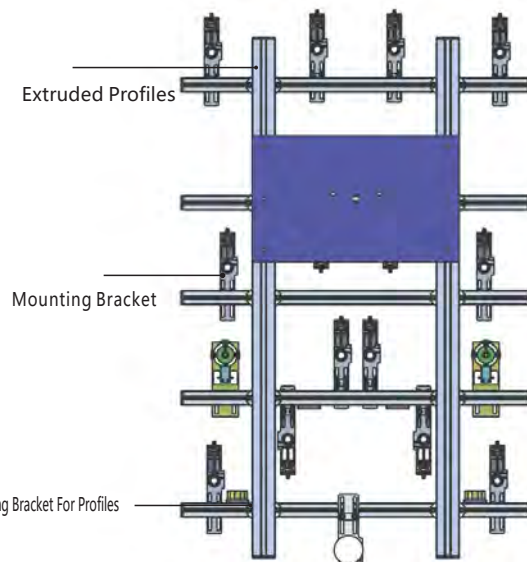


### Product Description:

Two cavities in one mould; Take out or embed the insert (Non-woven fabric) by pneumatic needle gripper;

The gas circuit is divided into two paths; one cavity is one path.

Weight: 7 kg



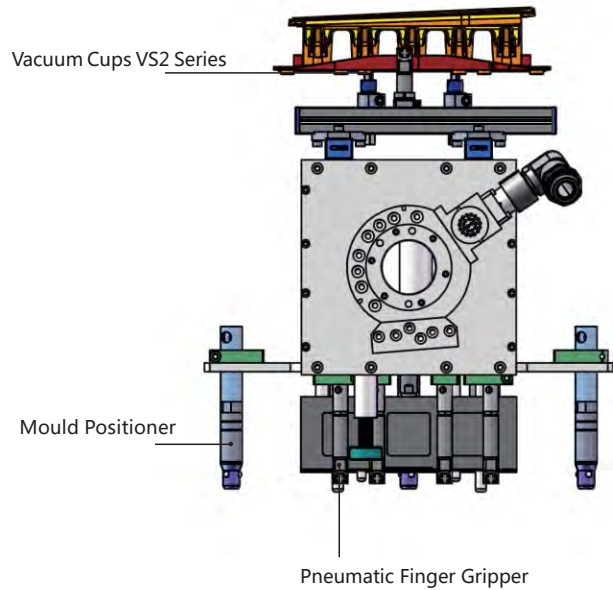
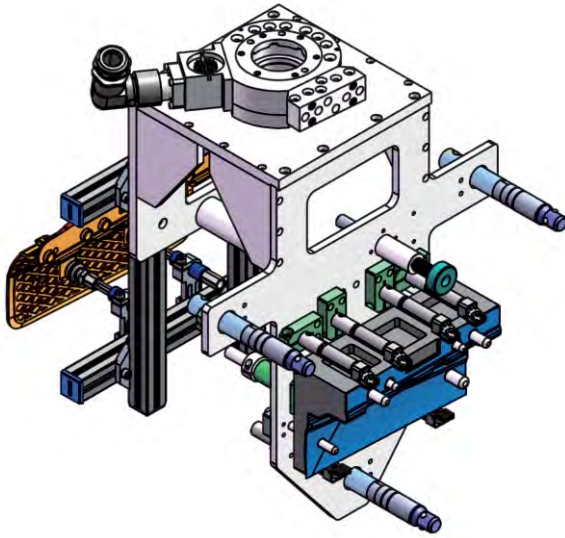
### BOM List

(Product Name)	(PN)	(Model)	(Quantity)	(Product Name)	(PN)	(Model)	(Quantity)
Extruded Profiles	4.Y00052	PEP4040-1000	2	Cross Mounting Bracket For Profiles	7.Y00356-T	SMBA-2540T	10
Plugs for profile	4.Y00072	PEP4040	4	Pneumatic Needle Gripper	8.Y00025	GN2010	14
Extruded Profiles	4.Y00481	PEP2525-1500	2	Mounting Bracket	7.Y00308-T	SMBE2-2060T	14
Extruded Profiles	4.Y00481	PEP2525-1000	1	Mounting Bracket	7.Y00309-T	SMBE2-3060T	1
Plugs for profile	4.Y00070	PEP2525	10				

The list contains only CRG standard parts.

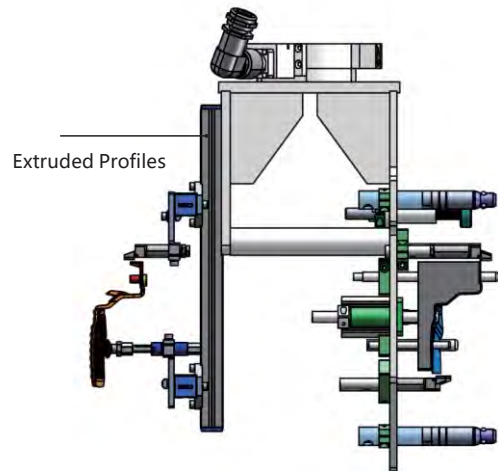
# Application examples

## Base Frame



**Product Description:**

One cavity in one mould; Take out on one side ; embed on the other side;One side: Taken out by vacuum cup and one finger angular pneumatic gripper; The gas circuit is divided into two paths including vacuum cups and one finger angular pneumatic gripper; The other side: Profile modeling; Take out or embed by one finger angular pneumatic gripper; The gas circuit is divided into three paths including path of cylinder, path of one finger angular pneumatic gripper and path of mould positioner; Weight: 9Kg



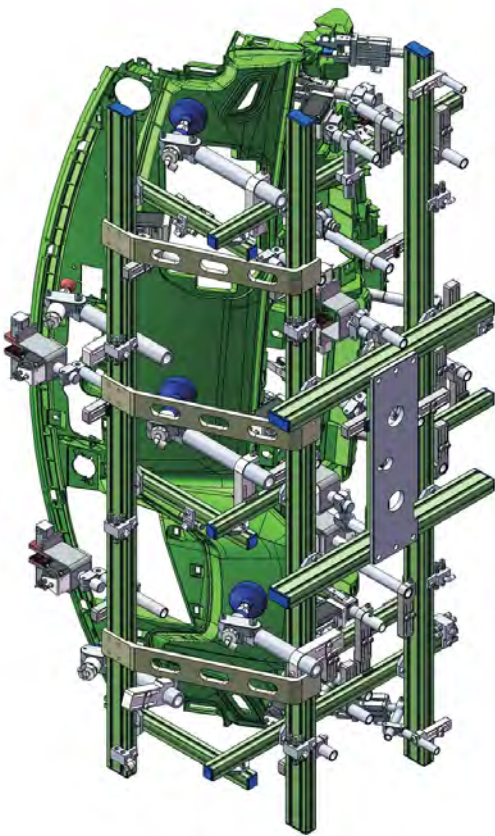
### BOM List

(Product Name)	(PN)	(Model)	(Quantity)	(Product Name)	(PN)	(Model)	(Quantity)
Extruded Profiles	4.Y00481	PEP2525-1500	1	Pneumatic Finger Gripper	8.Y00084	GFR14-95G	7
Plugs for profile	4.Y00070	PEP2525	8	Extension Tube	7.Y00733	SMBY14-50	6
Mould Positioner	8.Y00088	GMP20A	3	Mounting Bracket	7.Y00200-T	SMBE1-1440T	3
Vacuum Cups VS2 Series	1.Y05310	VS2-SA20	2	Cross Mounting Bracket For Profiles	7.Y00194-T	SMBA-2525T	4
Rotative Suspensions	8.Y00061	VFR1421-G18	2	Vacuum Cup Fitting	7.Y00703	VM02-G18	2

The list contains only CRG standard parts.

# Application examples

## Base Frame



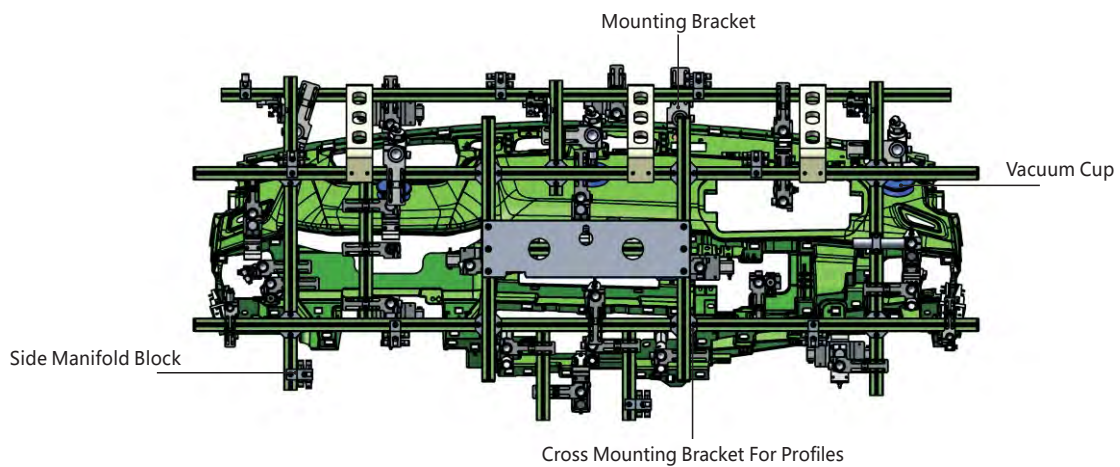
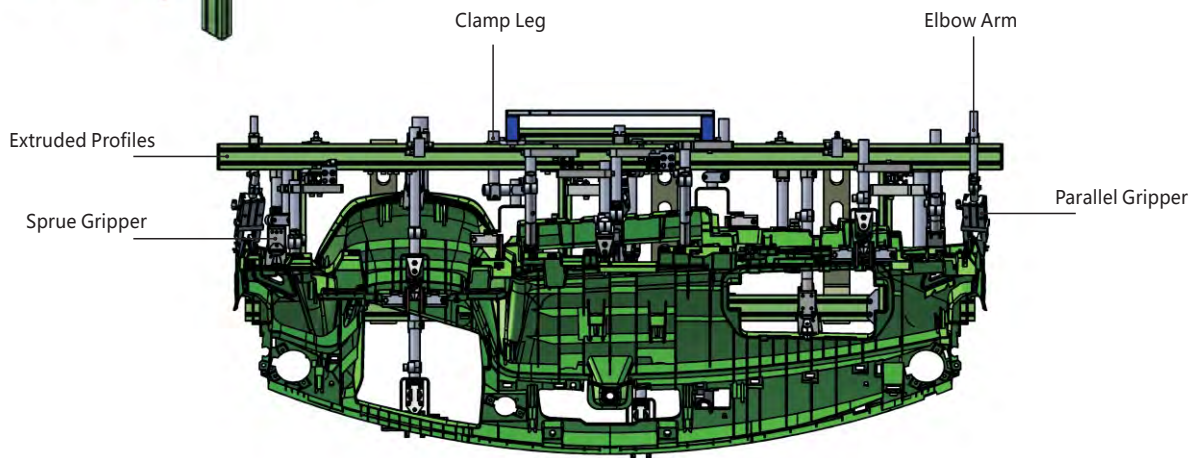
### Product Description:

Name of fixture: Fixture of take out for instrument panel  
Machine tonnage: 2700T

Weight of fixture: 25kg

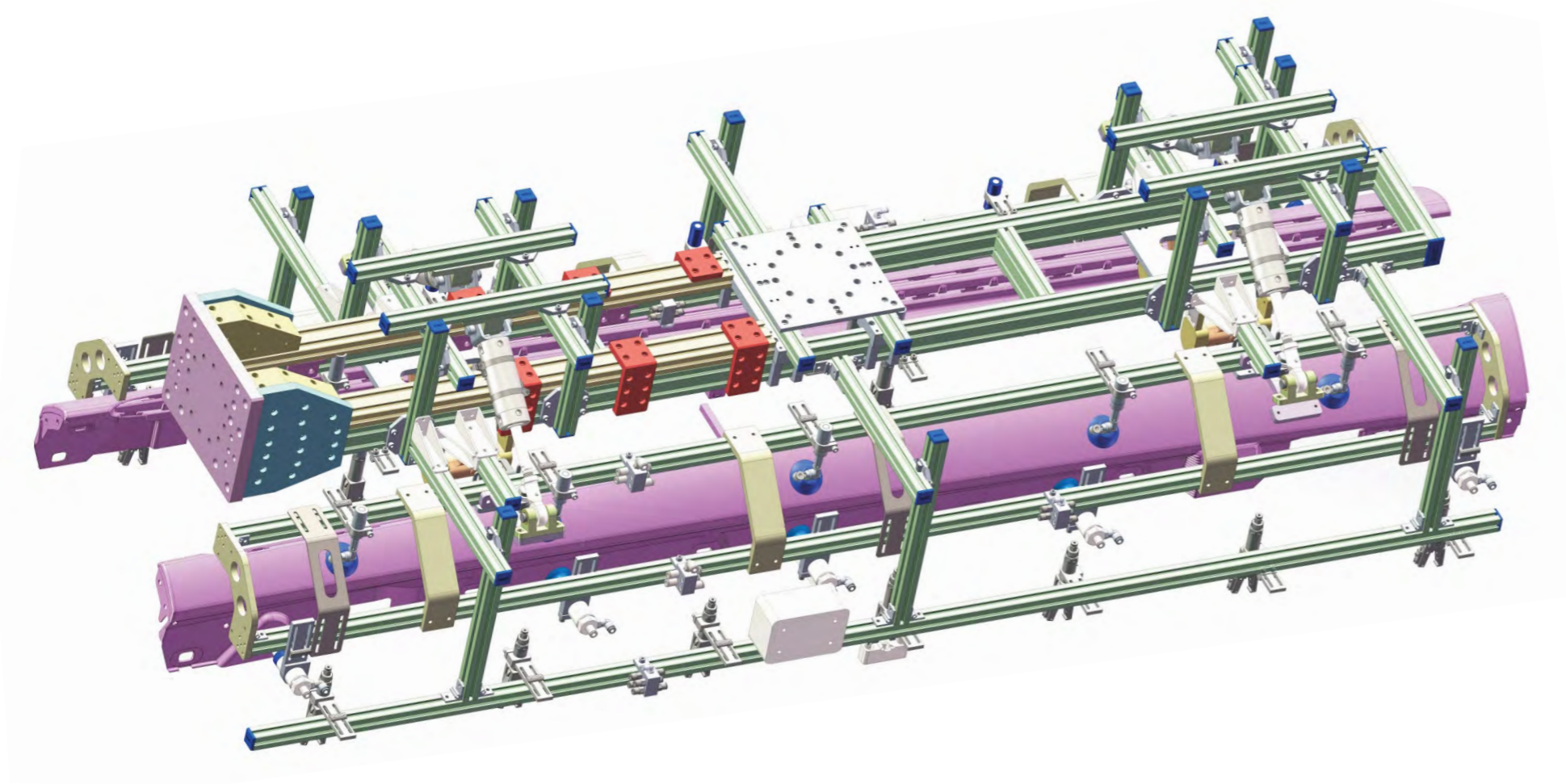
Sprue quantity: 11

Due to the short molding cycle, the product needs to be taken out and cut in the mold, and the shear accuracy is required to be within 0.3mm. The fixture adopts non-marking suction cups, the clamp interface adopts soft rubber pad, and the angle can be adjust by multifunctional to make elbow arm complete the clamping.



# Application examples

## Base Frame



### Product Description:

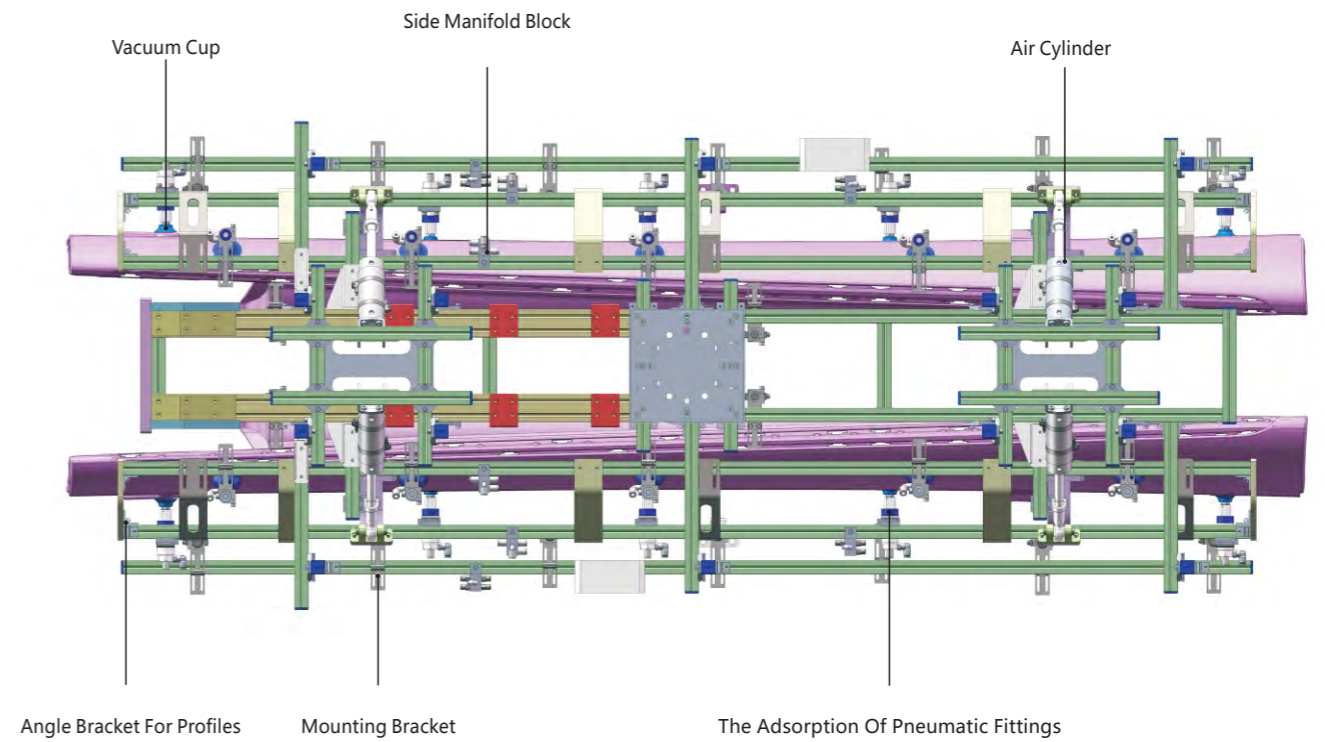
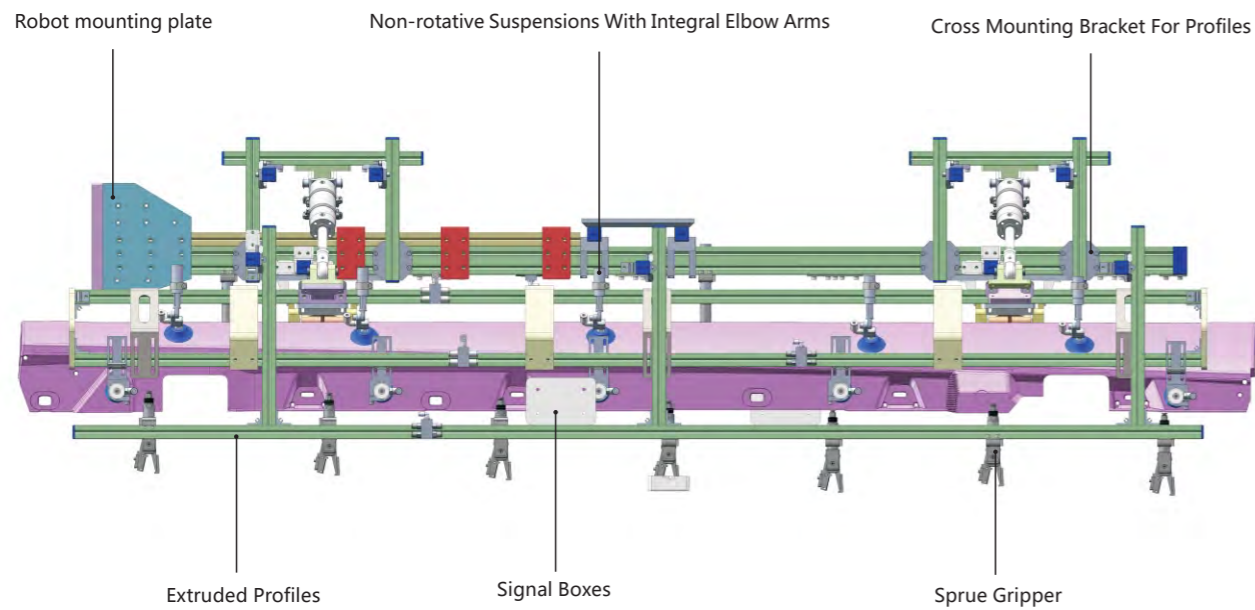
Tool Name: Fixture of take out for car threshold strip

Machine tonnage: 2700T

Weight of fixture: 80kg

Sprue quantity: 14

The car threshold strip is divided into left and right parts. There has long under-cut in the product which can not be taken out horizontally after being ejected. The product is absorbed by non-marking suction cup, and the fixture has the function of rotation, so the product can be taken out smoothly.





# Application examples

## Base Frame

Product Description:

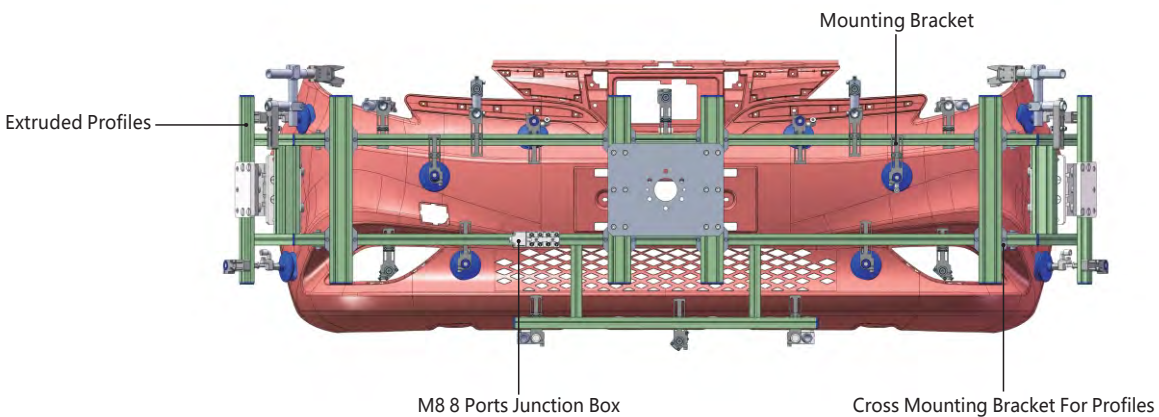
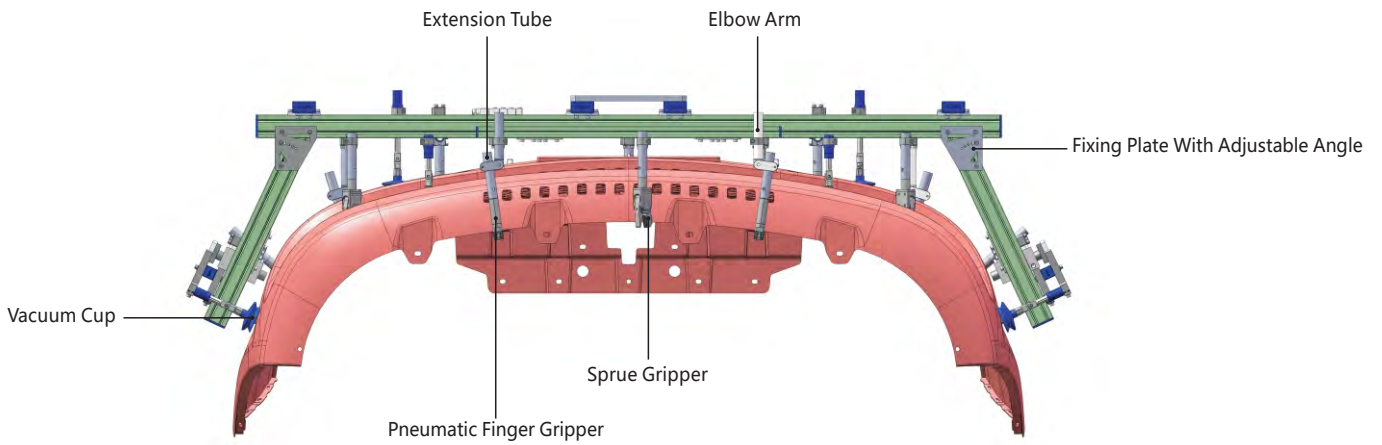
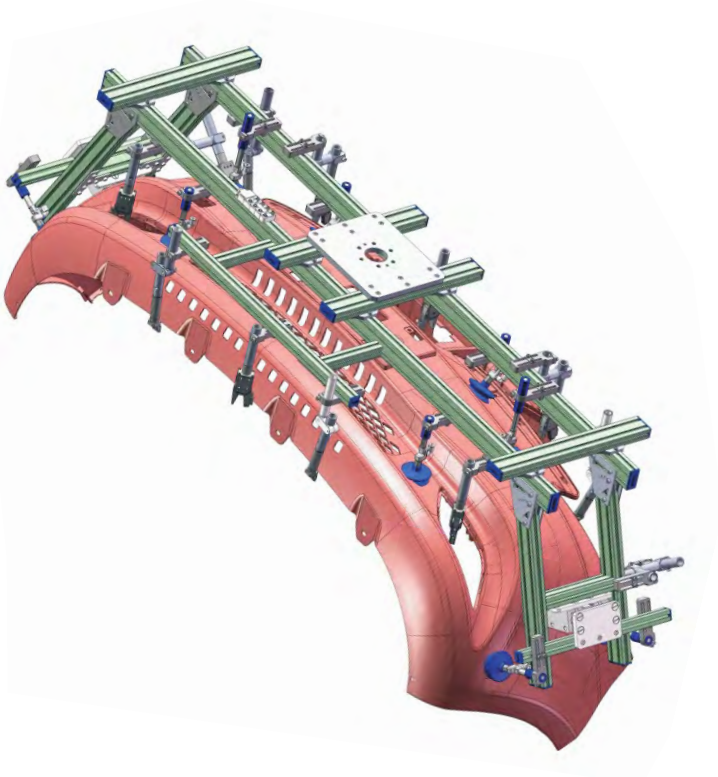
Fixture Name: Fixture of take out for bumper

Machine tonnage: 1800T

Weight of fixture: 20kg

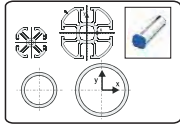
Sprue quantity: 8

It needs to be equipped with cylinder to pulling from side because the product can't be demoulding smoothly. The contact surface of the product adopts non-marking suction cup, the clamp interface adopts soft rubber pad, and the angle can be adjust by multifunctional to make elbow arm complete the clamping.



# Content

---



**P**rofile、SUS Tube

01-04



**S**tents Module

05-50



**Q**uick Changer

51-66



**G**rip Module

67-138



Air **N**ipper

139-168



**V**acuum Module

169-197



**A**ccessory Components

198-211

# General Index

## Profile, SUS Tube



**PST**  
*Sus Tube*  
Page 1



**PEP**  
*Extruded Profiles*  
Page 2



**PT**  
*T-Nuts*  
Page 3

## Stents Module



**SIP**  
*Quick Changer Connector*  
Page 5~6



**SFP**  
*Fixing Plate*  
Page 7~9



**SMB**  
*Module Fixed Part*  
Page 10~35



**SV**  
*Vacuum Cups Bracket*  
Page 36~40



**SC**  
*Clamp Leg Connector*  
Page 41~47



**SEA**  
*Elbow Arm Connector*  
Page 48~49



**SBN**  
*Bush Nut*  
Page 50

## Quick Changer



**QC**  
*Round Quick Changer*  
Page 51~57



**QCS**  
*Square Quick Changer*  
Page 58



**QCL**  
*Manual Quick Changer*  
Page 59~61



**QCA**  
*Automatic Quick Changer*  
Page 63

NEW



**QCA-**  
*Automatic Quick Changer*  
Page 64~66

## Grip Module



**GMH**  
*Cylinder Gripper*  
Page 67~70

NEW



**GMHXL2**  
*Lengthen Parallel Gripper*  
Page 68

NEW



**GMXQ**  
*Air Slide Table*  
Page 71~92

NEW



**GR**  
*Sprue Gripper*  
Page 93~117

# General index



**GS**  
Buffer Support  
Page 122~123



**GMP**  
Mould Positioner  
Page 124



**GN**  
Pneumatic Needle Gripper  
Page 125



**GBD**  
Bulging Device  
Page 126~127



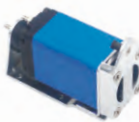
**GF**  
Pneumatic Finger Gripper  
Page 128~135

**NEW**



**GO**  
One Finger Angular Pneumatic Grippers  
Page 136

## Air Nipper



**N** - Air Nipper Body  
Page 144~145



**N** - Air Nipper Blade  
Page 146~166



**NT** - Air Nipper Bracket  
Page 168

## Vacuum Module

**NEW**



**VS** - Vacuum Cup  
Page 169~172



**VSH**  
Vacuum Cups  
Page 173~175



**VFC**  
Vacuum Cups  
Page 176~177



**VM**  
Vacuum Cup Connector  
Page 178~183



**VF** - Stem Suction Buffer Body  
Page 184~187

**NEW**



**VUVG**  
Solenoid Valve  
Page 192



**VP** - Vacuum Module  
Page 193~197

## Accessories



**ASC** - Signal Boxes -  
Page 198



**AJB** - Junction Box  
Page 199~202



**ARJ** - Miniature Regulator  
Page 203

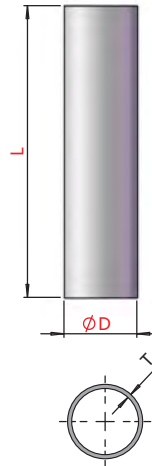


**AP** - Hose Fitting  
Page 205~210



**AH** - Hoses  
Page 211

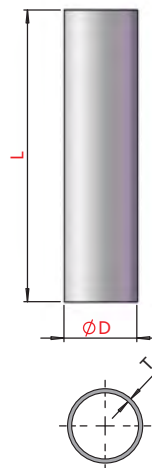
## Sus Tube



Tube plugs

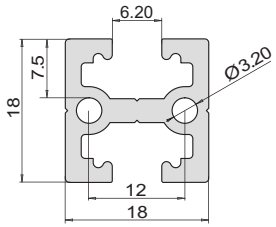
PN	Model	D(mm)	L(mm)	T(mm)	Weight	Plugs
4.Y00040	PST8-1500	Ø8	1500	0.6	215g	1.Y03375(red)
4.Y00021	PST12-1500	Ø12	1500	0.6	339g	1.Y03636(grey) 1.Y03638(blue) 1.Y03640(black)
4.Y00022	PST20-1500	Ø20	1500	0.8	560g	1.Y03637(grey) 1.Y03639(blue) 1.Y03641(black)

## Aluminium Tube

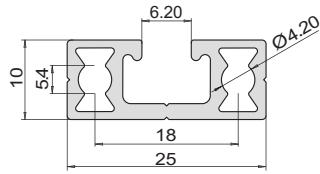


PN	Model	D(mm)	L(mm)	T(mm)	Weight
4.Y00468	PAT20-1000	Ø20	1000	2	308g
4.Y00469	PAT30-1000	Ø30	1000	2.5	558g

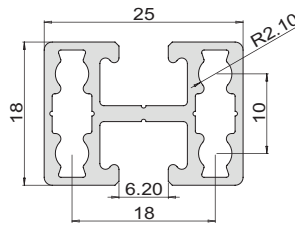
# Extruded Profiles



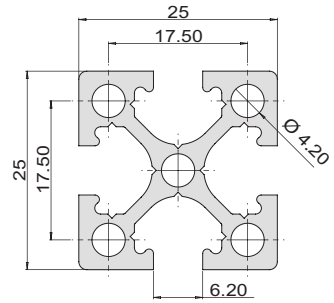
**PEP1818**



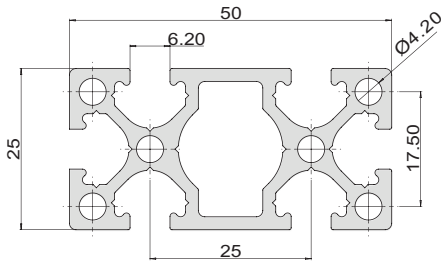
**PEP2510**



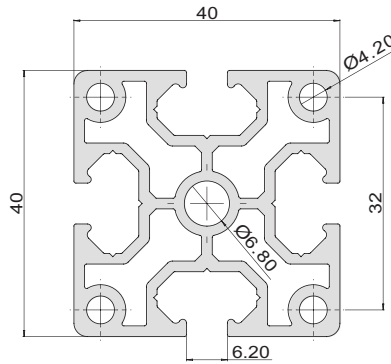
**PEP2518**



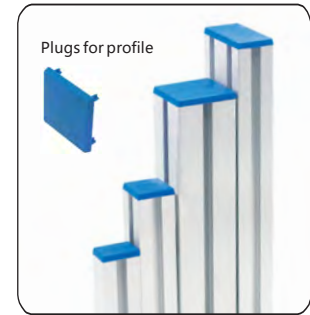
**PEP2525**



**PEP5025**

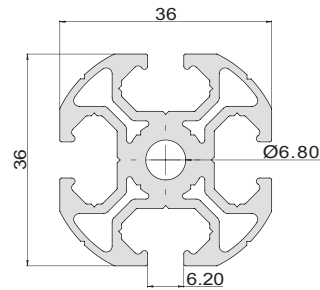


**PEP4040**



PN	Model	Length	Weight	Plugs PN	Plugs Model
4.Y00075	PEP1818-1000	1.0m	425g	4.Y00517	P1818
4.Y00076	PEP2510-1000	1.0m	310g	4.Y00518	P2510
4.Y00455	PEP2518-1000	1.0m	400g	4.Y00069	P2518
4.Y00050	PEP2525-1000	1.0m	610g	4.Y00070	P2525
* 4.Y00051	PEP2525-2000	2.0m	1220g		
4.Y00056	PEP5025-1000	1.0m	1040g	4.Y00071	P5025
* 4.Y00057	PEP5025-2000	2.0m	2080g		
4.Y00052	PEP4040-1000	1.0m	1300g	4.Y00072	P4040
* 4.Y00053	PEP4040-2000	2.0m	2600g		

\* Optional



**PEP-3636**

PN	Model	Length	Weight	Plugs PN	Plugs Model
4.Y00054	PEP3636-1000	1.0m	1168g		
4.Y00484	PEP3636-1500	1.5m	1752g	4.Y00073	P3636
* 4.Y00055	PEP3636-2000	2.0m	2336g		

\* Optional

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# T-Nuts

Profile - SUS Tube

Stents Module

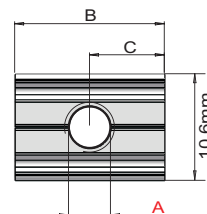
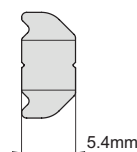
Quick Changer

Grip Module

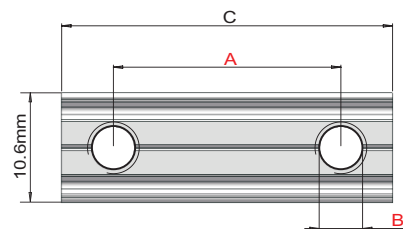
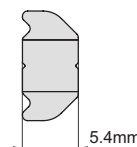
Air Nipper

Vacuum Module

Accessory Components



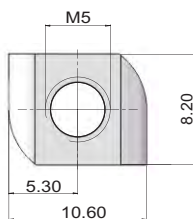
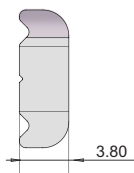
PN	Model	A(mm)	B(mm)	C(mm)	Weight
7.Y00651	PTN-M4	M4	15	7.5	5g
7.Y00425	PTN-M5	M5	15	7.5	5g
7.Y00652	PTN-M6	M6	15	7.5	5g



PN	Model	A(mm)	B(mm)	C(mm)	Weight
7.Y00653	PTN-M4P8	8	M4	16	5g
7.Y00654	PTN-M5P10	10	M5	20	7g
7.Y00655	PTN-M5P15	15	M5	25	9g
7.Y00656	PTN-M5P17	17	M5	25	9g
7.Y00657	PTN-M5P22	22	M5	32	11g
7.Y00658	PTN-M5P25	25	M5	35	13g
7.Y00659	PTN-M5P28	28	M5	38	14g
7.Y00660	PTN-M5P30	30	M5	40	15g
7.Y00661	PTN-M5P35	35	M5	45	16g
7.Y00662	PTN-M5P40	40	M5	50	18g
7.Y00663	PTN-M5P50	50	M5	60	22g
7.Y00664	PTN-M5P60	60	M5	70	26g
7.Y00665	PTN-M5P90	90	M5	100	38g

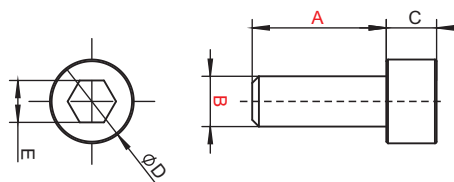
## Last-Minute Nut

To be used when you need to add something to an already assembled EOAT.



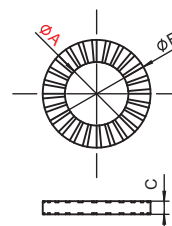
PN	Model	Weight
7.Y00805	PTN-M5R	2g

## Sus Screws



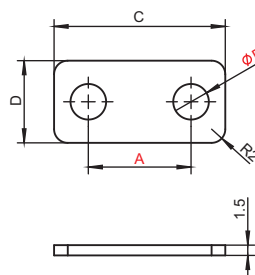
PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	Weight
1.Y03908	PTC-M4L10	10					1.6g
1.Y03848	PTC-M4L12	12					1.8g
1.Y02752	PTC-M4L14	14	M4	4	6.8	3.2	1.9g
1.Y04073	PTC-M4L16	16					2.0g
1.Y05846	PTC-M4L18	18					2.1g
1.Y04294	PTC-M5L10	10					2.9g
1.Y03850	PTC-M5L12	12					3.1g
1.Y04528	PTC-M5L14	14					3.3g
1.Y03849	PTC-M5L16	16					3.6g
1.Y03909	PTC-M5L20	20					4.0g
1.Y06257	PTC-M5L22	22	M5	5	8.3	4.1	4.3g
1.Y03851	PTC-M5L25	25					4.7g
1.Y04469	PTC-M5L30	30					5.3g
1.Y04580	PTC-M5L35	35					5.9g
1.Y05391	PTC-M5L60	60					10.0g
1.Y04288	PTC-M6L10	10					4.0g
1.Y03910	PTC-M6L12	12					4.6g
1.Y04153	PTC-M6L14	14	M6	6	10	5.3	5.2g
1.Y02753	PTC-M6L16	16					5.5g

## Single Hole Shim



PN	Model	A(mm)	B(mm)	C(mm)
1.Y03853	PTS-M4	4.5	7	0.45
1.Y03852	PTS-M5	5.5	9	0.55
1.Y03854	PTS-M6	6.5	10	0.65

## Double Holes Shim

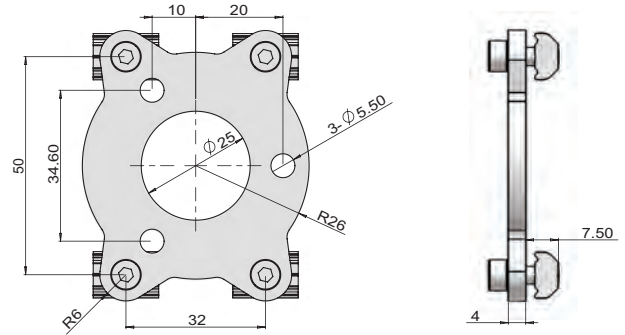


PN	Model	A(mm)	B(mm)	C(mm)	D(mm)
4.Y00522	PTD-M4P8	8	4.5	16	12
4.Y00523	PTD-M5P10	10	5.5	20	12
4.Y00524	PTD-M5P15	15	5.5	25	12
4.Y00525	PTD-M5P17	17	5.5	25	12
4.Y00526	PTD-M5P22	22	5.5	32	12
4.Y00527	PTD-M5P25	25	5.5	35	12

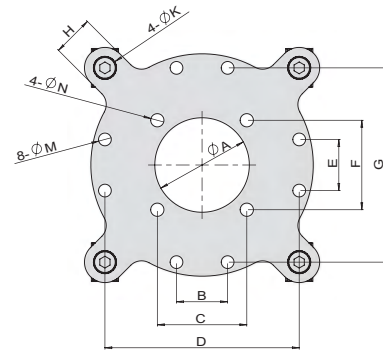


# Interface

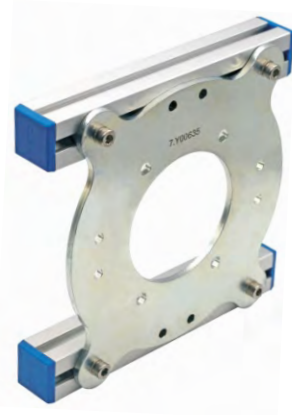
SIP-50BT 7.Y00650-T



PN	7.Y00650
Model	SIP-50B
QC-G...	QC-G50
T	4mm
Screws	PTC-M5L12*4
Single hole shim	PTS-M5*4
T-Nuts	PTN-M5*4
Weight	90g



PN	7.Y00634	7.Y00635
Model	SIP-90B	SIP-160B
A(mm)	$\Phi 37$	$\Phi 70$
B(mm)	20	20
C(mm)	35	74
D(mm)	76	130
E(mm)	20	20
F(mm)	35	52
G(mm)	76	110
H(mm)	16	24
M(mm)	$\Phi 5$	$\Phi 5$
N(mm)	$\Phi 5.2$	$\Phi 6.2$
K(mm)	$\Phi 5.3$	$\Phi 5.3$
T(mm)	3	4
QC-G...	QC-G90	QC-G160
<b>Accessories selection</b>		
Screws	PTC-M5L12*4	PTC-M5L12*4
Single hole shim	PTS-M5*4	PTS-M5*4
T-Nuts	PTN-M5*4	PTN-M5*4
Weight	190g	540g



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

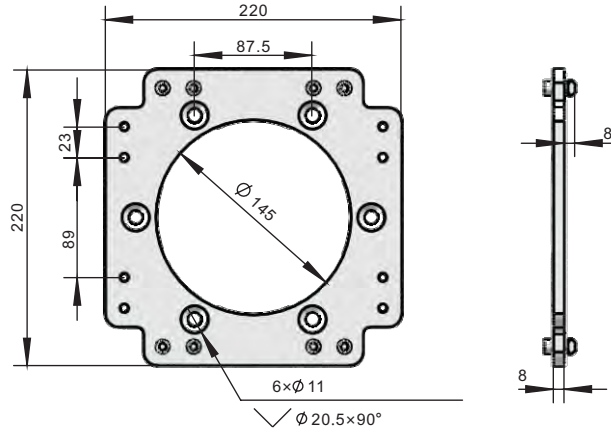
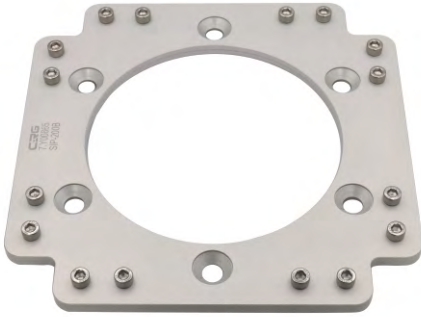
Air Nipper

Vacuum Module

Accessory Components

# Interface

SIP-200BT 7.Y00865-T



PN	7.Y00865
Model	SIP-200B
QC-G...	QC-G200
T	8mm
Weight	578g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

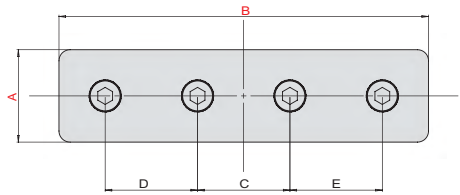
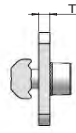
Air Nipper

Vacuum Module

Accessory Components

# Straight Fixing Plate

SFP-S2550 **T** 7.Y00641-**T**

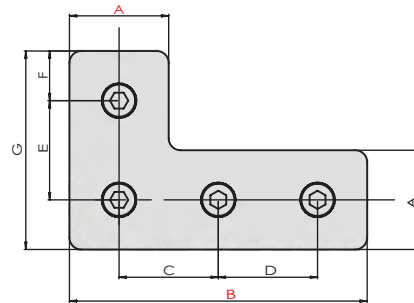


PN	7.Y00641	7.Y00642	7.Y00643
Model	SFP-S2550	SFP-S25100	SFP-S40160
A(mm)	25	25	40
B(mm)	50	100	160
C(mm)	25	25	40
D(mm)	-	25	40
E(mm)	-	25	40
T(mm)	3	3	3
PEP2510	√	√	-
PEP2518	√	√	-
PEP2525	√	√	-
PEP5025	√	√	-
PEP4040	-	-	√
Screws	PTC-M5L12*2	PTC-M5L12*4	PTC-M5L12*4
Single hole shim	PTS-M5*2	PTS-M5*4	PTS-M5*4
T-Nuts	PTN-M5*2	PTN-M5P25*2	PTN-M5P40*2
Weight	45g	95g	195g



# L-shaped Fixing Plate (Kit With Screws Option)

SFP-L2550 **T** 7.Y00647-**T**



PN	7.Y00647	7.Y00648	7.Y00649
Model	SFP-L2550	SFP-L2575	SFP-L40120
A(mm)	25	25	40
B(mm)	50	75	120
C(mm)	25	25	40
D(mm)	-	25	40
E(mm)	25	25	40
F(mm)	12.5	12.5	20
G(mm)	50	50	80
T(mm)	3	3	3
PEP2510	√	√	-
PEP2518	√	√	-
PEP2525	√	√	-
PEP5025	√	√	-
PEP4040	-	-	√
<b>Accessories selection</b>			
Screws	PTC-M5L12*3	PTC-M5L12*4	PTC-M5L12*4
Single hole shim	PTS-M5*3	PTS-M5*4	PTS-M5*4
T-Nuts	PTN-M5*1	PTN-M5P25*2	PTN-M5P40*2
Weight	70g	95g	200g



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

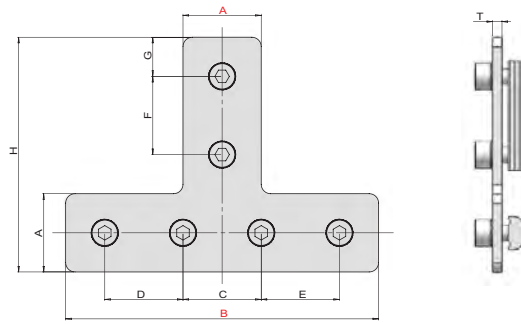
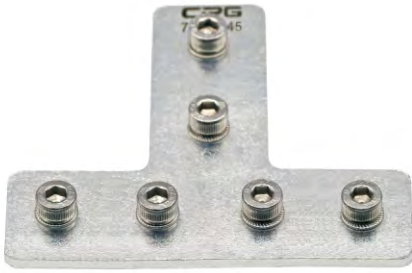
Air Nipper

Vacuum Module

Accessory Components

## T-shaped Fixing Plate

SFP-T2550T 7.Y00644-T



PN	7.Y00644	7.Y00645	7.Y00646
Model	SFP-T2550	SFP-T25100	SFP-T40120
A(mm)	25	25	40
B(mm)	50	100	120
C(mm)	25	25	90
D(mm)	-	25	-
E(mm)	-	25	-
F(mm)	25	25	40
G(mm)	12.5	12.5	15
H(mm)	75	75	110
T(mm)	3	3	3
PEP2510	√	√	-
PEP2518	√	√	-
PEP2525	√	√	-
PEP5025	√	√	-
PEP4040	-	-	√

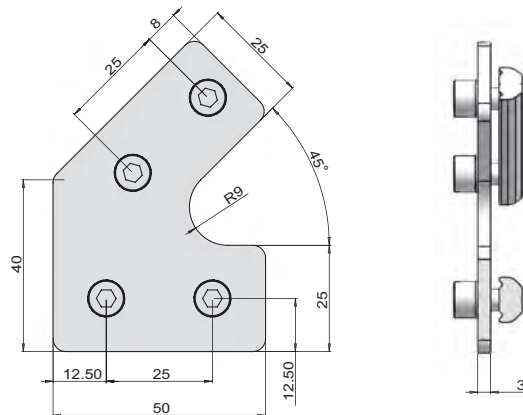
### Accessoirier selection

Screws	PTC-M5L12*4	PTC-M5L12*6	PTC-M5L12*4
Single hole shim	PTS-M5*4	PTS-M5*6	PTS-M5*4
T-Nuts	PTN-M5P25*2	PTN-M5P25*3	PTN-M5P40*1 PTN-M5P90*1
Weight	95g	145g	250g



## 45° Fixing Plate

SFP-50T 7.Y00636-T



PN	7.Y00636
Model	SFP-50
QC-G...	QC-G50
T	3mm

### Accessoirier selection

Screws	PTC-M5L12*4
Single hole shim	PTS-M5*4
T-Nuts	PTN-M5P25*2
Weight	100g



Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

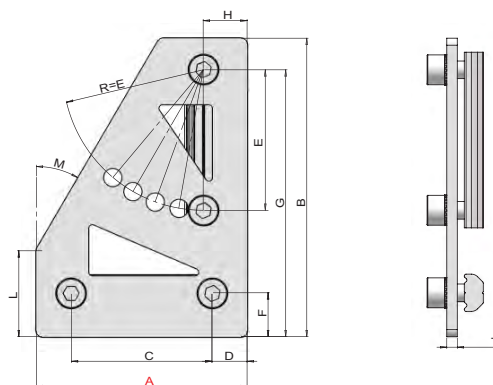
Air Nipper

Vacuum Module

Accessory Components

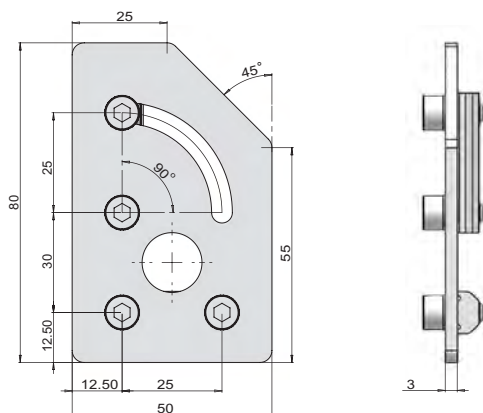
## Fixing Plate With Adjustable Angle

SFP-A60T 7.Y00637-T



PN	7.Y00637	7.Y00638	7.Y00639
Model	SFP-A60	SFP-A90	SFP-A70
A(mm)	60	90	70
B(mm)	85	95	100
C(mm)	40	60	50
D(mm)	10	15	10
E(mm)	40	50	40
F(mm)	12.5	12.5	20
G(mm)	76	86	90
H(mm)	12.5	12.5	20
L(mm)	25	25	40
M(mm)	30°	30°	27°
T(mm)	3	3	3
PEP2510	√	√	-
PEP2518	√	√	-
PEP2525	√	√	-
PEP5025	√	√	-
PEP4040	-	-	√

Screws	PTC-M5L12*4	PTC-M5L12*5	PTC-M5L12*4
Single hole shim	PTS-M5*4	PTS-M5*5	PTS-M5*4
T-Nuts	PTN-M5P40*2	PTN-M5P50*1	PTN-M5P40*1
Weight	130g	215g	175g



PN	7.Y00640
Model	SFP-A50
QC-G...	QC-G50
T	3mm

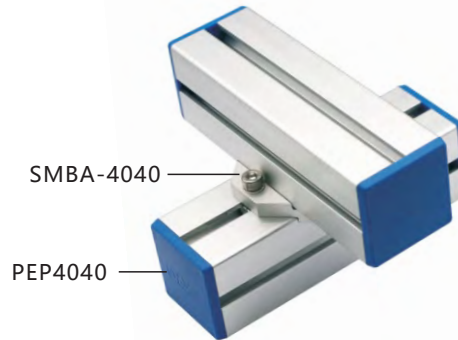
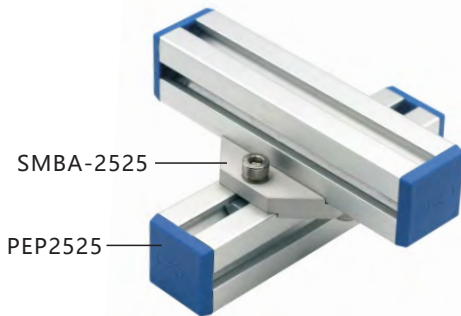
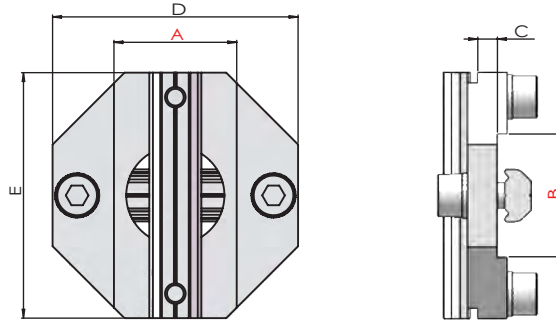
### Accessoirier selection

Screws	PTC-M5L12*4
Single hole shim	PTS-M5*4
T-Nuts	PTN-M5P25*2
Weight	115g



# Cross Mounting Bracket For Profiles

SMBA-1818T 7.Y00290-T



PN	Model	A	B	C	D	E	PEP1818	PEP2510	PEP2518	PEP2525	PEP5025	PEP4040
7.Y00290	SMBA-1818	18	18	2	38	38	√					
7.Y00291	SMBA-1825	18	25	4	38	45	√		√	√	√	
7.Y00245	SMBA-2020	20	20	4	50	50						
7.Y00194	SMBA-2525	25	25	4	50	50		√	√	√	√	
7.Y00193	SMBA-3030	30	30	4	50	50						
7.Y00011	SMBA-5050	50	50	4	70	70					√	
7.Y00292	SMBA-2550	25	50	4	70	70		√	√	√	√	
7.Y00246	SMBA-4040	40	40	4	60	60						√
7.Y00355	SMBA-8080	80	80	4	100	100						
7.Y00293	SMBA-4080	40	80	4	60	100						√
7.Y00294	SMBA-2580	25	80	4	45	100			√	√	√	
7.Y00356	SMBA-2540	25	40	4	45	60		√	√	√	√	√
7.Y00690	SMBA-3025	30	25	4	50	50		√				

Model	Screws	Single hole shim	T-Nuts	Weight
SMBA-1818	PTC-M5L12*4	PTS-M5*4	PTN-M5P28*2	40g
SMBA-1825	PTC-M5L14*4	PTS-M5*4	PTN-M5P28*1,PTN-M5P35*1	60g
SMBA-2020	PTC-M5L14*4	PTS-M5*4		30g
SMBA-2525	PTC-M5L14*4	PTS-M5*4	PTN-M5P40*2	75g
SMBA-3030	PTC-M5L14*4	PTS-M5*4		24g
SMBA-5050	PTC-M5L14*8	PTS-M5*8	PTN-M5P60*4	170g
SMBA-2550	PTC-M5L14*6	PTS-M5*6	PTN-M5P60*3	155g
SMBA-4040	PTC-M5L16*4	PTS-M5*4	PTN-M5P50*2	85g
SMBA-8080	PTC-M5L16*8	PTS-M5*8	PTN-M5P90*4	255g
SMBA-4080	PTC-M5L16*6	PTS-M5*6	PTN-M5P50*2,PTN-M5P90*1	175g
SMBA-2580	PTC-M5L14*2 16*4	PTS-M5*6	PTN-M5P35*2,PTN-M5P90*1	140g
SMBA-2540	PTC-M5L14*2 16*4	PTS-M5*6	PTN-M5P35*1,PTN-M5P50*1	75g
SMBA-3025	PTC-M5L14*4	PTS-M5*4	PTN-M5P40*1,PTN-M5*2	25g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

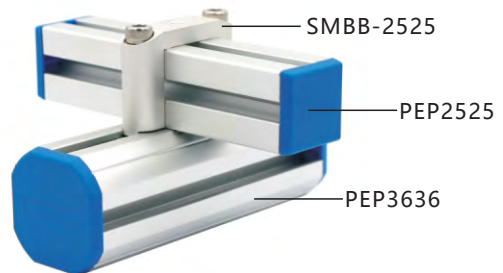
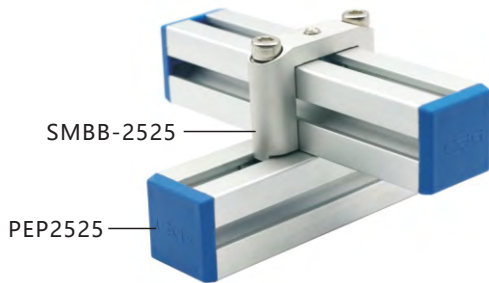
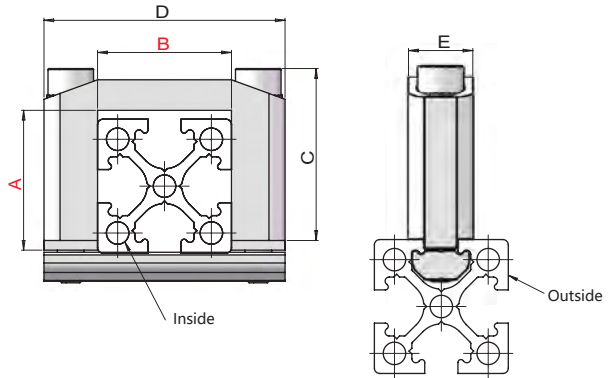
Air Nipper

Vacuum Module

Accessory Components

# Cross (Square) Joint Connector

SMBB-1818T 7.Y00295-T



PN	7.Y00295	7.Y00817	7.Y00012	7.Y00339	7.Y00340	7.Y00163
Model	SMBB-1818	SMBB-1825	SMBB-2525	SMBB-5025	SMBB-2550	SMBB-3030
A(mm)	18	18	25	50	25	30
B(mm)	18	25	25	25	50	30
C(mm)	29	29	32	57	32	32
D(mm)	38	45	45	45	70	50
E(mm)	12	12	12	12	12	12
Inside	PEP1818	PEP1818	-	-	-	-
	-	-	PEP2525	PEP5025	PEP5025	-
Outside	PEP2510	PEP2510	PEP2510	PEP2510	PEP2510	-
	PEP2518	PEP2518	PEP2518	-	-	-
	PEP2525	PEP2525	PEP2525	PEP2525	PEP2525	-
	PEP5025	PEP5025	PEP5025	PEP5025	PEP5025	-
	PEP4040	PEP4040	PEP4040	PEP4040	PEP4040	-
Screws	PTC-M5L30*2	PTC-M5L30*2	PTC-M5L35*2	PTC-M5L60*2	PTC-M5L35*2	-
Single hole shim	PTS-M5*2	PTS-M5*2	PTS-M5*2	PTS-M5*2	PTS-M5*2	-
T-Nuts	PTN-M5P28*1	PTN-M5P35*1	PTN-M5P35*1	PTN-M5P35*1	PTN-M5P60*1	-
Weight	41g	42g	45g	65g	50g	19g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

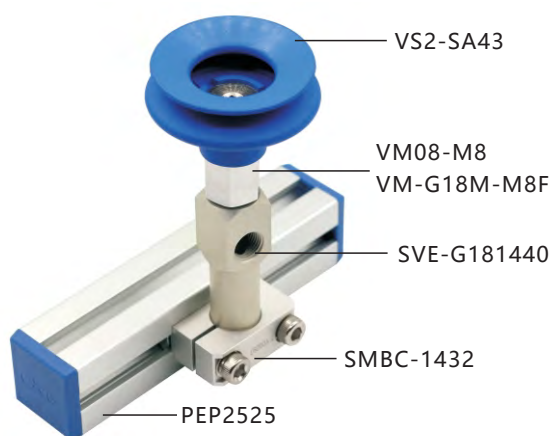
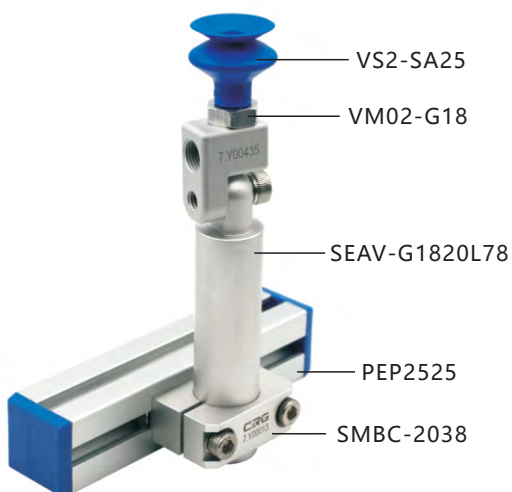
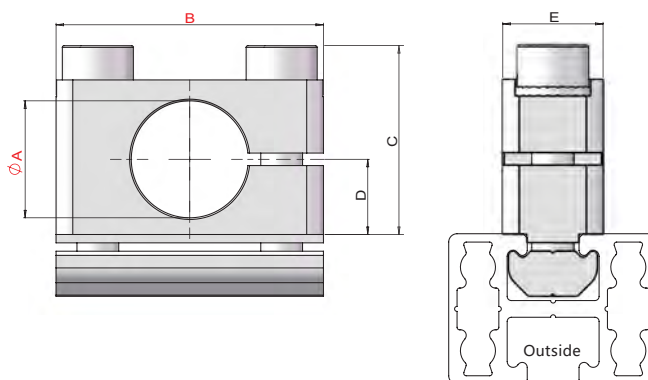
Air Nipper

Vacuum Module

Accessory Components

# Cross (Square) Joint Connector

SMBC-1025 **T** 7.Y00296-**T**



PN	7.Y00296	7.Y00297	7.Y00013	7.Y00226	7.Y00225
Model	SMBC-1025	SMBC-1432	SMBC-2038	SMBC-3050	SMBC-5070
A(mm)	Ø10	Ø14	Ø20	Ø30	Ø50
B(mm)	25	32	38	50	70
C(mm)	18.5	23	28	34	56
D(mm)	7	9	12.5	17	28
E(mm)	10	12	15	20	25
Outside	PEP1818	PEP1818	PEP1818	PEP1818	PEP1818
	PEP2510	PEP2510	PEP2510	PEP2510	PEP2510
	PEP2518	PEP2518	-	-	-
	PEP2525	PEP2525	PEP2525	PEP2525	PEP2525
	PEP5025	PEP5025	PEP5025	PEP5025	PEP5025
	PEP4040	PEP4040	PEP4040	PEP4040	PEP4040
<b>Accessories selection</b>					
Screws	PTC-M5L25*2	PTC-M5L25*2	PTC-M5L30*2	PTC-M5L35*2	PTC-M5L50*2
Single hole shim	PTS-M5*2	PTS-M5*2	PTS-M5*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M5P17*1	PTN-M5P22*1	PTN-M5P28*1	PTN-M5P40*1	PTN-M5P60*1
Weight	15g	32g	45g	75g	150g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Vertical Fastening Of The Profiles

SMBD-2550 **T** 7.Y00227-**T**

Profile - SUS Tube

Stents Module

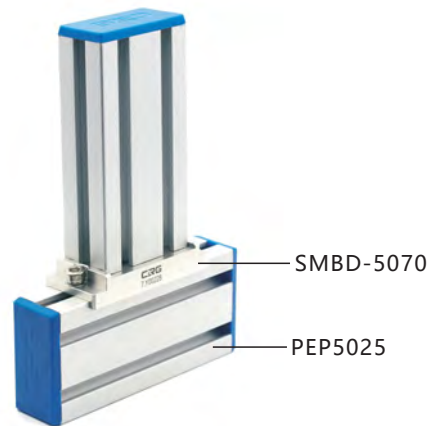
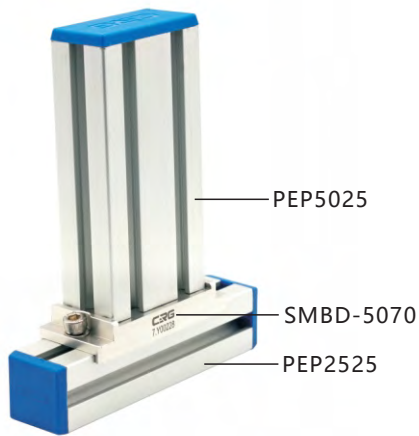
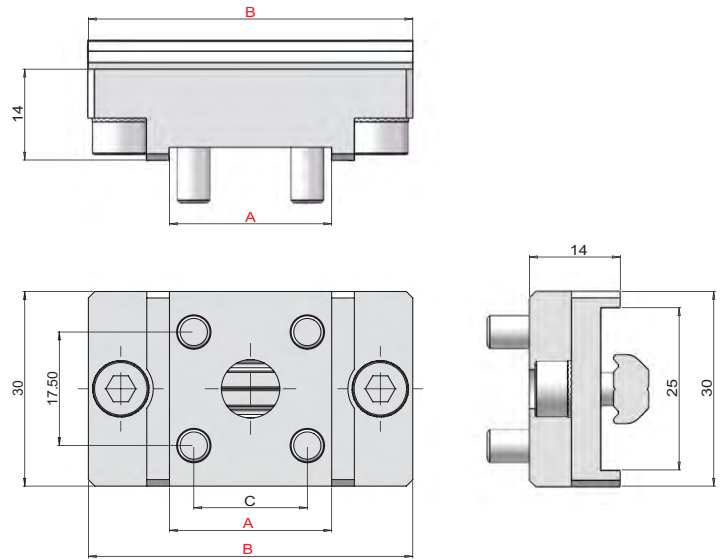
Quick Changer

Grip Module

Air Nipper

Vacuum Module

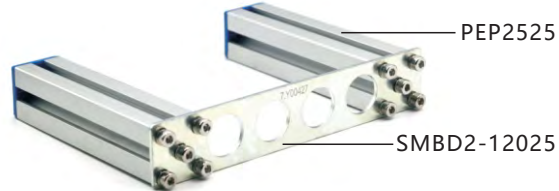
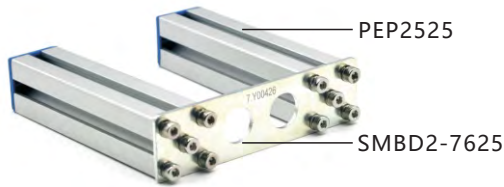
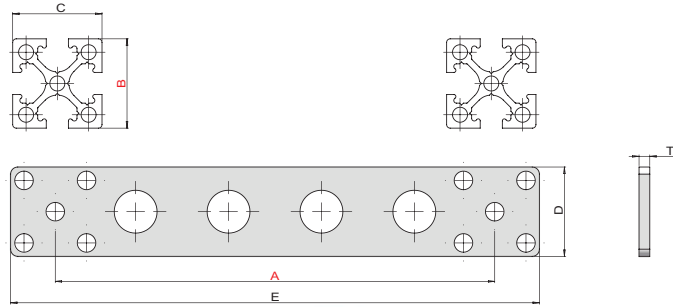
Accessory Components



PN	7.Y00227	7.Y00228
Model	SMBD-2550	SMBD-5070
A(mm)	25	50
B(mm)	50	70
C(mm)	17.5	42.5
PEP2525	√	√
PEP5025	√	√
Screws	PTC-M5L12*6	PTC-M5L12*4
Single hole shim	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M5P40*1	PTN-M5P60*1
Weight	65g	85g

# Flat Straight Connector

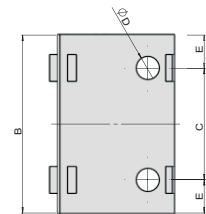
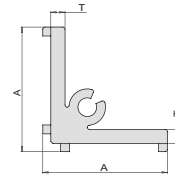
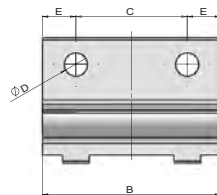
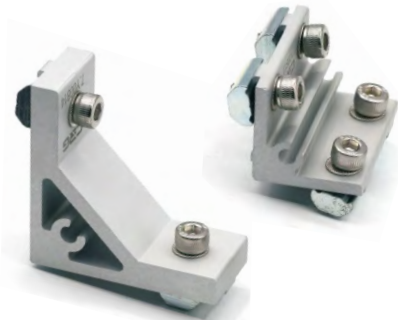
SMBD2-7625T 7.Y00426-T



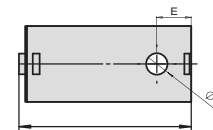
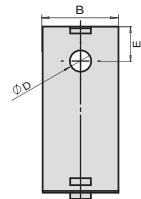
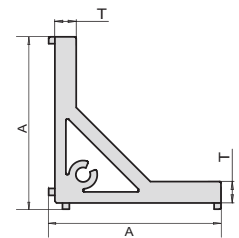
PN	7.Y00426	7.Y00427	7.Y00428	7.Y00429	7.Y00430	7.Y00431
Model	SMBD2-7625	SMBD2-12025	SMBD2-13025	SMBD2-7650	SMBD2-12050	SMBD2-13050
A(mm)	76	120	130	76	120	130
B(mm)	25	25	25	50	50	50
C(mm)	25	25	25	25	25	25
D(mm)	28	28	28	53	53	53
E(mm)	104	148	158	104	148	158
T(mm)	2	2	2	2	2	2
PEP2525	√	√	√	-	-	-
PEP5025	-	-	-	√	√	√
Weight	50g	60g	65g	75g	100g	110g

# Angle Bracket For Profiles

SMBD3-2525T 7.Y00812-T



PN	7.Y00812	7.Y00813	7.Y00814	7.Y00815
Model	SMBD3-2525	SMBD3-2550	SMBD3-4040	SMBD3-4080
A(mm)	28	28	50	50
B(mm)	18	40	22	70
C(mm)	-	25	-	40
D(mm)	Ø5.2	Ø5.2	Ø6.2	Ø6.2
E(mm)	9	7.5	11	15
T(mm)	3.2	3.2	6.2	6.2



	PEP1818			
	PEP2510			
	PEP2518	PEP2550	PEP4040	PEP4080
	PEP2525		PEP4080	
Screws	PTC-M5L12*2	PTC-M5L12*4	PTC-M6L14*2	PTC-M5L14*4
Single hole shim	PTS-M5*2	PTS-M5*4	PTS-M6*2	PTS-M5*4
T-Nuts	PTN-M5*2	PTN-M5*4	PTN-M6*2	PTN-M5*4
Weight	10g	22g	38g	126g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Flat Straight Connector

SMBE-1010T 7.Y00300-T

Profile · SUS Tube

Stents Module

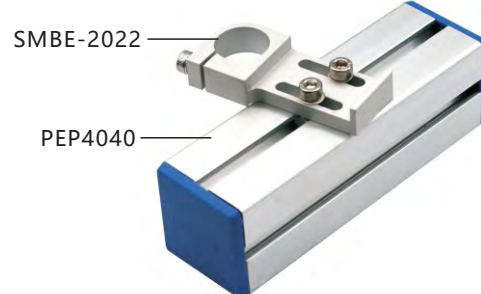
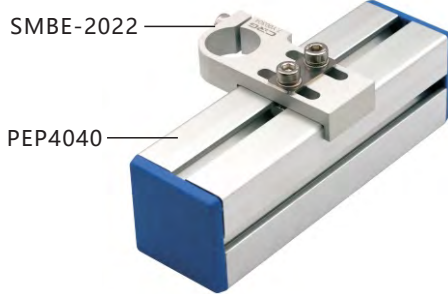
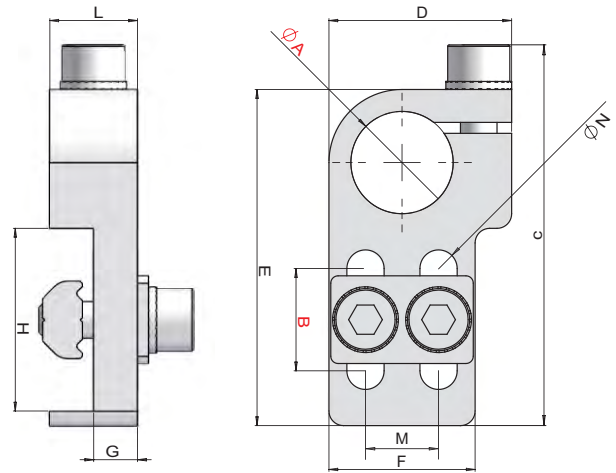
Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

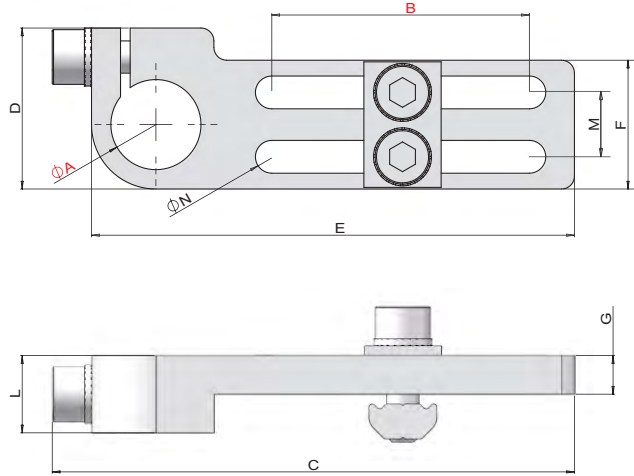


PN	7.Y00300	7.Y00301	7.Y00775	7.Y00864	7.Y00302	7.Y00014	7.Y00304
Model	SMBE-1010	SMBE-1014	SMBE-1210	SMBE-1214	SMBE-1414	SMBE-2014	SMBE-2022
A(mm)	Ø10	Ø10	Ø12	Ø12	Ø14	Ø20	Ø20
B(mm)	10	14	10	14	14	14	22
C(mm)	43	49	43	50	52.1	57.1	74.1
D(mm)	20	20	20.5	20.5	25	30	30
E(mm)	38	44	38	45	46	51.5	68
F(mm)	16	16	16	16	20	25	25
G(mm)	4.5	4.5	4.5	4.5	6	6.2	6
H(mm)	18	25	18	25	25	25	40
L(mm)	8	8	8	8	12	12	12
M(mm)	8	8	8	8	10	15	15
N(mm)	Ø4.2	Ø4.2	Ø4.2	Ø4.2	Ø5.2	Ø5.2	Ø5.2
PEP1818	√	-	√	-	-	-	-
PEP2510	-	√	-	√	√	√	-
PEP2518	-	√	-	-	√	√	-
PEP2525	-	√	-	-	√	√	-
PEP5025	-	√	-	-	√	√	-
PEP4040	-	-	-	-	-	-	√

Screws	PTC-M4L14*2	PTC-M4L14*2	PTC-M4L14*2	PTC-M4L14*2	PTC-M5L16*2	PTC-M5L16*2	PTC-M5L16*2
Single hole shim	PTS-M4*2	PTS-M4*2	PTS-M4*2	PTS-M4*2	PTS-M5*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M4P8*1	PTN-M4P8*1	PTN-M4P8*1	PTN-M4P8*1	PTN-M5P10*1	PTN-M5P15*1	PTN-M5P15*1
Double holes shim	PTD-M4P8*1	PTD-M4P8*1	PTD-M4P8*1	PTD-M4P8*1	PTD-M5P10*1	PTD-M5P15*1	PTD-M5P15*1
Weight	20g	21g	22g	10g	34g	45g	48g

# Mounting Bracket

SMBE1-0840T 7.Y00694-T



PN	7.Y00694	7.Y00201	7.Y00695	7.Y00200	7.Y00199	7.Y00015	7.Y00724
Model	SMBE1-0840	SMBE1-1040	SMBE1-1240	SMBE1-1440	SMBE1-1450	SMBE1-2060	SMBE1-3060
A(mm)	Ø8	Ø10	Ø12	Ø14	Ø14	Ø20	Ø30
B(mm)	40	40	40	40	50	60	60
C(mm)	75	75	75	81.1	91.1	111.1	121.1
D(mm)	20	20	20	25	25	30	40
E(mm)	70	70	70	75	85	105	115
F(mm)	16	16	16	20	20	25	35
G(mm)	4.5	4.5	4.5	6	6	6	8
L(mm)	8	8	8	12	12	12	12
M(mm)	8	8	8	10	10	15	22
N(mm)	Ø4.2	Ø4.2	Ø4.2	Ø5.2	Ø5.2	Ø5.2	Ø5.2
PEP1818	√	√	√	√	√	√	√
PEP2510	√	√	√	√	√	√	√
PEP2518	√	√	√	√	√	√	√
PEP2525	√	√	√	√	√	√	√
PEP5025	√	√	√	√	√	√	√
PEP4040	-	-	-	√	√	√	√

Screws	PTC-M4L14*2	PTC-M4L14*2	PTC-M4L14*2	PTC-M5L16*2	PTC-M5L16*2	PTC-M5L16*2	PTC-M5L16*2
Single hole shim	PTS-M4*2	PTS-M4*2	PTS-M4*2	PTS-M5*2	PTS-M5*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M4P8*1	PTN-M4P8*1	PTN-M4P8*1	PTN-M5P10*1	PTN-M5P10*1	PTN-M5P15*1	PTN-M5P22*1
Double holes shim	PTD-M4P8*1	PTD-M4P8*1	PTD-M4P8*1	PTD-M5P10*1	PTD-M5P10*1	PTD-M5P15*1	PTD-M5P22*1
Weight	13g	23g	12g	38g	40g	55g	95g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

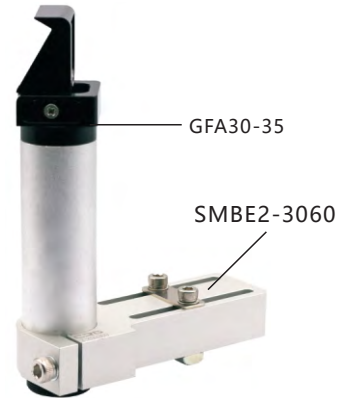
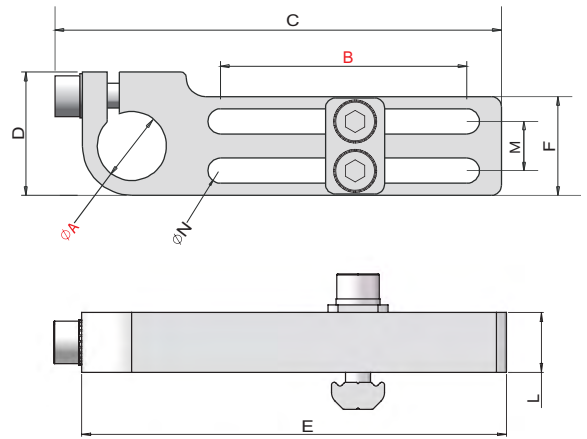
Air Nipper

Vacuum Module

Accessory Components

# Heavy Duty Mounting Bracket

SMBE2-1040T 7.Y00725-T



PN	7.Y00725	7.Y00777	7.Y00307	7.Y00308	7.Y00309
Model	SMBE2-1040	SMBE2-1240	SMBE2-1450	SMBE2-2060	SMBE2-3060
A(mm)	Ø10	Ø12	Ø14	Ø20	Ø30
B(mm)	40	40	50	60	60
C(mm)	75	75	90.6	110.6	122.2
D(mm)	20	20.5	25	30	42
E(mm)	70	70	85	105	115
F(mm)	16	16	20	25	35
L(mm)	8.3	8.3	12	15	20
M(mm)	8	8	10	15	22
N(mm)	Ø4.2	Ø4.2	Ø5.2	Ø5.2	Ø5.2
Screws	PTC-M4L18*2	PTC-M4L18*2	PTC-M5L22*2	PTC-M5L25*2	PTC-M5L30*2
Single hole shim	PTS-M4*2	PTS-M4*2	PTS-M5*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M4P8*1	PTN-M4P8*1	PTN-M5P10*1	PTN-M5P15*1	PTN-M5P22*1
Double holes shim	PTD-M4P8*1	PTD-M4P8*1	PTD-M5P10*1	PTD-M5P15*1	PTD-M5P22*1
Weight	30g	40g	60g	85g	175g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

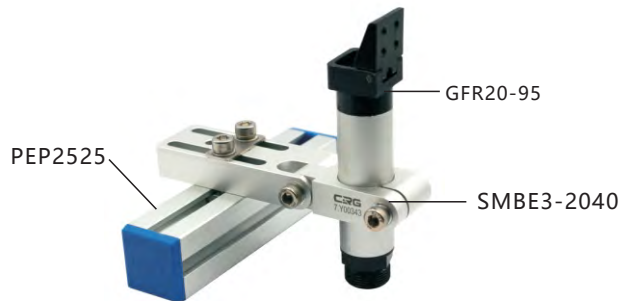
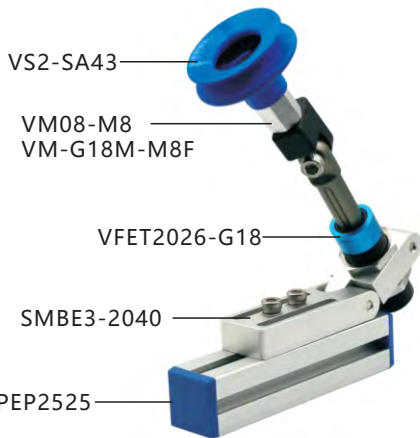
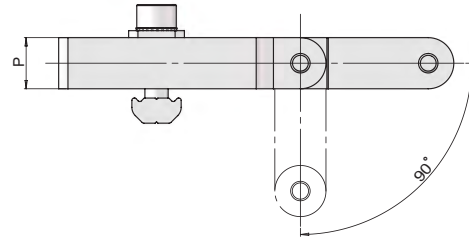
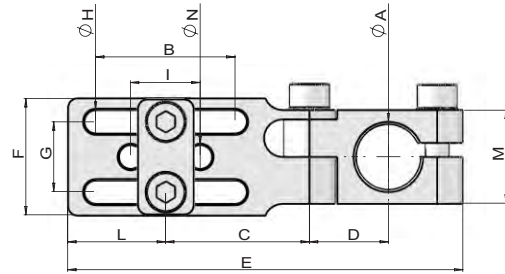
Air Nipper

Vacuum Module

Accessory Components

# Slotted Angular Bracket

SMBE3-1020T 7.Y00341-T



PN	7.Y00341	7.Y00795	7.Y00342	7.Y00343	7.Y00344
Model	SMBE3-1020	SMBE3-1220	SMBE3-1430	SMBE3-2040	SMBE3-3050
A(mm)	Ø10	Ø12	Ø14	Ø20	Ø30
B(mm)	20	20	30	40	50
C(mm)	23	23	31	39	49
D(mm)	14	14	17	22	28
E(mm)	64.5	64.5	85	107	135.5
F(mm)	16	16	25	25	36
G(mm)	8	8	15	15	22
H(mm)	4.2	4.2	5.2	5.2	5.2
I(mm)	-	-	15	15	22
L(mm)	15	15	21	26	32
M(mm)	16	16	20	25	36
N(mm)	-	-	Ø5.1	Ø5.1	Ø5.1
P(mm)	9	9	11	13	16
Screws	PTC-M4L18*2	PTC-M4L18*2	PTC-M5L20*2	PTC-M5L22*2	PTC-M5L25*2
Single hole shim	PTS-M4*2	PTS-M4*2	PTS-M5*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M4P8*1	PTN-M4P8*1	PTN-M5P15*1	PTN-M5P15*1	PTN-M5P22*1
Double holes shim	PTD-M4P8*1	PTD-M4P8*1	PTD-M5P15*1	PTD-M5P15*1	PTD-M5P22*1
Weight	30g	35g	50g	90g	185g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Mounting Bracket

SMBE4-1412T 7.Y00224-T

Profile - SUS Tube

Stents Module

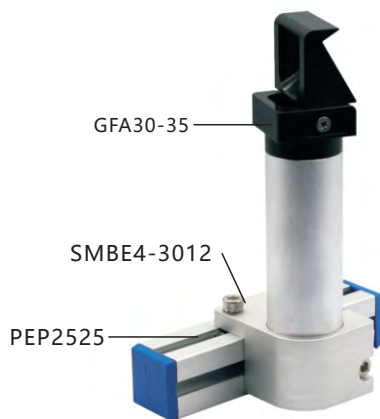
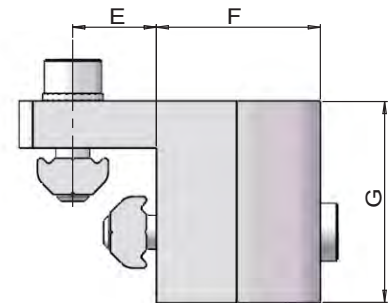
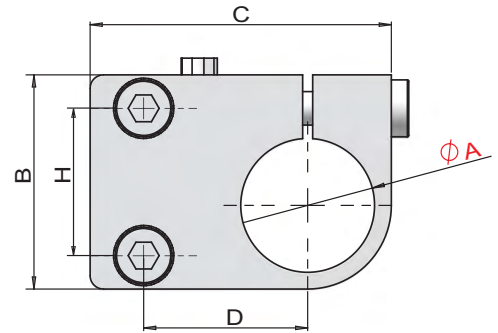
Quick Changer

Grip Module

Air Nipper

Vacuum Module

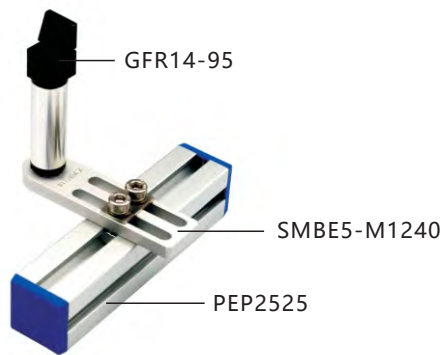
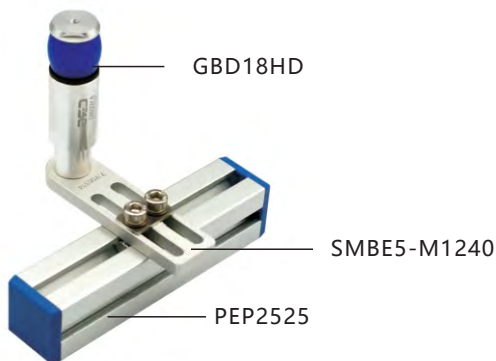
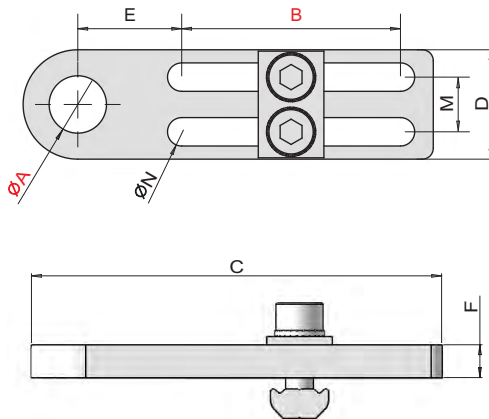
Accessory Components



PN	7.Y00224	7.Y00223	7.Y00181	7.Y00222	7.Y00221
Model	SMBE4-1412	SMBE4-2012	SMBE4-2020	SMBE4-3012	SMBE4-3020
A(mm)	Ø14	Ø20	Ø20	Ø30	Ø30
B(mm)	25	32	35	40	45
C(mm)	40	45	54.5	55	65.5
D(mm)	22	24.5	33	29.5	39
E(mm)	12.5	12.5	20	12.5	20
F(mm)	19.5	24.5	26.5	34.5	37.5
G(mm)	25	30	35	30	40
H(mm)	15	22	25	30	35
PEP1818	√	√	-	√	-
PEP2510	√	√	-	√	-
PEP2518	√	√	-	√	-
PEP2525	√	√	-	√	-
PEP5025	√	√	-	√	-
PEP4040	-	-	√	-	√
Screws	PTC-M5L14*2	PTC-M5L16*2	PTC-M5L16*2	PTC-M5L16*2	PTC-M5L16*2
Single hole shim	PTS-M5*2	PTS-M5*2	PTS-M5*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M5P15*1	PTN-M5P22*1	PTN-M5P25*1	PTN-M5P30*1	PTN-M5P30*1
Weight	50g	70g	95g	90g	150g

# Mounting Bracket

SMBE5-G1840T 7.Y00310-T



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	M(mm)	N(mm)	Weight
7.Y00310	SMBE5-G1840	G1/8	40	75	20	19	6	10	Ø5.2	25g
7.Y00311	SMBE5-G1860	G1/8	60	105	25	26.5	6	15	Ø5.2	42g
7.Y00312	SMBE5-M1040	M10×1	40	75	20	19	6	10	Ø5.2	30g
7.Y00313	SMBE5-M1060	M10×1	60	105	25	26.5	6	15	Ø5.2	40g
7.Y00314	SMBE5-M1240	M12×1	40	75	20	19	6	10	Ø5.2	30g
7.Y00315	SMBE5-M1260	M12×1	60	105	25	26.5	6	15	Ø5.2	47g
7.Y00316	SMBE5-M1440	M14×1	40	75	20	19	6	10	Ø5.2	20g
7.Y00317	SMBE5-M1460	M14×1	60	105	25	26.5	6	15	Ø5.2	40g
7.Y00320	SMBE5-M1640	M16×1	40	75	20	19	6	10	Ø5.2	20g
7.Y00321	SMBE5-M1660	M16×1	60	105	25	26.5	6	15	Ø5.2	40g
7.Y00322	SMBE5-M2040	M20×1	40	75	25	16.5	6	15	Ø5.2	30g
7.Y00323	SMBE5-M2060	M20×1	60	105	25	26.5	6	15	Ø5.2	35g

Screws Single hole shim) T-Nuts Double holes shim	PTC-M5L14*2 PTS-M5*2 PTN-M5P10*1 PTD-M5P10*1	SMBE5-G1840 , SMBE5-M1040, SMBE5-M1240 , SMBE5-M1440, SMBE5-M1640
--	---	---

Screws Single hole shim) T-Nuts Double holes shim	PTC-M5L14*2 PTS-M5*2 PTN-M5P15*1 PTD-M5P15*1	SMBE5-G1860, SMBE5-M1060, SMBE5-M1260, SMBE5-M1460, SMBE5-M1660, SMBE5-M2040 , SMBE5-M2060
--	---	--

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Mounting Bracket

SMBE6-1040T 7.Y00357-T

Profile - SUS Tube

Stents Module

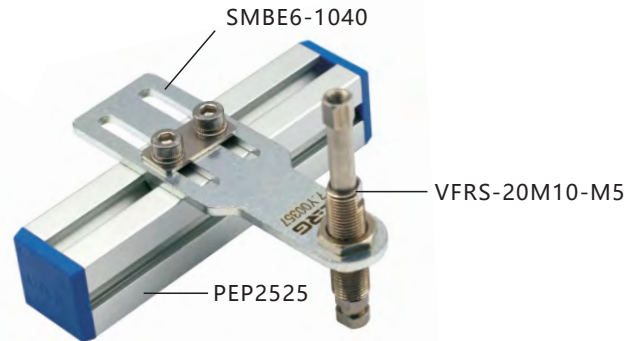
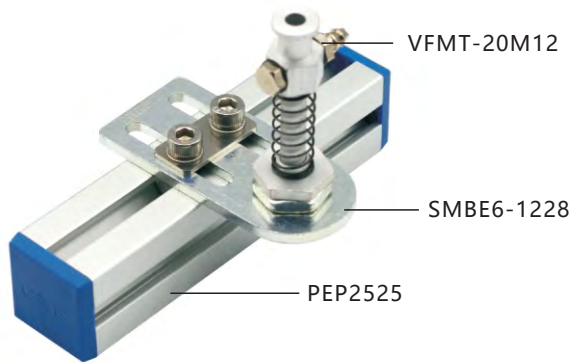
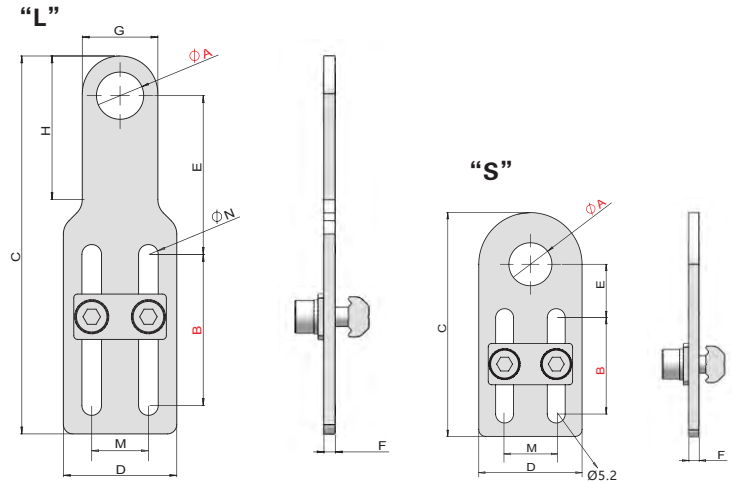
Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	M(mm)	N(mm)	Weight
7.Y00357	SMBE6-1040	Ø10.5	40	100	30	42.5	3	20	38	15	Ø5.2	60g
7.Y00358	SMBE6-1240	Ø12.5	40	100	30	42.5	3	20	38	15	Ø5.2	60g
7.Y00359	SMBE6-1440	Ø14.5	40	100	30	42.5	3	24	38	15	Ø5.2	60g
7.Y00360	SMBE6-1640	Ø16.5	40	100	30	42.5	3	30	-	15	Ø5.2	65g
7.Y00361	SMBE6-2040	Ø20.5	40	100	30	42.5	3	30	-	15	Ø5.2	60g
7.Y00362	SMBE6-2240	Ø22.5	40	100	30	42.5	5	35	26	15	Ø5.2	105g
7.Y00363	SMBE6-2540	Ø25.5	40	100	30	42.5	5	35	26	15	Ø5.2	100g
7.Y00364	SMBE6-1028	Ø10.5	28	65	30	15.5	3	-	-	15	Ø5.2	45g
7.Y00365	SMBE6-1228	Ø12.5	28	65	30	15.5	3	-	-	15	Ø5.2	45g
7.Y00366	SMBE6-1428	Ø14.5	28	65	30	15.5	3	-	-	15	Ø5.2	45g
7.Y00367	SMBE6-1628	Ø16.5	28	65	30	15.5	3	-	-	15	Ø5.2	45g
7.Y00368	SMBE6-2028	Ø20.5	28	65	30	15.5	3	-	-	15	Ø5.2	40g
7.Y00369	SMBE6-2228	Ø22.5	28	70	30	17	5	35	26	15	Ø5.2	75g
7.Y00370	SMBE6-2528	Ø25.5	28	70	30	17	5	35	26	15	Ø5.2	70g

## Accessories selection

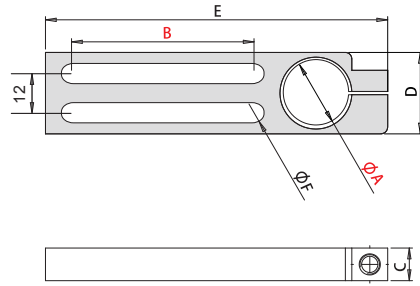
### Accessories selection 1

Screws	PTC-M5L10*2	SMBE6-1040, SMBE6-1240, SMBE6-1440
Single hole shim)	PTS-M5*2	SMBE6-1640, SMBE6-2040, SMBE6-1028
T-Nuts	PTN-M5P15*1	SMBE6-1228, SMBE6-1428, SMBE6-1628
Double holes shim	PTD-M5P15*1	SMBE6-2028

### Accessories selection 2

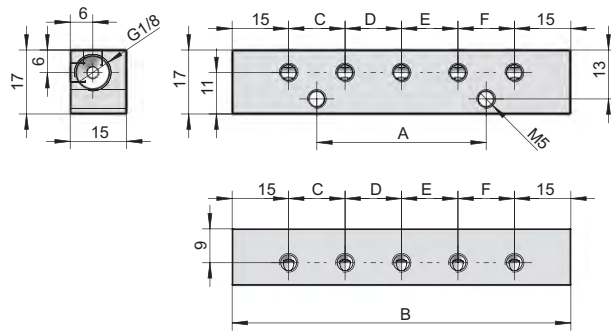
Screws	PTC-M5L12*2	SMBE6-2240, SMBE6-2540
Single hole shim)	PTS-M5*2	
T-Nuts	PTN-M5P15*1	SMBE6-2228, SMBE6-2528
Double holes shim	PTD-M5P15*1	

# Cylinder Bracket

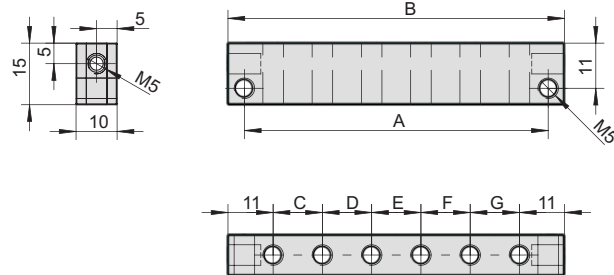


PN	Model	A	B	C	D	E	F	Weight
7.Y00062	SMBE7-0856	Ø8	56	10	25	90	6.5	40g
7.Y00021	SMBE7-1256	Ø12	56	10	25	95	6.5	43g
7.Y00006	SMBE7-2056	Ø20	56	10	25	105	6.5	47g

# Side Manifold Block

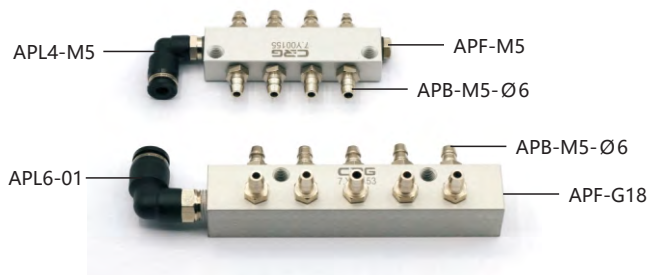


PN	Model	A	B	C	D	E	F	Weight
7.Y00153	SMB-10M5-02G18	45	90	15	15	15	15	51g
7.Y00154	SMB-08M5-02G18	30	75	15	15	15	-	42g



PN	Model	A	B	C	D	E	F	G	Weight
7.Y00157	SMB-06M5	26	34	12	-	-	-	-	10g
7.Y00156	SMB-08M5	38	46	12	12	-	-	-	14g
7.Y00155	SMB-10M5	50	58	12	12	12	-	-	18g
7.Y00167	SMB-14M5	74	82	12	12	12	12	12	26g

## Application example



Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Side Manifold Block

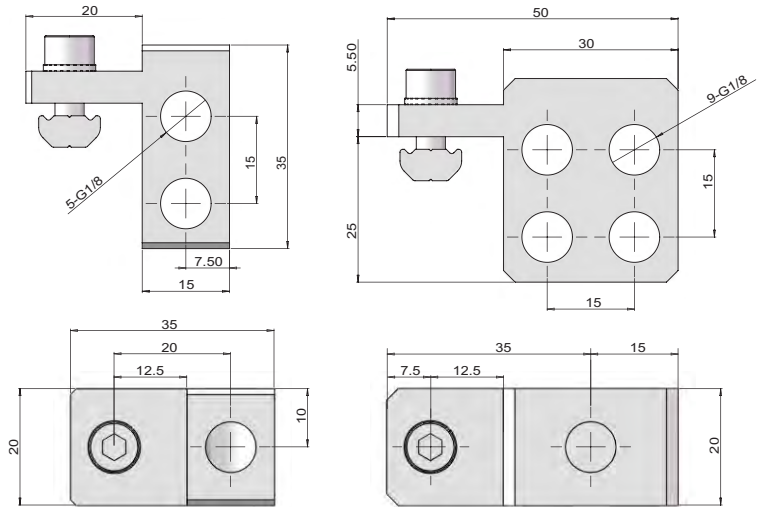
SMB-5G18T 7.Y00229-T



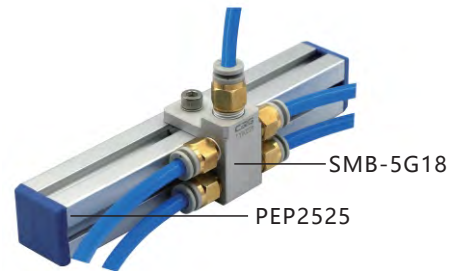
G1/8(x5)



G1/8(x9)



PN	7.Y00229	7.Y00231
Model	SMB-5G18	SMB-9G18
PEP1818	✓	✓
PEP2510	✓	✓
PEP2518	✓	✓
PEP2525	✓	✓
PEP5025	✓	✓
Screws	PTC-M5L14*1	PTC-M5L14*1
Single hole shim	PTS-M5*1	PTS-M5*1
T-Nuts	PTN-M5*1	PTN-M5*1
Weight	30g	50g

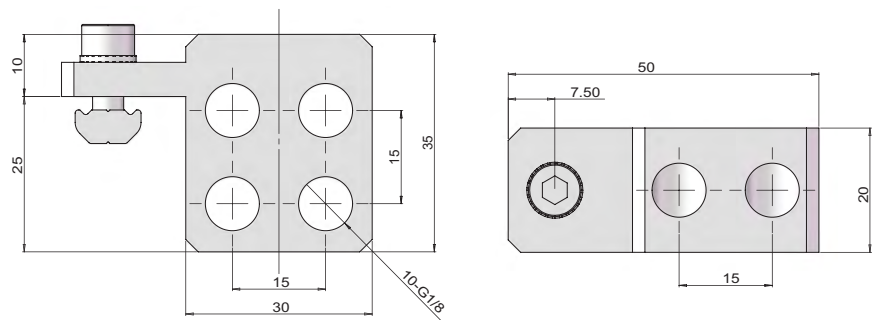


# Side Manifold Block

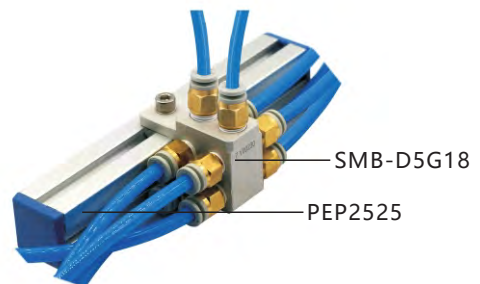
SMB-D5G18T 7.Y00230-T



G1/8(5+5)



PN	7.Y00230
Model	SMB-D5G18
PEP1818	✓
PEP2510	✓
PEP2518	✓
PEP2525	✓
PEP5025	✓
Screws	PTC-M5L14*1
Single hole shim	PTS-M5*1
T-Nuts	PTN-M5*1
Weight	48g



Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

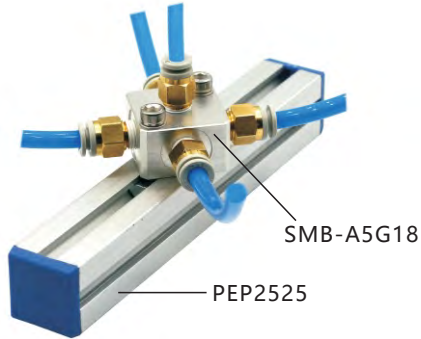
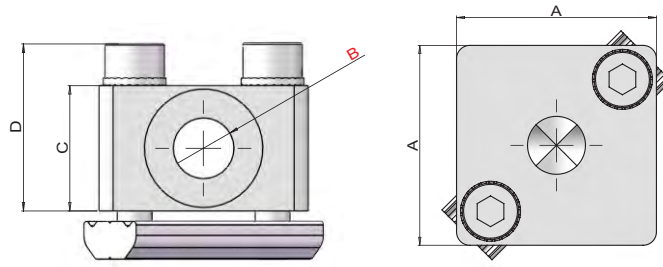
Air Nipper

Vacuum Module

Accessory Components

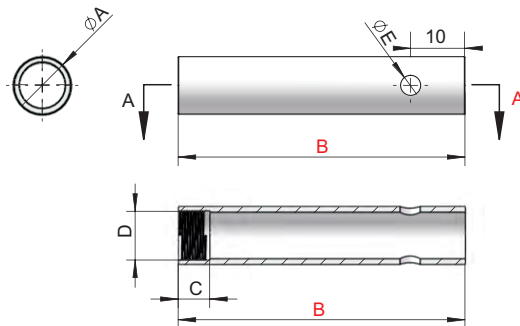
# Manifold Block

SMB-A5G18T 7.Y00240-T



PN	7.Y00240	7.Y00241
Model	SMB-A5G18	SMB-A5G14
A(mm)	30	40
B(mm)	(x5)G1/8	(x5)G1/4
C(mm)	18	20
D(mm)	24	23
<b>Accessories selection</b>		
Screws	PTC-M5L25*2	PTC-M5L25*2
Single hole shim	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M5P28*1	PTN-M5P35*1
Weight	50g	80g

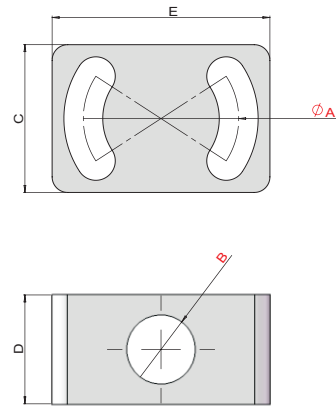
# Extension Tube



PN	Model	A	B	C	D	E	Weight
7.Y00736	SMBY12-50	Ø12	50	12	M10*1	5	9g
7.Y00735	SMBY12-100	Ø12	100	12	M10*1	5	17g
7.Y00733	SMBY14-50	Ø14	50	12	M12*1	5	10g
7.Y00734	SMBY14-100	Ø14	100	12	M12*1	5	20g
7.Y00732	SMBY20-50	Ø20	50	15	M17*1	8	16g
7.Y00731	SMBY20-100	Ø20	100	15	M17*1	8	31g
7.Y00462	SMBY20-150	Ø20	150	15	M17*1	8	47g
7.Y00729	SMBY30-50	Ø30	50	18	M27*1	9	29g
7.Y00730	SMBY30-100	Ø30	100	18	M27*1	9	58g
7.Y00463	SMBY30-150	Ø30	150	18	M27*1	9	87g

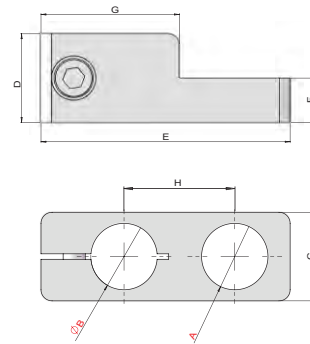
Profile · SUS Tube  
Stents Module  
Quick Changer  
Grip Module  
Air Nipper  
Vacuum Module  
Accessory Components

## Swing Block



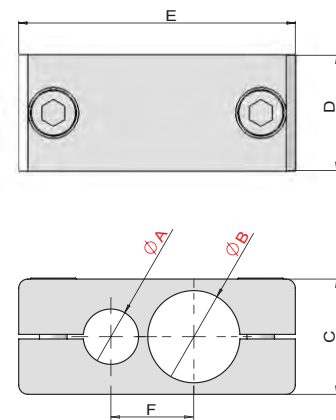
PN	Model	A	B	C	D	E	重量(Weight)
7.Y00048	SMBT4-G1820	Ø20	G1/8	19	14	28	11g

## SSW Connector SSW



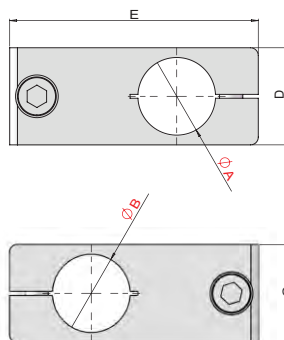
PN	Model	A	B	C	D	E	F	G	H	Weight
7.Y00028	SMBT1-M1412	M14	Ø12	16	16	45	8	25	20	16g

## Parallel Connector

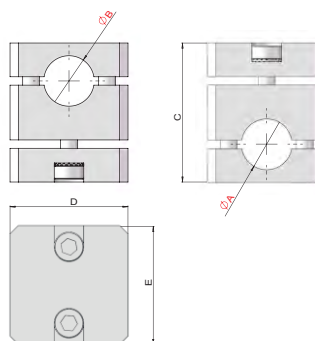


PN	Model	A	B	C	D	E	F	Weight
7.Y00042	SMBP-0808	Ø8	Ø8	12	12	35	10	11g
7.Y00043	SMBP-0812	Ø8	Ø12	16	16	43	12	23g
7.Y00044	SMBP-1212	Ø12	Ø12	16	16	44	14	21g
7.Y00045	SMBP-2012	Ø20	Ø12	25	25	60	18	75g
7.Y00046	SMBP-2020	Ø20	Ø20	25	25	66	24	71g

## Cross Connector

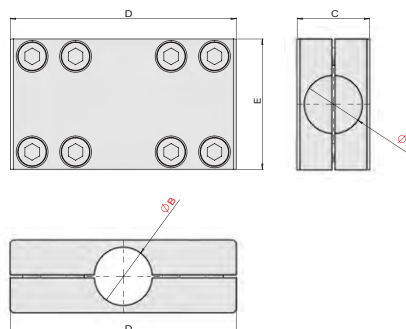


PN	Model	A	B	C	D	E	Weight
7.Y00025	SMBT-0808	Ø8	Ø8	12	12	35	10g
7.Y00026	SMBT-1208	Ø12	Ø8	12	16	43	16g
7.Y00020	SMBT-1212	Ø12	Ø12	16	16	47	22g
7.Y00794	SMBT-1214	Ø12	Ø14	18	18	48	29g
7.Y00027	SMBT-2012	Ø20	Ø12	25	25	59	72g
7.Y00005	SMBT-2020	Ø20	Ø20	25	25	64	68g



PN	Model	A	B	C	D	E	Weight
7.Y00192	SMBT2-1212	Ø12	Ø12	33	28	28	11g
7.Y00185	SMBT2-2020	Ø20	Ø20	48	42	42	30g

## Cross Connector#2



PN	Model	A	B	C	D	E	Weight
7.Y00047	SMBT3-2020	Ø20	Ø20	25	78	45	170g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# T Connector

Profile - SUS Tube

Stents Module

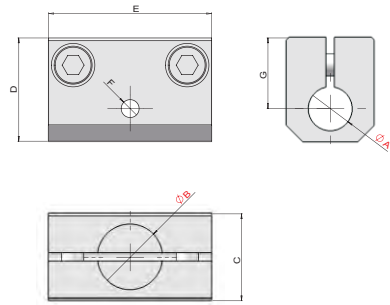
Quick Changer

Grip Module

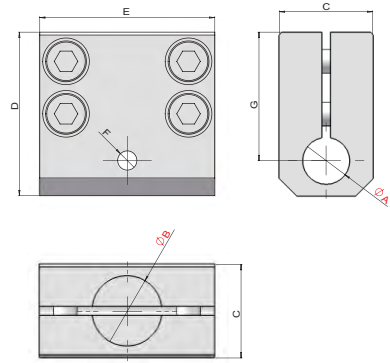
Air Nipper

Vacuum Module

Accessory Components

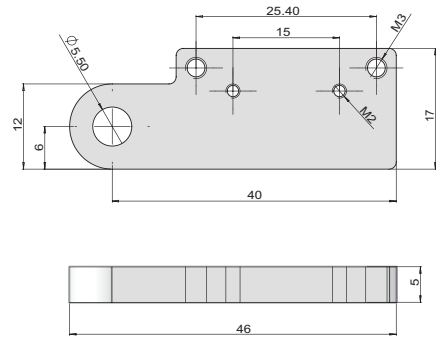


PN	Model	A	B	C	D	E	F	G	Weight
7.Y00029	SMBF-0808	Ø8	Ø8	12	20	30	M4	14	14g
7.Y00030	SMBF-0812	Ø8	Ø12	16	20	30	M4	14	23g
7.Y00031	SMBF-1208	Ø12	Ø8	16	26	30	M4	16	19g
7.Y00032	SMBF-1212	Ø12	Ø12	16	26	30	M4	16	18g
7.Y00033	SMBF-1220	Ø12	Ø20	25	30	45	M4	20	60g
7.Y00034	SMBF-2012	Ø20	Ø12	25	40	45	M4	25	63g
7.Y00035	SMBF-2020	Ø20	Ø20	25	40	45	M4	25	56g

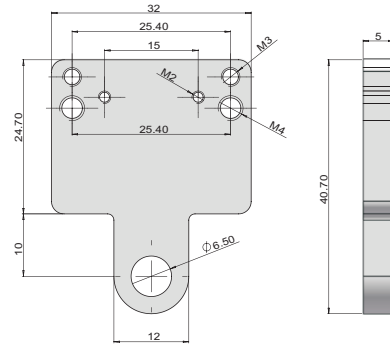


PN	Model	A	B	C	D	E	F	G	Weight
7.Y00036	SMBF1-0808	Ø8	Ø8	12	28	26	M4	22	15g
7.Y00037	SMBF1-0812	Ø8	Ø12	16	28	30	M4	22	31g
7.Y00038	SMBF1-1208	Ø12	Ø8	16	35	30	M4	25	29g
7.Y00003	SMBF1-1212	Ø12	Ø12	16	35	30	M4	25	26g
7.Y00039	SMBF1-1220	Ø12	Ø20	25	44	45	M4	34	88g
7.Y00040	SMBF1-2012	Ø20	Ø12	25	54	45	M4	39	111g
7.Y00041	SMBF1-2020	Ø20	Ø20	25	51.5	45	M4	39	78g

## Sensor Bracket

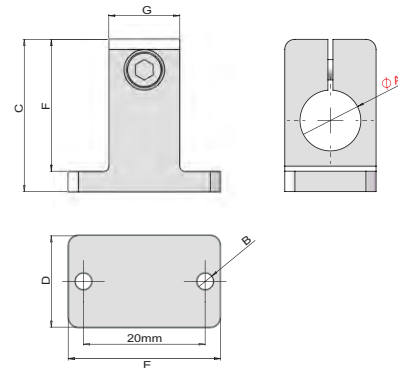


PN	Model	Weight
7.Y00070	SMBJ1-5	9g



PN	Model	Weight
7.Y00071	SMBJ2-6	12g

## Chuck Bracket



PN	Model	A	B	C	D	E	F	G	Weight
7.Y00072	SMBT5-8	$\phi 8$	M4	25	12	27	22	12	10g
7.Y00073	SMBT5-12	$\phi 12$	M4	30	18	30	26	14	19g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

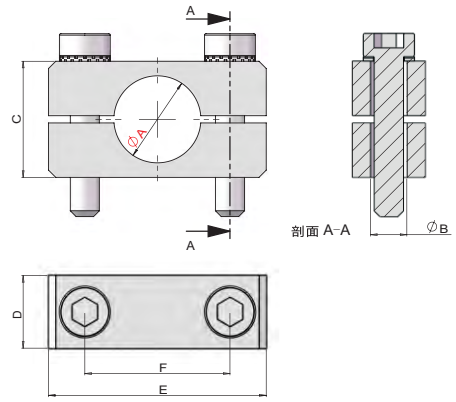
Air Nipper

Vacuum Module

Accessory Components

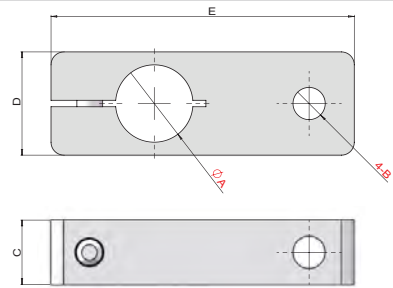


# Bracket



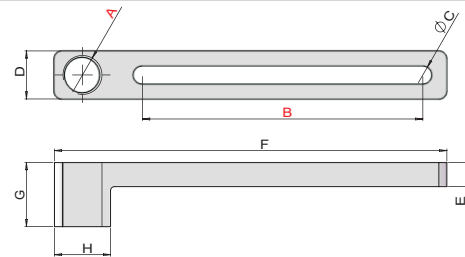
PN	Model	A	B	C	D	E	F	Weight
7.Y00074	SMBT6-12	Ø12	Ø6.5	16	16	40	30	35g

# Suction Bracket

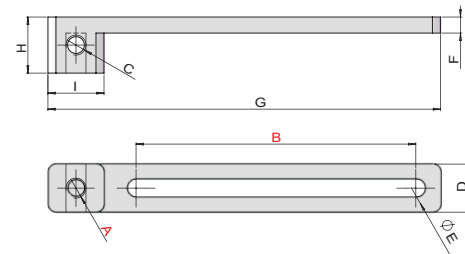


PN	Model	A	B	C	D	E	Weight
7.Y00057	SMBG1-8M5	Ø8	M5	12	12	33	9g
7.Y00058	SMBG1-8M6	Ø8	M6	10	12	33	9g
7.Y00059	SMBG1-12M5	Ø12	M5	10	16	47	16g
7.Y00060	SMBG1-12M6	Ø12	M6	10	16	47	16g
7.Y00061	SMBG1-12G18	Ø12	G1/8	16	16	47	25g

# Slide Bracket

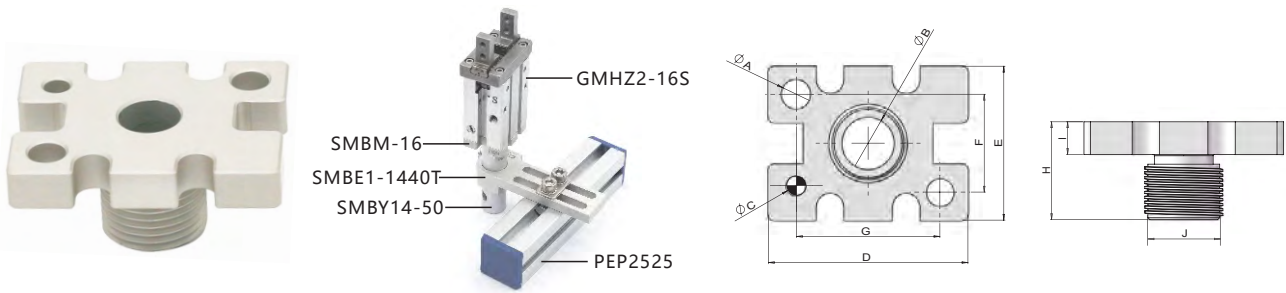


PN	Model	A	B	C	D	E	F	G	H	Weight
7.Y00115	SCF1-40M3	M3	40	4.5	12	5	56	10	8	7g
7.Y00118	SCF1-40G18	G1/8	40	4.5	12	6	68	16	14	12g
7.Y00129	SCF1-70M3	M3	70	4.5	12	5	86	10	8	10g
7.Y00132	SCF1-70G18	G1/8	70	4.5	12	6	98	16	14	15g



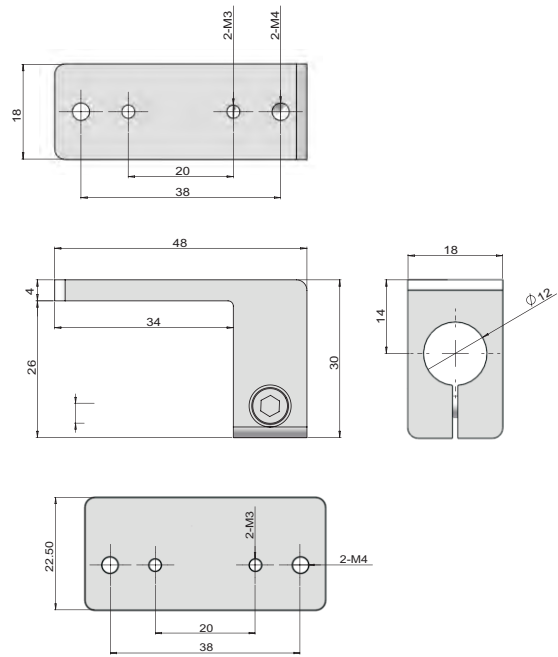
PN	Model	A	B	C	D	E	F	G	H	I	Weight
7.Y00173	SCF2-40M5	M5	40	M5	12	4.5	4	68	14	14	9g
7.Y00117	SCF2-40M6	M6	40	M6	12	4.5	4	68	14	14	10g
7.Y00130	SCF2-70M5	M5	70	M5	12	4.5	4	98	14	14	12g
7.Y00131	SCF2-70M6	M6	70	M6	12	4.5	4	98	14	14	13g

## Gripper Installation Bracket



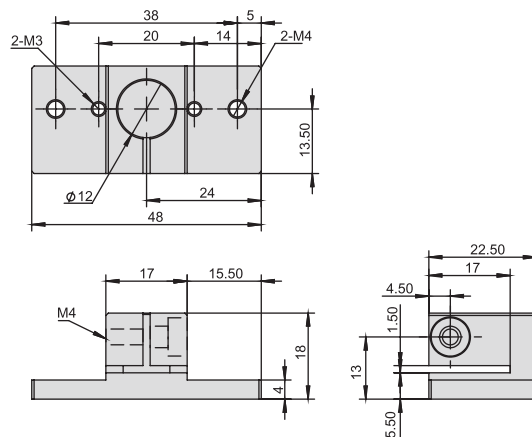
PN	Model	A	B	C	D	E	F	G	H	I	J	Weight
7.Y00740	SMBM-10	Ø3.2	Ø6	Ø2	23	16.4	12	18	14	4	M10*1	5g
7.Y00741	SMBM-16	Ø4.2	Ø7	Ø3	30.6	23.6	15	22	15	5	M12*1	10g
7.Y00728	SMBM-20	Ø5.5	Ø7	Ø4	42	27.6	18	32	15	5	M12*1	14g
7.Y00739	SMBM-25	Ø6.5	Ø11	Ø5	52	33.6	22	40	18	6	M12*1	27g
7.Y00738	SMBM-32	Ø6.5	Ø11	Ø5	60	40	26	46	18	6	M17*1	36g
7.Y00737	SMBM-40	Ø8.5	Ø20	Ø5	72	48	32	56	20	8	M27*1	67g

## Bracket L12



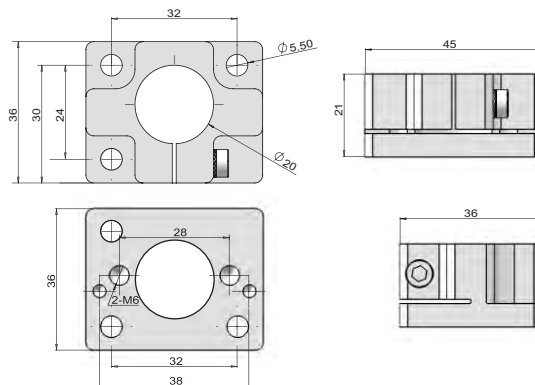
PN	Model	Weight
7.Y00081	SMBT9-12	23g

## Bracket T



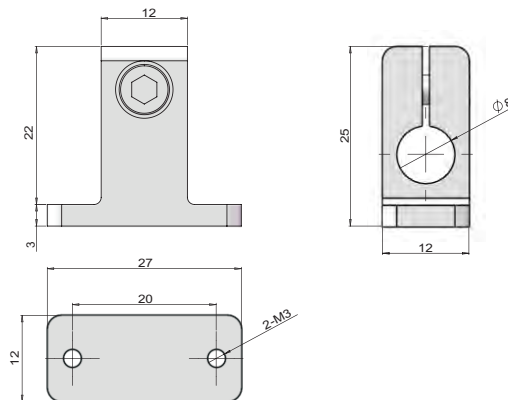
PN	Model	Weight
7.Y00082	SMBU-12	21g

# Bracket T

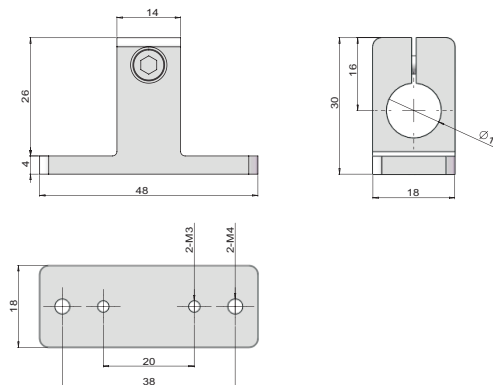


PN	Model	Weight
7.Y00255	SMBU2-20	49g

# Bracket TH



PN	Model	Weight
7.Y00085	SMBU3-8	10g



PN	Model	Weight
7.Y00086	SMBU4-12	22g

Profile · SUS\_Tube

Stents Module

Quick Changer

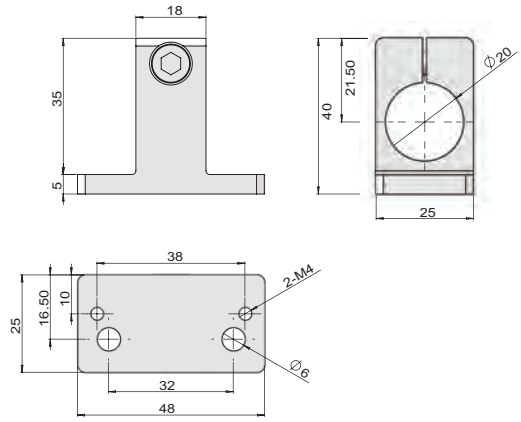
Grip Module

Air Nipper

Vacuum Module

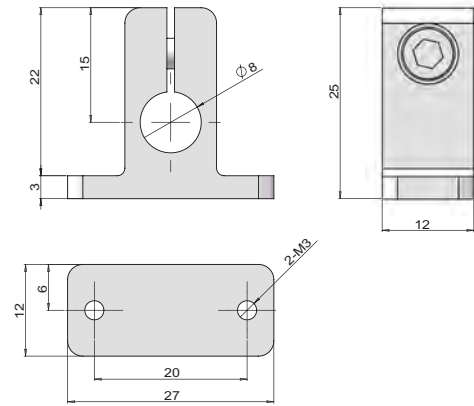
Accessory Components

## Bracket TH

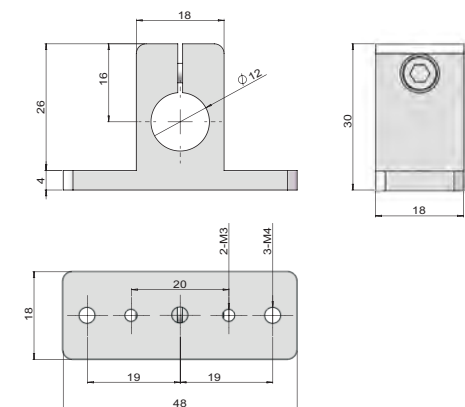


PN	Model	Weight
7.Y00087	SMBU5-20	44g

## Bracket TV



PN	Model	Weight
7.Y00088	SMBU6-8	10g



PN	Model	Weight
7.Y00089	SMBU7-12	26g

Profile · SUS Tube

Stents Module

Quick Changer

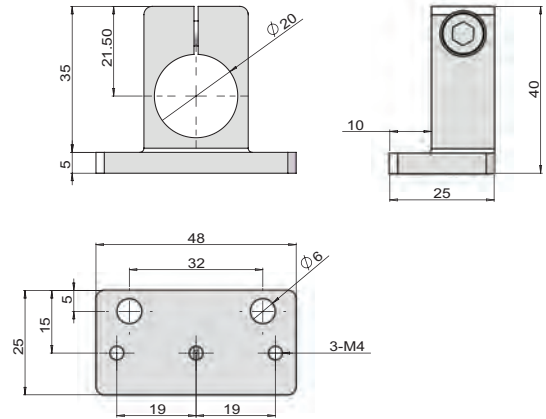
Grip Module

Air Nipper

Vacuum Module

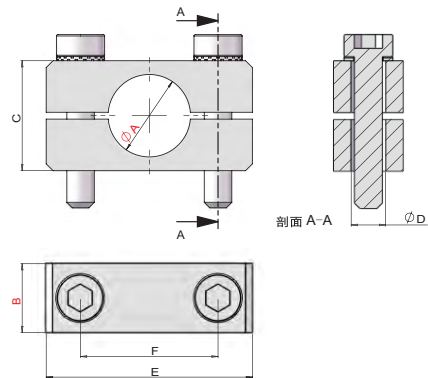
Accessory Components

## Bracket T



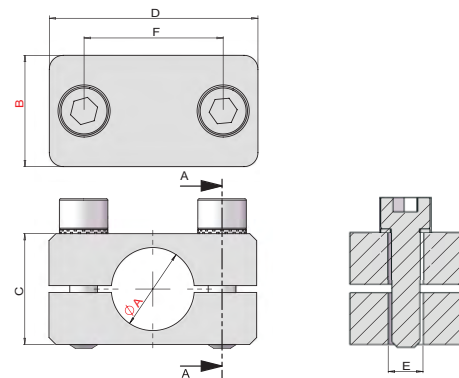
PN	Model	Weight
7.Y00090	SMBU8-20	39g

## Bracket



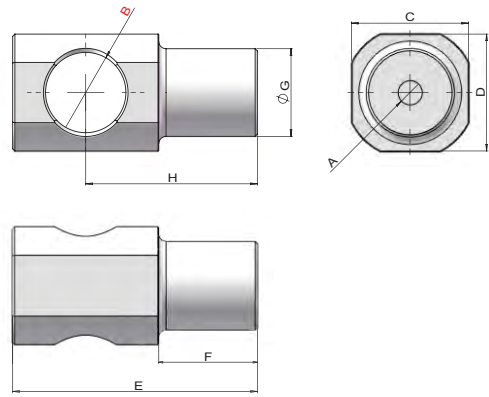
PN	Model	A	B	C	D	E	F	Weight
7.Y00091	SMBK1-8T10	$\Phi 8$	10	16	$\Phi 5.5$	30	20	20g
7.Y00092	SMBK1-12T10	$\Phi 12$	10	16	$\Phi 5.5$	30	20	14g
7.Y00093	SMBK1-20T10	$\Phi 20$	10	27	$\Phi 6.5$	40	30	36g
7.Y00094	SMBK1-8T16	$\Phi 8$	16	16	$\Phi 6.5$	30	20	32g
7.Y00095	SMBK1-12T16	$\Phi 12$	16	16	$\Phi 4.5$	30	20	20g
7.Y00096	SMBK1-20T16	$\Phi 20$	16	27	$\Phi 6.5$	40	30	48g

## Slide Bracket

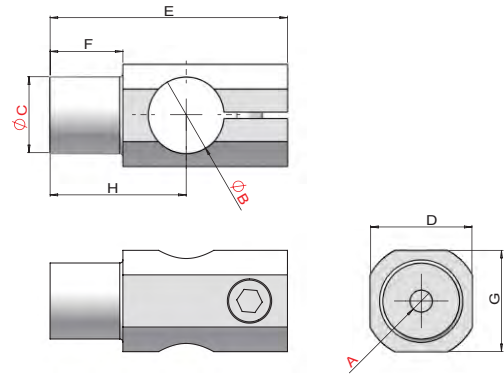


PN	Model	A	B	C	D	E	F	Weight
7.Y00064	SMBS-8T10	$\Phi 8$	10	16	30	M4	20	16g
7.Y00065	SMBS-12T10	$\Phi 12$	10	16	30	M4	20	15g
7.Y00066	SMBS-20T10	$\Phi 20$	10	25	40	M6	30	33g
7.Y00067	SMBS-8T16	$\Phi 8$	16	16	30	M6	20	29g
7.Y00001	SMBS-12T16	$\Phi 12$	16	16	30	M6	20	29g
7.Y00068	SMBS-20T16	$\Phi 20$	16	25	40	M6	30	44g

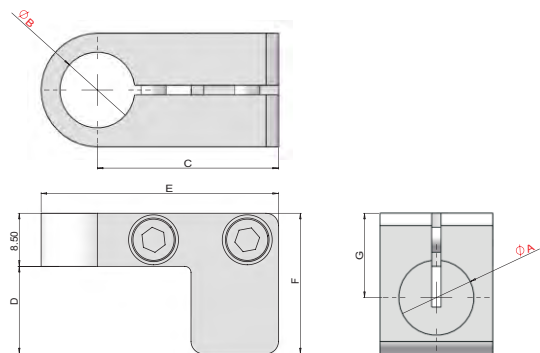
# Rotation Bracket



PN	Model	A	B	C	D	E	F	G	H	Weight
7.Y00099	SMBR2-M10	M4	M10	14	14	26.5	11.5	Ø8	19	6g
7.Y00100	SMBR2-M12	M4	M12	16	16	33.5	13.5	Ø12	23.5	12g



PN	Model	A	B	C	D	E	F	G	H	Weight
7.Y00103	SMBR4-0808M4	M4	Ø8	Ø8	12	32.5	11.5	12	17.5	7g
7.Y00110	SMBR4-1208M4	M4	Ø12	Ø8	16	37.5	11.5	16	21.5	13g
7.Y00019	SMBR4-1212M4	M4	Ø12	Ø12	16	39.5	13.5	16	23.5	15g
7.Y00268	SMBR4-1212M4L	M4	Ø12	Ø12	16	55	29	16	39	20g
7.Y00461	SMBR4-1420M6	M6	Ø14	Ø20	25	60	20	25	37	70g
7.Y00007	SMBR4-2020M6	M6	Ø20	Ø20	25	60	20	25	37	59g
7.Y00206	SMBR4-2020M6L	M6	Ø20	Ø20	25	85	45	25	62	81g



PN	Model	A	B	C	D	E	F	G	Weight
7.Y00111	SMBR5-1208	Ø12	Ø8	29	14	38	22.5	13.5	24g
7.Y00104	SMBR5-0808	Ø8	Ø8	29	11.5	36	20	13	16g
7.Y00112	SMBR5-1212	Ø12	Ø12	29	14	38	22.5	13.5	18g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Rotation Bracket

Profile - SUS Tube

Stents Module

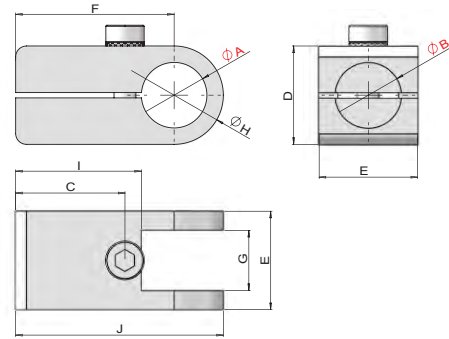
Quick Changer

Grip Module

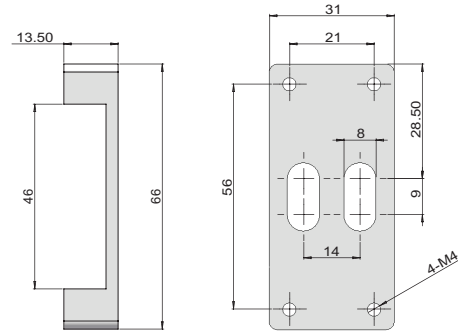
Air Nipper

Vacuum Module

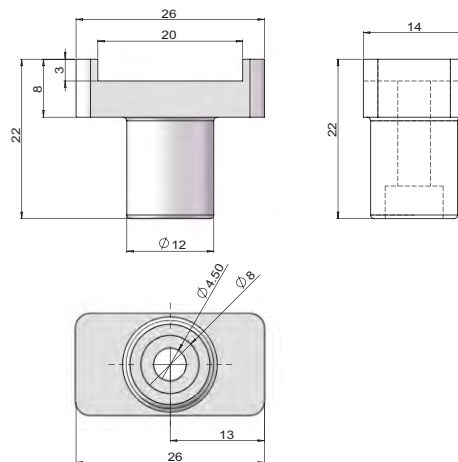
Accessory Components



PN	Model	A	B	C	D	E	F	G	H	I	J	Weight
7.Y00113	SMBR7-0808	Ø8	Ø8	M4	15	15	25	10	15	21	32.5	13g
7.Y00114	SMBR7-1212	Ø12	Ø12	M4	18	18	29	11	18	23	38	18g



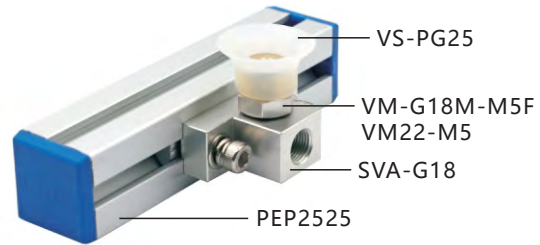
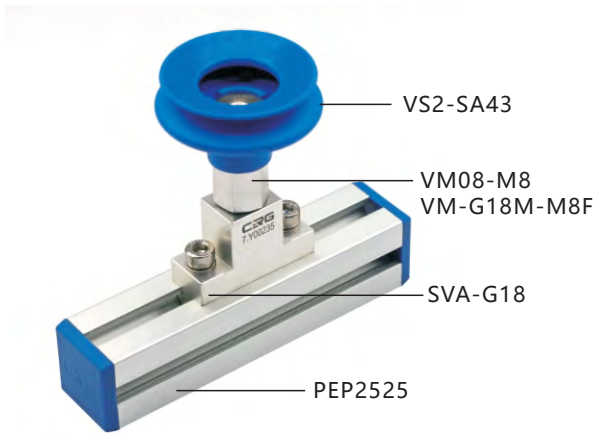
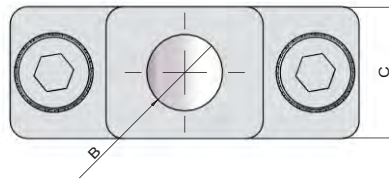
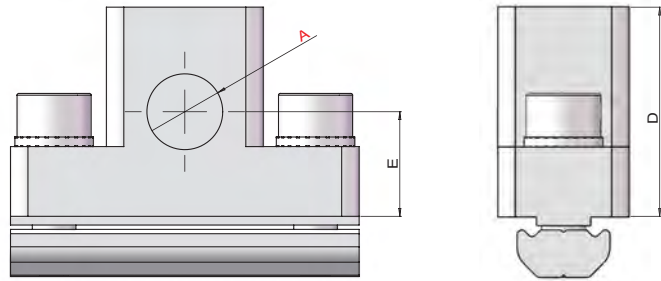
PN	Model	Weight
7.Y00063	SMBR-46	31g



PN	Model	Weight
7.Y00098	SMBR1-12	9g

# Direct Connector For Vacuum Cup

SVA-G18T 7.Y00235-T



PN	7.Y00235	7.Y00237
Model	SVA-G18	SVA-G14
A(mm)	G1/8	G1/4
B(mm)	G1/8	G1/8
C(mm)	15	15
D(mm)	24	24
E(mm)	12	10
PEP2518	√	√
PEP2525	√	√
PEP5025	√	√
PEP4040	√	√
Screws	PTC-M5L16*2	PTC-M5L16*2
Single hole shim	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M5P30*1	PTN-M5P30*1
Weight	42g	40g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

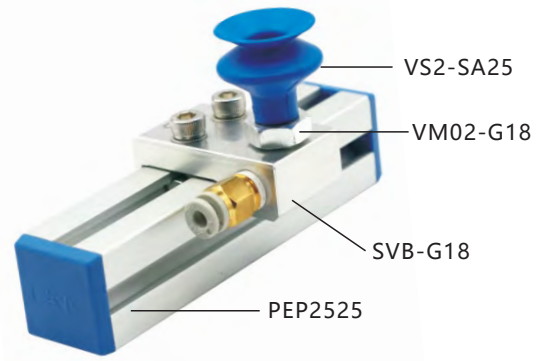
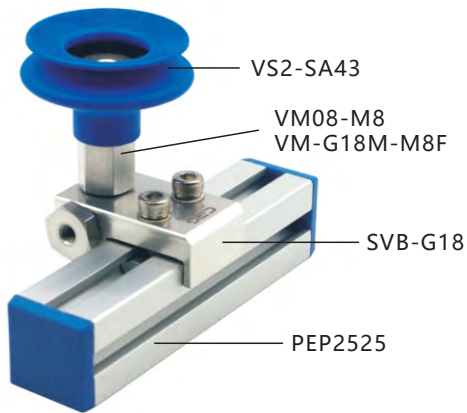
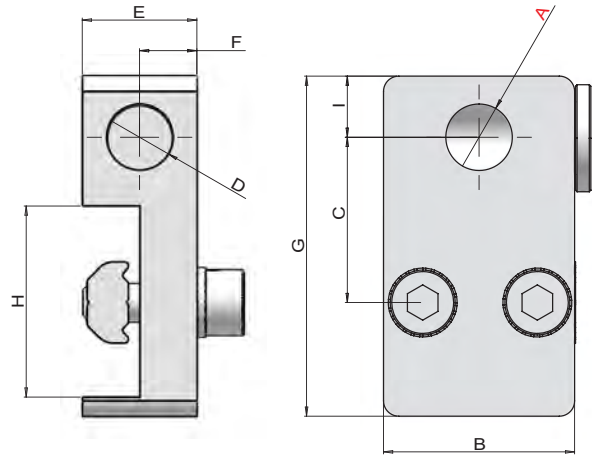
Vacuum Module

Accessory Components



# Direct Connector For Vacuum Cup

SVB-M5T 7.Y00242-T



PN	7.Y00242	7.Y00244	7.Y00243
Model	SVB-M5	SVB-G18	SVB-G14
A(mm)	M5	G1/8	G1/4
B(mm)	16	25	25
C(mm)	13.5	21.5	21.5
D(mm)	M5	G1/8	G1/8
E(mm)	8	15	15
F(mm)	4	7.5	7.5
G(mm)	29	44.5	46.5
H(mm)	18	25	25
I (mm)	4.3	8	10
PEP2518	-	√	√
PEP2525	-	√	√
PEP5025	-	√	√
Screws	PTC-M4L12*2	PTC-M5L16*2	PTC-M5L16*2
Single hole shim	PTS-M4*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M4P8*1	PTN-M5P15*1	PTN-M5P15*1
Weight	15g	45g	45g

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

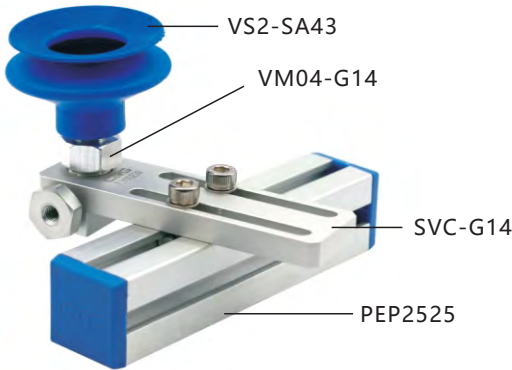
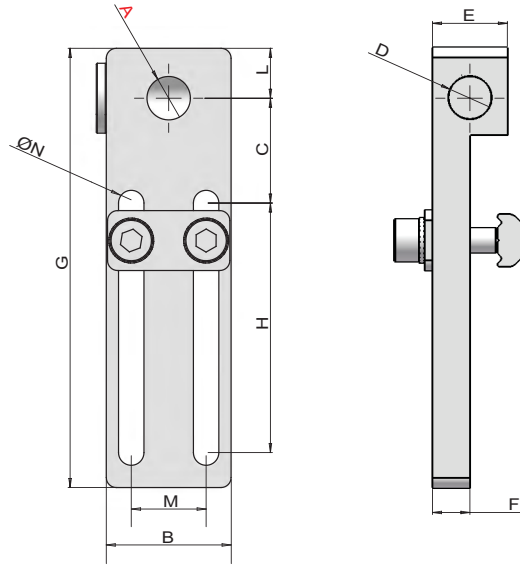
Air Nipper

Vacuum Module

Accessory Components

# Mounting Bracket For Vacuum Cup

SVC-M5T 7.Y00328-T



PN	7.Y00328	7.Y00238	7.Y00239
Model	SVC-M5	SVC-G18	SVC-G14
A(mm)	M5	G1/8	G1/4
B(mm)	16	25	25
C(mm)	14	21	21
D(mm)	M5	G1/8	G1/8
E(mm)	8	15	15
F(mm)	4	7.5	7.5
G(mm)	65	88	88
H(mm)	40	50	50
L(mm)	6	10	10
M(mm)	8	15	15
N(mm)	Ø4.2	Ø5.2	Ø5.2
PEP2518	√	√	√
PEP2525	√	√	√
PEP5025	√	√	√
PEP4040	-	√	√
Screws	PTC-M4L12*2	PTC-M5L16*2	PTC-M5L16*2
Single hole shim	PTS-M4*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M4P8*1	PTN-M5P15*1	PTN-M5P15*1
Double holes shim	PTD-M4P8*1	PTD-M5P15*1	PTD-M5P15*1
Weight	20g	60g	60g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Mounting Bracket For Vacuum Cup

SVD-M5T 7.Y00416-T

Profile · SUS Tube

Stents Module

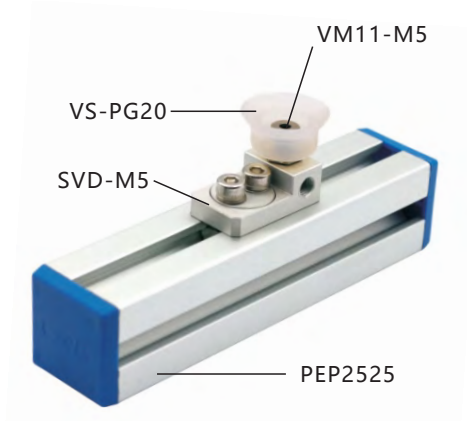
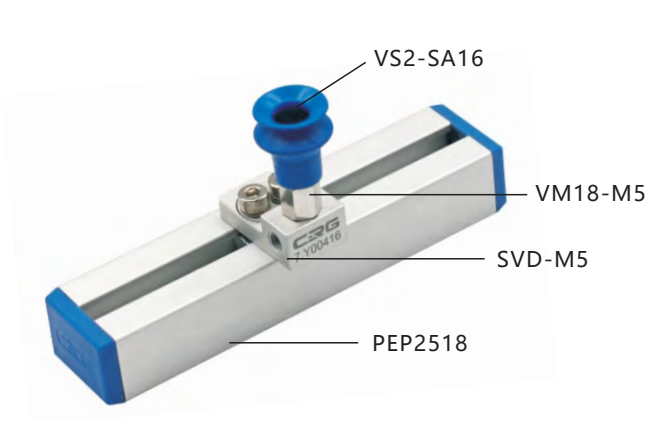
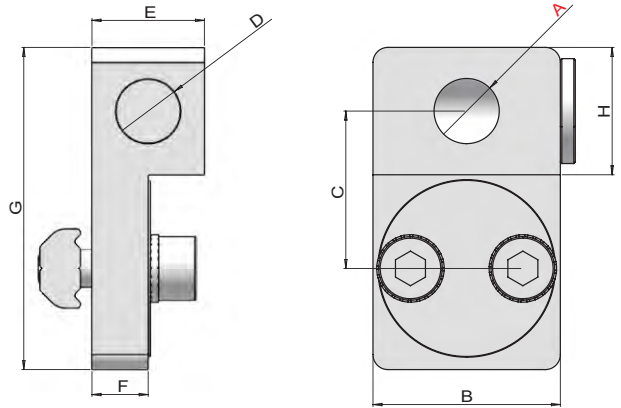
Quick Changer

Grip Module

Air Nipper

Vacuum Module

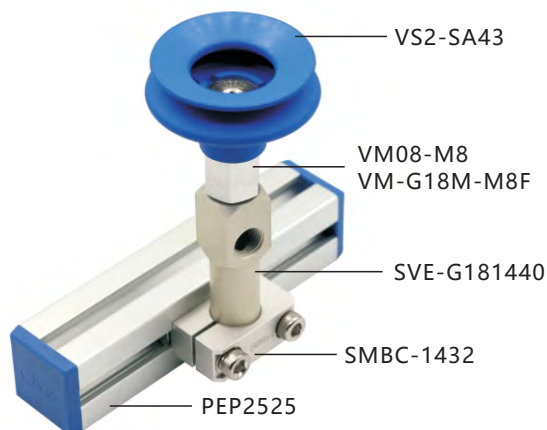
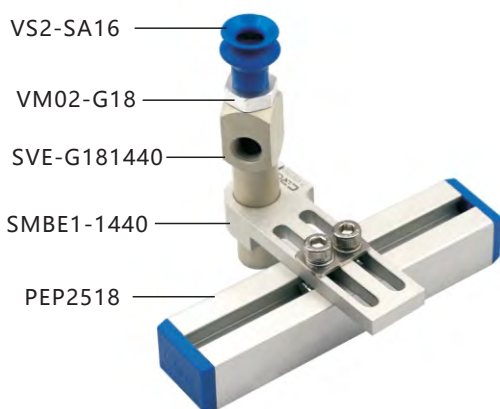
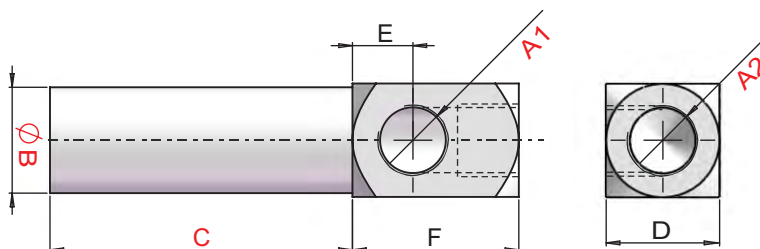
Accessory Components



PN	7.Y00416	7.Y00417	7.Y00418
Model	SVD-M5	SVD-G18	SVD-G14
A(mm)	M5	G1/8	G1/4
B(mm)	16	25	25
C(mm)	13	21	21
D(mm)	M5	G1/8	G1/8
E(mm)	10	15	15
F(mm)	5.3	7.8	7.8
G(mm)	28	43	43
H(mm)	10	17	17
PEP2518	√	√	√
PEP2525	√	√	√
PEP5025	√	√	√
PEP4040	-	√	√
Screws	PTC-M4L12*2	PTC-M5L16*2	PTC-M5L16*2
Single hole shim	PTS-M4*2	PTS-M5*2	PTS-M5*2
T-Nuts	PTN-M4P8*1	PTN-M5P15*1	PTN-M5P15*1
Weight	15g	45g	42g

# Leg For Vacuum Cup

Application example



PN	Model	A1 (mm)	A2 (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight
7.Y00410	SVE-M51030	M5	M5	Ø10	30	11	6	16	10g
7.Y00411	SVE-M51060	M5	M5	Ø10	60	11	6	16	13g
7.Y00412	SVE-M51090	M5	M5	Ø10	90	11	6	16	17g
7.Y00772	SVE-M51230	M5	M5	Ø12	30	13	7	17	12g
7.Y00773	SVE-M51260	M5	M5	Ø12	60	13	7	17	15g
7.Y00774	SVE-M51290	M5	M5	Ø12	90	13	7	17	19g
7.Y00413	SVE-G181440	G1/8	G1/8	Ø14	40	15	8	22	17g
7.Y00414	SVE-G181480	G1/8	G1/8	Ø14	80	15	8	22	25g
7.Y00415	SVE-G1814120	G1/8	G1/8	Ø14	120	15	8	22	32g
7.Y00008	SVE-G142050	G1/8	G1/4	Ø20	50	20	8	23	40g
7.Y00009	SVE-G1420100	G1/8	G1/4	Ø20	100	20	8	23	60g
7.Y00010	SVE-G1420150	G1/8	G1/4	Ø20	150	20	8	23	75g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

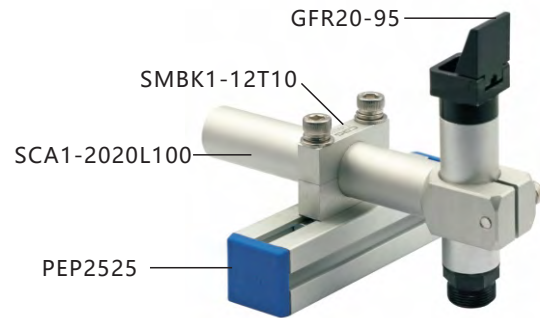
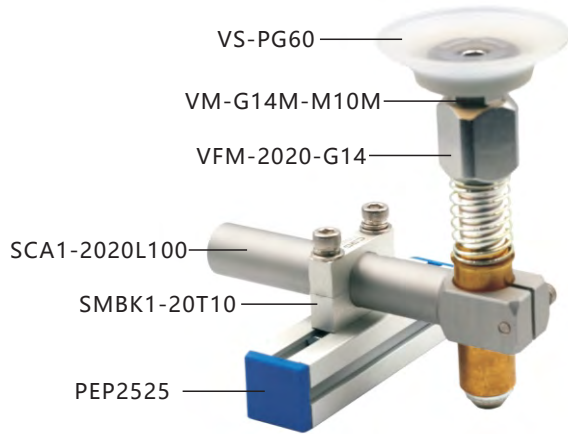
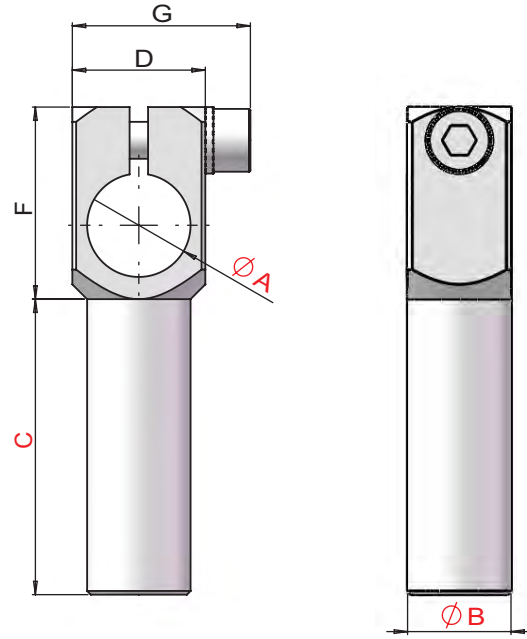
Air Nipper

Vacuum Module

Accessory Components

# Clamp Leg

Application example



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	F(mm)	G(mm)	Weight
7.Y00398	SCA1-1010L30	Ø10	Ø10	30	14	19	19	10g
7.Y00399	SCA1-1010L60	Ø10	Ø10	60	14	19	19	15g
7.Y00400	SCA1-1010L90	Ø10	Ø10	90	14	19	19	20g
7.Y00769	SCA1-1212L30	Ø12	Ø12	30	19	21	21	13g
7.Y00770	SCA1-1212L60	Ø12	Ø12	60	19	21	21	18g
7.Y00771	SCA1-1212L90	Ø12	Ø12	90	19	21	21	23g
7.Y00401	SCA1-1414L40	Ø14	Ø14	40	18	26	24	20g
7.Y00402	SCA1-1414L80	Ø14	Ø14	80	18	26	24	30g
7.Y00403	SCA1-1414L120	Ø14	Ø14	120	18	26	24	40g
7.Y00404	SCA1-2020L50	Ø20	Ø20	50	25	32	32	45g
7.Y00405	SCA1-2020L100	Ø20	Ø20	100	25	32	32	70g
7.Y00406	SCA1-2020L150	Ø20	Ø20	150	25	32	32	105g
7.Y00407	SCA1-3030L80	Ø30	Ø30	80	40	44	46	170g
7.Y00408	SCA1-3030L140	Ø30	Ø30	140	40	44	46	230g
7.Y00409	SCA1-3030L200	Ø30	Ø30	200	40	44	46	300g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

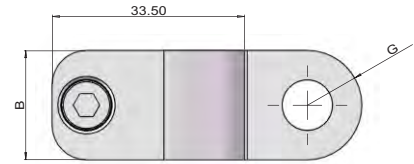
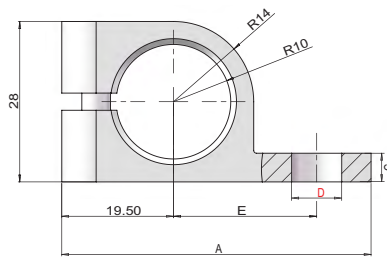
Air Nipper

Vacuum Module

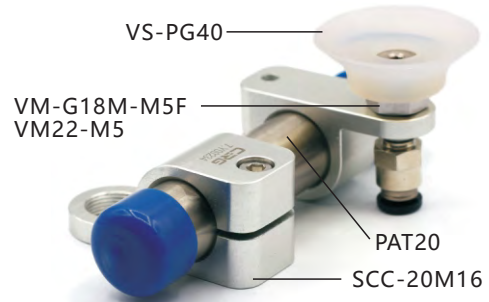
Accessory Components

# Swivelling Support

Application example

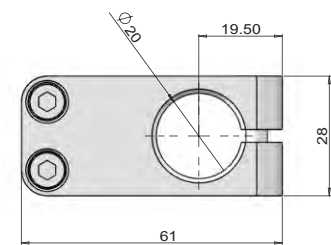
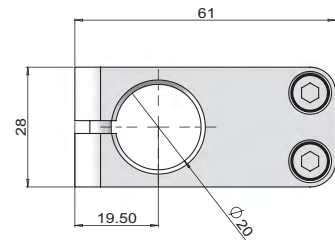
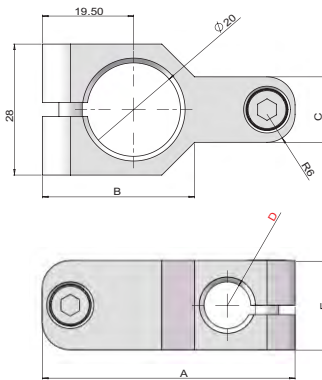


PN	7.Y00236	7.Y00234
Spec	SCC-20G18	SCC-20M16
A(mm)	53.5	60.5
B(mm)	19	24
C(mm)	5	6
D(mm)	G1/8	M16×1
E(mm)	25	29
G(mm)	R9.5	R12
Weight	30g	40g



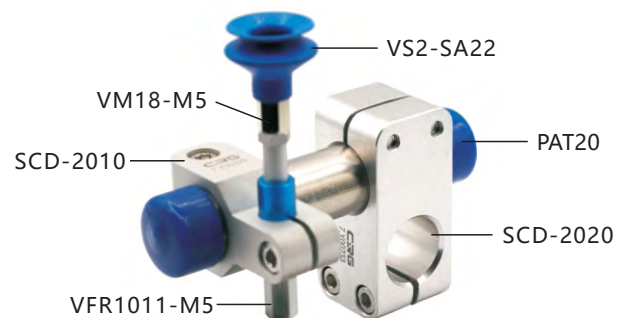
# Cross Connection Block

Application example



SCD-2020

PN	7.Y00329	7.Y00330	7.Y00233
Model	SCD-2010	SCD-2014	SCD-2020
A(mm)	54	56	
B(mm)	32.5	30.5	
C(mm)	14	18	
D(mm)	Ø10	Ø14	
E(mm)	19	22	
Weight	40g	45g	70g



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# NR Nipper Mounting Bracket

Profile - SUS Tube

Stents Module

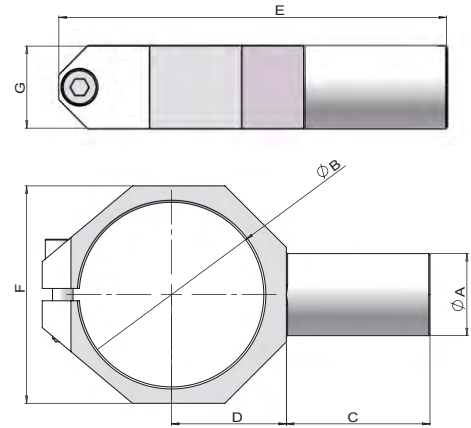
Quick Changer

Grip Module

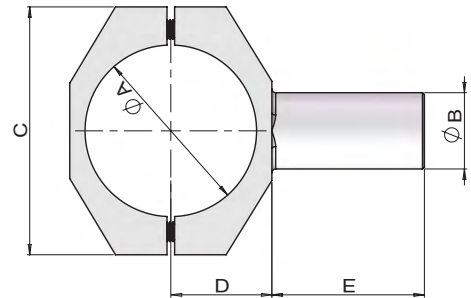
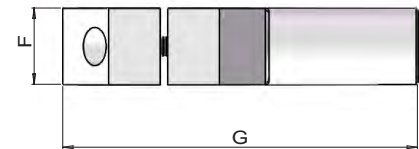
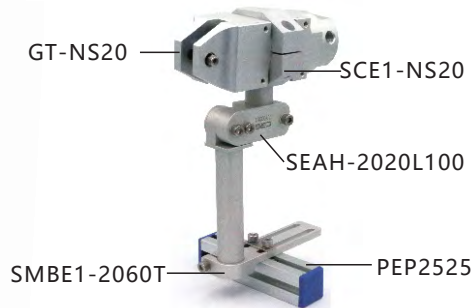
Air Nipper

Vacuum Module

Accessory Components

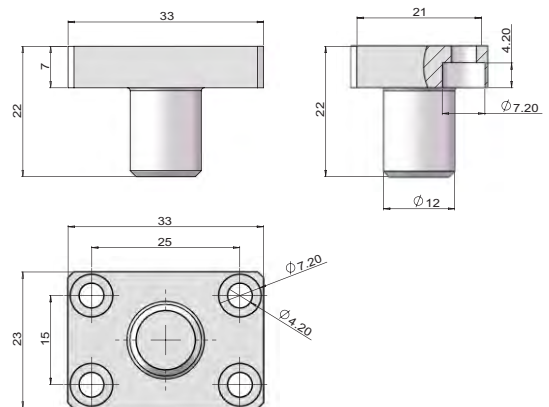


PN	7.Y00331	7.Y00261	7.Y00742
Model	SCE-NR20	SCE-NR30	SCE-NR50
A(mm)	Ø20	Ø20	Ø30
B(mm)	Ø45	Ø56	Ø75
C(mm)	35	40	48
D(mm)	28	33	41
E(mm)	94.5	111	138
F(mm)	53	65	83
G(mm)	20	25	40
Weight	65g	110g	308g



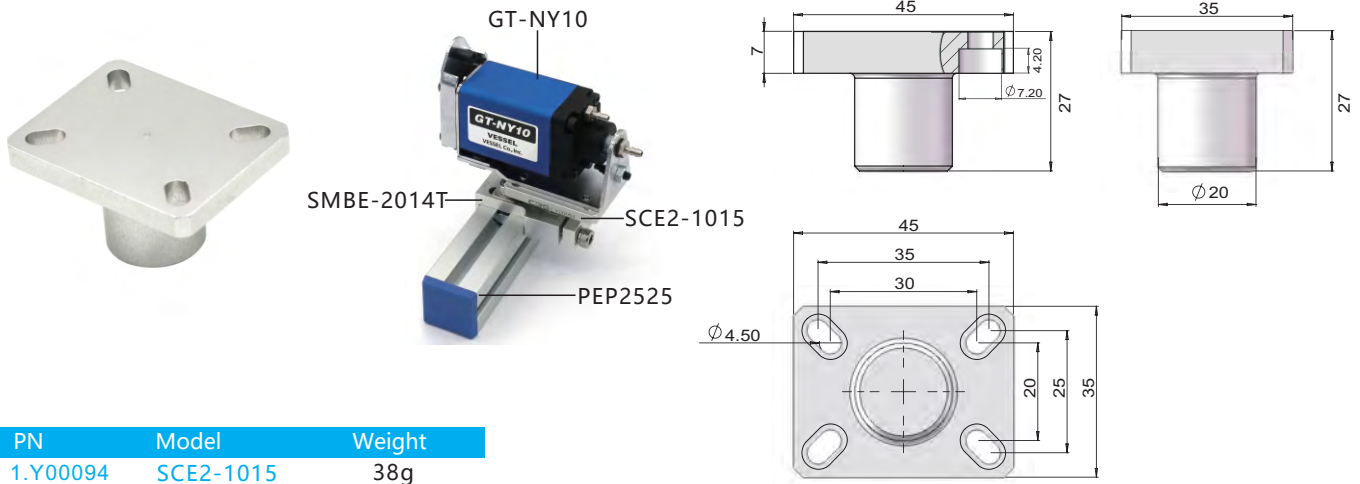
PN	7.Y00692	7.Y00693
Model	SCE1-NS20	SCE1-NS30
A(mm)	Ø45	Ø56
B(mm)	Ø20	Ø20
C(mm)	65	76
D(mm)	28	33
E(mm)	40	40
F(mm)	20	20
G(mm)	94	106
Weight	111g	123g

# NY05 Fixing Block



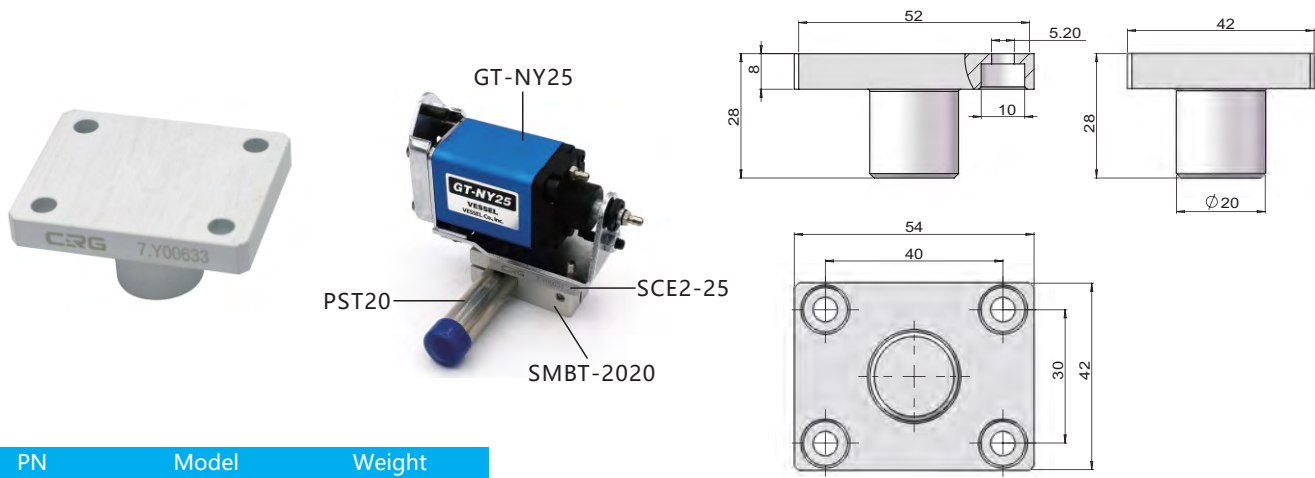
PN	Model	Weight
7.Y00796	SCE2-05	17g

## NY10.NY15 Fixing Block



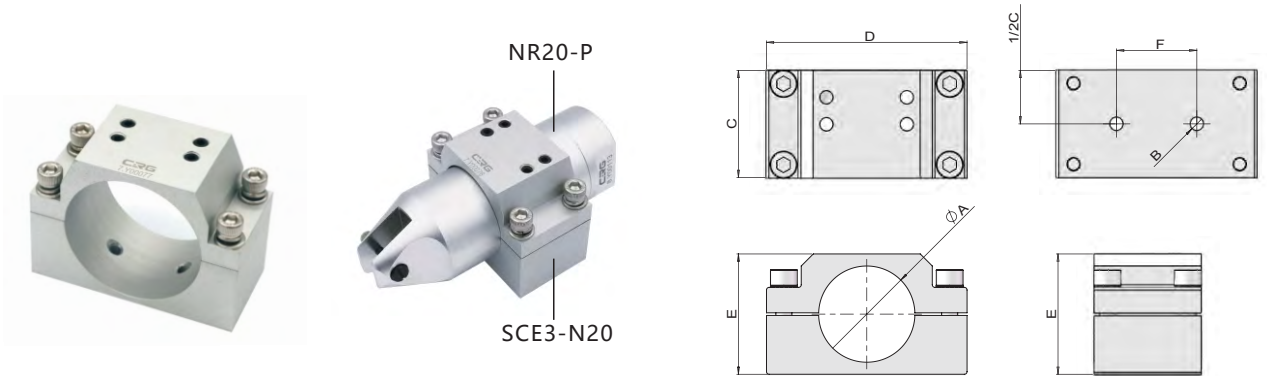
PN	Model	Weight
1.Y00094	SCE2-1015	38g

## NY25 Fixing Block



PN	Model	Weight
7.Y00633	SCE2-25	61g

## Nipper Bracket



PN	Model	A	B	C	D	E	F	Weight
7.Y00075	SCE3-N10	Ø36	M6	40	75	45	30	246g
7.Y00076	SCE3-N20	Ø45	M6	40	75	53	30	228g
7.Y00077	SCE3-N30	Ø56	M6	40	86	63	30	267g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Gas Cut Bracket

Profile · SUS Tube

Stents Module

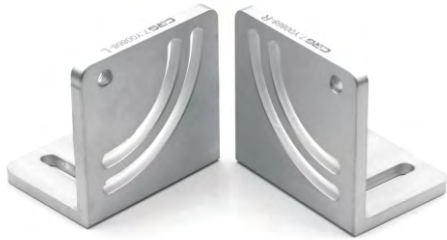
Quick Changer

Grip Module

Air Nipper

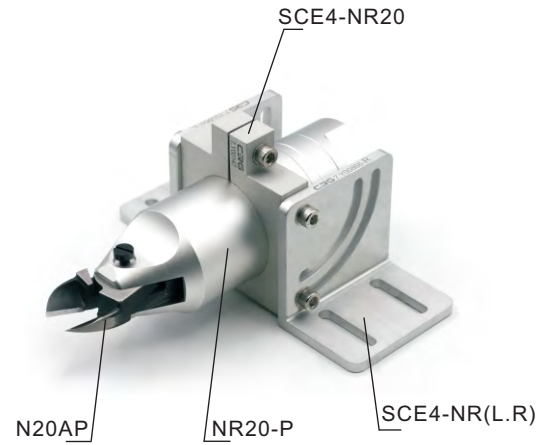
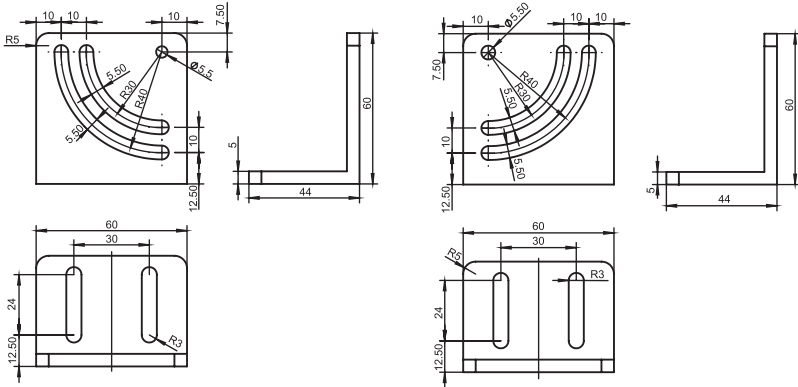
Vacuum Module

Accessory Components

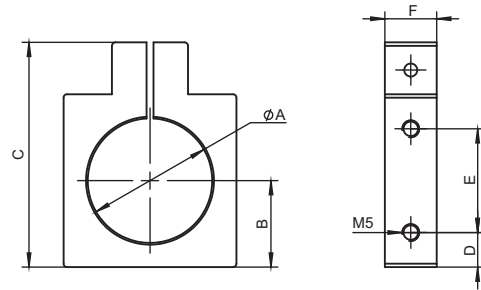


PN	7.Y00868
Model	SCE4-NR(L.R)

- ※L.R mate sales
- ※GT-NRuse
- ※Weight: 65.5g



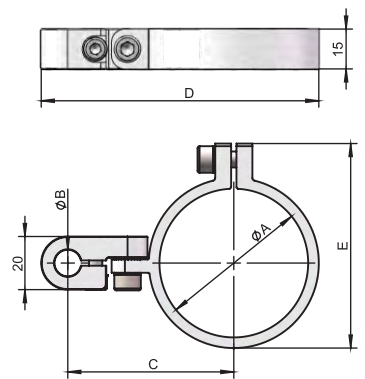
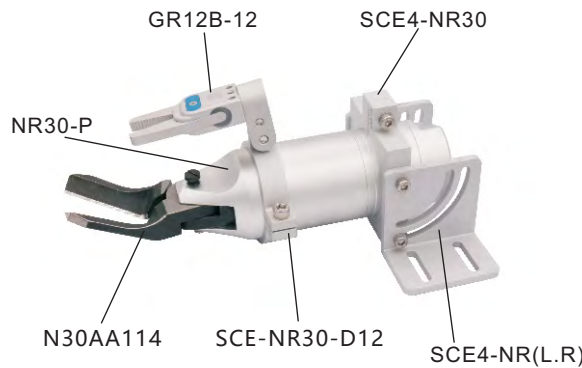
# Gas cut fixation



PN	Model	A	B	C	D	E	F	Weight
7.Y00146	SCE4-NR30	56	35	85	10	40	15	111g
7.Y00147	SCE4-NR20	45	30	75	10	40	15	93g
7.Y00148	SCE4-NR10	36	25	65	10	30	15	72g

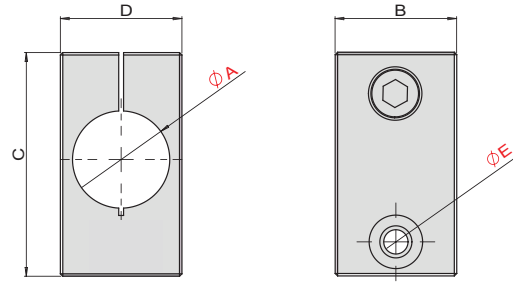
# Adjustable Nipper Mounting Clamps

**NEW**

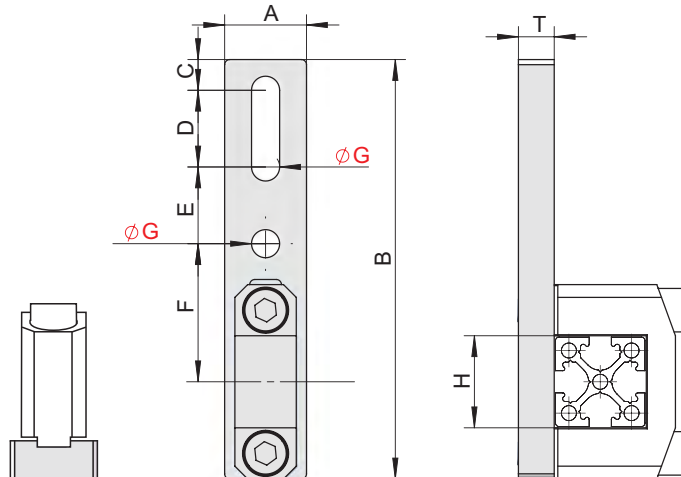


PN	Model	A	B	C	D	E	Weight
7.Y00946	SCE-NR20-D10	Ø45	Ø10	56.5	93	62	57.5
7.Y00947	SCE-NR20-D12	Ø45	Ø12	56.5	93	62	55.5
7.Y00948	SCE-NR30-D10	Ø56	Ø10	62.5	104.5	77	67.5
7.Y00949	SCE-NR30-D12	Ø56	Ø12	62.5	104.5	77	65.5

# Access Robot Bracket

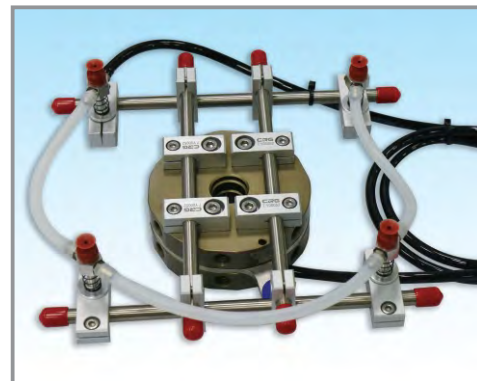


PN	Model	A	B	C	D	E	Weight
7.Y00051	SMBH1-8M5	Ø8	14	35	12	Ø5.5	15g
7.Y00052	SMBH1-8M6	Ø8	14	35	12	Ø6.5	12g
7.Y00053	SMBH1-12M5	Ø12	20	39	16	Ø5.5	30g
7.Y00002	SMBH1-12M6	Ø12	20	39	16	Ø6.5	25g
7.Y00054	SMBH1-12M8	Ø12	20	45	25	Ø9	42g
7.Y00055	SMBH1-20M6	Ø20	20	50	25	Ø6.5	48g
7.Y00056	SMBH1-20M8	Ø20	20	50	25	Ø9	51g



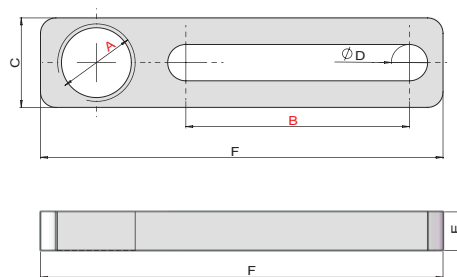
PN	Model	A	B	C	D	E	F	G	H	T	Weight
7.Y00869	SMBE7-18M5	16	82	6	15	15	27	Ø5.5	18	7	20.5g
7.Y00870	SMBE7-18M6	16	82	6	15	15	27	Ø6.5	18	7	20g
7.Y00871	SMBE7-25M5	16	90	7	15	15	30.5	Ø5.5	25	7	22.5g
7.Y00872	SMBE7-25M6	16	90	7	15	15	30.5	Ø6.5	25	7	22g

## Application example



# Slide Bracket

Profile - SUS Tube

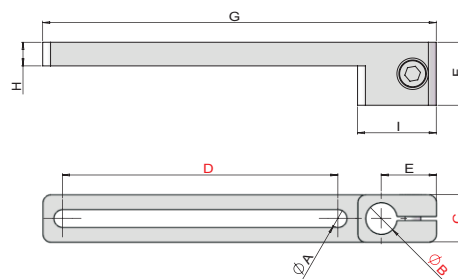


Stents Module

PN	Model	A	B	C	D	E	F	Weight
7.Y00119	SCF3-40M10	M10*1	40	16	6.5	5	70	10g
7.Y00120	SCF3-40M12	M12*1	40	16	6.5	5	72	10g
7.Y00121	SCF3-40M17	M17*1	40	25	6.5	5	80	20g
7.Y00133	SCF3-70M10	M10*1	70	16	6.5	5	100	14g
7.Y00134	SCF3-70M12	M12*1	70	16	6.5	5	102	14g
7.Y00135	SCF3-70M17	M17*1	70	25	6.5	5	110	28g

Quick Changer

Grip Module

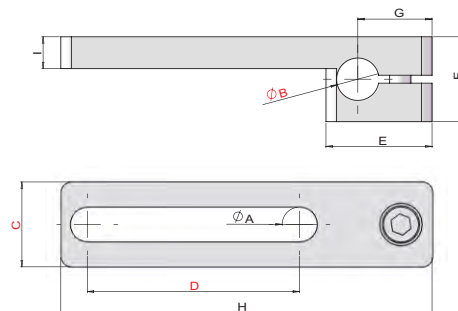
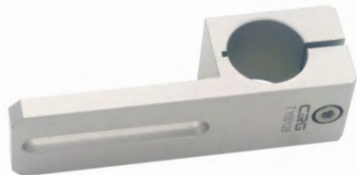


Air Nipper

PN	Model	A	B	C	D	E	F	G	H	I	Weight
7.Y00122	SCF4-0840W12	4.5	Ø8	12	40	14	16	70	6	20	14g
7.Y00123	SCF4-0840W16	6.5	Ø8	16	40	14	16	70	6	20	20g
7.Y00004	SCF4-1240W16	6.5	Ø12	16	40	16	16	75	6	25	21g
7.Y00124	SCF4-2040W25	6.5	Ø20	25	40	20	16	86	6	34	39g
7.Y00136	SCF4-0870W12	4.5	Ø8	12	70	14	16	100	6	20	18g
7.Y00137	SCF4-0870W16	6.5	Ø8	16	70	14	16	100	6	20	25g
7.Y00138	SCF4-1270W16	6.5	Ø12	16	70	16	16	105	6	25	25g
7.Y00139	SCF4-2070W25	6.5	Ø20	25	70	20	16	116	6	34	49g

Vacuum Module

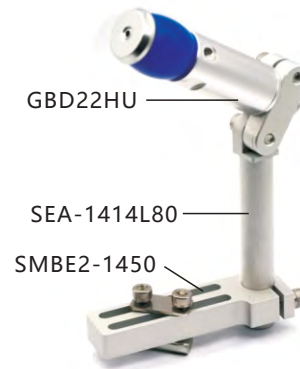
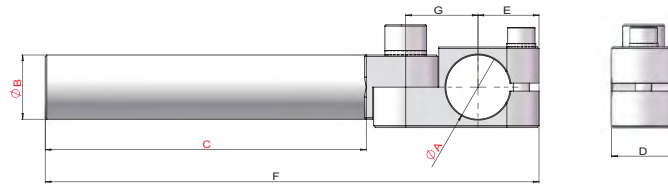
Accessory Components



PN	Model	A	B	C	D	E	F	G	H	I	Weight
7.Y00125	SCF5-0840W16	6.5	Ø8	16	40	20	16	14	70	6	20g
7.Y00126	SCF5-0840W12	4.5	Ø8	12	40	20	16	14	70	6	15g
7.Y00127	SCF5-1240W16	6.5	Ø12	16	40	25	16	16	75	6	20g
7.Y00128	SCF5-2040W25	6.5	Ø20	25	40	34	25	20	86	6	53g
7.Y00140	SCF5-0870W16	6.5	Ø8	16	70	20	16	14	100	6	25g
7.Y00141	SCF5-0870W12	4.5	Ø8	12	70	20	16	14	100	6	19g
7.Y00142	SCF5-1270W16	6.5	Ø12	16	70	25	16	16	105	6	25g
7.Y00143	SCF5-2070W25	6.5	Ø20	25	70	34	25	20	116	6	48g

# Elbow Arm

Application example



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	Weight
7.Y00388	SEA-1010L60	Ø10	Ø10	60	10	13	93	12.5	20g
7.Y00776	SEA-1212L60	Ø12	Ø12	60	12	15	98	14.5	22g
7.Y00389	SEA-1414L40	Ø14	Ø14	40	14	16	82	16.5	32g
7.Y00390	SEA-1414L80	Ø14	Ø14	80	14	16	122	16.5	42g
7.Y00391	SEA-1414L120	Ø14	Ø14	120	14	16	162	16.5	50g
7.Y00392	SEA-2020L50	Ø20	Ø20	50	20	19	104	22.5	70g
7.Y00393	SEA-2020L100	Ø20	Ø20	100	20	19	154	22.5	90g
7.Y00394	SEA-2020L150	Ø20	Ø20	150	20	19	204	22.5	120g
7.Y00395	SEA-3030L80	Ø30	Ø30	80	30	27	160	34.8	235g
7.Y00396	SEA-3030L140	Ø30	Ø30	140	30	27	220	34.8	300g
7.Y00397	SEA-3030L200	Ø30	Ø30	200	30	27	280	34.8	360g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

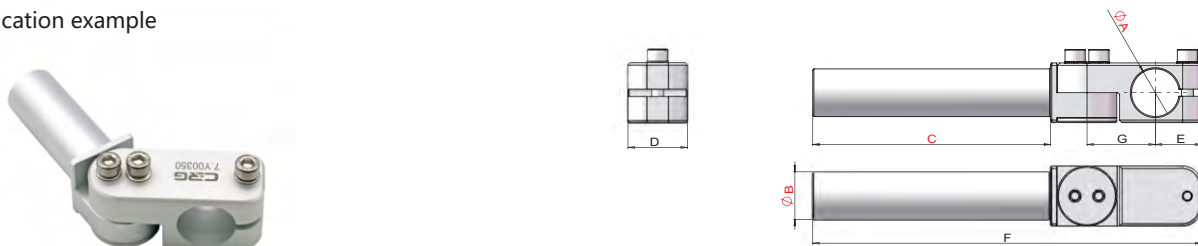
Air Nipper

Vacuum Module

Accessory Components

# Heavy Duty Elbow Arm

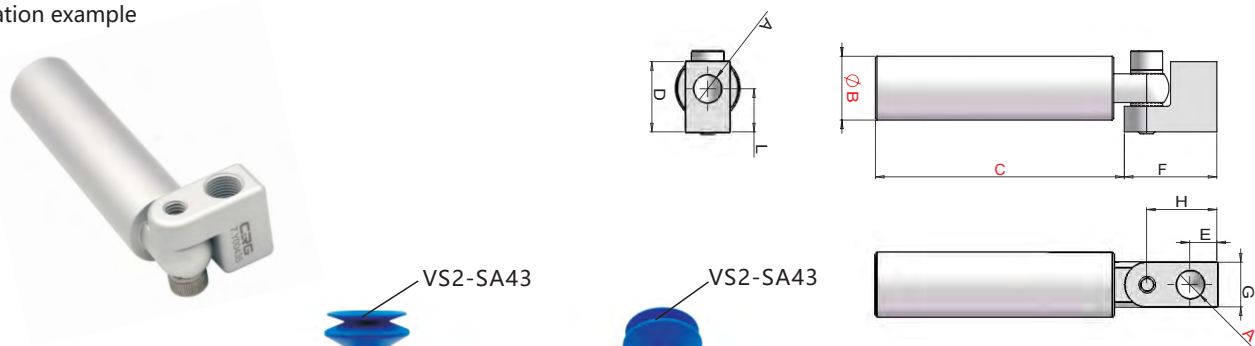
Application example



PN	7.Y00350	7.Y00351	7.Y00166	7.Y00352	7.Y00353	7.Y00354
Model	SEAH-2020L50	SEAH-2020L100	SEAH-2020L150	SEAH-3030L80	SEAH-3030L140	SEAH-3030L200
A(mm)	Ø20	Ø20	Ø20	Ø30	Ø30	Ø30
B(mm)	Ø20	Ø20	Ø20	Ø30	Ø30	Ø30
C(mm)	50	100	150	80	140	200
D(mm)	25	25	25	35	35	35
E(mm)	19.5	19.5	19.5	27.3	27.3	27.3
F(mm)	113.5	163.5	213.5	168.5	228.5	288.5
G(mm)	28.7	28.7	28.7	40.7	40.7	40.7
Weight	95g	115g	130g	330g	380g	435g

# Elbow Arm For Vacuum Cup

Application example



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	L(mm)	Weight
7.Y00432	SEAV-M510L45	M5	Ø10	45	16.5	5.5	19	10	22	11	18g
7.Y00433	SEAV-M510L90	M5	Ø10	90	16.5	5.5	19	10	22	11	27g
7.Y00258	SEAV-G1814L60	G1/8	Ø14	60	22	8.5	29	14	22	13.5	33g
7.Y00434	SEAV-G1814L120	G1/8	Ø14	120	22	8.5	29	14	22	13.5	50g
7.Y00435	SEAV-G1820L78	G1/8	Ø20	78	22	8.5	29	14	22	13.5	60g
7.Y00247	SEAV-G1820L153	G1/8	Ø20	153	22	8.5	29	14	22	13.5	100g
7.Y00436	SEAV-G1420L75	G1/4	Ø20	75	27	12	38	20	28	15	75g
7.Y00437	SEAV-G1420L150	G1/4	Ø20	150	27	12	38	20	28	15	115g

Profile · SUS Tube

Stents Module

Quick Changer

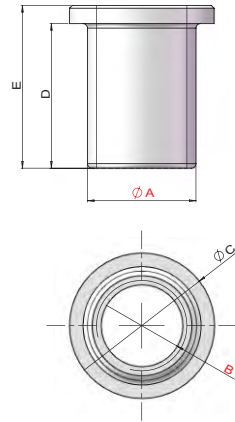
Grip Module

Air Nipper

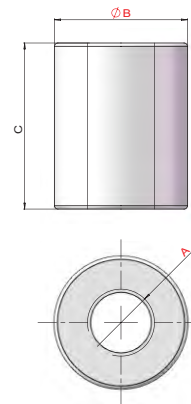
Vacuum Module

Accessory Components

## Bush Nut

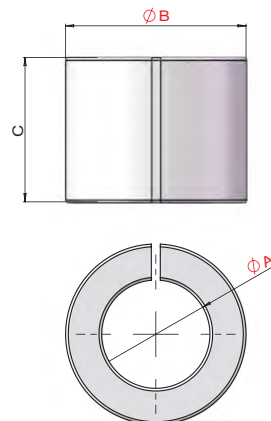


PN	Model	A	B	C	D	E	Weight
7.Y00271	SBNA-8M5	Ø8	M5x0.8	Ø12	8	10	1g
7.Y00272	SBNA-8M6	Ø8	M6x1.0	Ø12	8	10	1g
7.Y00273	SBNA-12M5	Ø12	M5x0.8	Ø16	16	18	5g
7.Y00274	SBNA-12M10	Ø12	M10x1.0	Ø16	16	18	3g
7.Y00276	SBNA-20M12	Ø20	M12x1.0	Ø24	16	18	11g
7.Y00277	SBNA-20M17	Ø20	M17x1.0	Ø24	16	18	5g



PN	Model	A	B	C	Weight
7.Y00275	SBNB-12PT18	PT1/8	Ø12	16	2g
7.Y00278	SBNB-20PT18	PT1/8	Ø20	25	17g

## Bush



PN	Model	A	B	C	Weight
7.Y00280	SBND-1208	Ø8	Ø12	16	6g
7.Y00281	SBND-2012	Ø12	Ø20	16	9g
7.Y00282	SBND-2008	Ø8	Ø20	16	11g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Quick Changer

Product image



QC-R90K



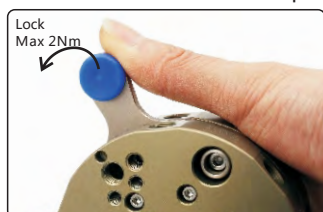
QC-G90



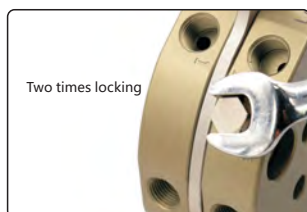
Easy replacement of the EOAT on the robot.  
Suitable also with vacuum ports.  
Avoids mistakes in pneumatic and electrical connections. 4, 8, 10 or 12 pneumatic connections.  
The two parts (robot side and gripper side) are supplied separately.

Model	QC50	QC90	QC150	QC160	QC200
Medium	Filtered compressed air				
Pressure range	5~6 bar				
Temperature range	5 ~ 60 °C				
Robot side quick changer	QC-R50 QC-R50K	QC-R90 QC-R90K	QC-R150K	QC-R160K	QC-R200K
Robot side quick changer weight	103 g	318 g	1159 g	1200 g	2640 g
Gripper side quick changer	QC-G50	QC-G90	QC-G150	QC-G160	QC-G200
Gripper side quick changer weight	65 g	227 g	837g	900 g	1890 g
F	150N	400N	1000N	1000N	2000N
Mt	20Nm	100Nm	250Nm	250Nm	600Nm
Mb	10Nm	60Nm	150Nm	150Nm	300Nm
Recommended payload	5kg	15kg	35kg	35kg	75kg
Colour	Brass	Brass	Black	Brass	Black

## Installation and use example



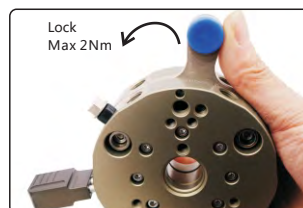
Example of Install with lock



Two times locking



Safety locking



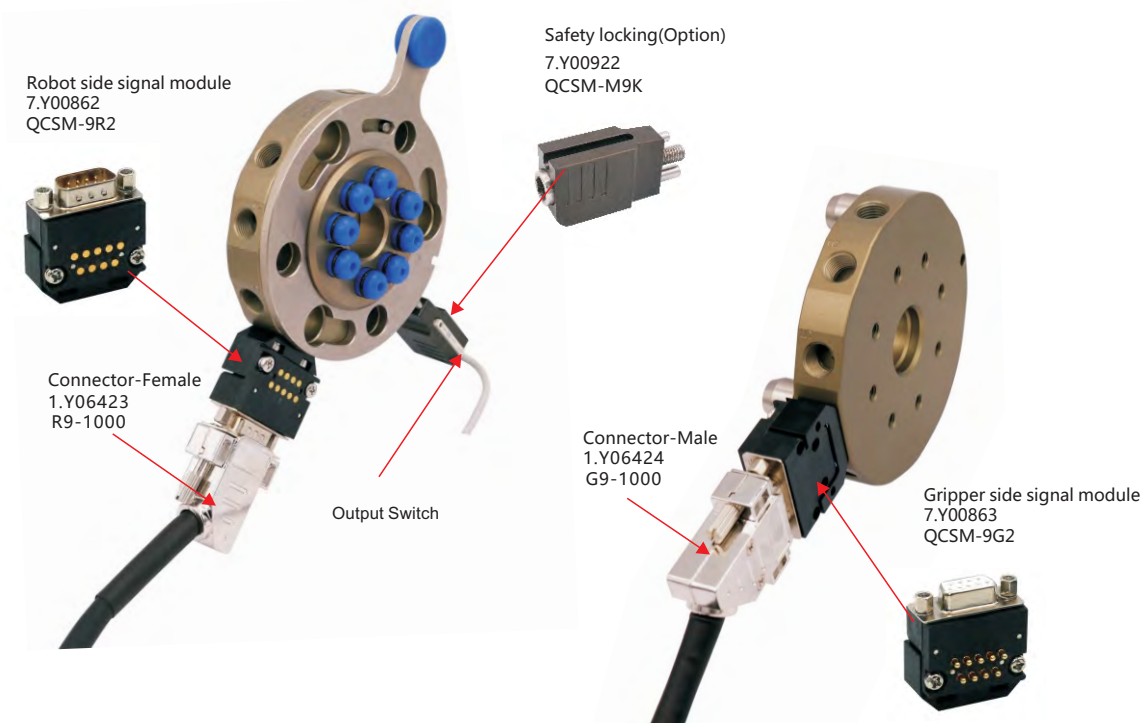
Lock  
Max 2Nm



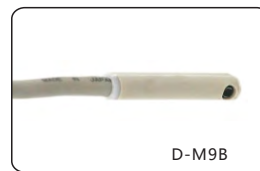
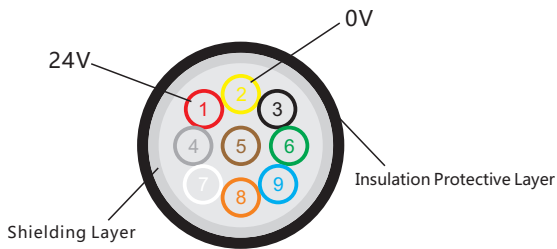
# Accessories

## Electrical connection module

- I/O quick change by D-SUB 9 pins connector.
- The two parts are supplied separately:
  - QCSM-9R2 robot side signal module.
  - QCSM-9G2 gripper side signal module.
  - DB9F-45 45 degree metal female fitting
  - DB9M-45 45 degree metal male fitting



Singal Wire Cross-sectional Sketch Map



P137

QCSM (Model)	9R1	9G1	9R2	9G2	9R3	9G3	9R4	9G4
PN	7.Y00823	7.Y00824	7.Y00862	7.Y00863	7.Y00819	7.Y00820	7.Y00821	7.Y00822
I/O connection type	9 pins D-SUB							
Working Current	MAX 3 A							
G9-1000 Wire-Male		✓		✓		✓		✓
R9-1000 Wire-Female	✓		✓		✓		✓	
Applicable Products	QC50		QC90	QC160	QC150		QC200	

\* The wire's length is 1 meters



# Quick Changer

## Dimension description

Profile · SUS Tube

Stents Module

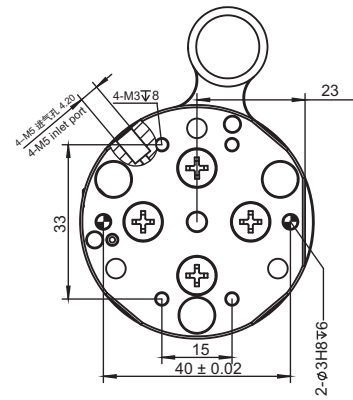
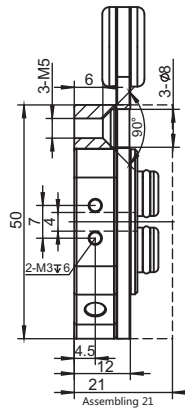
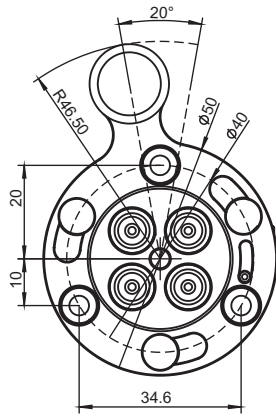
Quick Changer

Grip Module

Air Nipper

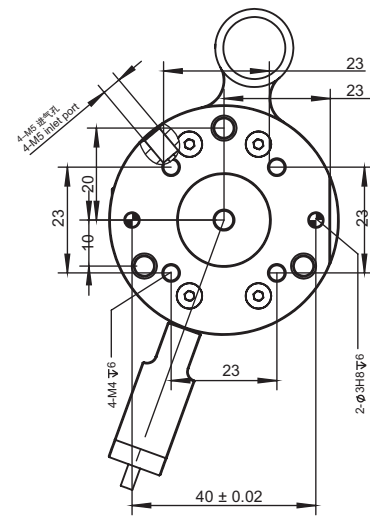
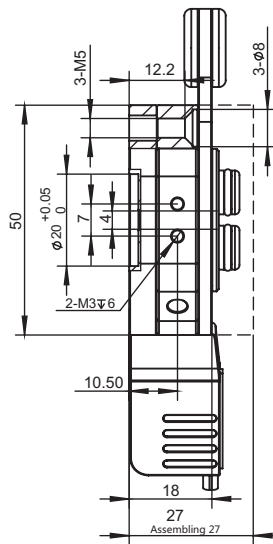
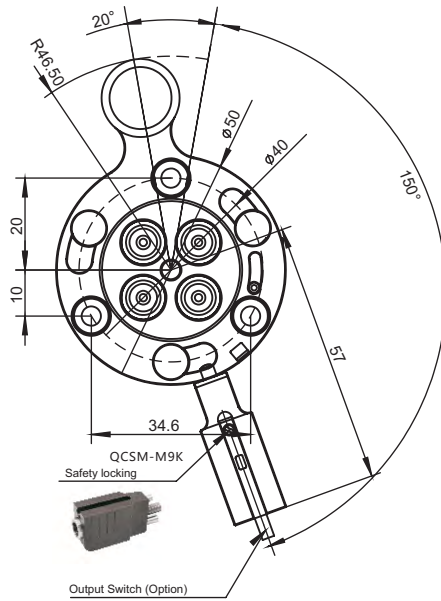
Vacuum Module

Accessory Components

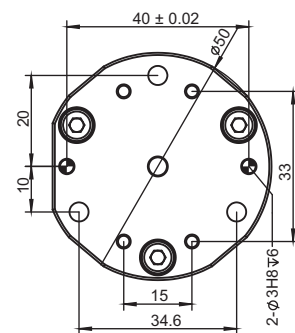
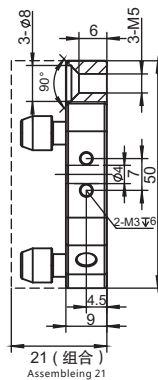
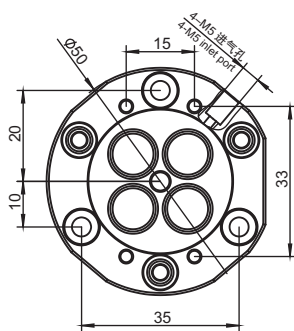


PN	8.Y00054
Model	QC-R50

**NEW**



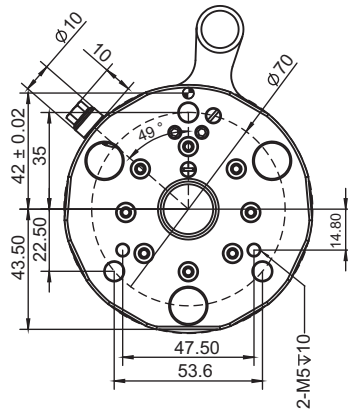
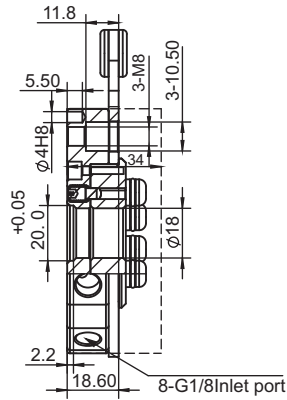
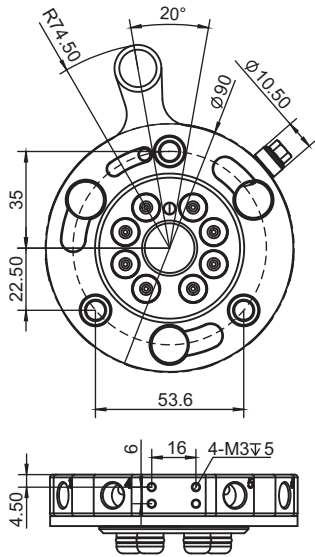
PN	8.Y00402
Model	QC-R50K



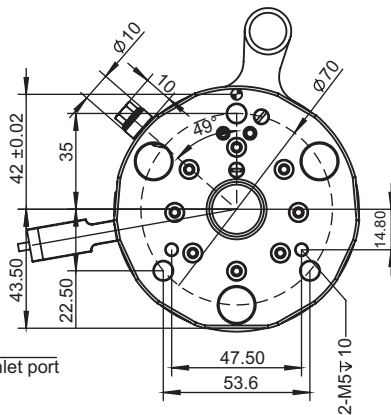
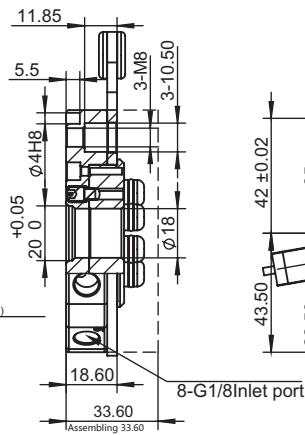
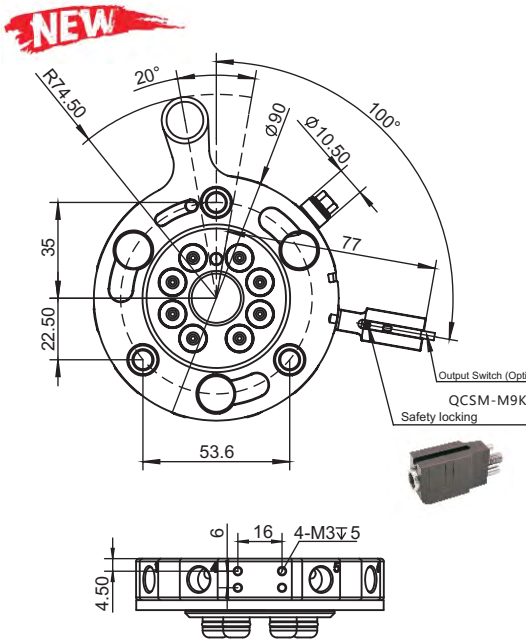
PN	8.Y00055
Model	QC-G50

# Quick Changer

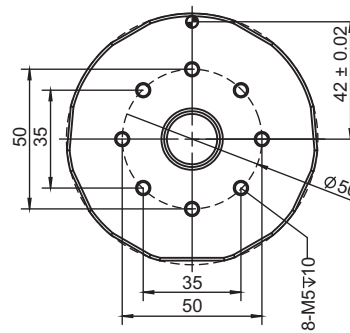
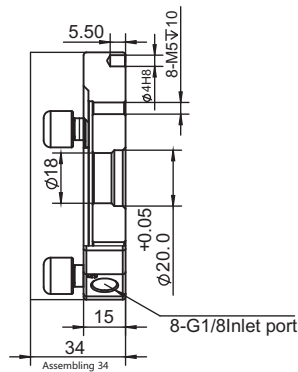
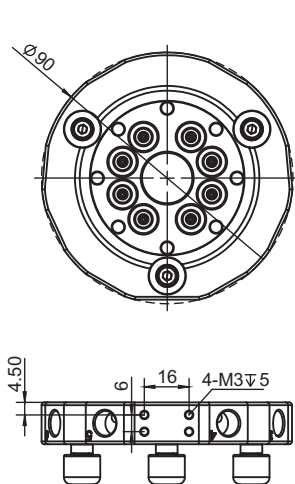
## Dimension description



PN	8.Y00032
Model	QC-R90



PN	8.Y00359
Model	QC-R90K



PN	8.Y00033
Model	QC-G90

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

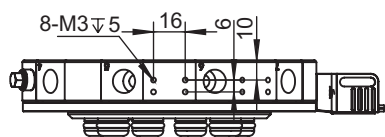
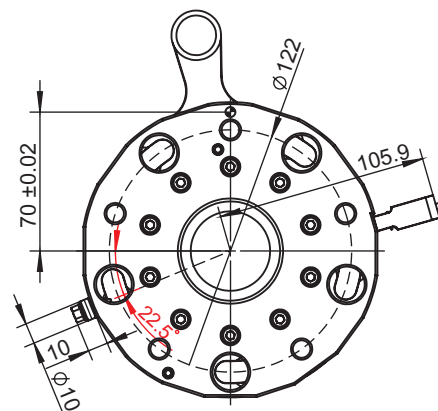
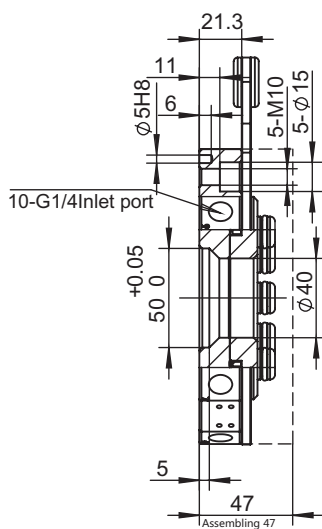
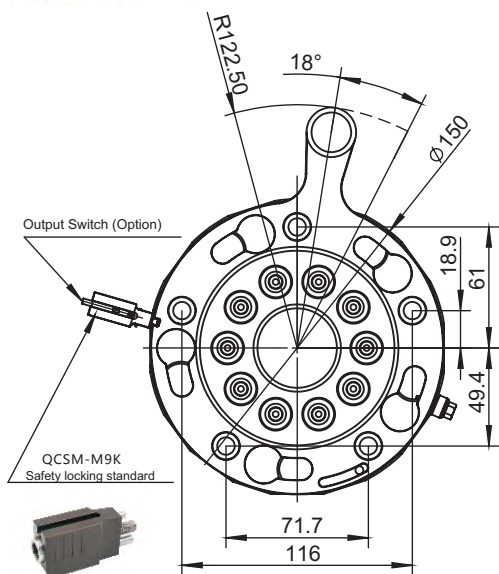
Vacuum Module

Accessory Components

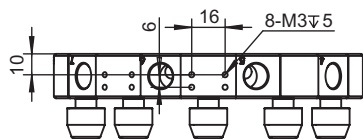
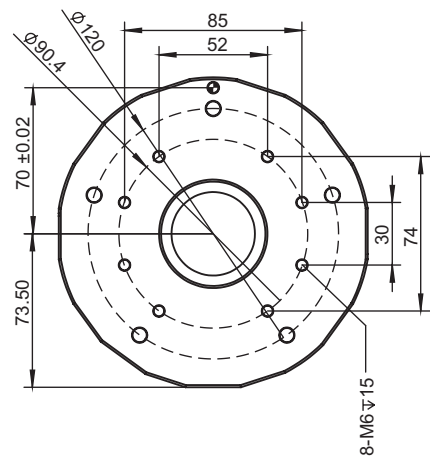
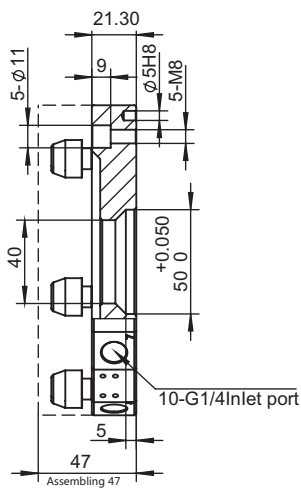
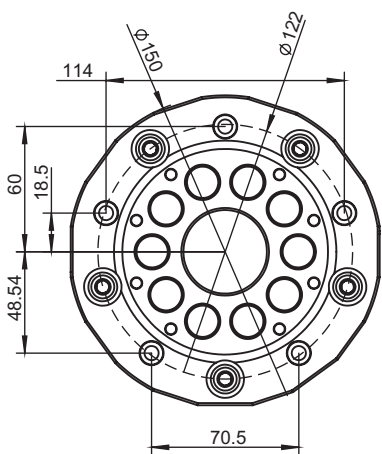
# Quick Changer

## Dimension description

**NEW**



PN	8.Y00376
Model	QC-R150K

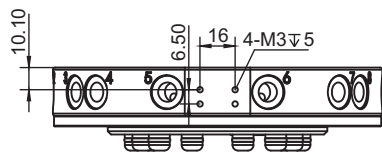
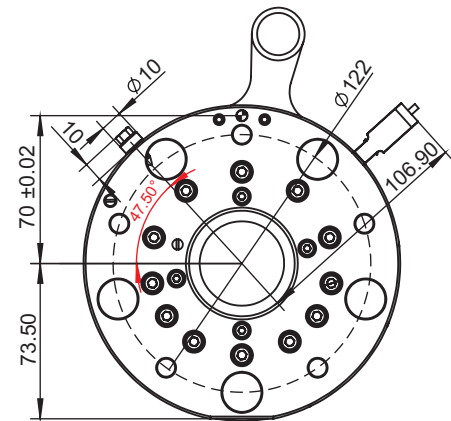
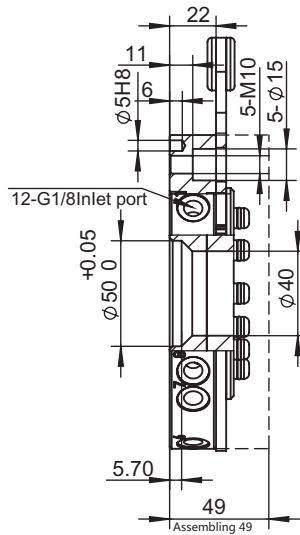
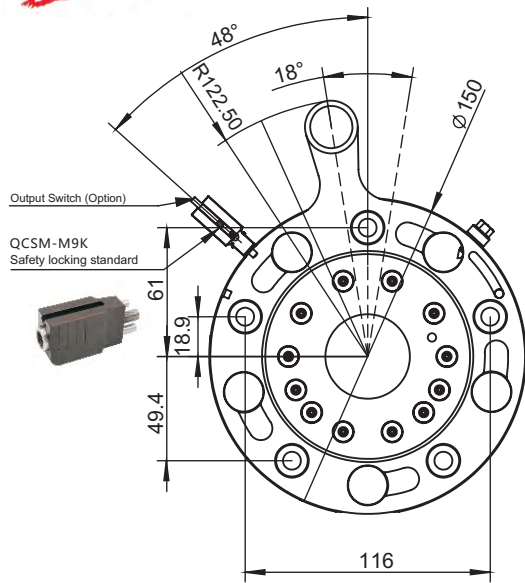


PN	8.Y00377
Model	QC-G150

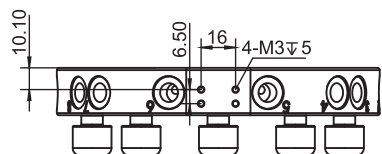
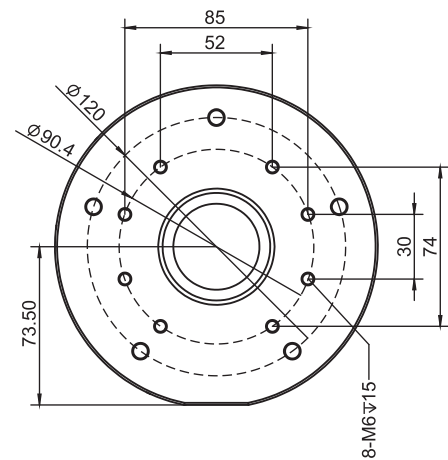
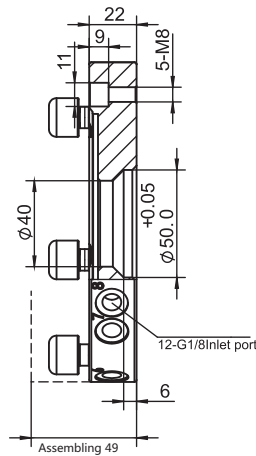
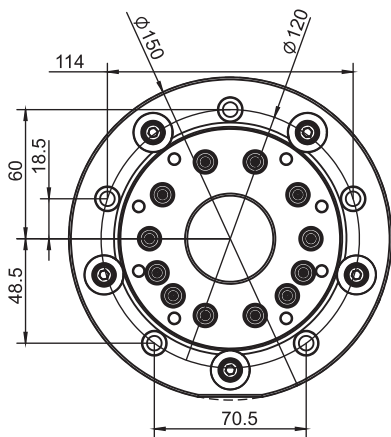
# Quick Changer

## Dimension description

**NEW**



PN	8.Y00360
Model	QC-R160K



PN	8.Y00053
Model	QC-G160

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

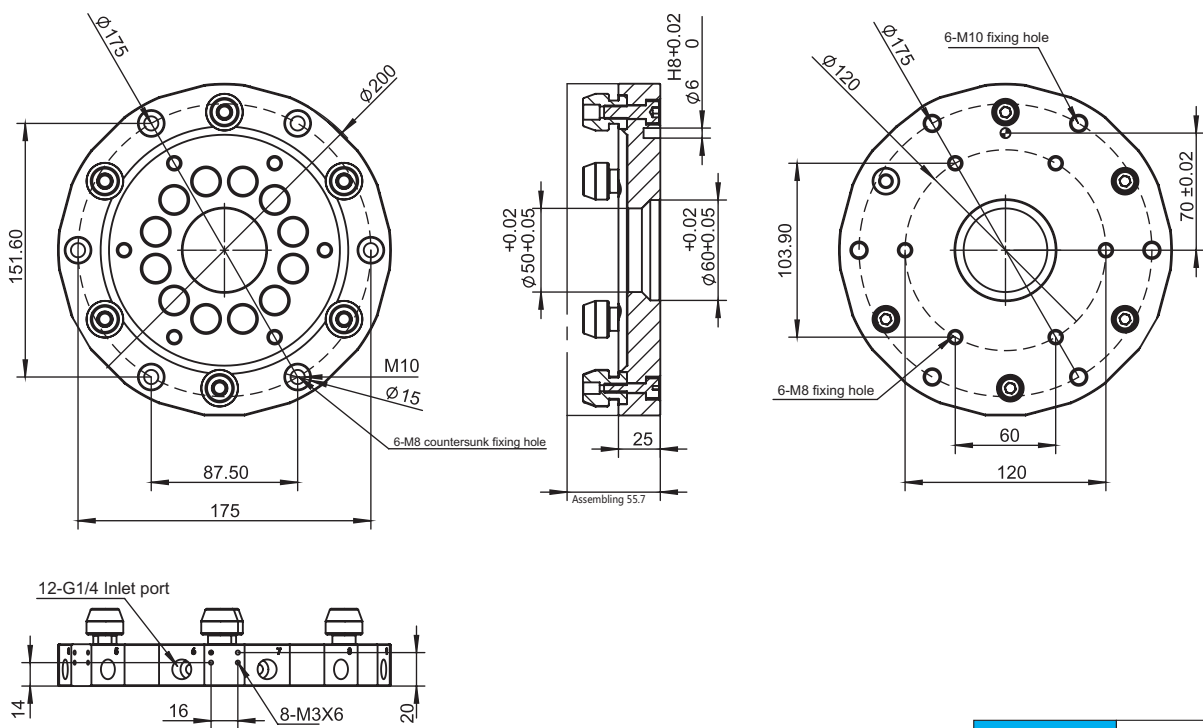
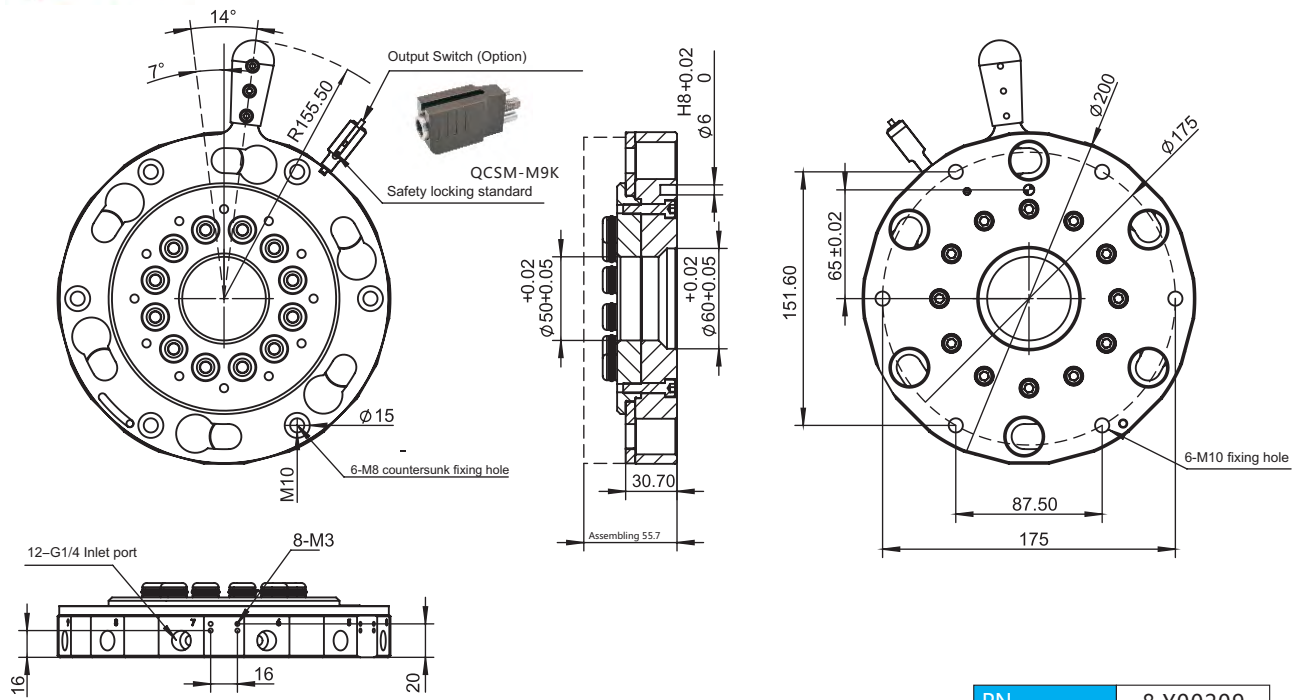
Vacuum Module

Accessory Components

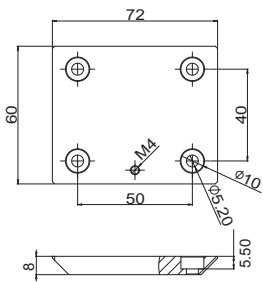
# Quick Changer

## Dimension description

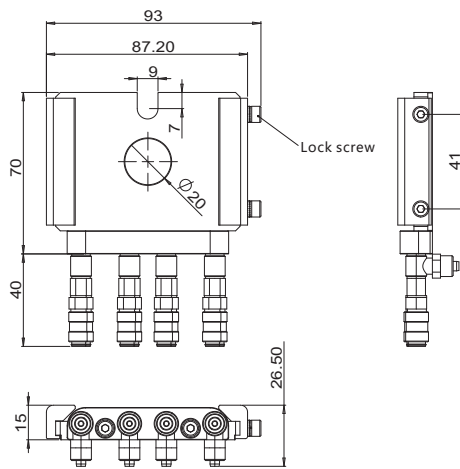
**NEW**



# Min Quick Changer



QCS-G60



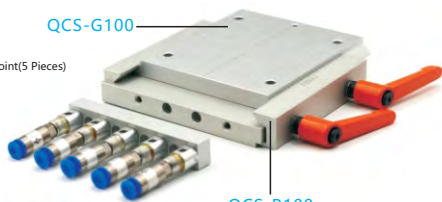
QCS-R60

Threaded Hose Module(Optional)

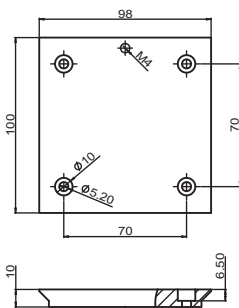
PN	8.Y00081	8.Y00082	1.Y03525	1.Y03524
Model	QCS-R60	QCS-G60	KCH04-M5	KCH06-M5
Load	70N			
Weight	148g	79g	7g	9g

QCS-G100

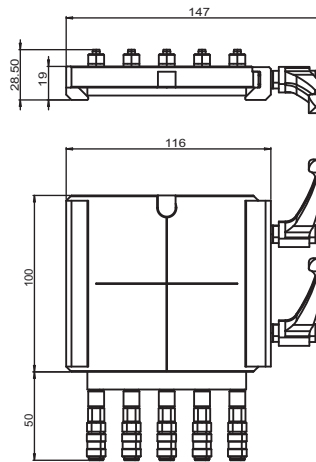
Unidirectional joint(5 Pieces)  
KCH06-M5\*5  
KCH04-M5\*5



QCS-R100



QCS-G100



QCS-R100

Quick coupling(5 Pieces)  
MS-10SF\*5



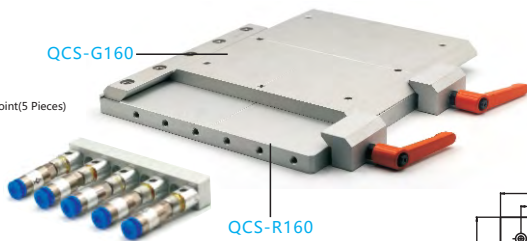
MS-10PF

Threaded Hose Module(Optional)

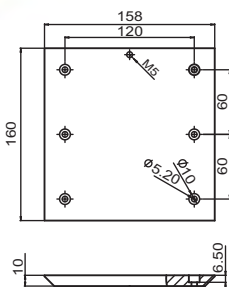
PN	7.Y00332	7.Y00175	7.Y00860	7.Y00861	7.Y00334	1.Y04667
Model	QCS-R100	QCS-G100	KCH04-M5*5	KCH06-M5*5	MS-10SF*5	MS-10PF
Load	300N					
Weight	463g	240g	86g	96g	196g	11g

QCS-G160

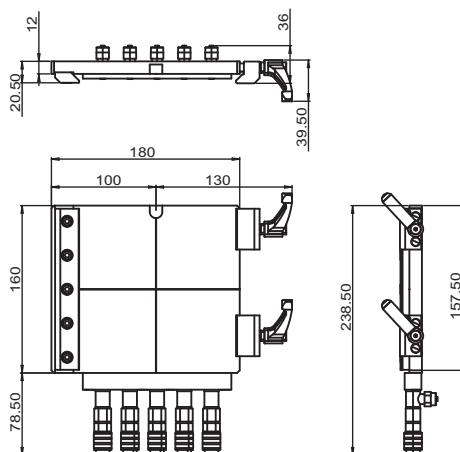
Unidirectional joint(5 Pieces)  
KCH06-M5\*5  
KCH04-M5\*5



QCS-R160



QCS-G160



QCS-R160

Quick coupling(5 Pieces)  
MS-10SF\*5



MS-10PF

Threaded Hose Module(Optional)

PN	7.Y00160	7.Y00161	7.Y00860	7.Y00861	7.Y00334	1.Y04667
Model	QCS-R160	QCS-G160	KCH04-M5*5	KCH06-M5*5	MS-10SF*5	MS-10PF
Load	800N					
Weight	1198g	634g	86g	96g	196g	11g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Quick Changer

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

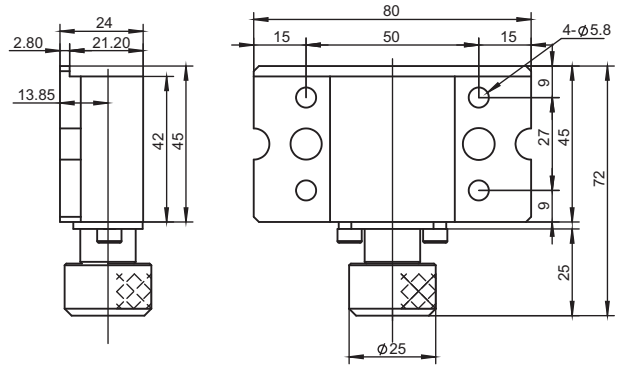
Vacuum Module

Accessory Components



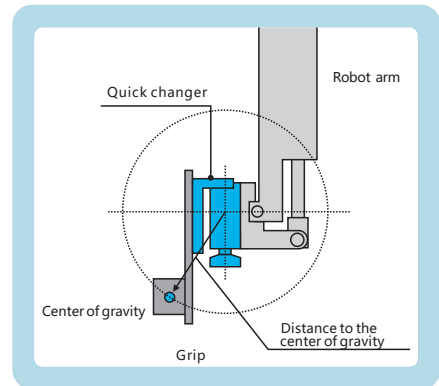
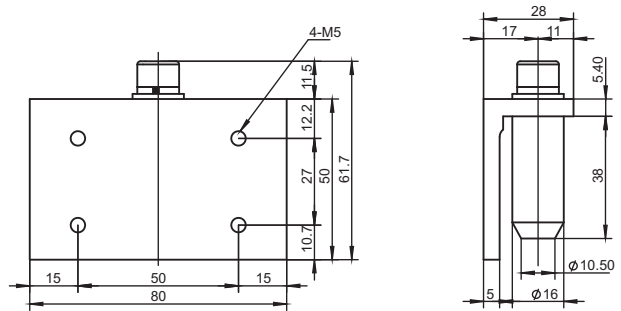
PN	1.Y01275
Model	QCL15R-Y

- ※ Superhard aluminum
- ※ Weight: 185g
- ※ Installation location: Robot side
- ※ Load weight: to 15kg



PN	1.Y01276
Model	QCL15G-Y

- ※ Steel
- ※ Weight: 294g
- ※ Installation location: Grip side
- ※ Load weight: to 15kg



## Application example

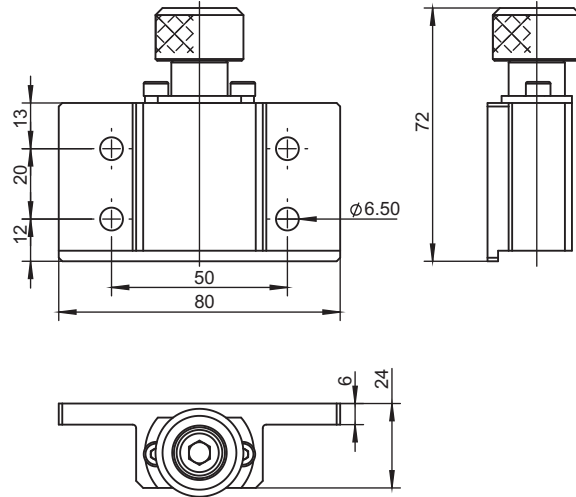


# Quick Changer



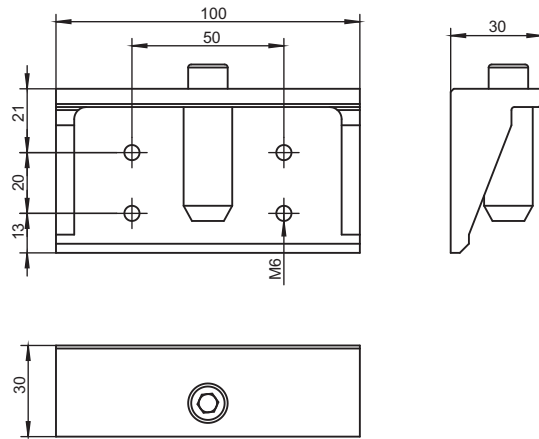
PN	8.Y00236
Model	QCL15R-S

- ※ Superhard aluminum
- ※ Weight: 190g
- ※ Installation location: Robot side
- ※ Load weight: to 15kg

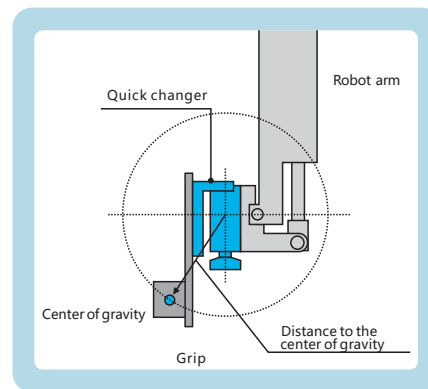


PN	8.Y00235
Model	QCL15G-S

- ※ Superhard aluminum
- ※ Weight: 197g
- ※ Installation location: Grip side
- ※ Load weight: to 15kg



## Application example



Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Quick Changer

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

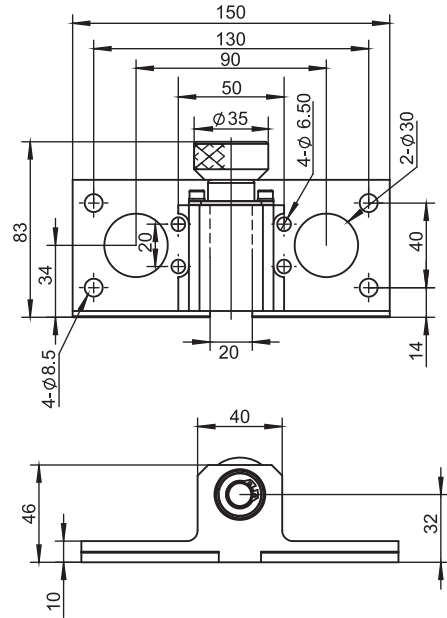
Vacuum Module

Accessory Components



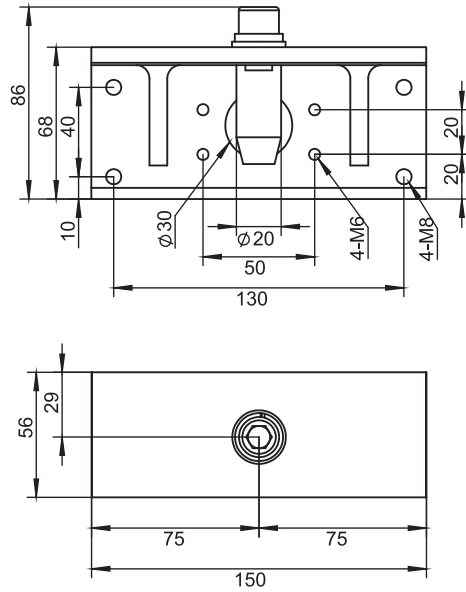
PN	8.Y00101
Model	QCL35R-S

- ※ Superhard aluminum
- ※ Weight: 505g
- ※ Installation location: Robot side
- ※ Load weight: to 35kg

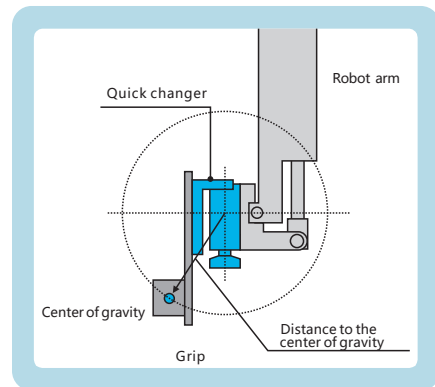


PN	8.Y00102
Model	QCL35G-S

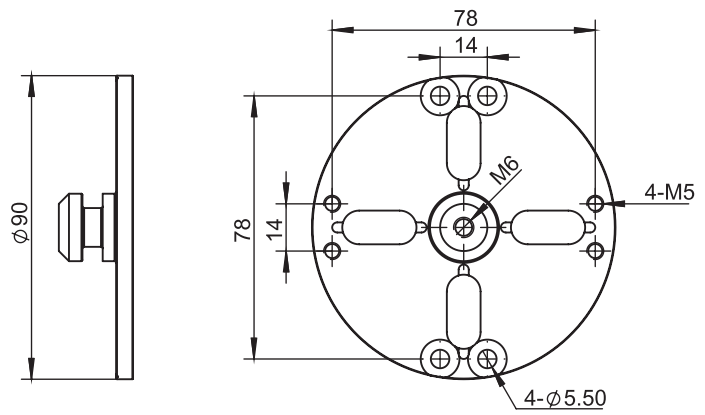
- ※ Superhard aluminum
- ※ Weight: 565g
- ※ Installation location: Grip side
- ※ Load weight: to 35kg



## Application example

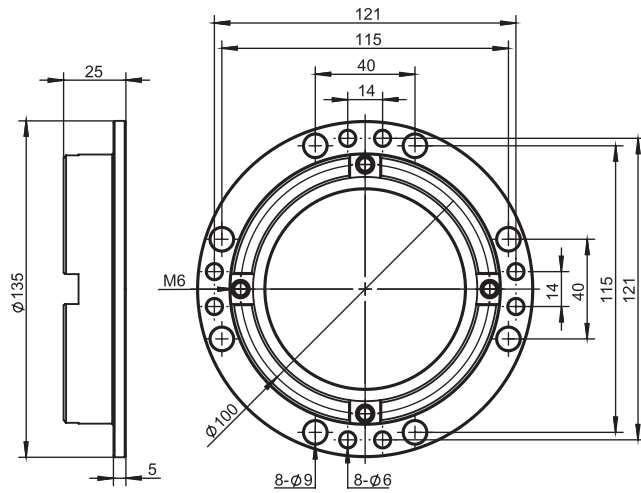


# Quick Changer



PN	4.Y00480
Model	BP90

- ※ Iron products
- ※ Weight: 234g
- ※ Installation location: Grip side



PN	4.Y00497
Model	BP135

- ※ Iron products
- ※ Weight: 660g
- ※ Installation location: Grip side

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Quick Changer

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

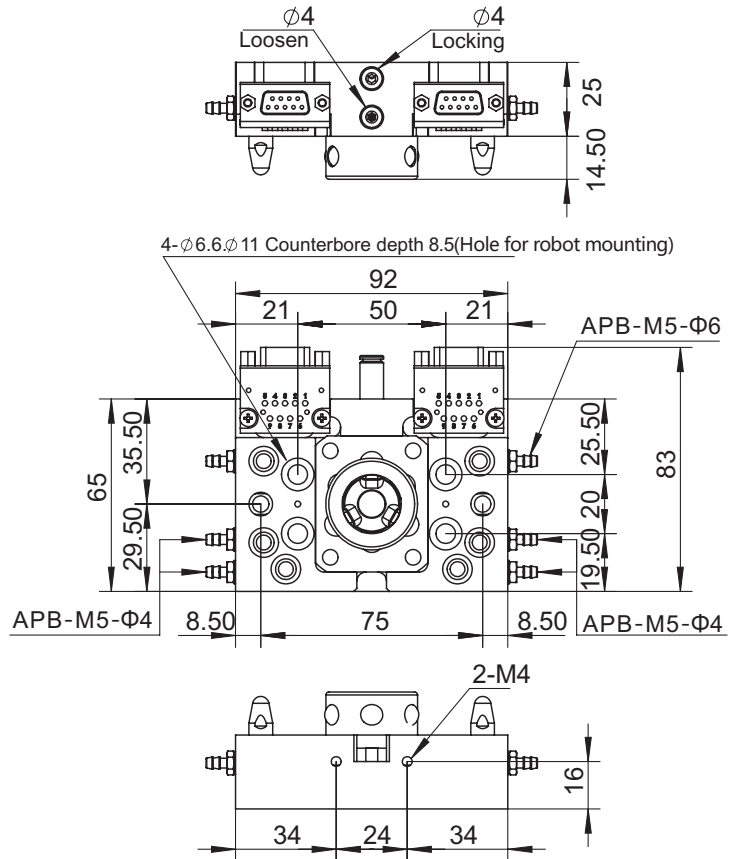
Vacuum Module

Accessory Components



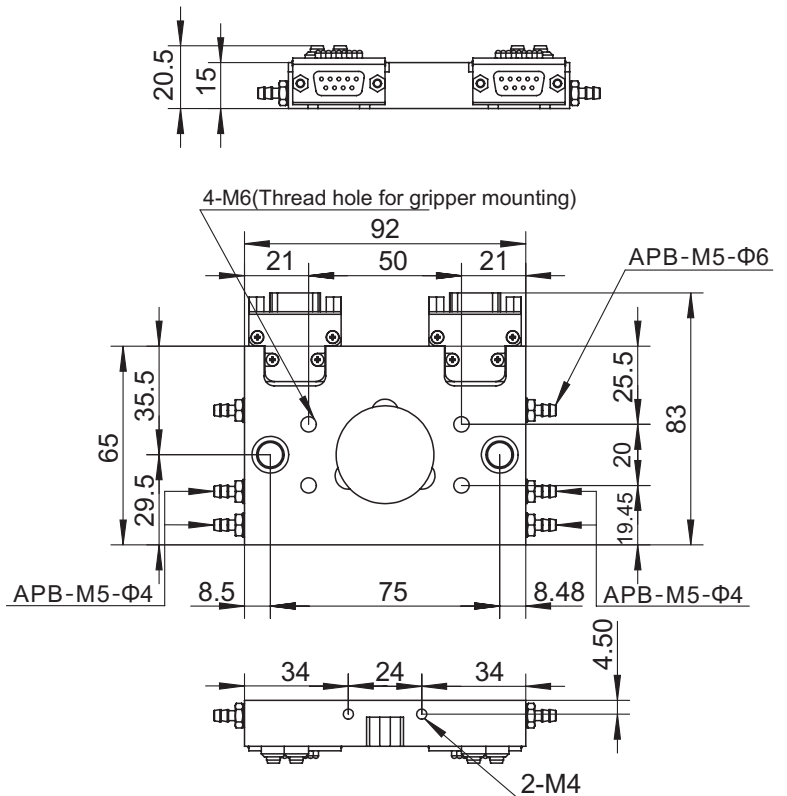
PN	8.Y00037
Model	QCA-S10R

※Installation location: Robot side  
 ※Weight: 466g  
 ※Load weight: to 10kg



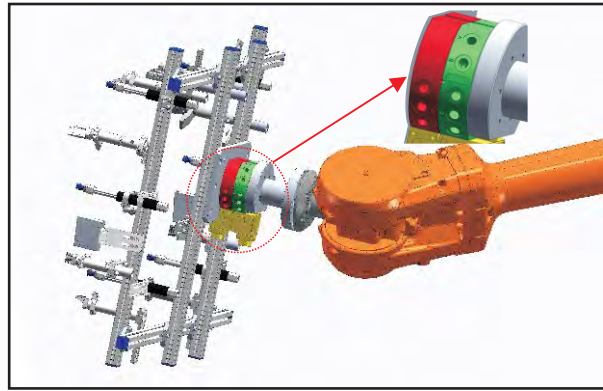
PN	8.Y00038
Model	QCA-S10G

※Installation location: Grip side  
 ※Weight: 230g  
 ※Load weight: to 10kg

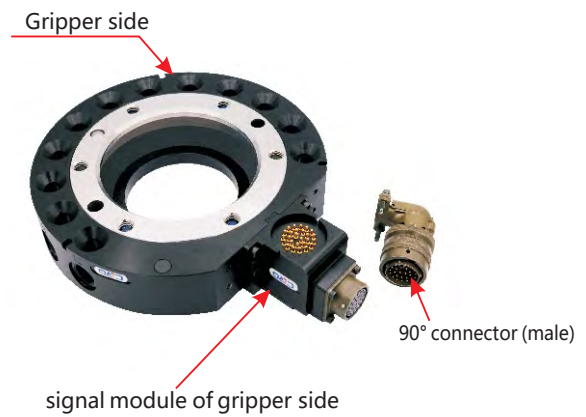
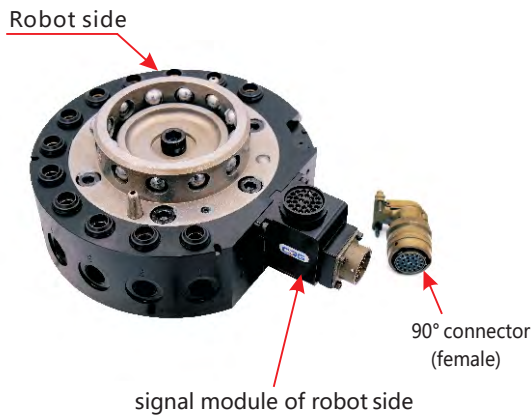


# Quick Changer

**NEW**



Quick Changer Installation example

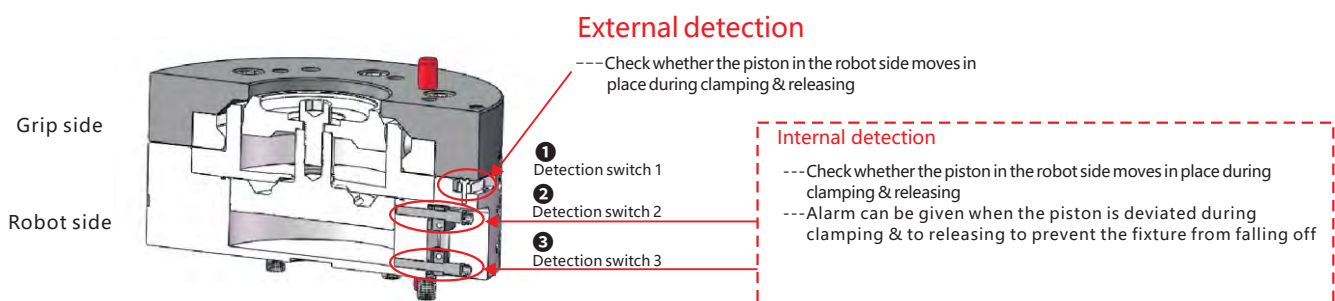


Product name	QCA50	QCA200
Recommended payload	50kg	200kg
Gas path	9 - G 1/8	12 - G 3/8

Signal module	Robot side		Grip side		90° connector (female)		90° connector (male)	
	Model	QCSM-26R	QCSM-19R	QCSM-26G	QCSM-19G	PT08SE16-26S	PT06E14-19S	PT08SE16-26P
PN	7.Y00464	7.Y00954	7.Y00465	7.Y00955	1.Y07209	1.Y09414	1.Y07210	1.Y09413
I/O connection type	26 pins	19 pins	26 pins	19 pins	26 pins	19 pins	26 pins	19 pins
Working Current	MAX 20A							
Applicable Products	QCA50 QCA200							

## Safety capability (option)

Three safety capability switch, multiple protection



Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Quick Changer

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

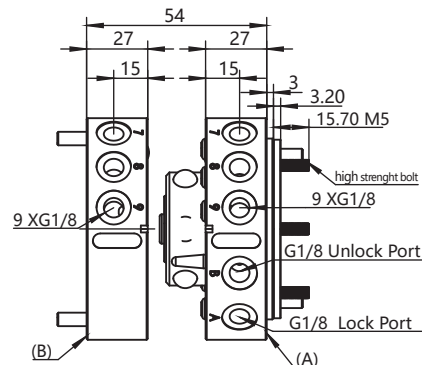
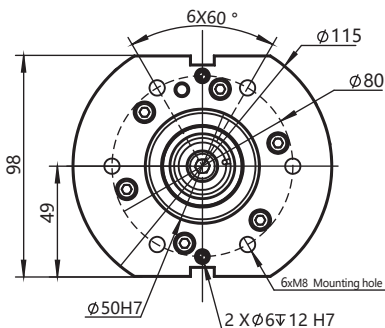
Vacuum Module

Accessory Components

**NEW**



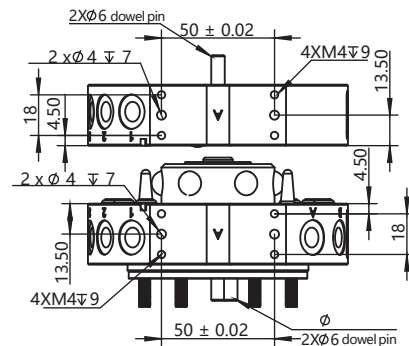
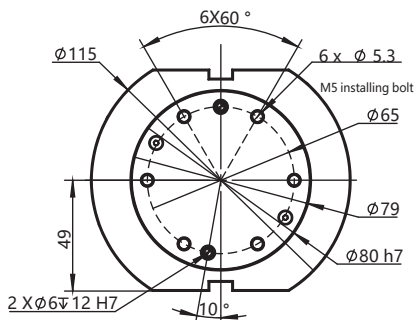
Robot side



PN	8.Y00349
Model	QCA-50R



Grip side



PN	8.Y00350
Model	QCA-50G

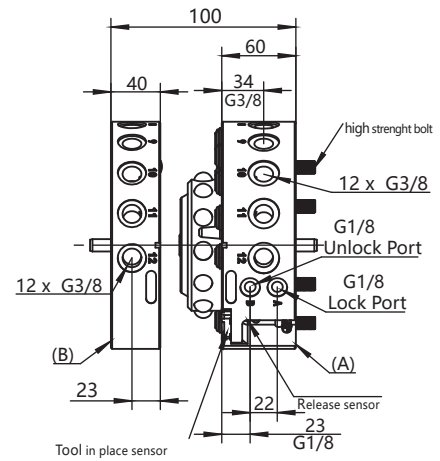
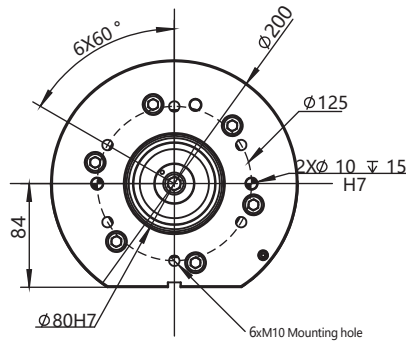
- 1.Recommended rated load:50kg
- 2.Locking Force@80Psi (5.5Bar) 4600 N
- 3.Static Load torque (X&Y) : 165 Nm
- 4.Static Load torque (Z) : 226 Nm
- 5.Position repeatability (X,Y&Z): 0.015 mm
- 6.Weight after locked:1.68 kg
- 7.Robot side's weight:1.08 kg
- 8.Grip side's weight:0.6 kg
- 9.Maximum allowable angle migration±1°
- 10.Under (6 Bar) pressure, the max clearance is 3 mm between Robot side and tooling side before lock.
- 11.Size of straight air hole (quantity):(9) 1/8

# Quick Changer

**NEW**



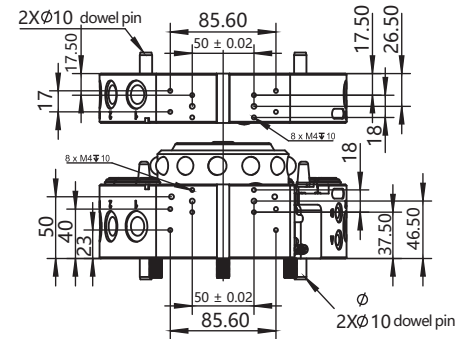
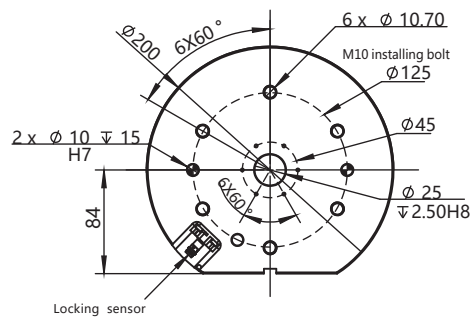
Robot side



PN	8.Y00272
Model	QCA-200R



Grip side



PN	8.Y00357
Model	QCA-200G

- 1.Recommended rated load:200kg
- 2.Locking Force@80Psi (5.5Bar) 16000 N
- 3.Static Load torque (X&Y) : 1360 Nm
- 4.Static Load torque (Z) : 1130 Nm
- 5.Position repeatability (X,Y&Z):0.015 mm
- 6.Weight after locked: 9 kg
- 7.Robot side's weight:6.2 kg
- 8.Grip side's weight:2.8 kg
- 9.Maximum allowable angle migration±1°
- 10.Under (6 Bar) pressure, the max clearance is 2 mm between Robot side and tooling side before lock.
- 11.Size of straight air hole (quantity):(12) 1/8
- 12.Signal Module: 26pin

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Parallel Gripper

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

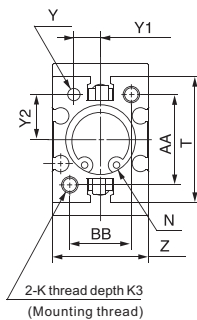
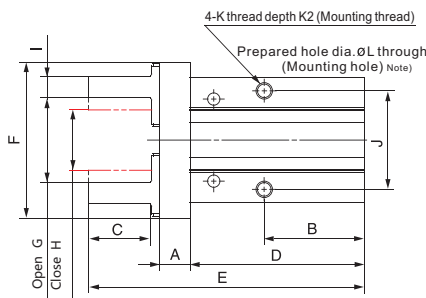
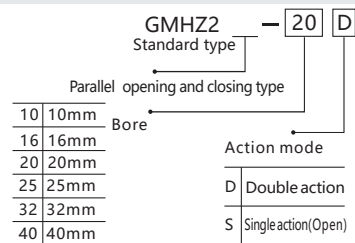
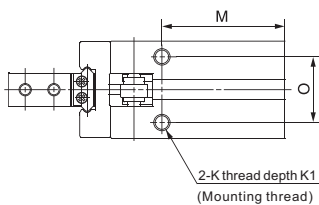
Air Nipper

Vacuum Module

Accessory Components

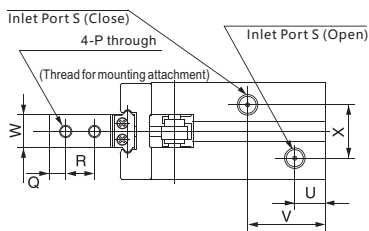


PN	S	1.Y00258	1.Y00257	1.Y03080	1.Y09884	1.Y09885	1.Y09887
	D	1.Y00252	1.Y00256	1.Y02703	1.Y09338	1.Y09886	1.Y09888
Model	S	GMHZ2-10S	GMHZ2-16S	GMHZ2-20S	GMHZ2-25S	GMHZ2-32S	GMHZ2-40S
	D	GMHZ2-10D	GMHZ2-16D	GMHZ2-20D	GMHZ2-25D	GMHZ2-32D	GMHZ2-40D
Bore		10	16	20	25	32	40
Fluid		Air					
Operating pressure range (MPa)	Single action	0.35~0.7		0.25~0.7			
	Double action	0.2~0.7		0.1~0.7			
Environment and fluid temperature		-10~60°C					
Repeatability accuracy (mm)		±0.01				±0.02	
Maximum frequency of use (c.p.m)		180				60	
Action mode		Single action · Double action					
Magnetic switch (optional)		Contactless magnetic switch					
Pipe Size		M3×0.5		M5×0.8			



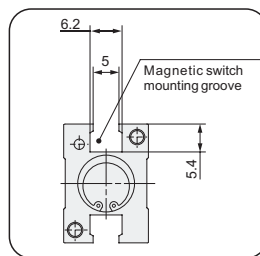
### Gripping force

Model	Gripping force N			Opening/Closing stroke (Both sides) (mm)
	Gripping force per finger Effective value			
	(D) Double action		(S) Single action	
	External	Internal	External	
GMHZ2-10□	11	17	7.1	4
GMHZ2-16□	34	45	27	6
GMHZ2-20□	42	66	33	10
GMHZ2-25□	65	104	45	14
GMHZ2-32□	158	193	131	22
GMHZ2-40□	254	318	217	30



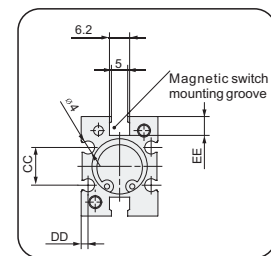
\* For single action, the port on one side is a breathing hole.

GMHZ2-10□ Magnetic Switch Mounting Groove Dimensions



Note) When using Magnetic switches, throughhole mounting is not possible.

GMHZ2-□□ Magnetic Switch Mounting Groove Dimensions



D-Y69 D-Y7

Note) When using Magnetic switches D-Y59, D-Y69, D-Y7, throughhole mounting is not possible.

### Dimensions table

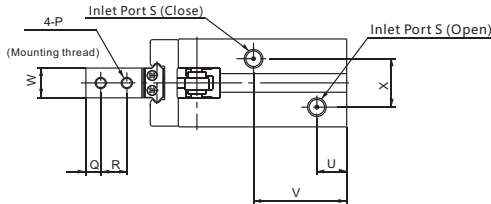
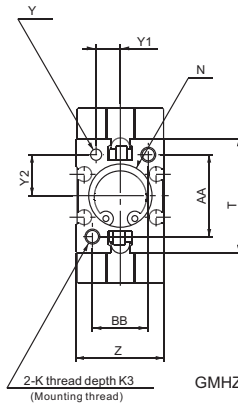
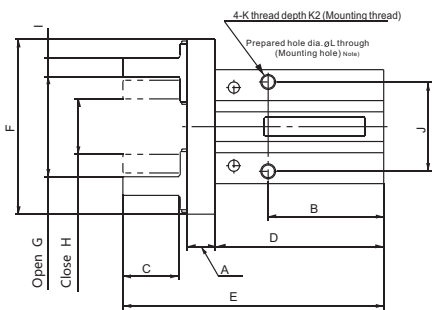
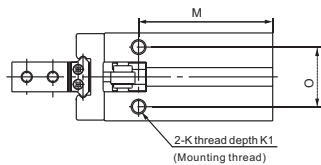
Bore	A	B	C	D	E	F	G	H	I	J	K	K1	K2	K3	ØL	M	N
10	6	23	12	37.8	57	29	15.2 <sup>+0.2</sup> <sub>-0.2</sub>	11.2 <sup>+0.1</sup> <sub>-0.1</sub>	4 <sup>+0.1</sup> <sub>-0.1</sub>	16	M3x0.5	6	5.5	6	2.6	27	Ø11H9T2
16	7.5	24.5	15	42.5	67.3	38	20.9 <sup>+0.2</sup> <sub>-0.2</sub>	14.9 <sup>+0.1</sup> <sub>-0.1</sub>	5 <sup>+0.1</sup> <sub>-0.1</sub>	24	M4x0.7	4.5	8	8	3.4	30	Ø17H9T2
20	9.5	29	20	52.8	84.8	50	26.3 <sup>+0.2</sup> <sub>-0.2</sub>	16.3 <sup>+0.1</sup> <sub>-0.1</sub>	8 <sup>+0.1</sup> <sub>-0.1</sub>	30	M5x0.8	8	10	10	4.3	35	Ø21H9T3
25	11	30	25	63.6	102.7	63	33.3 <sup>+0.2</sup> <sub>-0.2</sub>	19.3 <sup>+0.1</sup> <sub>-0.1</sub>	10 <sup>+0.1</sup> <sub>-0.1</sub>	36	M6x1	10	12	12	5.1	36.5	Ø26H9T3.5
32	12	40(49)	29	67(76)	113(122)	97	48 <sup>+0.5</sup> <sub>-0.5</sub>	26 <sup>+0.5</sup> <sub>-0.5</sub>	12 <sup>+0.1</sup> <sub>-0.1</sub>	46	M6x1	10	13	13	5.1	48(57)	Ø34H9T4
40	15	49(62)	36	83(96)	139(152)	119	60 <sup>+0.7</sup> <sub>-0.7</sub>	30 <sup>+0.8</sup> <sub>-0.8</sub>	14 <sup>+0.1</sup> <sub>-0.1</sub>	56	M8x1.25	13	16	17	6.6	58(71)	Ø42H9T4

Bore	O	P	Q	R	S	T	U	V	W	X	Y	Z	Y1	Y2	AA	BB	CC	DD	EE
10	11.4	M2.5x0.45	3	5.7	M3x0.5	23	9	19	5 <sup>+0.05</sup> <sub>-0.05</sub>	11	Ø2H9T3	16.4 <sup>+0.05</sup> <sub>-0.05</sub>	5.2 <sup>+0.02</sup> <sub>-0.02</sub>	7.6 <sup>+0.02</sup> <sub>-0.02</sub>	18	12	-	-	-
16	16	M3x0.5	4	7	M5x0.8	30.6	7.5	19	8 <sup>+0.05</sup> <sub>-0.05</sub>	13	Ø3H9T3	23.6 <sup>+0.05</sup> <sub>-0.05</sub>	6.5 <sup>+0.02</sup> <sub>-0.02</sub>	11 <sup>+0.02</sup> <sub>-0.02</sub>	22	15	11.6	2.1	5.8
20	18.6	M4x0.7	5	9	M5x0.8	42	10	23	10 <sup>+0.05</sup> <sub>-0.05</sub>	15	Ø4H9T4	27.6 <sup>+0.05</sup> <sub>-0.05</sub>	7.5 <sup>+0.02</sup> <sub>-0.02</sub>	16.8 <sup>+0.02</sup> <sub>-0.02</sub>	32	18	14	2.1	9
25	22	M5x0.8	6	12	M5x0.8	52	10.7	23.5	12 <sup>+0.05</sup> <sub>-0.05</sub>	20	Ø4H9T4	33.6 <sup>+0.05</sup> <sub>-0.05</sub>	10 <sup>+0.02</sup> <sub>-0.02</sub>	21.8 <sup>+0.02</sup> <sub>-0.02</sub>	40	22	19	3.5	11.5
32	26	M6x1	7	14	M5x0.8	60	11	31(37)	15 <sup>+0.05</sup> <sub>-0.05</sub>	24	Ø5H9T5	40 <sup>+0.1</sup> <sub>-0.1</sub>	12 <sup>+0.02</sup> <sub>-0.02</sub>	23 <sup>+0.02</sup> <sub>-0.02</sub>	46	26	24	3.3	11.5
40	32	M8x1.25	9	17	M5x0.8	72	12	38(45)	18 <sup>+0.05</sup> <sub>-0.05</sub>	28	Ø5H9T5	48 <sup>+0.1</sup> <sub>-0.1</sub>	14 <sup>+0.02</sup> <sub>-0.02</sub>	29 <sup>+0.02</sup> <sub>-0.02</sub>	56	32	29.4	3.7	13

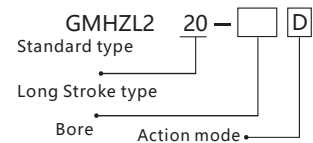
# Lengthen Parallel Gripper



PN	S	1.Y09405	1.Y08175	1.Y09882	1.Y09883
	D	1.Y07974	1.Y08146	1.Y07975	1.Y08802
Model	S	GMHZL2-10S	GMHZL2-16S	GMHZL2-20S	GMHZL2-25S
	D	GMHZL2-10D	GMHZL2-16D	GMHZL2-20D	GMHZL2-25D
Bore	10		16	20	25
Fluid	Air				
Operating pressure range (MPa)	Single action	0.35~0.7		0.25~0.7	
	Double action	0.2~0.7		0.1~0.7	
Environment and fluid temperature	-10~60°C				
Repeatability accuracy (mm)	±0.01				
Maximum frequency of use	120				
Action mode	Single action · Double action				
Magnetic switch (optional)	Contactless magnetic switch				
Pipe Size	M3×0.5		M5×0.8		



\* For single action, the port on one side is a breathing hole.

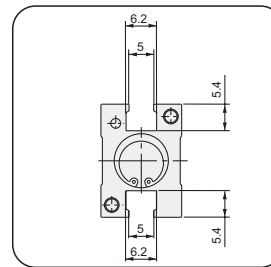


10	10mm	D	Double action
16	16mm	S	Single action(Open)
20	20mm		
25	25mm		

### Gripping force

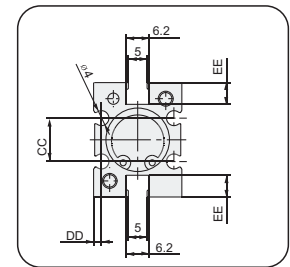
Model	Gripping force N			Opening/Closing stroke (Both sides) (mm)
	Gripping force per finger Effective value			
	Double action		Single action	
	External	Internal	External	
GMHZL2-10 □	11	17	7.1	8
GMHZL2-16 □	34	45	27	12
GMHZL2-20 □	42	66	33	18
GMHZL2-25 □	65	104	50	22

GMHZL2-10 □ Magnetic Switch Mounting Groove Dimensions



Note) When using Magnetic switches, throughhole mounting is not possible.

GMHZL2- □ Magnetic Switch Mounting Groove Dimensions



Note) When using Magnetic switches D-Y59, D-Y69, D-Y7, throughhole mounting is not possible.

### Dimensions table (mm)

Bore	A	B	C	D	E	F	G	H	I	J	K	K1	K2	K3	øL	M	N
10	6	25(35)	12	37.8(47.8)	57(67)	35	19.2 <sup>+0.02</sup>	11.2 <sup>+0.04</sup>	4 <sup>+0.1</sup>	16	M3×0.5	6	5.5	6	2.6	29(39)	ø11H9T2
16	7.5	31(36)	15	45.2(50.2)	70(75)	47	26.9 <sup>+0.02</sup>	14.9 <sup>+0.04</sup>	5 <sup>+0.1</sup>	24	M4×0.7	4.5	8	8	3.4	36(41)	ø17H9T2
20	9.5	36(42)	20	58(64)	90(96)	62	34.3 <sup>+0.04</sup>	16.3 <sup>+0.04</sup>	8 <sup>+0.1</sup>	30	M5×0.5	8	10	10	4.3	43(49)	ø21H9T3
25	11	40(50)	25	66.9(76.9)	106(116)	75	41.3 <sup>+0.05</sup>	19.3 <sup>+0.04</sup>	10 <sup>+0.1</sup>	36	M6×1	10	12	12	5.1	48(58)	ø26H9T3.5

Bore	O	P	Q	R	S	T	U	V	W	X	Y	Z	Y1	Y2	AA	BB	CC	DD	EE
10	11.4	M2.5×0.45	3	5.7	M3×0.5	23	8	21(31)	5 <sup>+0.05</sup>	11	ø2H9T3	16.4 <sup>+0.05</sup>	5.2 <sup>+0.02</sup>	7.6 <sup>+0.02</sup>	18	12	-	-	-
16	16	M3×0.5	4	7	M5×0.8	30.6	8	25(30)	8 <sup>+0.05</sup>	13	ø2H9T3	23.6 <sup>+0.05</sup>	6.5 <sup>+0.02</sup>	11 <sup>+0.02</sup>	22	15	11.6	2.1	5.8
20	18.6	M4×0.7	5	9	M5×0.8	42	10	30(36)	10 <sup>+0.05</sup>	15	ø4H9T4	27.6 <sup>+0.05</sup>	7.5 <sup>+0.02</sup>	16.8 <sup>+0.02</sup>	32	18	14	2.1	9
25	22	M5×0.8	6	12	M5×0.8	52	10	33(43)	12 <sup>+0.05</sup>	20	ø4H9T4	33.6 <sup>+0.05</sup>	10 <sup>+0.02</sup>	21.8 <sup>+0.02</sup>	40	22	19	3.5	11.5

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Y Type Gripper

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

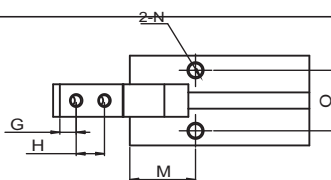
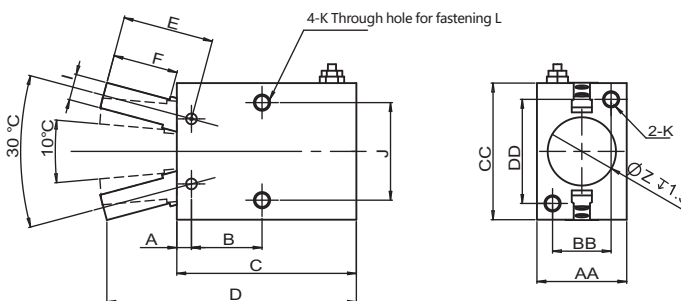
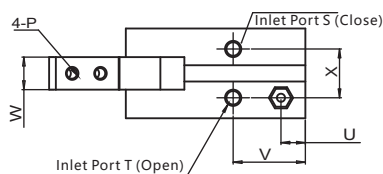
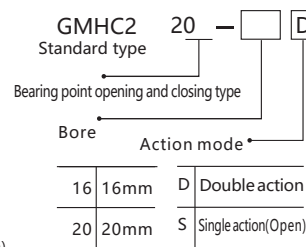
Air Nipper

Vacuum Module

Accessory Components



PN	S	1.Y02014	1.Y02730
	D	1.Y05738	1.Y04328
Model	S	GMHC2-16S	GMHC2-20S
	D	GMHC2-16D	GMHC2-20D
Bore	16		20
Fluid	Air		
Operating pressure range	Single action	0.1~0.6	
	Double action	0.25~0.6	
Environment and fluid temperature	-10~60°C		
Maximum frequency of use	180c.p.m		
Repeatability accuracy	±0.01		



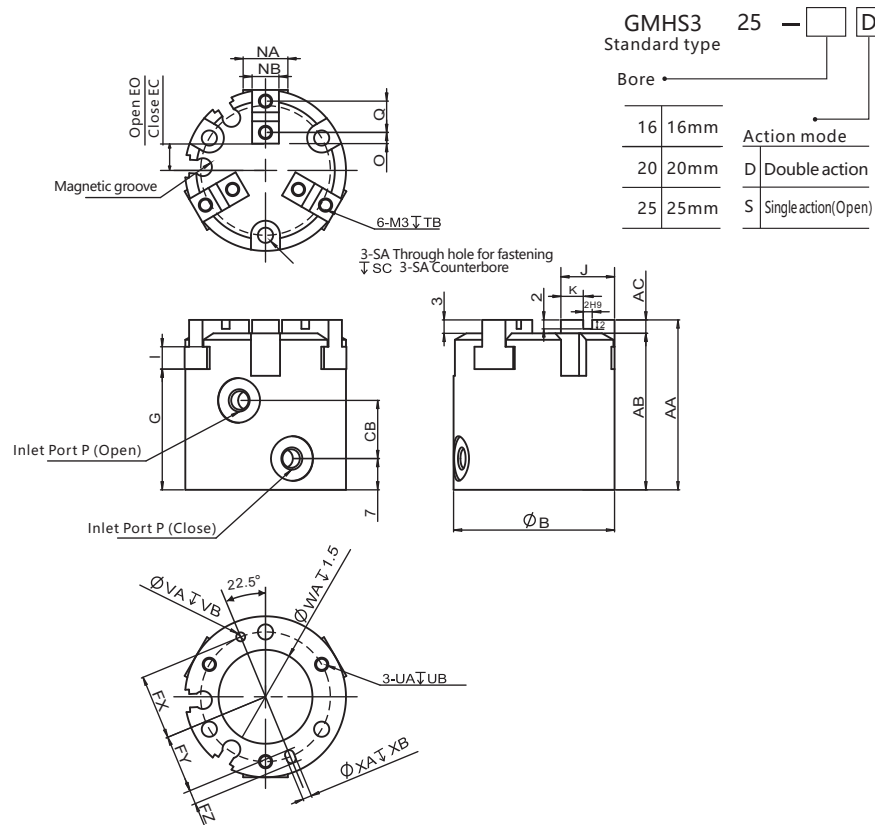
(Bore) (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Pipe Size S T	U	V	W	X	Z	AA	BB	CC	DD
16	3.9	16.2	44.6	62.5	22.6	16	4	7	7	24	M4X0.7 $\nabla$ 8	3.4	10.7	M4X0.7 $\nabla$ 8	16	M3X0.5	M5X0.8	7	18.3	8	13	17	23.6	15	30.6	22
20	4.5	21.7	55.2	78.7	28	20	5.2	9	8	30	M5X0.8 $\nabla$ 10	4.3	15.7	M5X0.8 $\nabla$ 8	8.6	M4X0.7	M5X0.8	7.5	22.2	10	15	21	27.6	18	42	32

# Three Jaws Gripper



PN	1.Y04529	1.Y04764	1.Y05750	
Model	GMHS3-16D	GMHS3-20D	GMHS3-25D	
Bore	16	20	25	
Fluid	Air			
Operating pressure range	0.2~0.6MPa			
Environment and fluid temperature	-10~60°C			
Repeatability accuracy	±0.01			
Maximum frequency of use	120c.p.m			
Action mode	Double action			
*Note gripping force N Pressure 0.5MPa	External diameter clamping	14	25	42
	Internal diameter clamping	16	28	47
	External diameter clamping with dust cover	9	21	36
Standard finger stroke with hood	4	4	6	
Long stroke finger stroke	10	10	12	
Pipe Size	M3×0.5	M5×0.8		
Magnetic switch	Built in magnetic ring type			

Note (Clamping force when holding the outside diameter, The value of the holding point of Ø16-Ø25 is L=20mm)



Bore	AA	AB	B	CB	EC	EO	FX	FY	FZ	G	I	J	K	NA	NB
16	35	32	30	11	5	7	12.5	11	3	25	4	10	4	8	5h9
20	38	35	36	13	6	8	14.5	13	3	27	5	12	5	10	6h9
25	40	37	42	15	7	10	17	14.5	5	28	5	14	6	12	6h9

Bore	O	P	Q	SA	SB	SC	TB	UA	UB	VA	VB	WA	XA	XB
16	2	M3x0.5	6	3.4	6.5	8	5	M3x0.5	4.5	2H9	2	17H9	2H9	2
20	2.5	M5x0.8	7	3.4	6.5	9.5	6	M3x0.5	6	2H9	2	21H9	2H9	2
25	3	M5x0.8	8	4.5	8	10	6	M4x0.7	6	3H9	3	26H9	3H9	3

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Air Slide Table Double-ported Type GMXQ □A Series

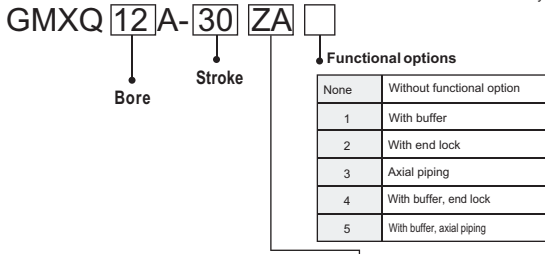


Bore size (mm)	6	8	12	16	20	25
Piping port size	M5 x 0.8					
Fluid	Air					
Action	Double acting					
Operating pressure	0.15 to 0.7 MPa*1 (End lock: 0.35 to 0.7 Mpa)*1					
Proof pressure	1.05MPa					
Ambient and fluid temperatures	-10~60°C					
Operating speed range	50 to 500 mm/s (Metal stopper with bumper: 50 to 300 mm/s)					
(Average operating speed)	50~300mm/s the standard stroke table : 50 to 300 mm/s					
Cushion (Without stroke adjuster)	Internal rubber bumper					
Cushion (With stroke adjuster)	Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper					
Lubrication	Non-lube					
Magnetic switch	2-color indicator solid state magnetic switch (2-wire, 3-wire)					
Stroke length tolerance	+2.0~0					

Solid state magnetic switch, Reed magnetic switch (2-wire, 3-wire)

Note) If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline. Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part The operating pressure of the bore size 20 cylinder with shock absorber is 0.15 to 0.6 MPa.

### Model representation methods



### Stroke/magnetic switch selection

Model	(mm)	Standard stroke (mm)	Magnetic switch	
			Contactless	
			2-wire	3-wire
GMXQ6A	6	10,20,30,40,50	D-M9B D-M9BL D-M9BV D-M9BVL	D-M9N
GMXQ8A	8	10,20,30,40,50,75		D-M9NL
GMXQ12A	12	10,20,30,40,50,75,100		D-M9NV
GMXQ16A	16	10,20,30,40,50,75,100,125		D-M9NVL
GMXQ20A	20	10,20,30,40,50,75,100,125,150		D-M9P
GMXQ25A	25	10,20,30,40,50,75,100,125,150*		D-M9PL
				D-M9PV
				D-M9PVL

\* The operating speed range of the stroke marked with an asterisk (\*) is 50 to 300 mm/s. (Without stroke adjuster)

### Adjuster options/Functional option combinations

Symbol	Adjuster type	Adjuster mounting position*1		Functional option combination					
		Extension stroke end	Retraction stroke end	None	1	2	3	4	5
Z	Without adjuster			Without functional option	With buffer 2,3	With end lock 4	Axial piping	With buffer, end lock 2,4	With buffer, axial piping 2
ZA	Metal stopper with bumper (Ø6)	●	●	○	○	○	○	○	○
ZB		●	●	○	○	○	○	○	○
ZC		●	●	○	○	○	○	○	○
ZD		●	●	○	○	○	○	○	○
ZE	Rubber stopper	●	●	○	○	○	○	○	○
ZF		●	●	○	○	○	○	○	○
ZG		●	●	○	○	○	○	○	○
ZH	Shock absorber/RJ	●	●	○	○	○	○	○	○
ZJ		●	●	○	○	○	○	○	○
ZN		●	●	○	○	○	○	○	○
ZP		●	●	○	○	○	○	○	○
ZQ	Shorter total length type*5	●	●	○	○	○	○	○	○
ZS		●	●	○	○	○	○	○	○
ZS		●	●	○	○	○	○	○	○

### Maximum Load Weight

Model	Adjuster option			kg	
	Without adjuster	Rubber stopper	Metal stopper with bumper	Horizontal	Vertical
GMXQ6A	0.6	0.6	—	0.6	
GMXQ8A	1	1	1	1	
GMXQ12A	2	2	2	1.5	1
GMXQ16A	4	4	4	4	2.5
GMXQ20A	6	6	6	6	
GMXQ25A	9	9	9	9	6

### Allowable Kinetic Energy

Model	Adjuster option			
	Without adjuster	Rubber stopper	Metal stopper with bumper	Shock absorber/RJ
GMXQ6A	0.026	0.051	—	0.14
GMXQ8A	0.033	0.053	0.016	0.17
GMXQ12A	0.09	0.11	0.034	0.24
GMXQ16A	0.1	0.18	0.07	0.61
GMXQ20A	0.2	0.34	0.10	1.2
GMXQ25A	0.32	0.51	0.15	1.3

### Theoretical Output

Bore size(mm)	Rod size mm	Operating direction	Piston area (mm <sup>2</sup> )	(Mpa) Operating pressure (Mpa)						
				0.2	0.3	0.4	0.5	0.6	0.7	
6	3	OUT	57	11	17	23	29	34	40	
		IN	42	8	13	17	21	25	29	
8	4	OUT	101	20	30	40	51	61	71	
		IN	75	15	23	30	38	45	53	
12	6	OUT	226	45	68	90	113	136	158	
		IN	170	34	51	68	85	102	119	
16	6	OUT	402	80	121	161	201	241	281	
		IN	346	69	104	138	173	207	242	
20	8	OUT	628	126	188	251	314	377	440	
		IN	528	106	158	211	264	317	369	
25	10	OUT	982	196	295	393	491	589	687	
		IN	825	165	247	330	412	495	577	

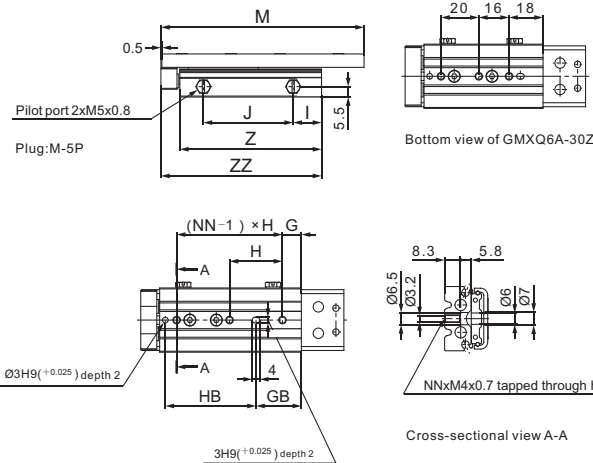
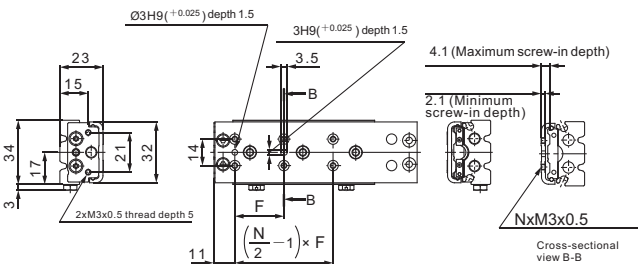
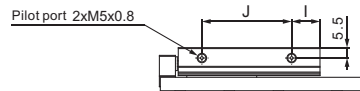
The dual rod ensures an output twice that of current cylinders.

# Air Slide Table Double-ported Type GMXQ□ A Series

**NEW**



## GMXQ6A-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth.  
 \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

Dimensions (mm)

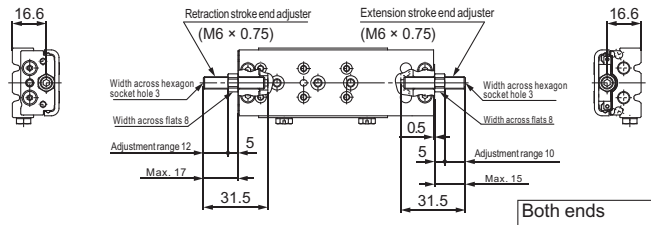
Model	F	G	GB	H	HB	I
GMXQ6A-10Z	22	18	9	23	38	10
GMXQ6A-20Z	25	15	9	26	38	10
GMXQ6A-30Z	21	-	12	-	48	13
GMXQ6A-40Z	26	10	24	28	48	15
GMXQ6A-50Z	27	20	34	28	48	15

Mode	J	M	N	NN	Z	ZZ
GMXQ6A-10Z	27.5	64.5	4	2	50	60
GMXQ6A-20Z	27.5	74.5	4	2	50	60
GMXQ6A-30Z	37.5	95.5	6	3	63	73
GMXQ6A-40Z	47.5	107.5	6	3	75	85
GMXQ6A-50Z	57.5	117.5	6	3	85	95

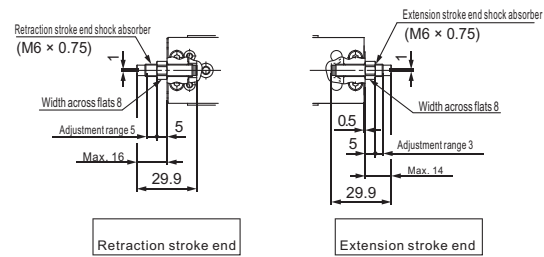
Rubber stopper **ZD** : Both ends, **ZE** : Extension stroke end, **ZF** : Retraction stroke end,

**ZP** : Retraction stroke end (Shorter total length type)



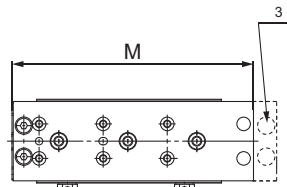
Shock absorber/RJ **ZG** : Both ends, **ZH** : Extension stroke end, **ZJ** : Retraction stroke end,

**ZQ** : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## GMXQ6A-□ZN Shorter total length type



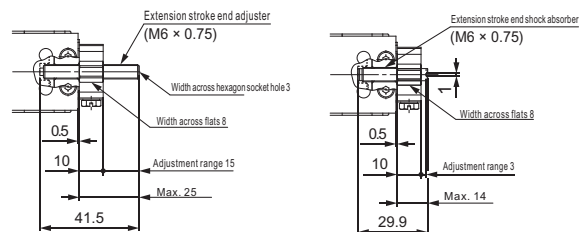
Model	M
GMXQ6A-10ZN	55
GMXQ6A-20ZN	65
GMXQ6A-30ZN	86
GMXQ6A-40ZN	98
GMXQ6A-50ZN	108

\* Dimensions other than those listed above are the same as those for the standard type.

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

## GMXQ6A □□2 With end lock extension stroke and adjuster (Ø6)

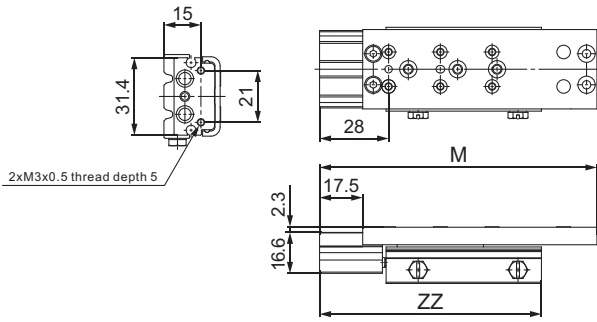
Rubber stopper: **ZE** Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

Select the long adjustment nut and bolt specification (-X28) when an end lock extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

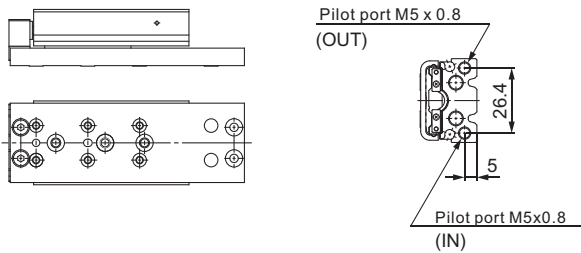
### GMXQ6A - □□1 With buffer (Ø6)



\* Dimensions other than those listed above are the same as those for the standard type.

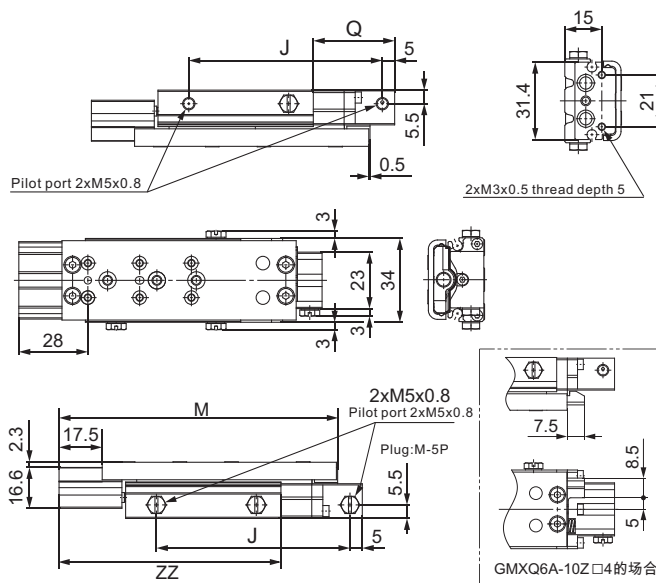
Model	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ6A-10Z□1	81.5	72	77
GMXQ6A-20Z□1	91.5	82	77
GMXQ6A-30Z□1	112.5	103	90
GMXQ6A-40Z□1	124.5	115	102
GMXQ6A-50Z□1	134.5	125	112

### GMXQ6A-□□3 Axial piping (Ø6)



\* Dimensions other than those listed above are the same as those for the standard type.

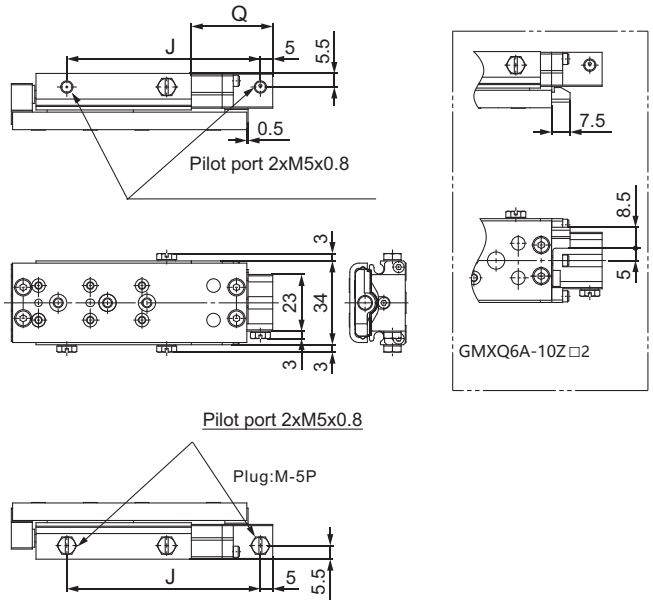
### GMXQ6A-□□4 With buffer, end lock (Ø6)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
GMXQ6A-10Z□4	57.5	25	81.5	72	77
GMXQ6A-20Z□4	57.5	25	91.5	82	77
GMXQ6A-30Z□4	78.5	33	112.5	103	90
GMXQ6A-40Z□4	90.5	33	124.5	115	102
GMXQ6A-50Z□4	100.5	33	134.5	125	112

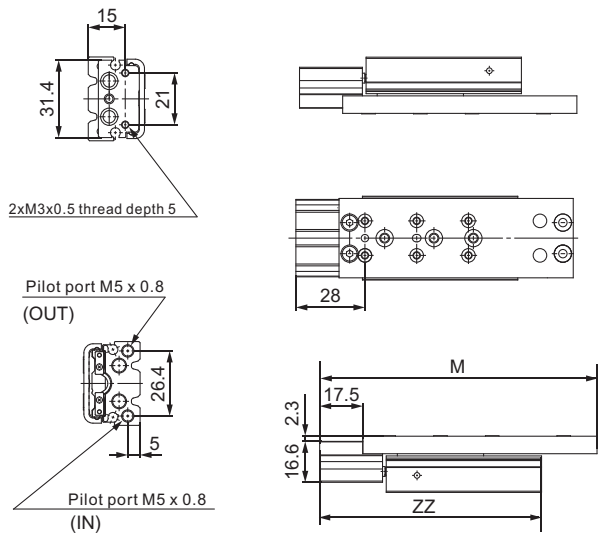
### GMXQ6A - □□2 With end lock (Ø6)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J	Q
GMXQ6A-10Z□2	57.5	25
GMXQ6A-20Z□2	57.5	25
GMXQ6A-30Z□2	78.5	33
GMXQ6A-40Z□2	90.5	33
GMXQ6A-50Z□2	100.5	33

### GMXQ6A-□□5 With buffer, axial piping (Ø6)

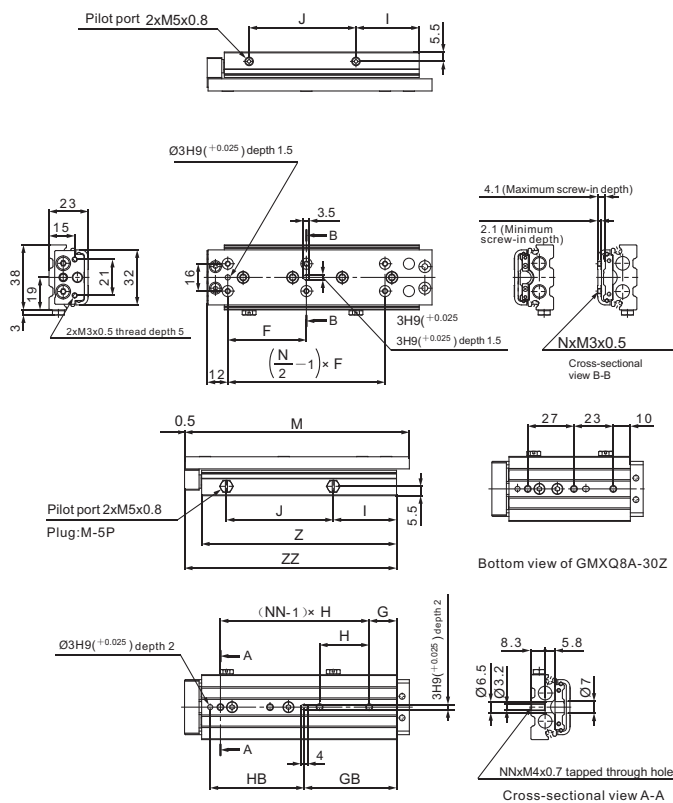


\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ6A-10Z□5	81.5	72	77
GMXQ6A-20Z□5	91.5	82	77
GMXQ6A-30Z□5	112.5	103	90
GMXQ6A-40Z□5	124.5	115	102
GMXQ6A-50Z□5	134.5	125	112

# Air Slide Table Double-ported Type GMXQ□ A Series

## GMXQ8A-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth.  
 \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

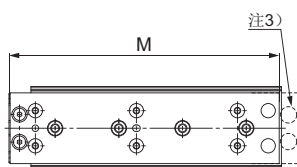
### Dimensions

Model	F	G	GB	H	HB	I
GMXQ8A-10Z	25	15	9	25	37	10
GMXQ8A-20Z	25	22	16	28	40	14
GMXQ8A-30Z	26	-	26	-	40	14.5
GMXQ8A-40Z	32	14	27	31	55	20
GMXQ8A-50Z	46	16	54	29	55	37
GMXQ8A-75Z	50	15	56	30	55	10

Model	J	M	N	NN	Z	ZZ
GMXQ8A-10Z	26.5	68.5	4	2	51	61
GMXQ8A-20Z	32.5	78.5	4	2	61	71
GMXQ8A-30Z	42	88.5	6	3	71	81
GMXQ8A-40Z	52.5	104.5	6	3	87	97
GMXQ8A-50Z	62.5	131.5	6	4	114	124
GMXQ8A-75Z	91.5	156.5	6	4	116	126

## GMXQ8A-□ZN Shorter total length type



Mode	M
GMXQ8A-10ZN	60
GMXQ8A-20ZN	70
GMXQ8A-30ZN	80
GMXQ8A-40ZN	96
GMXQ8A-50ZN	123
GMXQ8A-75ZN	148

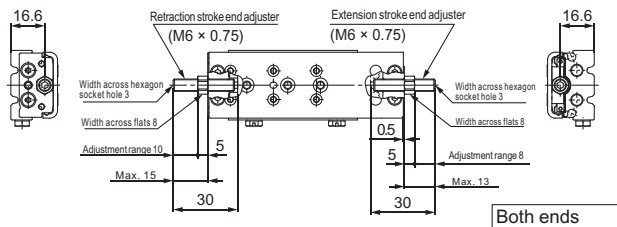
\* Dimensions other than those listed above are the same as those for the standard type.  
 注3)

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

## GMXQ8A □□ With adjuster option (Ø8)

Metal stopper with bumper **ZA** : Both ends, **ZB** : Extension stroke end, **ZC** : Retraction stroke end,

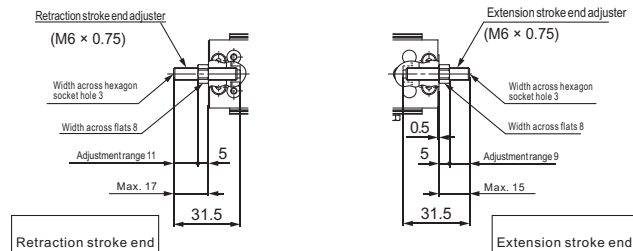
**ZS** : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

Rubber stopper **ZD** : Both ends, **ZE** : Extension stroke end, **ZF** : Retraction stroke end,

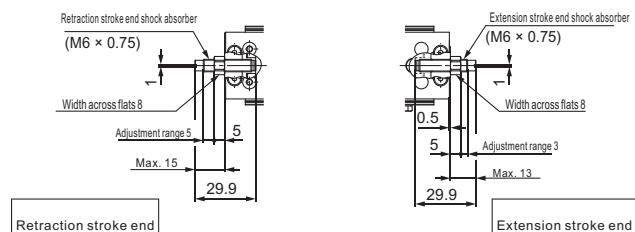
**ZP** : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

Shock absorber/RJ **ZG** : Both ends, **ZH** : Extension stroke end, **ZJ** : Retraction stroke end,

**ZQ** : Retraction stroke end (Shorter total length type)

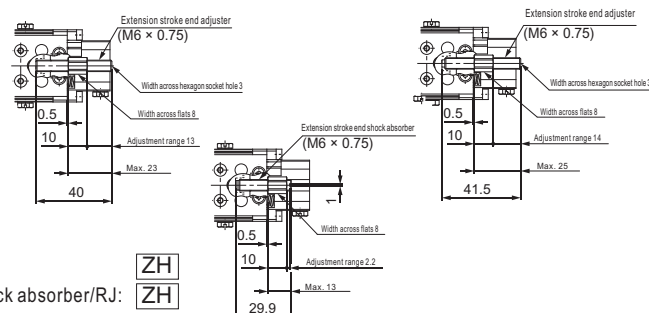


\* Dimensions other than those listed above are the same as those for the standard type.

## GMXQ8A □□ 2 With adjuster option (Ø8)

Metal stopper with bumper **ZB**

Rubber stopper: **ZE**

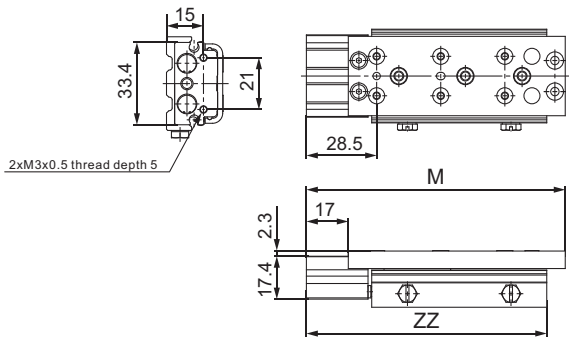


Shock absorber/RJ: **ZH**

\* Dimensions other than those listed above are the same as those for the standard type.

# Air Slide Table Double-ported Type GMXQ□A Series

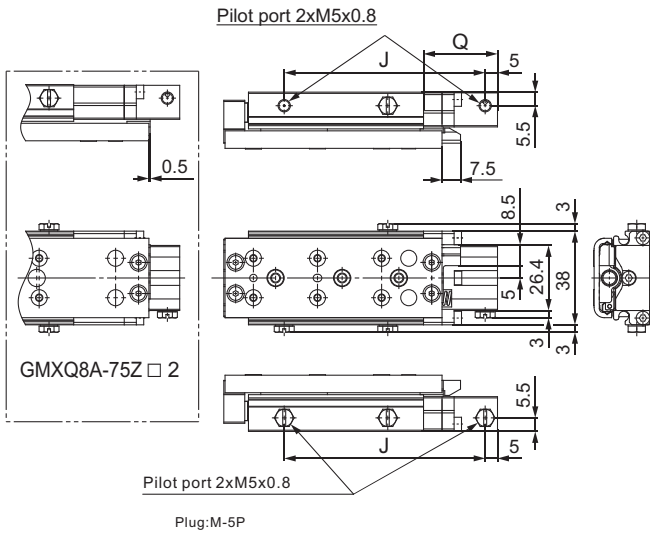
## GMXQ8A - □□1 With buffer (Ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ8A-10Z□1	85	76.5	77.5
GMXQ8A-20Z□1	95	86.5	87.5
GMXQ8A-30Z□1	105	96.5	97.5
GMXQ8A-40Z□1	121	112.5	113.5
GMXQ8A-50Z□1	148	139.5	140.5
GMXQ8A-75Z□1	173	164.5	142.5

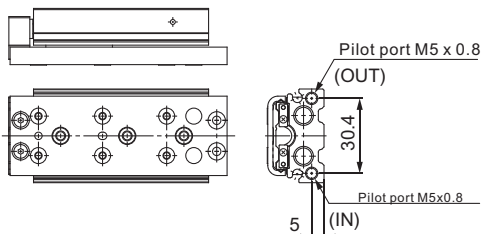
## GMXQ8A - □□2 With buffer (Ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

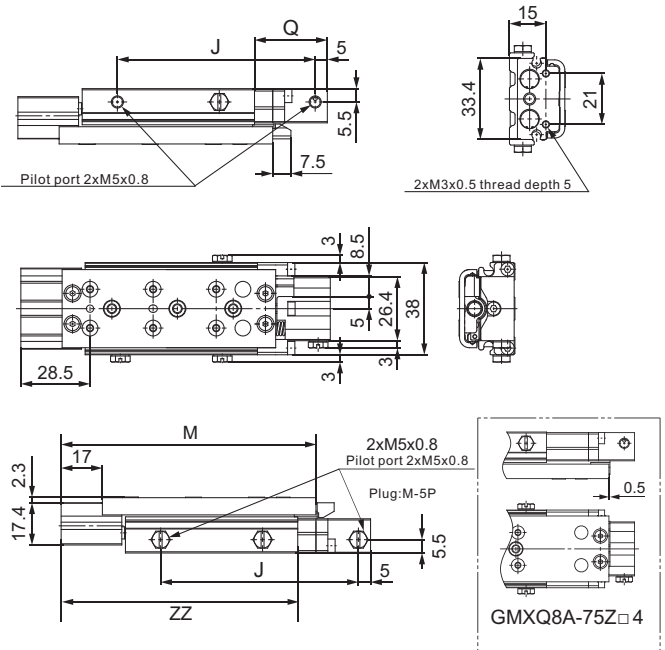
Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
GMXQ8A-10Z□2	61.5	30	85	76.5	77.5
GMXQ8A-20Z□2	71.5	30	95	86.5	87.5
GMXQ8A-30Z□2	81.5	30	105	96.5	97.5
GMXQ8A-40Z□2	97.5	30	121	112.5	113.5
GMXQ8A-50Z□2	124.5	30	148	139.5	140.5
GMXQ8A-75Z□2	139.5	43	173	164.5	142.5

## GMXQ8A-□□3 Axial piping (Ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

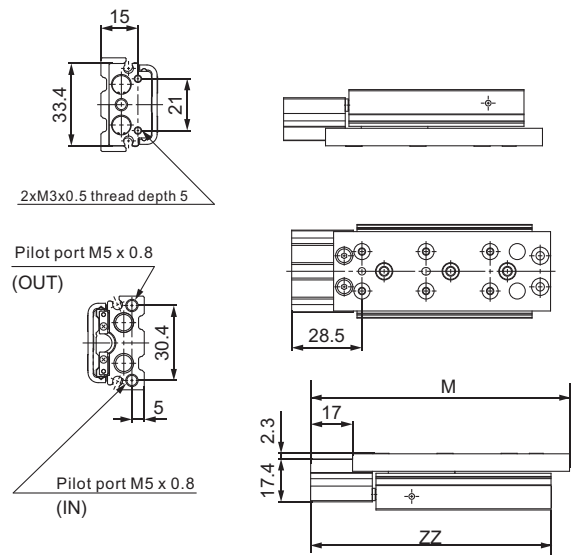
## GMXQ8A-□□4 With buffer, end lock (Ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
GMXQ8A-10Z□4	61.5	30	85	76.5	77.5
GMXQ8A-20Z□4	71.5	30	95	86.5	87.5
GMXQ8A-30Z□4	81.5	30	105	96.5	97.5
GMXQ8A-40Z□4	97.5	30	121	112.5	113.5
GMXQ8A-50Z□4	124.5	30	148	139.5	140.5
GMXQ8A-75Z□4	139.5	43	173	164.5	142.5

## GMXQ8A-□□5 With buffer axial piping (Ø8)

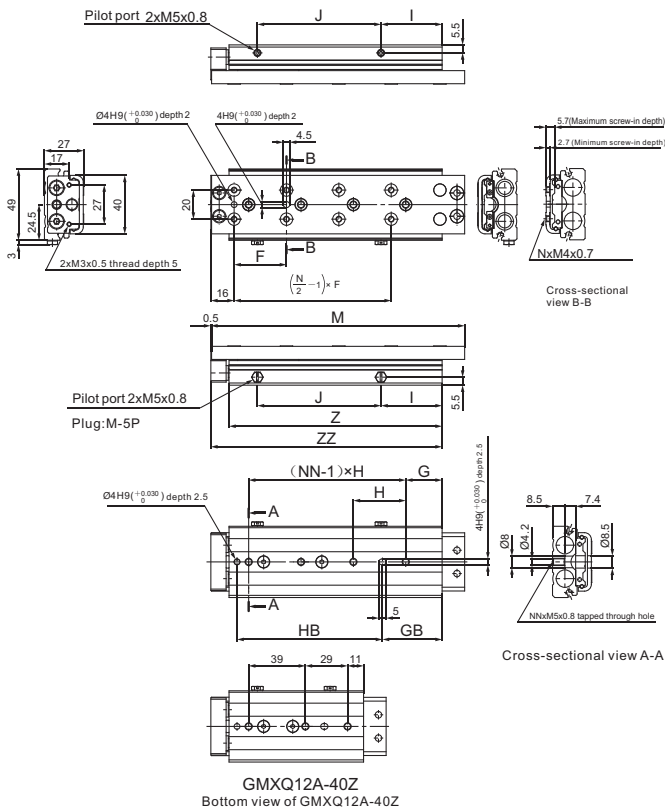


\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ8A-10Z□5	85	76.5	77.5
GMXQ8A-20Z□5	95	86.5	87.5
GMXQ8A-30Z□5	105	96.5	97.5
GMXQ8A-40Z□5	121	112.5	113.5
GMXQ8A-50Z□5	148	139.5	140.5
GMXQ8A-75Z□5	173	164.5	142.5

# Air Slide Table Double-ported Type GMXQ□A Series

## GMXQ12A-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth.  
 \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

Dimensions (mm)						
Model	F	G	GB	H	HB	I
GMXQ12A-10Z	28	17	11	32	46	11
GMXQ12A-20Z	28	19	11	32	48	13
GMXQ12A-30Z	38	21	11	40	58	15
GMXQ12A-40Z	34	-	27	-	60	23
GMXQ12A-50Z	34	11	37	39	60	23
GMXQ12A-75Z	36	25	41	36	100	42
GMXQ12A-100Z	36	14	66	36	100	42
型号 (Model)	J	M	N	NN	Z	ZZ
GMXQ12A-10Z	32	82.5	4	2	62.5	75
GMXQ12A-20Z	32	92.5	4	2	64.5	77
GMXQ12A-30Z	40	102.5	4	2	74.5	87
GMXQ12A-40Z	50	120.5	6	3	92.5	105
GMXQ12A-50Z	60	130.5	6	3	102.5	115
GMXQ12A-75Z	85	174.5	8	4	146.5	159
GMXQ12A-100Z	110	199.5	10	5	171.5	184

## GMXQ12A-□ZN Shorter total length type

Model	M
GMXQ12A-10ZN	72
GMXQ12A-20ZN	82
GMXQ12A-30ZN	92
GMXQ12A-40ZN	110
GMXQ12A-50ZN	120
GMXQ12A-75ZN	164
GMXQ12A-100ZN	189

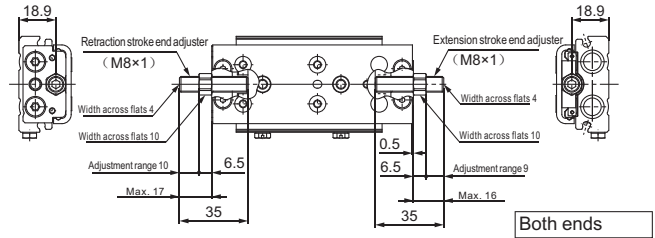
\* Dimensions other than those listed above are the same as those for the standard type.

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

## GMXQ 12A-□□ With adjuster option (Ø12)

Metal stopper with bumper [ZA] : Both ends, [ZB] : Extension stroke end, [ZC] : Retraction stroke end,

[ZS] : Retraction stroke end (Shorter total length type)

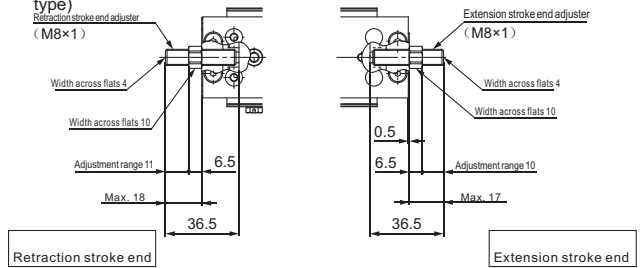


\* Dimensions other than those listed above are the same as those for the standard type.

Rubber stopper

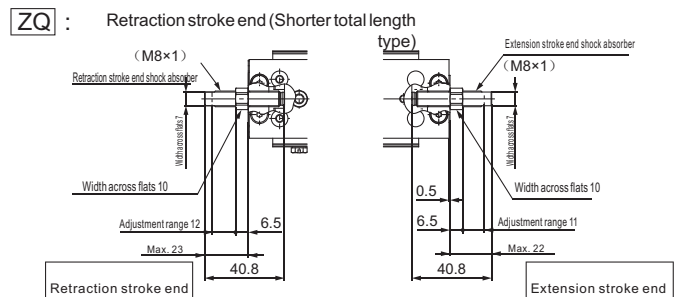
[ZD] : Both ends, [ZE] : Extension stroke end, [ZF] : Retraction stroke end,

[ZP] : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

Shock absorber/RJ [ZG] : Both ends, [ZH] : Extension stroke end, [ZJ] : Retraction stroke end,

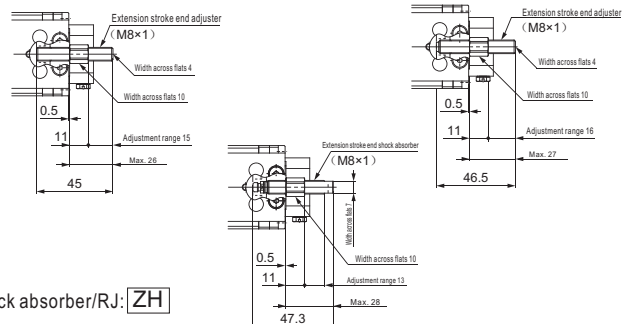


\* Dimensions other than those listed above are the same as those for the standard type.

## GMXQ 12A □□ With end lock, extension stroke end adjuster (Ø12)

Metal stopper with bumper [ZB]

Rubber stopper: [ZE]



Shock absorber/RJ: [ZH]

\* Dimensions other than those listed above are the same as those for the standard type.



# Air Slide Table Double-ported Type GMXQ □A Series

Profile · SUS Tube

Stents Module

Quick Changer

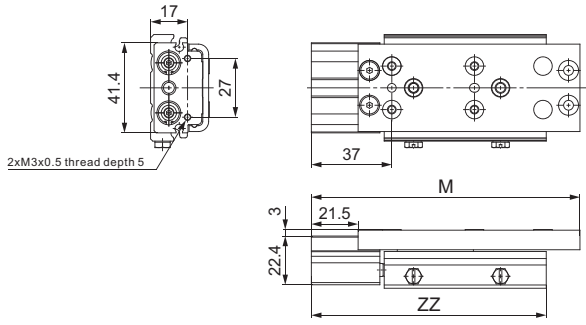
Grip Module

Air Nipper

Vacuum Module

Accessory Components

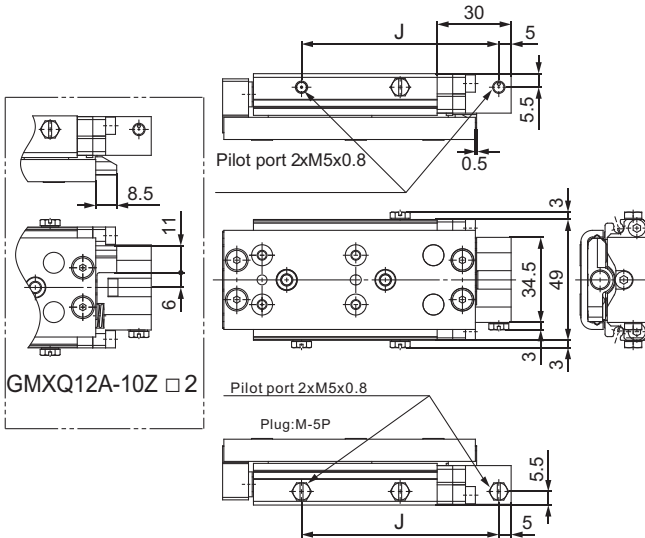
## GMXQ12A - □□1 With buffer (Ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type		ZZ
	M	Shorter total length type	
GMXQ12A-10Z□1	103.5	93	96
GMXQ12A-20Z□1	113.5	103	98
GMXQ12A-30Z□1	123.5	113	108
GMXQ12A-40Z□1	141.5	131	126
GMXQ12A-50Z□1	151.5	141	136
GMXQ12A-75Z□1	195.5	185	180
GMXQ12A-100Z□1	220.5	210	205

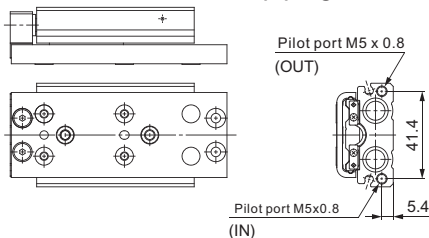
## GMXQ12A - □□2 With end lock (Ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

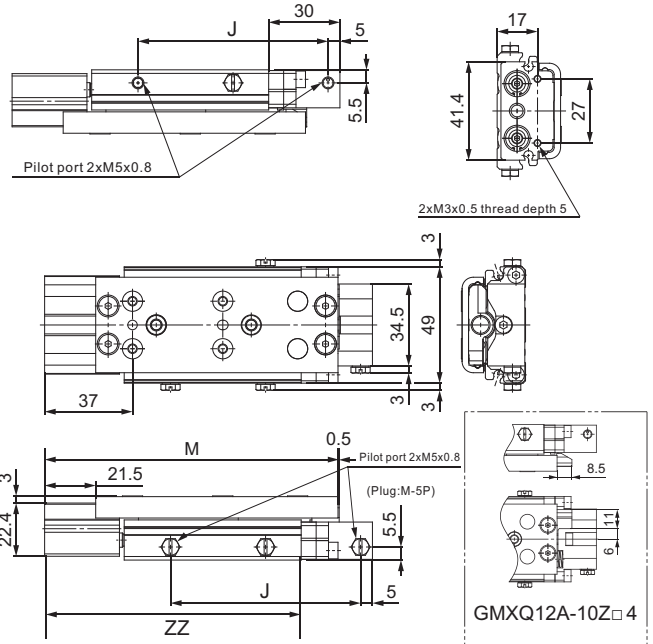
Model	J
GMXQ12A-10Z□2	68
GMXQ12A-20Z□2	70
GMXQ12A-30Z□2	80
GMXQ12A-40Z□2	98
GMXQ12A-50Z□2	108
GMXQ12A-75Z□2	152
GMXQ12A-100Z□2	177

## GMXQ12A-□□3 Axial piping (Ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

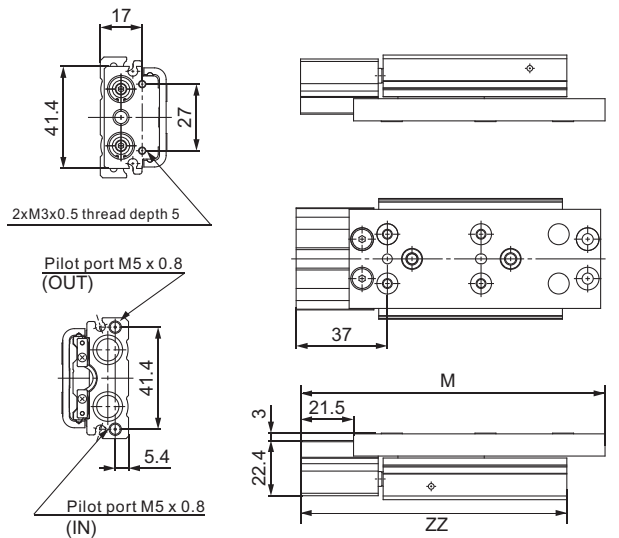
## GMXQ12A - □□4 With buffer, end lock (Ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J	Standard type		ZZ
		M	Shorter total length type	
GMXQ12A-10Z□4	68	103.5	93	96
GMXQ12A-20Z□4	70	113.5	103	98
GMXQ12A-30Z□4	80	123.5	113	108
GMXQ12A-40Z□4	98	141.5	131	126
GMXQ12A-50Z□4	108	151.5	141	136
GMXQ12A-75Z□4	152	195.5	185	180
GMXQ12A-100Z□4	177	220.5	210	205

## GMXQ12A-□□5 With buffer, axial piping (Ø12)

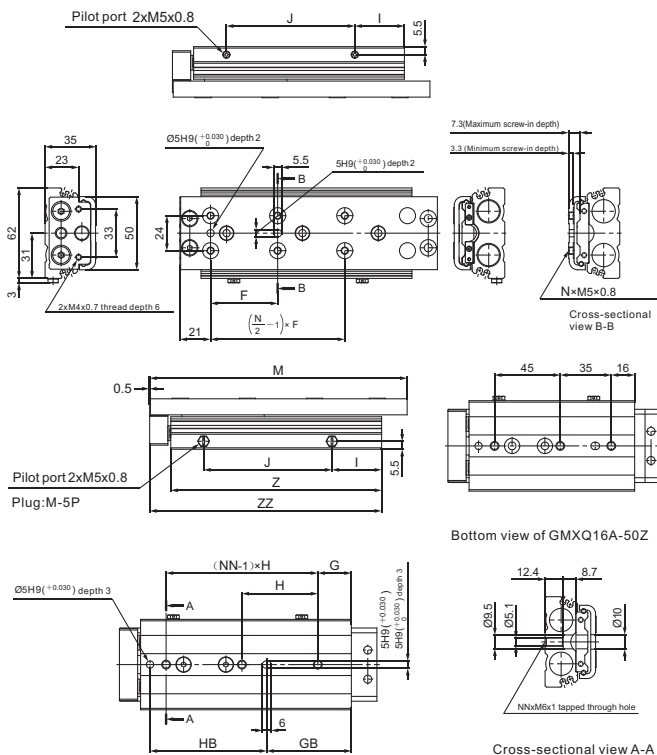


\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type		ZZ
	M	Shorter total length type	
GMXQ12A-10Z□5	103.5	93	96
GMXQ12A-20Z□5	113.5	103	98
GMXQ12A-30Z□5	123.5	113	108
GMXQ12A-40Z□5	141.5	131	126
GMXQ12A-50Z□5	151.5	141	136
GMXQ12A-75Z□5	195.5	185	180
GMXQ12A-100Z□5	220.5	210	205

# Air Slide Table Double-ported Type GMXQ□ A Series

## GMXQ16A-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth.  
 \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

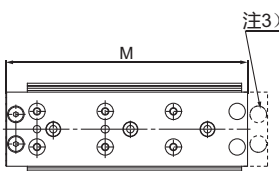
Dimensions (mm)

Model	F	G	GB	H	HB	I
GMXQ16A-10Z	38	16	8	39	58	22
GMXQ16A-20Z	38	20	12	39	58	15
GMXQ16A-30Z	48	21	30	48	50	16
GMXQ16A-40Z	58	28	1	58	80	23
GMXQ16A-50Z	40	-	27	-	80	28
GMXQ16A-75Z	46	23	58	52	80	34
GMXQ16A-100Z	44	39	102	44	80	53
GMXQ16A-125Z	44	20	127	44	80	53

Model	J	M	N	NN	Z	ZZ
GMXQ16A-10Z	28	98.5	4	2	72.5	87
GMXQ16A-20Z	39	108.5	4	2	76.5	91
GMXQ16A-30Z	48	118.5	4	2	86.5	101
GMXQ16A-40Z	58	135.5	4	2	103.5	118
GMXQ16A-50Z	63	145.5	6	3	113.5	128
GMXQ16A-75Z	88	176.5	6	3	144.5	159
GMXQ16A-100Z	113	220.5	8	4	188.5	203
GMXQ16A-125Z	138	245.5	10	5	213.5	228

## GMXQ16A-□ZN Shorter total length type



Model	M
GMXQ16A-10ZN	85
GMXQ16A-20ZN	95
GMXQ16A-30ZN	105
GMXQ16A-40ZN	122
GMXQ16A-50ZN	132
GMXQ16A-75ZN	163
GMXQ16A-100ZN	207
GMXQ16A-125ZN	232

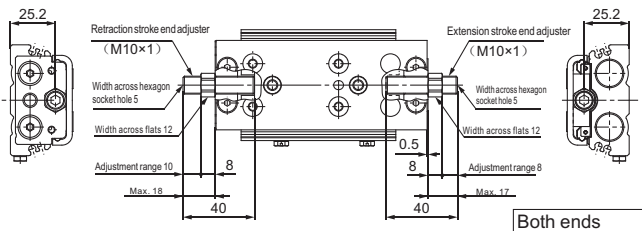
\* Dimensions other than those listed above are the same as those for the standard type.

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

## GMXQ 16A □□ With adjuster option (Ø16)

Metal stopper with bumper **ZA** : Both ends, **ZB** : Extension stroke end, **ZC** : Retraction stroke end,

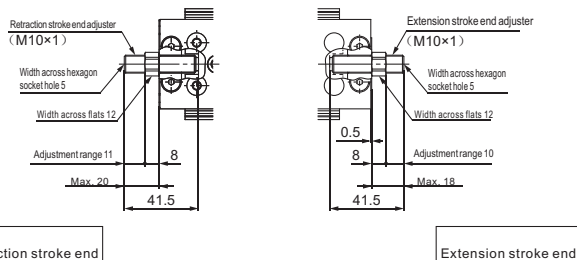
**ZS** : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

Rubber stopper **ZD** : Both ends, **ZE** : Extension stroke end, **ZF** : Retraction stroke end,

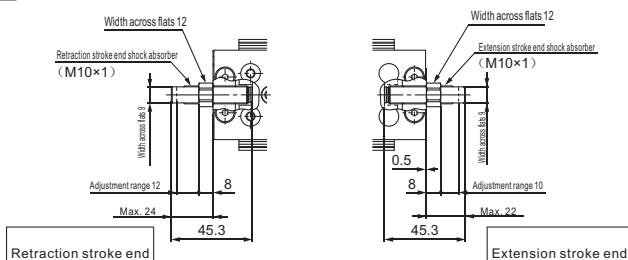
**ZP** : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

Shock absorber/RJ **ZG** : Both ends, **ZH** : Extension stroke end, **ZJ** : Retraction stroke end,

**ZQ** : Retraction stroke end (Shorter total length type)

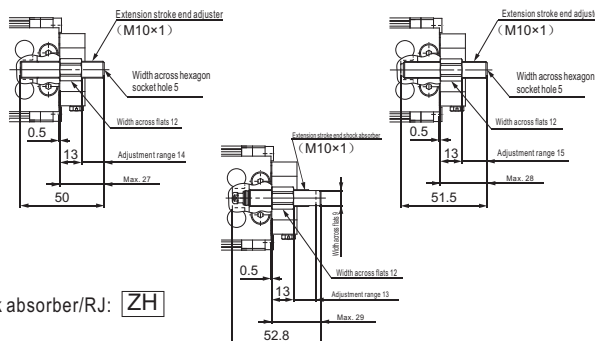


\* Dimensions other than those listed above are the same as those for the standard type.

## GMXQ 16A □□ With end lock, extension stroke end adjuster (Ø16)

Metal stopper with bumper **ZB**

Rubber stopper: **ZE**



Shock absorber/RJ: **ZH**

\* Dimensions other than those listed above are the same as those for the standard type.

# Air Slide Table Double-ported Type GMXQ□ A Series

Profile · SUS Tube

Stents Module

Quick Changer

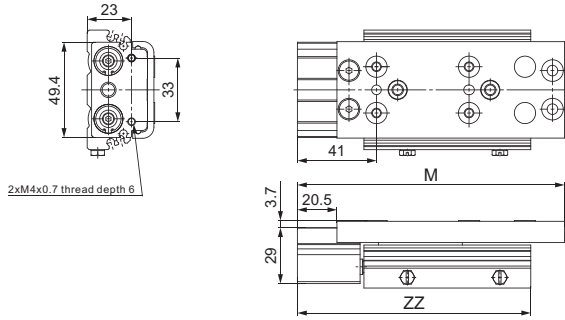
Grip Module

Air Nipper

Vacuum Module

Accessory Components

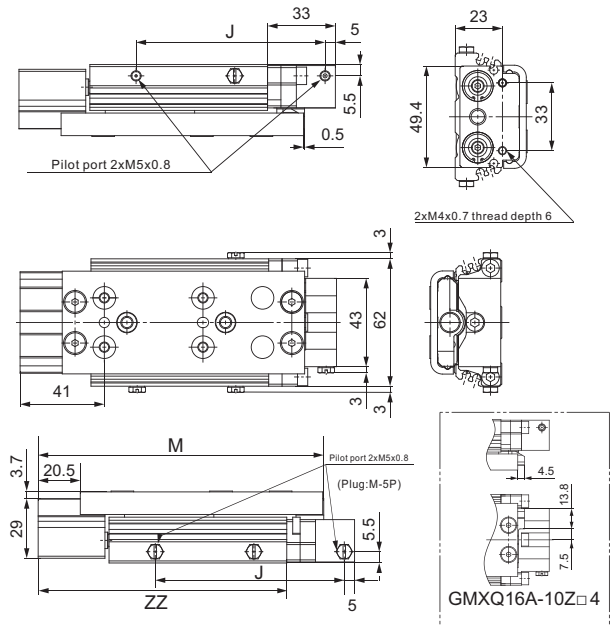
## GMXQ16A - □□1 With buffer (Ø16 )



\* Dimensions other than those listed above are the same as those for the standard type.

Model)	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ16A-10Z□1	118.5	105	107
GMXQ16A-20Z□1	128.5	115	111
GMXQ16A-30Z□1	138.5	125	121
GMXQ16A-40Z□1	155.5	142	138
GMXQ16A-50Z□1	165.5	152	148
GMXQ16A-75Z□1	196.5	183	179
GMXQ16A-100Z□1	240.5	227	223
GMXQ16A-125Z□1	265.5	252	248

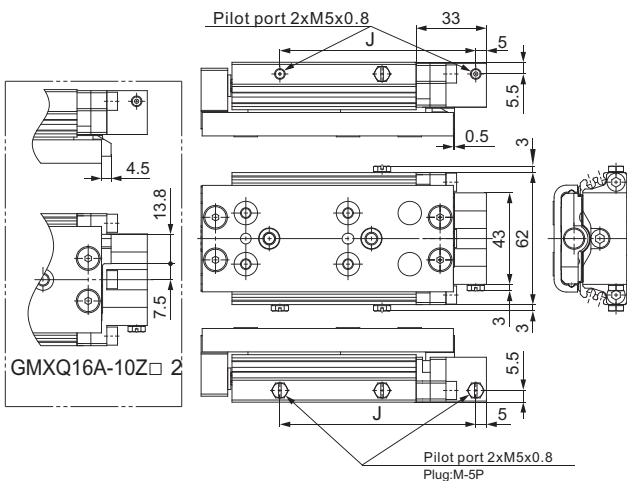
## GMXQ16A- □□4 With buffer, end lock (Ø16 )



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J	Standard type	Shorter total length type	ZZ
		M	M	
GMXQ16A-10Z□4	78	118.5	105	107
GMXQ16A-20Z□4	82	128.5	115	111
GMXQ16A-30Z□4	92	138.5	125	121
GMXQ16A-40Z□4	109	155.5	142	138
GMXQ16A-50Z□4	119	165.5	152	148
GMXQ16A-75Z□4	150	196.5	183	179
GMXQ16A-100Z□4	194	240.5	227	223
GMXQ16A-125Z□4	219	265.5	252	248

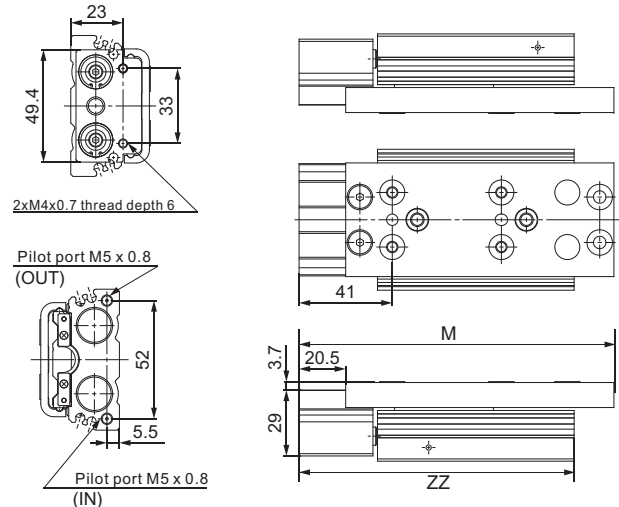
## GMXQ16A - □□2 With end lock (Ø16 )



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J
GMXQ16A-10Z□2	78
GMXQ16A-20Z□2	82
GMXQ16A-30Z□2	92
GMXQ16A-40Z□2	109
GMXQ16A-50Z□2	119
GMXQ16A-75Z□2	150
GMXQ16A-100Z□2	194
GMXQ16A-125Z□2	219

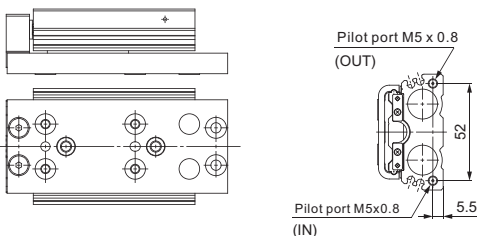
## GMXQ16A-□□5 With buffer, axial piping (Ø16 )



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ16A-10Z□5	118.5	105	107
GMXQ16A-20Z□5	128.5	115	111
GMXQ16A-30Z□5	138.5	125	121
GMXQ16A-40Z□5	155.5	142	138
GMXQ16A-50Z□5	165.5	152	148
GMXQ16A-75Z□5	196.5	183	179
GMXQ16A-100Z□5	240.5	227	223
GMXQ16A-125Z□5	265.5	252	248

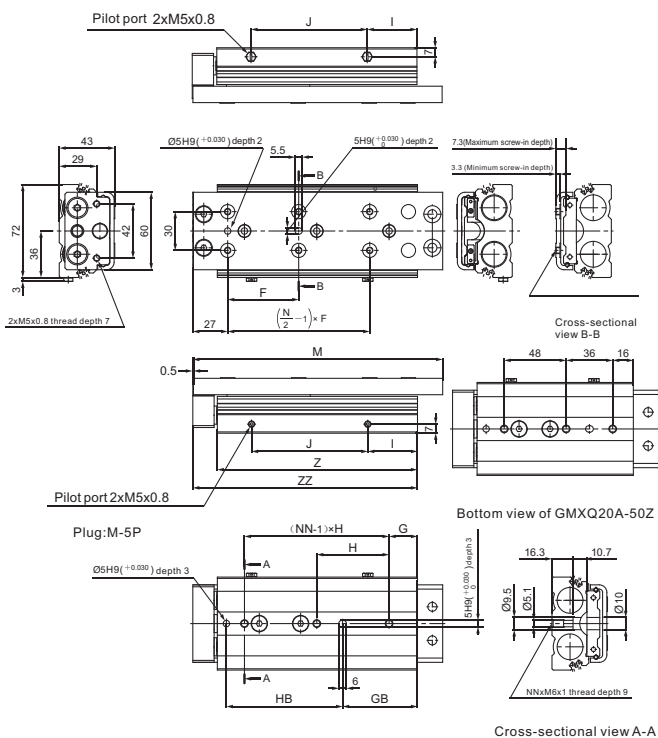
## GMXQ16A- □□3 Axial piping (Ø16 )



\* Dimensions other than those listed above are the same as those for the standard type.

# Air Slide Table Double-ported Type GMXQ □A Series

## GMXQ20A-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth.  
 \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

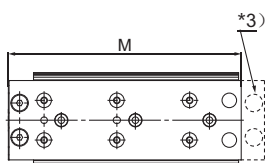
### Dimensions

Model	F	G	GB	H	HB	I
GMXQ20A-10Z	45	18	8	46	70	24.5
GMXQ20A-20Z	40	18	8	46	70	24.5
GMXQ20A-30Z	48	28	18	46	70	22.5
GMXQ20A-40Z	58	28	18	56	80	22.5
GMXQ20A-50Z	42	-	34	-	80	30.5
GMXQ20A-75Z	55	22	58	56	90	38.5
GMXQ20A-100Z	50	16	108	56	90	63.5
GMXQ20A-125Z	55	32	133	59	90	63.5
GMXQ20A-150Z	62	48	158	62	90	63.5

Model	J	M	N	NN	Z	ZZ
GMXQ20A-10Z	34	113.5	4	2	85	104
GMXQ20A-20Z	34	123.5	4	2	85	104
GMXQ20A-30Z	46	133.5	4	2	95	114
GMXQ20A-40Z	56	143.5	4	2	105	124
GMXQ20A-50Z	64	159.5	6	3	121	140
GMXQ20A-75Z	90	193.5	6	3	155	174
GMXQ20A-100Z	115	266.5	8	4	205	224
GMXQ20A-125Z	140	291.5	8	4	230	249
GMXQ20A-150Z	165	316.5	8	4	255	274

## GMXQ20A-□ZN Shorter total length type



Model	M
GMXQ20A-10ZN	96
GMXQ20A-20ZN	106
GMXQ20A-30ZN	116
GMXQ20A-40ZN	126
GMXQ20A-50ZN	142
GMXQ20A-75ZN	176
GMXQ20A-100ZN	249
GMXQ20A-125ZN	274
GMXQ20A-150ZN	299

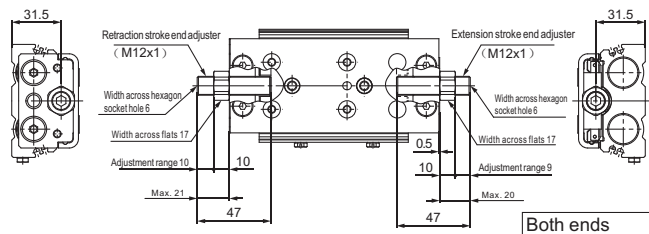
\* Dimensions other than those listed above are the same as those for the standard type.

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

## GMXQ20A-□□ With adjuster option (Ø20)

Metal stopper with bumper **ZA** : Both ends, **ZB** : Extension stroke end, **ZC** : Retraction stroke end,

**ZS** : Retraction stroke end (Shorter total length type)

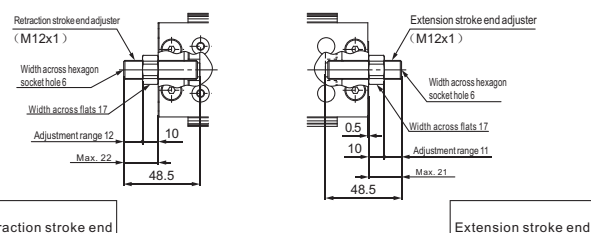


\* Dimensions other than those listed above are the same as those for the standard type.

Rubber stopper

**ZD** : Both ends, **ZE** : Extension stroke end, **ZF** : Retraction stroke end,

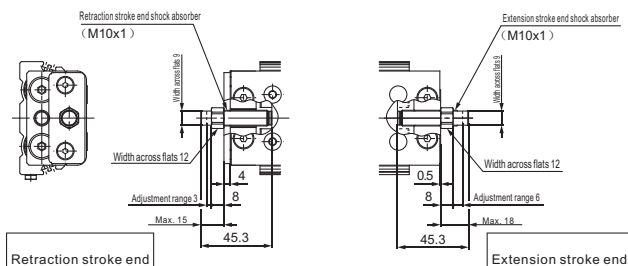
**ZP** : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

Shock absorber/RJ **ZG** : Both ends, **ZH** : Extension stroke end, **ZJ** : Retraction stroke end,

**ZQ** : Retraction stroke end (Shorter total length type)

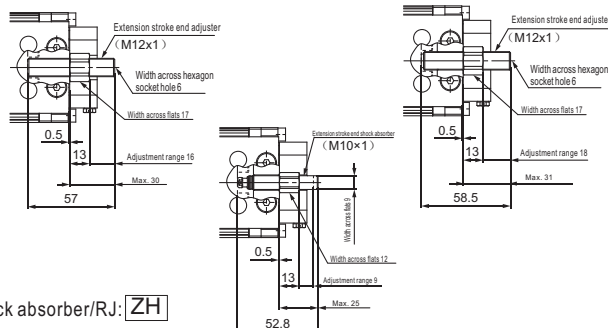


\* Dimensions other than those listed above are the same as those for the standard type.

## GMXQ20A-□□ With end lock, extension stroke end adjuster (Ø20)

Metal stopper with bumper **ZB**

Rubber stopper: **ZE**



Shock absorber/RJ: **ZH**

\* Dimensions other than those listed above are the same as those for the standard type.

# Air Slide Table Double-ported Type GMXQ□ A Series

Profile · SUS Tube

Stents Module

Quick Changer

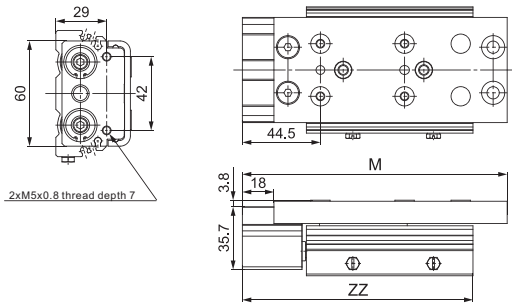
Grip Module

Air Nipper

Vacuum Module

Accessory Components

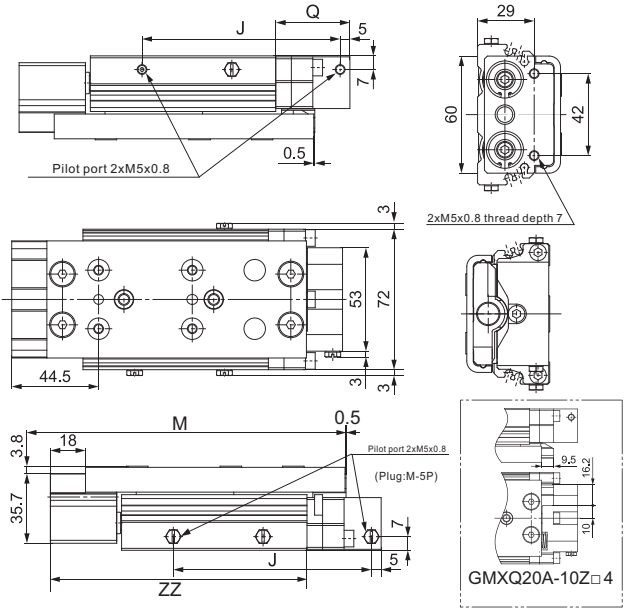
## GMXQ20A - □1 With buffer (Ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type		ZZ
	M	Shorter total length type	
GMXQ20A-10Z□1	131	113.5	121.5
GMXQ20A-20Z□1	141	123.5	121.5
GMXQ20A-30Z□1	151	133.5	131.5
GMXQ20A-40Z□1	161	143.5	141.5
GMXQ20A-50Z□1	177	159.5	157.5
GMXQ20A-75Z□1	211	193.5	191.5
GMXQ20A-100Z□1	284	266.5	241.5
GMXQ20A-125Z□1	309	291.5	266.5
GMXQ20A-150Z□1	334	316.5	291.5

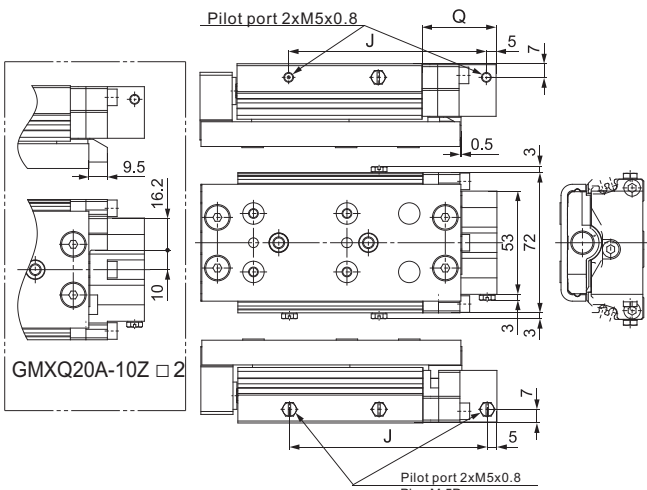
## GMXQ20A- □4 With buffer, end lock (Ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J	Q	Standard type		ZZ
			M	Shorter total length type	
GMXQ20A-10Z□4	91.5	38	131	113.5	121.5
GMXQ20A-20Z□4	91.5	38	141	123.5	121.5
GMXQ20A-30Z□4	101.5	38	151	133.5	131.5
GMXQ20A-40Z□4	111.5	38	161	143.5	141.5
GMXQ20A-50Z□4	127.5	38	177	159.5	157.5
GMXQ20A-75Z□4	161.5	38	211	193.5	191.5
GMXQ20A-100Z□4	234.5	61	284	266.5	241.5
GMXQ20A-125Z□4	259.5	61	309	291.5	266.5
GMXQ20A-150Z□4	284.5	61	334	316.5	291.5

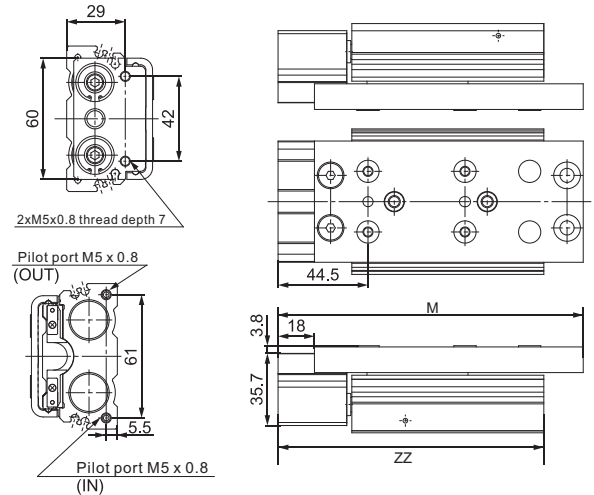
## GMXQ 20A - □2 With end lock (Ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type		ZZ
	J	Q	
GMXQ20A-10Z□2	91.5	38	
GMXQ20A-20Z□2	91.5	38	
GMXQ20A-30Z□2	101.5	38	
GMXQ20A-40Z□2	111.5	38	
GMXQ20A-50Z□2	127.5	38	
GMXQ20A-75Z□2	161.5	38	
GMXQ20A-100Z□2	234.5	61	
GMXQ20A-125Z□2	259.5	61	
GMXQ20A-150Z□2	284.5	61	

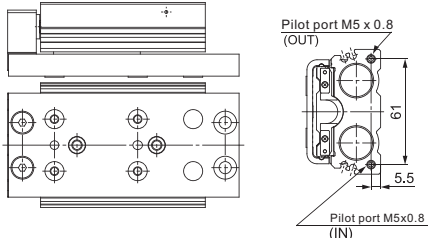
## GMXQ 20A- □5 With buffer, axial piping (Ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type		ZZ
	M	Shorter total length type	
GMXQ20A-10Z□5	131	113.5	121.5
GMXQ20A-20Z□5	141	123.5	121.5
GMXQ20A-30Z□5	151	133.5	131.5
GMXQ20A-40Z□5	161	143.5	141.5
GMXQ20A-50Z□5	177	159.5	157.5
GMXQ20A-75Z□5	211	193.5	191.5
GMXQ20A-100Z□5	284	266.5	241.5
GMXQ20A-125Z□5	309	291.5	266.5
GMXQ20A-150Z□5	334	316.5	291.5

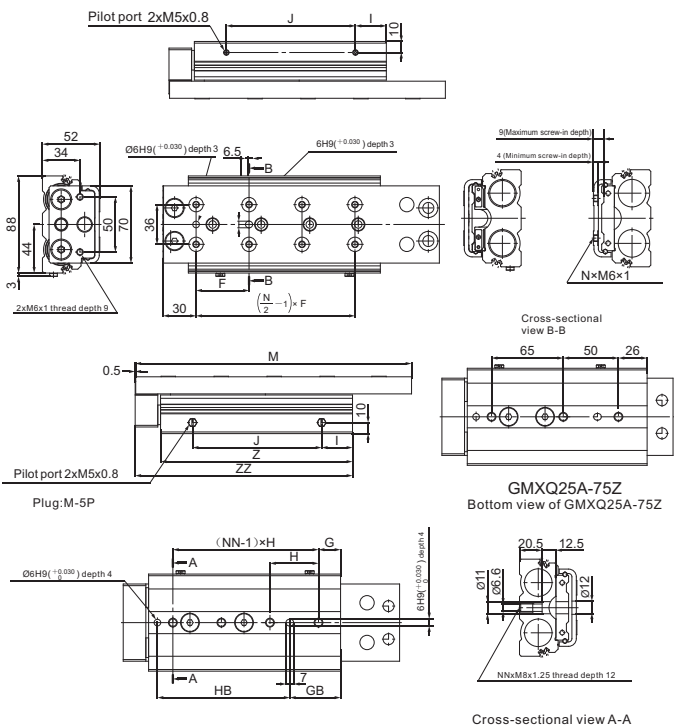
## GMXQ 20A- □3 Axial piping (Ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

# Air Slide Table Double-ported Type GMXQ □A Series

## GMXQ25A-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an Magnetic switch malfunction.

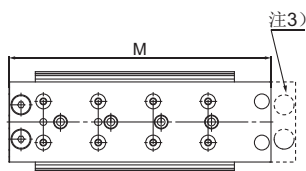
### Dimensions

Model	F	G	GB	H	HB	I
GMXQ25A-10Z	55	18	7	55	80	30
GMXQ25A-20Z	46	18	7	55	80	30
GMXQ25A-30Z	55	28	17	55	80	22
GMXQ25A-40Z	65	28	17	65	90	22
GMXQ25A-50Z	75	36	20	80	110	43
GMXQ25A-75Z	60	-	45	-	110	42
GMXQ25A-100Z	48	20	46	44	120	28
GMXQ25A-125Z	60	18	60	66	170	67
GMXQ25A-150Z	65	43	85	66	170	66

Model	J	M	N	NN	Z	ZZ
GMXQ25A-10Z	36	131.5	4	2	95	118
GMXQ25A-20Z	36	141.5	4	2	95	118
GMXQ25A-30Z	54	151.5	4	2	105	128
GMXQ25A-40Z	64	161.5	4	2	115	138
GMXQ25A-50Z	66	184.5	4	2	138	161
GMXQ25A-75Z	92	209.5	6	3	163	186
GMXQ25A-100Z	117	250.5	8	4	174	197
GMXQ25A-125Z	142	314.5	8	4	238	261
GMXQ25A-150Z	168	339.5	8	4	263	286

## GMXQ25A-□ZN Shorter total length type



Model	M
GMXQ25A-10ZN	110
GMXQ25A-20ZN	120
GMXQ25A-30ZN	130
GMXQ25A-40ZN	140
GMXQ25A-50ZN	163
GMXQ25A-75ZN	188
GMXQ25A-100ZN	229
GMXQ25A-125ZN	293
GMXQ25A-150ZN	318

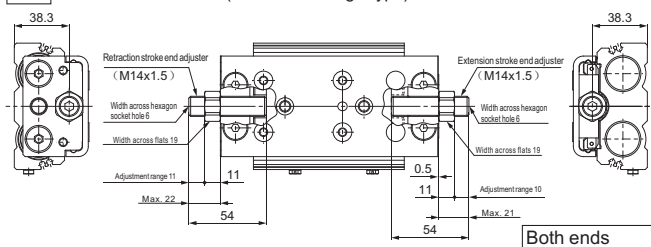
\* Dimensions other than those listed above are the same as those for the standard type.

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

## GMXQ25A-□□ With adjuster option (Ø25)

Metal stopper with bumper **ZA** : Both ends, **ZB** : Extension stroke end, **ZC** : Retraction stroke end,

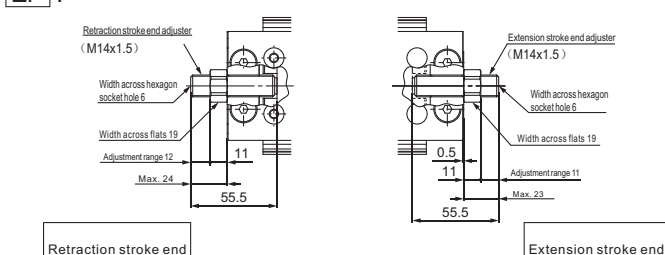
**ZS** : Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

Rubber stopper **ZD** : Both ends, **ZE** : Extension stroke end, **ZF** : Retraction stroke end,

**ZP** : Retraction stroke end (Shorter total length type)

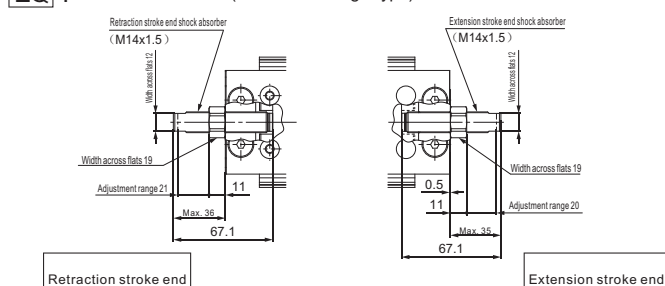


\* Dimensions other than those listed above are the same as those for the standard type.

Shock absorber/RJ **ZG** : Both ends, **ZH** : Extension stroke end, **ZJ** : Retraction stroke end,

**ZQ** :

**ZQ** : Retraction stroke end (Shorter total length type)

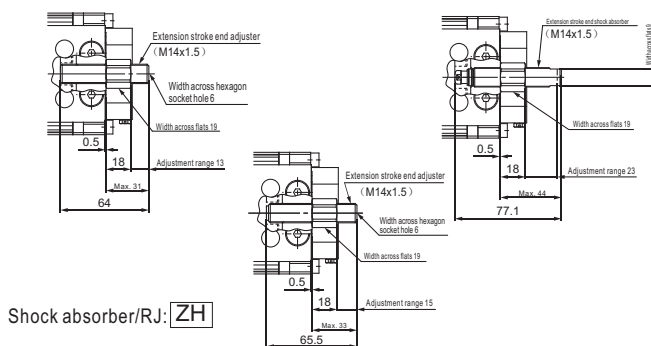


\* Dimensions other than those listed above are the same as those for the standard type.

## GMXQ25A □□2 With end lock, extension stroke end adjuster (Ø25)

Metal stopper with bumper **ZB**

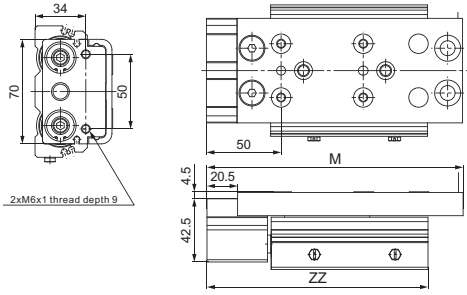
Rubber stopper: **ZE**



\* Dimensions other than those listed above are the same as those for the standard type.

# Air Slide Table Double-ported Type GMXQ□A

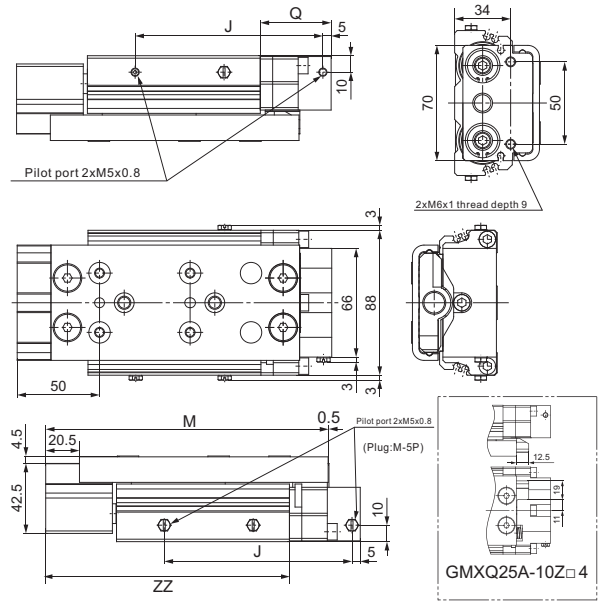
## GMXQ25A - □□1 With buffer (Ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ25A-10Z□1	151.5	130	138
GMXQ25A-20Z□1	161.5	140	138
GMXQ25A-30Z□1	171.5	150	148
GMXQ25A-40Z□1	181.5	160	158
GMXQ25A-50Z□1	204.5	183	181
GMXQ25A-75Z□1	229.5	208	206
GMXQ25A-100Z□1	270.5	249	217
GMXQ25A-125Z□1	334.5	313	281
GMXQ25A-150Z□1	359.5	338	306

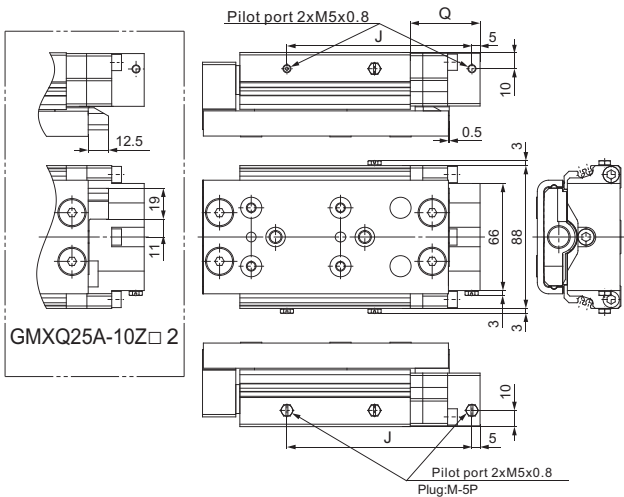
## GMXQ25A- □□4 With buffer, end lock (Ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
GMXQ25A-10Z□4	109	48	151.5	130	138
GMXQ25A-20Z□4	104	43	161.5	140	138
GMXQ25A-30Z□4	114	43	171.5	150	148
GMXQ25A-40Z□4	124	43	181.5	160	158
GMXQ25A-50Z□4	147	43	204.5	183	181
GMXQ25A-75Z□4	172	43	229.5	208	206
GMXQ25A-100Z□4	213	73	270.5	149	217
GMXQ25A-125Z□4	277	73	334.5	313	281
GMXQ25A-150Z□4	302	73	359.5	338	306

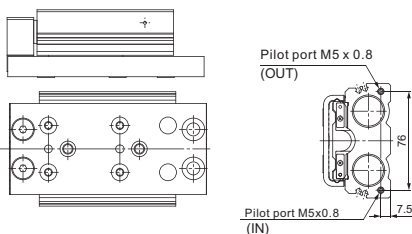
## GMXQ 25A - □□2 With end lock (Ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

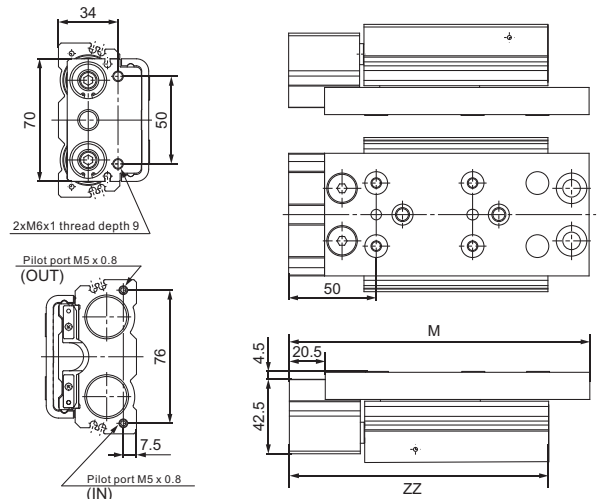
Model	J	Q
GMXQ25A-10Z□2	109	48
GMXQ25A-20Z□2	104	43
GMXQ25A-30Z□2	114	43
GMXQ25A-40Z□2	124	43
GMXQ25A-50Z□2	147	43
GMXQ25A-75Z□2	172	43
GMXQ25A-100Z□2	213	73
GMXQ25A-125Z□2	277	73
GMXQ25A-150Z□2	302	73

## GMXQ 25A- □□3 Axial piping (Ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

## GMXQ 25A- □□5 With buffer, axial piping (Ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

Model	Standard type	Shorter total length type	ZZ
	M	M	
GMXQ25A-10Z□5	151.5	130	138
GMXQ25A-20Z□5	161.5	140	138
GMXQ25A-30Z□5	171.5	150	148
GMXQ25A-40Z□5	181.5	160	158
GMXQ25A-50Z□5	204.5	183	181
GMXQ25A-75Z□5	229.5	208	206
GMXQ25A-100Z□5	270.5	149	217
GMXQ25A-125Z□5	334.5	313	281
GMXQ25A-150Z□5	359.5	338	306

# Air Slide Table GMXS Series

**NEW**



Model	GMXS6	GMXS8	GMXS12	GMXS16	GMXS20	GMXS25
Bore size (mm)	Ø 6x2	Ø 8x2	Ø 12x2	Ø 16x2	Ø 20x2	Ø 25x2
Piping port size	M3 x 0.5	M5 x 0.8		Rc1/8		
Fluid	Air					
Action	Double acting					
Maximum operating pressure	0.7 MPa					
Minimum operating pressure	0.15 MPa					
Ambient and fluid temperatures	-10~ +60°C (No freezing)					
Piston speed	50~500mm/s					
Action	Rubber buffer (Standard)					
Lubrication	Non-lube					

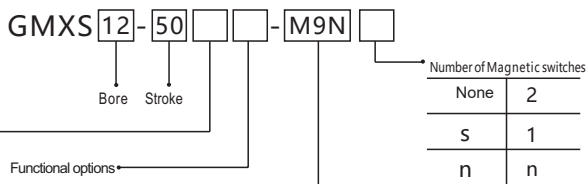
- \*Optional with adjustable stroke device (0-5mm)
- \*Double cylinder with 2 times output force, thin volume
- \*The combination of cylinder and worktable reduces the overall size
- \*Roller slider design, small friction, no gap between cylinder and worktable, suitable for precise assembly
- \*Can install from 3 sides
- \*Built-in ring, can install magnetic switch

\*Please use turbine No.1 oil ISOVG32 if need.

## Selection table

GMXS	Bore size (mm)	stroke (mm)								Functional options				Magnetic switch		
		10	20	30	40	50	75	100	125	150	Adjustable stroke device (0~5mm)	With buffer	With end lock	Axial piping	Install directly	
														2-wire	3-wire	
	Ø 6x2	●	●	●	●	●					●	●				
	Ø 8x2	●	●	●	●	●	●				●	●				
	Ø 12x2	●	●	●	●	●	●	●			●	●				
	Ø 16x2	●	●	●	●	●	●	●	●		●	●				
	Ø 20x2	●	●	●	●	●	●	●	●	●	●	●				
	Ø 25x2	●	●	●	●	●	●	●	●	●	●	●				

## Model representation methods



Adjusting device	
Nil	Without adjuster
AS	Adjuster on extension end
AT	Adjuster on retraction end
A	Adjuster on both ends
*BS	Absorber on extension end
*BT	Absorber on retraction end
*B	Absorber on both ends

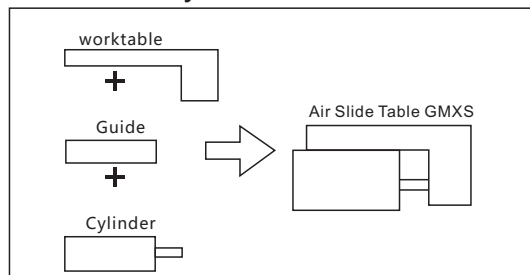
Functional options*	
None	Without adjuster
F	With buffer
*R	With end lock
P	Axial piping type
*FR	With buffer and end lock
FP	With buffer, Axial piping type

Magnetic switch	
None	Without Magnetic switch

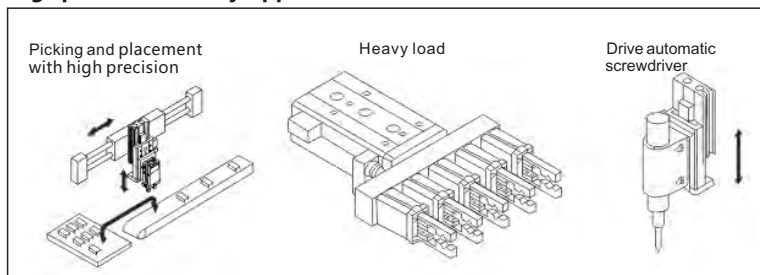
\* For the applicable Magnetic switch models, refer to the table above.

Note  
The specification and characteristics of magnetic switch can refer to the series of magnetic switch. At the end of the model of magnetic switch, the length mark of conductor is attached:  
Nomark-0.5m, L-3m, Z-5m  
Example: A96, A96L

## Combination of cylinder and worktable



## High precision, sturdy application





# Air Slide Table GMXS Series

Fig. (1) Load Mass: W (kg)

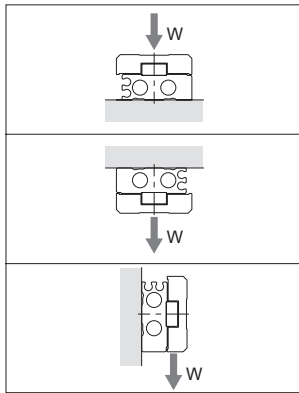


Fig. (3) Workpiece Mounting Coefficient: K

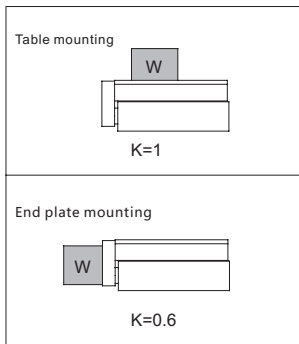


Table (2) Maximum Allowable Load Mass: Wmax (kg)

Model	Maximum allowable load mass
GMXS6	0.6
GMXS8	1
GMXS12	2
GMXS16	4
GMXS20	6
GMXS25	9

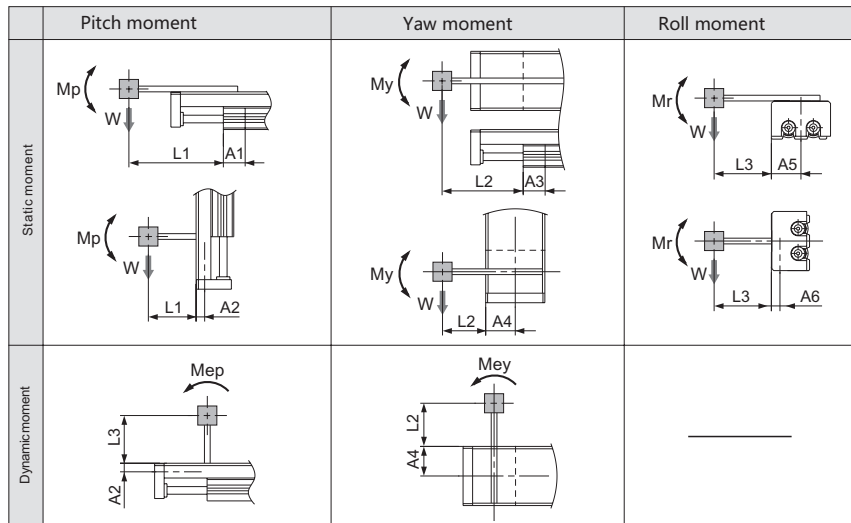
Table (4) Maximum Allowable Moment: Mmax (N·m)

Mode	(mm) Stroke (mm)								
	10	20	30	40	50	75	100	125	150
GMXS6	0.7	1.0	1.2	1.2	1.2	-	-	-	-
GMXS8	2.0	2.0	2.8	3.6	4.2	4.2	-	-	-
GMXS12	4.2	4.2	4.2	5.8	7.0	10.0	10.0	-	-
GMXS16	11.3	11.3	11.3	11.3	15.9	25.0	34.1	34.1	-
GMXS20	19.4	19.4	19.4	19.4	27.2	35.0	50.5	50.5	50.5
GMXS25	30.6	30.6	30.6	30.6	42.8	55.1	67.3	67.3	67.3

## Symbol

Symbol	Definition	Unit
An(n=1-6)	Correction value of moment center position distance	mm
E	Kinetic energy	J
Ea	Allowable kinetic energy	J
Emax	Max. allowable kinetic energy	J
Ln(n=1-3)	Overhang	mm
M(Mp,My,Mr)	Static moment (Pitch, Yaw, Roll)	N·m
Ma(Map,May,Mar)	Allowable static moment (Pitch, Yaw, Roll)	N·m
Me(Mep,Mey)	Dynamic moment (Pitch, Yaw)	N·m
Mea(Meap,Meay)	Allowable dynamic moment (Pitch, Yaw)	N·m
Mmax(Mpmax,Mymax,Mrmax)	Max. allowable moment (Pitch, Yaw, Roll)	N·m
V	Collision speed	mm/s

Fig. (2) Overhang: Ln (mm), Correction Value of Moment Center Position Distance: An (mm)



Note) Static moment: Moment generated by gravity  
Dynamic moment: Moment generated by impact when colliding with stopper

Table (1) Maximum Allowable Kinetic Energy: Emax (J)

Model	Allowable kinetic energy	
	Rubber bumper	Shock absorber
GMXS6	0.018	-
GMXS8	0.027	0.045
GMXS12	0.055	0.11
GMXS16	0.11	0.22
GMXS20	0.16	0.32
GMXS25	0.24	0.48

Table (3) Correction Value of Moment Center Position Distance : An (mm)

Model	Correction value of moment center position distance (Refer to Figure 2.)					
	A1	A2	A3	A4	A5	A6
GMXS6	11	6	13	16	16	6
GMXS8	11	7.5	13	20	20	7.5
GMXS12	24	8.5	26	25	25	8.5
GMXS16	27	10	30	31	31	10
GMXS20	34	14.5	36	38	38	14.5
GMXS25	42	19	44	46	46	19

Table (4) Allowable Load Mass Coefficient: β

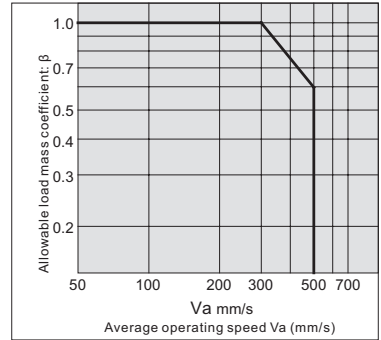
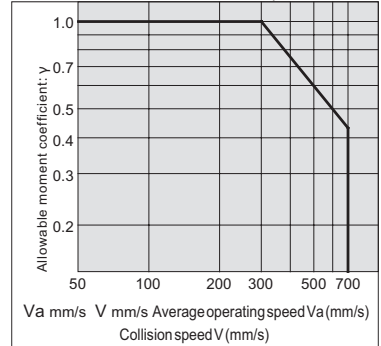


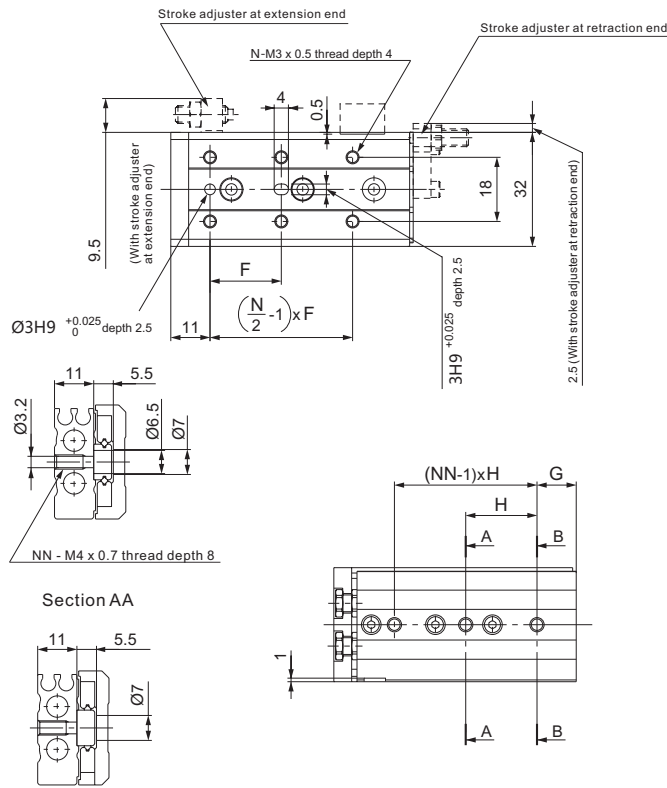
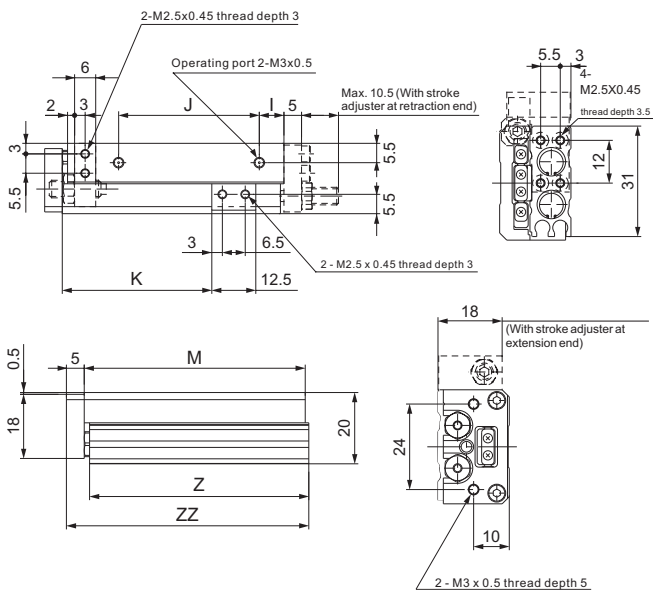
Table (5) Allowable Moment Coefficient: γ



Note) Use the average operating speed when calculating static moment.  
Use the collision speed when calculating dynamic moment.

Symbol	Definition	Unit
Va	Average operating speed	mm/s
W	Load mass	kg
Wa	Allowable load mass	kg
We	Mass equivalent to impact	kg
Wmax	Max. allowable load mass	kg
α	Load factor	-
β	Allowable load mass coefficient	-
γ	Allowable moment coefficient	-
δ	Damper coefficient	-
K	Workpiece mounting coefficient	-

GMXS 6 Basic type



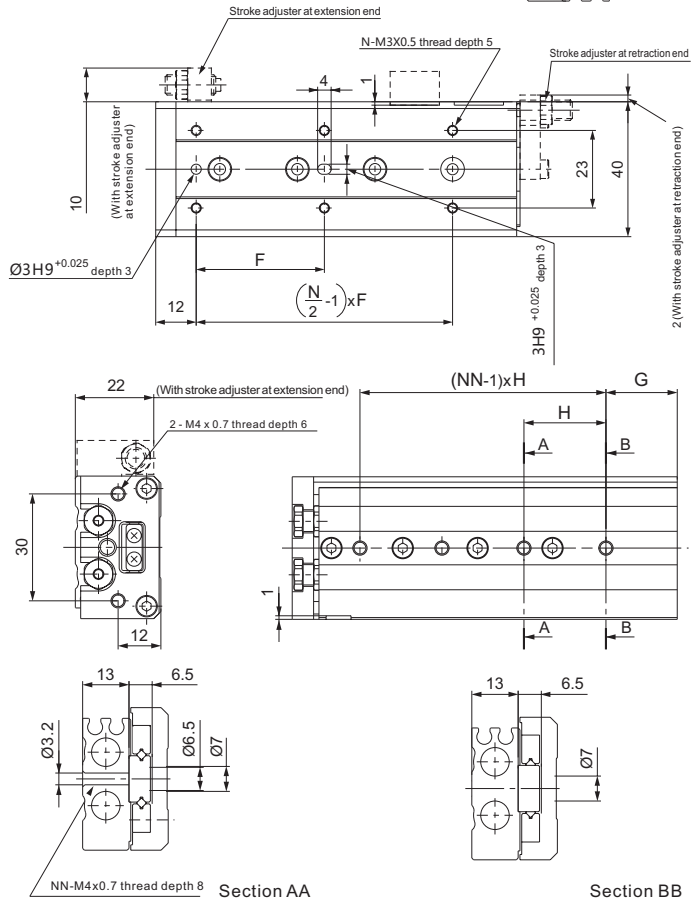
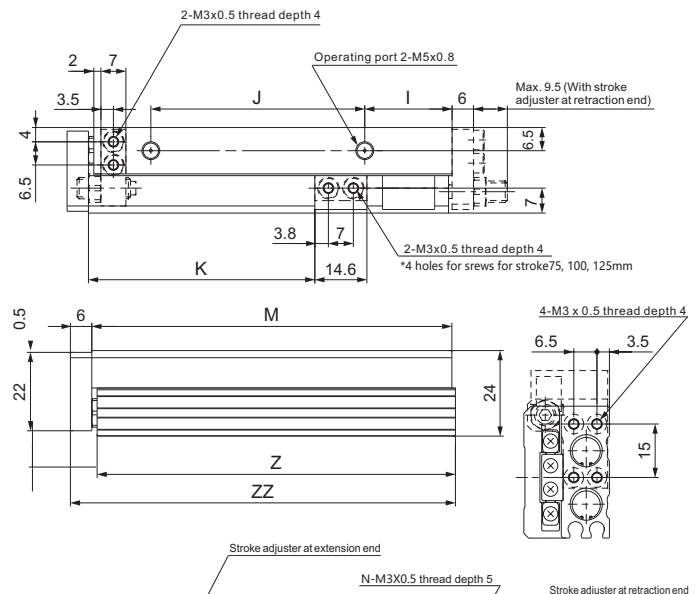
Section BB

Dimensions (mm)

Model	F	N	G	H	NN
GMXS6-10	20	4	6	25	2
GMXS6-20	30	4	6	35	2
GMXS6-30	20	6	11	20	3
GMXS6-40	28	6	13	30	3
GMXS6-50	38	6	17	24	4

Model	I	J	K	M	Z	ZZ
GMXS6-10	10	17	22.5	42	41.5	48
GMXS6-20	10	27	32.5	52	51.5	58
GMXS6-30	7	40	42.5	62	61.5	68
GMXS6-40	19	50	52.5	84	83.5	90
GMXS6-50	25	60	62.5	100	99.5	106

GMXS 8 Basic type



Dimensions (mm)

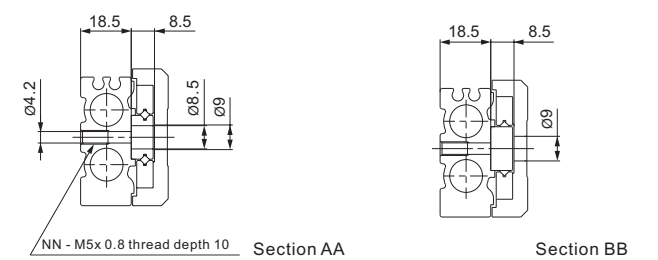
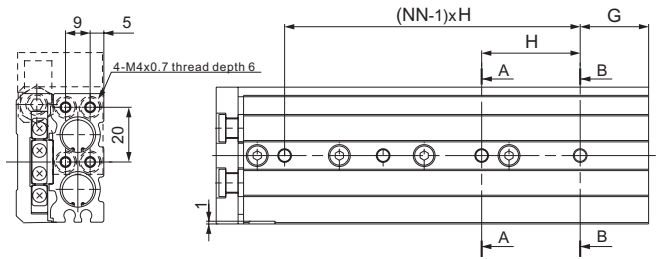
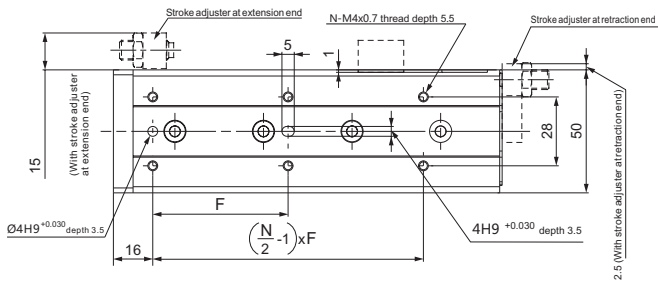
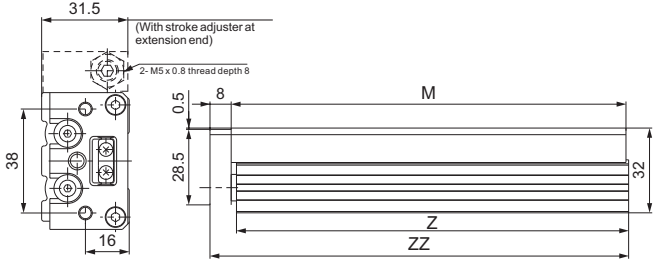
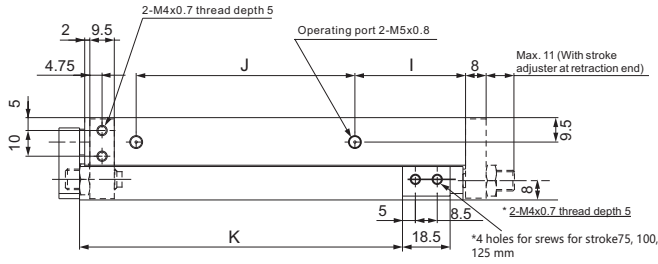
Model	F	N	G	H	NN
GMXS8-10	25	4	9	28	2
GMXS8-20	25	4	12	30	2
GMXS8-30	40	4	13	20	3
GMXS8-40	50	4	15	28	3
GMXS8-50	38	6	20	23	4
GMXS8-75	50	6	27	28	5

Model	I	J	K	M	Z	ZZ
GMXS8-10	13	19.5	23.5	49	48.5	56
GMXS8-20	8.5	29	33.5	54	53.5	61
GMXS8-30	9.5	39	43.5	65	64.5	72
GMXS8-40	10.5	56	53.5	83	82.5	90
GMXS8-50	24.5	60	63.5	101	100.5	108
GMXS8-75	38.5	96	88.5	151	150.5	158

# Air Slide Table GMXS Series

## GMXS12 Basic type



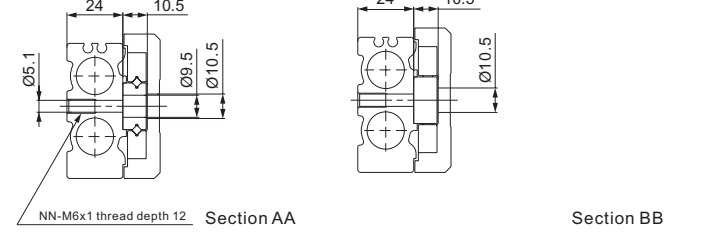
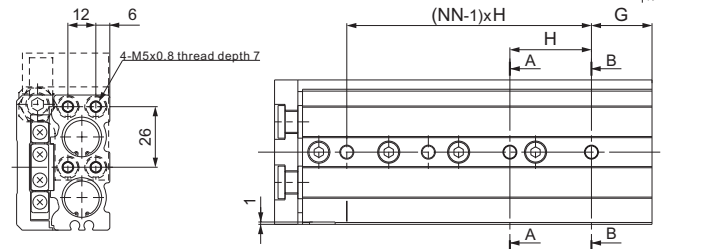
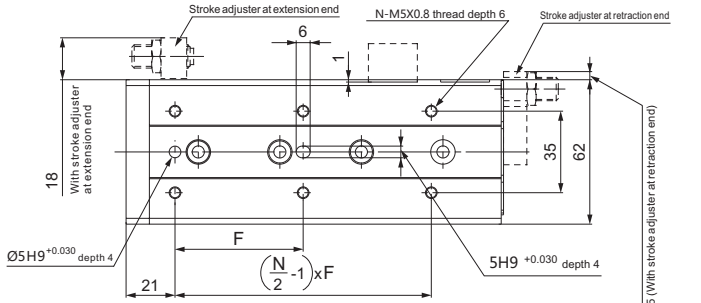
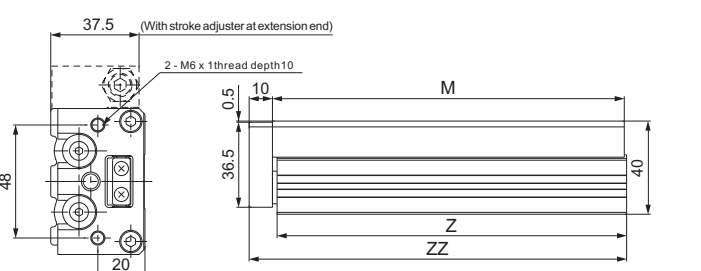
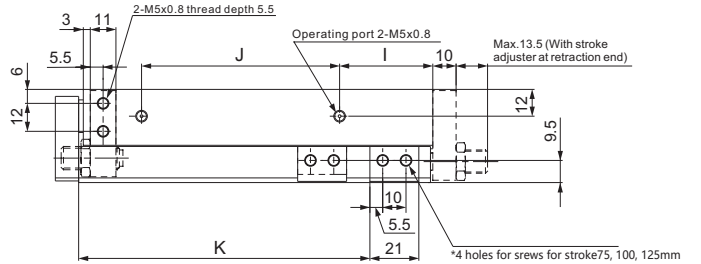
Dimensions (mm)

Model	F	N	G	H	NN
GMXS12-10	35	4	15	40	2
GMXS12-20	35	4	15	40	2
GMXS12-30	35	4	15	40	2
GMXS12-40	50	4	17	25	3
GMXS12-50	35	6	15	36	3
GMXS12-75	55	6	25	36	4
GMXS12-100	65	6	35	38	5

Dimensions (mm)

Model	I	J	K	M	Z	ZZ
GMXS12-10	10	40	26.5	71	70	80
GMXS12-20	10	40	36.5	71	70	80
GMXS12-30	10	40	46.5	71	70	80
GMXS12-40	10	52	56.5	83	82	92
GMXS12-50	22	60	66.5	103	102	112
GMXS12-75	43	85	91.5	149	148	158
GMXS12-100	52	130	116.5	203	202	212

## GMXS16 Basic type



Dimensions (mm)

Model	F	N	G	H	NN
GMXS16-10	35	4	16	40	2
GMXS16-20	35	4	16	40	2
GMXS16-30	35	4	16	40	2
GMXS16-40	40	4	16	50	2
GMXS16-50	30	6	21	30	3
GMXS16-75	55	6	26	35	4
GMXS16-100	65	6	39	35	5
GMXS16-125	70	8	19	35	7

Dimensions (mm)

Model	I	J	K	M	Z	ZZ
GMXS16-10	10	40	29	76	75	87
GMXS16-20	10	40	39	76	75	87
GMXS16-30	10	40	49	76	75	87
GMXS16-40	10	50	59	86	85	97
GMXS16-50	15	60	69	101	100	112
GMXS16-75	40	85	94	151	150	162
GMXS16-100	55	118	119	199	198	210
GMXS16-125	68	155	144	249	248	260

Profile · SUS Tube

Stents Module

Quick Changer

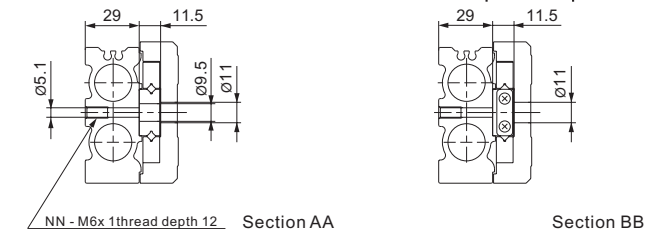
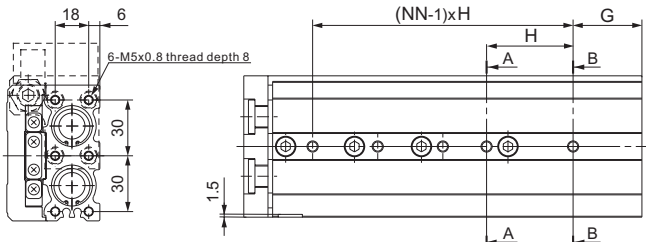
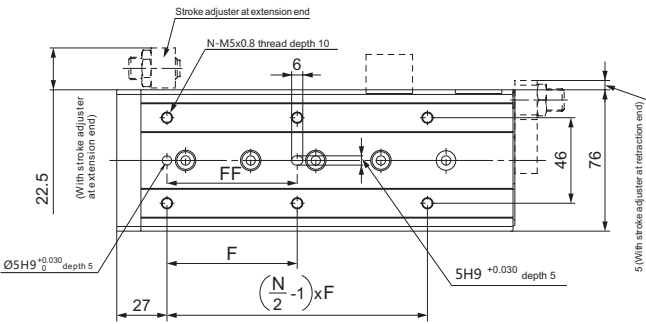
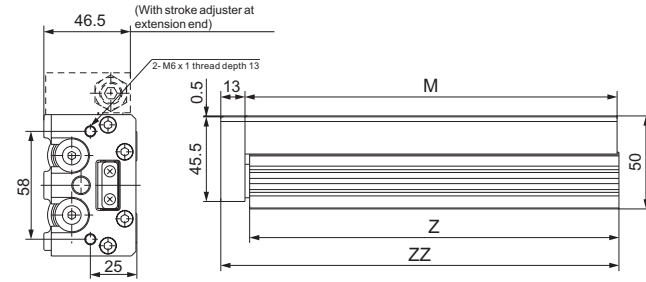
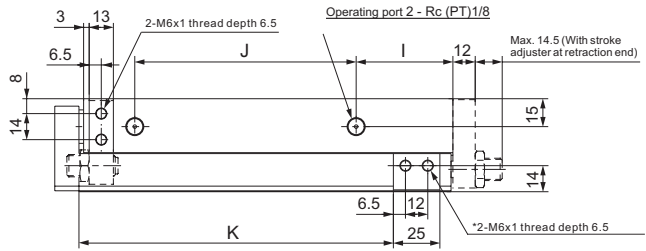
Grip Module

Air Ripper

Vacuum Module

Accessory Components

### GMXS20 Basic type

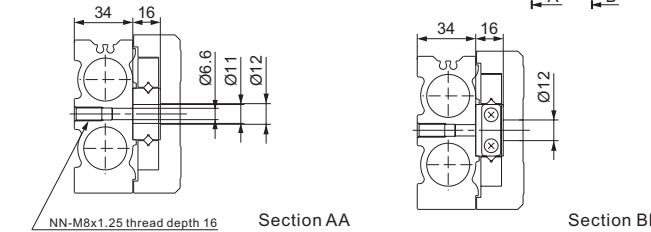
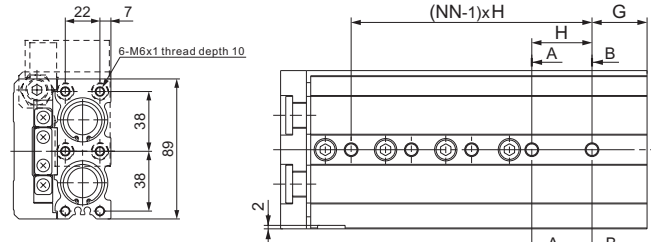
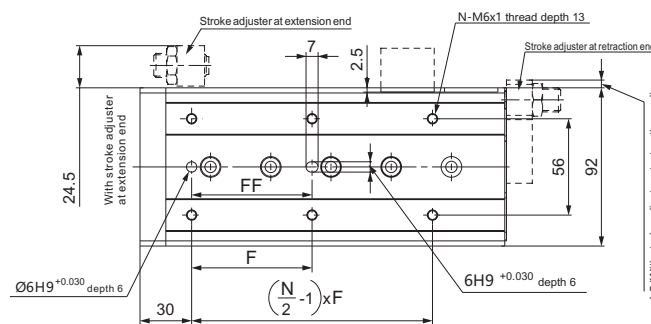
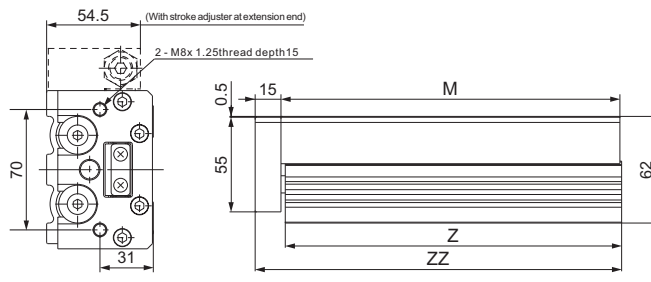
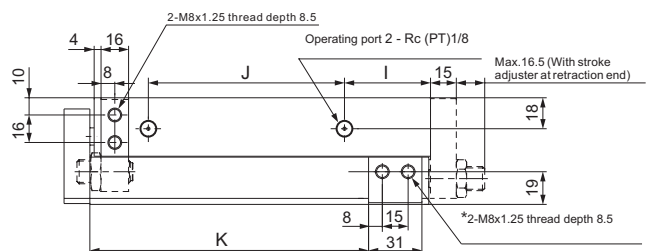


Dimensions (mm)

Model	F	FF	N	G	H	NN
GMXS20-10	50	40	4	15	45	2
GMXS20-20	50	40	4	15	45	2
GMXS20-30	50	40	4	15	45	2
GMXS20-40	60	50	4	15	55	2
GMXS20-50	35	35	6	15	35	3
GMXS20-75	60	60	6	19	35	4
GMXS20-100	70	70	6	37	35	5
GMXS20-125	70	70	8	41	38	6
GMXS20-150	80	80	8	19	44	7

Model	I	J	K	M	Z	ZZ
GMXS20-10	10	44	31	83	81.5	97
GMXS20-20	10	44	41	83	81.5	97
GMXS20-30	10	44	51	83	81.5	97
GMXS20-40	10	54	61	93	91.5	107
GMXS20-50	10	69	71	108	106.5	122
GMXS20-75	10	108	96	147	145.5	161
GMXS20-100	58	113	121	200	198.5	214
GMXS20-125	70	155	146	254	252.5	268
GMXS20-150	87	190	171	306	304.5	320

### GMXS25 Basic type



Dimensions (mm)

Model	F	FF	N	G	H	NN
GMXS25-10	50	40	4	22	45	2
GMXS25-20	50	40	4	22	45	2
GMXS25-30	50	40	4	22	45	2
GMXS25-40	60	50	4	22	55	2
GMXS25-50	35	35	6	20	35	3
GMXS25-75	60	60	6	26	35	4
GMXS25-100	70	70	6	32	35	5
GMXS25-125	75	75	8	40	38	6
GMXS25-150	80	80	8	30	40	7

Model	I	J	K	M	Z	ZZ
GMXS25-10	12	47	35	92	90.5	108
GMXS25-20	12	47	45	92	90.5	108
GMXS25-30	12	47	55	92	90.5	108
GMXS25-40	12	57	65	102	100.5	118
GMXS25-50	12	70	75	115	113.5	131
GMXS25-75	33	90	100	156	154.5	172
GMXS25-100	50	114	125	197	195.5	213
GMXS25-125	67	155	150	255	253.5	271
GMXS25-150	82	180	175	295	293.5	311

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

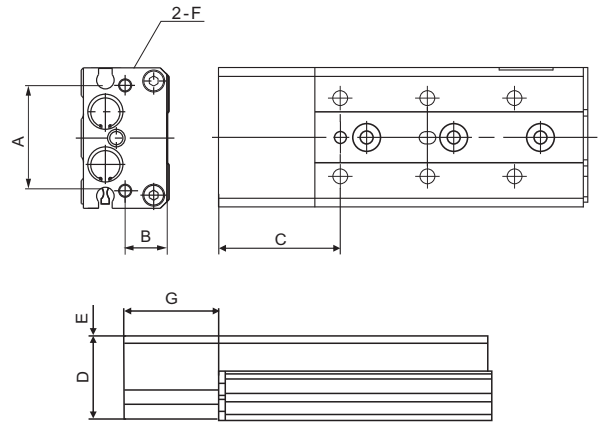
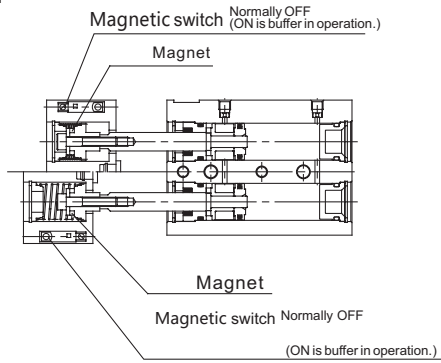
Vacuum Module

Accessory Components

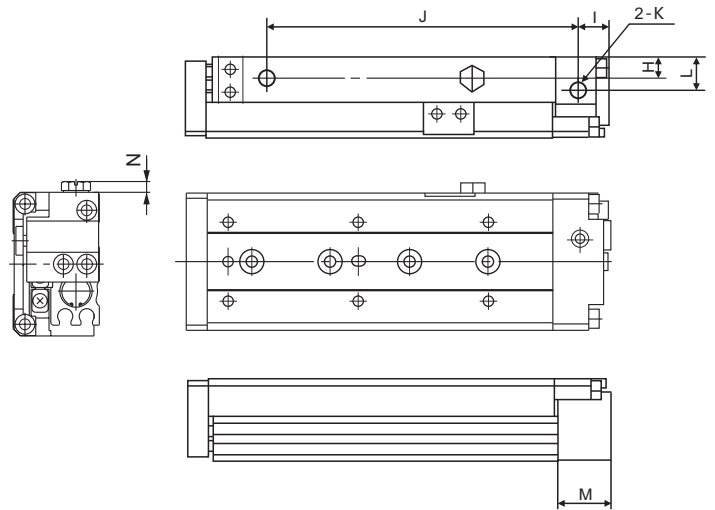
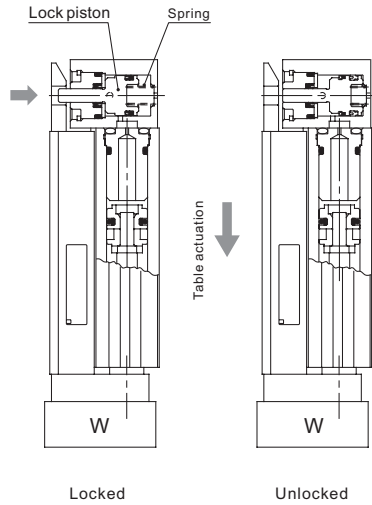
# Air Slide Table GMXS Series

## Functional option

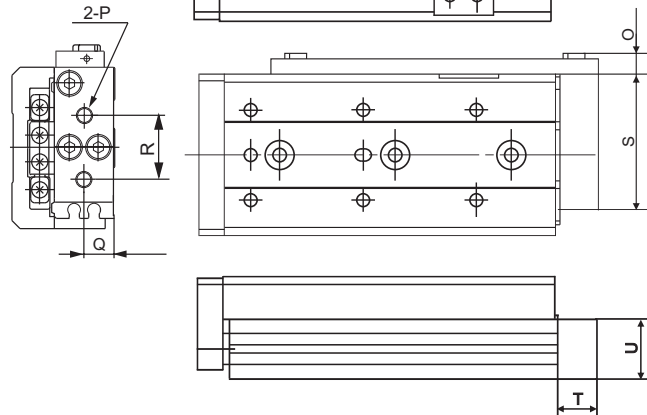
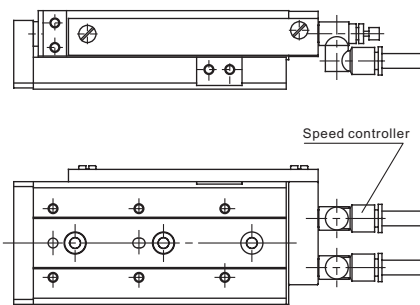
### F-With buffer



### R-With end lock



### P-Axial piping type



## Dimensions

(mm)

(Model)	A	B	C	D	E	F	G	H	I	J						K	L	M	N	O	P	Q	R	S	T	U				
										10	20	30	40	50	75												100	125	150	
GMXS6	24	10	28	19	0.5	M3x0.5	22	-	-	-	-	-	-	-	-	-	-	-	5.6	M3x0.5	5.5	12	32	8	11.5					
GMXS8	30	12	28.5	22.5	0.5	M4x0.7	22.5	6.5	9	39	44	55	73	91	141	-	-	-	-	M3x0.5	10	15.5	3	6.5	M5x0.8	6.5	15	40	12	13.5
GMXS12	38	16	37	30	0.5	M5x0.8	29	9.5	10.5	59.5	59.5	59.5	71.5	91.5	137.5	191.5	-	-	-	M5x0.8	14.5	20	3	6.5	M5x0.8	9.5	20	50	12	18.7
GMXS16	48	20	41	37.5	0.5	M6x1	30	12	13	62	62	62	72	87	137	185	235	-	-	M5x0.8	18	25	3	6.5	M5x0.8	12	26	62	12	23.5
GMXS20	58	25	44.5	45.5	0.5	M6x1	30.5	15	15.5	68.5	68.5	68.5	78.5	93.5	132.5	185.5	239.5	239.5	-	Rc1/8	20	30	-	11.5	Rc1/8	15	32	76	20	29.5
GMXS25	70	31	50	55	0.5	M8x1.25	35	18	18	76	76	76	86	99	140	181	239	239	-	Rc1/8	25.5	35	-	11.5	Rc1/8	18	40	92	20	35.5

# GMXH Miniature Air Slide Table Linear Guide GMXH Series

**NEW**

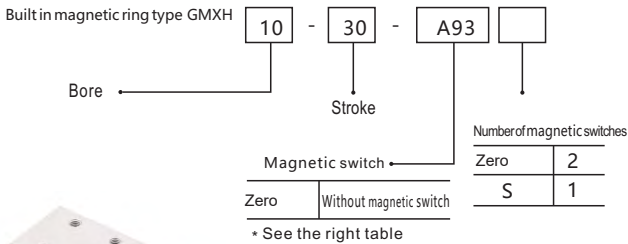


缸径Bore size (mm)	6	10	16	20
Guide bearing width	5	7	9	12
Fluid	Air			
Action	Double acting			
Minimum operating pressure	0.15MPa	0.06MPa	0.05MPa	
Maximum operating pressure	0.7MPa			
Ambient and fluid temperatures	Without magnetic switch: -10 to 70°C With magnetic switch: -10 to 60°C (No freezing)			
Piston speed	50~500mm/s			
Allowable kinetic energy (J)	0.0125	0.025	0.05	0.1
Lubrication	Non-lube			
Cushion	Rubber bumper on both ends			
Stroke length tolerance (mm)	+1.0			
Magnetic switch(Optional)	Reed Magnetic switch D-A9		Solid state Magnetic switch D-M9	
Piping port size	M5 x 0.8			

\*Please use turbine No.1 oil ISOVG32 if need.

- \*Install linear guide bearing to improve the accuracy of non-rotative of piston rod
- \*Standard built-in magnetic ring, can install magnetic switch of stroke testing
- \*Can connect to air from three sides
- \*Can install magnetic switch from two sides
- \*Standard rubber buffer at both ends
- \*Allowable torque is 6 times of GMXU series

### Model representation methods

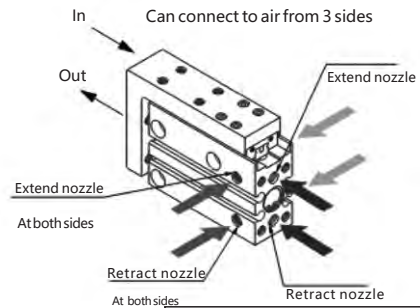


Miniature linear guide bearing improve the accuracy of linear motion of cylinder

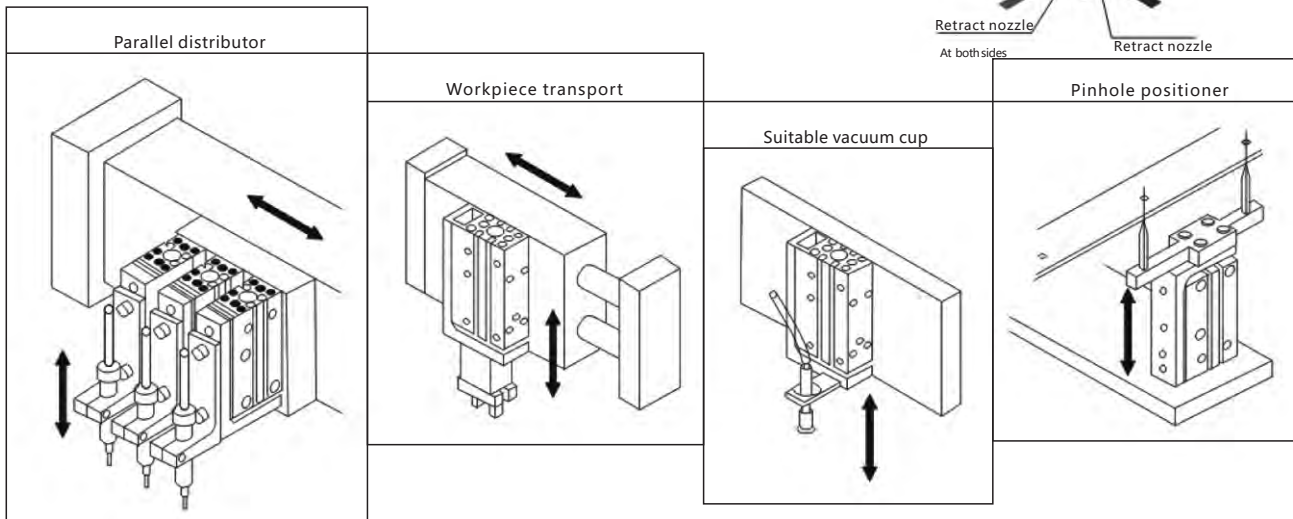
### Stroke/magnetic switch selection

(mm)	Standard stroke (mm)	Direct mount type of magnetic switch		
		22-wire		3-wire
6	5, 10, 15, 20, 25, 30, 40, 50, 60	D-M9B	D-M9N	D-M9P
10		D-M9BL	D-M9NL	D-M9PL
16		D-M9BV	D-M9NV	D-M9PV
20		D-M9BVL	D-M9NVL	D-M9PVL

Note) The specification and characteristics of magnetic switch can refer to the series of magnetic switch. At the end of the model of magnetic switch, the length mark of conductor is attached: N0mark-0.5m, L-3m, Z-5m  
Example: A93L



### Application



Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

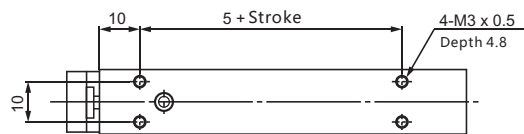
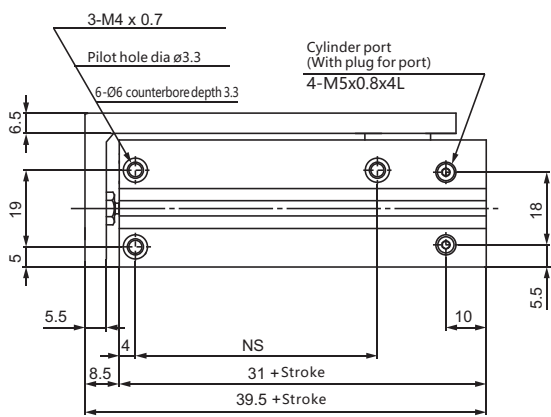
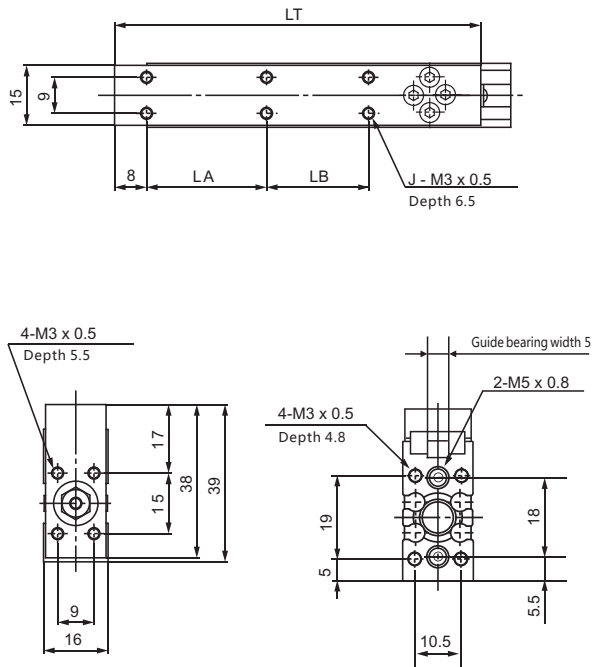
Vacuum Module

Accessory Components

# Miniature Air Slide Table Linear Guide GMXH Series

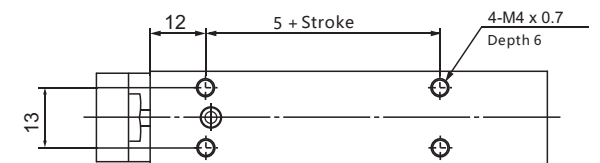
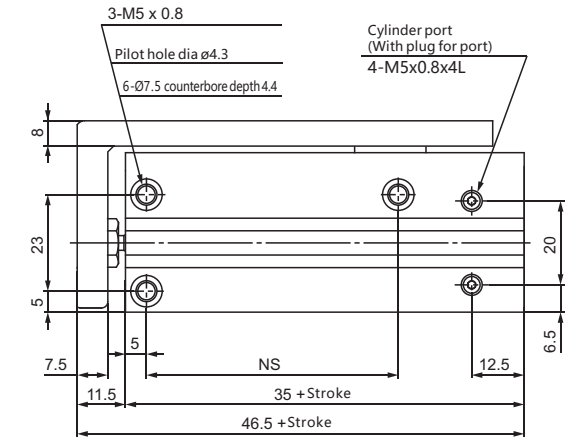
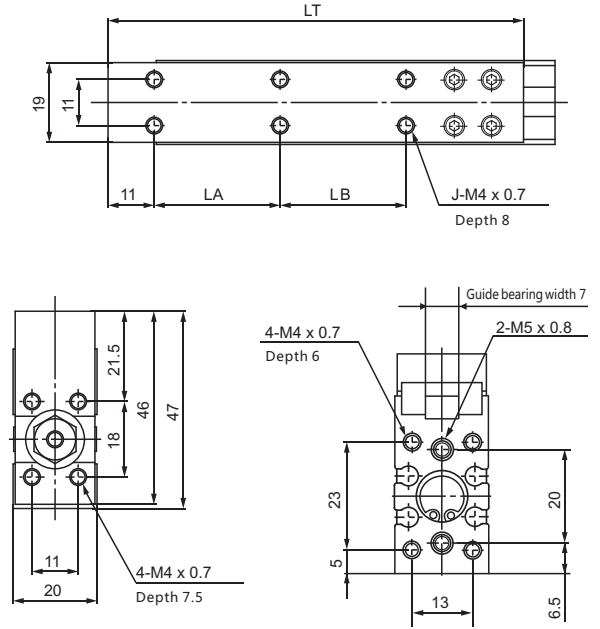
Profile · SUS\_Tube  
Stents Module  
Quick Changer  
Grip Module  
Air Nipper  
Vacuum Module  
Accessory Components

## GMXH6



Dimensions (mm)						
Model	Stroke	J	LA	LB	LT	NS
GMXH6-5Z	5	4	10	-	42	14
GMXH6-10Z	10	4	10	-	42	14
GMXH6-15Z	15	4	20	-	52	24
GMXH6-20Z	20	4	20	-	52	24
GMXH6-25Z	25	4	30	-	62	30
GMXH6-30Z	30	4	30	-	62	30
GMXH6-40Z	40	6	20	20	72	45
GMXH6-50Z	50	6	25	25	82	55
GMXH6-60Z	60	6	30	30	92	60

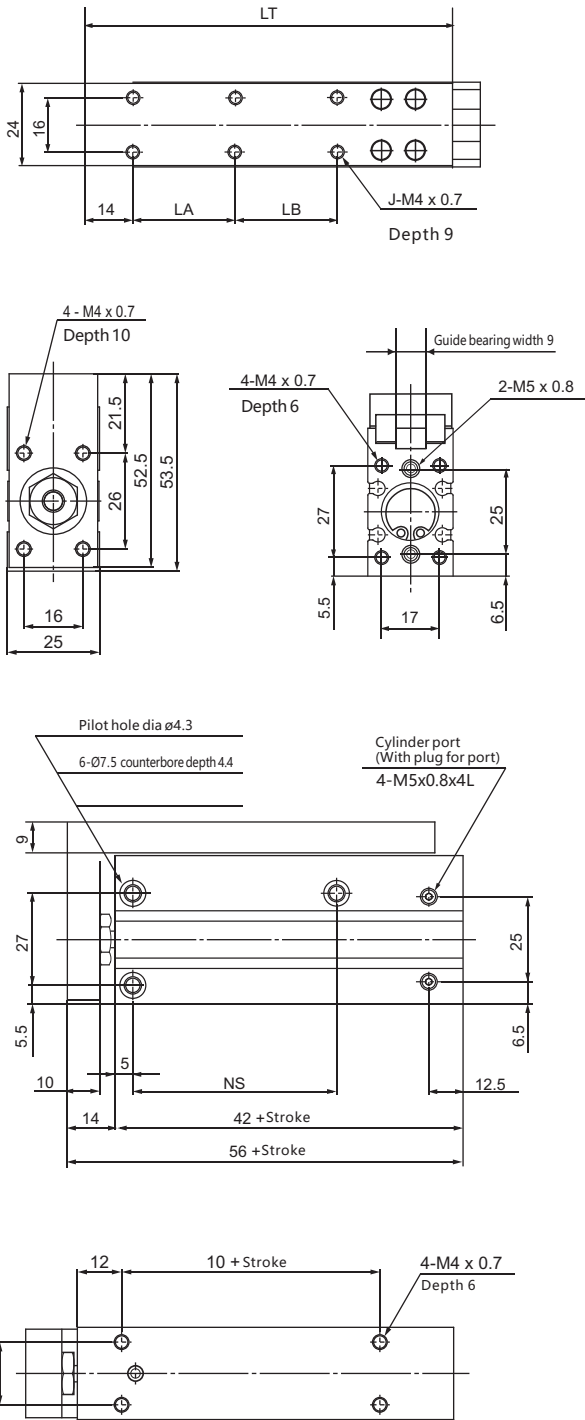
## GMXH10



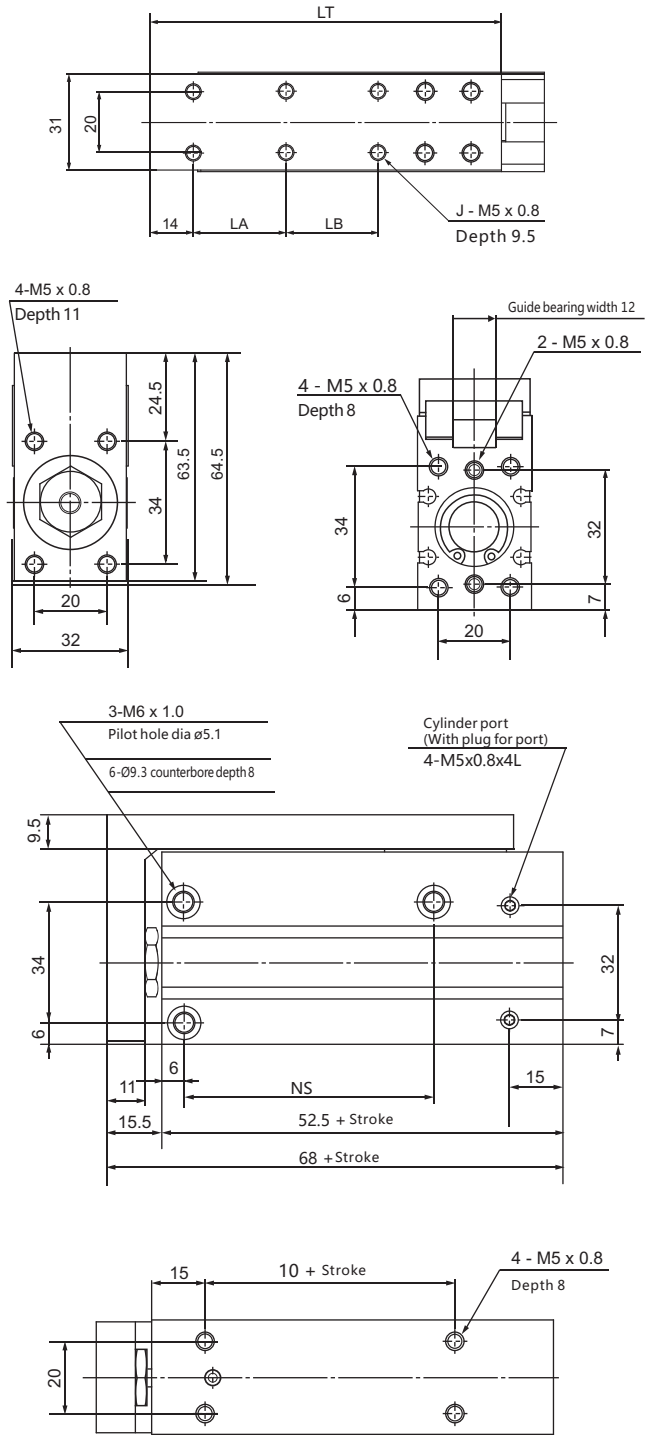
Dimensions (mm)						
Model	Stroke	J	LA	LB	LT	NS
GMXH10-5Z	5	4	10	-	49	14
GMXH10-10Z	10	4	10	-	49	14
GMXH10-15Z	15	4	20	-	59	24
GMXH10-20Z	20	4	20	-	59	24
GMXH10-25Z	25	4	30	-	69	30
GMXH10-30Z	30	4	30	-	69	30
GMXH10-40Z	40	6	20	20	79	45
GMXH10-50Z	50	6	25	25	89	55
GMXH10-60Z	60	6	30	30	99	60

# Miniature Air Slide Table Linear Guide GMXH Series

## GMXH16



## GMXH20



Dimensions (mm)

Model	Stroke	J	LA	LB	LT	NS
GMXH16-5Z	5	4	10	-	58	20
GMXH16-10Z	10	4	10	-	58	20
GMXH16-15Z	15	4	20	-	68	30
GMXH16-20Z	20	4	20	-	68	30
GMXH16-25Z	25	4	30	-	78	40
GMXH16-30Z	30	4	30	-	78	40
GMXH16-40Z	40	6	20	20	88	50
GMXH16-50Z	50	6	25	25	98	60
GMXH16-60Z	60	6	30	30	108	60

Dimensions (mm)

Model	Stroke	J	LA	LB	LT	NS
GMXH20-5Z	5	4	10	-	64	20
GMXH20-10Z	10	4	10	-	64	20
GMXH20-15Z	15	4	20	-	74	25
GMXH20-20Z	20	4	20	-	74	25
GMXH20-25Z	25	4	30	-	84	40
GMXH20-30Z	30	4	30	-	84	40
GMXH20-40Z	40	6	20	20	94	50
GMXH20-50Z	50	6	25	25	104	70
GMXH20-60Z	60	6	30	30	114	70

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Sprue Gripper

Main body being made of high-strength Aluminium , light weight , strong rigidity and long life cycle.  
Using threaded components or CRG's components when to assemble.

## Series GR-Sprue Gripper (Without Sensor)



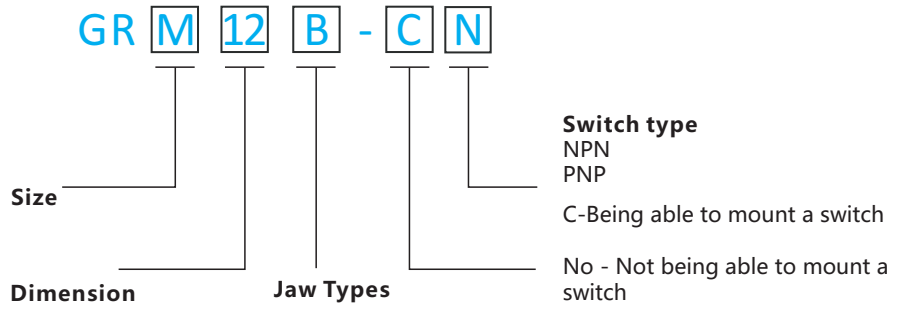
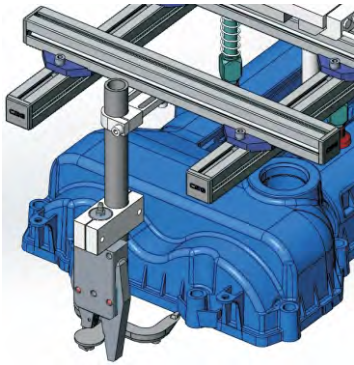
## Series GR -Sprue Gripper (With Sensor)



PN	Model	Switch type	F	Weight
8.Y00214	GRS08	-	5N	18g
8.Y00099	GRS08-C	-	5N	24g
8.Y00011	GRS08-CN	NPN	5N	40g
8.Y00012	GRS08-CP	PNP	5N	40g
8.Y00103	GRM12A	-	28N	46g
8.Y00092	GRM12A-C	-	28N	45g
8.Y00009	GRM12A-CN	NPN	28N	60g
8.Y00010	GRM12A-CP	PNP	28N	60g
8.Y00107	GRM12B	-	28N	46g
8.Y00106	GRM12B-C	-	28N	45g
8.Y00104	GRM12B-CN	NPN	28N	60g
8.Y00105	GRM12B-CP	PNP	28N	60g
8.Y00108	GRL12A	-	45N	94g
8.Y00100	GRL12A-C	-	45N	84g
8.Y00001	GRL12A-CN	NPN	45N	100g
8.Y00002	GRL12A-CP	PNP	45N	100g
8.Y00213	GRX20	-	80N	180g
8.Y00215	GRX20-C	-	80N	177g
8.Y00013	GRX20-CN	NPN	80N	192g
8.Y00014	GRX20-CP	PNP	80N	192g

# Sprue Gripper

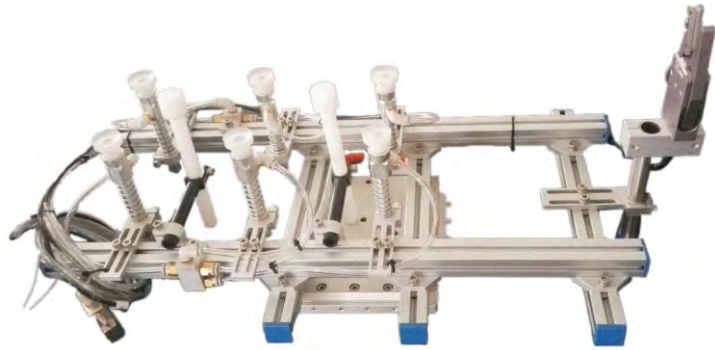
## Application example



## Installation method



Application example 1



Application example 2

## Accessories selection



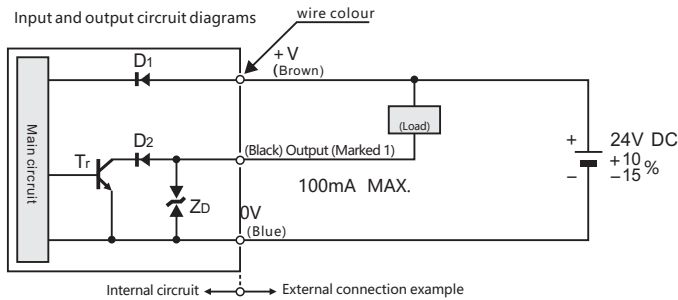
- 1.PNP
- 2.NPN

PN	Model
7.Y00800	PNP
7.Y00801	NPN

Note: The length is 1 meters

## Switch wiring instructions

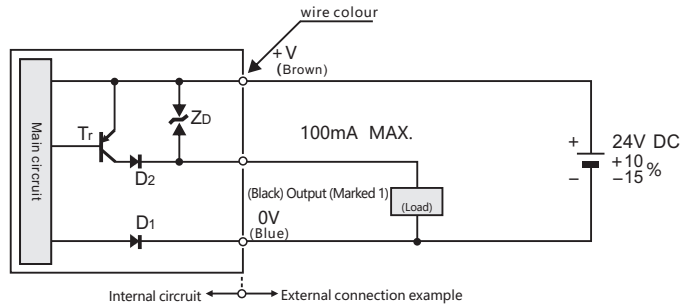
### NPN output type



(Marked 1) Output is not equipped with short-circuit protection circuit.  
Do not connect directly to power or capacitive loads

### PNP output type

#### Input and output circuit diagrams



(Marked 1) Output is not equipped with short-circuit protection circuit.  
Do not connect directly to power or capacitive loads

# Sprue Gripper GRS08 Series

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



GRS08  
(Without Sensor)



GRS08-CN(CP)  
(With Sensor)

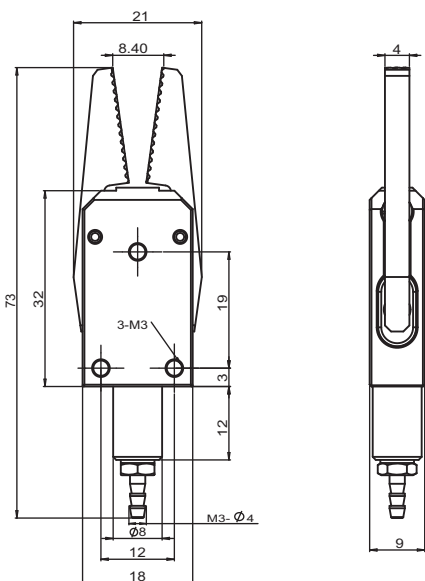
## Product Description

GRS08

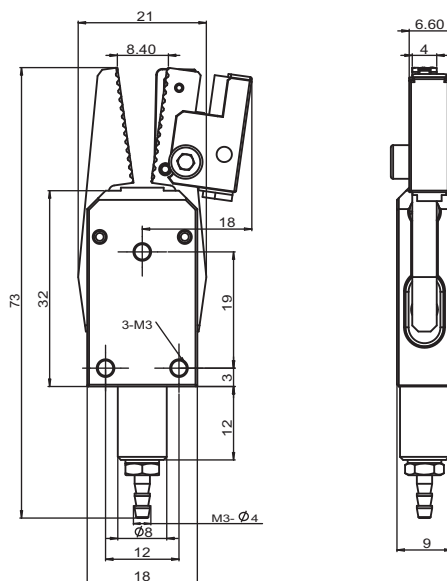
### Series GRS08

Main body being made of high-strength Aluminium, light weight, strong rigidity and long life cycle. Using threaded components or CRG's components when to assemble.

PN	Model	(Sensor)	F	Weight
8.Y00214	GRS08	-	5N	18g
8.Y00099	GRS08-C	-	5N	24g
8.Y00011	GRS08-CN	NPN	5N	40g
8.Y00012	GRS08-CP	PNP	5N	40g



(Without Sensor)



(With Sensor)

# Sprue Gripper GRM12 Series



GRM12A  
(Without Sensor)



GRM12A-CN(CP)  
(With Sensor)

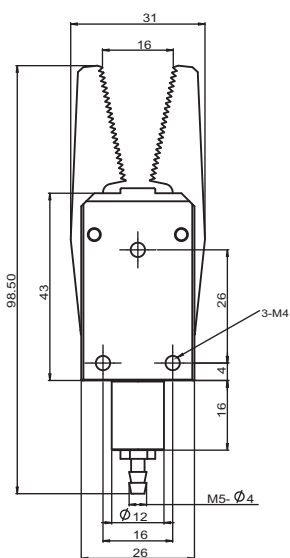
## Product Description

GRM12

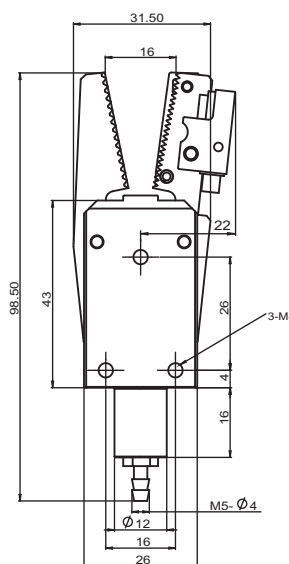
### Series GRM12

Main body being made of high-strength Aluminium, light weight, strong rigidity and long life cycle. Using threaded components or CRG's components when to assemble.

PN	Model	Sensor	F	Weight
8.Y00103	GRM12A	-	28N	46g
8.Y00107	GRM12B	-	28N	46g
8.Y00092	GRM12A-C	-	28N	45g
8.Y00009	GRM12A-CN	NPN	28N	60g
8.Y00010	GRM12A-CP	PNP	28N	60g
8.Y00106	GRM12B-C	-	28N	45g
8.Y00104	GRM12B-CN	NPN	28N	60g
8.Y00105	GRM12B-CP	PNP	28N	60g



(Without Sensor)



(With Sensor)

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Sprue Gripper GRL12 Series

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



GRL12A  
(Without Sensor)



GRL12A-CN(CP)  
(With Sensor)

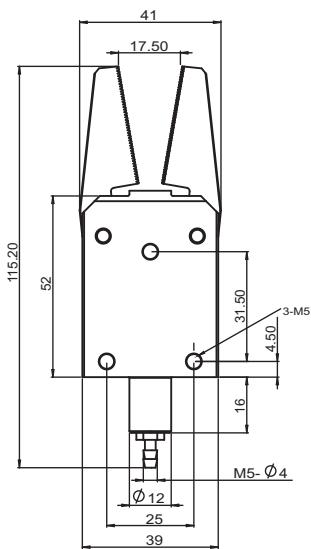
## Product Description

GRL12

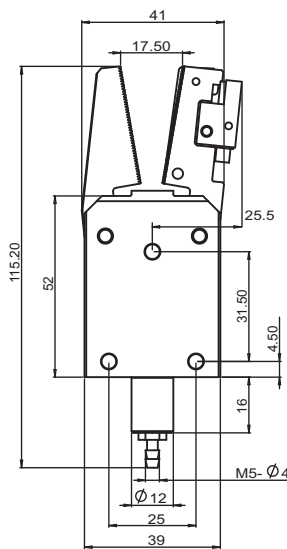
### Series GRL12

Main body being made of high-strength Aluminium , light weight , strong rigidity and long life cycle. Using threaded components or CRG's components when to assemble.

PN	Model	Sensor	F	Weight
8.Y00108	GRL12A	-	45N	94g
8.Y00100	GRL12A-C	-	45N	84g
8.Y00001	GRL12A-CN	NPN	45N	100g
8.Y00002	GRL12A-CP	PNP	45N	100g



(Without Sensor)



(With Sensor)

# Sprue Gripper GRX20 Series



GRX20  
(Without Sensor)



GRX20-CN(CP)  
(With Sensor)

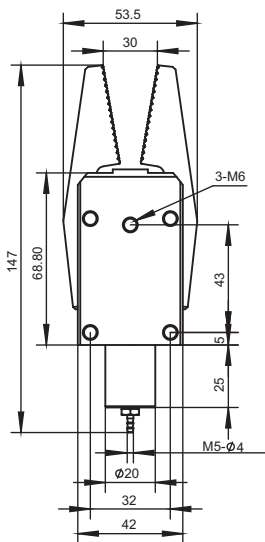
## Product Description

GRX20

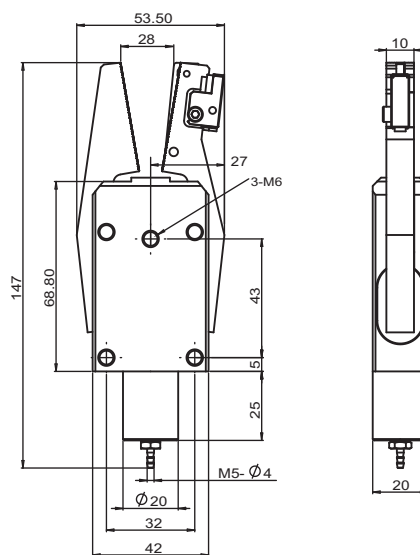
### Series GRX20

Main body being made of high-strength Aluminium, light weight, strong rigidity and long life cycle. Using threaded components or CRG's components when to assemble.

PN	Model	Sensor	F	Weight
8.Y00213	GRX20	-	80N	180g
8.Y00215	GRX20-C	-	80N	177g
8.Y00013	GRX20-CN	NPN	80N	192g
8.Y00014	GRX20-CP	PNP	80N	192g



Without Sensor



With Sensor

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Sprue Gripper GR12 Series

Profile - SUS Tube

Stents Module

Quick Changer

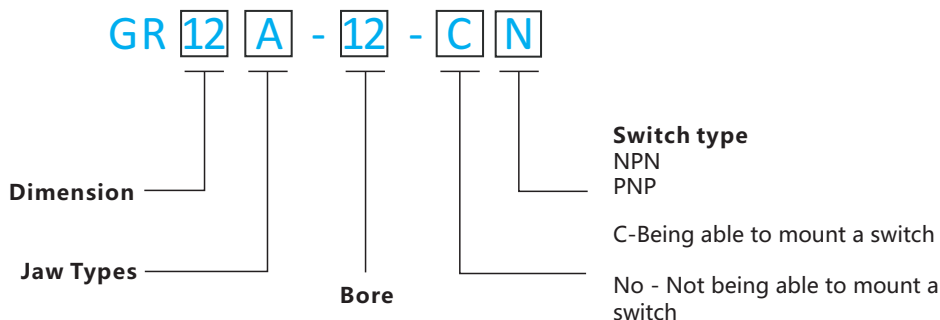
Grip Module

Air Nipper

Vacuum Module

Accessory Components

## Model representation methods



Main body being made of high-strength Aluminium, light weight, strong rigidity and long life cycle. Using threaded components or CRG's components when to assemble.



GR10A-12  
 GR12A-12  
 (Without Sensor)



GR12B-12  
 (Without Sensor)



GR12L-12  
 (Without Sensor)



GR10A-12-CP  
 GR12A-12-CN(CP)  
 (With Sensor)



GR12B-12-CN(CP)  
 (With Sensor)

## Accessories selection



1.PNP  
 2.NPN

PN	Model
1.Y07261	GX-F8A-P (PNP)
1.Y07405	GX-F8A (NPN)

Note: The length is 1 meters

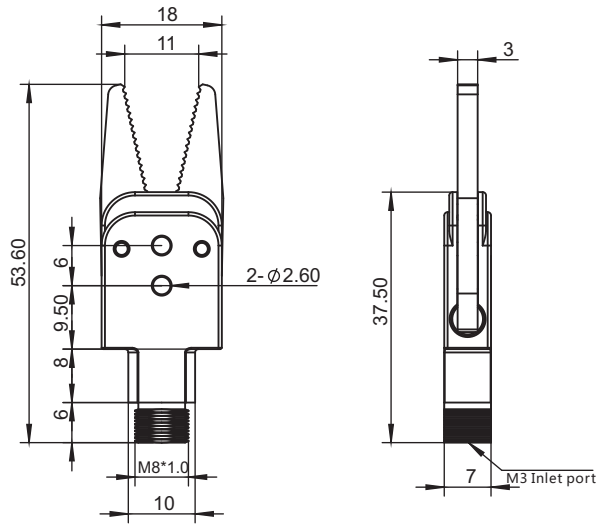
PN	Model	Sensor	F	Weight
8.Y00348	GR05A-10	-	12N	9.6g
8.Y00268	GR10A-12	-	28N	44g
8.Y00267	GR10A-12-CP	PNP	28N	70g
8.Y00370	GR10D-12	-	28N	42g
8.Y00369	GR10D-12-CP	PNP	28N	61g
8.Y00048	GR12A-12	-	28N	44g
8.Y00098	GR12A-12-C	-	28N	44g
8.Y00050	GR12A-12-CP	PNP	28N	70g
8.Y00091	GR12A-12-CN	NPN	28N	70g
8.Y00245	GR12B-12	-	28N	44g
8.Y00260	GR12B-12-C	-	28N	44g
8.Y00261	GR12B-12-CP	PNP	28N	70g
8.Y00262	GR12B-12-CN	NPN	28N	70g
8.Y00307	GR10L-12	-	28N	50g
8.Y00308	GR12L-12	-	28N	50g

# Sprue Gripper GR05 Series

**NEW**



GR05A-10  
(Without Sensor)



PN	Model	Sensor	F	Weight
8.Y00348	GR05A-10	-	12N	9.6g

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Sprue Gripper GR10 Series

Profile · SUS Tube

Stentis Module

Quick Changer

Grip Module

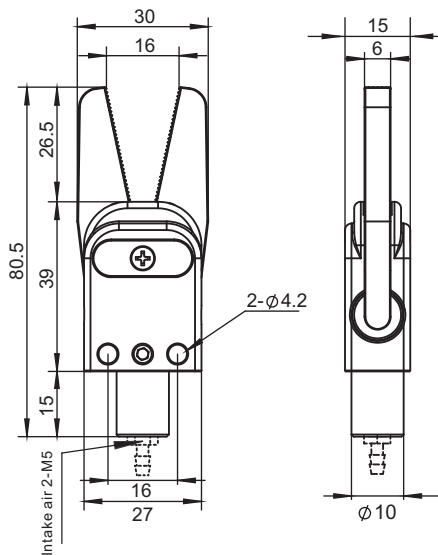
Air Nipper

Vacuum Module

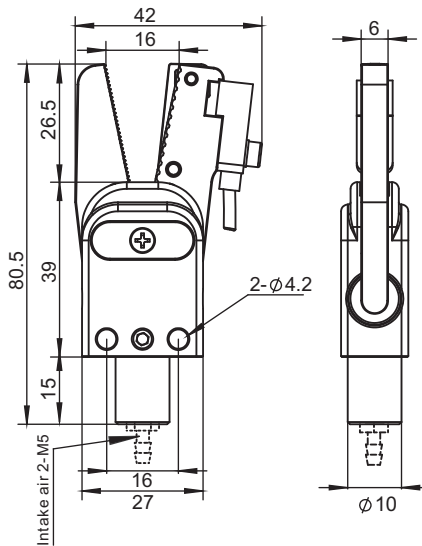
Accessory Components



GR10A-12  
(Without Sensor)



GR10A-12-CN(CP)  
(With Sensor)



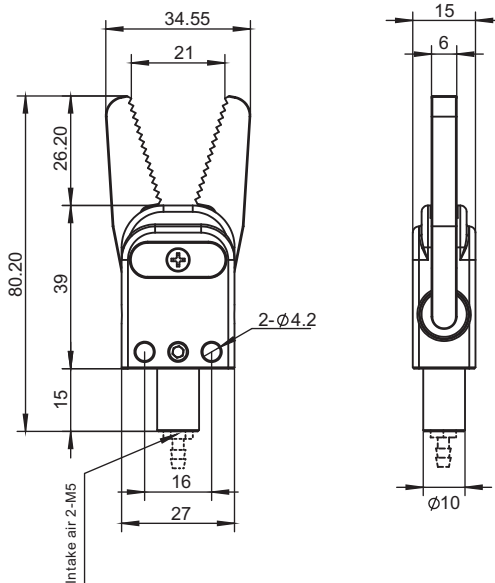
PN	Model	Sensor	F	Weight
8.Y00268	GR10A-12	-	28N	44g
8.Y00267	GR10A-12-CP	PNP	28N	70g

# Sprue Gripper GR10 Series

**NEW**



GR10D-12  
(Without Sensor)

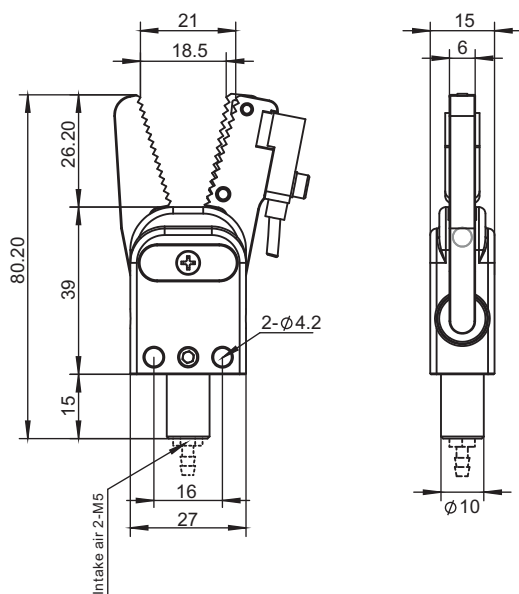


**NEW**



GR10D-12-CP  
(With Sensor)

GX-F8A-P (PNP)



PN	Model	Sensor	F	Weight
8.Y00370	GR10D-12	-	28N	42g
8.Y00369	GR10D-12-CP	PNP	28N	61g

- Profile - SUS Tube
- Stents Module
- Quick Changer
- Grip Module
- Air Nipper
- Vacuum Module
- Accessory Components

# Sprue Gripper GR12 Series

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

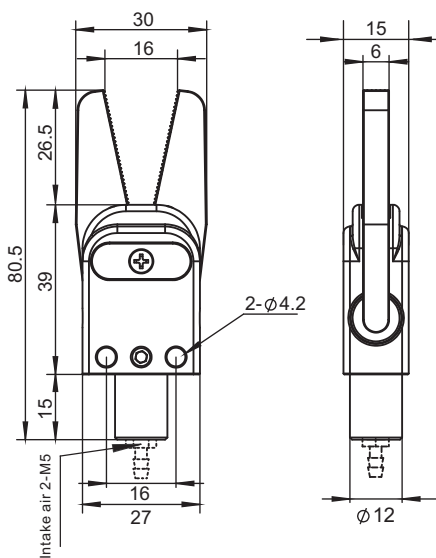
Air Nipper

Vacuum Module

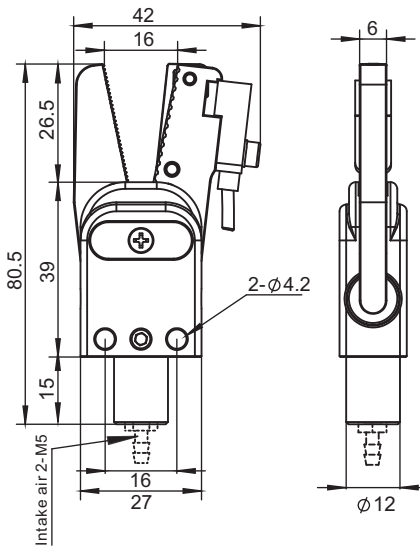
Accessory Components



GR12A-12  
(Without Sensor)



GR12A-12-CN(CP)  
(With Sensor)

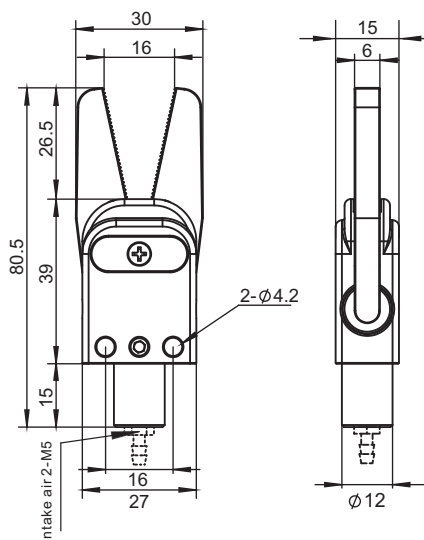


PN	Model	Sensor	F	Weight
8.Y00048	GR12A-12	-	28N	44g
8.Y00098	GR12A-12-C	-	28N	44g
8.Y00050	GR12A-12-CP	PNP	28N	70g
8.Y00091	GR12A-12-CN	NPN	28N	70g

# Sprue Gripper GR12 Series

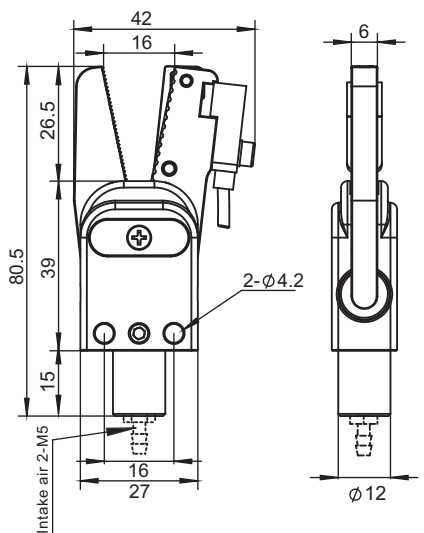


GR12B-12  
(Without Sensor)



GR12B-12-CN(CP)  
(With Sensor)

GX-F8A-P (PNP)  
GX-F8A (NPN)



PN	Model	Sensor	F	Weight
8.Y00245	GR12B-12	-	28N	44g
8.Y00260	GR12B-12-C	-	28N	44g
8.Y00261	GR12B-12-CP	PNP	28N	70g
8.Y00262	GR12B-12-CN	NPN	28N	70g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Sprue Gripper GR12 Series

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

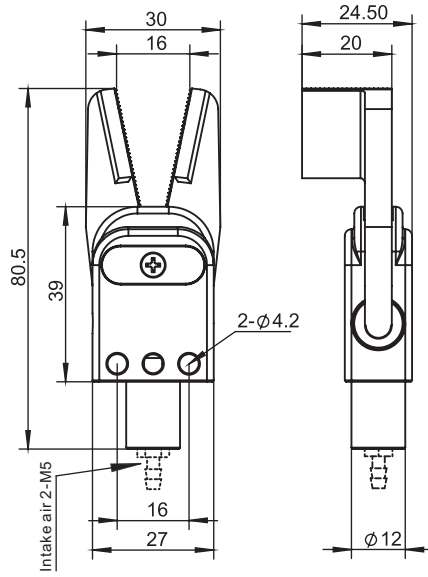
Air Nipper

Vacuum Module

Accessory Components



GR12L-12  
(Without Sensor)



PN	Model	Sensor	F	Weight
8.Y00307	GR10L-12	-	28N	50g
8.Y00308	GR12L-12	-	28N	50g

# Sprue Gripper GR20 Series

1. Main body being made of high-strength Aluminium , light weight , strong rigidity and long life cycle.
2. Using threaded components or CRG's components when to assemble.
3. GR series of sprue gripper can choose different types of jaws to satisfy the clamping of various sprue gate.



GR20A-20  
(Without Sensor)



GR20B-20  
(Without Sensor)



GR20C-20  
(Without Sensor)



GR20E-20  
(Without Sensor)



GR20A-20-CN(CP)  
(With Sensor)



GR20B-20-CN(CP)  
(With Sensor)



GR20D-20  
(Without Sensor)



GR20F-20  
(Without Sensor)

PN	Model	Sensor	F	Weight
8.Y00224	GR20A-20	-	80N	112g
8.Y00049	GR20A-20-C	-	80N	118g
8.Y00226	GR20A-20-CP	PNP	80N	137g
8.Y00051	GR20A-20-CN	NPN	80N	137g
8.Y00234	GR20B-20	-	80N	112g
8.Y00231	GR20B-20-C	-	80N	118g
8.Y00232	GR20B-20-CP	PNP	80N	137g
8.Y00233	GR20B-20-CN	NPN	80N	137g
8.Y00342	GR20C-20	-	80N	140g
8.Y00343	GR20D-20	-	80N	149g
8.Y00344	GR20E-20	-	80N	129g
8.Y00345	GR20F-20	-	80N	128g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Sprue Gripper GR20 Series

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

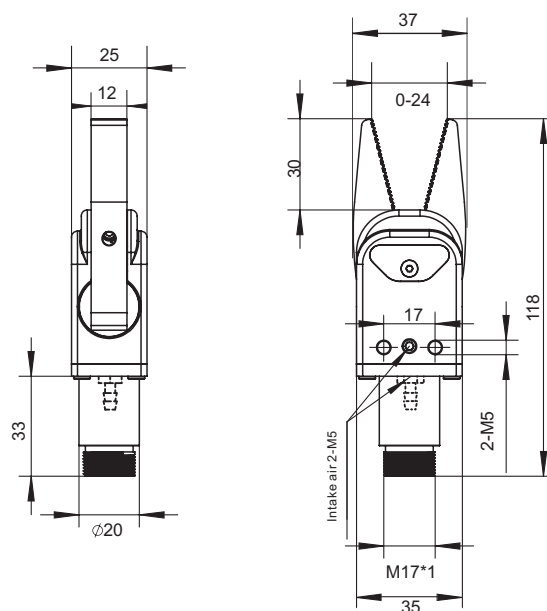
Vacuum Module

Accessory Components



The four screws on the bottom are loose for ventilate conveniently when they leaving the factory

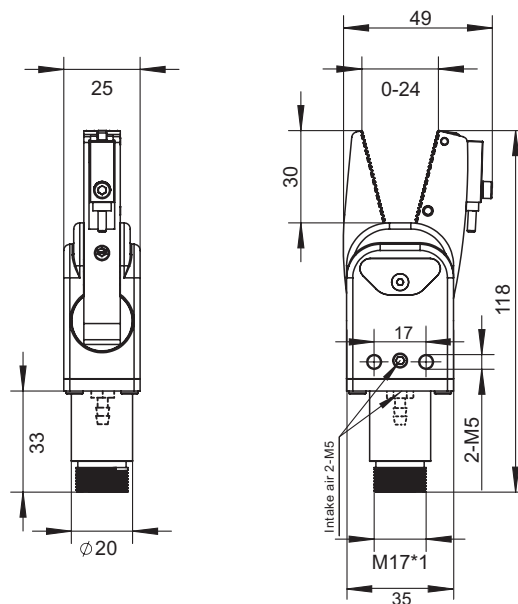
GR20A-20  
(Without Sensor)



GX-F8A-P (PNP)  
GX-F8A (NPN)

The four screws on the bottom are loose for ventilate conveniently when they leaving the factory

GR20A-20-CN(CP)  
(With Sensor)



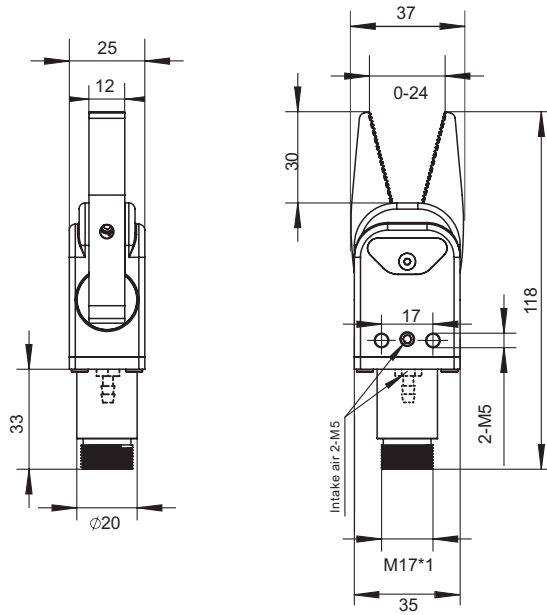
PN	Model	Sensor	F	Weight
8.Y00224	GR20A-20	-	80N	112g
8.Y00049	GR20A-20-C	-	80N	118g
8.Y00226	GR20A-20-CP	PNP	80N	137g
8.Y00051	GR20A-20-CN	NPN	80N	137g

# Sprue Gripper GR20 Series



The four screws on the bottom are loose for ventilate conveniently when they leaving the factory

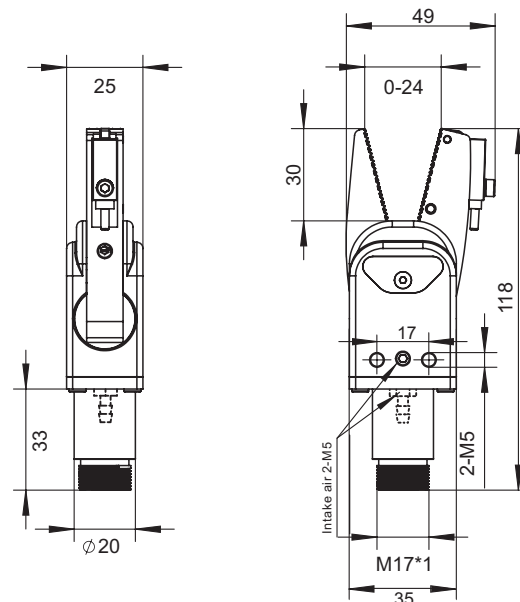
GR20B-20  
(Without Sensor)



GX-F8A-P (PNP)  
GX-F8A (NPN)

The four screws on the bottom are loose for ventilate conveniently when they leaving the factory

GR20B-20-CN(CP)  
(With Sensor)



PN	Model	Sensor	F	Weight
8.Y00234	GR20B-20	-	80N	112g
8.Y00231	GR20B-20-C	-	80N	118g
8.Y00232	GR20B-20-CP	PNP	80N	137g
8.Y00233	GR20B-20-CN	NPN	80N	137g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Sprue Gripper GR20 Series

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

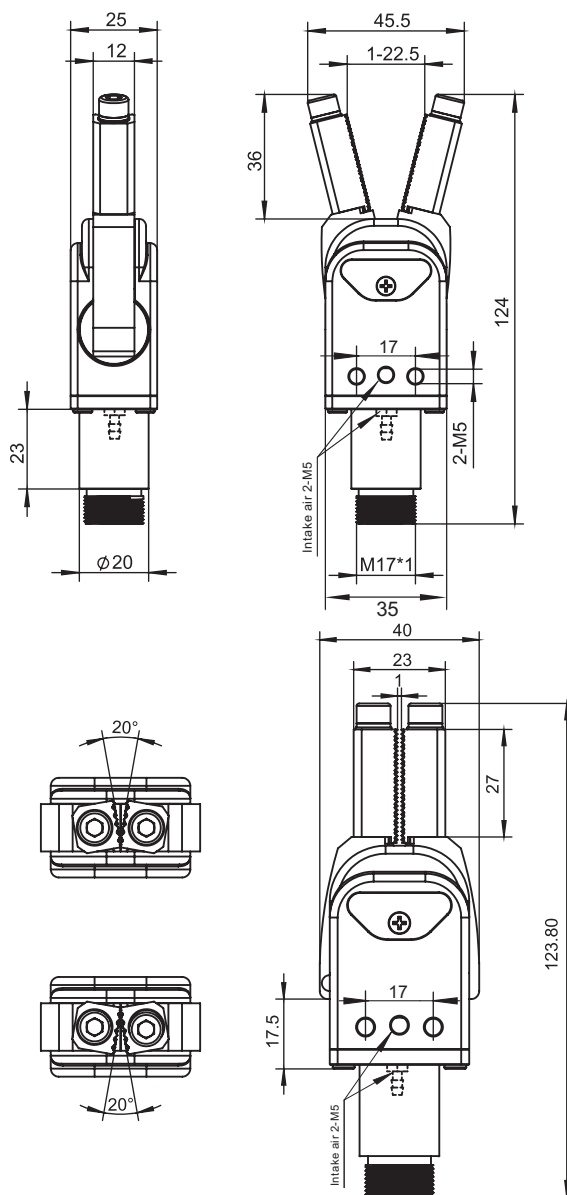
Vacuum Module

Accessory Components



The four screws on the bottom are loose for ventilate conveniently when they leaving the factory

GR20C-20  
(Without Sensor)



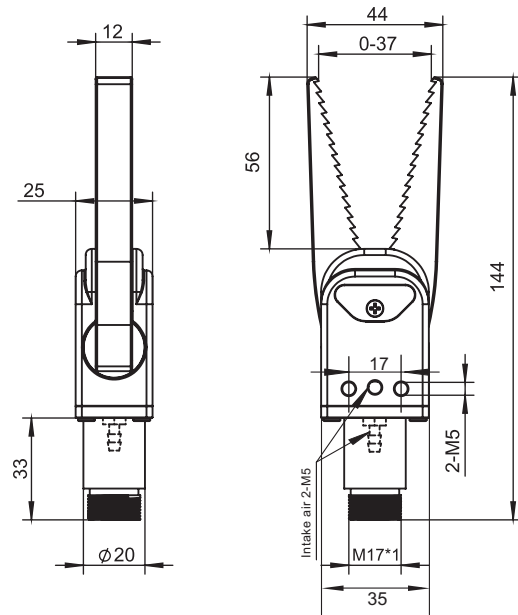
PN	Model	Sensor	F	Weight
8.Y00342	GR20C-20	-	80N	140g

# Sprue Gripper GR20 Series



The four screws on the bottom are loose for ventilate conveniently when they leaving the factory

GR20D-20  
Without Sensor

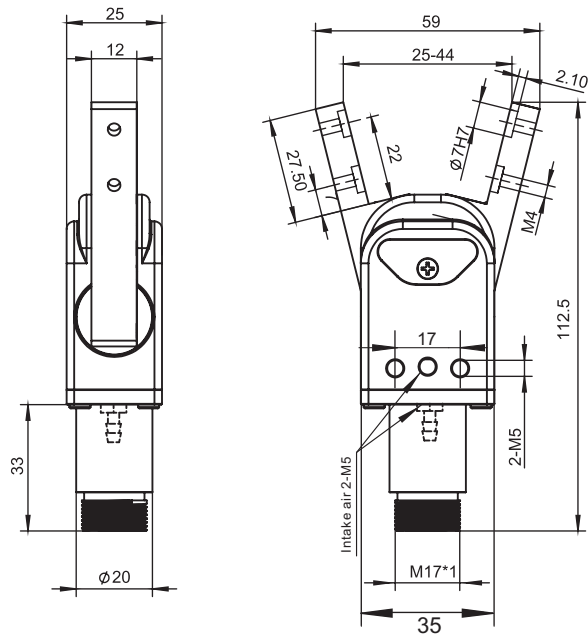


PN	Model	Sensor	F	Weight
8.Y00343	GR20D-20	-	80N	149g



The four screws on the bottom are loose for ventilate conveniently when they leaving the factory

GR20E-20  
(Without Sensor)



PN	Model	Sensor	F	Weight
8.Y00344	GR20E-20	-	80N	129g

Profile - SUS Tube  
Stents Module  
Quick Changer  
Grip Module  
Air Nipper  
Vacuum Module  
Accessory Components

# Sprue Gripper GR20 Series

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

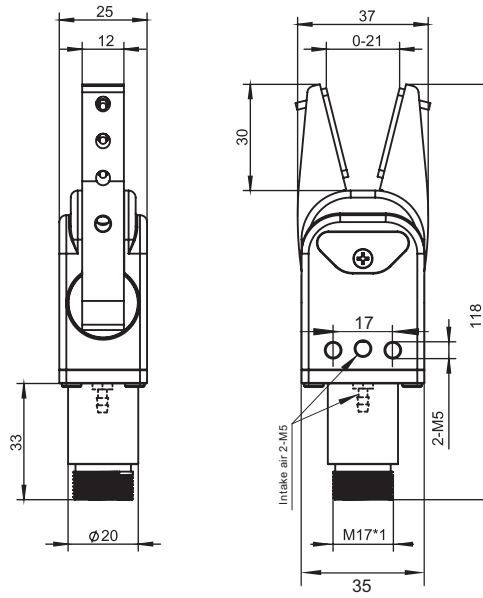
Air Nipper

Vacuum Module

Accessory Components



GR20F-20  
(Without Sensor)



PN	Model	Sensor	F	Weight
8.Y00345	GR20F-20	-	80N	128g

## Sprue Gripper GRT20 Series

1. Main body being made of high-strength Aluminium, light weight, strong rigidity and long life cycle.
2. Using threaded components or CRG's components when to assemble.
3. GR series of sprue gripper can choose different types of jaws to satisfy the clamping of various sprue gate.



GRT20A  
(Without Sensor)



GRT20B  
(Without Sensor)



GRT20C  
(Without Sensor)



GRT20E  
(Without Sensor)



GRT20A-CN(CP)  
(With Sensor)



GRT20B-CN(CP)  
(With Sensor)



GRT20D  
(Without Sensor)



GRT20E-CN(CP)  
(With Sensor)

PN	Model	Switch type	F	Weight
8.Y00257	GRT20A	-	100N	111g
8.Y00258	GRT20A-CN	NPN	100N	130g
8.Y00259	GRT20A-CP	PNP	100N	130g
8.Y00279	GRT20B	-	100N	155g
8.Y00281	GRT20B-CN	NPN	100N	153g
8.Y00282	GRT20B-CP	PNP	100N	153g
8.Y00316	GRT20C	-	100N	144g
8.Y00317	GRT20D	-	100N	160g
8.Y00318	GRT20E	-	100N	161g
8.Y00339	GRT20E-CN	NPN	100N	165g
8.Y00340	GRT20E-CP	PNP	100N	165g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Sprue Gripper GRT20 Series

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

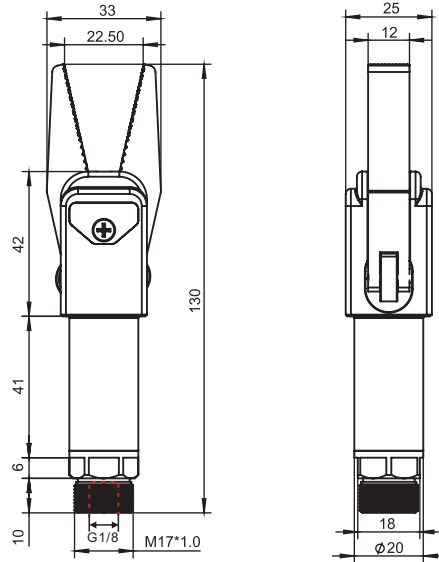
Air Nipper

Vacuum Module

Accessory Components

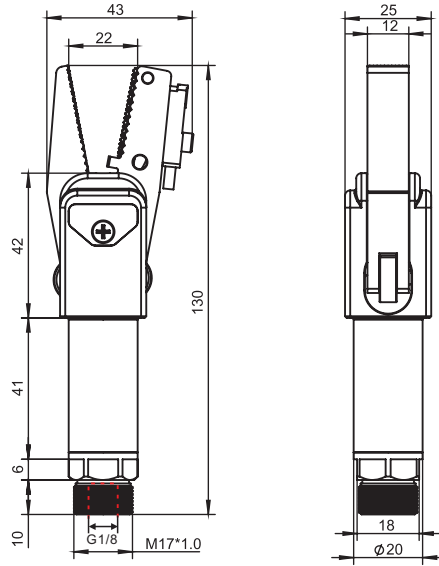


GRT20A  
(Without Sensor)



GRT20A-CN(CP)  
(With Sensor)

GX-F8A-P (PNP)  
GX-F8A (NPN)

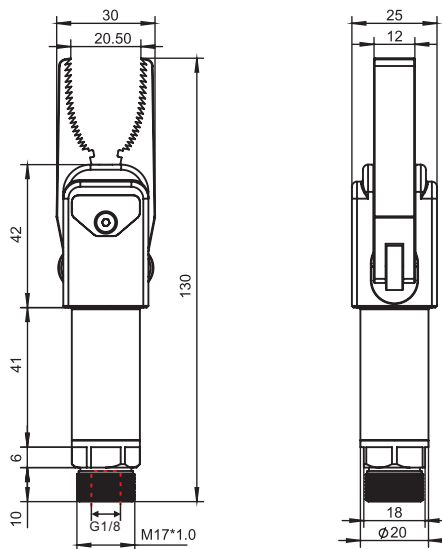


PN	Model	传感器(Sensor)	抓取力(F)	重量(Weight)
8.Y00257	GRT20A	-	100N	111g
8.Y00258	GRT20A-CN	NPN	100N	130g
8.Y00259	GRT20A-CP	PNP	100N	130g

# Sprue Gripper GRT20 Series

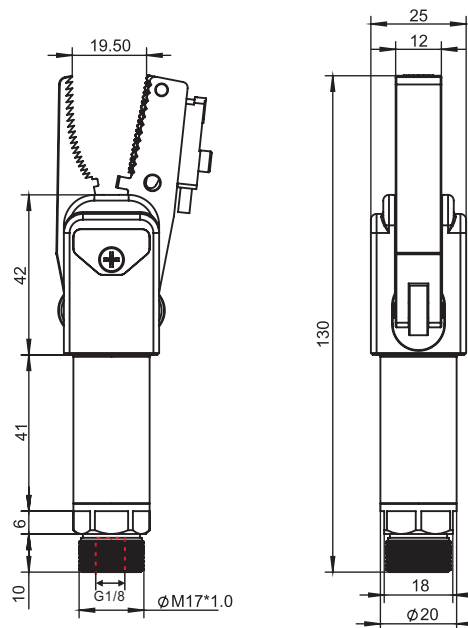


GRT20B  
(Without Sensor)



GRT20B-CN(CP)  
With Sensor

GX-F8A-P (PNP)  
GX-F8A (NPN)



PN	Model	Sensor	F	Weight
8.Y00279	GRT20B	-	100N	155g
8.Y00281	GRT20B-CN	NPN	100N	153g
8.Y00282	GRT20B-CP	PNP	100N	153g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Sprue Gripper GRT20 Series

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

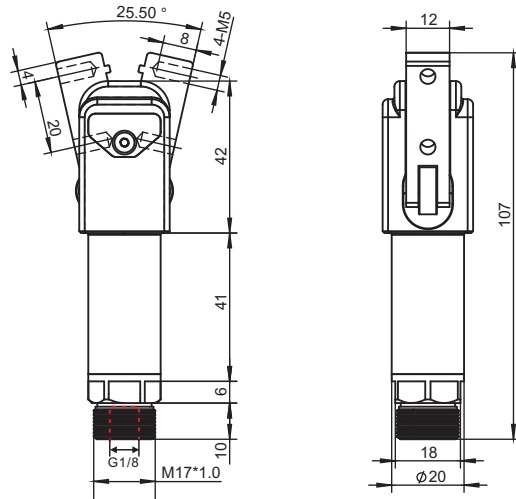
Air Nipper

Vacuum Module

Accessory Components



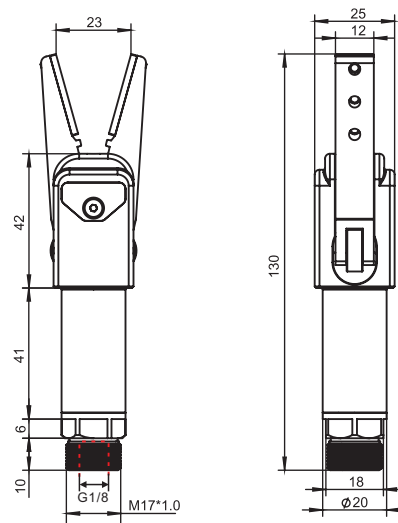
GRT20C  
(Without Sensor)



PN	Model	Sensor	F	Weight
8.Y00316	GRT20C	-	100N	144g



GRT20D  
(Without Sensor)

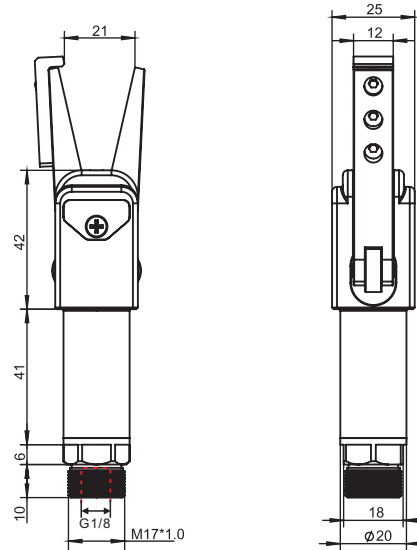


PN	Model	Sensor	F	Weight
8.Y00317	GRT20D	-	100N	160g

# Sprue Gripper GRT20 Series

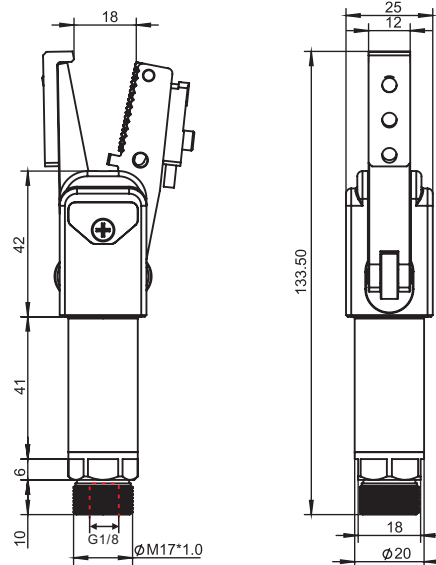


GRT20E  
(Without Sensor)



GRT20E-CN(CP)  
(With Sensor)

GX-F8A-P (PNP)  
GX-F8A (NPN)



PN	Model	Sensor	F	Weight
8.Y00318	GRT20E	-	100N	161g
8.Y00339	GRT20E-CN	NPN	100N	165g
8.Y00340	GRT20E-CP	PNP	100N	165g

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Sprue Gripper GRP32 Series

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

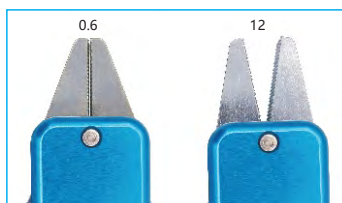
Air Nipper

Vacuum Module

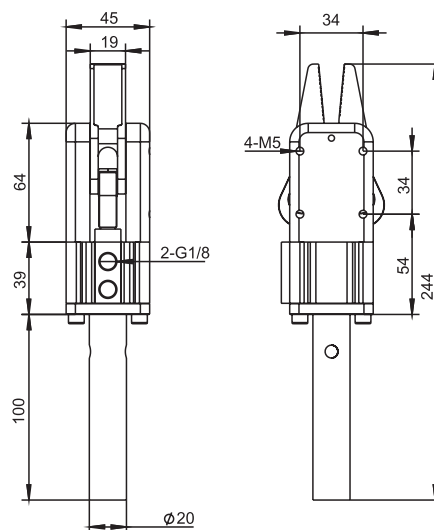
Accessory Components



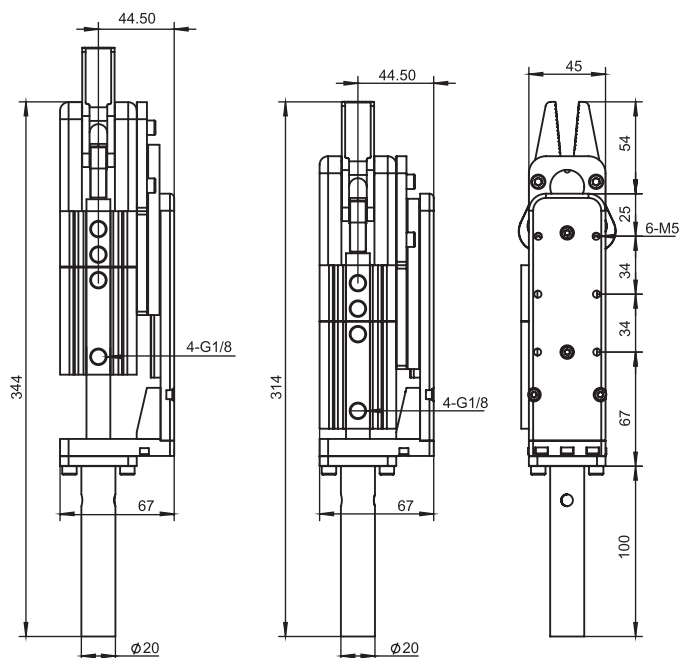
A 齿



B



GRP32A



GRP32A-30

## Series GRP32

Standard jaws with teeth, Double action function.  
Fully compatible with CRG's modular EOAT/gripper system.

20mm shaft diameter.

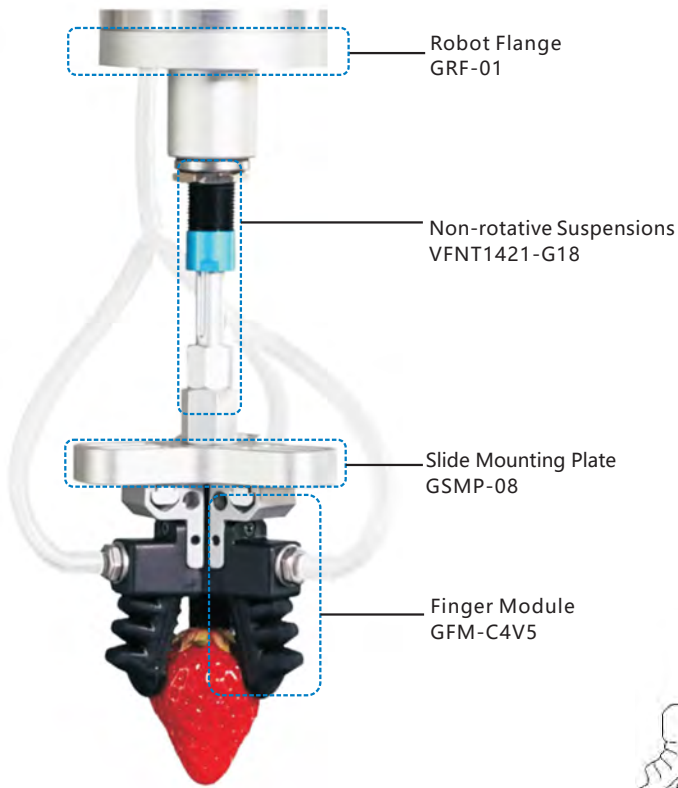
Requirements:

Working air pressure 6 bar.

Requires filtered dry air.

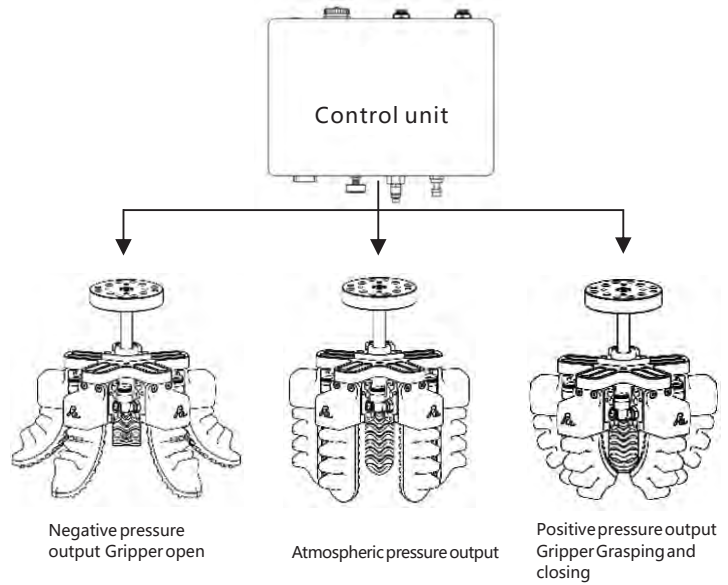
PN	Model	Sensor	F	Weight
8.Y00278	GRP32A	-	200N	604g
8.Y00315	GRP32A-30	-	200N	1276g
8.Y00388	GRP32B	-	200N	608g
8.Y00387	GRP32B-30	-	200N	1282g

# Flexible Soft Gripper GFM/GBS Series



3 Fingers Gripper Suit

Flexible soft grippers adopt pneumatic drive technology, through positive and negative pressure transform to achieve fingers opening and closing movement. Then realize flexible gripping or outrigger action. The gripper grab strength is adjusted by air pressure. Then achieve flexible gripping of different objects while avoiding damage objects.



## Application

**Food industry**  
Food grade materials are safe and non-toxic, especially suitable for grabbing liquid packaging, Bread and cake sorting and packaging, etc.

**3C electron industry**  
It's suitable for high precision positioning precision electronic instruments, and the assembly, sorting, testing and packaging of mobile phones and other products.

**Clothing industry**  
It's suitable for handling and sorting express packages, Not only for cube express box, but also for all kinds of shapes such as different express bags.

**Daily chemical industry**  
It is suitable for lipstick and other products that required no scratch on the appearance of the package, especially suitable for large bottle shampoo and other products covered with plastic film.

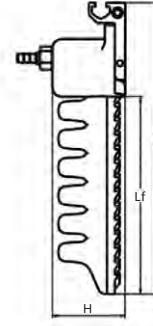
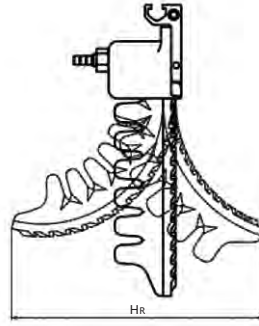
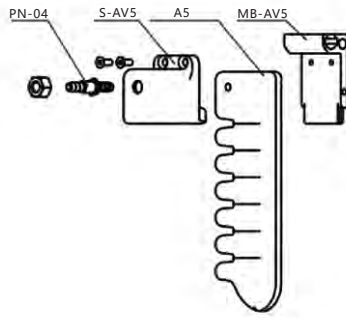
**Auto industry**  
It is used for the sorting and handling of the parts which are easy to scratch in auto lamp, instrument assembly, irregular parts and easy to scratch parts. It can also be used for the sorting and handling of mold and tooling in automobile parts manufacturing.

**Medical industry**  
It is used for grasping medical consumables such as infusion tube and test tube. It also can grab bottle and liquid packaging injection. Including for the production of medical equipment sterilization and so on.

Profile · SUS Tube  
Stents Module  
Quick Changer  
Grip Module  
Air Nipper  
Vacuum Module  
Accessory Components

# Finger Module

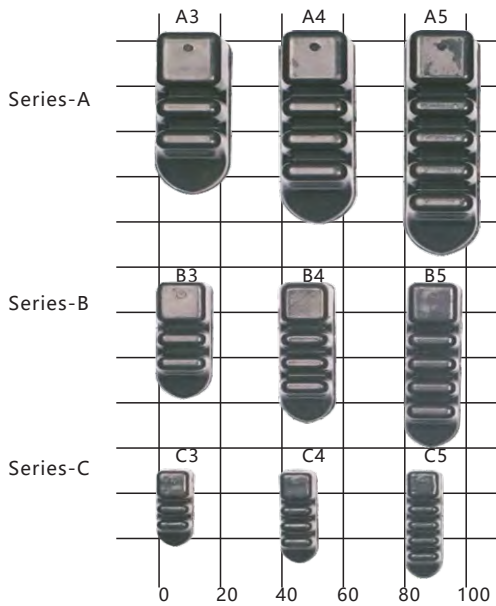
## Series-GFM-V5



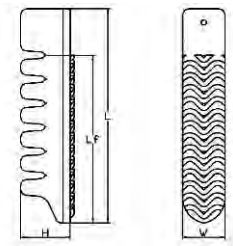
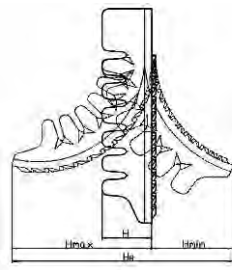
Series	PN	Model	H[mm]	Fingertip Stroke HR [mm]	Lf[mm]	L[mm]	W[mm]	Load Range[g]	Self Weight[g]
A	4.Y00500	GFM-A3V5	36	30	41	88	31	200 - 500	52
	4.Y00501	GFM-A4V5		55	55	102			57
	4.Y00502	GFM-A5V5		80	69	116			62
B	4.Y00503	GFM-B3V5	29	38	31	71	25	150 - 300	28
	4.Y00504	GFM-B4V5		50	42	82			29.5
	4.Y00505	GFM-B5V5		80	52	92			31
C	4.Y00506	GFM-C3V5	22	22	21	53	18	0 - 100	13.7
	4.Y00507	GFM-C4V5		36	28	60			14.5
	4.Y00508	GFM-C5V5		41	35	67			15.3

# Flexible Finger

## Model comparison



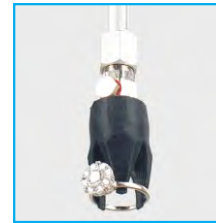
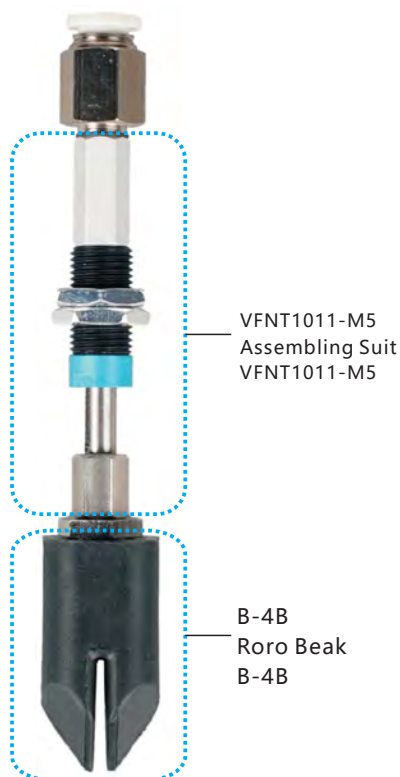
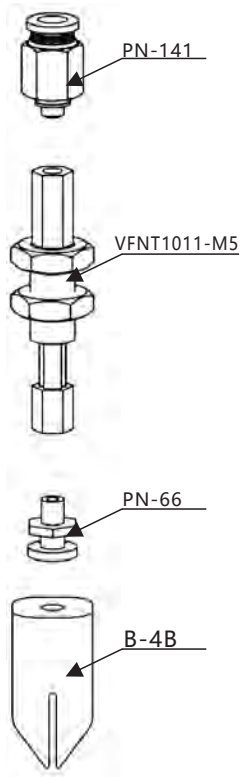
## Size Parameter



Series	PN	Model	H[mm]	Fingertip Stroke HR [mm]		Lf[mm]	L[mm]	W[mm]	Load Range[g]	Self Weight[g]
				Positive Pressure Hmin	Negative Pressure Hmax					
A	1.Y08421	A3	28	10	20	41	69	24	200-500	30
	1.Y08422	A4		25	30	55	83			35
	1.Y08423	A5		35	45	69	97			40
B	1.Y08424	B3	21	19	19	31	52	18	150-300	14
	1.Y08425	B4		25	25	42	62			15.5
	1.Y08426	B5		40	40	52	73			17
C	1.Y08427	C3	14	12	10	21	34	12	0-100	3.7
	1.Y08428	C4		18	18	28	41			4.5
	1.Y08429	C5		21	20	35	48			5.3

# Roro Beak Suit

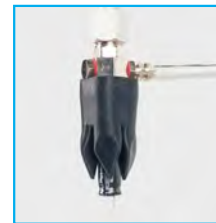
GBS-4B-S01 GBS-4B-S01 4 pieces Beak Suit



3 Pieces Application: Gripping jewelry by external bracing



3 Pieces Application: Gripping ring by external bracing



4 Pieces Application: Gripping products in Electronic industry

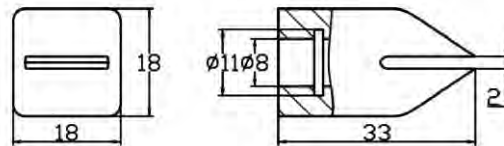
PN	Model	Maximum Load	Maximum Working Frequency	Precision Range
4.Y00509	GBS-2B-S01	5 g	200 times/min	0.1 mm
4.Y00510	GBS-3B-S01	5 g	200 times/min	0.1 mm
4.Y00511	GBS-4B-S01	5 g	200 times/min	0.1 mm

## Roro Beak

2 pieces Roro Beak Gripping Range: 1-5mm, Application: fibrous, striped small objects

### Roro Beak B-2B

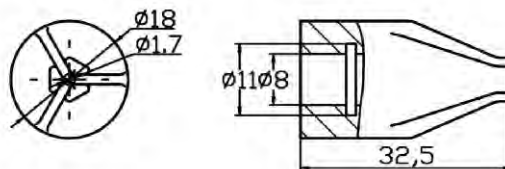
PN	1.Y08430
Model	B-2B



3 pieces Roro Beak Gripping Range: 7-12mm, Application: gripping small rings by external bracing

### Roro Beak B-3B

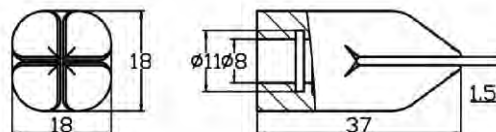
PN	1.Y08431
Model	B-3B



4 pieces Roro Beak Gripping Range: 1-5mm, Application: spherical, irregular small objects, the best universality

### Roro Beak B-4B

PN	1.Y08432
Model	B-4B



Profile - SUS Tube

Stents Module

Quick Changer

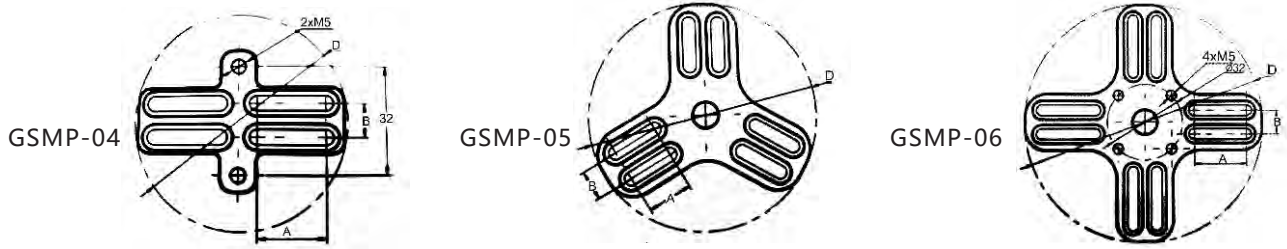
Grip Module

Air Nipper

Vacuum Module

Accessory Components

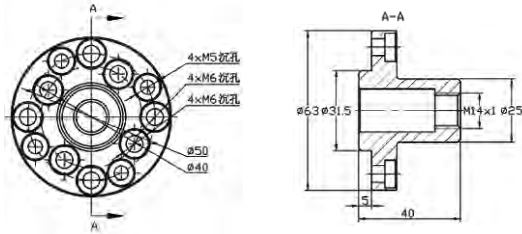
## Slide Mounting Plate



PN	Model	Slot-Length A(mm)	Slot-Spacing B(mm)	Outside Diameter D(mm)	Thickness(mm)
7.Y00923	GSMP-04(short type )	20	10	62	8
7.Y00924	GSMP-05	50	10	148	10
7.Y00925	GSMP-06	67	10	190	10

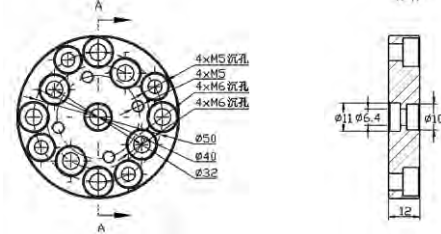
## Robot Flange

GRF-01 Robot Flange GRF-01



PN	7.Y00926
Model	GRF-01

GRF-02 Robot Flange GRF-02

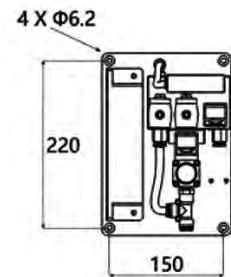
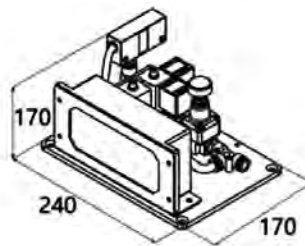


PN	7.Y00927
Model	GRF-02

## iPCU Integrated Passive Control Unit

### iPCU-SMN

Integrated Passive Control Unit - Manual air pressure regulator Standard model



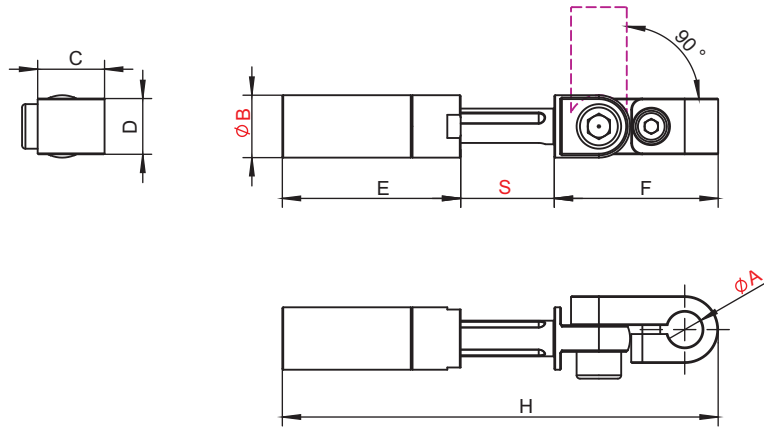
PN	Model	Size mm	Protection Grade	Net Weight kg
1.Y08433	iPCU-SMN	170*240*170	IP20	2.8

### Work and Installation Parameter

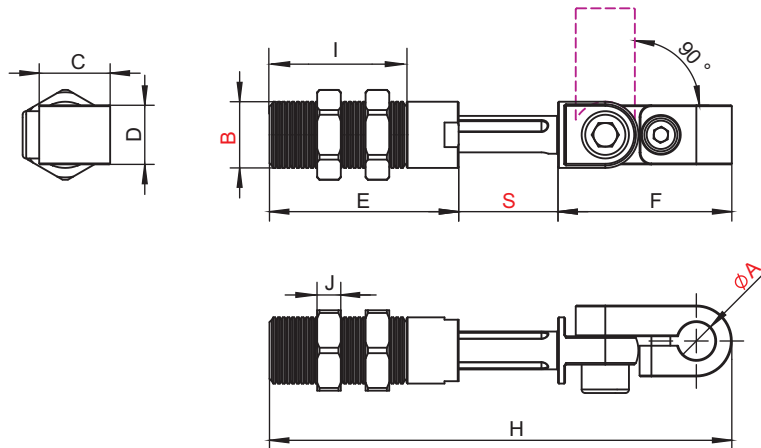
Parameter	Range
Fuselage Shell	Integrated, no shell
Rated Voltage	24VDC $\pm$ 10%
Rated Current	1500mA
Input Air Source	0.45~1.0MPa dry clean air, flow>200L/min
Output Air Pressure	-70~120kPa
Control Mode	a. Wireless remote control, 315M RF
Feedback Mode	b.Signal cable, I/O,24VDC level signal Modbus, TCP/RTU-485
	Signal cable, I/O, switch signal
Work Mode	Energy-saving mode <sup>Note1</sup> :After the flexible soft gripper reach the opening posture, PCU will be suspended and gripper can remain opening posture.
Application Environment	Avoid a lot of dust, oil and corrosion

# Buffer Support

Dimensions (mm)

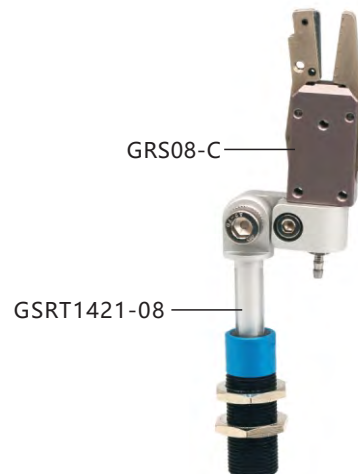


PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	H(mm)	S(mm)	Weight
8.Y00241	GSR1421-08	8	14	15	12.5	40	36.75	97.75	21	36g
8.Y00329	GSR2026-10	10	20	20	15	50	45.5	121.5	26	74g
8.Y00243	GSR2026-12	12	20	20	15	50	45.5	121.5	26	73g
8.Y00330	GSR2051-10	10	20	20	15	84	45.5	180.5	51	111g
8.Y00331	GSR2051-12	12	20	20	15	84	45.5	180.5	51	110g



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	H(mm)	I(mm)	J(mm)	S(mm)	(Weight)
8.Y00242	GSRT1421-08	8	M14	15	12.5	40	36.75	97.75	29	2.7	21	43g
8.Y00332	GSRT2026-10	10	M20	20	15	50	45.5	121.5	39	3.9	26	92g
8.Y00244	GSRT2026-12	12	M20	20	15	50	45.5	121.5	39	3.9	26	91g
8.Y00333	GSRT2051-10	10	M20	20	15	84	45.5	180.5	39	3.9	51	129g
8.Y00334	GSRT2051-12	12	M20	20	15	84	45.5	180.5	39	3.9	51	128g

## Application example



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

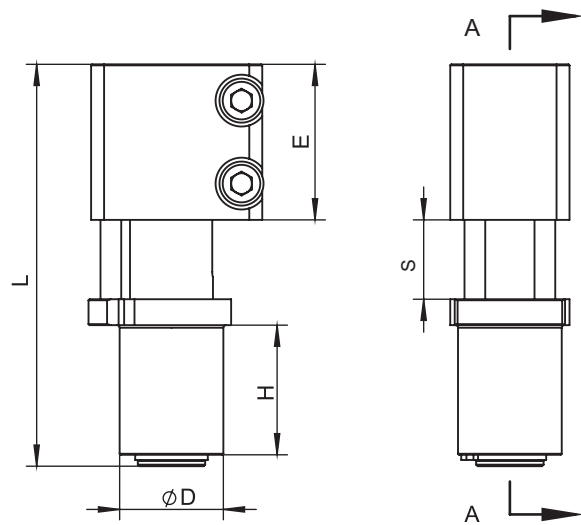
Air Nipper

Vacuum Module

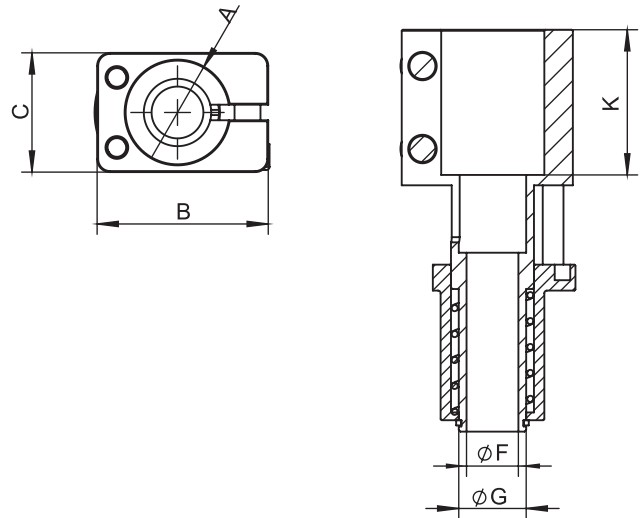
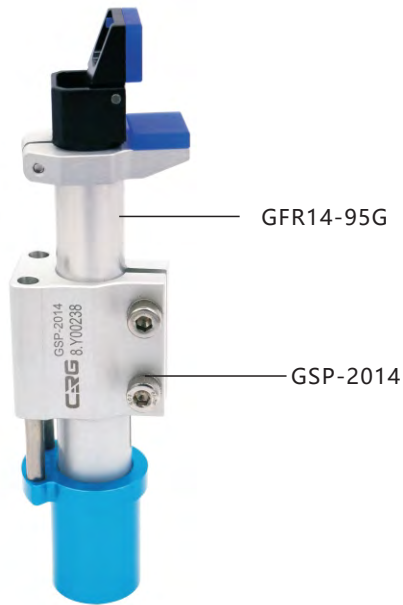
Accessory Components

# Buffer Support

Dimensions (mm)



Application example



PN	Model	A	B	C	D	E	F	G	H	L	K	S	Weight
8.Y00238	GSP20-14	14	31	20	20	30	10	13	25	77.5	28	15	57g
8.Y00239	GSP20-20	20	33	23	20	30	10	13	25	77.5	28	15	65g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

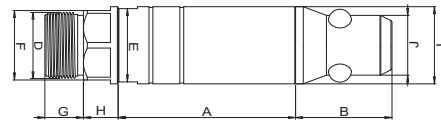
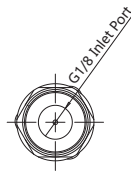
Air Nipper

Vacuum Module

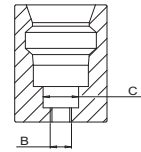
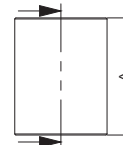
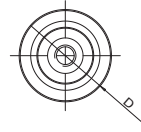
Accessory Components

# Mould Positioner

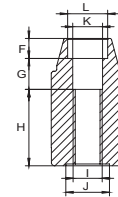
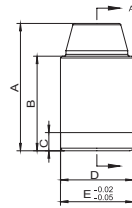
Dimensions (mm)



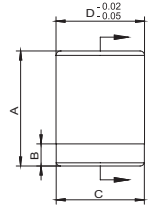
PN	Model	A	B	D	E	F	G	H	I	J	K	Force	Weight
8.Y00088	GMP20A	46	25	M17*1	19	18	10	9	Ø20	Ø15.5	G1/8	190N	78g
8.Y00089	GMP30A	75	38	M27*1	28	27	11	10	Ø30	Ø25.5	G1/8	280N	303g



PN	Model	A	B	C	D	Weight
7.Y00726	GMP20B	33	M6	10	26h7	87g
7.Y00789	GMP30B	43.5	M8	11	40h7	264g

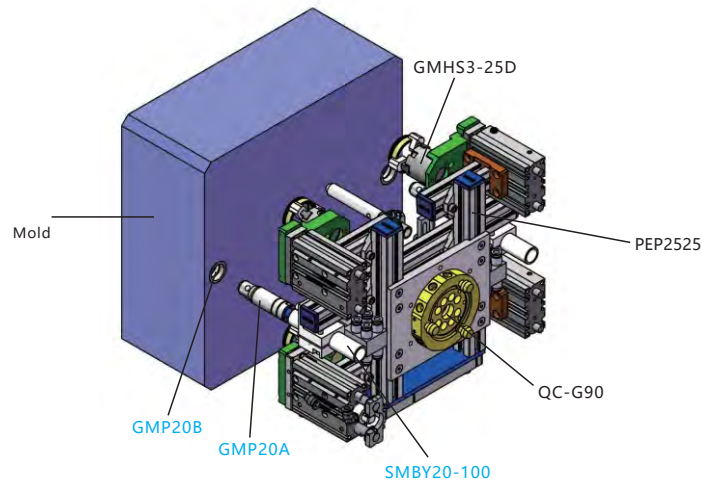


PN	Model	A	B	C	D	E	F	G	H	I	J	K	L	Weight
7.Y00894	GLU20A	35	26	5	Ø19.92	Ø20	5.50	8.50	21	M8	Ø12	Ø8.20	Ø11	61g



PN	Model	A	B	C	D	E	F	G	H	Weight
7.Y00895	GLU20B	26	5	Ø19.92	Ø20	M8	Ø11	15.50	10.50	42g

Application example



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Pneumatic Needle Gripper(Series GN)

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

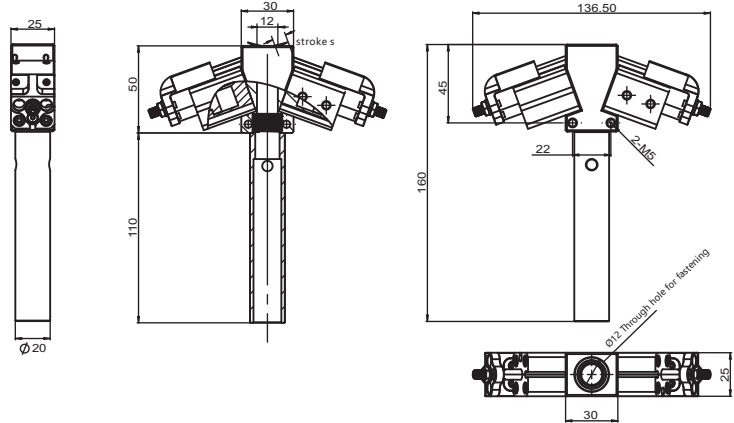
Air Nipper

Vacuum Module

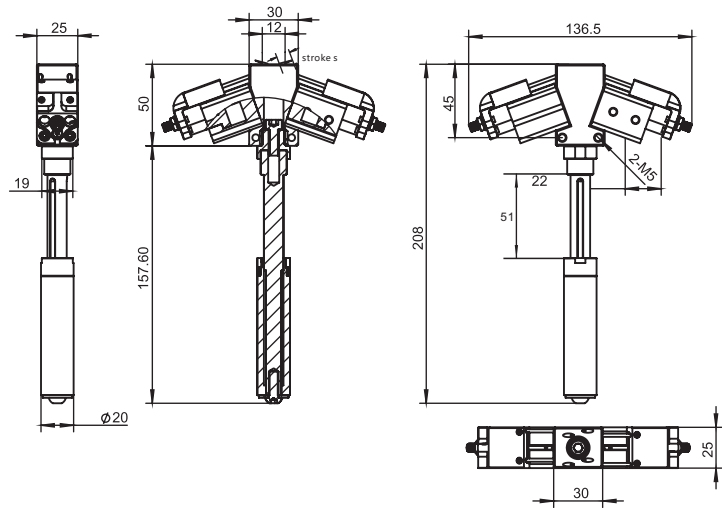
Accessory Components



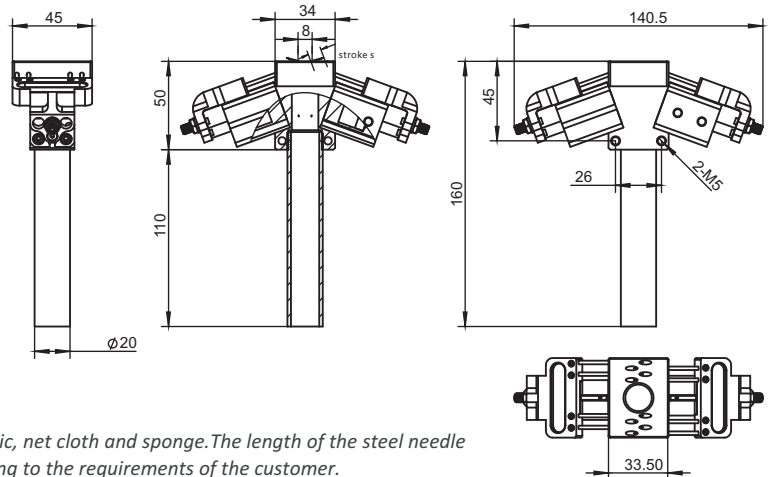
GN2010



GN2010-S51



GN2010-8

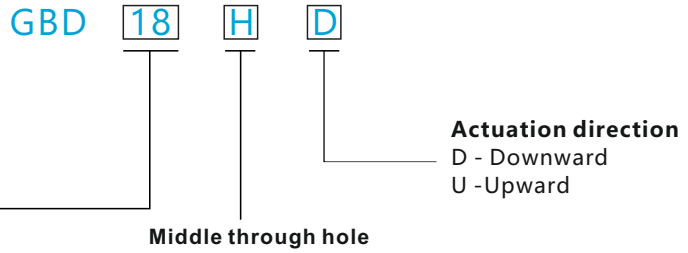


Being used for embedding and taking out nonwoven fabric, net cloth and sponge. The length of the steel needle can be not only adjustable, but also customized according to the requirements of the customer.

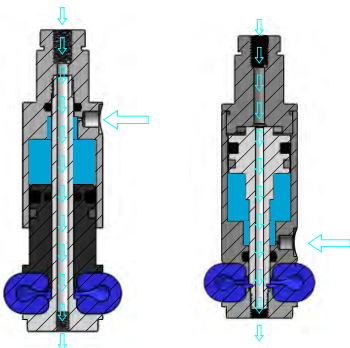
PN	8.Y00025	8.Y00341	8.Y00347
Model	GN2010	GN2010-S51	GN2010-8
Medium	Filtered, lubricated / non lubricated compressed air		
Pressure range	3 ~ 8 bar		
Temperature range	-10° ~ 70 °C.		
Opening total gripping force at 6 bar	90 N		
Needle stroke	0 ~ 10 mm		
Cycle air consumption	3.5 cm <sup>3</sup>		
Weight	274g	240g	317g

# Bulging Device

## Model representation methods



Downward movement, or Upward movement.  
The elastic part can be in Silicone or Rubber.  
Grip diameters from 18 to 31 mm.  
Several mounting accessories.



GBD...HD

GBD...HU

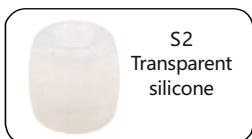
Through hole for fastening

The ...H models have a central through hole. It can be used to blow compressed air, or to provide vacuum, with the purpose to cool a part, or to check the leakage.

## Silicone rubber

The elastic part can be in blue Silicone, or transparent silicone.  
Silicone can be used over a wider temperature range and assures a longer life time.  
The elastic part in Silicone is available as a spare part and can be replaced, when worn out.  
The expected medium life time of the elastic part in Silicone is about 1 million cycles.

### Spare elastic part



Silicone can be shipped by customers

Spec.	Ø18	Ø22
Model	18-S1	22-S1
PN	4.Y00470	4.Y00471
Model	18-S2	22-S2
PN	4.Y00472	4.Y00473
Bulging device	GBD18U GBD18HD	GBD22HU

T - Operating temperature of the elastic part (5~60°C for the gripper body)

# Bulging Device

Profile - SUS Tube

Stents Module

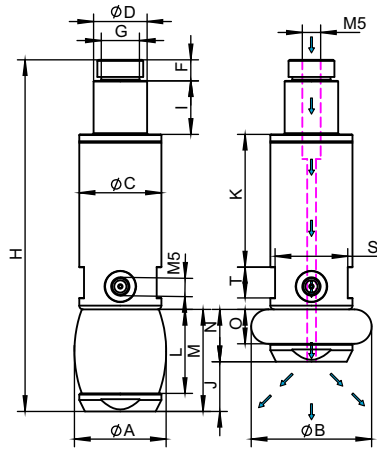
Quick Changer

Grip Module

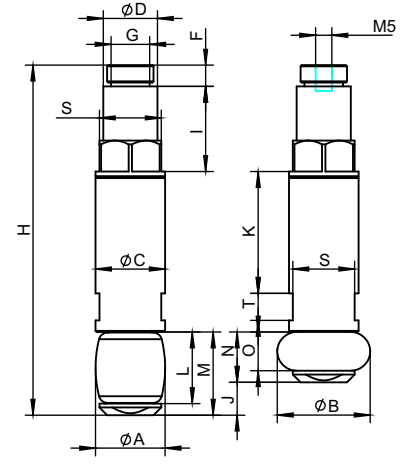
Air Nipper

Vacuum Module

Accessory Components

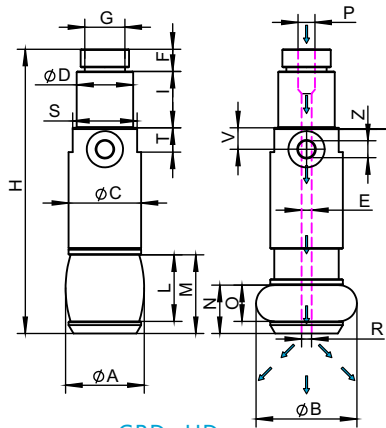


GBD...HU



GBD...U

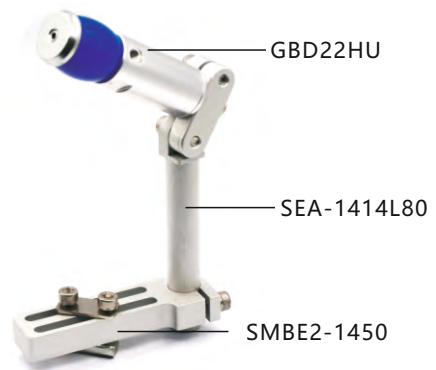
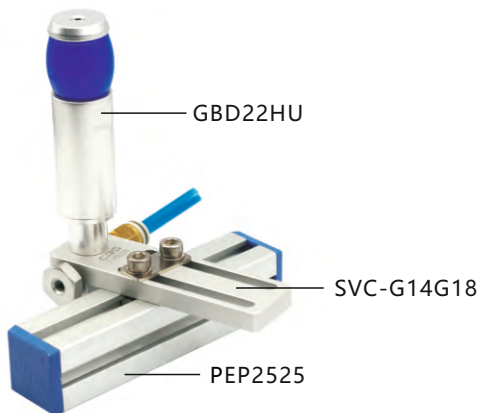
PN	Model	ØA	ØB	ØC	ØD	F	G	H	I	J	K	L	M	N	O	S	T	Weight
8.Y00212	GBD18U	18	24	18	14	5.5	M12×1	90.5	22	8.5	31.5	18.5	21.5	13	10	16	7	39.7
8.Y00058	GBD22HU	24	31.5	21.3	14	5.5	M12×1	92	14	13	34.8	22	26.7	13.7	9	19	8	53.8



GBD...HD

PN	Model	ØA	ØB	ØC	ØD	ØE	F	G	H	I	L	M	N	O	P	R	S	T	V	Z	Weight
8.Y00057	GBD18HD	19.5	25	18	14	2.5	5.5	M12×1	70.5	14	16.5	19.5	12	9	M5	M3	16	6	5.3	M5	27.4

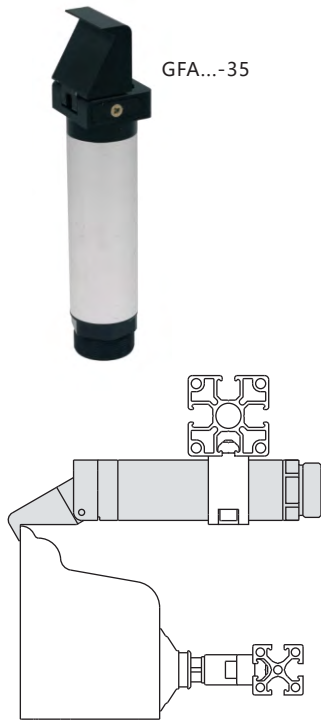
## Application example



Not available in Germany, Italy and USA.

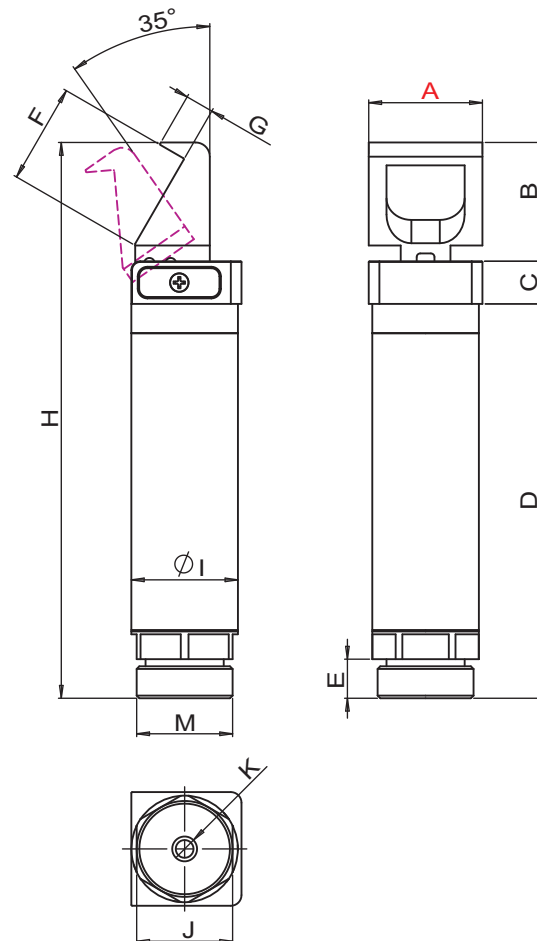
# One Finger Angular Pneumatic Grippers (Series GF)

- Single acting.
- Built-in magnetic ring



PN	8.Y00117	8.Y00118	8.Y00119
Model	GFA14-35	GFA20-35	GFA30-35
Medium	Filtered, lubricated / non lubricated compressed air		
Gripper body	Aluminium		
Pressure range	2.5 ~ 8 bar		
Temperature range	-10 ~ 70 °C.		
Stroke	35°		
Piston bore	Ø10 mm	Ø16 mm	Ø25 mm
Closing torque at 6 bar	26 Ncm	100 Ncm	430 Ncm
Cycle air consumption	0.4 cm <sup>3</sup>	1.24 cm <sup>3</sup>	4.56 cm <sup>3</sup>
Weight	25g	65g	206g
Built-in magnetic ring	Yes	Yes	Yes

PN	8.Y00117	8.Y00118	8.Y00119
Model	GFA14-35	GFA20-35	GFA30-35
A	14	20	30
B	14	20.5	30
C	10.5	9	12
D	49.5	76.5	111
E	5.5	8	11
F	13.5	20.2	30.5
G	4.5	6	8
H	74	106	153
I	Ø14	Ø20	Ø30
J	12	17	27
K	M5	M5	M5
M	M12×1	M17×1	M27×1



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

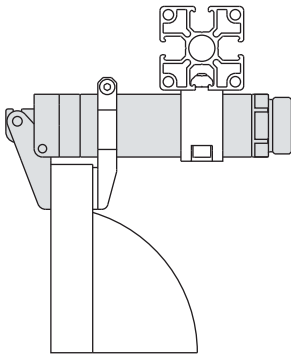
Air Nipper

Vacuum Module

Accessory Components

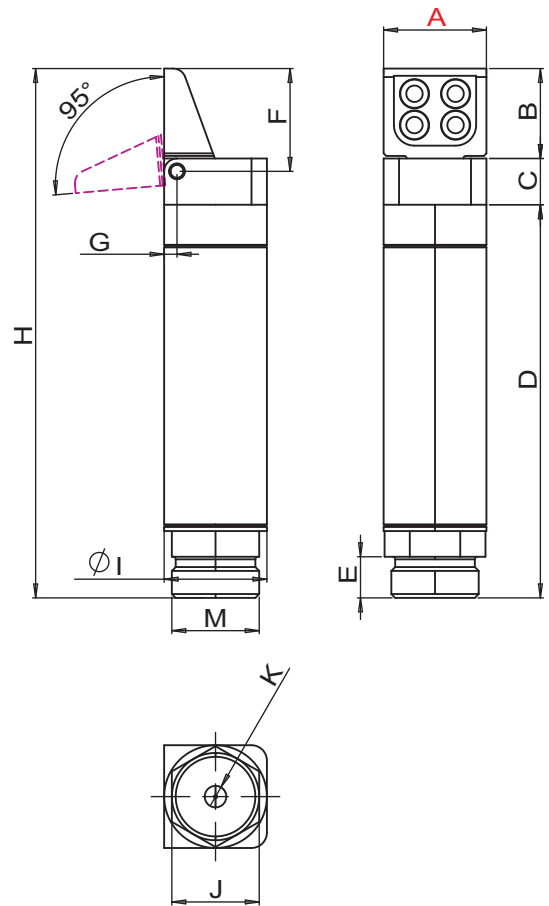
# One Finger Angular Pneumatic Grippers (Series GF)

- Single acting.
- Built-in magnetic ring



PN	8.Y00042	8.Y00311	8.Y00095
Model	GFR14-95	GFR20-95E	GFR30-95
Medium	Filtered,lubricated / non lubricated compressed air		
Gripper body	Aluminium		
Pressure range	2.5 ~ 8 bar		
Temperature range	-10 ~ 70 °C.		
Stroke	95°		
Piston bore	Ø10 mm	Ø16 mm	Ø25 mm
Closing torque at 6 bar	19 Ncm	70 Ncm	300 Ncm
Cycle air consumption	1 cm <sup>3</sup>	3.52 cm <sup>3</sup>	12.9 cm <sup>3</sup>
Weight	25g	60g	193g
Built-in magnetic ring	Yes	Yes	Yes
Remark		8.Y00041	

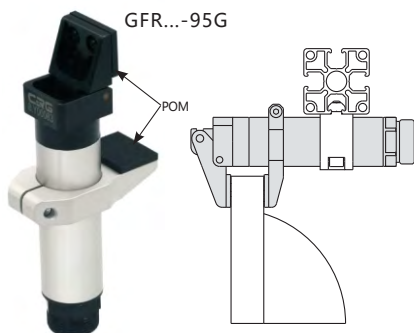
PN	8.Y00042	8.Y00311	8.Y00095
Model	GFR14-95	GFR20-95E	GFR30-95
A	14	20	30
B	12	17.5	25
C	10.5	9	12
D	49.5	76.5	111
E	5.5	8	11
F	14	20	29
G	2	2.5	4
H	72	103	148
I	Ø14	Ø20	Ø30
J	12	17	27
K	M5	M5	M5
M	M12×1	M17×1	M27×1



Profile - SUS Tube  
Stents Module  
Quick Changer  
Grip Module  
Air Nipper  
Vacuum Module  
Accessory Components

# One Finger Angular Pneumatic Grippers (Series GF)

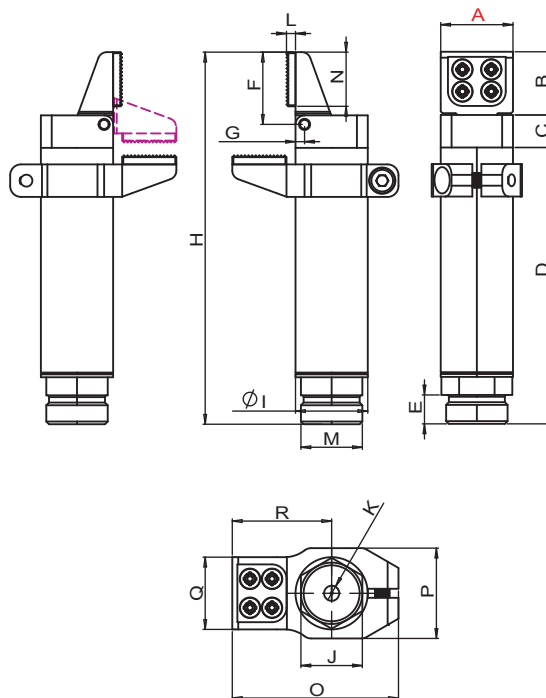
- Single acting.
- Built-in magnetic ring



PN	8.Y00084	8.Y00312	8.Y00096
Model	GFR14-95G	GFR20-95EG	GFR30-95G
Medium	Filtered, lubricated / non lubricated compressed air		
Gripper body	Aluminium		
Pressure range	2.5 ~ 8 bar		
Temperature range	-10 ~ 70 °C.		
Stroke	95°		
Piston bore	Ø10 mm	Ø16 mm	Ø25 mm
Closing torque at 6 bar	19 Ncm	70 Ncm	300 Ncm
Cycle air consumption	1cm <sup>3</sup>	3.52cm <sup>3</sup>	12.9 cm <sup>3</sup>
Weight	36g	87g	300g
Built-in magnetic ring	Yes	Yes	Yes
Remark		8.Y00083	

PN	4.Y00486	4.Y00485	-
Model	SIL-14G	SIL-20G	-
Applicable Products	GFR14-95G	GFR20-95EG GFR20-95LG GFR20-95SG	-

PN	8.Y00084	8.Y00312	8.Y00096
Model	GFR14-95G	GFR20-95EG	GFR30-95G
A	14	20	30
B	12	17.5	25
C	10.5	9	12
D	49.5	76.5	111
E	5.5	8	11
F	14	20	29
G	2	2.5	4
H	72	103	148
I	Ø14	Ø20	Ø30
J	12	17	27
K	M5	M5	M5
L	2.5	2.5	3
M	M12×1	M17×1	M27×1
N	11	15	20
O	32	46	63
P	19	25	37
Q	14	20	30
R	19	27.5	40



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# One Finger Angular Pneumatic Grippers (Series GF)

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

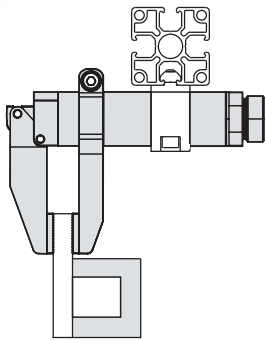
Vacuum Module

Accessory Components

- Single acting.
- Built-in magnetic ring

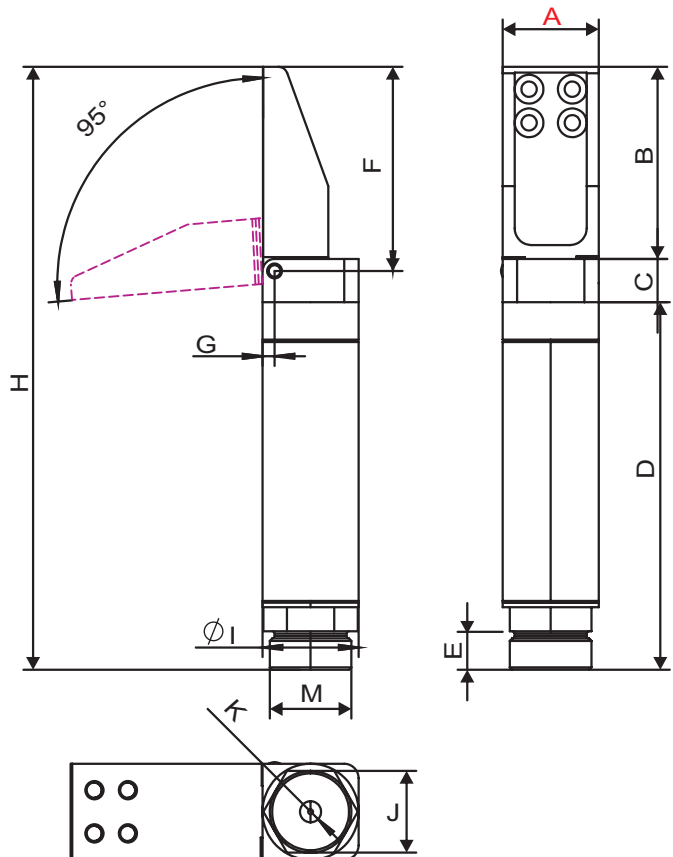


GFR...-95L



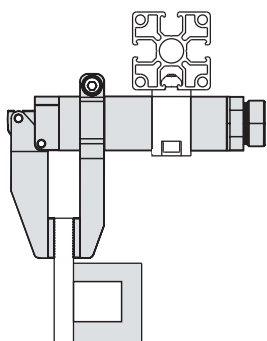
PN	8.Y00309
Model	GFR20-95L
Medium	Filtered, lubricated / non lubricated compressed air
Gripper body	Aluminium
Pressure range	2.5 ~ 8 bar
Temperature range	-10 ~ 70 °C.
Stroke	95°
Piston bore	Ø16 mm
Closing torque at 6 bar	70 Ncm
Cycle air consumption	3.52 cm <sup>3</sup>
Weight	81.4g
Built-in magnetic ring	Yes

PN	8.Y00309
Model	GFR20-95L
A	20
B	40
C	9
D	76.5
E	8
F	42.5
G	2.5
H	125.5
I	Ø20
J	17
K	M5
M	M17×1



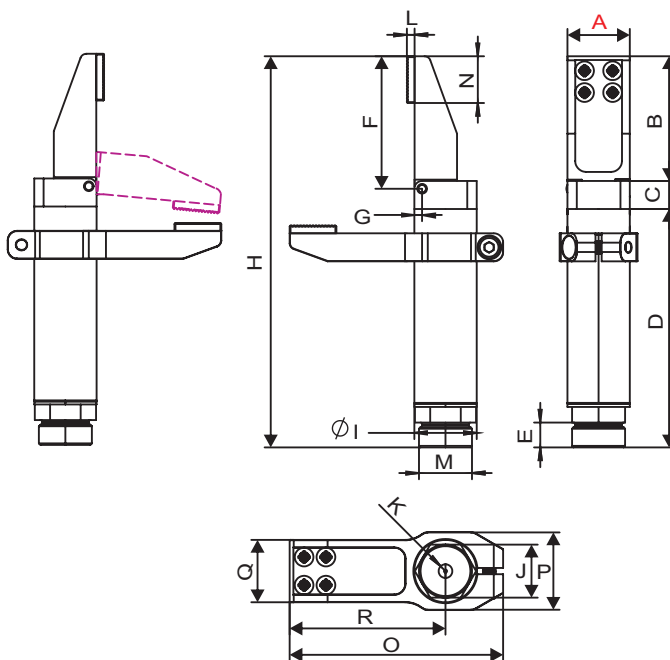
# One Finger Angular Pneumatic Grippers (Series GF)

- Single acting.
- Built-in magnetic ring



PN	8.Y00310
Model	GFR20-95LG
Medium	Filtered, lubricated / non lubricated compressed air
Gripper body	Aluminium
Pressure range	2.5 ~ 8 bar
Temperature range	-10 ~ 70 °C.
Stroke	95°
Piston bore	Ø16 mm
Closing torque at 6 bar	70 Ncm
Cycle air consumption	3.52cm <sup>3</sup>
Weight	104.8g
Built-in magnetic ring	Yes
PN	4.Y00485
Model	SIL-20G
Applicable Products	GFR20-95EG GFR20-95LG GFR20-95SG

PN	8.Y00310
Model	GFR20-95LG
A	20
B	40
C	9
D	76.5
E	8
F	42.5
G	2.5
H	125.5
I	Ø20
J	17
K	M5
L	2.5
M	M17×1
N	15
O	68.5
P	25
Q	20
R	50



Not available in Germany, Italy and USA.

Profile - SUS Tube  
Stents Module  
Quick Changer  
Grip Module  
Air Nipper  
Vacuum Module  
Accessory Components



# One Finger Angular Pneumatic Grippers (Series GF)

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

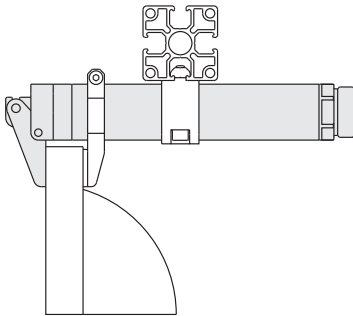
Vacuum Module

Accessory Components

- Single acting.
- Built-in magnetic ring

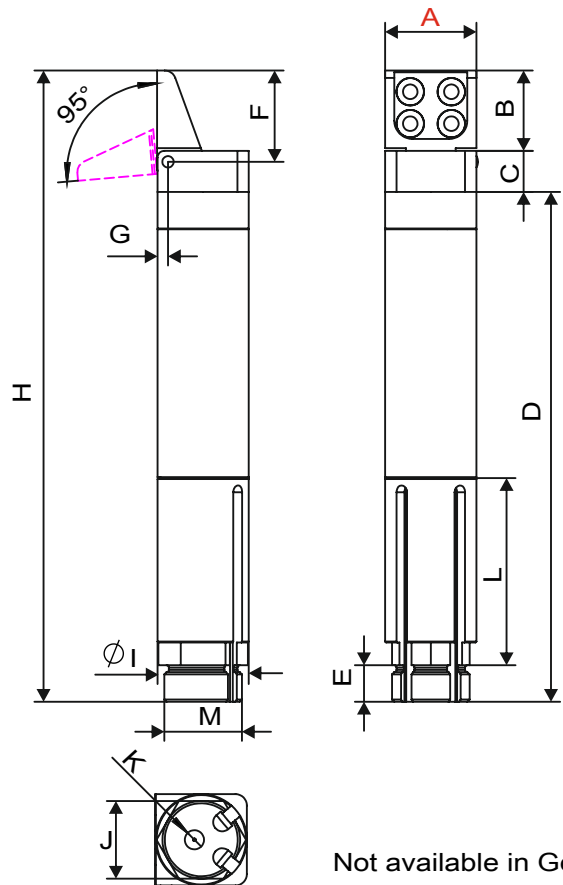


GFR...-95S



PN	8.Y00335
Model	GFR20-95S
Medium	Filtered, lubricated / non lubricated compressed air
Gripper body	Aluminium
Pressure range	2.5 ~ 8 bar
Temperature range	-10 ~ 70 °C.
Stroke	95°
Piston bore	Ø16 mm
Closing torque at 6 bar	70 Ncm
Cycle air consumption	3.52 cm <sup>3</sup>
Weight	89g
Built-in magnetic ring	Yes

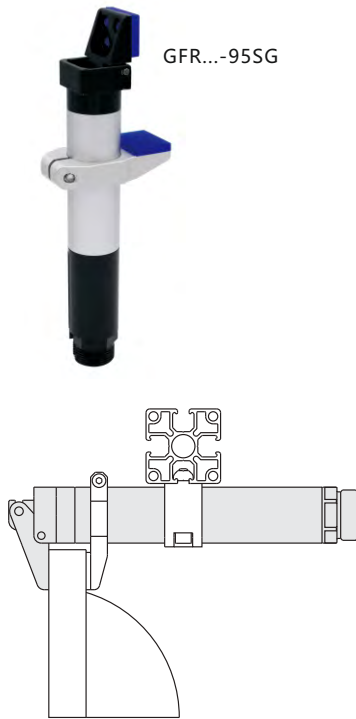
PN	8.Y00335
Model	GFR20-95S
A	20
B	17.5
C	9
D	111.5
E	8
F	20
G	2.3
H	138
I	Ø20
J	17
K	M5
L	41
M	M17×1



Not available in Germany, Italy and USA.

# One Finger Angular Pneumatic Grippers (Series GF)

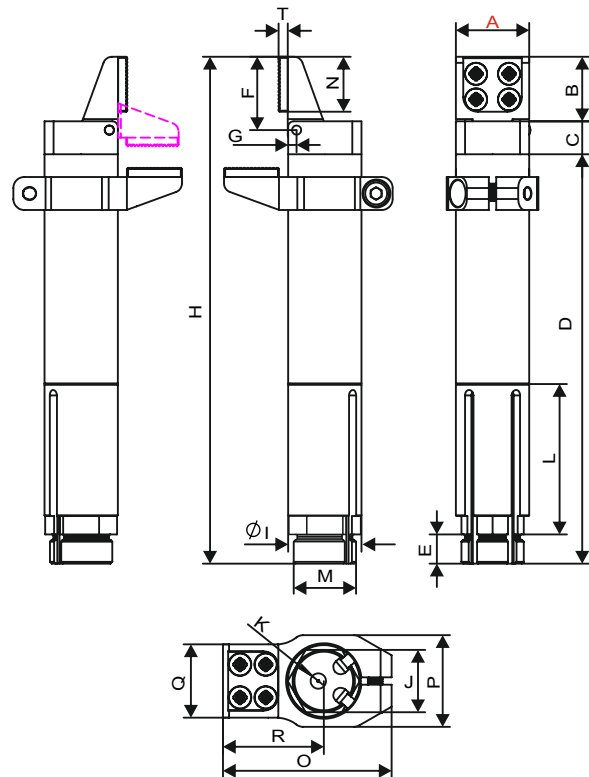
- Single acting.
- Built-in magnetic ring



GFR...-95SG

PN	8.Y00336
Model	GFR20-95SG
Medium	Filtered, lubricated / non lubricated compressed air
Gripper body	Aluminium
Pressure range	2.5 ~ 8 bar
Temperature range	-10 ~ 70 °C.
Stroke	95°
Piston bore	Ø16 mm
Closing torque at 6 bar	70 Ncm
Cycle air consumption	3.52 cm <sup>3</sup>
Weight	103g
Built-in magnetic ring	Yes
PN	4.Y00485
Model	SIL-20G
Applicable Products	GFR20-95EG GFR20-95LG GFR20-95SG

PN	8.Y00336
Model	GFR20-95SG
A	20
B	17.5
C	9
D	111.5
E	8
F	20
G	2.3
H	138
I	Ø20
J	17
K	M5
L	41
M	M17×1
N	15
O	46
P	25
Q	20
R	27.5
T	2.5



Not available in Germany, Italy and USA.

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

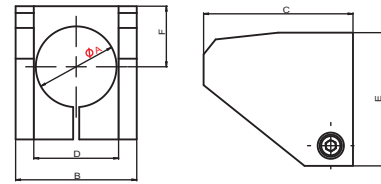
Vacuum Module

Accessory Components

# Finger Gripper Options

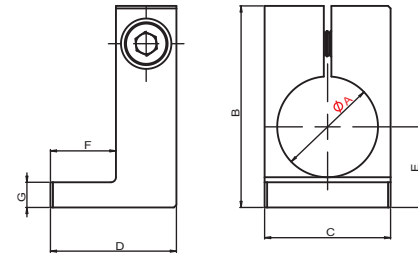
Profile · SUS Tube

PN	7.Y00778	7.Y00779
Model	GP1-20	GP1-30
A(mm)	Ø20	Ø30
B(mm)	30	45
C(mm)	37	65
D(mm)	21	32
E(mm)	33	44
F(mm)	15	20
Weight	20g	60g



Stents Module

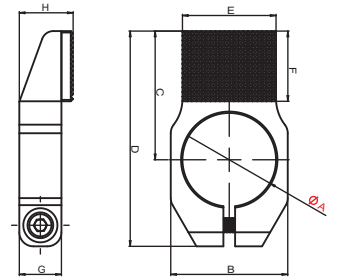
PN	7.Y00780	7.Y00781	7.Y00782
Model	GP2-14	GP2-20	GP2-30
A(mm)	Ø14	Ø20	Ø30
B(mm)	24	35	45
C(mm)	19	25	35
D(mm)	12	25	25
E(mm)	11	16	21
F(mm)	6	13	13
G(mm)	3.5	5	5.5
Weight	5g	14g	23g



Quick Changer

Grip Module

PN	7.Y00783	7.Y00700	7.Y00908	7.Y00785
Model	GP3-14	GP3-20	GP3-20L	GP3-30
A(mm)	Ø14	Ø20	Ø20	Ø30
B(mm)	19	25	25	37
C(mm)	14	20	50	30
D(mm)	32	43.5	68.5	63
E(mm)	19	27.5	20	40
F(mm)	10	9.5	15	12
H(mm)	11	15	11.5	20
G(mm)	6	7	9	9
Weight	6g	12g	19.8g	30g
	Silicone	Silicone	Silicone	POM



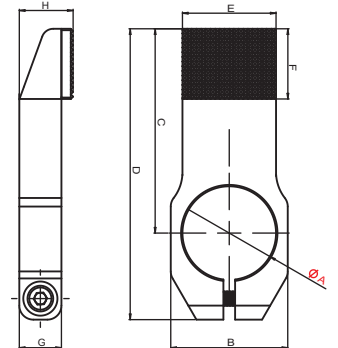
Air Nipper

Vacuum Module

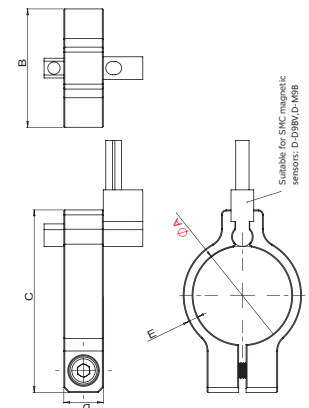
Accessory Components



GP3-20L



PN	7.Y00786	7.Y00787	7.Y00788
Model	GS-14	GS-20	GS-30
A(mm)	Ø14	Ø20	Ø30
B(mm)	18	24	34
C(mm)	30	37	47
D(mm)	8	8	8
E(mm)	2	2	2
Weight	14g	17g	25g



# One Finger Angular Pneumatic Grippers (Series GO)

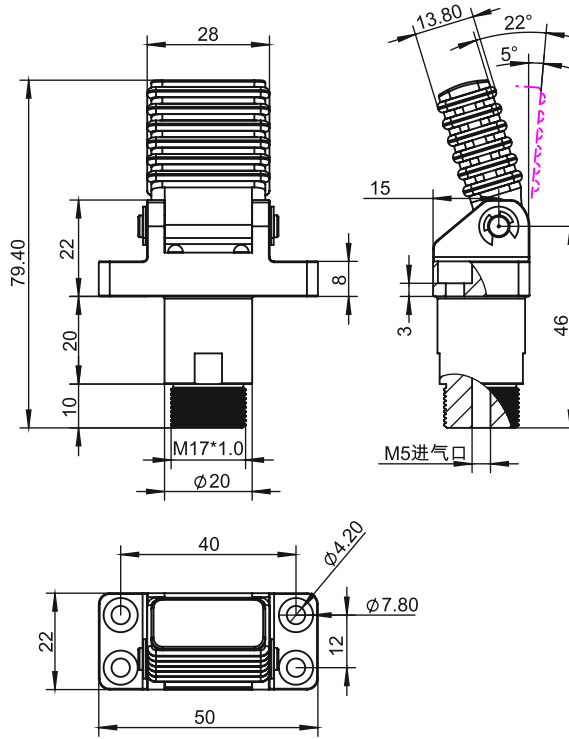
**NEW**



GOF20-20-VMQ

GOF20-20-NBR

Not available in Germany, Italy and USA.



PN	Model	Weight	Heat resistance (in °C)
8.Y00396	GOF20-20-NBR	57.4g	-20 to 80
8.Y00395	GOF20-20-VMQ	57.4g	-40 to 160

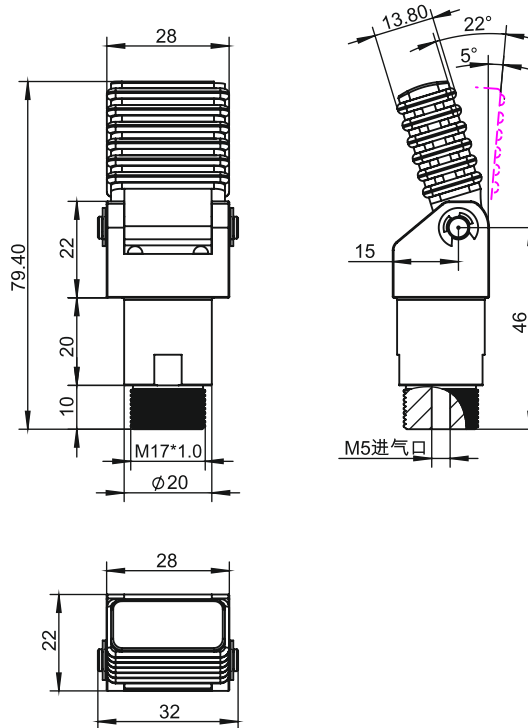
**NEW**



GOP20-20-VMQ

GOP20-20-NBR

Not available in Germany, Italy and USA.



PN	Model	Weight	Heat resistance (in °C)
8.Y00398	GOP20-20-NBR	50g	-20 to 80
8.Y00397	GOP20-20-VMQ	50g	-40 to 160

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

## Optional Magnetic Sensors

The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston.

The use of magnetic proximity sensors is to be avoided in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

The sensors that can be used are:

Profile · SUS Tube

Stents Module

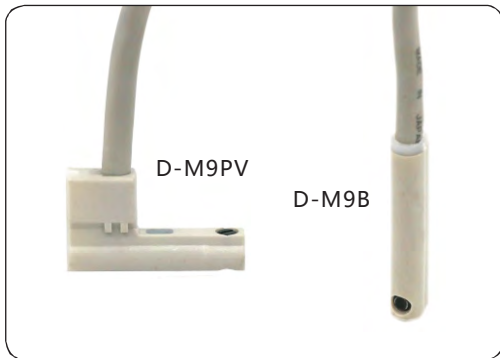
Quick Changer

Grip Module

Air Nipper

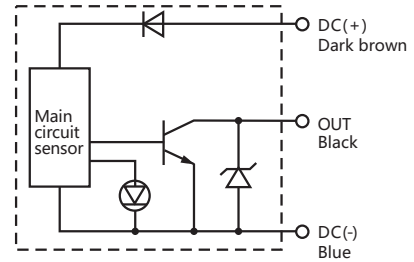
Vacuum Module

Accessory Components

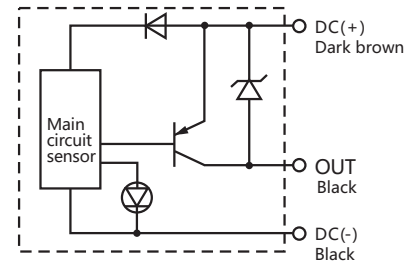


PN	1.Y00293
Model	D-MQ

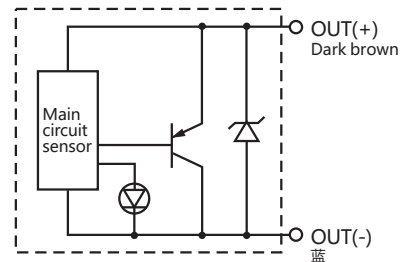
### D-M9N·M9NV



### D-M9P·M9PV



### D-M9B·M9BV



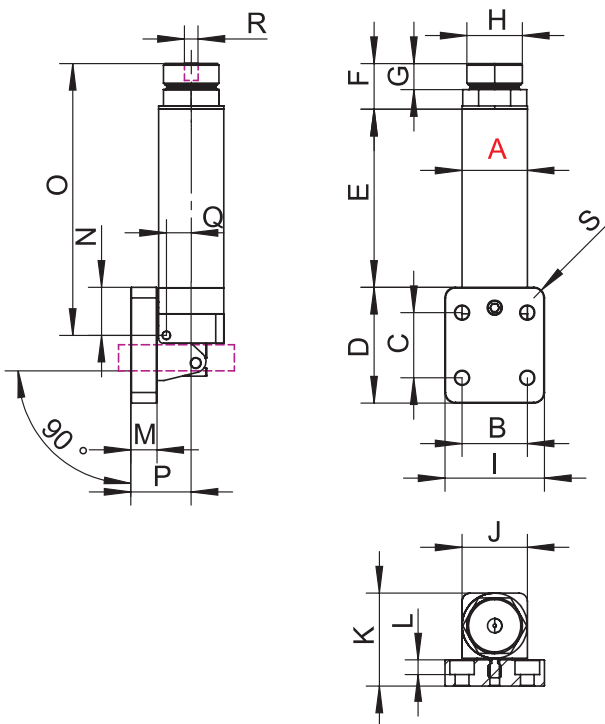
PN	Model	Type	L(mm)
1.Y00310	D-M9B	NPN	0.5m/0.5m
1.Y00307	D-M9BL		cable3.0m/3m cable
1.Y02565	D-M9BV	NPN	0.5m/0.5m
1.Y03843	D-M9BVL		cable3.0m/3m cable
1.Y00311	D-M9N	NPN	0.5m/0.5m
1.Y00295	D-M9NL		cable3.0m/3m cable
1.Y00298	D-M9NV	NPN	0.5m/0.5m
1.Y03598	D-M9NVL		cable3.0m/3m cable
1.Y00309	D-M9P	PNP	0.5m/0.5m
1.Y02301	D-M9PL		cable3.0m/3m cable
1.Y00296	D-M9PV	PNP	0.5m/0.5m
1.Y02964	D-M9PVL		cable3.0m/3m cable

# Min Posture Gripper

- 90° rotation.
- Single-acting.
- Lifting by compressed air, spring reset.
- Several mounting accessories.
- Optional magnetic sensors.



PN	8.Y00094	8.Y00116
Model	GFN20-90	GFN30-90
Medium	Filtered, lubricated / non lubricated compressed air	
Pressure range	2 ~ 8 bar	2 ~ 8 bar
Temperature range	-10 ~ 70 °C.	-10 ~ 70 °C.
Tilt angle	90°	90°
Lift torque at 6 bar	120 Ncm	300 Ncm
Weight	65g	210g



PN	8.Y00094	8.Y00116
Model	GFN20-90	GN30-90
A	Ø20	Ø30
B	20	25
C	20	25
D	35.5	46
E	54.6	81.5
F	14	19
G	8	11
H	17	M27*1
I	30.5	37
J	20	30
K	28.5	40
L	4.5	5.5
M	8	10
N	14.74	18.5
O	83.34	119
P	18.5	25
Q	7.6	11
R	M5	M5
S	3.25	3

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

## Air Nippers For Resin Gate

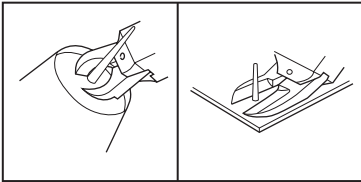
These are high-class air nippers that can be mounted on gate cutting equipment and standby jigs for accurate, speedy cutting of resin products. VESSEL has a wide selection of items to meet a variety of needs, from around-the-clock operations to high cutting precision.



# Solution

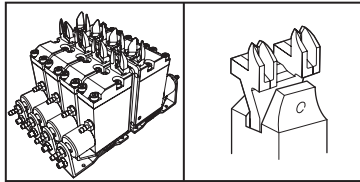
Cut, grab, crimp and punch.

Cutting direct gate molded components



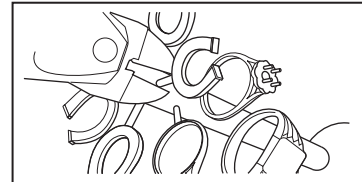
Cuts large diameter sprues such as garment cases, helmets, pipe joint parts, trash cans, planters. Superb durability in long term use.

Gate cut for multiple impression molded components



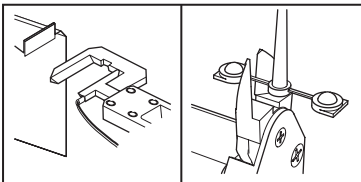
Compact, lightweight body and with a large selection of blade items, easy mounting on chuck board and standby jig. Achieves efficient cuts matching cycle time.

Taking products from a jewelry tree



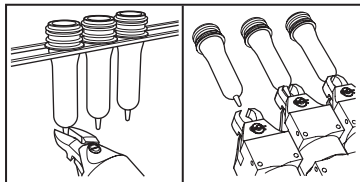
Cutting of precious metals for rings, necklaces etc. Superb durability and increased efficiency with powerful nipper blades.

Gate cutting for lenses, LGP, and transparent products



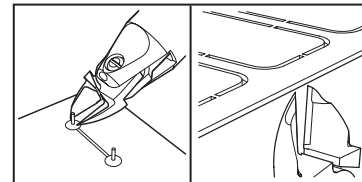
Various heated nippers prevent cracks and whitening, the decisive factor is the heating temperature of the blades and cutting speed. Supports demands for improved flexibility and high precision cutting.

Pre-form cutting for food and drug cases



Improved efficiency in pre-forming, nippers attached to flat finish pre-form molding machine. Cut precision is linked to product quality.

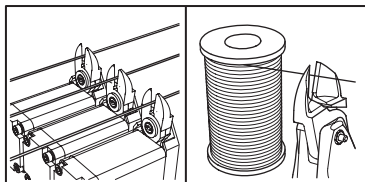
Cutting electronic components and around boards



Optimal handy nippers for cutting lead lines after soldering to significantly reduce wrist strain. Substrate is attached to the desktop robot...

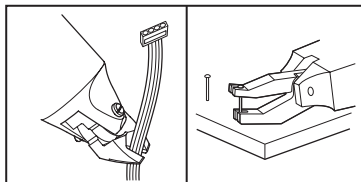


## Wire cutting with coil winding machine



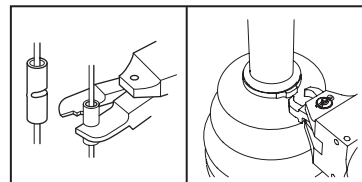
Attach to the nipper unit of automatic coil winding machine for power transformers, fan motors and ignition. Cutting thick diameter wires that cannot be torn off.

## Hand tools for dismantling in recycling plants



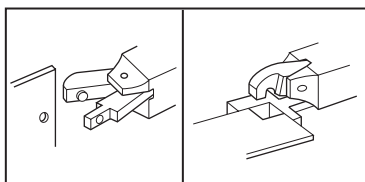
Cuts a variety of wires, copper tubing and steel bands in recycling plants such as PCs and OA equipment, pachinko machines, TVs, and refrigerators, washing machines, etc. Nippers for the purpose of pulling out the pachinko machine pins.

## Crimping task for solderless terminals



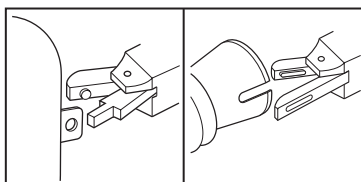
For crimping terminals with various wiring harnesses such as for switchboards, electrical products and lighting equipment. Less strain on fingers and wrists. Increased work efficiency for stop rings for auto parts.

## Die cutter for aluminum products and plastic components



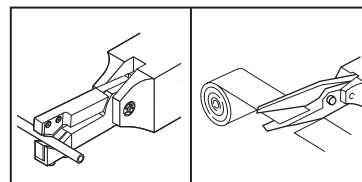
By support for separate blades, allows punching and form cutting of aluminum sash and thin plates.

## Punching of blow molded products, punching slotted holes



Punching blow molded products, punching slotted holes, for containers that cannot be punched and automobile ducts, etc.

## Other applications



Micro-edge air scissors that can cut various hard-to-cut fibers, carbon, aramid fibers, and soft plastic sheets. Nippers for cutting belt loops of jeans, peeling recycled golf balls, cutting edges with textile machinery, etc.

## Selection method for air nipper

### Check materials

What is the "cutting target (workpiece)"?

Metal wire	Steel wire
	Copper wire
	Piano wire (not heat processed/HV320 or below), precious metals etc.
Molded plastic	Soft plastic (PP, PE, PS, PVC, PMMA, AS etc.)
	Hard plastic (PPS, PA, PBT, LCP, ABS, POM, PC, GF etc.)
Other applications	Check materials, applications and work. (Bending, caulking, punching, robotic hand, and scissors.)

### Check dimensions

How big is the "size of the cut portion"?

Metal	Angle (mm × mm) [select model by cross-section area]
	Round (Φ mm)
Plastic	Angle (mm × mm) [select model by cross-section area]
Other applications	Check materials, applications and work.

### Usage

What is the "state/environment of the work"?

Used mounted on automated machinery and robots.  
Used for manual work.  
Used mounted on a jig. And so forth

### Select model

Choose a model suitable for the purpose.

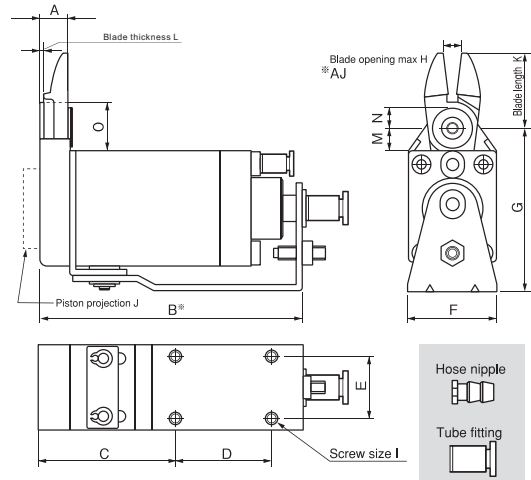
Choose based on "usage and cut dimensions" for the main unit, and "material and dimensions/shape" for the blades. Refer to "product specifications" for the main unit/blade characteristics/usage, respectively. Also when selecting the machine, refer to "capability selection chart".  
The shape/material of the workpiece may not be compatible with standard products.

## ■ Capability selection chart

Types	Cutting material							Application model	Airpressure (MPa)
	Copper wire	Steel wire (Non-heat treated)	PianoWire (HV 320 or below)	Soft Plastic		Hard Plastic	Solderless terminals		
				(Diameter)	(CrossSection)				
N • NS • NR	1.0mm	0.5mm	0.2mm	2.0mm	3.1 mm			NS2,N3,NS3,NR3	0.4~0.5
	1.0	0.5	0.3	2.0	3.1			N5,NS5,NR5	0.4~0.5
	1.6	1.0	0.5	3.0	7.0	2.0mm		N7,NS7,NR7	0.4~0.5
	1.8	1.2	0.5	4.0	12.5	2.6		N10,NS10L,NR10L	0.4~0.5
	2.3	1.7	0.6	4.5	15.8	4.0		N12	0.4~0.5
	2.6	2.0	1.0	7.0	38.4	5.0		N20,NS20,NR2 0	0.5~0.6
	3.3	2.8	1.2	10.0	78.5	6.5	1.25/2.0	N30,NS30,NR3 0	0.5~0.6
	5.5	4.5	2.0	12.0	113.0	6.5		N50,NR50	0.5~0.6
With pressure booster	2.6	1.6		5.0	19.6	4.0	12.5/2.0	P-10L	
	3.0	2.2		8.0	50.2	6.0	2.0/5.5	P-20	
	4.8	4.0		13.0	132.6	7.0	~0.8	P-30	
	6.5	5.5						P-50	
NY				2.0	3.1	1.3		NY03	0.4~0.5
	1.6	1.0		3.0	7.0	2.0		NF05,NY05	0.4~0.5
				3.5	9.6	2.3		NF10,NY10	0.4~0.5
				4.0	12.5	2.6		NF15,NY15	0.4~0.5
				5.0	19.6	3.4		NY25	0.5~0.6
NT				1.5	1.7	1.0		NT03	0.4~0.5
				2.5	4.9	1.5		NT05	0.4~0.5
				3.5	9.6	2.3		NT10	0.4~0.5
				5.0	19.6	3.4		NT20	0.4~0.5
	AS, HS, BJ type		BBB	AP, PF, AJ type			ACD type		

# GT-NY05/10/15/25 Slide-Off Air Nippers Horizontal-Type

NY



The horizontal slide enables space to be used effectively. The low profile of the main unit allows work to be removed without obstructing the operations of the chuck plate.

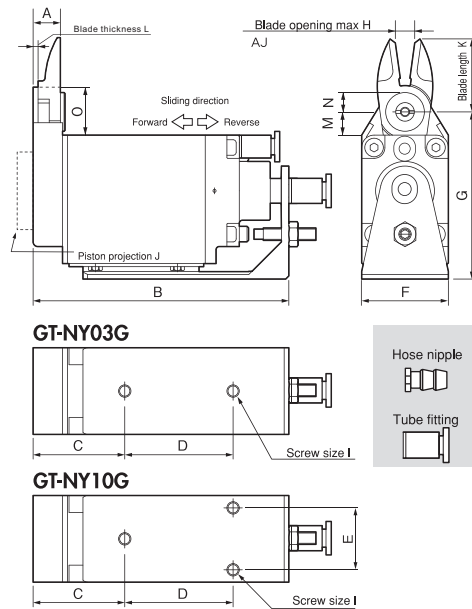
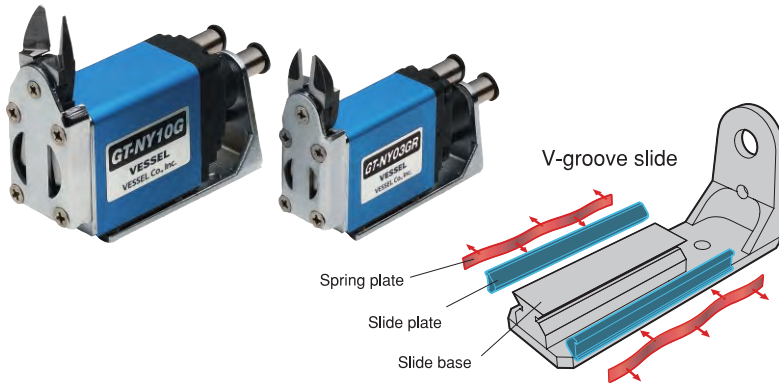
Capacity $\phi$ (mm)		Model No.	Size (mm)													Air Consumption (cm <sup>3</sup> /str.)	Weight (g)	Slide Direction/Distance (mm)	Spec. & Size of the Hose Port		
Soft Plastic	Hard Plastic		A	B	C	D	E	F	G	H	I	J	K	L	M					N	O
3.0	2.0	GT-NY05															48	155	Pull 0~3	W/hose nipple	
3.0	2.0	GT-NY05R															48	155	Push 0~3	Hose I.D. $\phi$ 2.5mm	
3.0	2.0	GT-NY05-4	8.6	75.9	40.9	25	15	23	47.6	4	M4	3	22	1.6	8.5	6.25	16.5	48	155	Pull 0~3	W/tube fitting
3.0	2.0	GT-NY05R-4															48	155	Push 0~3	Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm	
3.5	2.3	GT-NY10															68	210	Pull 0~3	W/hose nipple	
3.5	2.3	GT-NY10R															68	210	Push 0~3	Hose I.D. $\phi$ 2.5mm	
3.5	2.3	GT-NY10-4	8.8	82.1	42.1	30	20	28	51.6	6	M4	5	24	1.6	7.5	6.25	15.5	68	210	Pull 0~3	W/tube fitting
3.5	2.3	GT-NY10R-4															68	210	Push 0~3	Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm	
4.0	2.6	GT-NY15															136	319	Pull 0~3	W/hose nipple	
4.0	2.6	GT-NY15R															136	319	Push 0~3	Hose I.D. $\phi$ 2.5mm	
4.0	2.6	GT-NY15-4	10.2	93	48	35	25	33	58	8	M4	5	27	2	7.5	6.25	16.5	136	319	Pull 0~3	W/tube fitting
4.0	2.6	GT-NY15R-4															136	319	Push 0~3	Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm	
5.0	3.4	GT-NY25															184	580	Pull 0~5	W/hose nipple	
5.0	3.4	GT-NY25R															184	580	Push 0~5	Hose I.D. $\phi$ 4mm	
5.0	3.4	GT-NY25-6	12.5	108.5	54.5	40	30	42	69	9	M5	2	31	2.5	10.5	7	20.5	184	580	Pull 0~5	W/tube fitting
5.0	3.4	GT-NY25R-6															184	580	Push 0~5	Hose I.D. $\phi$ 4XO.D. $\phi$ 6mm	

※Blade length (K) and opening max. (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...0.4~0.5 MPa (NY25 type: 0.5~0.6)  
 ※B refers to the distance from the cut position for PUSH style models, and the distance from the start position for PULL style models.

# GT-NY03G/10G Slide-Off Air Nippers Horizontal-Type

Patented

NY-G



VESSEL's patented, V-groove slide base ensures constant, stable positioning. The unit is not subject to inclined loads, and has achieved high precision gate cutting performance.

Capacity $\phi$ (mm)		Model No.	Size (mm)													Air Consumption (cm <sup>3</sup> /str.)	Weight (g)	Slide Direction/Distance (mm)	Spec. & Size of the Hose Port		
Soft Plastic	Hard Plastic		A	B	C	D	E	F	G	H	I	J	K	L	M					N	O
2.0	1.3	GT-NY03G															37	160	Pull 0~3	W/hose nipple	
2.0	1.3	GT-NY03GR															37	160	Push 0~3	Hose I.D. $\phi$ 2.5mm	
2.0	1.3	GT-NY03G-4	8.6	74.5	29.5	30	-	19	46.5	3	M4	0	21	1.6	7.5	5.25	14.5	37	160	Pull 0~3	W/tube fitting
2.0	1.3	GT-NY03GR-4															37	160	Push 0~3	Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm	
3.5	2.3	GT-NY10G															68	275	Pull 0~3	W/hose nipple	
3.5	2.3	GT-NY10GR															68	275	Push 0~3	Hose I.D. $\phi$ 2.5mm	
3.5	2.3	GT-NY10G-4	8.8	82.6	29.6	35	20	28	54	6	M4	5	24	1.6	7.5	6.25	15.5	68	275	Pull 0~3	W/tube fitting
3.5	2.3	GT-NY10GR-4															68	275	Push 0~3	Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm	

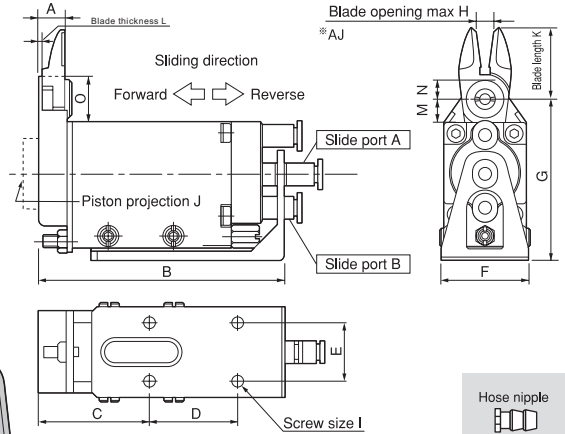
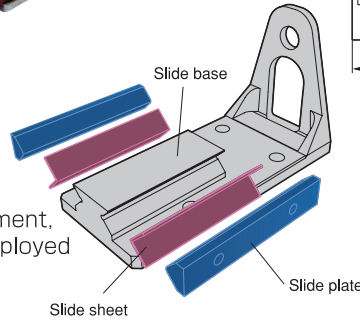
※Blade length (K) and opening max. (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...0.4~0.5 MPa

Blade is optional. Note that forward and backward-facing blades are available

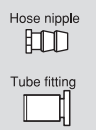


# GT-NY10S/25S Double Action Sliding Air Nippers

# NY-S



**WARNING**  
 Injecting air into slide port A slides the nippers in reverse.  
 Injecting air into slide port B slides the nippers forward.



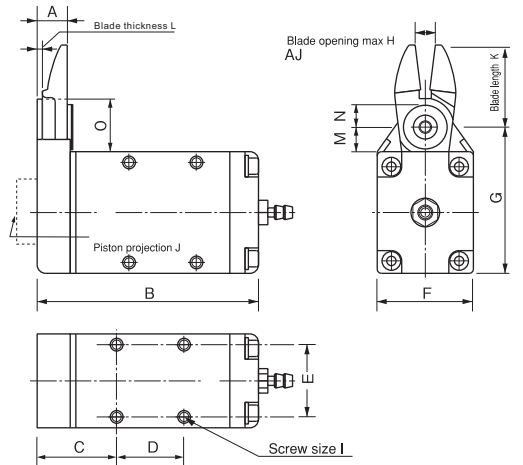
The springless slide construction of the main unit ensures smooth movement, and a V-groove slide base has been employed for high precision positioning.

Capacity $\phi$ (mm)		Model No.	Size (mm)															Air Consumption (cm <sup>3</sup> /str.)	Weight (g)	Slide Direction/Distance (mm)	Spec. & Size of the Hose Port
Soft Plastic	Hard Plastic		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O				
3.5	2.3	GT-NY10S	8.8	84.5	38	30	20	32	55	6	M4	5	24	1.6	7.5	6.25	15.5	68	300	0~3.5	W/tube fitting Hose I.D. $\phi$ 2.5×O.D. $\phi$ 4mm
5.0	3.4	GT-NY25S	12.5	106.5	47	40	30	47	72	9	M5	2	31	2.5	10.5	7	20.5	184	695	0~5.0	W/tube fitting Hose I.D. $\phi$ 4×O.D. $\phi$ 6mm

※Blade length (K) and opening max. (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...NY10S : 0.4~0.5 MPa / NY25S : 0.5~0.6 MPa

# GT-NF05/10/15 Type-F Air Nippers

# NF



These compact, lightweight nippers have been designed for easy mounting inside equipment and to enable secure mounting under high-density mounting conditions.

Capacity $\phi$ (mm)				Model No.	Size (mm)															Air Consumption (cm <sup>3</sup> /str.)	Weight (g)	Spec. & Size of the Hose Port
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O			
3.0	2.0	1.6	1.0	GT-NF05	8.6	59.9	21.9	17	18	23	39.5	4	M3	3	22	1.6	8.4	6.25	16.4	43	101	W/hose nipple Hose I.D. $\phi$ 2.5mm× $\phi$ 4mm
3.5	2.3	1.7	1.1	GT-NF10	8.8	65.1	23.1	20	22	28	43.5	6	M3.5	5	24	1.6	7.4	6.25	15.4	63	143	
4.0	2.6	1.8	1.2	GT-NF15	10.2	73	25	25	26	33	48.5	8	M4	5	27	2	7.4	6.25	16.4	128	219	

※Blade opening max. (K) is the dimension adjusted for standard blade (AJ type). Mounting screw for NF10 (M3.5) is regarded as spare part. ※Air Pressure...0.4~0.5 MPa

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

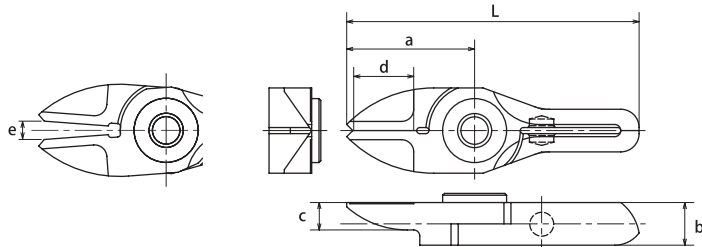
# Slide-off air nipper horizontal-type blades

**AJ/RAJ  
AJB**

**Straight blades for plastic**

AJ/ This is a vertical set of blades with an unbeveled cutting edge. You can apply it at a right angle to the gate. RAJ/ This is a reverse bevel of AJ type. AJB/ This has a brazed carbide tip, suitable for cutting hard plastic or plastic containing glass fiber.

**Plastic**



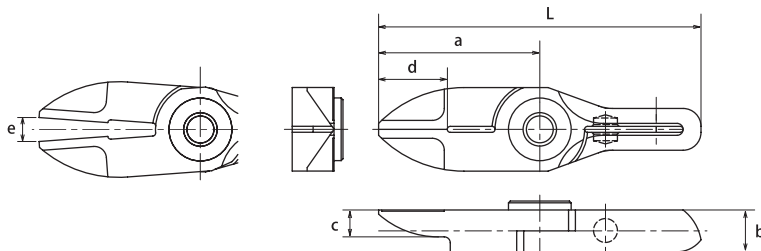
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NY03AJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)
NY03RAJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03GR(-4)
NY05AJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05
NY05RAJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05
NY05AJB	22	7	5	10.5	4	53	22	Sintered Alloy	GT-NY05(-4) / NF05
NY10AJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY10RAJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10R(-4) / NY10GR(-4) / NF10 / NY10S
NY10AJB	24	7.2	5	12	6	57	28	Sintered Alloy	GT-NY10(-4) / NY10GR(-4) / NF10 / NY10S
NY15AJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15(-4) / NF15
NY15RAJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15R(-4) / NF15
NY15AJB	27	8.2	5.5	13	8	65	41	Sintered Alloy	GT-NY15(-4) / NF15
NY25AJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25(-6) / NY25S
NY25RAJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25R(-6) / NY25S
NY25AJB	31	10	6	16	9	77	65	Sintered Alloy	GT-NY25(-6) / NY25S

**AJL**

**Straight long blades for plastic**

AJL/ This is a long type set of straight blades. This is useful when there is distance between the nippers and the gate cut portion of the workpiece.

**Plastic**



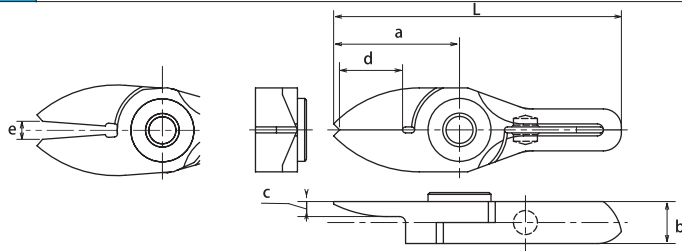
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NY03AJL	27	7	4.5	10.5	4	54	21	Special alloy steel	GT-NY03G(-4)
NY05AJL	31	7	5	10.5	5.5	62	29	Special alloy steel	GT-NY05(-4) / NF05
NY10AJL	33	7.2	5	12	8	66	37	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AJL	38	8.2	5.5	13	11	76	50	Special alloy steel	GT-NY15(-4) / NF15
NY25AJL	46	10	6	16	13	92	88	Special alloy steel	GT-NY25(-6) / NY25S

**AJT**

**Thin, straight blades for plastic**

AJT/ This is a set of straight blades with a thin cutting edge. It can cleanly trim cross sections without remnants.

**Plastic**



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NY03AJT	21	7	2.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)
NY05AJT	22	7	3	10.5	4	53	21	Special alloy steel	GT-NY05(-4) / NF05
NY10AJT	24	7.2	3	12	6	57	26	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AJT	27	8.2	3.5	13	8	65	38	Special alloy steel	GT-NY15(-4) / NF15

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Slide-off air nipper horizontal-type blades

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

AD

### Lift blades for plastic

AD/ This is used for batch processing of the three-dimensional gate such as ride gate.

Plastic

Model No.	Size (mm)			d1 (mm)	d2 (mm)	e (mm)	L (mm)	Weight (g)	Material	Application model
	a	b	f×g							
NY10AD	26.5	7.2	6×13	2.5	4.2	6	59.5	31	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AD	30	8.2	7×14	3	4.7	8	68	45	Special alloy steel	GT-NY15(-4) / NF15
NY25AD	35	10	8×17	4	6	9	81	75	Special alloy steel	GT-NY25(-6) / NY 25S

AH/  
RAH

### Crank blades for plastic

AH/ This is a set of blades with a clamped cutting edge for plastic. It is effective when there are obstructions or the gate is narrow. RAH/ This is a reverse bevel of AH type used when installing the main units face-to-face.

Plastic

Model No.	Size (mm)					Weight (g)	Material	Application model	
	a	b	c	d	e	L			
NY05AH	31	19	5	10.5	5.5	62	37	Special alloy steel	GT-NY05(-4) / NF05
NY05RAH	30	12	5	10.5	5	61	31	Special alloy steel	GT-NY05R(-4) / NF05
NY10AH	33	20	5	12	8	66	43	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AH	38	21.5	5.5	13	11	76	63	Special alloy steel	GT-NY15(-4) / NF15
NY15RAH	35	13.2	5.5	13	9	73	52	Special alloy steel	GT-NY15R(-4) / NF15
NY25AH	46	24	6	17	13	92	110	Special alloy steel	GT-NY25(-6) / NY 25S
NY25RAH	42	16	6	16	12	88	89	Special alloy steel	GT-NY25R(-6) / NY 25S

BJ/  
RBJ

### Straight thin blades for metal

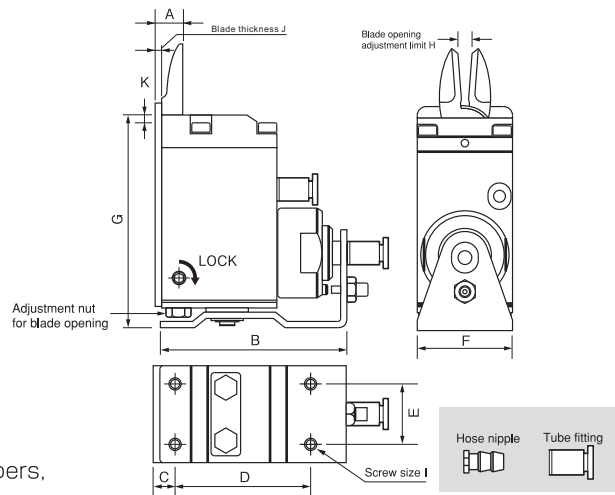
BJ/ This is a set of vertical blades with an unbeveled cutting edge for metal. RBJ/ This is a reverse bevel of BJ type.

Metal

Model No.	Size (mm)					Weight (g)	Material	Application model	
	a	b	c	d	e	L			
NY05BJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05
NY05RBJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05

# GT-NT03/05/10/20 Slide-Off Air Nippers Vertical-type

NT



Blade gape is adjustable, and fine adjustments are easy to make after mounting the nippers, ensuring clean, unblemished cut surfaces.

Capacity $\phi$ (mm) Soft Plastic Hard Plastic	Model No.	Size (mm)											Air Consumption (cm <sup>3</sup> /str)	Weight (g)	Slide Direction/ Distance (mm)	Spec. & Size of the Hose Port	
		A	B	C	D	E	F	G	H	I	J	K					
1.5 1.0	GT-NT03													27	178	Pull 0~3	W/hose nipple Hose I.D. $\phi$ 2.5mm
1.5 1.0	GT-NT03R	9	62	7	43	14	19	68.1	1.5~3	M3	2	5	27	178	Push 0~3	W/tube fitting Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm	
1.5 1.0	GT-NT03-4													27	178	Pull 0~3	
1.5 1.0	GT-NT03R-4													27	178	Push 0~3	
2.5 1.5	GT-NT05													47	325	Pull 0~3	W/hose nipple Hose I.D. $\phi$ 2.5mm
2.5 1.5	GT-NT05R	9	64	7	45	20	32	71.1	3~6	M4	2	5	47	325	Push 0~3	W/tube fitting Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm	
2.5 1.5	GT-NT05-4													47	325	Pull 0~3	
2.5 1.5	GT-NT05R-4													47	325	Push 0~3	
3.5 2.3	GT-NT10													82	515	Pull 0~3	W/hose nipple Hose I.D. $\phi$ 2.5mm
3.5 2.3	GT-NT10R	11	73	8	53	24	38	88.1	4~7	M4	2	5	82	515	Push 0~3	W/tube fitting Hose I.D. $\phi$ 4XO.D. $\phi$ 6mm	
3.5 2.3	GT-NT10-6													82	515	Pull 0~3	
3.5 2.3	GT-NT10R-6													82	515	Push 0~3	
5.0 3.4	GT-NT20													203	930	Pull 0~8	W/hose nipple Hose I.D. $\phi$ 4mm
5.0 3.4	GT-NT20R	14	103	10	80	28	44	102.1	4.5~9	M5	2	6	203	930	Push 0~8	W/tube fitting Hose I.D. $\phi$ 4XO.D. $\phi$ 6mm	
5.0 3.4	GT-NT20-6													203	930	Pull 0~8	
5.0 3.4	GT-NT20R-6													203	930	Push 0~8	

※Blade opening adjustment limit (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...0.4~0.5 MPa

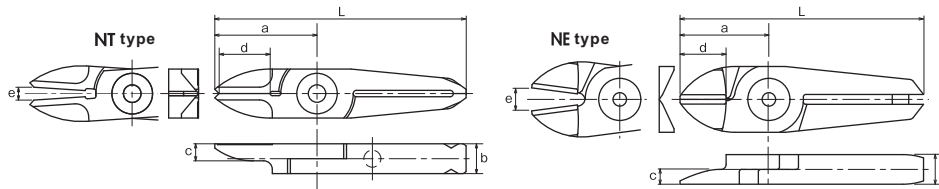
## Slide-off air nipper vertical-type blades

AJ/AJH  
AJB

**Straight blades for plastic**

**Plastic**

AJ/ This is a set of vertical blades with an unbeveled cutting edge. You can apply it at a right angle to the gate. AJH/ This has a brazed high-speed steel tip suitable for cutting hard plastic. AJB/ This has a brazed carbide tip used for cutting hard plastic or plastic containing glass fiber. Improved durability.



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NT03AJ	24	7	4	11	3	59	20	Special alloy steel	GT-NT03 type
NT05AJ	29	7	5	15	6	65	30	Special alloy steel	GT-NT05 type
NT05AJH	29	7	5	15	6	65	30	High Speed Steel	
NT05AJB	29	7	5	15	6	65	30	Sintered Alloy	GT-NT10 type
NE5AJ	24	7	3.5	12	6	60	35	Special alloy steel	
NT10AJ	35	9	6	17	7	82	62	Special alloy steel	GT-NT20 type
NT10AJH	35	9	6	17	7	82	76	High Speed Steel	
NT10AJB	35	9	6	17	7	82	76	Sintered Alloy	GT-NT20 type
NE10AJ	27	9	4.5	12	7	74	70	Special alloy steel	
NT20AJ	40	12	6	20	9	97	120	Special alloy steel	GT-NT20 type
NT20AJH	40	12	6	20	9	97	120	High Speed Steel	
NT20AJB	40	12	6	20	9	97	120	Sintered Alloy	



# Slide-off air nipper vertical-type blades

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

<b>AJL</b>	<b>Straight long blades for plastic</b>							<b>Plastic</b>	
	AJL/ This is a long type set of straight blades. This is useful when there is distance between the nippers and the gate cut portion of the workpiece.								
Model No.	a	b	Size (mm)			L	Weight (g)	Material	Application model
NT05AJL	36	7	5	15	7	72	39	Special alloy steel	GT-NT05 type
NT10AJL	47	9	6	17	9	94	62	Special alloy steel	GT-NT10 type
NT20AJL	57	12	6	20	12	114	156	Special alloy steel	GT-NT20 type

<b>AJT</b>	<b>Thin, straight blades for plastic</b>							<b>Plastic</b>	
	AJT/ This is a set of straight blades with a thin cutting edge. It can cleanly finish cross sections without remnants.								
Model No.	a	b	Size (mm)			L	Weight (g)	Material	Application model
NT03AJT	24	7	2.3	11	3	59	19	Special alloy steel	GT-NT03 type
NT05AJT	29	7	3	15	6	65	29	Special alloy steel	GT-NT05 type
NT10AJT	35	9	4	17	7	82	65	Special alloy steel	GT-NT10 type

<b>AJY</b>	<b>Thin, straight blades for plastic</b>							<b>Plastic</b>	
	AJY/ This is effective when the width between the opposing gates is too short and the thickness of the blades will not go in.								
Model No.	a	b	Size (mm)			L	Weight (g)	Material	Application model
NT03AJY	24	7	2.5	11	3	59	19	Special alloy steel	GT-NT03 type
NT05AJY	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type
NT10AJY	35	9	4	17	7	72	82	Special alloy steel	GT-NT10 type

# Slide-off air nipper vertical-type blades

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

**AD** Lift blades for plastic

AD/ This is used for batch processing of the three-dimensional gate such as ride gate.

Model No.	Size (mm)			d1 (mm)	d2 (mm)	e (mm)	L (mm)	Weight (g)	Material	Application model
NT05AD	31.5	7	6×18	2.5	4.5	6	67.5	37	Special alloy steel	GT-NT05 type
NT10AD	39	9	8×21.5	4	5	7	86	65	Special alloy steel	GT-NT10 type
NT20AD	46	12	9×24.5	6	7	9	103	141	Special alloy steel	GT-NT20 type

**AJV** V shaped straight blades for plastic

AJV/ This is suitable for gate processing when the cross section is curved or the cut end must not be left.

Model No.	Size (mm)			d	e	L	Weight (g)	Material	Application model
NT05AJV	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type
NT10AJV	35	9	6	17	7	82	63	Special alloy steel	GT-NT10 type

**AE** Nipping blades for plastic

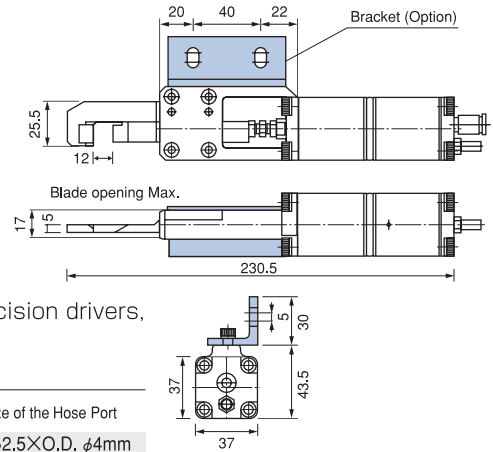
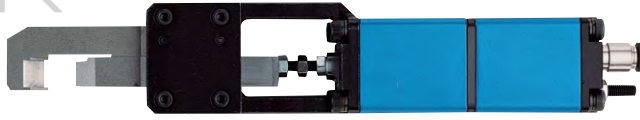
AE/ Used for processing plastic gates such as ride gates and discard gates.

Model No.	Size (mm)			d	e	L	Weight (g)	Material	Application model
NT05AE	29	7	6×18	7	6	65	36	Special alloy steel	GT-NT05 type
NT10AE	35	9	8×21.5	9	7	82	75	Special alloy steel	GT-NT10 type

# Thrust-Cut Air Nipper

## GT-NK10 Thrust-Cut Air Nipper

NK



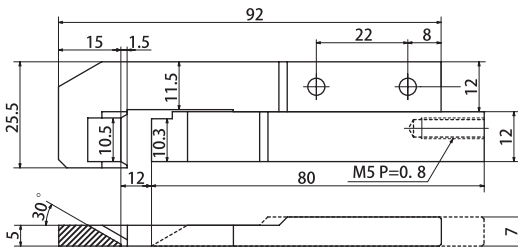
These nippers are equipped with a foot switch and are linked to high precision drivers, enabling the cutting of film-shaped gates from the thin end, preventing wrinkles around the cut.

Capacity $\phi$ (mm) ABS Plastic	Model No.	Air Consumption (cm <sup>3</sup> /str.)	Air Pressure (MPa)	Weight (g)	Applied Pressure (N)	Spec. & Size of the Hose Port
5	<b>GT-NK10</b>	110	0.4~0.5	800	735	Hose I.D. $\phi$ 2.5×O.D. $\phi$ 4mm

·Hose Coupling: I.D.  $\phi$ 4 × O.D.  $\phi$ 6 mm ·Piston stroke···Max.12 mm

## Thrust-Cut Air Nipper blades

Thrust-Cut Air Nipper blades		Plastic
<b>NK10AJ</b>	This is a dedicated set of blades for GT-NK10. Suitable for processing of film gates attached to robot hands	

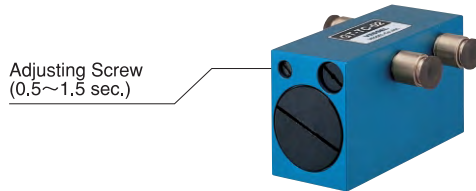


Model No.	Size (mm)	Shape	O.A.L. (mm)	Weight (g)	Material	Application model
NK10AJ	As above	For metal cutting (Knife type)	95	96	Special alloy steel	GT-NK10

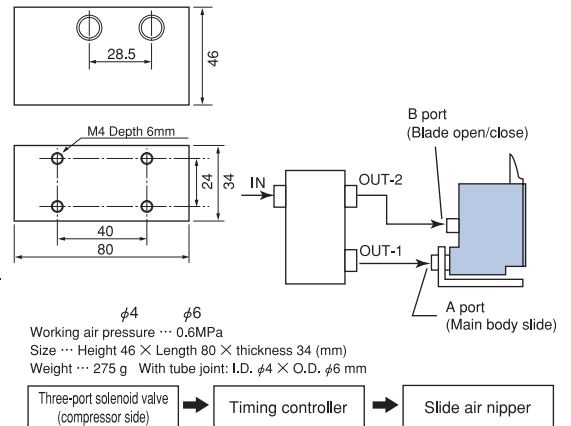
## Related items

### GT-TC-02 Timing Controller

TC



Adjusting Screw  
(0.5~1.5 sec.)



Connected between the compressor and the air nippers, the timing controller enables adjustments to the slide and cutting timing. (Approximately 0.5 seconds to 1.5 seconds)

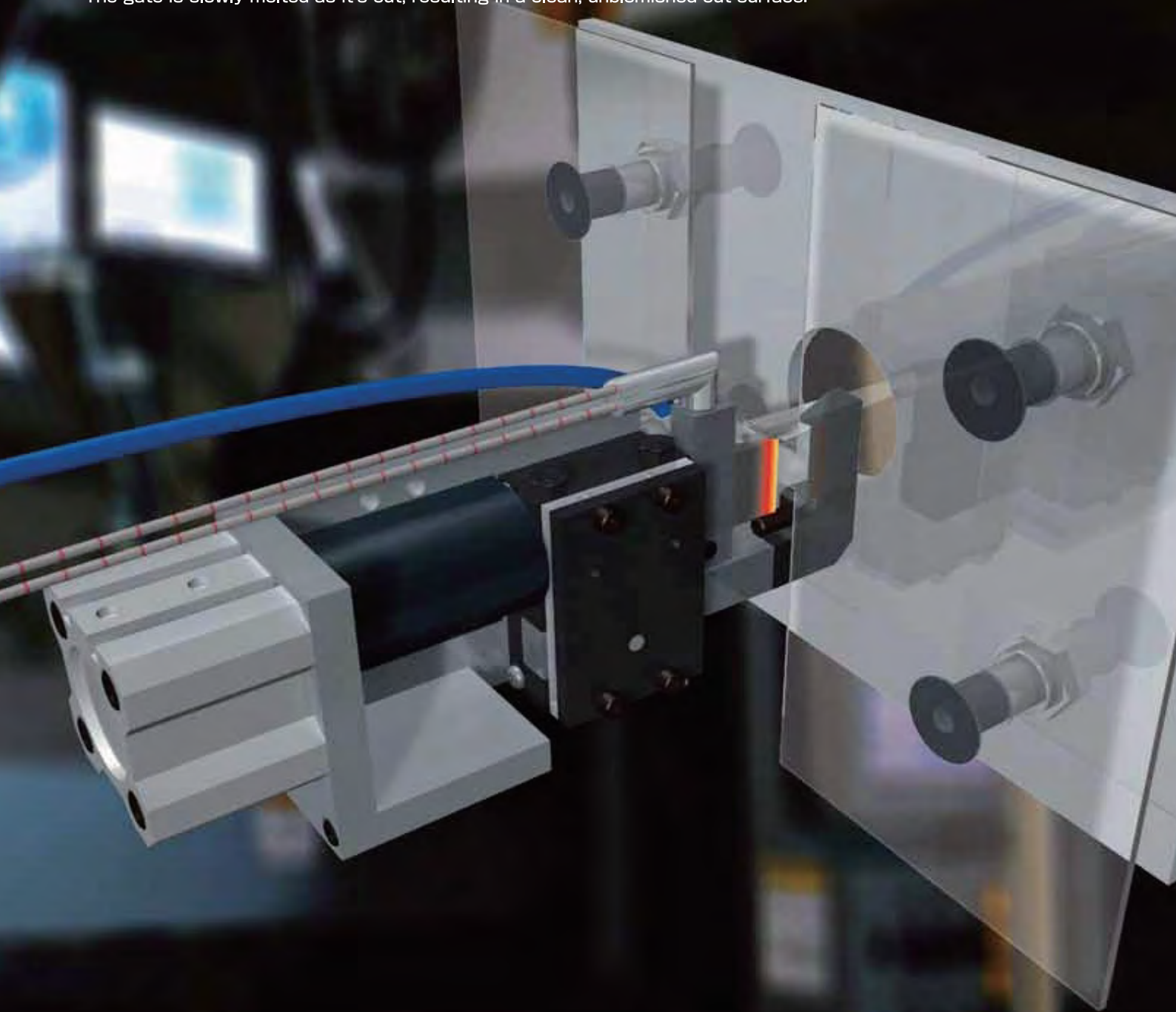
Connectable nippers (Reference)

No. GT-	NY05	NY10	NY15	NY25	NT03	NT05	NT10	NT20	NB20	NB30	NB20LW	NB30LW
Connectable unit	4	3	1	1	6	4	2	1	2	1	2	1

(pcs)

# Heat Air Nippers

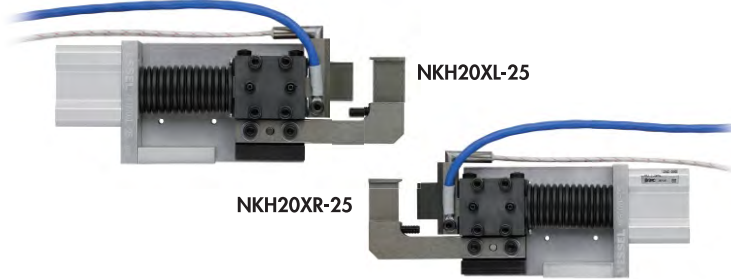
These air nippers are connected to a heater to suppress cracks and whitening of clear materials such as acrylic. The gate is slowly melted as it's cut, resulting in a clean, unblemished cut surface.



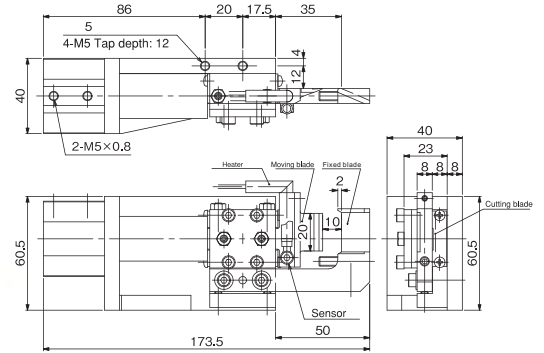
# GT-NKH20XL-25/NKH20XR-25 Heat Air Nippers (Air Hydro Type)

# NKH

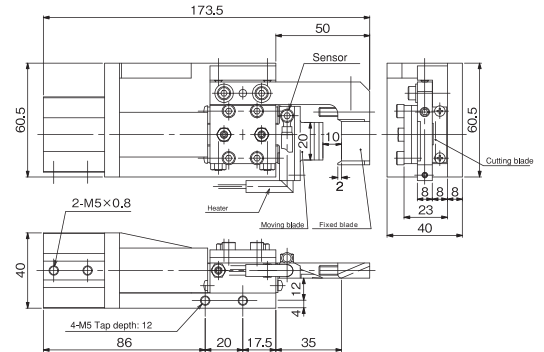
Highly durable PTFE Plating blades; melted resin does not adhere to them.  
Improved durability of blades with High-Speed chip brazed.  
Easier blade replacement than conventional models; take out the blade unit and exchange with the new one.



**NKH20XL-25**



**NKH20XR-25**



- Requires separately sold Hydro Controller.
- Custom-made blade lengths and cylinder capacities available.

Model No.	Cutting Capacity φ (mm) Acrl	Blade Edge Temp. (MAX °C)	Air Consumption (cm <sup>3</sup> /str.)	Piston Stroke (mm)	Weight (g)
GT-NKH20XL-25/NKH20XR-25	10x1.5	180	60	10	690

- Air Pressure: 0.6MPa • Working air hose inner diameter: 4mm
- ※ The above weight is only a product, excluding the weight of heater and sensor.
- ※ 200V AC/220V AC/240V AC heaters are also available to order.
- Included heater: HTL-28.5-6.25-300L 80W1H (80W/100V) Cord length 300mm Recommended temp. 140°C Weight: 13g
- Included temperature sensor: SNO-300L-H Thermal couple type K Recommended temp. 140°C Cord length 300mm Weight: 7g

**Blades Specifications**

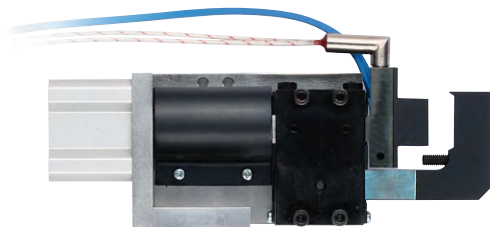
Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)
Special Alloy Steel	Knife type (resin)	10	20	125

- Option Parts**
- Hydro-converter (Recommended: KOGANEI AHC 32×50)
  - Working fluid: Petroleum hydraulic fluid or turbine oil with antifoaming agent additive (VG22~100)
  - Temperature controller (DTC-001)

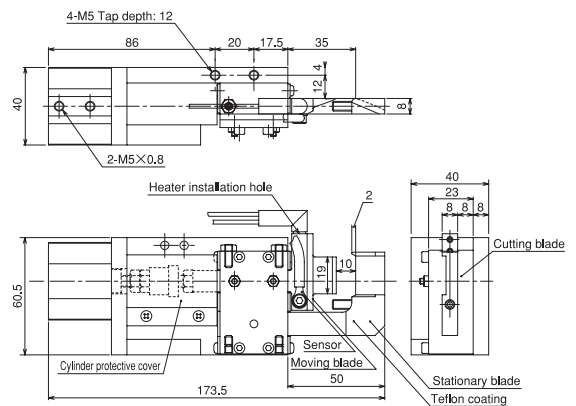
# GT-NKH20A/20AR Heat Air Nippers (Air Hydro Type)

# NKH

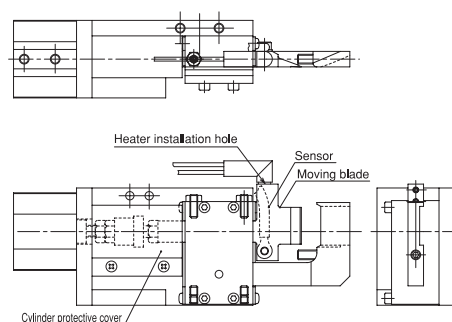
Air-hydro cylinders produce high power from air and oil.  
These units are ideal for high precision cuts required for products such as optical resin lenses.



**GT-NKH20A-25 (Forward-facing blades)**



**GT-NKH20AR-25 (Backward-facing blades)**



- Requires separately sold Hydro Controller.
- Custom-made blade lengths and cylinder capacities available.

Model No.	Cutting Capacity φ (mm) Acrl	Blade Edge Temp. (MAX °C)	Air Consumption (cm <sup>3</sup> /str.)	Piston Stroke (mm)	Weight (g)
GT-NKH20A-25/20AR-25	10x1.5	180	60	10	720

- Included heater • Included temperature sensor
- Air Pressure: 0.6MPa • Working air hose inner diameter: 4mm
- ※ 200V/240V heaters are also available to order.

**Blades Specifications**

Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)
Special Alloy Steel	Knife type (resin)	10	19	125

- Option Parts**
- Hydro-converter (Recommended: KOGANEI AHC 32×50)
  - Working fluid: Petroleum hydraulic fluid or turbine oil with antifoaming agent additive (VG22~100)
  - Temperature controller (DTC-001)

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

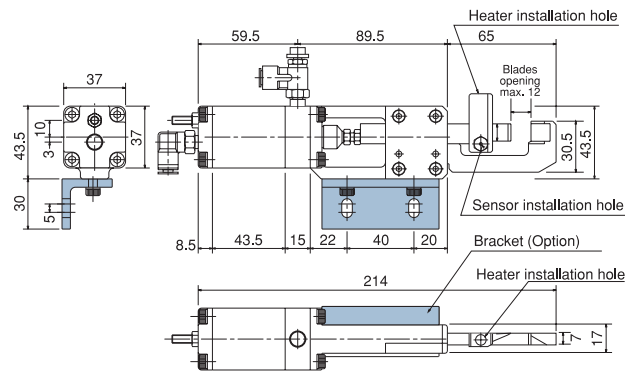
Vacuum Module

Accessory Components

# GT-NKH10 Heat Air Nippers

# NKH

Speed control of cut speed and heater temperature allows for variable cutting surface solutions for extremely high precision cutting demands.



Model No.	Cutting Capacity φ (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec/cut)	Air Consumption (cm <sup>3</sup> /str.)	Piston Stroke (mm)	Weight (g)
<b>GT-NKH10</b>	7x1.5	200	4~5	73	12	715

- Included heater: 80W/120V Cord length: 300mm
- Included temperature sensor: Thermal couple type K (Nickel-Chromium/Nickel-Aluminum) Cord length: 1,000mm
- Air Pressure: 0.5~0.6MPa

Option Parts    •Temperature controller (DTC-001)

## Blades Specifications

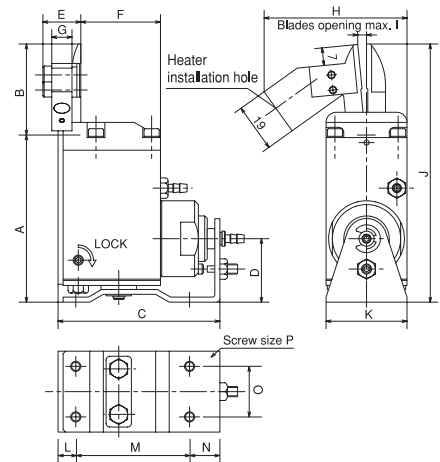
Model No.	Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)
<b>NKH10AJ/NKH10RAJ</b>	Special Alloy Steel	Knife type (resin)	12	10	137

# Heat Air Nippers

## GT-NTH05/10 Heat Air Nippers (Vertical sliding type)

# NTH

One blade is fixed in position, facilitating easy gate alignment. In addition, a slide function presses the product into position.



Model No.	Cutting Capacity φ (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec/cut)	Air Consumption (cm <sup>3</sup> /str.)	Slide Distance (mm)	Weight (g)	Dimensions (mm)															
							A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
<b>GT-NTH05</b>	2.5	200	4~5	47	0~3	325	66.1	36	64	25.1	15	31.5	8	56.5	3.5	102.1	32	7	45	12	20	M4
<b>GT-NTH10</b>	3.5	200	4~5	82	0~3	515	83	47	73	29	16.2	37.5	8	63	4.5	130	38	8	53	12	24	M4

- Included heater: 80W/120V Cord length: 300mm
- Included temperature sensor : Thermal couple type K (Nickel-Chromium/Nickel-Aluminum) Cord length: 1,000mm
- Air Pressure: 0.4~0.5MPa

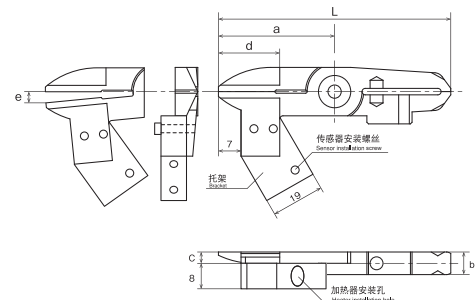
## Blades Specifications

Model No.	Material	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)
<b>NTH05AJ</b>	Special Alloy Steel	36	7	3.5	15	3.5
<b>NTH10AJ</b>	Special Alloy Steel	47	9	4.7	17	4.5

Model No.	L (mm)	Weight (g)	Cutting Capacity φ (mm) Acril	Setting temp. (MAX °C)	Application model
<b>NTH05AJ</b>	72	40	2.5	200	GT-NT05(-4)/GT-NT05R(-4)
<b>NTH10AJ</b>	94	88	3.5	300	GT-NT10(-6)/GT-NT10R(-6)

HTH type blade weight does not include heater and sensor.

Option Parts    •Temperature controller (DTC-001)



Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

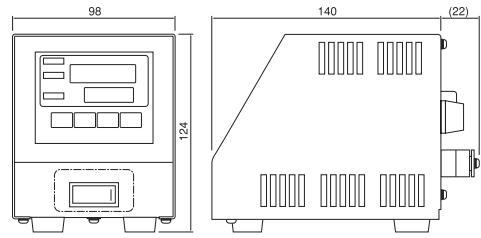
Accessory Components

# Temperature Controller

## DTC-001 Benchtop Temperature Controller

# DTC

The heating element can be connected directly to the main unit, a useful feature that saves labor during wiring installation. Compact construction enables the unit to be easily carried, allowing for changing the work site at any time.



Please inform us of the product number of the heat nipper when placing an order.

Model No.	Temperature range Thermocouple K (°C)	Power supply (V)	Power consumption (with 100 VAC input)	Ambient temperature and humidity (°C)	Protection fuse	Weight (g)
DTC-001	0~200	AC100~240	Approx. 3W (Approx. 5VA) (With no load)	0~40 RH35~85% (No condensing)	One 1.5A fuse is incorporated.	900

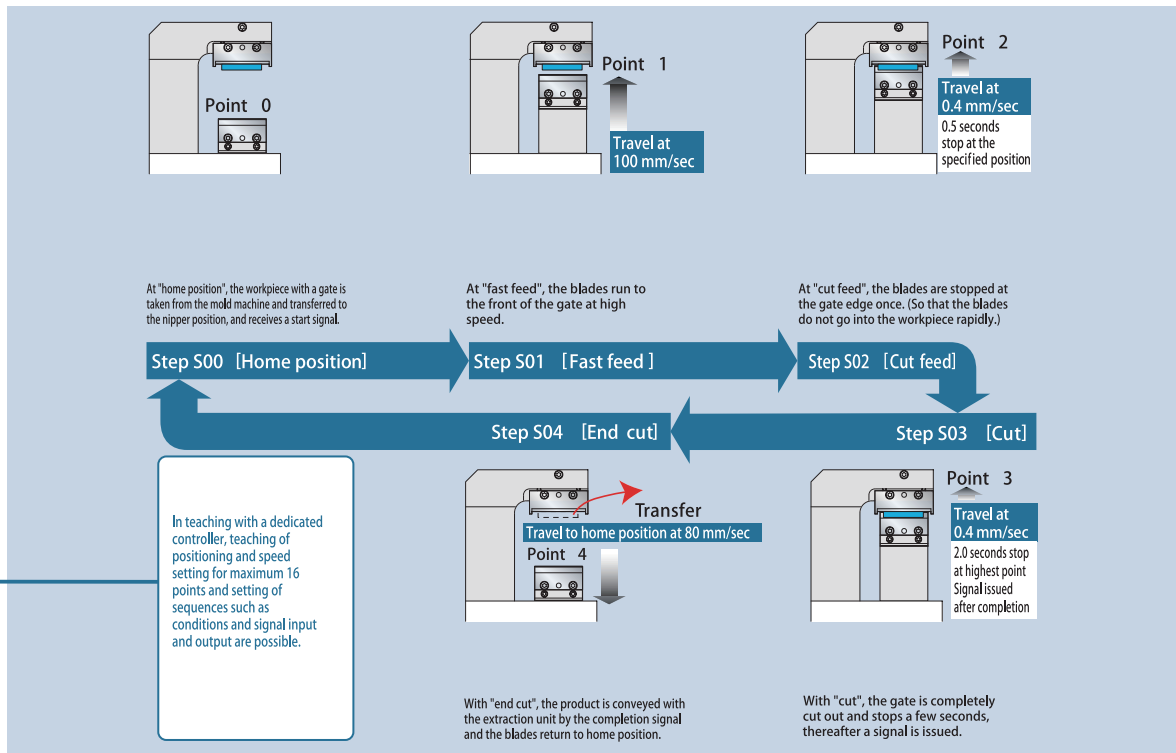
※Please ensure the input voltage in prior to operation as it is directly connected to the heater.

Option Parts · Power supply cable : Model No. DTC-001-□-□

- : Cable for connection to the terminal block is necessary to be included.
- : (N/A) Cable not necessary.
- : 2m power cable w/ Japanese type plug (A-type)
- : 2m power cable w/ European type plug (C-type)
- : (N/A) Cable not necessary.

## Special Controller (optionally available)

### Practical example of gate-cut



### Practical example of input data

		Teaching content	Home position	Fast feed	Cut feed	Cut	End cut
Point data	Point No.		0	1	2	3	4
	Positioning (*)		Home position	Leaving 7 mm	Leaving 0.5 mm	Maximum	value
	Speed setting		-	100 mm/sec	0.4 mm/sec	0.4 mm/sec	80 mm/sec
	Pushing force setting		-	-	-	-	-
	Acceleration setting		-	-	-	-	-
Sequencer data	Step No.		S00	S01	S02	S03	S04
	Waiting for positioning to complete		-	-	-	-	-
	Waiting for external input conditions		-	-	-	-	-
	Delay timer		-	-	0.5sec	2.0sec	-
	Specified external output		-	-	-	ON	-

(\*) Input of positioning is actually done with a numerical value.

## Air Nippers For Cutting and Crimping

A tough body for hard jobs.

With a frame diameter range of 23mm to 75mm, this product line was developed by piston size. These models are ideal for a broad spectrum of cutting and crimping work.



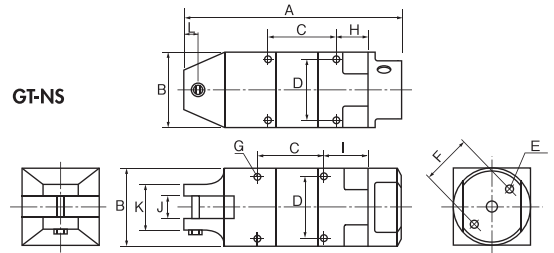


# Air Nippers

## GT-NS3/5/7/10L/20/30 Square Air Nippers

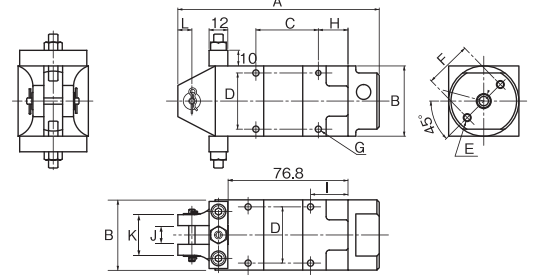
# NS

VESSEL provides a generous selection of blades for all wire cutting needs, including resin product gate cuts and automatic welding equipment.



Customization

GT-NS20H-1 (Blade opening adjustable)



- The main body end is 180° rotatable.
- Two suction (intake) ports are provided, and so the suction position can be optionally changed depending on the mounting place.

Capacity $\phi$ (mm)			Model No.	Size (mm)											Air Consumption (cm <sup>3</sup> /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling		
Soft Plastic	Hard Plastic	Copper		A	B	C	D	E	F	G	H	I	J	K					L	
2.0		1.0	0.5	GT-NS3	110	23	40	19	M3 Depth8	17	M3 Depth3.5	19	24	7	23	7	45	0.4~0.5	95	Rc1/8
2.0		1.0	0.5	GT-NS5	94	30	30	24	M4 Depth10	20	M3 Depth5	14	19	7	23	7	64	0.4~0.5	135	
3.0	2.0	1.6	1.0	GT-NS7	113	36	30	28	M4 Depth10	24	M4 Depth5.5	18	23	9	23	7	116	0.4~0.5	215	
4.0	2.6	1.8	1.2	GT-NS10L	113	36	30	28	M4 Depth10	24	M4 Depth5.5	18	23	12	26	7	116	0.4~0.6	215	
7.0	5.0	2.6	2.0	GT-NS20	129	45	40	36	M5 Depth12	30	M4 Depth7	19	24	12	26	9	230	0.5~0.6	370	
10.0	6.5	3.3	2.8	GT-NS30	170	56	60	46	M6 Depth12	40	M5 Depth10	20	30	17	36	15	584	0.5~0.6	685	
7.0	5.0	2.6	2.0	GT-NS20H-1	129	45	40	36	M5 Depth12	30	M4 Depth7	19	24	12	26	9	230	0.5~0.6	455	

\*Air hose inner dia. : 5mm \*Overall length/Weight: Accessories not included.

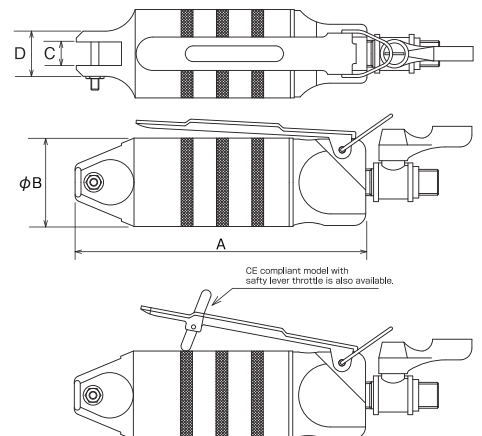
※Before mounting of exclusive/automatic machines, check the following product dimensions. (Frame O.D., screw dia. (screw to screw) dimensions, etc.)

※Model GT-NS50 is a special order item. Please contact VESSEL for details.

## GT-N3/5/7/10/12/20/30/50 Hand Held Air Nippers

# N

VESSEL's special order blades provide solutions for a virtually unlimited range of needs, leading to safer, and more efficient work with less fatigue.



- N20,N30,50
- N20, N30 and N50 have the air cock.

Capacity $\phi$ (mm)			Model No.	Size (mm)				Air Consumption (cm <sup>3</sup> /str.)	Air Pressure (MPa)	Weight (g)	Body	Hose coupling	
Soft Plastic	Hard Plastic	Copper		A	B	C	D						
2.0		1.0	0.5	GT-N3	112	23	7	14	45	0.4~0.5	95	Rc1/8	R1/4
2.0		1.0	0.5	GT-N5	103	30	7	17	64	0.4~0.5	135	Rc1/8	
3.0	2.0	1.6	1.0	GT-N7	123	34	9	17	116	0.4~0.5	180	Rc1/4	
4.0	2.6	1.8	1.2	GT-N10	132	34	9	17	116	0.4~0.5	185	Rc1/4	
4.5	4.0	2.3	1.7	GT-N12	142	36	12	20	116	0.5~0.6	210	Rc1/4	
7.0	5.0	2.6	2.0	GT-N20	156	45	12	23	230	0.5~0.6	375	Rc1/4	
10.0	6.5	3.3	2.8	GT-N30	193	56	17	30	584	0.5~0.6	625	Rc1/4	
		5.5	4.5	GT-N50	237	75	25.2	43	1,170	0.5~0.6	1,220	Rc1/4	

\*Hose coupling: R 1/4 \*Air hose inner dia. : 5mm \*Overall length: Accessories, Hunger not included. \*Weight: Accessories not included.

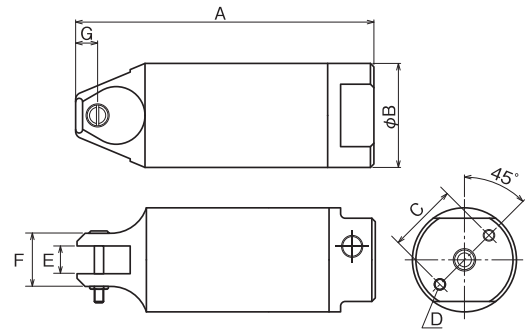
Blade is  $\epsilon$  Blade is optional.

# Air nippers

## GT-NR3/5/7/10L/20/30/50 Air Nipper Round-Type without Lever

# NR

The Nr20 body contains the installation scale of two sides.



- The main body end is 180° rotatable.
- Two suction (intake) ports are provided, the suction position can be optionally changed depending on the mounting plate.

Soft Plastic	Hard Plastic	Copper	Steel	Model No.	A	B	C	Size (mm)	D	E	F	G	Air Consumption (cm <sup>3</sup> /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling
2.0		1.0	0.5	GT-NR3	110	23	17	M3 Depth8	7	14	7	7	45	0.4~0.5	70	Rc1/8
2.0		1.0	0.5	GT-NR5	94	30	20	M4 Depth10	7	17	7	7	64	0.4~0.5	110	
3.0	2.0	1.6	1.0	GT-NR7	113	34	22	M4 Depth10	9	17	7	7	116	0.4~0.5	150	
4.0	2.6	1.8	1.2	GT-NR10L	113	36	24	M4 Depth10	12	20	7	7	116	0.4~0.6	215	
7.0	5.0	2.6	2.0	GT-NR20	129	45	30	M5 Depth12	12	23	9.5	9.5	230	0.5~0.6	280	
10.0	6.5	3.3	2.8	GT-NR30	165	56	40	M6 Depth12	17	30	10.5	10.5	584	0.5~0.6	505	
12.0	6.5	5.5	4.5	GT-NR50	222	75	50	M8 Depth12	25.2	43	15	15	1,170	0.5~0.6	1,190	

• Air hose inner dia. : 5mm • Overall length/Weight: Accessories not included.

※ Before mounting of exclusive/automatic machines, check the following product dimensions. (Frame O.D., screw dia. (screw to screw) dimensions, etc.)

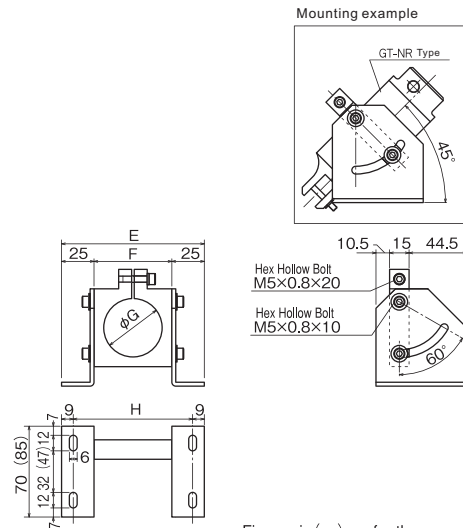
## GT-NR

## GT-NR10LST/20ST/30ST/50ST Stand

Stands for installing air nippers. The angle is easily adjustable.



Model No.	E	Size (mm)	F	G	H	Weight (g)
NR10LST	102	52	36	84		335
NR20ST	110	60	45	92		385
NR30ST	130	80	56	112		535
NR50ST <small>Option</small>	150	100	75	132		835

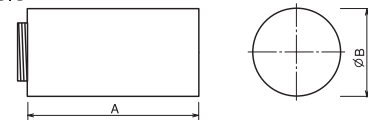
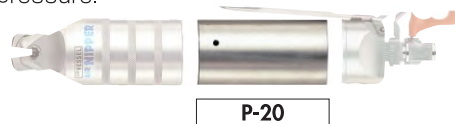


Figures in ( ) are for the NR50ST

## P-10L/20/30/50 Powerful Intensifiers (With Extra pressure Booster)

# P

This unit is to be used in case the originally required pressure is not obtainable by the limit of space and air pressure.



Capacity φ (mm)	Soft Plastic	Hard Plastic	Copper	Steel	Application model	Model No.	Size (mm)	A	B	Air Consumption (cm <sup>3</sup> /str.)	Air Pressure	Weight (g)
5.0	4.0	2.6	1.6		NS10L, NR10L, N12	P-10L	71	36		223	Up to 0.5MPa	115
8.0	6.0	3.0	2.2		N20, NS20, NR20	P-20	87	45		508	Up to 0.5MPa	215
13.0	7.0	4.8	4.0		N30, NS30, NR30	P-30	92	56		956	Up to 0.5MPa	330
		6.5	5.5		N50, NR50	P-50	133	75		2,670	Up to 0.5MPa	840

• Above figures of overall length and the weight are defined for the extra booster specs only. And these figures in the installation.

Blade is optional.

# Air nippers

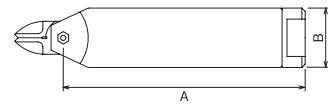
## GT-NWR10/20/30 GT-NWS1/10/20/30 Double Action Air Nippers

Patented

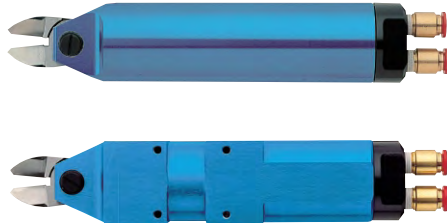
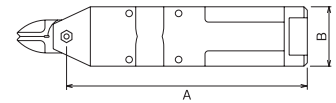
# NWR · NWS

Blade opening and closing is air piston driven. Having no spring mechanism in the main unit facilitates maintenance operations.

GT-NWR



GT-NWS



Model No.	Capacity $\phi$ (mm)			Air Consumption (cm <sup>3</sup> /str.)	Applied Pressure (N)	Air Pressure (MPa)	Size (mm)		Weight (g)
	Copper	Steel	ABS Plastic				A	B	
Double Action Air Scissors (Round Type without Lever)									
GT-NWR10	1.8	1.2	4.0	116	588	0.4~0.5	146	$\phi$ 36	280
GT-NWR20	2.6	2.0	6.5	230	1,372	0.5~0.6	165	$\phi$ 45	523
GT-NWR30	3.3	2.8	9.5	584	2,744	0.5~0.6	230.5	$\phi$ 56	980
Double Action Air Scissors (Square Type)									
GT-NWS1	1.0	0.5	2.0	45	294	0.4~0.5	95	23x20	116
GT-NWS10	1.8	1.2	4.0	116	588	0.4~0.5	146	36x36	356
GT-NWS20	2.6	2.0	6.5	230	1,372	0.5~0.6	165	45x45	610
GT-NWS30	3.3	2.8	9.5	584	2,744	0.5~0.6	230.5	56x56	1115

## GT-NB20/30/20LW/30LW Slide-Off Air Nipper Bracket-Type

# NB

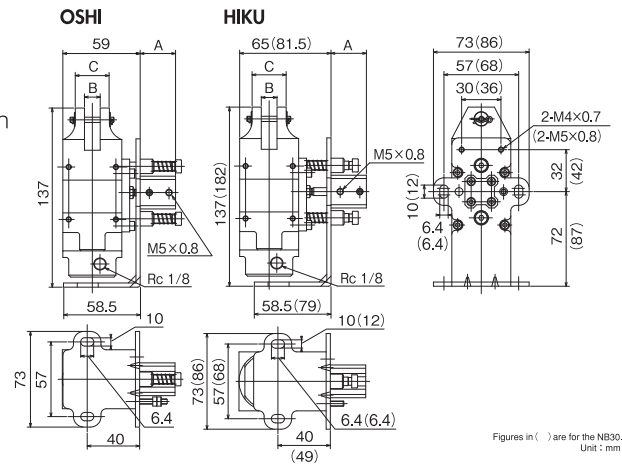
VESSEL has achieved smooth, continuous slide movement even for large diameter gate cuts, which produce a large shock at each cut.



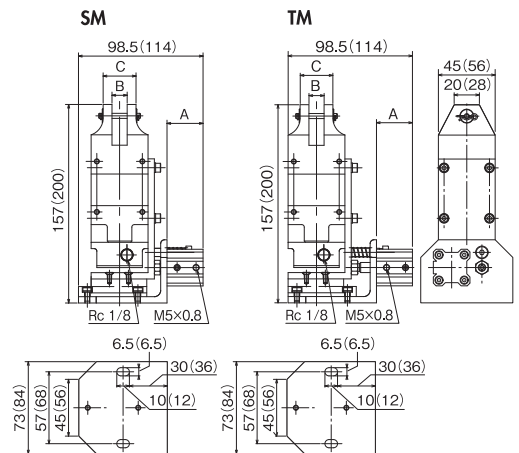
**GT-NB20LW-10TM**  
Accurate slide function with slide stroke



**GT-NB20**



Figures in ( ) are for the NB30. Unit : mm



Figures in ( ) are for the NB30LW. Unit : mm

Model No.	Size (mm)			Slide Direction/ Distance (mm)	Weight (g)
	A	B	C		
GT-NB20 (5-OSHI)	22	12	26	Push 0~5	755
GT-NB20 (5-HIKU)	22	12	26	Pull 0~5	755
GT-NB20 (10-OSHI)	27	12	26	Push 0~10	755
GT-NB20 (10-HIKU)	27	12	26	Pull 0~10	755
GT-NB30 (10-HIKU)	28.5	17	36	Pull 0~10	1,420
GT-NB20LW-10TM	28.5	12	26	Pull 0~10	795
GT-NB30LW-10TM	29.5	17	36	Pull 0~10	1,315
GT-NB20LW-10SM	28.5	12	26	Push 0~10	795
GT-NB30LW-10SM	29.5	17	36	Push 0~10	1,325

Blade is optional.

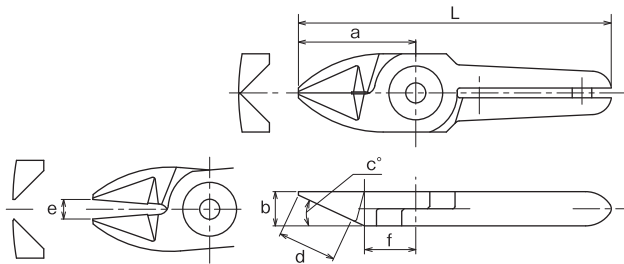
# Air nipper standard blades for metal

**AS/HS**

## Standard

AS/ Standard type. This is a general set of blades used for cutting copper wire and steel wire. HS/ Improved durability with brazed high-speed steel.

**Metal**



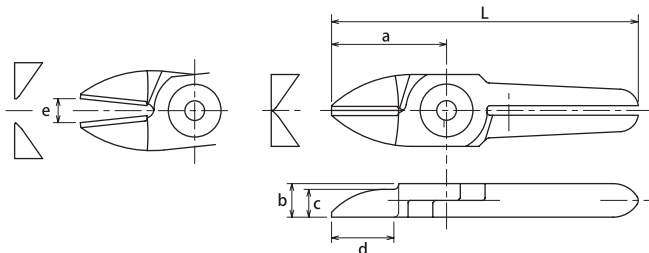
Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c(°)	d	e	f	L			
N3AS	24	7	25	12	4	10.5	64	35	Special alloy steel	GT-N3 / NS3 / NR3
N3HS	24	7	25	12	4	10.5	64	35	High Speed Steel	GT-N3 / NS3 / NR3
N5AS	24	7	25	12	4	10.5	64	40	Special alloy steel	GT-N5 / NS5 / NR5
N5HS	24	7	25	12	4	10.5	64	40	High Speed Steel	GT-N5 / NS5 / NR5
N7AS	27	9	30	13.5	4	12.5	81	80	Special alloy steel	GT-N7 / NS7 / NR7
N7HS	27	9	30	13.5	4	12.5	81	80	High Speed Steel	GT-N7 / NS7 / NR7
N10AS	27	9	30	13.5	5	12.5	91	85	Special alloy steel	GT-N10
N10HS	27	9	30	13.5	5	12.5	91	85	High Speed Steel	GT-N10
N10LAS	35	12	30	20	5	15	89	120	Special alloy steel	GT-NS10L / NR10L
N12AS	35	12	30	20	5	15	105	135	Special alloy steel	GT-N12
N12HS	35	12	30	20	5	15	105	135	High Speed Steel	GT-N12
N20AS	35	12	30	20	9	15	95	140	Special alloy steel	GT-NS20 / NR20 / N20
N30AS	43	17	30	25	9	18	127	370	Special alloy steel	GT-NS30 / NR30 / N30

**BJ**

## Straight blades for metals

BJ/ This is a set of vertical blades with an unbeveled cutting edge for metal.

**Metal**



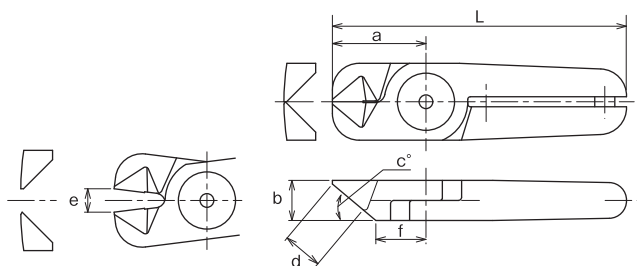
Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c	d	e	L				
NW1BJ	20	5	3	10.5	3.5	50	16	Special alloy steel	GT-NWR1 / NWS1	
N3BJ	24	7	5.8	13	5	64	35	Special alloy steel	GT-N3 / NS3 / NR3	
N5BJ	24	7	5.8	13	4	64	40	Special alloy steel	GT-N5 / NS5 / NR5	
N7BJ	27	9	7.5	13	5	81	75	Special alloy steel	GT-N7 / NS7 / NR7	
NW10BJ	30	9	6	14	5	85	76	Special alloy steel	GT-NWR10 / NWS10	
NW20BJ	40	12	6	21.5	8	100	142	Special alloy steel	GT-NWR20 / NWS20	
NW30BJ	55	17	8	29.5	11	140	367	Special alloy steel	GT-NWR30 / NWS30	

**AG**

## Powerful cutting blades

AG/ This is a set of blades with increased strength with a shorter cutting edge than the standard type. Increases the pressure because it cuts at the base of the blades.

**Metal**



Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c(°)	d	e	f	L			
N20AG	28	12	40	12	7	15	88	135	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N20HS	26	12	40	10	7	13.5	86	135	High Speed Steel	GT-NS20 / NR20 / N20 / NB20

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Air nipper standard blades for metal

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

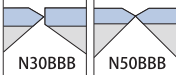
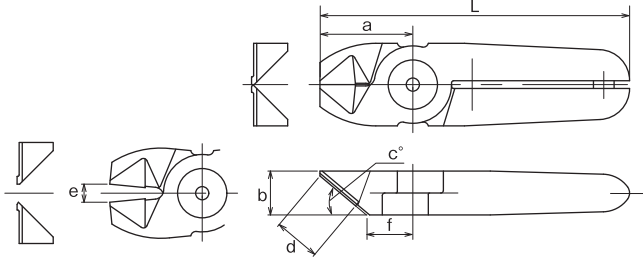
Vacuum Module

Accessory Components


**BBB** Powerful cutting blades with carbide tips

BBB/ With carbide tips suitable for cutting hard wire such as high steel wire and piano wire.

**Metal**

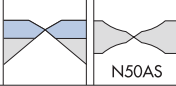
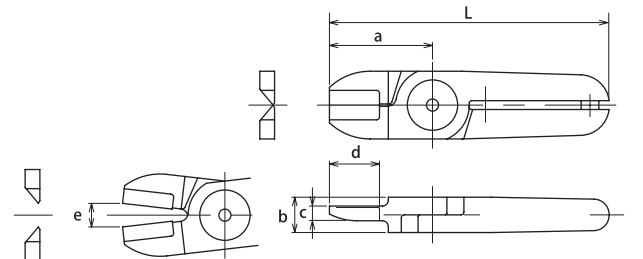
Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c (°)	d	e	f	L			
N30BBB	36	17	40	18	7	18	120	365	Sintered Alloy	GT-NS30 / NR30 / N30 / NB30
N50BBB	46	25	35	19	9	24	166	955	Sintered Alloy	GT-NR50 / N50




**BFB/AS** Clipper blade with carbide tips

BFB/ The shape is clipper type. With carbide tips, suitable for metal wire and thin pipe. AS/ Standard clipper type blades. cutting

**Metal**

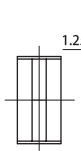
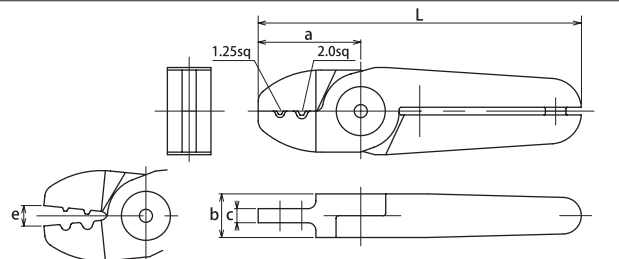
Model No.	Size (mm)					Weight (g)	Material	Application model	
	a	b	c	d	e				
N20BFB	35	12	5	17	8	95	150	Sintered Alloy	GT-NS20 / NR20 / N20 / NB20
N50AS	60	25	10	30	11	180	950	Special alloy steel	GT-NR50 / N50




**ACD** Crimp edge for solderless terminals

ACD/ This is a set of blades for crimping solderless terminals. (Bare terminal 1.25 sq/2.0 sq)

**Metal**

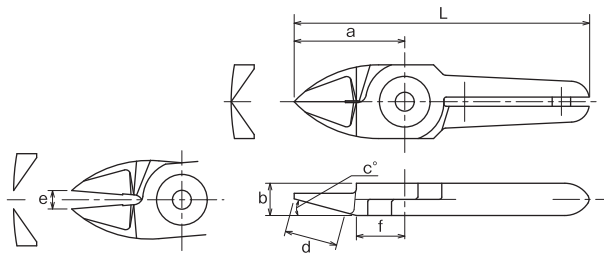



Model No.	Size (mm)				Weight (g)	Material	Application model
	a	b	c	e			
N30ACD	40	17	5.5	8	335	Special alloy steel	GT-NS30 / NR30 / N30 / NB30



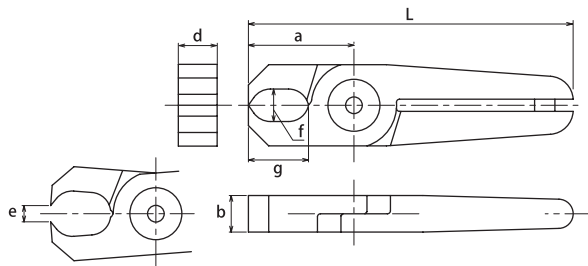
# Air nipper standard blades for plastic

<b>AP</b>	<b>For plastic</b>	<b>Plastic</b>
	<p>AP/ This is a standard set of blades used to cut plastic. A broad, gentle curve is provided in the cross section for gate processing where the cut end must not be left. (The cutting edge is curved.)</p>	



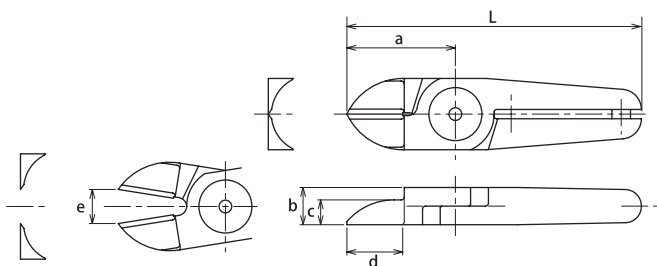
Model No.	a	b	c(°)	Size (mm)			L	Weight (g)	Material	Application model
N3AP	24	7	15	11.5	4	10.5	64	35	Special alloy steel	GT-N3 / NS3 / NR3
N5AP	24	7	15	11.5	4	10.5	64	40	Special alloy steel	GT-N5 / NS5 / NR5
N7AP	27	9	30	11.5	4	14.5	81	80	Special alloy steel	GT-N7 / NS7 / NR7
N10AP	27	9	30	11.5	5	14.5	91	85	Special alloy steel	GT-N10
N10LAP	35	12	15	16	5	15	89	120	Special alloy steel	GT-NS10L / NR10L
N12AP	35	12	15	16	5	15	105	135	Special alloy steel	GT-N12
N20AP	35	12	15	16	11	15	95	125	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N30AP	66	17	15	38	16	24	150	380	Special alloy steel	GT-NS30 / NR30 / N30 / NB30

<b>AE</b>	<b>Nipping blades for plastic</b>	<b>Plastic</b>
	<p>AE/ Used for processing plastic gates such as ride gates and discard gates.</p>	



Model No.	a	b	f×g	d	e	L	Weight (g)	Material	Application model
N3AE	20	7	6×11	7	3.5	60	35	Special alloy steel	GT-N3 / NS3 / NR3
N5AE	20	7	6×6.6	7	3.5	60	40	Special alloy steel	GT-N5 / NS5 / NR5
N7AE	26	9	8×14.8	9	4	80	85	Special alloy steel	GT-N7 / NS7 / NR7
N20AE	28	12	10×15.5	12	8	88	135	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N30AE	45	17	13×28	17	12	129	395	Special alloy steel	GT-NS30 / NR30 / N30 / NB30

<b>AJ</b>	<b>Thin, straight blades for plastic</b>	<b>Plastic</b>
	<p>AJ/ This is a set of vertical blades with an unbeveled cutting edge for plastic. You can apply it at a right angle to the gate.</p>	



Model No.	a	b	c	Size (mm)			L	Weight (g)	Material	Application model
NW10AJ	30	9	6	14	5	85	76	Special alloy steel	GT-NWR10 / NWS10	
N20AJ	35	12	8	18	11	95	125	Special alloy steel	GT-NS20 / NR20 / N20 / NB20	
N20AJB	35	12	8	18	11	95	125	Sintered Alloy	GT-NS20 / NR20 / N20 / NB20	
NW20AJ	40	12	6	21.5	8	100	142	Special alloy steel	GT-NWR20 / NWS20	
N30AJ	52	17	8	28	11	136	370	Special alloy steel	GT-NS30 / NR30 / N30 / NB30	
NW30AJ	55	17	8	29.5	11	140	368	Special alloy steel	GT-NWR30 / NWS30	

Profile · SUS Tube  
Stents Module  
Quick Changer  
Grip Module  
Air Nipper  
Vacuum Module  
Accessory Components

# Air nipper standard/quasi-standard blades for plastic

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

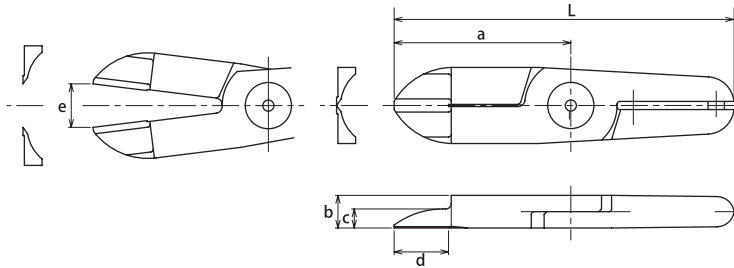
Accessory Components

## AJL/ Quasi-standard products

### Straight long blades for plastic

AJL/ This is a long type set of straight blades. This is suitable when there is distance between the nippers and the gate cut portion of the workpiece. N30AJL163 is useful for wide gate processing

Plastic



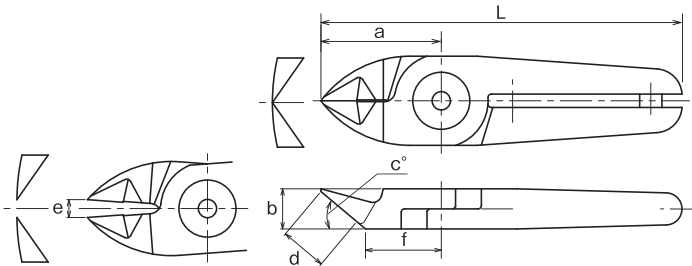
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N10LAJ141	61	12	7	34	10	115	165	Special alloy steel	GT-NS10L / NR10L
N20AJL	65	12	7	20	16	125	230	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N20AB39	61	12	7	36	14	121	185	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N30AJ163	65	17	7	41	17.5	149	355	Special alloy steel	GT-NS30 / NR30 / N30 / NB30
N30AJL	75	17	8	25	19	159	470	Special alloy steel	GT-NS30 / NR30 / N30 / NB30

## PF

### Flat blades for plastic

PF/ This is a set of blades for cutting the cut end flat for plastic. A large R is provided in the cross section for gate processing where the cut end must not be left.

Plastic



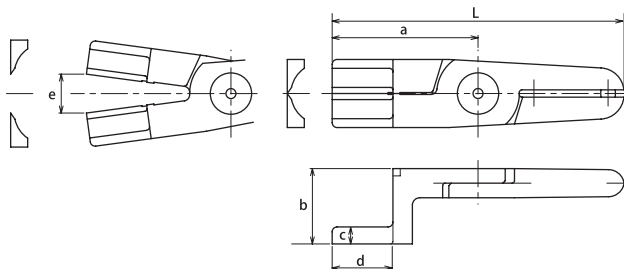
Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c(°)	d	e	f	L			
N7PF	27	9	40	10.5	4	17	81	80	Special alloy steel	GT-N7 / NS7 / NR7
N10LPF	35	12	40	13.5	5	21	89	120	Special alloy steel	GT-NS10L / NR10L
N20PF	35	12	40	13.5	11	21	95	130	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N30PF	58	17	30	25	15	33	142	390	Special alloy steel	GT-NS30 / NR30 / N30 / NB30

## AH

### Crank blades for plastic

AH/ This is a set of blades with a crank cutting edge for plastic. It is effective when there are obstructions or the gate is narrow.

Plastic



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N20AH	60	31	7	23	16	120	240	Special alloy steel	GT-NS20 / NR20 / N20 / NB20

# Air nipper standard/quasi-standard blades for plastic

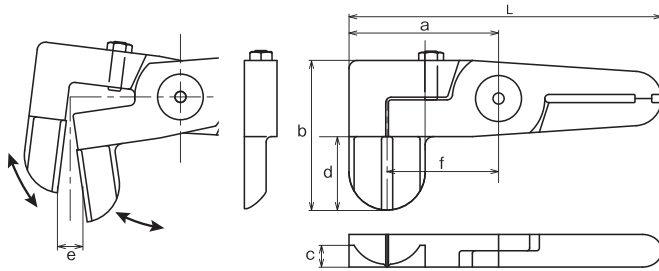
**AMR/  
AML**

## Laterally facing blades for plastics

AMR/AML This is a set of blades for plastic where the ML cutting edge is bent 90 degrees. It is useful when restricted to confined spaces hard for the nipper to get into.

**Plastic**

AML AMR



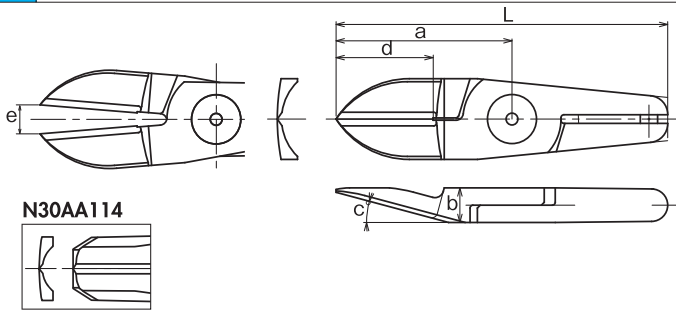
Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c	d	e	f	L			
N20AML1498	55	55	8	26	9.5	41	115	270	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N20AMR1499	55	55	8	26	9.5	41	115	270	Special alloy steel	GT-NS20 / NR20 / N20 / NB20
N30AML1435	55	68	10	35	13	39	139	520	Special alloy steel	GT-NS30 / NR30 / N30 / NB30
N30AMR1395	55	68	10	35	13	39	139	520	Special alloy steel	GT-NS30 / NR30 / N30 / NB30

**Quasi-standard products**

## R blades for plastic

A large R is provided in the cross section for gate processing where the cut end must not be left. An angled blade can be selected in accordance with the installation angle of the main unit.

**Plastic**



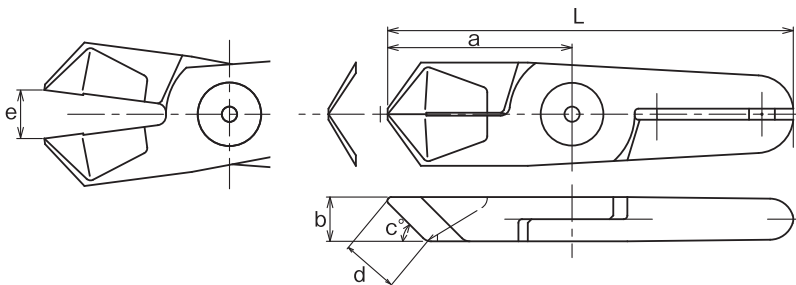
Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c(°)	d	e	L				
N10LAB152	61	12	15	35	10	115	165	Special alloy steel	GT-NS10 / NR10L	
N20AA27	45	12	23	25	12	105	145	Special alloy steel	GT-NS20 / NR20 / N20 / NB20	
N20AA239	52.3	12	40	27	14	112.3	195	Special alloy steel	GT-NS20 / NR20 / N20 / NB20	
N20AB360	61	12	15	35	16	121	185	Special alloy steel	GT-NS20 / NR20 / N20 / NB20	
N30AA114	76.3	17	30	50	20	160.3	385	Special alloy steel	GT-NS30 / NR30 / N30 / NB30	

**Quasi-standard products**

## Angled nipping blades for plastic

AE/ Used for processing plastic gates such as ride gates, discard gates. The cutting edge is angled so that the main unit can set up diagonally.

**Plastic**



Model No.	Size (mm)							Weight (g)	Material	Application model
	a	b	c(°)	d	e	L				
N20AE19	50	12	45	13	13	110	200	Special alloy steel	GT-NS20 / NR20 / N20 / NB20	
N30AE53	65	17	65	18.5	16	149	440	Special alloy steel	GT-NS30 / NR30 / N30 / NB30	

Profile / SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Air nipper quasi-standard blades for plastic

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

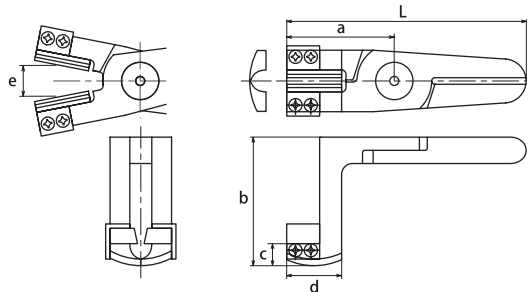
Vacuum Module

Accessory Components

## Quasi-standard products

**Comes with sprue chuck function①**  
 Mainly in gate processing for direct gates, the sprue is caught with urethane rubber. A large R is provided in the cross section for gate processing where the cut end must not be left.

Plastic

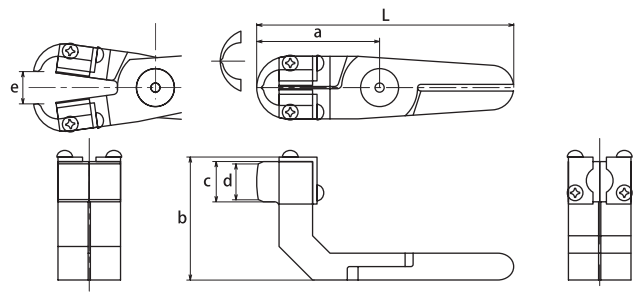


Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N20AH533	49	58.5	10	25	14	109	280	Special alloy steel	GT-N20 / NS20 / NR20

## Quasi-standard products

**Comes with sprue chuck function②**  
 Mainly in gate processing for direct gates, the sprue is caught with urethane rubber. A large R is provided in the cross section for gate processing where the cut end must not be left.

Plastic

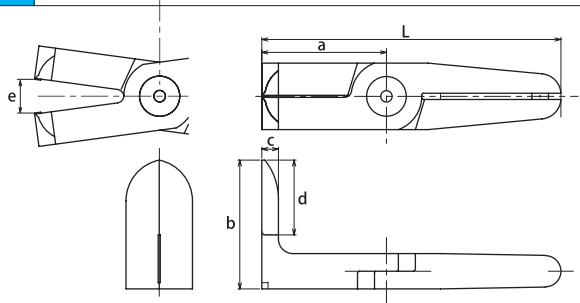


Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N20AH152	55	53	18	16	15	115	330	Special alloy steel	GT-N20 / NS20 / NR20

## Quasi-standard products



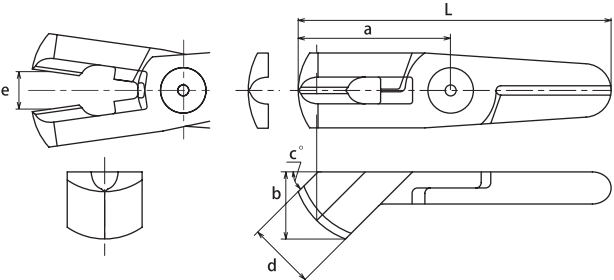
**L blades for sprue cut**  
 This is an angled long type straight set of blades with a 90-degree angle. Ideal for direct gate cut.



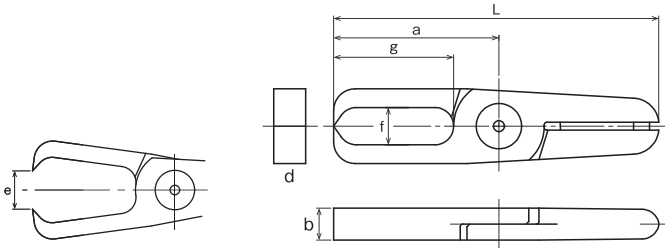
Plastic



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N30AL525	60	62	8	36	16	144	520	Special alloy steel	GT-N30 / NS30 / NR30 / NB30

# Air nipper quasi-standard blades for plastic

<b>Quasi-standard products</b>	<b>Nipping blades for sprue cut</b>						<b>Plastic</b>		
	This is the perfect spherical set of cutting blades for sprue cut. The blades can be inserted precisely in narrow areas that have ribs around them and the finish is very clean.								
									
Model No.	Size (mm)						Weight (g)	Material	Application model
N20AK249	a	b	c (°)	d	e	L	240	Special alloy steel	GT-N20 / NS20 / NR20 / NB20

<b>Quasi-standard products</b>	<b>nipping blades for plastic</b>						<b>Plastic</b>		
	AE/ Used for processing plastic gates such as ride gates, discard gates.								
									
Model No.	Size (mm)						Weight (g)	Material	Application model
N20AE1205	a	b	c x g	d	e	L	202	Special alloy steel	GT-NS20 / NR20 / N20 / NB20

## Air Nipper Troubleshooting

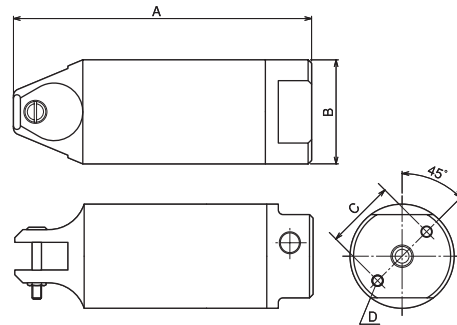
Inspection items when a malfunction occurs during use

Symptoms	Causes	Treatment
1. Blades or slide not working properly.	Air is not being supplied	Supply air
	The hose is twisted	Extend the hose
	Low air pressure	Air pressure adjustment
	Corrosion, wear, or contamination of sliding part of the blades	Lubrication/disassembly adjustment
	Sliding parts burned by heat (heat nipper)	Component replacement
	Broken blade spring	Component replacement
	Broken return spring	Component replacement
	Broken blades	Replace blades
2. Air leakage	Wear of the cutting unit/rivet	Replace blades
	Valve malfunction/wear, damage (O-rings, ball valves, etc.)	Component replacement
	Packing is broken	Component replacement

# Air nippers

## NR20-P/NR30-P Air Nipper Round-Type without Lever

NR



- The main body end is 180° rotatable.
- Two suction (intake) ports are provided, the suction position can be optionally changed depending on the mounting plate.

Soft Plastic	Hard Plastic	Copper	Steel	PN	Model No.	Size (mm)				Air Consumption (cm <sup>3</sup> /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling
7.0	5.0	2.6	2.0	8.Y00113	NR20-P	A	B	C	D	230	0.5~0.6	280	Rc1/8
10.0	6.5	3.3	2.8	8.Y00237	NR30-P	165	56	40	M6 Depth 12	584	0.5~0.6	505	

• Air hose inner dia. : 5mm • Overall length/Weight: Accessories not included.

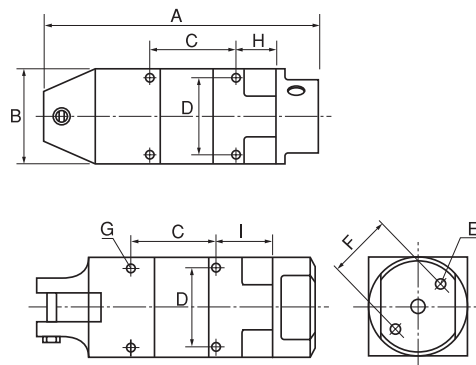
※ Before mounting of exclusive/automatic machines, check the following product dimensions. (Frame O.D., screw dia. (screw to screw) dimensions, etc.)

# Air Nippers

## NS20-P/NS30-P Square Air Nippers

NS

VESSEL provides a generous selection of blades for all wire cutting needs, including resin product gate cuts and automatic welding equipment.



- The main body end is 180° rotatable.
- Two suction (intake) ports are provided, and so the suction position can be optionally changed depending on the mounting place.

Capacity φ (mm)				PN	Model No.	Size (mm)									Air Consumption (cm <sup>3</sup> /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling
Soft Plastic	Hard Plastic	Copper	Steel	8.Y00079	NS20-P	A	B	C	D	E	F	G	H	I	230	0.5~0.6	370	Rc1/8
7.0	5.0	2.6	2.0	8.Y00080	NS30-P	170	56	60	46	M6 Depth 12	40	M5 Depth 10	20	30	584	0.5~0.6	685	

• Air hose inner dia. : 5mm • Overall length/Weight: Accessories not included.

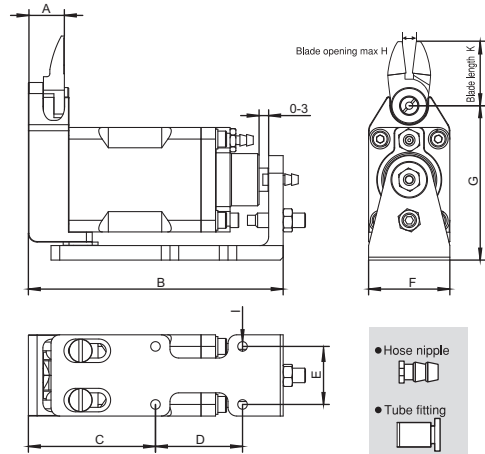
※ Before mounting of exclusive/automatic machines, check the following product dimensions. (Frame O.D., screw dia. (screw to screw) dimensions, etc.)

※ Model GT-NS50 is a special order item. Please contact VESSEL for details.

# Air nippers

## NY10-P/NY15-P Slide-Off Air Nippers Horizontal-Type

NY



The horizontal slide enables space to be used effectively. The low profile of the main unit allows work to be removed without obstructing the operations of the chuck plate.

Capacity $\phi$ (mm)		PN	Model No.	Size (mm)									Air Consumption (cm <sup>3</sup> /str.)	Weight (g)	Slide Direction/Distance (mm)	Spec. & Size of the Hose Port
Soft Plastic	Hard Plastic			Copper	Steel	A	B	C	D	E	F	G				
3.5	2.3	8.Y00270	NY10-P	12.4	87.8	43.8	30	20	28	53.2	4	M4	48	155	Pull 0~3	W/tube fitting
4.0	2.6	8.Y00249	NY15-P	13.2	96.5	45.5	35	25	33	58	6	M4	48	155	Pull 0~3	Hose I.D. $\phi$ 2.5XO.D. $\phi$ 4mm

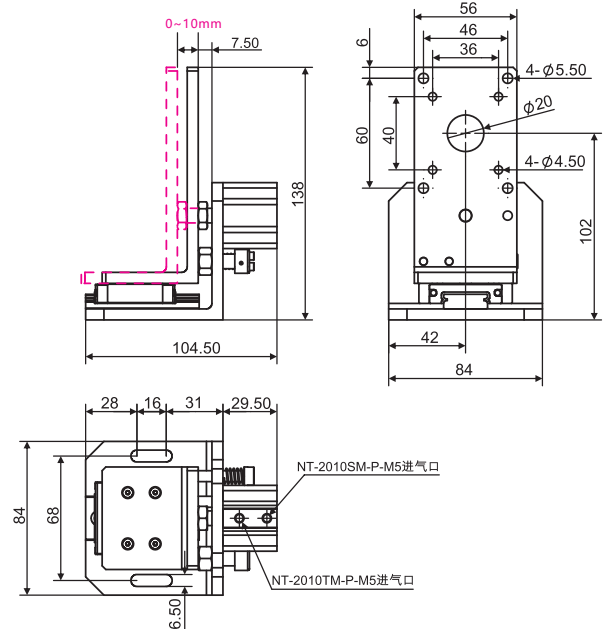
※Blade length (K) and opening max. (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...0.4~0.5 MPa  
 ※B refers to the distance from the cut position for PUSH style models, and the distance from the start position for PULL style models.

## Slide-Off Air Nipper Bracket-Type

NT



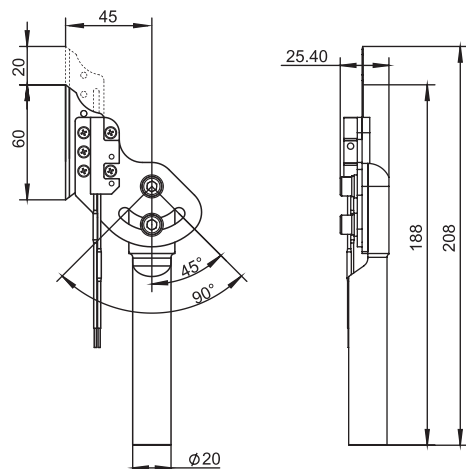
It has achieved smooth, continuous slide movement even for large diameter gate cuts, which produce a large shock at each cut.



PN	8.Y00006	8.Y00003
Model	NT-2010TM-P	NT-2010SM-P
	pull by compressed air	push by compressed air

## Heating cutter

Remove sprue, deburr and trim.



PN	Model	Weight
8.Y00346	GT-BH2060	180g

# Vacuum Cups VS-PG Series

Profile - SUS Tube

Stents Module

Quick Changer

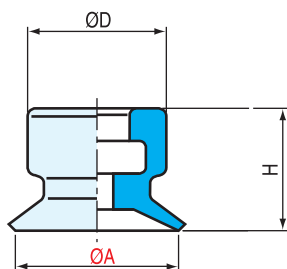
Grip Module

Air Nipper

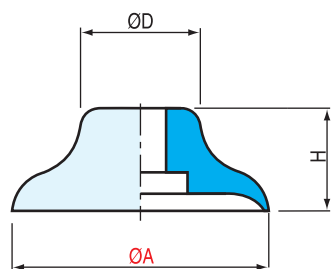
Vacuum Module

Accessory Components

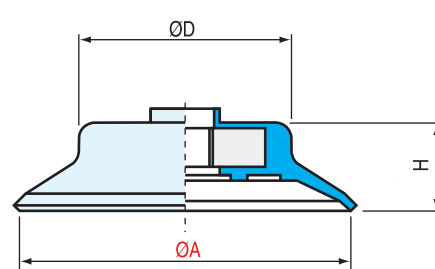
## VS-PG2...VS-PG10



## VS-PG15...VS-PG50



## VS-PG60...VS-PG80



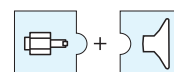
		$(N)^{(1)}$	$(N)^{(1)}$	ØA(mm)	H(mm)	ØD(mm)	STN	SI	NBR
VS-PG2	0.5	0.1	2	4	4	-	1.Y03289	1.Y09807	
VS-PG3.5	0.7	0.2	3.5	4	4	-	1.Y03290	1.Y09808	
VS-PG5	0.9	0.3	5	6.5	7.5	-	1.Y03291	1.Y09809	
VS-PG6	1.0	0.4	6	6.5	7.5	1.Y05881	1.Y03292	1.Y09810	
VS-PG8	1.1	0.5	8	7	8	1.Y05882	1.Y03293	1.Y09811	
VS-PG10	1.6	0.8	10	7.5	8.7	1.Y05883	1.Y03294	1.Y09812	
VS-PG15	3.7	1.8	15	8	12	1.Y05884	1.Y03301	1.Y09813	
VS-PG20	6.1	3.0	20	10	15	1.Y05885	1.Y03295	1.Y09814	
VS-PG25	9.4	4.7	25	14	16	1.Y05886	1.Y03296	1.Y09815	
VS-PG30	15.9	7.9	30	12	15	1.Y05887	1.Y03297	1.Y09816	
VS-PG35	23.1	11.6	35	14	20.5	-	1.Y03298	1.Y09817	
VS-PG40	26.7	13.4	40	14	23.5	1.Y05889	1.Y03299	1.Y09818	
VS-PG50	38.3	19.1	50	15	29	1.Y05890	1.Y03300	1.Y09819	
VS-PG60	57.8	28.9	60	16	38	1.Y05891	1.Y03302	1.Y09820	
VS-PG80	101.1	50.6	80	18	53	1.Y05892	1.Y03303	1.Y09821	

(1) Actual force of the suction cup in use with 65% vacuum and including a safety factor of 2 for horizontal handling and a factor of 4 for vertical handling.

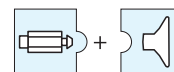


### Types of assembly

Factory-crimped fitting:



Hollow shaft fitting:



Removable fitting:  
(adapter and hollow screw)

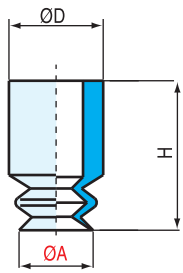


	Vacuum Cup Fitting		Vacuum Cups
VM14-M5		VS-PG2~VS-PG3.5	
VM13-M5		VS-PG5~VS-PG10	
VM11-M5		VS-PG15~VS-PG20	
VM-G18M-M5F+VM22-M5		VS-PG25~VS-PG40	
VM28-M8+VM-G18M-M8F		VS-PG50	
VM28-M8+VM-G14M-M8F		VS-PG60~VS-PG80	
VM-G14M-M10M			

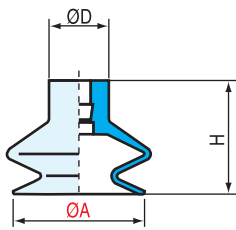
Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
SI: Translucent Silicone	50	+++	-	-	-	-40 to 220	Translucent
STN: Siton®	60	+	++	-	++	0 to 160	Blue
NBR: Nitrile	60	+	+	-	++	0 to 80	Black

# Vacuum Cups VS2 Series

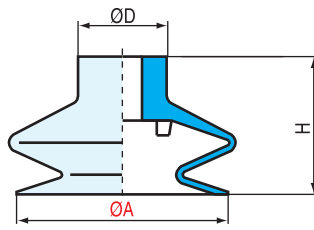
## VS2-SA5



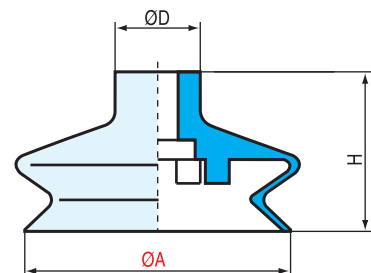
## VS2-SA11...VS2-SA25



## VS2-SA26...VS2-SA43



## VS2-SA53...VS2-SA63



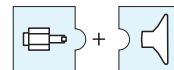
		$\Delta(N)^{(1)}$	$\nabla(N)^{(1)}$	ØA(mm)	H(mm)	ØD(mm)	STN	SIT5	NBR
VS2-SA5		0.5	0.2	5.5	11	7	1.Y05308	1.Y05178	1.Y09822
VS2-SA11		1.7	0.9	11	16	10	1.Y04899	1.Y03085	1.Y09823
VS2-SA14		2.5	1.3	13	16	10	1.Y05309	1.Y03311	1.Y09824
VS2-SA16		2.7	1.3	16	19	10	1.Y04659	1.Y03086	1.Y09825
VS2-SA18		4.4	2.2	18	16.5	10	1.Y05315	1.Y05317	1.Y09826
VS2-SA20		5.6	2.8	19	16	10	1.Y05310	1.Y03088	1.Y09827
VS2-SA22		6.1	3.1	22	19	10	1.Y04658	1.Y03312	1.Y09828
VS2-SA25		7.9	4.0	24	23	10	1.Y04657	1.Y03089	1.Y09829
VS2-SA33		13.9	6.9	33	27.5	18	1.Y04656	1.Y03090	1.Y09830
VS2-SA43		20.2	10.1	43	28	18	1.Y04655	1.Y04636	1.Y09831
VS2-SA53		42.6	21.3	53	34	18	1.Y04654	1.Y03313	1.Y09832
VS2-SA63		59.2	29.6	63	34	18	1.Y04653	1.Y04637	1.Y09833

(1) Actual force of the suction cup in use with 65% vacuum and including a safety factor of 2 for horizontal handling and a factor of 4 for vertical handling.

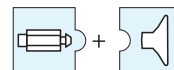


### Types of assembly

Factory-crimped fitting:



Hollow shaft fitting:



Removable fitting:  
(adapter and hollow screw)

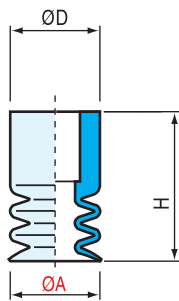


	Vacuum Cup Fitting		Vacuum Cups
	VM21-M5		VS2-SA5
	VM18-M5		VS2-SA11~VS2-SA25
	VM02-G18		
	VM08-M8 + VM-G18M-M8F		VS2-SA33~VS2-SA63
	VM08-M8 + VM-G14M-M8F		
	VM04-G14		
	VM24-G18		

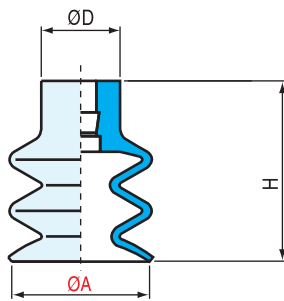
Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
STN: Siton®	60	+	++	-	++	0 to 160	Blue
SIT5: Translucent Silicone	50	+++	-	+++	-	-40 to 220	Translucent
NBR: Nitrile	60	+	+	-	++	0 to 80	Black

# Vacuum Cups VS3 Series

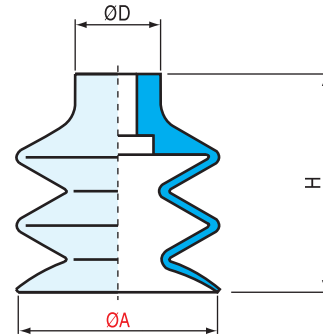
## VS3-S5...VS3-S9



## VS3-S12...VS3-S25



## VS3-S26...VS3-S62



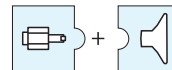
		$\Delta(N)^{(1)}$	ØA(mm)	H(mm)	ØD(mm)	STN	SIT5	NBR
VS3-S5		0.5	5	13.5	7	1.Y05304	1.Y05297	1.Y09834
VS3-S7		0.9	7	13.5	9	1.Y05286	1.Y05636	1.Y09836
VS3-S9		1.1	9	15	9	1.Y05634	1.Y05299	1.Y09837
VS3-S12		2.8	12	21	10	1.Y05630	1.Y05300	1.Y09838
VS3-S14		3.0	14	23	10	1.Y05635	1.Y05301	1.Y09839
VS3-S18		4.4	17.5	23	10	1.Y05305	1.Y05302	1.Y09840
VS3-S20		4.6	20	23	10	1.Y05287	1.Y03314	1.Y09841
VS3-S25		6.5	25	34	10	1.Y05288	1.Y03315	1.Y09842
VS3-S32		12.1	32	37.5	18	1.Y05289	1.Y03316	1.Y09843
VS3-S42		20.9	42	46	18	1.Y05290	1.Y03317	1.Y09844
VS3-S52		28.9	52	49	18	1.Y05291	1.Y03318	1.Y09845
VS3-S62		41.2	62	55	21	1.Y05292	1.Y03319	1.Y09846

(1) Actual force of the suction cup in use with 65% vacuum and including a safety factor of 2 for horizontal handling and a factor of 4 for vertical handling.

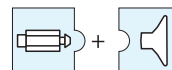


### Types of assembly

Factory-crimped fitting:



Hollow shaft fitting:



Removable fitting:  
(adapter and hollow screw)



	Vacuum Cup Fitting		Vacuum Cups
VM21-M5		VS3-S5~VS3-S7	
VM18-M5		VS3-S9~VS3-S25	
VM02-G18			
VM08-M8 + VM-G18M-M8F			
VM08-M8 + VM-G14M-M8F		VS3-S32~VS3-S62	
VM04-G14			
VM24-G18			

Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
STN: Siton®	60	+	++	-	++	0 to 160	Blue
SIT5: Translucent Silicone	50	+++	-	+++	-	-40 to 220	Translucent
NBR: Nitrile	60	+	+	-	++	0 to 80	Black

# Vacuum Cups VS-PO Series

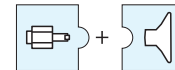


	L(mm)	l(mm)	H(mm)	STN	SI
VS-PO24	4	2	6	1.Y08504	1.Y08506
VS-PO357	7	3.5	6	1.Y08505	1.Y08507
VS-PO515	15	5	12	1.Y05638	1.Y03306
VS-PO618	18	6	12	1.Y05639	1.Y03307
VS-PO824	24	8	12	1.Y05640	1.Y03308
VS-PO1030	30	10	12	1.Y05641	1.Y03309
VS-PO1545	45	15	21	1.Y05642	1.Y03310
VS-PO2060	60	20	21	1.Y05643	1.Y05646
VS-PO2575	75	25	21	1.Y05644	1.Y05647
VS-PO3090	90	30	21	1.Y05645	1.Y05648

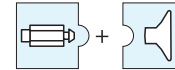


## Types of assembly

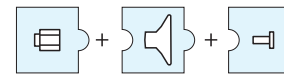
Factory-crimped fitting:





Hollow shaft fitting:



Removable fitting:  
(adapter and hollow screw)



 Vacuum Cup Fitting	 Vacuum Cups
VM25-M3	VS-PO24~VS-PO357
VM12-M5	VS-PO515~VS-PO618
VM16-G18	VS-PO824~VS-PO1030
VM06-G14	VS-PO1545~VS-PO3090

Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance 抗油污性	Heat resistance (in °C)	
SI: Translucent Silicone	50	+++	-	-	-	-40 to 220	Translucent
STN: Siton®	60	+	++	-	++	0 to 160	Blue

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Vacuum Cups VSH Series

Profile · SUS Tube

Stents Module

Quick Changer

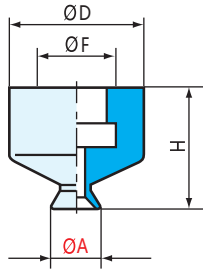
Grip Module

Air Nipper

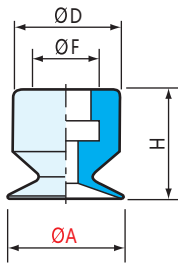
Vacuum Module

Accessory Components

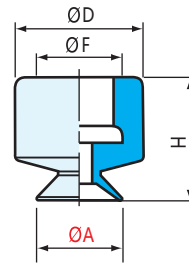
## VSH-S2...VSH-S10



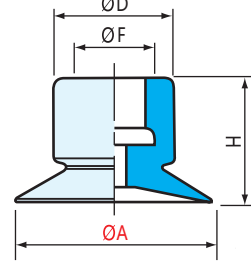
## VSH-S12...VSH-S30



## VSH-M4...VSH-M10



## VSH-M12...VSH-M50



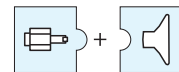
	$\Delta$ (N) <sup>(1)</sup>	$\nabla$ (N) <sup>(1)</sup>	ØA(mm)	H(mm)	ØD(mm)	ØF(mm)	SI
VSH-S2	0.5	0.1	2	13	11	7	1.Y07282
VSH-S4	0.7	0.2	4	15	11	7	1.Y07283
VSH-S6	0.9	0.3	6	11	11	7	1.Y07284
VSH-S8	1.1	0.5	8	11	11	7	1.Y07285
VSH-S10	1.6	0.8	10	11	11	7	1.Y07286
VSH-S12	2.0	1.5	12	11	11	7	1.Y07287
VSH-S15	3.7	1.8	15	13	11	7	1.Y07288
VSH-S20	6.1	3.0	20	13	12	7	1.Y07289
VSH-S25	9.4	4.7	25	13	11	7	1.Y07290
VSH-S30	15.9	7.9	30	12	13	7	1.Y07291
VSH-M4	0.7	0.2	4	14	15	11	1.Y07292
VSH-M6	0.9	0.3	6	15	15	11	1.Y07293
VSH-M8	1.1	0.5	8	15	15	11	1.Y07294
VSH-M10	1.6	0.8	10	15	15	11	1.Y07295
VSH-M12	2.0	1.5	12	15	15	11	1.Y07296
VSH-M15	3.7	1.8	15	15.5	16	11	1.Y07297
VSH-M20	6.1	3.0	20	15.5	16	11	1.Y07298
VSH-M25	9.4	4.7	25	15	15	11	1.Y07299
VSH-M30	15.9	7.9	30	15	16	11	1.Y07300
VSH-M40	26.7	13.4	40	16	17	11	1.Y07301
VSH-M50	38.3	19.1	50	15	20	11	1.Y07302

(1) Actual force of the suction cup in use with 65% vacuum and including a safety factor of 2 for horizontal handling and a factor of 4 for vertical handling.

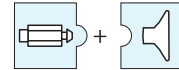


### Types of assembly

Factory-crimped fitting:



Hollow shaft fitting:



Removable fitting:  
(adapter and hollow screw)

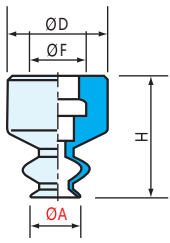


	Vacuum Cup Fitting		Vacuum Cups
	VM11-M5 VFS (VFS Series Stem) VFST (VFST Series Stem)		VSH-S2~VSH-S30
	VM10-G 1/8 VM27-M5 VFM (VFM Series Stem) VFMT (VFMT Series Stem)		VSH-M4~VSH-M50

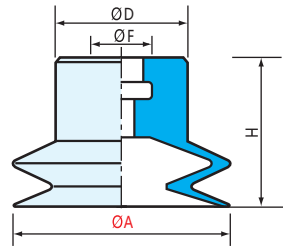
Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
SI: Translucent Silicone	50	+++	-	-	-	-40 to 220	Translucent

# Vacuum Cups VSH2 Series

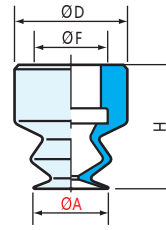
## VSH2-S4...VSH2-S20



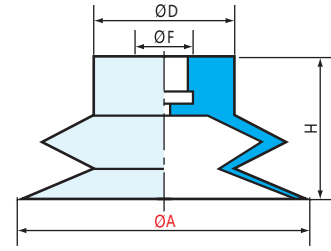
## VSH2-S25...VSH2-S30



## VSH2-M6...VSH2-M25



## VSH2-M30...VSH2-M50



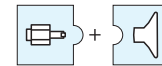
	$\Delta$ (N) <sup>(1)</sup>	$\nabla$ (N) <sup>(1)</sup>	ØA(mm)	H(mm)	ØD(mm)	ØF(mm)	SI
VSH2-S4	0.3	0.1	4	15	12	7	1.Y07303
VSH2-S6	0.5	0.2	6	15	12	7	1.Y07304
VSH2-S8	1.2	0.7	8	15	12	7	1.Y07305
VSH2-S10	1.7	0.9	10	15	12	7	1.Y07306
VSH2-S12	2.5	1.3	12	15	12	7	1.Y07307
VSH2-S15	2.7	1.3	15	18	15	7	1.Y07308
VSH2-S20	5.6	2.8	20	18	15	7	1.Y07309
VSH2-S25	7.9	4.0	25	17.5	15	7	1.Y07310
VSH2-S30	12	6	30	17.5	15	7	1.Y07311
VSH2-M6	0.5	0.2	6	18	15	11	1.Y07312
VSH2-M8	1.2	0.7	8	17	15	11	1.Y07313
VSH2-M10	1.7	0.9	10	17	15	11	1.Y07314
VSH2-M12	2.5	1.3	12	17	15	11	1.Y07315
VSH2-M15	2.7	1.3	15	18	15	11	1.Y07316
VSH2-M20	5.6	2.8	20	18	15	11	1.Y07317
VSH2-M25	7.9	4.0	25	18	15	11	1.Y07318
VSH2-M30	12	6	30	19	18	11	1.Y07319
VSH2-M35	13.9	6.9	35	19	18	11	1.Y07320
VSH2-M40	20.2	10.1	40	22	23	11	1.Y07321
VSH2-M50	40	20	50	24	24	11	1.Y07322

(1) Actual force of the suction cup in use with 65% vacuum and including a safety factor of 2 for horizontal handling and a factor of 4 for vertical handling.

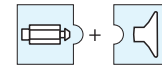


### Types of assembly

Factory-crimped fitting:



Hollow shaft fitting:



Removable fitting:  
(adapter and hollow screw)



	Vacuum Cup Fitting		Vacuum Cups
VM11-M5			VSH2-S4 ~ VSH2-S30
VFS (VFS Series Stem)			
VFST (VFST Series Stem)			
VM10-G 1/8			
VM27-M5			VSH2-M6 ~ VSH2-M50
VFM (VFM Series Stem)			
VFMT (VFMT Series Stem)			

Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
SI: Translucent Silicone	50	+++	-	-	-	-40 to 220	Translucent

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Vacuum Cups VSH3 Series

Profile · SUS Tube

Stents Module

Quick Changer

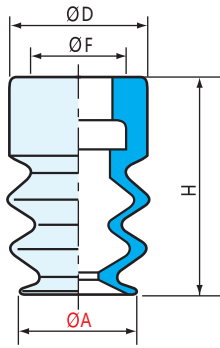
Grip Module

Air Nipper

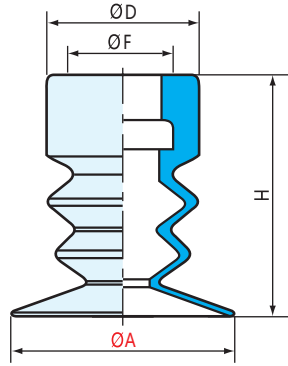
Vacuum Module

Accessory Components

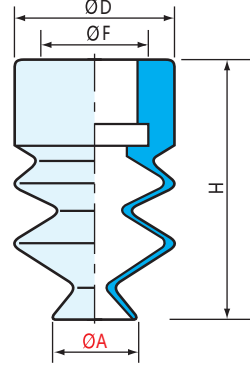
## VSH3-S6...VSH3-S8



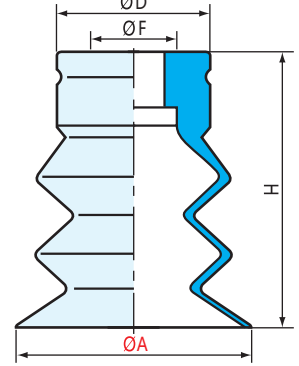
## VSH3-S10...VSH3-S15



## VSH3-M8...VSH3-M30



## VSH3-M40...VSH3-M50



	$\Delta$ (N) <sup>(1)</sup>	ØA(mm)	H(mm)	ØD(mm)	ØF(mm)	SI
VSH3-S6	0.5	6	15	10	7	1.Y07323
VSH3-S8	1.0	8	15	10	7	1.Y07324
VSH3-S10	1.5	10	15	10	7	1.Y07325
VSH3-S12	2.8	12	15	10	7	1.Y07326
VSH3-S15	3.0	15	16	10	7	1.Y07327
VSH3-M8	1.0	8	20	15	11	1.Y07328
VSH3-M10	1.5	10	24	15	11	1.Y07329
VSH3-M12	2.8	12	24	15	11	1.Y07330
VSH3-M15	3.0	15	24	15	11	1.Y07331
VSH3-M20	4.6	20	25	15	11	1.Y07332
VSH3-M25	6.5	25	29	17	11	1.Y07333
VSH3-M30	12.1	30	35	17	11	1.Y07334
VSH3-M40	20.5	40	45	20	11	1.Y07335
VSH3-M50	25	50	43	20	11	1.Y07336

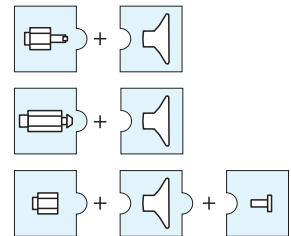
(1) Actual force of the suction cup in use with 65% vacuum and including a safety factor of 2 for horizontal handling and a factor of 4 for vertical handling.





### Types of assembly

Factory-crimped fitting:  
Hollow shaft fitting:

Removable fitting:  
(adapter and hollow screw)

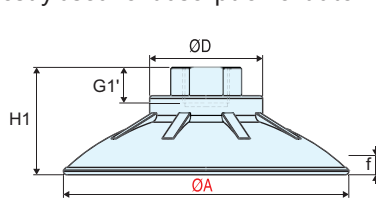
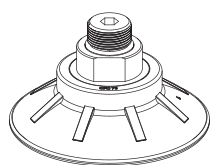


 Vacuum Cup Fitting	 Vacuum Cups
VM11-M5 VFS (VFS Series Stem) VFST (VFST Series Stem)	VSH3-S6~VSH3-S15
VM10-G 1/8 VM27-M5 VFM (VFM Series Stem) VFMT (VFMT Series Stem)	VSH3-M8~VSH3-M50

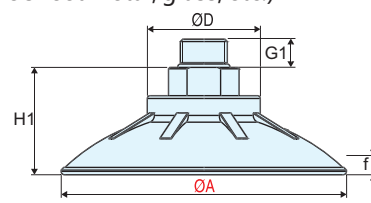
Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
SI: Translucent Silicone	50	+++	-	-	-	-40 to 220	Translucent

## Vacuum Cups VFC Series

Functions: anti-skid, oil-proof and water-proof (mostly used for adsorption of automobile sheet metal, glass, etc.)



F38G Female fitting G3/8"



M38G Male fitting G3/8"

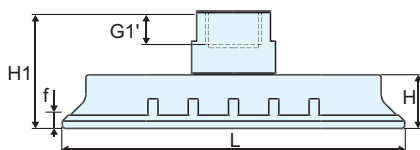
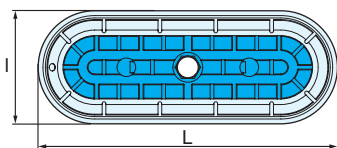
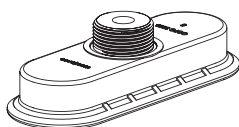
	ØA at rest	ØA gripping	$V$ (cm <sup>3</sup> )	$F$ (N) <sup>(1)</sup>	$F$ (N) <sup>(1)</sup>	R <sub>min</sub>	R <sub>min</sub>	Ø bore	H1	f <sup>(3)</sup>
VFC 35	37	38.5	2.46	50	50	58	50	6.3	25	3
VFC 50	51	54	8.37	100	100	66	52	6.3	30	5.5
VFC 75	76	80	25.03	200	170	100	58	6.3	33	8
VFC 100	101	105.7	57.61	350	270	120	90	6.3	38	10
VFC 125	127	132	119.7	550	480	160	115	6.3	44	14



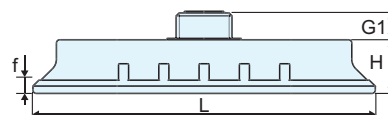
	G1	G1'	ØD(mm)	$F$ (g) F38G	$F$ (g) M38G	PN F38G	PN M38G
VFC 35	10	12.6	37	14	18	1.Y08448	1.Y08477
VFC 50	10	12.6	38	25	29	1.Y08449	1.Y08478
VFC 75	10	12.6	41	40	45	1.Y08450	1.Y08503
VFC 100	10	12.6	41	67	72	1.Y08451	1.Y08479
VFC 125	10	12.6	55	119	124	1.Y08452	1.Y08480

## Vacuum Cups VOFC Series

Functions: anti-skid, oil-proof and water-proof (mostly used for adsorption of automobile sheet metal, glass, etc.)



F38G Female fitting G3/8"



M38G Male fitting G3/8"

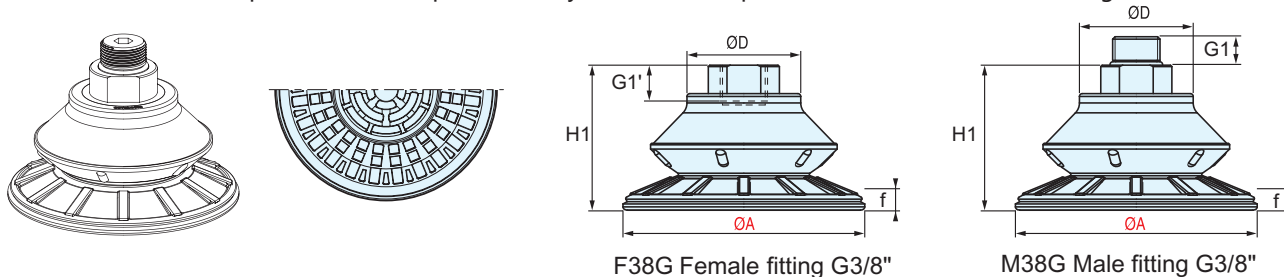
	I x L at rest	I x L gripping	$V$ (cm <sup>3</sup> )	$F$ (N) <sup>(1)</sup>	$F$ (N) <sup>(1)</sup>	R <sub>min</sub>	R <sub>min</sub>	Ø bore	H1	H
VOFC 2565	25x65	26.8x67	3.78	70	70	25	25	6	31.5	12.5
VOFC 3080	30x80	31.5x82	6.08	110	90	40	32	6	32	13
VOFC 4080	40x80	42x82	11.03	140	120	60	40	6	34	15
VOFC 50100	50x100	52.5x102.5	22.25	230	240	70	50	6	35	16



	G1	G1'	f <sup>(2)</sup>	$F$ (g) F38G	$F$ (g) M38G	PN F38G	PN M38G
VOFC 2565	8	10	3	24	17	1.Y08453	1.Y08481
VOFC 3080	8	10	3	29	22	1.Y08454	1.Y08482
VOFC 4080	8	10	4.5	30	23	1.Y08455	1.Y08483
VOFC 50100	8	10	6	43	36	1.Y08484	1.Y08485

## Vacuum Cups VBC Series

Functions: anti-skid, oil-proof and water-proof (mostly used for adsorption of automobile sheet metal, glass, etc.)



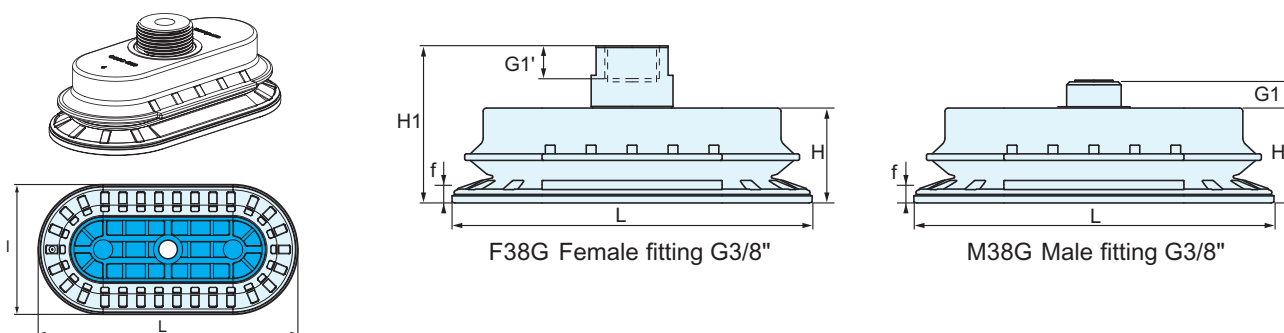
	ØA at rest	ØA gripping	$V$ (cm <sup>3</sup> )	$\Delta$ (N) <sup>(1)</sup>	$\Delta$ (N) <sup>(1)</sup>	R <sub>min</sub>	R <sub>min</sub>	Ø bore	H1	f <sup>(3)</sup>
VBC 22	21.5	22	1.6	17	17	25	30	6.3	32	6
VBC 30 <sup>(2)</sup>	32	34	5	40	40	30	32	6.3	31	8
VBC 45	47	48.7	11.47	70	90	36	45	6.3	36	11
VBC 60	62	64.5	25.31	140	130	44	62	6.3	41	14
VBC 85	85	88	66.54	230	240	65	115	6.3	51	22
VBC 115	115	119	141.47	420	390	84	140	6.3	53	24



	G1	G1'	ØD(mm)	$\Delta$ (g) F38G	$\Delta$ (g) M38G	PN F38G	PN M38G
VBC 22	10	12.6	37	10	14	1.Y08456	1.Y08486
VBC 30 <sup>(2)</sup>	10	12.6	37	14	19	1.Y08457	1.Y08487
VBC 45	10	12.6	37	22	26	1.Y08458	1.Y08488
VBC 60	10	12.6	39	32	37	1.Y08459	1.Y08489
VBC 85	10	12.6	41	64	69	1.Y08460	1.Y08490
VBC 115	10	12.6	55	103	107	1.Y08461	1.Y08491

## Vacuum Cups VOBC Series

Functions: anti-skid, oil-proof and water-proof (mostly used for adsorption of automobile sheet metal, glass, etc.)



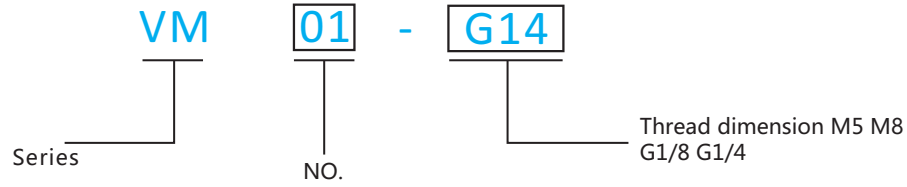
	I x L at rest	I x L gripping	$V$ (cm <sup>3</sup> )	$\Delta$ (N) <sup>(1)</sup>	$\Delta$ (N) <sup>(1)</sup>	R <sub>min</sub>	R <sub>min</sub>	Ø bore	H1	H
VOBC 3065	31x65	32.3x67	9.98	60	60	25	30	6	39	20
VOBC 4080	40x80	41.5x82	19.44	110	120	38	37	6	41	22
VOBC 55110	55x110	57x112.5	49.25	170	190	58	57	6	48	29
VOBC 70140	70x140	72x143	93.57	300	300	72	68	6	49	30



	G1	G1'	f <sup>(2)</sup>	$\Delta$ (g) F38G	$\Delta$ (g) M38G	PN F38G	PN M38G
VOBC 3065	8	10	7	31	25	1.Y08462	1.Y08492
VOBC 4080	8	10	9	37	31	1.Y08463	1.Y08493
VOBC 55110	8	10	13	68	62	1.Y08464	1.Y08494
VOBC 70140	8	10	16	103	97	1.Y08465	1.Y08495

# Vacuum Cup Fitting

## Model representation methods



Vacuum Cup Fitting			
Dimension			
PN	7.Y00703	7.Y00709	7.Y00768
Model	VM02-G18	VM04-G14	VM06-G14
Weight	3.5g	7.0g	9.7g

Vacuum Cup Fitting			
Dimension			
PN	7.Y00767	1.Y05275	1.Y05274
Model	VM07-G18	VM08-M8	VM09-M5
Weight	3.3g	8.3g	1.4g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Vacuum Cup Fitting

Profile · SUS Tube

Stents Module




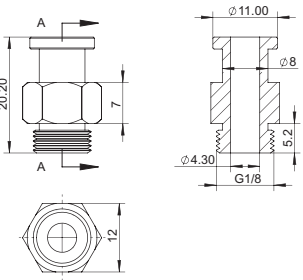
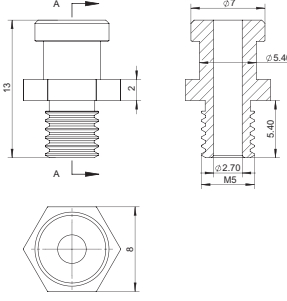
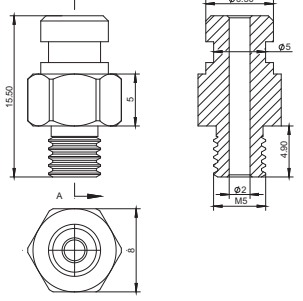
Quick Changer




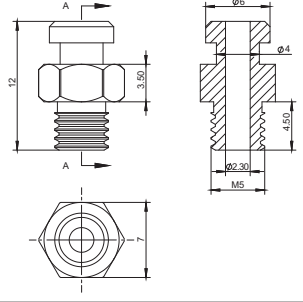
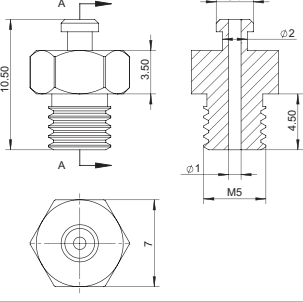
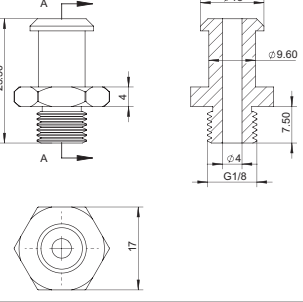
Grip Module

Air Nipper




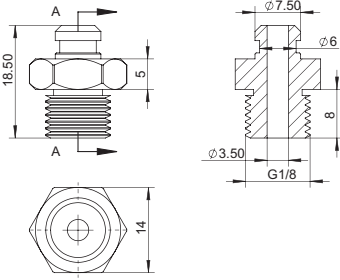
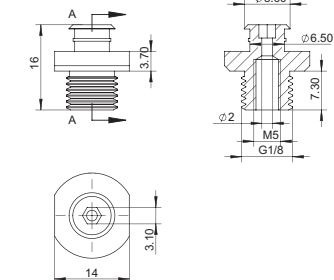
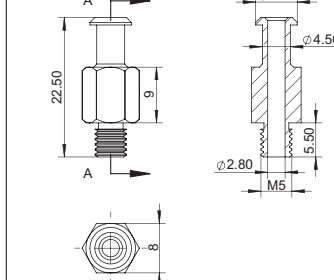
Vacuum Module




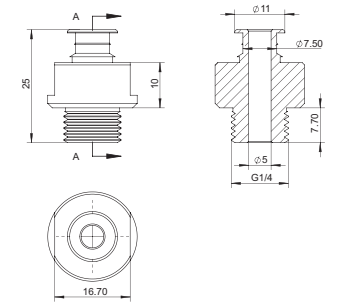
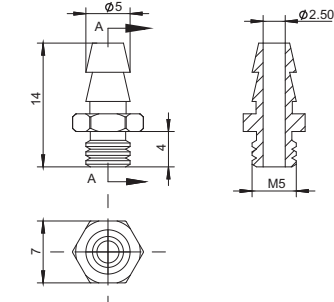
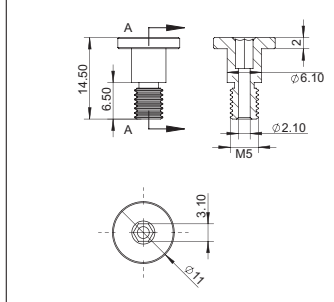
Accessory Components

Vacuum Cup Fitting			
Dimension			
PN	7.Y00902	1.Y05327	7.Y00762
Model	VM10-G18	VM11-M5	VM12-M5
Weight	3.7g	2.0g	1.2g

Vacuum Cup Fitting			
Dimension			
PN	7.Y00761	7.Y00760	7.Y00759
Model	VM13-M5	VM14-M5	VM15-G18
Weight	0.7g	0.5g	17.8g

# Vacuum Cup Fitting

Vacuum Cup Fitting			
Dimension			
PN	7.Y00758	7.Y00757	1.Y05314
Model	VM16-G18	VM17-G18	VM18-M5
Weight	3.8g	2.9g	4.6g

Vacuum Cup Fitting			
Dimension			
PN	4.Y00058	1.Y01986	1.Y05790
Model	VM20-G14	VM21-M5	VM22-M5
Weight	9.5g	1.8g	2.9g

Profile · SUS Tube

Stents Module

Quick Charger

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# Vacuum Cup Fitting

Profile · SUS Tube

Stents Module




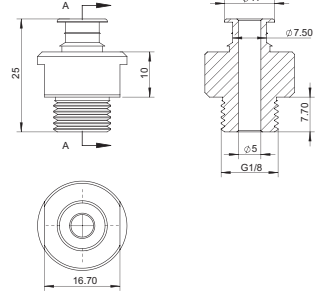
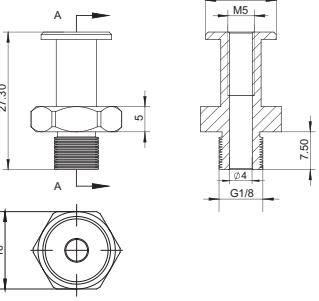
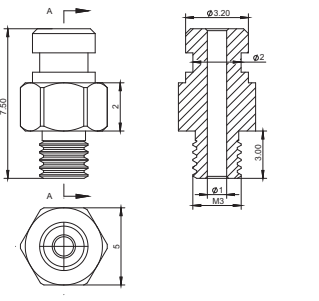
Quick Changer



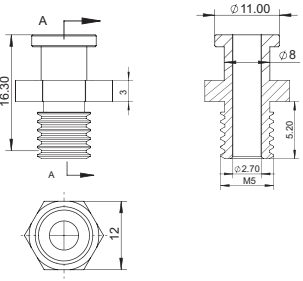
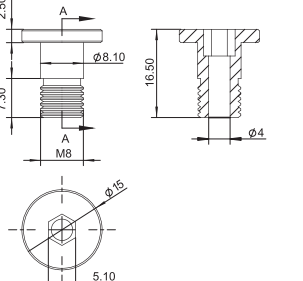
Grip Module

Air Nipper

Vacuum Module

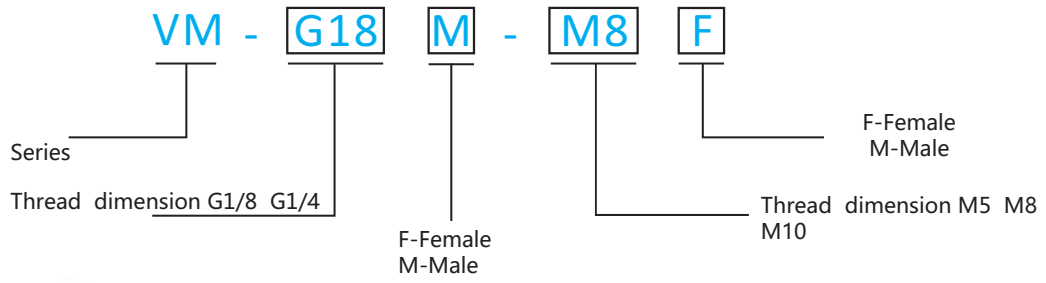
Accessory Components

Vacuum Cup Fitting			
Dimension			
PN	7.Y00900	7.Y00898	7.Y00928
Model	VM23-G18	VM24-G18	VM25-M3
Weight	8.9g	5.5g	0.2g

Vacuum Cup Fitting			
Dimension			
PN	1.Y01097	7.Y00475	
Model	VM27-M5	VM28-M8	
Weight	6.2g	1.9g	

# Vacuum Cup Connector

## Model representation methods



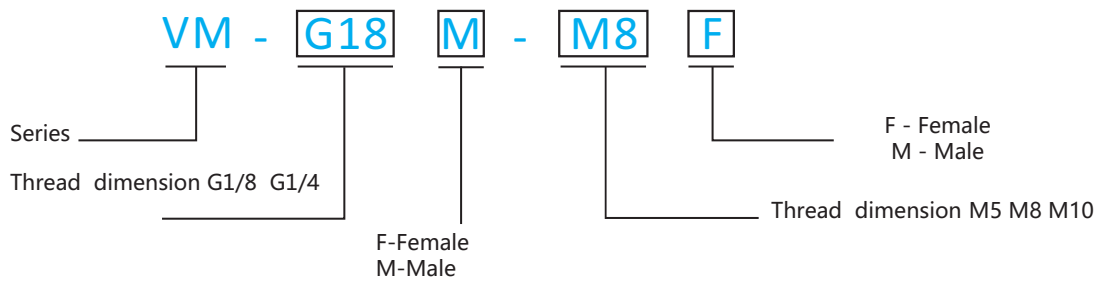
Vacuum Cup Connector			
Dimension			
PN	7.Y00808	7.Y00756	7.Y00755
Model	VM-G18M-M10M	VM-G14M-M10M	VM-G18M-M5F
Weight	4.5g	4.7g	2.9g


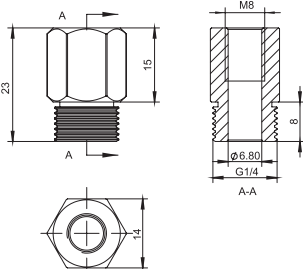
Vacuum Cup Connector			
Dimension			
PN	7.Y00754	7.Y00473	7.Y00474
Model	VM-G18M-M8F	VM-M5M-M8F	VM-M5M-G18F
Weight	6.2g	5.6g	4.9g

Profile · SUS Tube  
 Stents Module  
 Quick Changer  
 Grip Module  
 Air Nipper  
 Vacuum Module  
 Accessory Components

# Vacuum Cup Connector

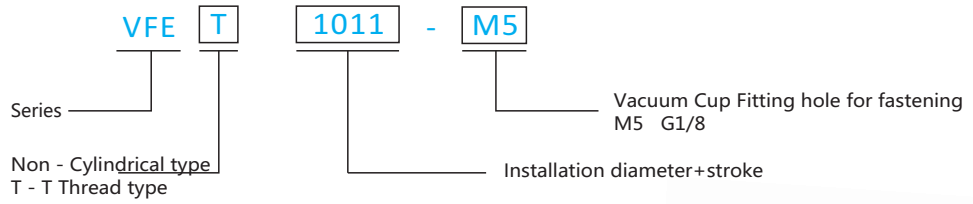
## Model representation methods



Vacuum Cup Connector			
Dimension			
PN	7.Y00476		
Model	VM-G14M-M8F		
Weight	6.7g		

# Vacuum Cup Suspensions

## Model representation methods



The suspensions (or buffers, or level compensators) are used to keep the suction cups in position as the robot approaches. CRG offers a range specifically designed for Plastics applications. They are typically mounted on EAOTs (End Of Arm Toolings) with Mounting brackets.

### Suspensions with smooth body

- VFR
- VFN
- VFE



### Suspensions with threaded body

- VFRT
- VFNT
- VFET



### Non-rotative suspensions

- VFN
- VFNT
- VFE
- VFET



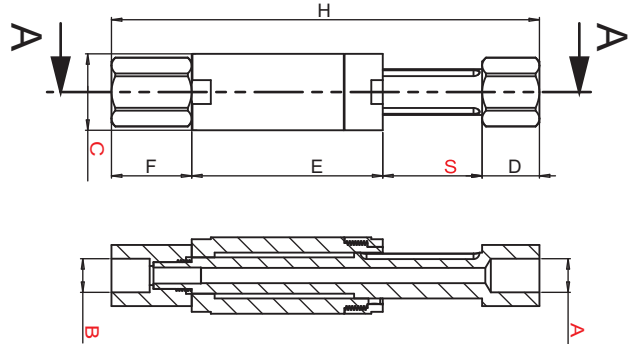
### Rotative suspensions

- VFR
- VFRT

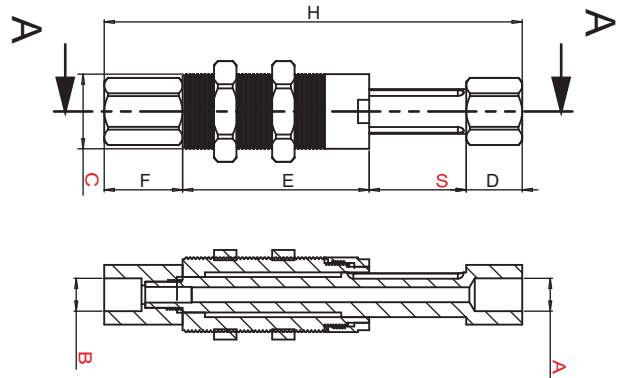


# Non-rotative Suspensions

Body and rod in anodized aluminum.  
 Non-rotative rod with high load capability.  
 Pressure range: -1 ~ 8 bar.



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
8.Y00064	VFN1011-M5	M5	M5	Ø10	10	22	17	8	60	11	7g
8.Y00321	VFN1021-M5	M5	M5	Ø10	10	41	17	8	89	21	11g
8.Y00065	VFN1421-G18	G1/8	G1/8	Ø14	12	40	20	12	93	21	24g
8.Y00322	VFN1436-G18	G1/8	G1/8	Ø14	12	60	20	12	128	36	44g
8.Y00066	VFN2026-G18	G1/8	G1/8	Ø20	15	50	21	16	112	26	54g
8.Y00067	VFN2051-G18	G1/8	G1/8	Ø20	15	84	21	16	171	51	80g



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
8.Y00068	VFNT1011-M5	M5	M5	M10*1	10	22	17	8	60	11	12g
8.Y00323	VFNT1021-M5	M5	M5	M10*1	10	41	17	8	89	21	39g
8.Y00204	VFNT1421-G18	G1/8	G1/8	M14*1	12	40	20	12	93	21	51g
8.Y00383	VFNT1621-G18	G1/8	G1/8	M16*1	12	40	20	12	93	21	64g
8.Y00324	VFNT1436-G18	G1/8	G1/8	M14*1	12	60	20	12	128	36	72g
8.Y00384	VFNT1636-G18	G1/8	G1/8	M16*1	12	60	20	12	128	36	76g
8.Y00205	VFNT2026-G18	G1/8	G1/8	M20*1	15	50	21	16	112	26	82g
8.Y00206	VFNT2051-G18	G1/8	G1/8	M20*1	15	84	21	16	171	51	120g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

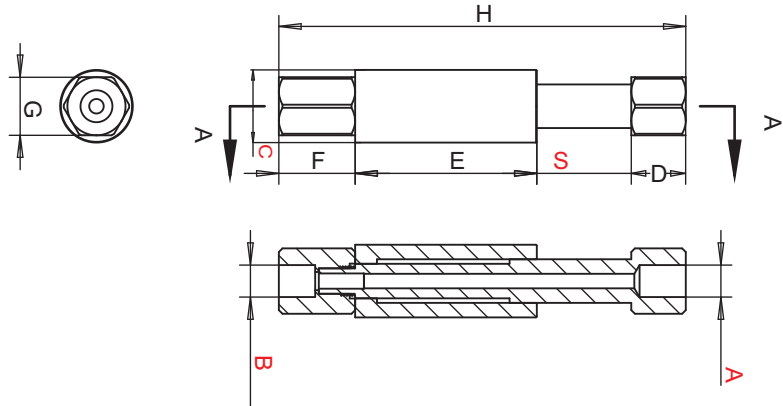
Air Nipper

Vacuum Module

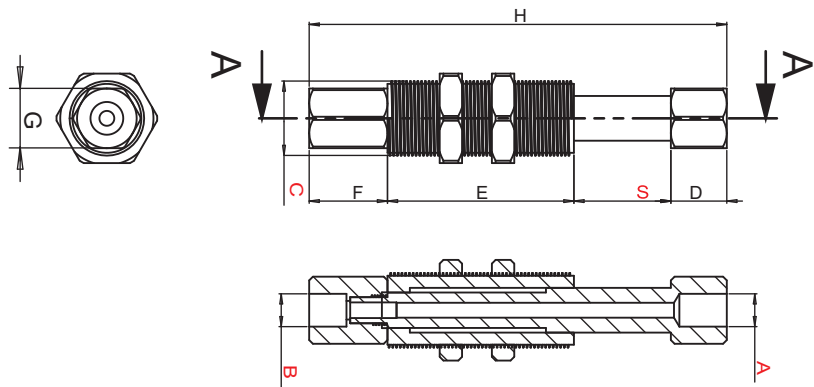
Accessory Components

# Rotative Suspensions

Body and rod in anodized aluminum.  
 Rotative rod.  
 Pressure range: -1 ~8 bar.



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
8.Y00060	VFR1011-M5	M5	M5	Ø10	3	22	17	8	53	11	11g
8.Y00325	VFR1021-M5	M5	M5	Ø10	3	41	17	8	82	21	17g
8.Y00061	VFR1421-G18	G1/8	G1/8	Ø14	12	40	20	12	93	21	23g
8.Y00326	VFR1436-G18	G1/8	G1/8	Ø14	12	60	20	12	128	36	40g
8.Y00062	VFR2026-G18	G1/8	G1/8	Ø20	15	50	21	16	112	26	50g
8.Y00063	VFR2051-G18	G1/8	G1/8	Ø20	15	84	21	16	171	51	77g



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
8.Y00074	VFRT1011-M5	M5	M5	M10*1	3	22	17	8	53	11	14g
8.Y00327	VFRT1021-M5	M5	M5	M10*1	3	41	17	8	82	21	26g
8.Y00075	VFRT1421-G18	G1/8	G1/8	M14*1	12	40	20	12	93	21	32g
8.Y00381	VFRT1621-G18	G1/8	G1/8	M16*1	12	40	20	12	93	21	36g
8.Y00328	VFRT1436-G18	G1/8	G1/8	M14*1	12	60	20	12	128	36	60g
8.Y00382	VFRT1636-G18	G1/8	G1/8	M16*1	12	60	20	12	128	36	65g
8.Y00076	VFRT2026-G18	G1/8	G1/8	M20*1	15	50	21	16	112	26	70g
8.Y00077	VFRT2051-G18	G1/8	G1/8	M20*1	15	84	21	16	171	51	104g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

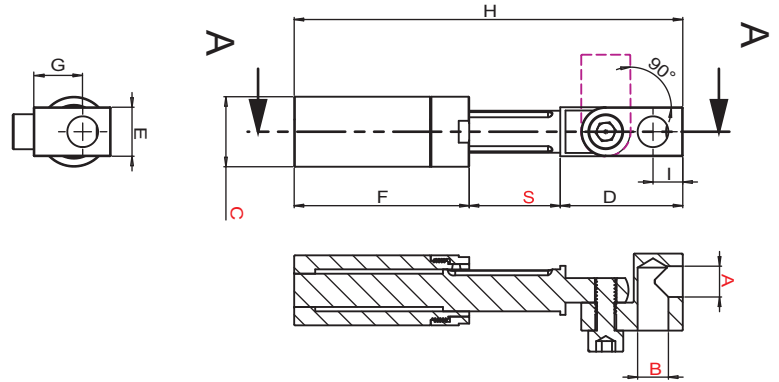
Air Nipper

Vacuum Module

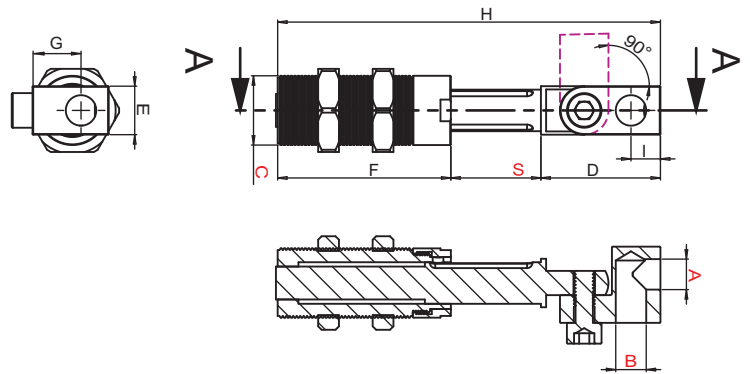
Accessory Components

# Non-rotative Suspensions With Integral Elbow Arms

It is possible to set continuously the angle between 0° and +/-90°.  
 External air feeding.  
 Body and rod in anodized aluminum.  
 Non-rotative rod with high load capability.  
 Pressure range: -1 ~ 8 bar.



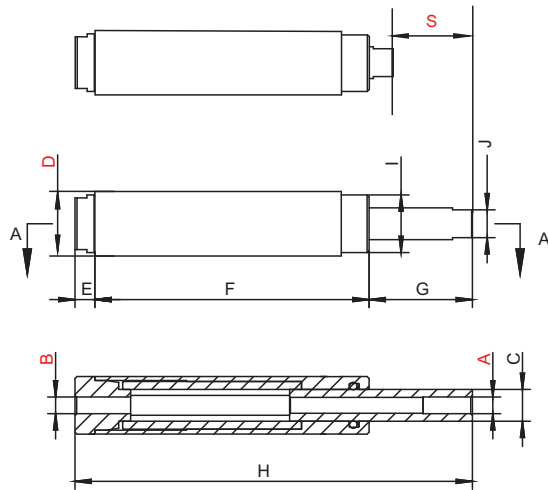
PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
8.Y00070	VFE1011-M5	M5	M5	Ø10	20	8	22	8	53	11	12g
8.Y00371	VFE1021-M5	M5	M5	Ø10	20	8	41	8	81	21	16g
8.Y00071	VFE1421-G18	G1/8	G1/8	Ø14	32	14	40	14	93	21	45g
8.Y00372	VFE1436-G18	G1/8	G1/8	Ø14	32	14	60	14	128	36	48g
8.Y00072	VFE2026-G18	G1/8	G1/8	Ø20	35	14	50	14	111	26	70g
8.Y00073	VFE2051-G18	G1/8	G1/8	Ø20	35	14	84	14	169.5	51	105g



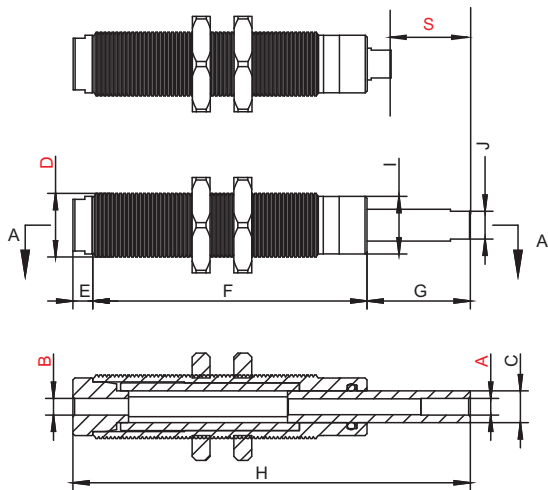
PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
8.Y00069	VFET1011-M5	M5	M5	M10*1	20	8	22	8	53	11	15g
8.Y00374	VFET1021-M5	M5	M5	M10*1	20	8	41	8	81	21	24g
8.Y00228	VFET1421-G18	G1/8	G1/8	M14*1	32	14	40	14	93	21	57g
8.Y00379	VFET1621-G18	G1/8	G1/8	M16*1	32	14	40	14	93	21	64g
8.Y00375	VFET1436-G18	G1/8	G1/8	M14*1	32	14	60	14	128	36	80g
8.Y00380	VFET1636-G18	G1/8	G1/8	M16*1	32	14	60	14	128	36	85g
8.Y00229	VFET2026-G18	G1/8	G1/8	M20*1	35	14	50	14	111	26	88g
8.Y00230	VFET2051-G18	G1/8	G1/8	M20*1	35	14	84	14	169.5	51	125g

# Non-rotating suspension for fixed piping

The product is made of anodic aluminium.  
 Built-in anti-rotation plastic piston.  
 Built-in telescopic function of spring reset,  
 tail vacuum intake fixed design.



PN	Model	A	B	C	D	E	F	G	H	I	J	S	Weight(g)
8.Y00313	VFC2030-G18	G1/8	G1/8	Φ13	Φ20	8	85	40	133	Φ18	12	30	60



PN	Model	A	B	C	D	E	F	G	H	I	J	S	Weight(g)
8.Y00277	VFCT1620-M5	M5	M5	Φ8	M16X1.0	5	69	26	100	Φ14.5	7	20	42.7
8.Y00314	VFCT2030-G18	G1/8	G1/8	Φ13	M20X1.0	8	85	40	133	Φ18	12	30	80

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



# The Adsorption Of Pneumatic Fittings

Profile · SUS Tube

Stents Module

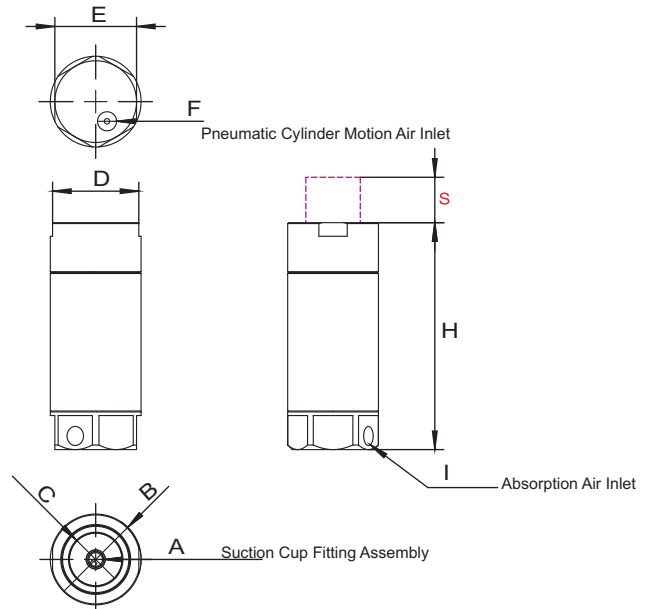
Quick Changer

Grip Module

Air Nipper

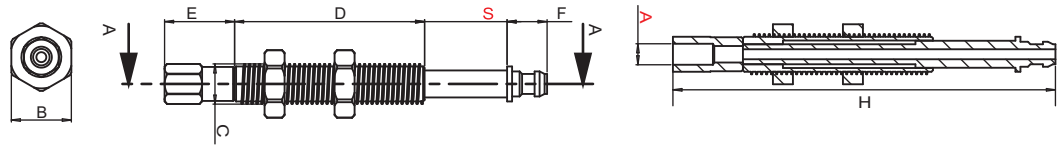
Vacuum Module

Accessory Components



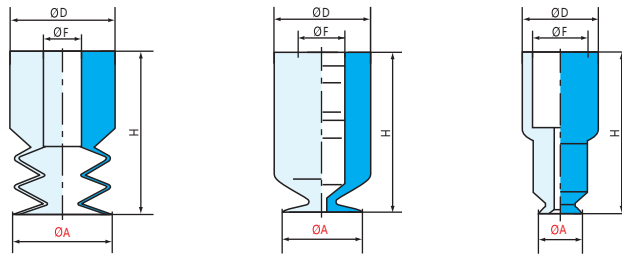
PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	H(mm)	I(mm)	S(mm)	Weight(g)
8.Y00207	VFG20-10	M5	Φ20	Φ12	19	18	M5	50	M5	10	35g
8.Y00337	VFG20-20	M5	Φ20	Φ12	19	18	M5	65	M5	20	45g
8.Y00338	VFG30-20	G1/8	Φ30	Φ20	27	27	G1/8	72	G1/8	20	70g


## Suction Stems



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	H(mm)	S(mm)	Weight(g)
1.Y05764	VFRT-7M5	M5	12	M8*1	21.5	14	8	51	7	15g
1.Y05765	VFRT-15M5	M5	12	M8*1	38	14	8	80	20	21g
1.Y05766	VFRT-30M5	M5	12	M8*1	38	14	8	90	30	22g

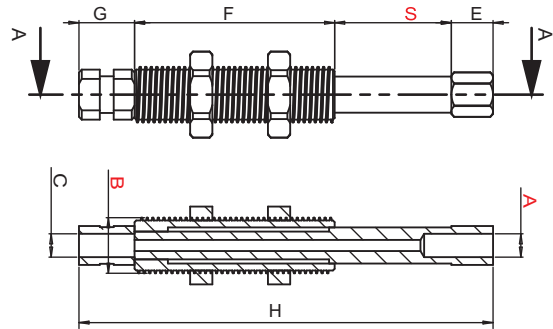
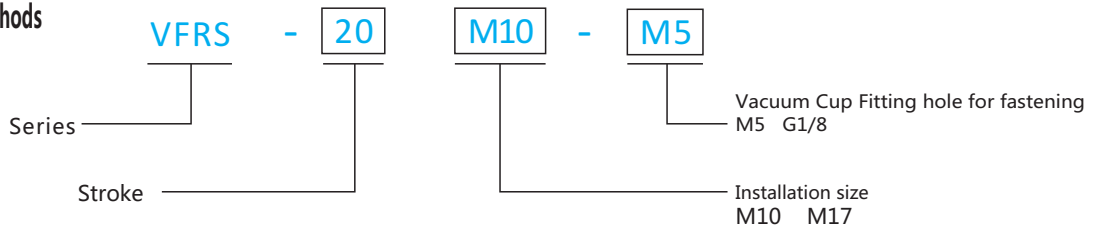
## Vacuum Cups VFRT Series



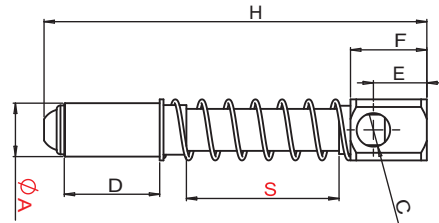
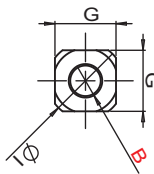
	ØA(mm)	H(mm)	ØD(mm)	ØF(mm)	SI(透明)
VSR-S2	2	12	7	5	1.Y00435
VSR-S4	4	14	7	5	1.Y00436
VSR-S6	6	12	7	5	1.Y03350
VSR-S8	8	12	7	5	1.Y00442
VSR3-S5	5	14	7	4	1.Y04179
VSR3-S7	7	14	7	4	1.Y04444

# Suction Stems

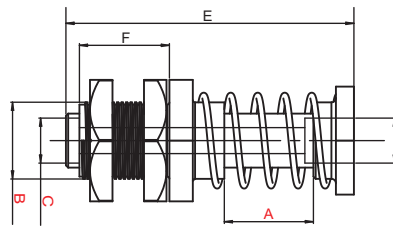
## Model representation methods



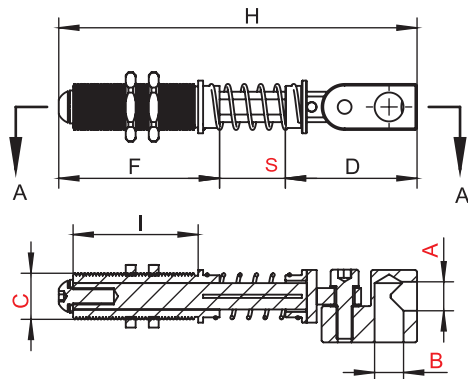
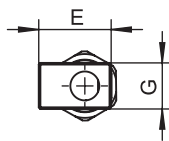
PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
4.Y00026	VFRS-20M10-M5	M5	M10*1	M5	14	7	36	10	73.5	20	27g
4.Y00023	VFRS-20M16-G18	G1/8	M16*1	G1/8	21	4	36	15	77	20	76g



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	I(mm)	S(mm)	Weight(g)
1.Y01452	VFM-4014-G18	Ø14	G1/8	G1/8	25	14	20	16	100	Ø20	40	48g
1.Y01451	VFM-2020-G14	Ø20	G1/4	G1/8	48	15	26	22	113	Ø27	20	136g



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	Weight(g)
1.Y01453	VFL-20M17-G18	20	M17*1	G1/8	27	64	20	G1/8	119g



PN	Model	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	I(mm)	S(mm)	Weight(g)
8.Y00319	VFMT-20M14-G18	G1/8	G1/8	M14X1.0	40	22	49	14	109	38	20	97g
8.Y00320	VFMT-40M14-G18	G1/8	G1/8	M14X1.0	40	22	64	14	144	50	40	123g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

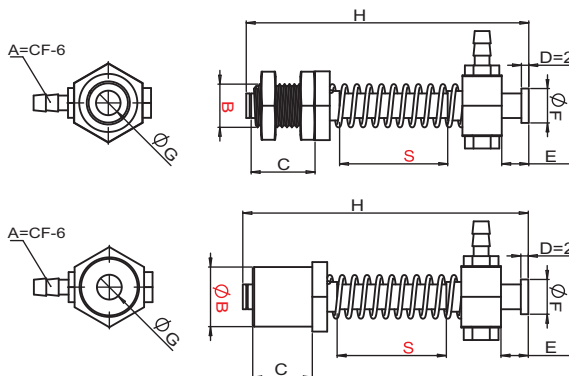
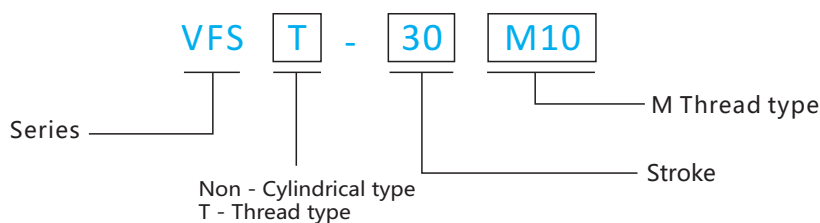
Air Nipper

Vacuum Module

Accessory Components

# Suction Stems

## Model representation methods



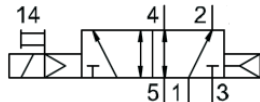
PN	Model	B(mm)	C(mm)	E(mm)	F(mm)	G(mm)	H(mm)	S(mm)	Weight(g)
1.Y04942	VFST-5M10	M10*1	18	5.5	Ø7	Ø3.4	40.5	5	14g
1.Y00533	VFST-10M10	M10*1	18	5.5	Ø7	Ø3.4	45.5	10	15g
1.Y00531	VFST-20M10	M10*1	18	5.5	Ø7	Ø3.4	55.5	20	15g
1.Y01566	VFST-30M10	M10*1	18	5.5	Ø7	Ø3.4	65.5	30	16g
1.Y05260	VFS-0508	Ø8	18	5.5	Ø7	Ø3.4	40.5	5	9g
1.Y05756	VFS-0512	Ø12	18	5.5	Ø7	Ø3.4	40.5	5	13g
1.Y05261	VFS-1008	Ø8	18	5.5	Ø7	Ø3.4	45.5	10	9g
8.Y00007	VFS-1012	Ø12	18	5.5	Ø7	Ø3.4	45.5	10	14g
1.Y05262	VFS-2008	Ø8	18	5.5	Ø7	Ø3.4	55.5	20	10g
8.Y00008	VFS-2012	Ø12	18	5.5	Ø7	Ø3.4	55.5	20	14g
1.Y05757	VFS-3008	Ø8	18	5.5	Ø7	Ø3.4	65.5	30	11g
1.Y05758	VFS-3012	Ø12	18	5.5	Ø7	Ø3.4	65.5	30	15g
1.Y00527	VFMT-5M12	M12*1	18	9	Ø11	Ø4.6	44	5	20g
1.Y00522	VFMT-10M12	M12*1	18	9	Ø11	Ø4.6	49	10	21g
1.Y00523	VFMT-20M12	M12*1	18	9	Ø11	Ø4.6	59	20	22g
1.Y00521	VFMT-30M12	M12*1	18	9	Ø11	Ø4.6	69	30	24g
1.Y05759	VFM-0512	Ø12	18	9	Ø11	Ø4.6	44	5	15g
1.Y05760	VFM-0520	Ø20	18	9	Ø11	Ø4.6	44	5	29g
1.Y03068	VFM-1012	Ø12	18	9	Ø11	Ø4.6	49	10	16g
1.Y05761	VFM-1020	Ø20	18	9	Ø11	Ø4.6	49	10	29g
1.Y04279	VFM-2012	Ø12	18	9	Ø11	Ø4.6	59	20	18g
1.Y05762	VFM-2020	Ø20	18	9	Ø11	Ø4.6	59	20	31g
1.Y03069	VFM-3012	Ø12	18	9	Ø11	Ø4.6	69	30	19g
1.Y05763	VFM-3020	Ø20	18	9	Ø11	Ø4.6	69	30	32g

Profile · SUS Tube  
 Stents Module  
 Quick Changer  
 Grip Module  
 Air Nipper  
 Vacuum Module  
 Accessory Components

# Solenoid Valve VUVG-LK

**NEW**

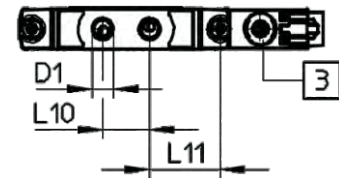
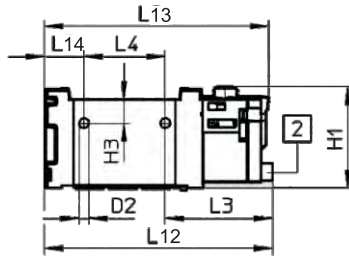
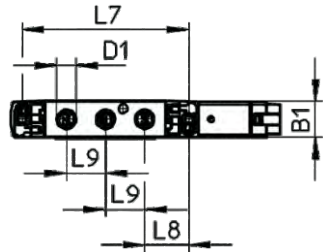
Single pipe valve VUVG-LK,24VDC, Inner leader H2 Junction box with 0.5m cable



accessory seal a pack of ten

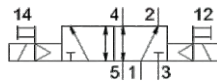


M52 Two-position five-way single electronic control air reset



2 horizontal electrical interface 3 manual button

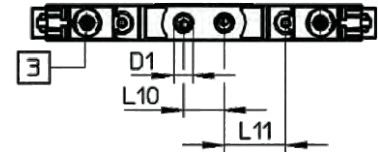
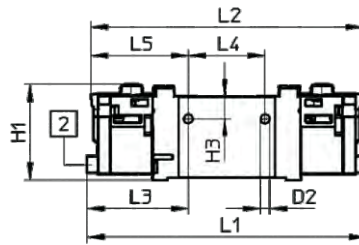
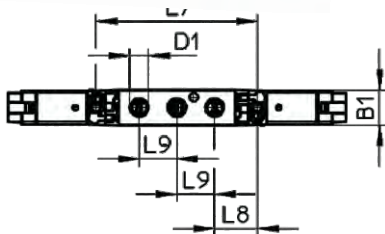
PN	Model	B1	D2	H1	H3	L3	L4	L7	L8	L9	L10	L11	L12	L13	L14	(l/min)
1.Y06040	VUVG-LK14-M52-AT-G18-1H2L-S	14.4	3.3	34.8	3.2	40.1	37	66.5	18.4	14.9	17	24.8	95.6	94.4	17.7	660



accessory seal a pack of ten

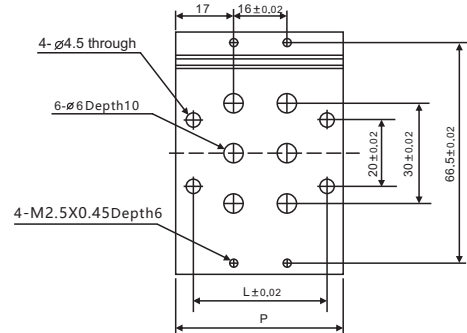
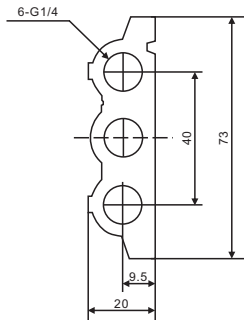


B52 Two-position double electronic control



2 horizontal electrical interface 3 manual button

PN	Model	B1	D2	H1	H3	L1	L2	L3	L4	L5	L7	L8	L9	L10	L11	(l/min)
1.Y06288	VUVG-LK14-B52-T-G18-1H2L-W1-S	14.4	3.3	34.8	3.2	118.9	116.4	40.1	37	39.7	66.5	18.4	14.9	17	24.8	660



PN	1.Y06289	1.Y06290	1.Y06291	1.Y06292	1.Y06293	1.Y06294	1.Y06042	1.Y07453	1.Y06295
Model	VUVG1/8-LK-2F	VUVG1/8-LK-3F	VUVG1/8-LK-4F	VUVG1/8-LK-5F	VUVG1/8-LK-6F	VUVG1/8-LK-7F	VUVG1/8-LK-8F	VUVG1/8-LK-9F	VUVG1/8-LK-10F
Row	2	3	4	5	6	7	8	9	10
L	40	56	72	88	104	120	136	152	168
P	50	66	82	98	114	130	146	162	178

PN	1.Y09872	1.Y09873	1.Y09874	1.Y09875	1.Y09876	1.Y09877	1.Y09878	1.Y09879	1.Y09880	1.Y09881
Model	VUVG1/8-LK-11F	VUVG1/8-LK-12F	VUVG1/8-LK-13F	VUVG1/8-LK-14F	VUVG1/8-LK-15F	VUVG1/8-LK-16F	VUVG1/8-LK-17F	VUVG1/8-LK-18F	VUVG1/8-LK-19F	VUVG1/8-LK-20F
Row	11	12	13	14	15	16	17	18	19	20
L	184	200	216	232	248	264	280	296	312	328
P	194	210	226	242	258	274	290	306	322	338

# Vacuum Module VPN-20 Series

Profile · SUS Tube

Stents Module

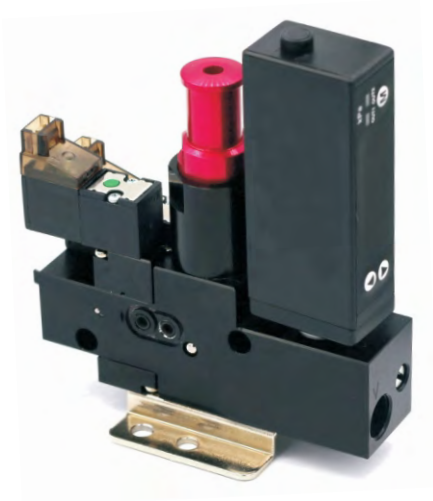
Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components



## Basic data

Item	Content
Body size [mm]	80×20×87
Working temperature [°C]	-5~50
Net weight [g]	228
Power consumption	24VDC, 1.3W

PN	1.Y05963
Model	VPN-20

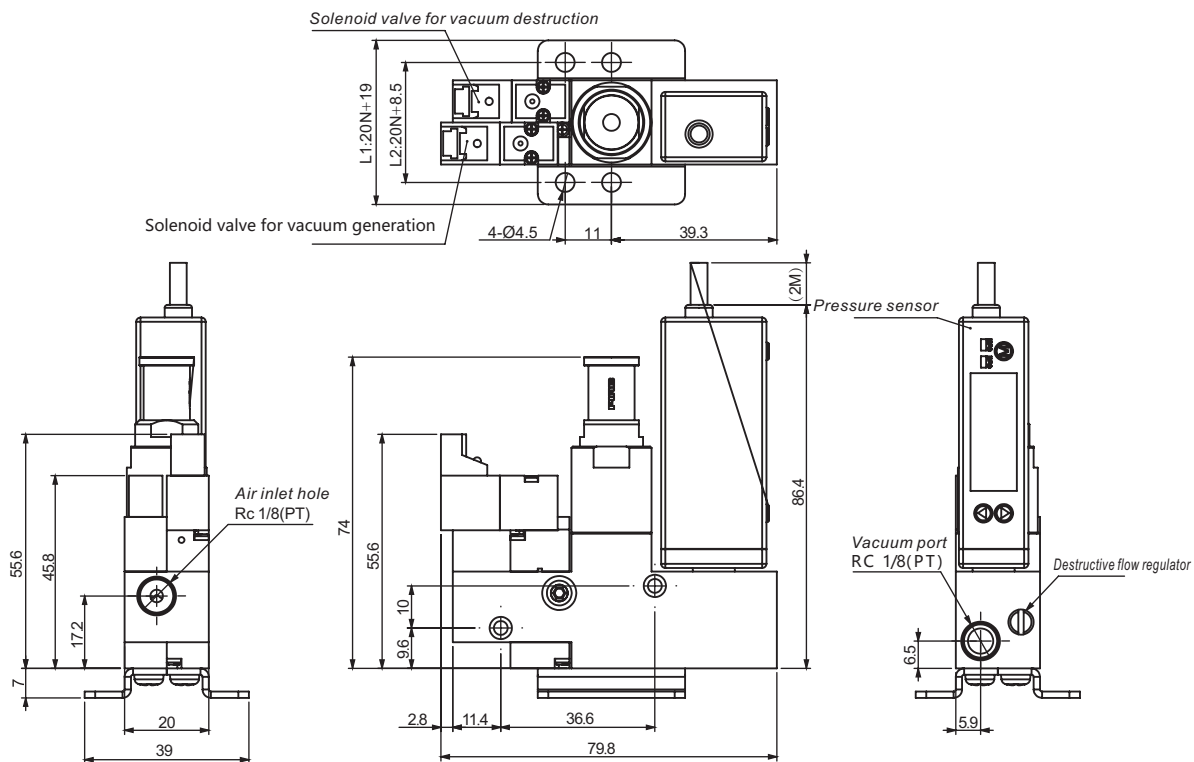
- The use of multistage vacuum generator has the characteristics of high vacuum and low consumption.
- Miniature solenoid valve is adopted to control vacuum establishment and vacuum removal.
- 20mm width design for multi vacuum combination, convenient warranty, smaller size.

## Technical data

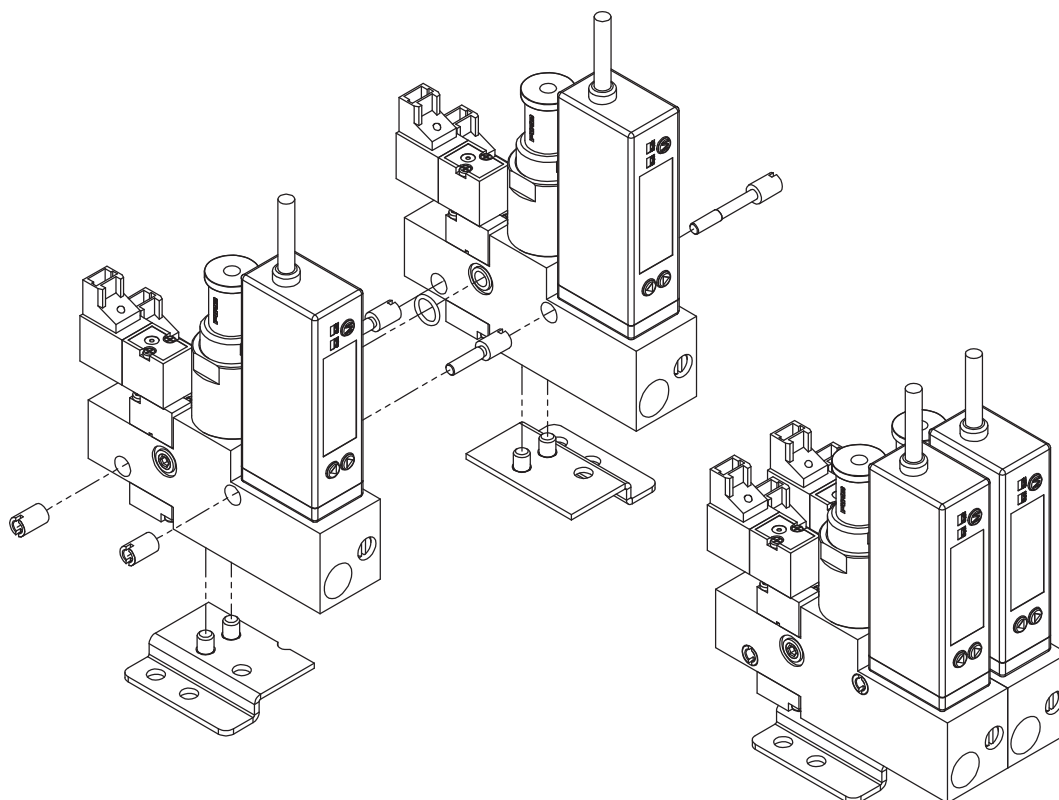
Item		High vacuum type		
		0.35	0.4	0.5
Working gas pressure	[Mpa]	0.35	0.4	0.5
Maximum vacuum	[-kpa]	84	88	88
Maximum vacuum flow	[L/min]	39.6	40.2	40.2
Air consumption	[L/min]	28.4	31.8	34.2

# Vacuum Module VPN-20 Series

## Dimension description



N	1	2	3	4	5	6	7	8	9	10
L1	39.0	59.0	79.0	99.0	119.0	139.0	159.0	179.0	199.0	219.0
L2	28.5	48.5	68.5	88.5	108.5	128.5	148.5	168.5	188.5	200.5



Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

# Vacuum Module VPD Series

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

Accessory Components

## Advantages

- Integrated electric vacuum and blow-off control Can be adapted to all branches
- Optimized performance for handling all types of objects
- Reduced wiring and easy-to-use
- Modular design thanks to the different options Light and compact
- No clogging thanks to the through type silencer Silent operation

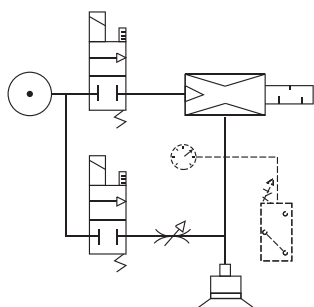
## Characteristics

(PN)	(Model)	Ø Nozzle(mm)	Air consumed (NI/min)	Max. vacuum(%)			Air drawn in(NI/min)		
				X	T	N	X	T	N
1.Y05964	VPD-12	1.2	67	40	75	90	150	63	45
1.Y05965	VPD-15	1.5	100	50	75	90	180	95	70
1.Y05966	VPD-20	2	180	50	75	90	250	160	125

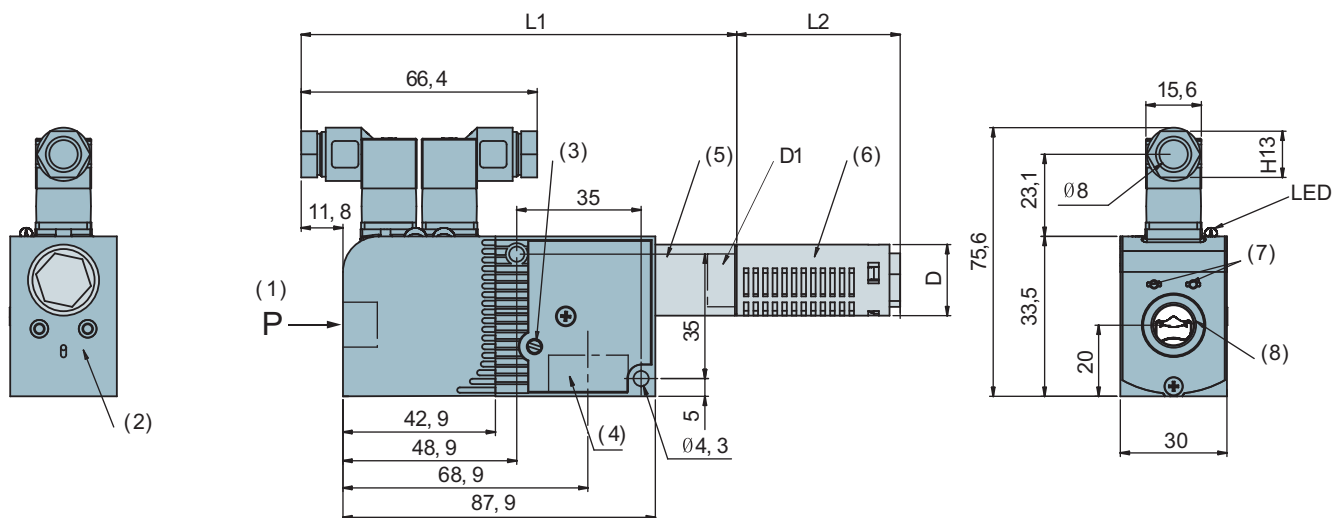
As standard, versions N and T are delivered with silencer S and version X with silencer K. Only exception, the VPD 30 is fitted with silencer K.

## Specifications

Supply	Non-lubricated filtered air, 2 to 6 bar
Optimum pressure	4 bar
Voltage	24V DC
Power	0.7 W
Material	POM - 2017A - Cu Zn - PA6 15% FG
Temperature	0 to 60°C / 32 to 140°F
Number of valve operations	10 million
Operating frequency	Maximum 2 Hz
Function	N.C. (N.O. on request)



## Dimensions



- (1) 4 bar compressed air tank
- (2) Vacuum switch option mounting zone
- (3) Blow-off adjustment
- (4) Vacuum 1/2 Gas

- (5) Exhaust
- (6) Silencer model S or K
- (7) Manual controls
- (8) 1/4 Gas



PN	Model	L1 (mm)		L2 (mm)			D (mm)		D1 (gas)	
		X	N/T	S(N/T)	K(N/T)	K(X)	X	N/T	X	N/T
1.Y05964	VPD-12	118	123	46	68	121	30	20	1/2	1/4
1.Y05965	VPD-15	118	133	46	68	121	30	20	1/2	1/4
1.Y05966	VPD-20	118	118	62	121	121	30	30	1/2	1/2

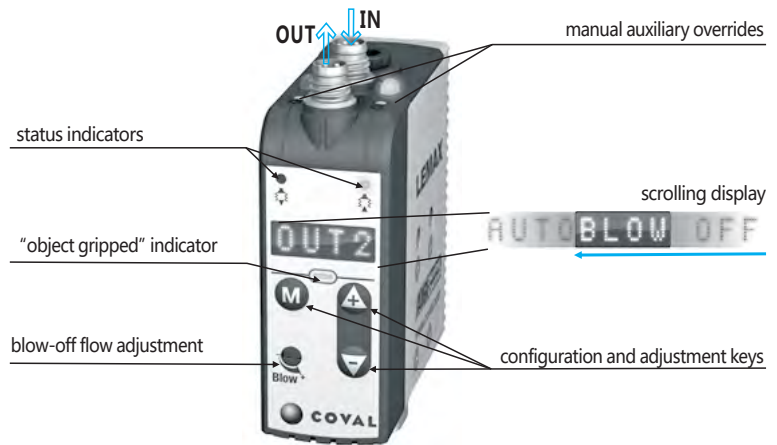
# Vacuum Module VP-LEMAX & LCPX Series

## Smart communication

The adjacent illustration presents the display panel which enables:

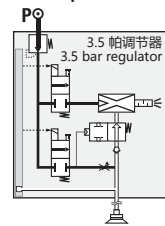
- Initial settings
- Any adjustments
- Production monitoring
- Maintenance

In particular, the "no ASC" alert, helps to start maintenance operations in order to return to "ASC" operation, which is especially energy saving.

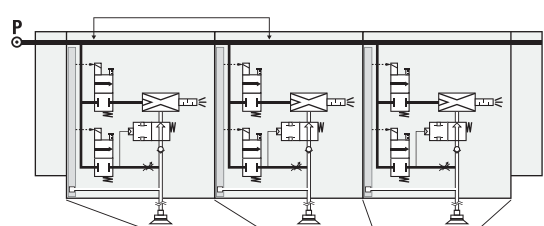


## Selection guide

Network pressure: 4 to 8 bar



Common pressure unit



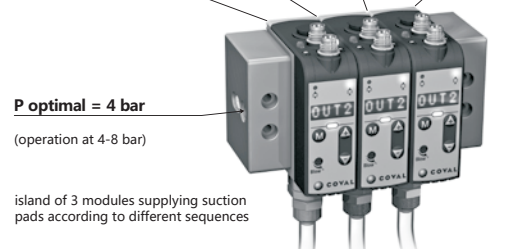
## Stand-alone or island modules?

Stand-alone modules are suitable for the most common applications: one module controls one or more suction pads which all operate according to the same sequence. When several suction pads are operating according to different sequences, multiple modules are required, which can be:

- several autonomous modules, OR
- a group of these modules with an internal common pressure unit.

The illustrations opposite guide the selection:

- autonomous modules are coupled with integrated pressure regulators (see p. 9/8)
- in a group, the integrated regulator is eliminated: to maintain the advantage of economical and silent operation, it is recommended to reduce the group's common pressure supply pressure to 4 bar.



PN	Model
1.Y05969	LEMAX90X14S
1.Y05970	LCPX90X14SL15PQ1

Power determined by the venturi nozzle diameter  
The table shows the power levels generated by each of the nozzle diameters available: when the module is operating "ASC" off, a larger nozzle draws and consumes more compressed air.

On the other hand, during "ASC" operation, a large nozzle quickly reaches the vacuum threshold generating power shut-off.

In conclusion:

- A large nozzle enables quicker gripping without consuming more during "ASC" operation.
- A small nozzle does not consume less when operating with "ASC" off.

Selecting the nozzle diameter					
Ø nozzle	Venturi characteristics during "ASC" off operation		"ASC" operation gripping at 65% vacuum vacuum shutoff at 75% Time for a volume of 1L		
	air drawn in	air consumed	grip time (65% vacuum)	time to 75% vacuum	air consumed
1.4mm	70 NI/min	90 NI/min	0.99 s	1.38 s	2.2 NI



nozzle diameter



LEMAX



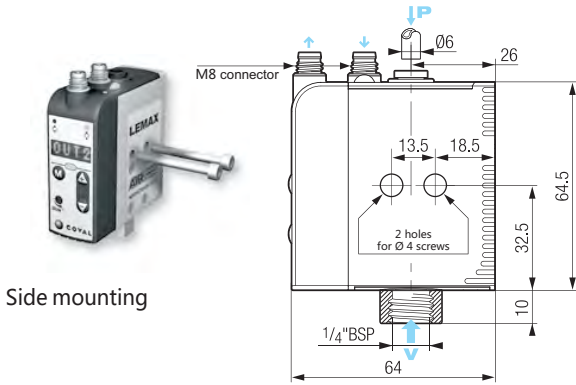
LCPX



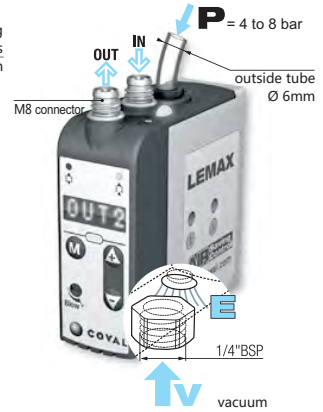
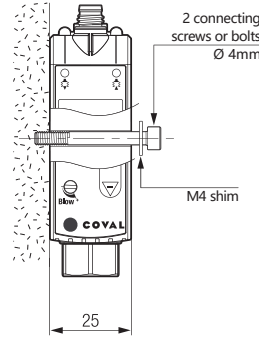
# Vacuum Module VP-LEMAX & LCPX Series

## Dimensions Mounting options

### Stand-alone modules

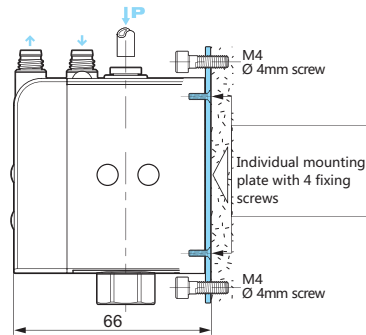


Side mounting

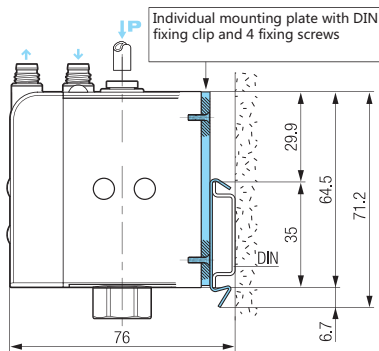
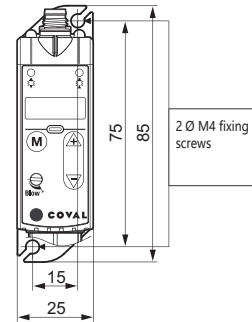


For front mounting, order the necessary kit, in addition to the module:

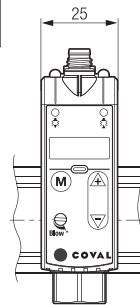
Front mounting kit:  
1 plate + 4 screws



Front mounting



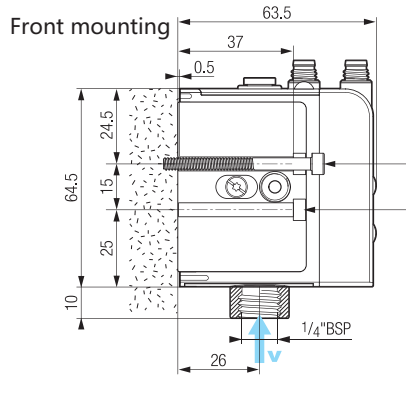
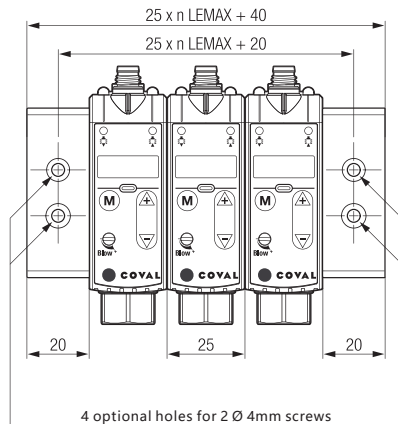
Mounting on DIN rail



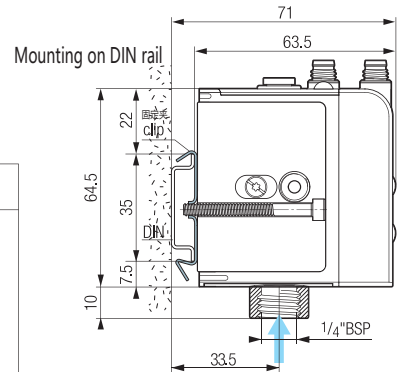
A module can be clipped onto a DIN rail. For this purpose, the module must first be equipped with an individual DIN installation plate, ordered separately:

DIN rail mounting kit: 1 plate/clip + 4 screws

### 2- Islands

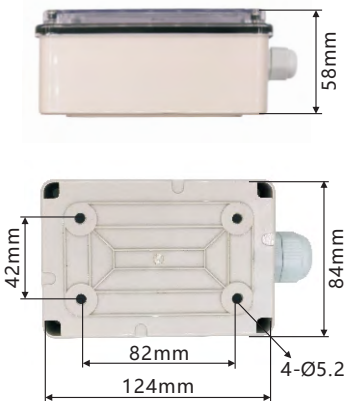


2 optional holes for 1 Ø 4mm connecting screw, at each end of the island

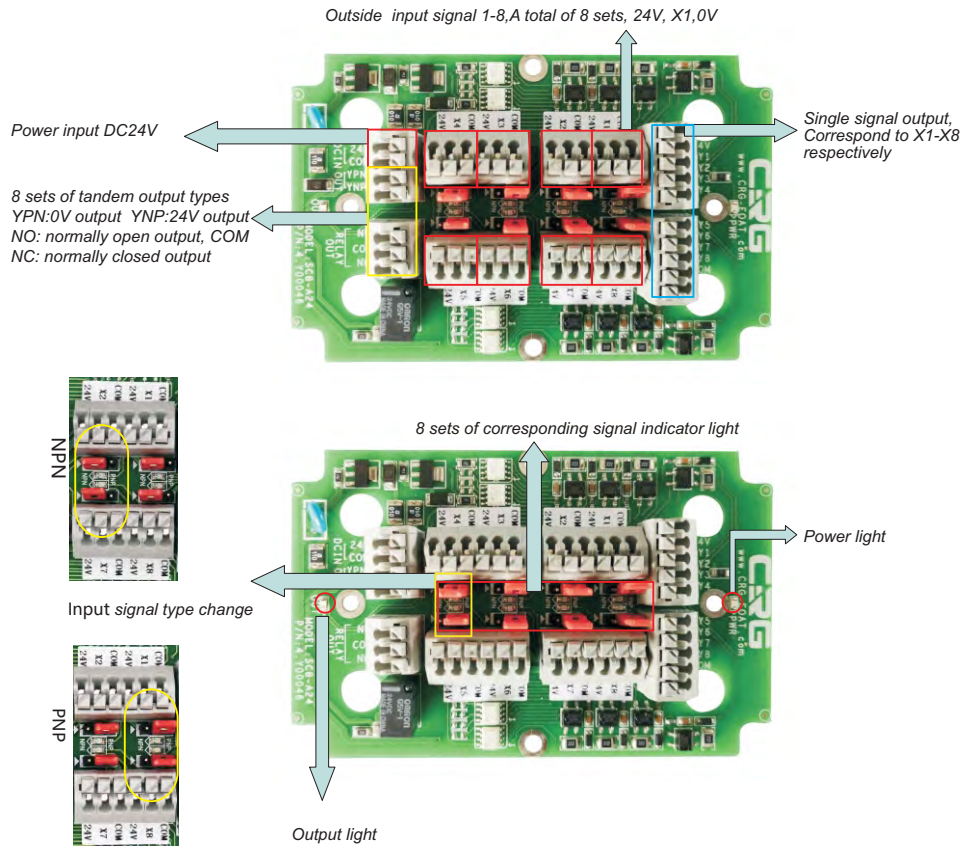


DIN rail mounting kit: 2 clips + 2 screws

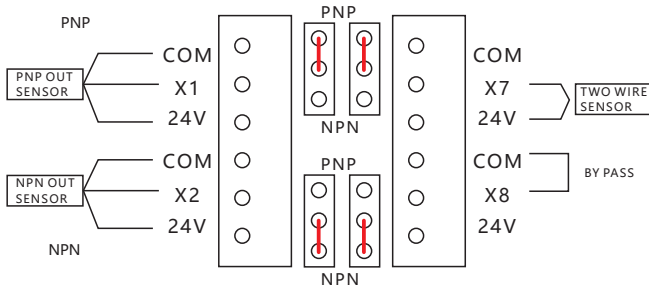
## Structure description



PN	8.Y00087
Model	ASC-8A-B



## Operation description



## Electrical parameters

	Minimum	Recommend	Maximum	Unit
supply voltage	20	24	28	V
Value of effective current at input	5	7	10	mA
Transistor Output Maximum Load			100	mA
Relay Output Load Capability (Resistive Load)			0.5A@125VAC 1A@24VDC	
Maximum switching frequency		TBD		Hz

## Function description

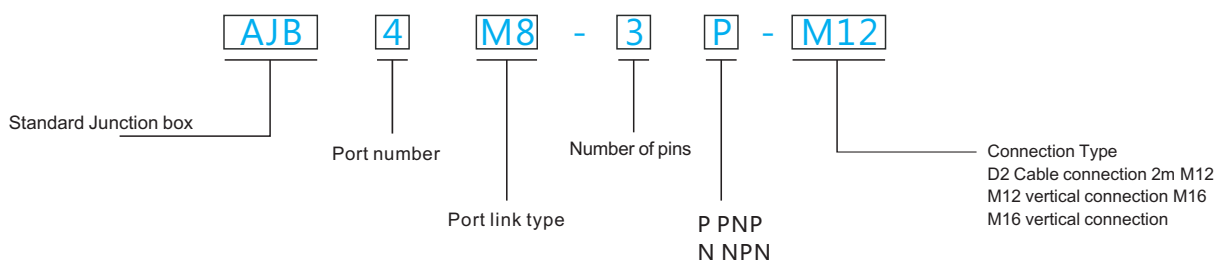
1. To solve the problem that the power supply of multiple sensors is not connected as one line, the problem of space occupation is cancelled. The maximum 8 groups can be used, and less than 8 groups need to be shorted.
2. Output types can be changed at present for NPN, PNP, NC, NO, and four output forms.
3. You can also crawl the signal individually, and grab the signal type for the actual type of sensor.
4. Observe the induction state of each inductor and the status of the output.
5. Types of sensors and output is not available, skipping type conversion, minus the replacement work of the sensor.

# Junction box

Housing material: Nylon/Black  
 Coupling nut: Brass/Nicket  
 Contact carrier: TPU/Black  
 Pin: Brass/Gold  
 IP degree: IP67  
 Load: 10~30VDC, 2 A/port, 6 A total, LED 10mA  
 Temperature range: -30...+80°C  
 Single channel PNP or NPN



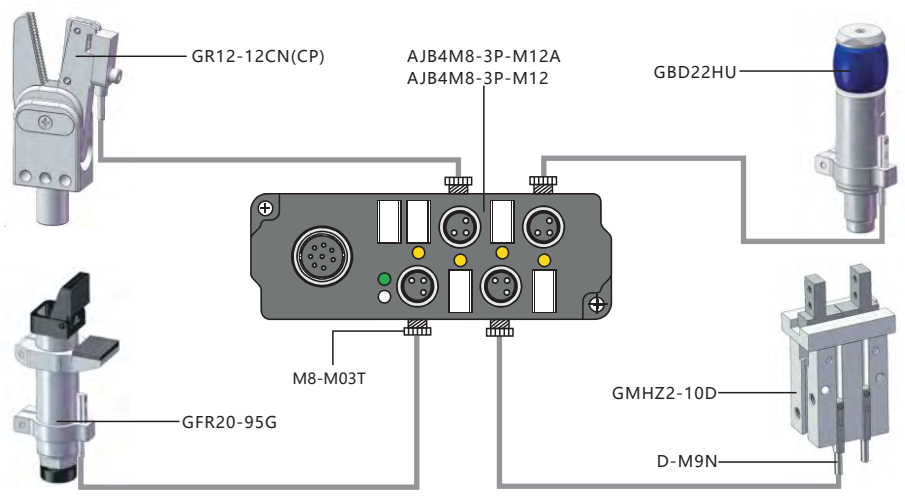
## Model representation methods



PN	Model	Type	Weight
4.Y00487	AJB4M8-3P-M12	PNP	110g
4.Y00488	AJB4M8-3N-M12	NPN	110g
4.Y00491	AJB8M8-3P-M16	PNP	120g
4.Y00492	AJB8M8-3N-M16	NPN	120g
4.Y00495	AJB8M8-3P-D2	PNP	300g
4.Y00496	AJB8M8-3N-D2	NPN	300g

## Application example

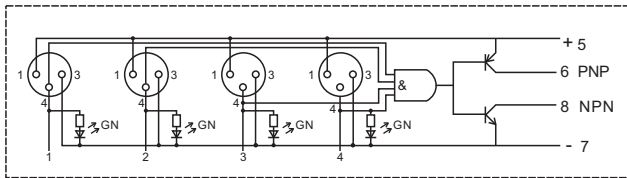
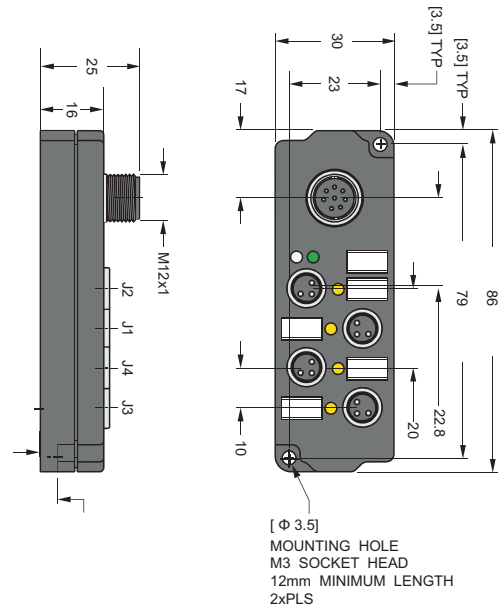
1. Single channel PNP or NPN
2. The four way input is effective at the same time, and outputs a set of signals to realize the output function of "and circuit".



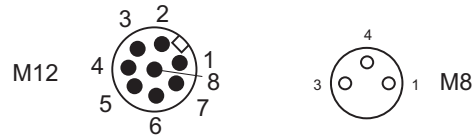
Profile · SUS Tube  
 Stents Module  
 Quick Changer  
 Grip Module  
 Air Nipper  
 Vacuum Module  
 Accessory Components

# M8 4 ports Junction box

Housing material: Nylon/Black  
 Coupling nut: Brass/Nicket  
 Contact carrier: TPU/Black  
 Pin: Brass/Gold  
 IP degree: IP67  
 Load: 10~30VDC, 2 A/port, 6 A total, LED 10mA  
 Temperature range: -30...+80°C



AJB4M8-3P-M12



Joint



8 pins M12 Field wirable connector

PN	1.Y07461
Model	ELK8112-0/9

3 pins M8 Field wirable connector

PN	1.Y06722
Model	M8-M03T

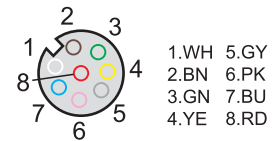


8 pins M12 pre-moulding Cable

货号(PN)	1.Y07462
型号(Model)	ELK8-2M/P00

Pinout

Female

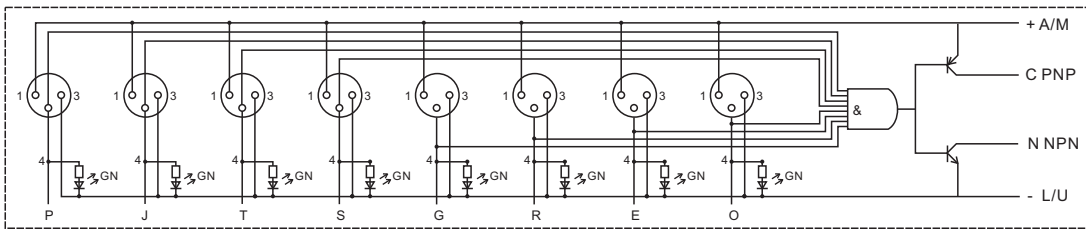
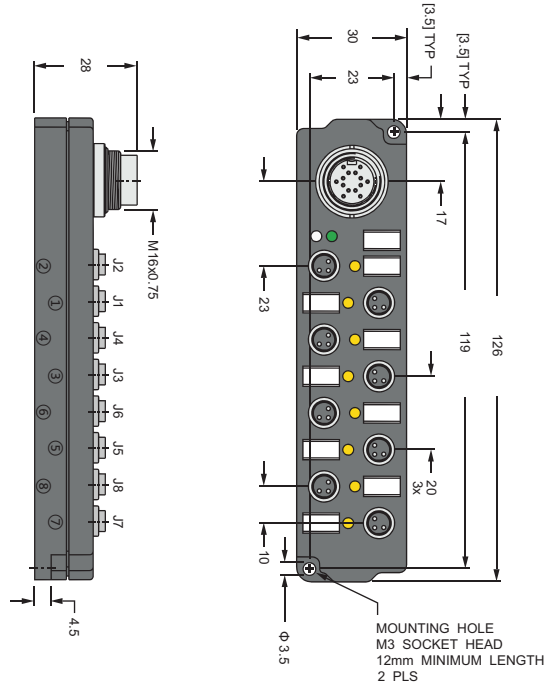


PN	Model	Type	Weight
4.Y00487	AJB4M8-3P-M12	PNP	110g
4.Y00488	AJB4M8-3N-M12	NPN	110g

Profile · SUS Tube  
 Stents Module  
 Quick Changer  
 Grip Module  
 Air Nipper  
 Vacuum Module  
 Accessory Components

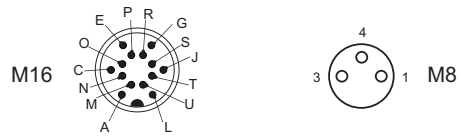
# M8 8 ports Junction box

Housing material: Nylon/Black  
 Coupling nut: Brass/Nicket  
 Contact carrier: TPU/Black  
 Pin: Brass/Gold  
 IP degree: IP67  
 Load: 10~30VDC, 2 A/port, 6 A total, LED 10mA  
 Temperature range: -30...+80°C



AJB8M8-3P-M16

Single channel PNP or NPN  
 1 signal per port  
 LED  
 M16 vertical connector



## Joint



14 pins M16 pre-moulding Cable

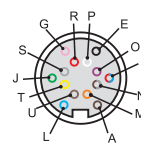
PN	1.Y07463
Model	DNLK14-14-2M/P00

3 pins M8 Field wirable connector

PN	1.Y06722
Model	M8-M03T

## Pinout

Female

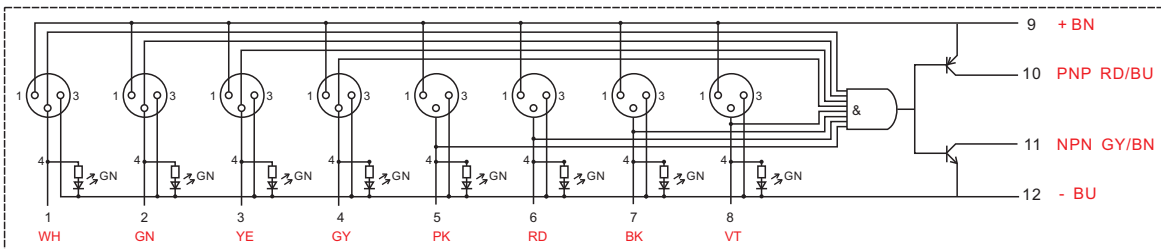
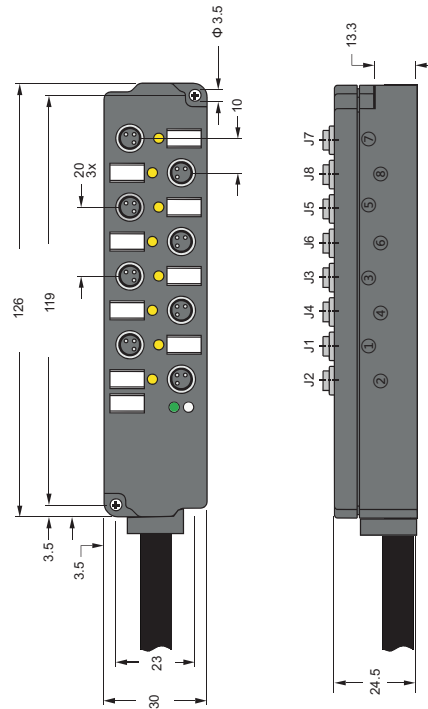


A. BN	N. GY/BN
C. RD/BU	O. VT
E. BK	P. WH
G. PK	R. RD
J. GN	S. GY
L. BU	T. YE
M. OR	U. TN

PN	Model	Type	Weight
4.Y00491	AJB8M8-3P-M16	PNP	120g
4.Y00492	AJB8M8-3N-M16	NPN	120g

# M8 8 ports Junction box

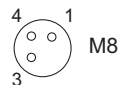
Housing material:Nylon/Black  
 Coupling nut:Brass/Nicket  
 Contact carrier:TPU/Black  
 Pin:Brass/Gold  
 IP degree:IP67  
 Load:10~30VDC,2 A/port, 6 A total,LED 10mA  
 Temperature range:-30...+80°C



AJB8M8-3P-D2

### Joint

Single channel PNP or NPN  
 1 signal per port  
 LED  
 Black PVC wire with 10 cores in 2m



### Singal Wire Cross-sectional Sketch Map



- 1.WH
- 2.GN
- 3.YE
- 4.GY
- 5.PK
- 6.RD
- 7.BK
- 8.VT
- 9.BN
- 10.BU
- 11.RD/BU
- 12.GY/BN

3 pins M8 Field wirable connector

PN	1.Y06722
Model	M8-M03T

PN	Model	Type	Weight
4.Y00495	AJB8M8-3P-D2	PNP	300g
4.Y00496	AJB8M8-3N-D2	NPN	300g

\* The standard length is 2 meters, which can be customized.

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

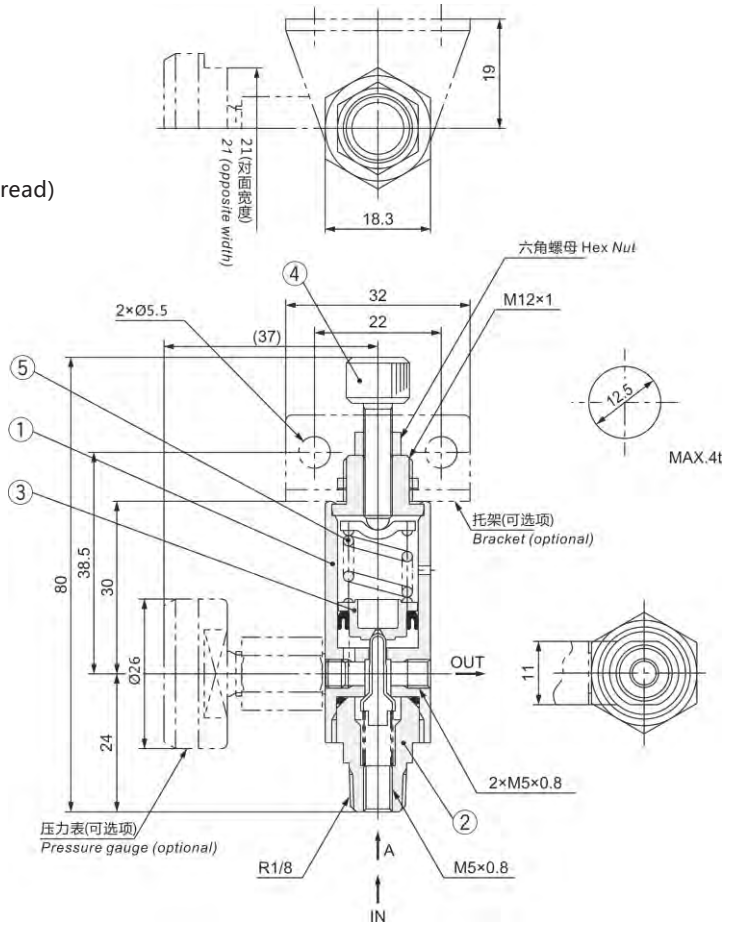
Vacuum Module

Accessory Components

# Miniature Regulator

ARJ210 series

The body is made of aluminum, lightweight (60g)  
 IN side pipe connections are made with 1/8 (external thread)  
 M5 (internal thread) 2 types



PN		1.Y05877
Model		ARJ210-M5
Pipe Size	IN	1/8 (F-M5×0.8)
	OUT	M5×0.8
Fluid		Air
Proof pressure		1.2MPa
Maximum Operating pressure		0.8MPa
Set pressure range		0.2~0.7MPa 0.2MPa: 0.05~0.2MPa
Pressure gauge connecting caliber		M5×0.8
Environment and fluid temperature		-5~60°C
Weight		0.06

# Tube Cutter

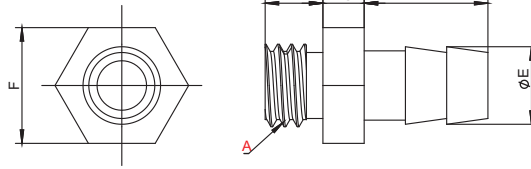


Special tool for cutting copper tube  
 Ease to use  
 Improve work efficiency  
 Durable,high-quality,weight (248g)

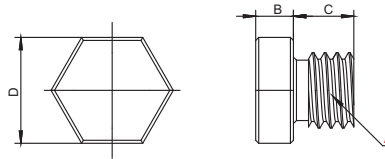
PN	1.Y02592
----	----------

Profile · SUS Tube  
 Stents Module  
 Quick Changer  
 Grip Module  
 Air Nipper  
 Vacuum Module  
 Accessory Components

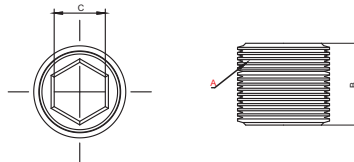
# Connector



PN	Model	A	B	C	D	E	F	Weight
1.Y03145	APB-M3- Ø 4	M3	4	2	5.5	3.5	4.5	0.6g
1.Y05008	APB-M5- Ø 4	M5	5	2	6.5	3.5	7	1.4g
1.Y01986	APB-M5- Ø 6	M5	4.5	2.5	7	4.8	7	1.7g



PN	Model	A	B	C	D	Weight
1.Y06794	APF-M3	M3	2	3	4.9	0.5g
1.Y02510	APF-M5	M5	2.5	4.5	7	1.4g



PN	Model	A	B	C	Weight
1.Y00462	APF-G18	G1/8	8	5	3.0g
1.Y00463	APF-G14	1/4	9	6	6.2g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

Vacuum Module

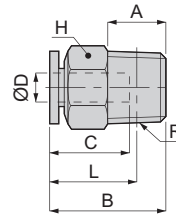
Accessory Components



# Connector

APC series

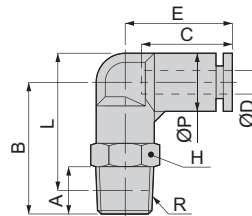
## Straight Threaded Hose Fitting



PN	Model	ØD	R	A	B	L	C	H	Weight
1.Y03809	APC4-M5	4	M5 × 0.8	3	20	17	14.9	10	6.3g
1.Y02726	APC4-01		R1/8	8	21	17		10	8.3g
1.Y04049	APC4-02		R1/4	11		15		14	16g
1.Y03039	APC6-M5	6	M5 × 0.8	3	22.1	19.1	17	12	9.2g
1.Y02725	APC6-01		R1/8	8	22.6	18.6		14	9.3g
1.Y04048	APC6-02		R1/4	11	24.6	18.5		17	18g
1.Y05531	APC6-03		R3/8	12	23.6	17.2		17	28g
1.Y04537	APC8-01	8	R1/8	8	27.9	23.9	18.2	14	16g
1.Y05532	APC8-02		R1/4	11	26.6	20.6		17	24g
1.Y05533	APC8-03		R3/8	12	23.9	17.6		17	24g
1.Y05534	APC10-01	10	R1/8	8	30.3	26.3	20.7	17	24g
1.Y05535	APC10-02		R1/4	11	29.5	23.8		17	21g
1.Y05536	APC10-03		R3/8	12	29.3	23		17	27g

APL series

## L-type Threaded Hose Fitting

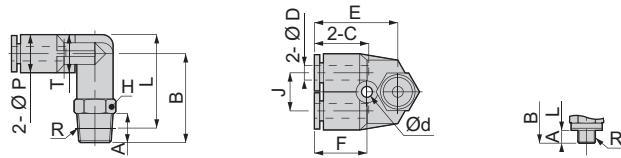


PN	Model	ØD	R	A	B	L	ØP	C	E	H	Weight
1.Y02724	APL4-M5	4	M5 × 0.8	3	20.3	22.3	10	14.9	18	10	8g
1.Y02810	APL4-01		R1/8	8	23.2	24.3				14	11g
1.Y03097	APL4-02		R1/4	11	26.3	25.3				14	21g
1.Y02809	APL6-M5	6	M5 × 0.8	3	22	25.3	12.5	16.8	19.8	12	13g
1.Y02722	APL6-01		R1/8	8	25	27.3				14	14g
1.Y03988	APL6-02		R1/4	11	28	28.2				17	22g
1.Y05539	APL6-03		R3/8	12	29.8	29.7				17	35g
1.Y02723	APL8-01	8	R1/8	8	28	31.3	14.5	18.1	22.7	14	19g
1.Y03812	APL8-02		R1/4	11	31	32.2				17	24g
1.Y05540	APL8-03		R3/8	12	32.8	33.7				17	37g
1.Y03096	APL10-01	10	R1/8	8	33	37.8	17.5	20.2	26.2	17	31g
1.Y05541	APL10-02		R1/4	11	36	38.7				17	34g
1.Y05542	APL10-03		R3/8	12	37	39.4				21	43g

# Connector

APAX series

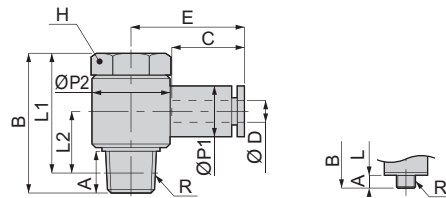
## X-type Threaded Hose Fitting



PN	Model	ØD	R	A	B	L	ØP	C	J	E	H	Ød	F	T	Weight
1.Y05545	APAX4-M5	4	M5 × 0.8	3	21.7	23.7	10	14.9	11	22.7	10	3.2	14.2	10	12g
1.Y05546	APAX4-01		R1/8	8	24.7	25.7					14				15g
1.Y05547	APAX4-02		R1/4	11	27.7	26.7					14				24g
1.Y05548	APAX6-M5	6	M5 × 0.8	3	25	28.3	12.5	17	12	26.2	12	4.2	15.5	12.5	17g
1.Y05549	APAX6-01		R1/8	8	28	30.3					14				19g
1.Y05550	APAX6-02		R1/4	11	31	31.2					17				27g
1.Y05551	APAX6-03		R3/8	12	32.8	32.7									40g
1.Y05552	APAX8-01	8	R1/8	8	31	34.3	14.5	18.1	14	29.4	14	4.2	16.9	14.5	25g
1.Y05553	APAX8-02		R1/4	11	34	35.2					17				31g
1.Y05554	APAX8-03		R3/8	12	35.8	36.7									44g
1.Y05555	APAX10-01	10	R1/8	8	34	38.8	17.5	20.2	18	33.5	17	4.2	18.5	17.5	42g
1.Y05556	APAX10-02		R1/4	11	37	39.7									46g
1.Y05557	APAX10-03		R3/8	12	38	40.4									54g

APH series

## Adjusting Directional Flow Threaded Hose Fitting



PN	Model	ØD	R	A	B	L1	L2	ØP1	ØP2	C	E	H	Weight
1.Y05560	APH4-M5	4	M5 × 0.8	3	17.2	14.2	6.2	10	9.8	14.9	21.2	8	7.5g
1.Y05561	APH4-01		R1/8	8	27	23	12		15.4		22.2	14	21g
1.Y05562	APH6-M5	6	M5 × 0.8	3	17.2	14.2	7.4	12.5	9.8	17	23.1	8	8.3g
1.Y05563	APH6-01		R1/8	8	27	23	12		15.4		24.2	14	22g
1.Y05564	APH6-02		R1/4	11	31.5	25.5	13.5		19.6		26.8	17	36g
1.Y05565	APH8-01	8	R1/8	8	27	23	12.3	14.5	15.4	18.1	26.2	14	23g
1.Y05566	APH8-02		R1/4	11	31.5	25.5	13.5		19.6		28.2	17	38g
1.Y05567	APH8-03		R3/8	12	36	29.7	15.7		24.4		30.2	21	60g
1.Y05568	APH10-02	10	R1/4	11	31.5	25.5	15	18	19.6	20.2	30.5	17	41g
1.Y05569	APH10-03		R3/8	12	36	29.7	15.7		24.4		32.5	21	63g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

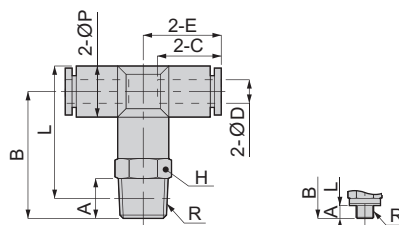
Vacuum Module

Accessory Components

# Connector

APT series

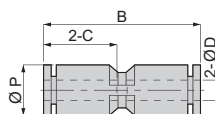
## T-type Threaded Hose Fitting



PN	Model	ØD	R	A	B	L	ØP	C	E	H	Weight	
1.Y05571	APT4-M5	4	M5 × 0.8	3	20.2	22.2	10	14.9	16.9	10	11g	
1.Y05572	APT4-01		R1/8	8	23.2	24.2					14g	
1.Y05573	APT4-02		R1/4	11	26.2	25.2					14	23g
1.Y05574	APT6-M5	6	M5 × 0.8	3	23	26.5	13	17	20.15	12	16g	
1.Y05575	APT6-01		R1/8	8	26	28.5					18g	
1.Y05576	APT6-02		R1/4	11	29	29.5					14	26g
1.Y05577	APT6-03		R3/8	12	30.8	31					17	39g
1.Y05578	APT8-01	8	R1/8	8	26.3	29.8	15	18.4	22.4	14	23g	
1.Y05579	APT8-02		R1/4	11	29.3	30.8					14	29g
1.Y05580	APT8-03		R3/8	12	31.1	32.3					17	42g
1.Y05581	APT10-01	10	R1/8	8	33	37.8	17.5	20.2	25.2	17	38g	
1.Y05582	APT10-02		R1/4	11	36	38.7					17	42g
1.Y05583	APT10-03		R3/8	12	37	39.4					17	50g

APU series

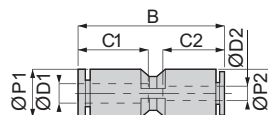
## Straight Hose Fitting



PN	Model	ØD	B	ØP	C	Weight
1.Y05586	APU4	4	30.8	10	14.9	4.7g
1.Y05587	APU6	6	34.9	12.5	17	6.5g
1.Y05588	APU8	8	37.8	14.5	18.1	9.4g
1.Y05589	APU10	10	43.4	17.5	20.2	16g

APG series

## Straight Converting Hose Fitting

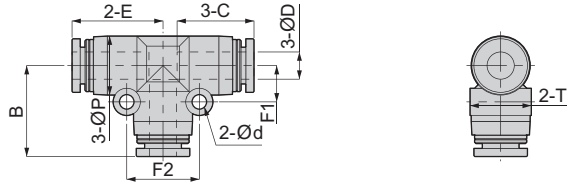


PN	Model	D1	D2	B	P1	P2	C1	C2	Weight
1.Y02813	APG6-4	6	4	34.4	12.5	12.5	17	14.9	6.4g
1.Y05591	APG8-4	8	4	36.6	14.5	10.7	18.1	14.9	7.2g
1.Y04086	APG8-6		6	37.9		17		8.8g	
1.Y05592	APG10-6	10	6	39.8	17.5	13	20.2	17	12g
1.Y04087	APG10-8		8	43.1		17.5		18.4	14g

# Connector

APE series

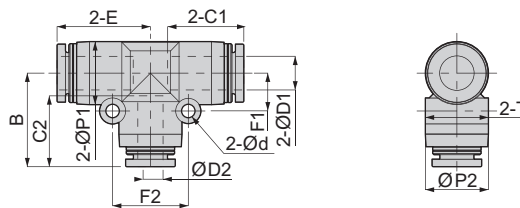
T-type Hose Fitting



PN	Model	ØD	ØP	C	E	Ød	T	F1	F2	B	Weight
1.Y02811	APE4	4	10	14.9	16.9	3.2	10	6.5	13	16.9	7.5g
1.Y02812	APE6	6	13	17	20.05	3.2	13.5	8	16	20.1	11g
1.Y05594	APE8	8	15	18.1	22.2	3.2	15	9	18	22.2	16g
1.Y05595	APE10	10	17.5	19.6	25.2	4.2	17.5	12	24	25.2	25g

APEG series

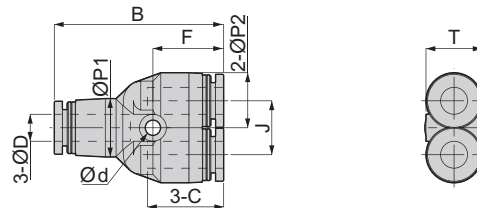
T-type Converting Hose Fitting



PN	Model	ØD1	ØD2	ØP1	ØP2	C1	C2	E	Ød	F1	F2	B	T	Weight								
1.Y05597	APEG4-6	4	6	13	13	14.9	17	19.5	3.2	8	16	20.1	13.5	11g								
1.Y05598	APEG6-4	6	4	13	13	17	14.9	20.05	3.2	8	16	19.5	13.5	11g								
1.Y05599	APEG6-8		8	15	15		18.1	22.25		9	18	22.2	15.6	14g								
1.Y05600	APEG8-4	8	4	14.5	12.5	18.1	14.9	22.2	3.2	9	18	21.7	15.1	14g								
1.Y05601	APEG8-6		6				22.3															
1.Y05602	APEG8-10		10				25.2					17.5			22g							
1.Y05603	APEG10-6	10	6	17.5	14.5	20.2	17	25.2	4.2	12	24	25	18.2	22g								
1.Y05604	APEG10-8		8				24.9					23g										
1.Y05605	APEG10-12		12				28.2					21			21	22.9	28.2	14	28	28.2	21.7	34g

APY series

Y-type Converting Hose Fitting



PN	Model	ØD	B	ØP1	ØP2	C	J	Ød	F	T	Weight
1.Y03810	APY4	4	32.8	10	10	14.9	11	3.4	14.1	10	7.6g
1.Y03662	APY6	6	37.7	13	12.5	17	12	3.4	15.8	13.5	11g
1.Y03095	APY8	8	42.4	15	14.5	18.1	14	3.4	17.2	14.5	16g
1.Y05608	APY10	10	48.4	18	18	20.7	18	4.5	19.5	18	26g

Profile · SUS Tube

Stents Module

Quick Changer

Grip Module

Air Nipper

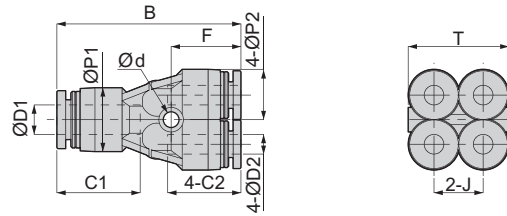
Vacuum Module

Accessory Components

# Connector

APRG series

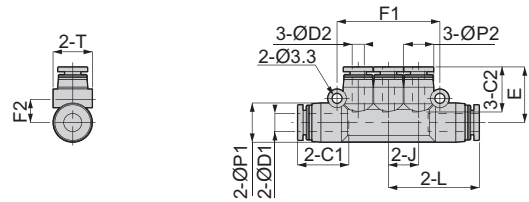
## Distributary Converting Hose Fitting



PN	(Model)	ØD1	ØD2	B	ØP1	ØP2	C1	C2	J	Ød	F	T	Weight
1.Y05610	APRG6-4	6	4	37.5	13	10.5	17	14.9	10	3.2	14.2	20.5	14g
1.Y05611	APRG8-6	8	6	42	14	13	18.2	17	13	3.5	15.8	26	21g

APKG series

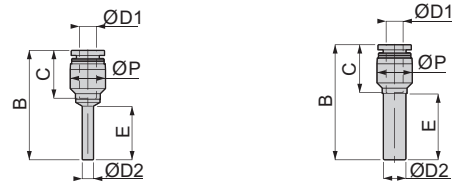
## Distributary Converting Hose Fitting



PN	Model	ØD1	ØD2	L	E	J	ØP1	ØP2	C1	C2	F1	F2	T	Weight
1.Y05612	APKG6-4	6	4	30.05	18.4	10	13	10	17	14.9	34	8	13	16g
1.Y05613	APKG8-4	8	4	31.2	19.2	10	15	10	18.1	14.9	34	9.2	15	20g
1.Y05614	APKG8-6		6	34.7	21.3	12		13		17	40.2	9		23g
1.Y05615	APKG10-6	10	6	40	23.8	14	17.5	15	20.7	17	46.2	10.5	17.5	31g
1.Y05616	APKG10-8		8		23.7					18.1				18.1

APGJ series

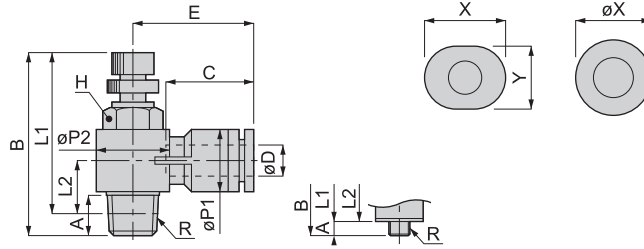
## Direct-Thrust Type Converting Hose Fitting



PN	Model	ØD1	ØD2	B	E	ØP	C	Weight
1.Y05617	APGJ4-6	6	4	38.8	19	12.5	17	3.5g
1.Y05618	APGJ6-4	4	6	37.7	22.3	10	14.9	2.9g
1.Y05619	APGJ6-8	8		43.2	22.5	14.5	18.1	5.3g
1.Y05620	APGJ8-4	4	8	40.2	23.3	12.5	14.9	3.8g
1.Y05621	APGJ8-6	6		40.8			17	4g
1.Y05622	APGJ8-10	10		46.5	23.5	17.5	20.2	8.7g
1.Y05623	APGJ8-1/4	1/4		40.8	23.3	12.5	17	4g

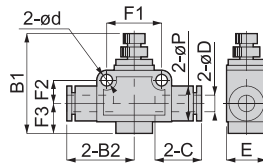
# Connector

AJSC series  
L-Shape throttle valve



PN	Model	ØD	R	A	B		L1		L2	ØP1	ØP2	C	E	H	X	Y	Weight
					max	min	max	min									
1.Y05866	AJSC4-M5	4	M5 × 0.8	2.9	29.7	27	26.8	24.1	6.7	8	9.8	11	15.4	8	9.8	7.8	7.2g
1.Y05867	AJSC4-01		R1/8	8	41.5	34.9	37.5	30.9	10.7		14.4		17.7	10			17g
1.Y05868	AJSC6-M5	6	M5 × 0.8	2.9	29.7	27	26.8	24.1	7.5	10.5	9.8	11.6	17.5	8	11.8	9.8	7.9g
1.Y05869	AJSC6-01		R1/8	8	41.5	34.9	37.5	30.9	10.7		14.4		18.3	10			18g
1.Y05870	AJSC6-02	8	R1/4	11.1	48.9	42.2	42.8	36.1	11.9	14.4	18.4	18.1	20.2	14	13.8	-	35g
1.Y05871	AJSC8-01		R1/8	8	41.5	34.9	37.5	30.9	11.9		14.4		26.9	10			21g
1.Y05872	AJSC8-02	8	R1/4	11.1	48.9	42.2	42.8	36.1	13.2	14.4	18.4	18.1	28.4	14	13.8	-	38g

AJSUseries  
Straight type of throttle valve



PN	Model	ØD	B1		B2	ØP	E	C	Ød	F1	F2	F3	Weight
			max	min									
1.Y05873	AJSU4	4	28.6	25.9	20.4	10.5	11	14.9	3.2	14	6.5	6.5	13g
1.Y05874	AJSU6	6	42.6	36.5	24.9	13	15	16.9	4.3	20	8.5	11	29g
1.Y05875	AJSU8	8	47.3	41.1	27.4	15	18	18.1	4.3	22	9.5	12	43g
1.Y05876	AJSU10	10	53.5	45.9	31.7	18	21	20.7	4.3	26	11	12	71g

Profile - SUS Tube

Stents Module

Quick Changer

Grip Module

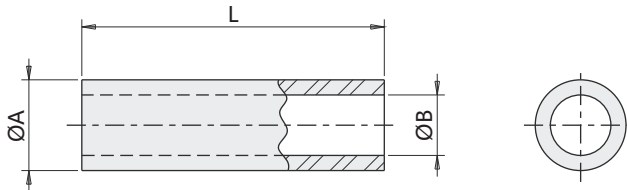
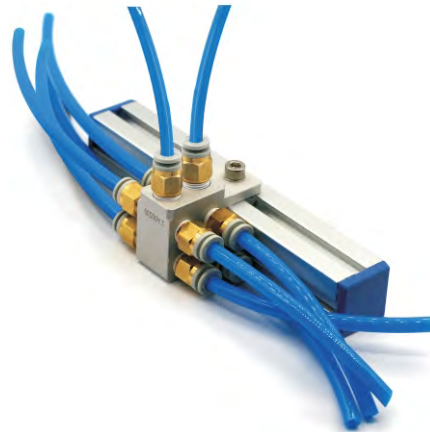
Air Nipper

Vacuum Module

Accessory Components

# Hoses

Polyurethane hose for compressed air suitable for use with push-in fittings.



## Technical characteristics

T =  $-40^{\circ} \div +60^{\circ}\text{C}$   
 P =  $-0.99 \div +10\text{bar}$

PN	Model	Colour	A [mm]	B [mm]	L [m]	Lm [g/m]
1.Y00824	AH4B	Black	4	2.5	100	10g
1.Y03687	AH4BU	Blue	4	2.5	100	10g
1.Y00823	AH4G	Green	4	2.5	100	10g
1.Y03686	AH4T	Transparent	4	2.5	100	10g
1.Y00821	AH4Y	Yellow	4	2.5	100	10g
1.Y00822	AH4R	Red	4	2.5	100	10g
1.Y05661	AH4O	Orange	4	2.5	100	10g
1.Y00830	AH6B	Black	6	4	100	19g
1.Y00829	AH6BU	Blue	6	4	100	19g
1.Y00825	AH6G	Green	6	4	100	19g
1.Y00827	AH6T	Transparent	6	4	100	19g
1.Y00828	AH6Y	Yellow	6	4	100	19g
1.Y00826	AH6R	Red	6	4	100	19g
1.Y04640	AH6O	Orange	6	4	100	19g
1.Y04478	AH8B	Black	8	6	100	38g
1.Y00831	AH8BU	Blue	8	6	100	38g
1.Y04476	AH10B	Black	10	8	100	58g
1.Y05660	AH10BU	Blue	10	8	100	58g

- A Outer diameter
- B Inner diameter
- L Length
- Lm Linear mass
- P Operating pressure range
- T Operating temperature range



# Index

Model	PN	Page
<b>Profile, SUS Tube</b>		
PST8-1500	4.Y00040	1
PST12-1500	4.Y00021	1
PST20-1500	4.Y00022	1
PAT20-1000	4.Y00468	1
PAT30-1000	4.Y00469	1
PEP1818-1000	4.Y00075	2
PEP2510-1000	4.Y00076	2
PEP2518-1000	4.Y00455	2
PEP2525-1000	4.Y00050	2
PEP2525-2000	4.Y00051	2
PEP5025-1000	4.Y00056	2
PEP5025-2000	4.Y00057	2
PEP4040-1000	4.Y00052	2
PEP4040-2000	4.Y00053	2
PEP-3636-1000	4.Y00054	2
PEP-3636-1500	4.Y00484	2
PEP-3636-2000	4.Y00055	2
PTN-M4	7.Y00651	3
PTN-M5	7.Y00425	3
PTN-M6	7.Y00652	3
PTN-M4P8	7.Y00653	3
PTN-M5P10	7.Y00654	3
PTN-M5P15	7.Y00655	3
PTN-M5P17	7.Y00656	3
PTN-M5P22	7.Y00657	3
PTN-M5P25	7.Y00658	3
PTN-M5P28	7.Y00659	3
PTN-M5P30	7.Y00660	3
PTN-M5P35	7.Y00661	3
PTN-M5P40	7.Y00662	3
PTN-M5P50	7.Y00663	3
PTN-M5P60	7.Y00664	3
PTN-M5P90	7.Y00665	3
PTN-M5R	7.Y00805	3
PTC-M4L10	1.Y03908	4
PTC-M4L12	1.Y03848	4
PTC-M4L14	1.Y02752	4
PTC-M4L16	1.Y04073	4
PTC-M4L18	1.Y05846	4
PTC-M5L10	1.Y04294	4
PTC-M5L12	1.Y03850	4
PTC-M5L14	1.Y04528	4
PTC-M5L16	1.Y03849	4
PTC-M5L20	1.Y03909	4
PTC-M5L22	1.Y06257	4
PTC-M5L25	1.Y03851	4
PTC-M5L30	1.Y04469	4
PTC-M5L35	1.Y04580	4
PTC-M5L60	1.Y05391	4
PTC-M6L10	1.Y04288	4
PTC-M6L12	1.Y03910	4
PTC-M6L14	1.Y04153	4
PTC-M6L16	1.Y02753	4
PTS-M4	1.Y03853	4
PTS-M5	1.Y03852	4
PTS-M6	1.Y03854	4
PTD-M4P8	4.Y00522	4
PTD-M5P10	4.Y00523	4
PTD-M5P15	4.Y00524	4
PTD-M5P17	4.Y00525	4
PTD-M5P22	4.Y00526	4
PTD-M5P25	4.Y00527	4
<b>Stents Module</b>		
SIP-50B	7.Y00650	5
SIP-90B	7.Y00634	5
SIP-160B	7.Y00635	5

Model	PN	Page
SIP-200B	7.Y00865	6
SFP-S2550	7.Y00641	7
SFP-S25100	7.Y00642	7
SFP-S40160	7.Y00643	7
SFP-L2550	7.Y00647	7
SFP-L2575	7.Y00648	7
SFP-L40120	7.Y00649	7
SFP-T2550	7.Y00644	8
SFP-T25100	7.Y00645	8
SFP-T40120	7.Y00646	8
SFP-50	7.Y00636	8
SFP-A60	7.Y00637	9
SFP-A90	7.Y00638	9
SFP-A70	7.Y00639	9
SFP-A50	7.Y00640	9
SMBA-1818	7.Y00290	10
SMBA-1825	7.Y00291	10
SMBA-2020	7.Y00245	10
SMBA-2525	7.Y00194	10
SMBA-3030	7.Y00193	10
SMBA-5050	7.Y00011	10
SMBA-2550	7.Y00292	10
SMBA-4040	7.Y00246	10
SMBA-8080	7.Y00355	10
SMBA-4080	7.Y00293	10
SMBA-2580	7.Y00294	10
SMBA-2540	7.Y00356	10
SMBA-3025	7.Y00690	10
SMBB-1818	7.Y00295	11
SMBB-1825	7.Y00817	11
SMBB-2525	7.Y00012	11
SMBB-5025	7.Y00339	11
SMBB-2550	7.Y00340	11
SMBB-3030	7.Y00163	11
SMBC-1025	7.Y00296	12
SMBC-1432	7.Y00297	12
SMBC-2038	7.Y00013	12
SMBC-3050	7.Y00226	12
SMBC-5070	7.Y00225	12
SMBD-2550	7.Y00227	13
SMBD-5070	7.Y00228	13
SMBD2-7625	7.Y00426	14
SMBD2-12025	7.Y00427	14
SMBD2-13025	7.Y00428	14
SMBD2-7650	7.Y00429	14
SMBD2-12050	7.Y00430	14
SMBD2-13050	7.Y00431	14
SMBD3-2525	7.Y00812	14
SMBD3-2550	7.Y00813	14
SMBD3-4040	7.Y00814	14
SMBD3-4080	7.Y00815	14
SMBE-1010	7.Y00300	15
SMBE-1014	7.Y00301	15
SMBE-1210	7.Y00775	15
SMBE-1214	7.Y00864	15
SMBE-1414	7.Y00302	15
SMBE-2014	7.Y00014	15
SMBE-2022	7.Y00304	15
SMBE1-0840	7.Y00694	16
SMBE1-1040	7.Y00201	16
SMBE1-1240	7.Y00695	16
SMBE1-1440	7.Y00200	16
SMBE1-1450	7.Y00199	16
SMBE1-2060	7.Y00015	16
SMBE1-3060	7.Y00724	16
SMBE2-1040	7.Y00725	17
SMBE2-1240	7.Y00777	17

Model	PN	Page
SMBE2-1450	7.Y00307	17
SMBE2-2060	7.Y00308	17
SMBE2-3060	7.Y00309	17
SMBE3-1020	7.Y00341	18
SMBE3-1220	7.Y00795	18
SMBE3-1430	7.Y00342	18
SMBE3-2040	7.Y00343	18
SMBE3-3050	7.Y00344	18
SMBE4-1412	7.Y00224	19
SMBE4-2012	7.Y00223	19
SMBE4-2020	7.Y00181	19
SMBE4-3012	7.Y00222	19
SMBE4-3020	7.Y00221	19
SMBE5-G1840	7.Y00310	20
SMBE5-G1860	7.Y00311	20
SMBE5-M1040	7.Y00312	20
SMBE5-M1060	7.Y00313	20
SMBE5-M1240	7.Y00314	20
SMBE5-M1260	7.Y00315	20
SMBE5-M1440	7.Y00316	20
SMBE5-M1460	7.Y00317	20
SMBE5-M1640	7.Y00320	20
SMBE5-M1660	7.Y00321	20
SMBE5-M2040	7.Y00322	20
SMBE5-M2060	7.Y00323	20
SMBE6-1040	7.Y00357	21
SMBE6-1240	7.Y00358	21
SMBE6-1440	7.Y00359	21
SMBE6-1640	7.Y00360	21
SMBE6-2040	7.Y00361	21
SMBE6-2240	7.Y00362	21
SMBE6-2540	7.Y00363	21
SMBE6-1028	7.Y00364	21
SMBE6-1228	7.Y00365	21
SMBE6-1428	7.Y00366	21
SMBE6-1628	7.Y00367	21
SMBE6-2028	7.Y00368	21
SMBE6-2228	7.Y00369	21
SMBE6-2528	7.Y00370	21
SMBE7-0856	7.Y00062	22
SMBE7-1256	7.Y00021	22
SMBE7-2056	7.Y00006	22
SMB-10M5-02G18	7.Y00153	22
SMB-08M5-02G18	7.Y00154	22
SMB-10M5	7.Y00155	22
SMB-08M5	7.Y00156	22
SMB-06M5	7.Y00157	22
SMB-14M5	7.Y00167	22
SMB-5G18	7.Y00229	23
SMB-9G18	7.Y00231	23
SMB-D5G18	7.Y00230	23
SMB-A5G18	7.Y00240	24
SMB-A5G14	7.Y00241	24
SMBY12-50	7.Y00736	24
SMBY12-100	7.Y00735	24
SMBY14-50	7.Y00733	24
SMBY14-100	7.Y00734	24
SMBY20-50	7.Y00732	24
SMBY20-100	7.Y00731	24
SMBY20-150	7.Y00462	24
SMBY30-50	7.Y00729	24
SMBY30-100	7.Y00730	24
SMBY30-150	7.Y00463	24
SMBT4-G1820	7.Y00048	25
SMBT1-M1412	7.Y00028	25
SMBP-0808	7.Y00042	25
SMBP-0812	7.Y00043	25





# Index

Model	PN	Page	Model	PN	Page	Model	PN	Page
SMBP-1212	7.Y00044	25	SMBS-20T10	7.Y00066	33	SCE1-NS30	7.Y00693	43
SMBP-2012	7.Y00045	25	SMBS-8T16	7.Y00067	33	SCE2-05	7.Y00796	43
SMBP-2020	7.Y00046	25	SMBS-12T16	7.Y00001	33	SCE2-1015	1.Y00094	44
SMBT-0808	7.Y00025	26	SMBS-20T16	7.Y00068	33	SCE2-25	7.Y00633	44
SMBT-1208	7.Y00026	26	SMBR2-M10	7.Y00099	34	SCE3-N10	7.Y00075	44
SMBT-1212	7.Y00020	26	SMBR2-M12	7.Y00100	34	SCE3-N20	7.Y00076	44
SMBT-1214	7.Y00794	26	SMBR4-0808M4	7.Y00103	34	SCE3-N30	7.Y00077	44
SMBT-2012	7.Y00027	26	SMBR4-1208M4	7.Y00110	34	SCE4-NR(L,R)	7.Y00868	45
SMBT-2020	7.Y00005	26	SMBR4-1212M4	7.Y00019	34	SCE4-NR30	7.Y00146	45
SMBT2-1212	7.Y00192	26	SMBR4-1212M4L	7.Y00268	34	SCE4-NR20	7.Y00147	45
SMBT2-2020	7.Y00185	26	SMBR4-1420M6	7.Y00461	34	SCE4-NR10	7.Y00148	45
SMBT3-2020	7.Y00047	26	SMBR4-2020M6	7.Y00007	34	SCE-NR20-D10	7.Y00946	45
SMBF-0808	7.Y00029	27	SMBR4-2020M6L	7.Y00206	34	SCE-NR20-D12	7.Y00947	45
SMBF-0812	7.Y00030	27	SMBR5-1208	7.Y00111	34	SCE-NR30-D10	7.Y00948	45
SMBF-1208	7.Y00031	27	SMBR5-0808	7.Y00104	34	SCE-NR30-D12	7.Y00949	45
SMBF-1212	7.Y00032	27	SMBR5-1212	7.Y00112	34	SMBH1-8M5	7.Y00051	46
SMBF-1220	7.Y00033	27	SMBR7-0808	7.Y00113	35	SMBH1-8M6	7.Y00052	46
SMBF-2012	7.Y00034	27	SMBR7-1212	7.Y00114	35	SMBH1-12M5	7.Y00053	46
SMBF-2020	7.Y00035	27	SMBR-46	7.Y00063	35	SMBH1-12M6	7.Y00002	46
SMBF1-0808	7.Y00036	27	SMBR1-12	7.Y00098	35	SMBH1-12M8	7.Y00054	46
SMBF1-0812	7.Y00037	27	SVA-G18	7.Y00235	36	SMBH1-20M6	7.Y00055	46
SMBF1-1208	7.Y00038	27	SVA-G14	7.Y00237	36	SMBH1-20M8	7.Y00056	46
SMBF1-1212	7.Y00003	27	SVB-M5	7.Y00242	37	SMBE7-18M5	7.Y00869	46
SMBF1-1220	7.Y00039	27	SVB-G18	7.Y00244	37	SMBE7-18M6	7.Y00870	46
SMBF1-2012	7.Y00040	27	SVB-G14	7.Y00243	37	SMBE7-25M5	7.Y00871	46
SMBF1-2020	7.Y00041	27	SVC-M5	7.Y00328	38	SMBE7-25M6	7.Y00872	46
SMBJ1-5	7.Y00070	28	SVC-G18	7.Y00238	38	SCF3-40M10	7.Y00119	47
SMBJ2-6	7.Y00071	28	SVC-G14	7.Y00239	38	SCF3-40M12	7.Y00120	47
SMBT5-8	7.Y00072	28	SVD-M5	7.Y00416	39	SCF3-40M17	7.Y00121	47
SMBT5-12	7.Y00073	28	SVD-G18	7.Y00417	39	SCF3-70M10	7.Y00133	47
SMBT6-12	7.Y00074	29	SVD-G14	7.Y00418	39	SCF3-70M12	7.Y00134	47
SMBG1-8M5	7.Y00057	29	SVE-M51030	7.Y00410	40	SCF3-70M17	7.Y00135	47
SMBG1-8M6	7.Y00058	29	SVE-M51060	7.Y00411	40	SCF4-0840W12	7.Y00122	47
SMBG1-12M5	7.Y00059	29	SVE-M51090	7.Y00412	40	SCF4-0840W16	7.Y00123	47
SMBG1-12M6	7.Y00060	29	SVE-M51230	7.Y00772	40	SCF4-1240W16	7.Y00004	47
SMBG1-12G18	7.Y00061	29	SVE-M51260	7.Y00773	40	SCF4-2040W25	7.Y00124	47
SCF1-40M3	7.Y00115	29	SVE-M51290	7.Y00774	40	SCF4-0870W12	7.Y00136	47
SCF1-40G18	7.Y00118	29	SVE-G181440	7.Y00413	40	SCF4-0870W16	7.Y00137	47
SCF1-70M3	7.Y00129	29	SVE-G181480	7.Y00414	40	SCF4-1270W16	7.Y00138	47
SCF1-70G18	7.Y00132	29	SVE-G1814120	7.Y00415	40	SCF4-2070W25	7.Y00139	47
SCF2-40M5	7.Y00173	29	SVE-G142050	7.Y00008	40	SCF5-0840W16	7.Y00125	47
SCF2-40M6	7.Y00117	29	SVE-G1420100	7.Y00009	40	SCF5-0840W12	7.Y00126	47
SCF2-70M5	7.Y00130	29	SVE-G1420150	7.Y00010	40	SCF5-1240W16	7.Y00127	47
SCF2-70M6	7.Y00131	29	SCA1-1010L30	7.Y00398	41	SCF5-2040W25	7.Y00128	47
SMBM-10	7.Y00740	30	SCA1-1010L60	7.Y00399	41	SCF5-0870W16	7.Y00140	47
SMBM-16	7.Y00741	30	SCA1-1010L90	7.Y00400	41	SCF5-0870W12	7.Y00141	47
SMBM-20	7.Y00728	30	SCA1-1212L30	7.Y00769	41	SCF5-1270W16	7.Y00142	47
SMBM-25	7.Y00739	30	SCA1-1212L60	7.Y00770	41	SCF5-2070W25	7.Y00143	47
SMBM-32	7.Y00738	30	SCA1-1212L90	7.Y00771	41	SEA-1010L60	7.Y00388	48
SMBM-40	7.Y00737	30	SCA1-1414L40	7.Y00401	41	SEA-1212L60	7.Y00776	48
SMBT9-12	7.Y00081	30	SCA1-1414L80	7.Y00402	41	SEA-1414L40	7.Y00389	48
SMBU-12	7.Y00082	30	SCA1-1414L120	7.Y00403	41	SEA-1414L80	7.Y00390	48
SMBU2-20	7.Y00255	31	SCA1-2020L50	7.Y00404	41	SEA-1414L120	7.Y00391	48
SMBU3-8	7.Y00085	31	SCA1-2020L100	7.Y00405	41	SEA-2020L50	7.Y00392	48
SMBU4-12	7.Y00086	31	SCA1-2020L150	7.Y00406	41	SEA-2020L100	7.Y00393	48
SMBU5-20	7.Y00087	32	SCA1-3030L80	7.Y00407	41	SEA-2020L150	7.Y00394	48
SMBU6-8	7.Y00088	32	SCA1-3030L140	7.Y00408	41	SEA-3030L80	7.Y00395	48
SMBU7-12	7.Y00089	32	SCA1-3030L200	7.Y00409	41	SEA-3030L140	7.Y00396	48
SMBU8-20	7.Y00090	33	SCC-20G18	7.Y00236	42	SEA-3030L200	7.Y00397	48
SMBK1-8T10	7.Y00091	33	SCC-20M16	7.Y00234	42	SEAH-2020L50	7.Y00350	49
SMBK1-12T10	7.Y00092	33	SCD-2010	7.Y00329	42	SEAH-2020L100	7.Y00351	49
SMBK1-20T10	7.Y00093	33	SCD-2014	7.Y00330	42	SEAH-2020L150	7.Y00166	49
SMBK1-8T16	7.Y00094	33	SCD-2020	7.Y00233	42	SEAH-3030L80	7.Y00352	49
SMBK1-12T16	7.Y00095	33	SCE-NR20	7.Y00331	43	SEAH-3030L140	7.Y00353	49
SMBK1-20T16	7.Y00096	33	SCE-NR30	7.Y00261	43	SEAH-3030L200	7.Y00354	49
SMBS-8T10	7.Y00064	33	SCE-NR50	7.Y00742	43	SEAV-M510L45	7.Y00432	49
SMBS-12T10	7.Y00065	33	SCE1-NS20	7.Y00692	43	SEAV-M510L90	7.Y00433	49



# Index

Model	PN	Page
SEAV-G1814L60	7.Y00258	49
SEAV-G1814L120	7.Y00434	49
SEAV-G1820L78	7.Y00435	49
SEAV-G1820L153	7.Y00247	49
SEAV-G1420L75	7.Y00436	49
SEAV-G1420L150	7.Y00437	49
SBNA-8M5	7.Y00271	50
SBNA-8M6	7.Y00272	50
SBNA-12M5	7.Y00273	50
SBNA-12M10	7.Y00274	50
SBNA-20M12	7.Y00276	50
SBNA-20M17	7.Y00277	50
SBNB-12PT18	7.Y00275	50
SBNB-20PT18	7.Y00278	50
SBND-1208	7.Y00280	50
SBND-2012	7.Y00281	50
SBND-2008	7.Y00282	50
<b>Quick Changer</b>		
QCSM-M9K	7.Y00922	52
QCSM-9R1	7.Y00823	52
QCSM-9G1	7.Y00824	52
QCSM-9R2	7.Y00862	52
QCSM-9G2	7.Y00863	52
QCSM-9R3	7.Y00819	52
QCSM-9G3	7.Y00820	52
QCSM-9R4	7.Y00821	52
QCSM-9G4	7.Y00822	52
R9-1000	1.Y06423	52
G9-1000	1.Y06424	52
QC-R50	8.Y00054	53
QC-R50K	8.Y00402	53
QC-G50	8.Y00055	53
QC-R90	8.Y00032	54
QC-R90K	8.Y00359	54
QC-G90	8.Y00033	54
QC-R150K	8.Y00376	55
QC-G150	8.Y00377	55
QC-R160K	8.Y00360	56
QC-G160	8.Y00053	56
QC-R200K	8.Y00209	57
QC-G200	8.Y00208	57
QCS-R60	8.Y00081	58
QCS-G60	8.Y00082	58
KCH04-M5	1.Y03525	58
KCH06-M5	1.Y03524	58
QCS-R100	7.Y00332	58
QCS-G100	7.Y00175	58
QCS-R160	7.Y00160	58
QCS-G160	7.Y00161	58
KCH04-M5*5	7.Y00860	58
KCH06-M5*5	7.Y00861	58
MS-10SF*5	7.Y00334	58
MS-10PF	1.Y04667	58
QCL15R-Y	1.Y01275	59
QCL15G-Y	1.Y01276	59
QCL15R-S	8.Y00236	60
QCL15G-S	8.Y00235	60
QCL35R-S	8.Y00101	61
QCL35G-S	8.Y00102	61
BP90	4.Y00480	62
BP135	4.Y00497	62
QCA-S10R	8.Y00037	63
QCA-S10G	8.Y00038	63
QCSM-26R	7.Y00464	64
QCSM-19R	7.Y00954	64
QCSM-26G	7.Y00465	64
QCSM-19G	7.Y00955	64

Model	PN	Page
PT08SE16-26S	1.Y07209	64
PT06E14-19S	1.Y09414	64
PT08SE16-26P	1.Y07210	64
PT06E14-19P	1.Y09413	64
QCA-50R	8.Y00349	65
QCA-50G	8.Y00350	65
QCA-200R	8.Y00272	66
QCA-200G	8.Y00357	66
<b>Grip Module</b>		
GMHZ2-10S	1.Y00258	67
GMHZ2-10D	1.Y00252	67
GMHZ2-16S	1.Y00257	67
GMHZ2-16D	1.Y00256	67
GMHZ2-20S	1.Y03080	67
GMHZ2-20D	1.Y02703	67
GMHZ2-25S	1.Y09884	67
GMHZ2-25D	1.Y09338	67
GMHZ2-32S	1.Y09885	67
GMHZ2-32D	1.Y09886	67
GMHZ2-40S	1.Y09887	67
GMHZ2-40D	1.Y09888	67
GMHZL2-10S	1.Y09405	68
GMHZL2-10D	1.Y07974	68
GMHZL2-16S	1.Y08175	68
GMHZL2-16D	1.Y08146	68
GMHZL2-20S	1.Y09882	68
GMHZL2-20D	1.Y07975	68
GMHZL2-25S	1.Y09883	68
GMHZL2-25D	1.Y08802	68
GMHC2-16S	1.Y02014	69
GMHC2-16D	1.Y05738	69
GMHC2-20S	1.Y02730	69
GMHC2-20D	1.Y04328	69
GMHS3-16D	1.Y04529	70
GMHS3-20D	1.Y04764	70
GMHS3-25D	1.Y05750	70
GMXQ6A-10Z	-	72
GMXQ6A-20Z	-	72
GMXQ6A-30Z	-	72
GMXQ6A-40Z	-	72
GMXQ6A-50Z	-	72
GMXQ6A-10ZN	-	72
GMXQ6A-20ZN	-	72
GMXQ6A-30ZN	-	72
GMXQ6A-40ZN	-	72
GMXQ6A-50ZN	-	72
GMXQ6A-10Z□1	-	73
GMXQ6A-20Z□1	-	73
GMXQ6A-30Z□1	-	73
GMXQ6A-40Z□1	-	73
GMXQ6A-50Z□1	-	73
GMXQ6A-10Z□4	-	73
GMXQ6A-20Z□4	-	73
GMXQ6A-30Z□4	-	73
GMXQ6A-40Z□4	-	73
GMXQ6A-50Z□4	-	73
GMXQ6A-10Z□2	-	73
GMXQ6A-20Z□2	-	73
GMXQ6A-30Z□2	-	73
GMXQ6A-40Z□2	-	73
GMXQ6A-50Z□2	-	73
GMXQ6A-10Z□5	-	73
GMXQ6A-20Z□5	-	73
GMXQ6A-30Z□5	-	73
GMXQ6A-40Z□5	-	73
GMXQ6A-50Z□5	-	73
GMXQ8A-10Z	-	74

Model	PN	Page
GMXQ8A-20Z	-	74
GMXQ8A-30Z	-	74
GMXQ8A-40Z	-	74
GMXQ8A-50Z	-	74
GMXQ8A-75Z	-	74
GMXQ8A-10ZN	-	74
GMXQ8A-20ZN	-	74
GMXQ8A-30ZN	-	74
GMXQ8A-40ZN	-	74
GMXQ8A-50ZN	-	74
GMXQ8A-75ZN	-	74
GMXQ8A-10Z□1	-	75
GMXQ8A-20Z□1	-	75
GMXQ8A-30Z□1	-	75
GMXQ8A-40Z□1	-	75
GMXQ8A-50Z□1	-	75
GMXQ8A-75Z□1	-	75
GMXQ8A-10Z□2	-	75
GMXQ8A-20Z□2	-	75
GMXQ8A-30Z□2	-	75
GMXQ8A-40Z□2	-	75
GMXQ8A-50Z□2	-	75
GMXQ8A-75Z□2	-	75
GMXQ8A-10Z□4	-	75
GMXQ8A-20Z□4	-	75
GMXQ8A-30Z□4	-	75
GMXQ8A-40Z□4	-	75
GMXQ8A-50Z□4	-	75
GMXQ8A-75Z□4	-	75
GMXQ8A-10Z□5	-	75
GMXQ8A-20Z□5	-	75
GMXQ8A-30Z□5	-	75
GMXQ8A-40Z□5	-	75
GMXQ8A-50Z□5	-	75
GMXQ8A-75Z□5	-	75
GMXQ12A-10Z	-	76
GMXQ12A-20Z	-	76
GMXQ12A-30Z	-	76
GMXQ12A-40Z	-	76
GMXQ12A-50Z	-	76
GMXQ12A-75Z	-	76
GMXQ12A-100Z	-	76
GMXQ12A-10ZN	-	76
GMXQ12A-20ZN	-	76
GMXQ12A-30ZN	-	76
GMXQ12A-40ZN	-	76
GMXQ12A-50ZN	-	76
GMXQ12A-75ZN	-	76
GMXQ12A-100ZN	-	76
GMXQ12A-10Z□1	-	77
GMXQ12A-20Z□1	-	77
GMXQ12A-30Z□1	-	77
GMXQ12A-40Z□1	-	77
GMXQ12A-50Z□1	-	77
GMXQ12A-75Z□1	-	77
GMXQ12A-100Z□1	-	77
GMXQ12A-10Z□2	-	77
GMXQ12A-20Z□2	-	77
GMXQ12A-30Z□2	-	77
GMXQ12A-40Z□2	-	77
GMXQ12A-50Z□2	-	77
GMXQ12A-75Z□2	-	77
GMXQ12A-100Z□2	-	77
GMXQ12A-10Z□4	-	77
GMXQ12A-20Z□4	-	77
GMXQ12A-30Z□4	-	77
GMXQ12A-40Z□4	-	77



# Index

Model	PN	Page
GMXQ12A-50Z□4	-	77
GMXQ12A-75Z□4	-	77
GMXQ12A-100Z□4	-	77
GMXQ12A-10Z□5	-	77
GMXQ12A-20Z□5	-	77
GMXQ12A-30Z□5	-	77
GMXQ12A-40Z□5	-	77
GMXQ12A-50Z□5	-	77
GMXQ12A-75Z□5	-	77
GMXQ12A-100Z□5	-	77
GMXQ16A-10Z	-	78
GMXQ16A-20Z	-	78
GMXQ16A-30Z	-	78
GMXQ16A-40Z	-	78
GMXQ16A-50Z	-	78
GMXQ16A-75Z	-	78
GMXQ16A-100Z	-	78
GMXQ16A-125Z	-	78
GMXQ16A-10ZN	-	78
GMXQ16A-20ZN	-	78
GMXQ16A-30ZN	-	78
GMXQ16A-40ZN	-	78
GMXQ16A-50ZN	-	78
GMXQ16A-75ZN	-	78
GMXQ16A-100ZN	-	78
GMXQ16A-125ZN	-	78
GMXQ16A-10Z□1	-	79
GMXQ16A-20Z□1	-	79
GMXQ16A-30Z□1	-	79
GMXQ16A-40Z□1	-	79
GMXQ16A-50Z□1	-	79
GMXQ16A-75Z□1	-	79
GMXQ16A-100Z□1	-	79
GMXQ16A-125Z□1	-	79
GMXQ16A-10Z□2	-	79
GMXQ16A-20Z□2	-	79
GMXQ16A-30Z□2	-	79
GMXQ16A-40Z□2	-	79
GMXQ16A-50Z□2	-	79
GMXQ16A-75Z□2	-	79
GMXQ16A-100Z□2	-	79
GMXQ16A-125Z□2	-	79
GMXQ16A-10Z□4	-	79
GMXQ16A-20Z□4	-	79
GMXQ16A-30Z□4	-	79
GMXQ16A-40Z□4	-	79
GMXQ16A-50Z□4	-	79
GMXQ16A-75Z□4	-	79
GMXQ16A-100Z□4	-	79
GMXQ16A-125Z□4	-	79
GMXQ16A-10Z□5	-	79
GMXQ16A-20Z□5	-	79
GMXQ16A-30Z□5	-	79
GMXQ16A-40Z□5	-	79
GMXQ16A-50Z□5	-	79
GMXQ16A-75Z□5	-	79
GMXQ16A-100Z□5	-	79
GMXQ16A-125Z□5	-	79
GMXQ20A-10Z	-	80
GMXQ20A-20Z	-	80
GMXQ20A-30Z	-	80
GMXQ20A-40Z	-	80
GMXQ20A-50Z	-	80
GMXQ20A-75Z	-	80
GMXQ20A-100Z	-	80
GMXQ20A-125Z	-	80
GMXQ20A-150Z	-	80

Model	PN	Page
GMXQ20A-10ZN	-	80
GMXQ20A-20ZN	-	80
GMXQ20A-30ZN	-	80
GMXQ20A-40ZN	-	80
GMXQ20A-50ZN	-	80
GMXQ20A-75ZN	-	80
GMXQ20A-100ZN	-	80
GMXQ20A-125ZN	-	80
GMXQ20A-150ZN	-	80
GMXQ20A-10Z□1	-	81
GMXQ20A-20Z□1	-	81
GMXQ20A-30Z□1	-	81
GMXQ20A-40Z□1	-	81
GMXQ20A-50Z□1	-	81
GMXQ20A-75Z□1	-	81
GMXQ20A-100Z□1	-	81
GMXQ20A-125Z□1	-	81
GMXQ20A-150Z□1	-	81
GMXQ20A-10Z□2	-	81
GMXQ20A-20Z□2	-	81
GMXQ20A-30Z□2	-	81
GMXQ20A-40Z□2	-	81
GMXQ20A-50Z□2	-	81
GMXQ20A-75Z□2	-	81
GMXQ20A-100Z□2	-	81
GMXQ20A-125Z□2	-	81
GMXQ20A-150Z□2	-	81
GMXQ20A-10Z□4	-	81
GMXQ20A-20Z□4	-	81
GMXQ20A-30Z□4	-	81
GMXQ20A-40Z□4	-	81
GMXQ20A-50Z□4	-	81
GMXQ20A-75Z□4	-	81
GMXQ20A-100Z□4	-	81
GMXQ20A-125Z□4	-	81
GMXQ20A-150Z□4	-	81
GMXQ20A-10Z□5	-	81
GMXQ20A-20Z□5	-	81
GMXQ20A-30Z□5	-	81
GMXQ20A-40Z□5	-	81
GMXQ20A-50Z□5	-	81
GMXQ20A-75Z□5	-	81
GMXQ20A-100Z□5	-	81
GMXQ20A-125Z□5	-	81
GMXQ20A-150Z□5	-	81
GMXQ25A-10Z	-	82
GMXQ25A-20Z	-	82
GMXQ25A-30Z	-	82
GMXQ25A-40Z	-	82
GMXQ25A-50Z	-	82
GMXQ25A-75Z	-	82
GMXQ25A-100Z	-	82
GMXQ25A-125Z	-	82
GMXQ25A-150Z	-	82
GMXQ25A-10ZN	-	82
GMXQ25A-20ZN	-	82
GMXQ25A-30ZN	-	82
GMXQ25A-40ZN	-	82
GMXQ25A-50ZN	-	82
GMXQ25A-75ZN	-	82
GMXQ25A-100ZN	-	82
GMXQ25A-125ZN	-	82
GMXQ25A-150ZN	-	82
GMXQ25A-10Z□1	-	83
GMXQ25A-20Z□1	-	83
GMXQ25A-30Z□1	-	83
GMXQ25A-40Z□1	-	83

型号(Model)	PN	Page
GMXQ25A-50Z□1	-	83
GMXQ25A-75Z□1	-	83
GMXQ25A-100Z□1	-	83
GMXQ25A-125Z□1	-	83
GMXQ25A-150Z□1	-	83
GMXQ25A-10Z□2	-	83
GMXQ25A-20Z□2	-	83
GMXQ25A-30Z□2	-	83
GMXQ25A-40Z□2	-	83
GMXQ25A-50Z□2	-	83
GMXQ25A-75Z□2	-	83
GMXQ25A-100Z□2	-	83
GMXQ25A-125Z□2	-	83
GMXQ25A-150Z□2	-	83
GMXQ25A-10Z□4	-	83
GMXQ25A-20Z□4	-	83
GMXQ25A-30Z□4	-	83
GMXQ25A-40Z□4	-	83
GMXQ25A-50Z□4	-	83
GMXQ25A-75Z□4	-	83
GMXQ25A-100Z□4	-	83
GMXQ25A-125Z□4	-	83
GMXQ25A-150Z□4	-	83
GMXQ25A-10Z□5	-	83
GMXQ25A-20Z□5	-	83
GMXQ25A-30Z□5	-	83
GMXQ25A-40Z□5	-	83
GMXQ25A-50Z□5	-	83
GMXQ25A-75Z□5	-	83
GMXQ25A-100Z□5	-	83
GMXQ25A-125Z□5	-	83
GMXQ25A-150Z□5	-	83
GMXS6-10	-	86
GMXS6-20	-	86
GMXS6-30	-	86
GMXS6-40	-	86
GMXS6-50	-	86
GMXS8-10	-	86
GMXS8-20	-	86
GMXS8-30	-	86
GMXS8-40	-	86
GMXS8-50	-	86
GMXS8-75	-	86
GMXS12-10	-	87
GMXS12-20	-	87
GMXS12-30	-	87
GMXS12-40	-	87
GMXS12-50	-	87
GMXS12-75	-	87
GMXS12-100	-	87
GMXS16-10	-	87
GMXS16-20	-	87
GMXS16-30	-	87
GMXS16-40	-	87
GMXS16-50	-	87
GMXS16-75	-	87
GMXS16-100	-	87
GMXS16-125	-	87
GMXS20-10	-	88
GMXS20-20	-	88
GMXS20-30	-	88
GMXS20-40	-	88
GMXS20-50	-	88
GMXS20-75	-	88
GMXS20-100	-	88
GMXS20-125	-	88
GMXS20-150	-	88



# Index

Model	PN	Page	Model	PN	Page	Model	PN	Page
GMXA25-10	-	88	GRL12A-CN	8.Y00001	97	GRF-02	7.Y00927	121
GMXA25-20	-	88	GRL12A-CP	8.Y00002	97	IPCU-SMN	1.Y08433	121
GMXA25-30	-	88	GRX20	8.Y00213	98	GSR1421-08	8.Y00241	122
GMXA25-40	-	88	GRX20-C	8.Y00215	98	GSR2026-10	8.Y00329	122
GMXA25-50	-	88	GRX20-CN	8.Y00013	98	GSR2026-12	8.Y00243	122
GMXA25-75	-	88	GRX20-CP	8.Y00014	98	GSR2051-10	8.Y00330	122
GMXA25-100	-	88	GR05A-10	8.Y00348	100	GSR2051-12	8.Y00331	122
GMXA25-125	-	88	GR10A-12	8.Y00268	101	GSRT1421-08	8.Y00242	122
GMXA25-150	-	88	GR10A-12-CP	8.Y00267	101	GSRT2026-10	8.Y00332	122
GMXS6	-	89	GR10D-12	8.Y00370	102	GSRT2026-12	8.Y00244	122
GMXS8	-	89	GR10D-12-CP	8.Y00369	102	GSRT2051-10	8.Y00333	122
GMXS12	-	89	GR12A-12	8.Y00048	103	GSRT2051-12	8.Y00334	122
GMXS16	-	89	GR12A-12-C	8.Y00098	103	GSP20-14	8.Y00238	123
GMXS20	-	89	GR12A-12-CP	8.Y00050	103	GSP20-20	8.Y00239	123
GMXS25	-	89	GR12A-12-CN	8.Y00091	103	GMP20A	8.Y00088	124
GMXH6-5Z	-	91	GR12B-12	8.Y00245	104	GMP30A	8.Y00089	124
GMXH6-10Z	-	91	GR12B-12-C	8.Y00260	104	GMP20B	7.Y00726	124
GMXH6-15Z	-	91	GR12B-12-CP	8.Y00261	104	GMP30B	7.Y00789	124
GMXH6-20Z	-	91	GR12B-12-CN	8.Y00262	104	GLU20A	7.Y00894	124
GMXH6-25Z	-	91	GR10L-12	8.Y00307	105	GLU20B	7.Y00895	124
GMXH6-30Z	-	91	GR12L-12	8.Y00308	105	GN2010	8.Y00025	125
GMXH6-40Z	-	91	GR20A-20	8.Y00224	107	GN2010-S51	8.Y00341	125
GMXH6-50Z	-	91	GR20A-20-C	8.Y00049	107	GN2010-8	8.Y00347	125
GMXH6-60Z	-	91	GR20A-20-CP	8.Y00226	107	18-S1	4.Y00470	126
GMXH10-5Z	-	91	GR20A-20-CN	8.Y00051	107	18-S2	4.Y00472	126
GMXH10-10Z	-	91	GR20B-20	8.Y00234	108	22-S1	4.Y00471	126
GMXH10-15Z	-	91	GR20B-20-C	8.Y00231	108	22-S2	4.Y00473	126
GMXH10-20Z	-	91	GR20B-20-CP	8.Y00232	108	GBD18U	8.Y00212	127
GMXH10-25Z	-	91	GR20B-20-CN	8.Y00233	108	GBD22HU	8.Y00058	127
GMXH10-30Z	-	91	GR20C-20	8.Y00342	109	GBD18HD	8.Y00057	127
GMXH10-40Z	-	91	GR20D-20	8.Y00343	110	GFA14-35	8.Y00117	128
GMXH10-50Z	-	91	GR20E-20	8.Y00344	110	GFA20-35	8.Y00118	128
GMXH10-60Z	-	91	GR20F-20	8.Y00345	111	GFA30-35	8.Y00119	128
GMXH16-5Z	-	92	GRT20A	8.Y00257	113	GFR14-95	8.Y00042	129
GMXH16-10Z	-	92	GRT20A-CN	8.Y00258	113	GFR20-95	8.Y00041	129
GMXH16-15Z	-	92	GRT20A-CP	8.Y00259	113	GFR20-95E	8.Y00311	8.Y00041
GMXH16-20Z	-	92	GRT20B	8.Y00279	114	GFR30-95	8.Y00095	129
GMXH16-25Z	-	92	GRT20B-CN	8.Y00281	114	GFR14-95G	8.Y00084	130
GMXH16-30Z	-	92	GRT20B-CP	8.Y00282	114	GFR20-95G	8.Y00083	130
GMXH16-40Z	-	92	GRT20C	8.Y00316	115	GFR20-95EG	8.Y00312	8.Y00083
GMXH16-50Z	-	92	GRT20D	8.Y00317	115	GFR30-95G	8.Y00096	130
GMXH16-60Z	-	92	GRT20E	8.Y00318	116	GFR20-95L	8.Y00309	131
GMXH20-5Z	-	92	GRT20E-CN	8.Y00339	116	GFR20-95LG	8.Y00310	132
GMXH20-10Z	-	92	GRT20E-CP	8.Y00340	116	GFR20-95S	8.Y00335	133
GMXH20-15Z	-	92	GRP32A	8.Y00278	117	GFR20-95SG	8.Y00336	134
GMXH20-20Z	-	92	GRP32A-30	8.Y00315	117	GP1-20	7.Y00778	135
GMXH20-25Z	-	92	GRP32B	8.Y00388	117	GP1-30	7.Y00779	135
GMXH20-30Z	-	92	GRP32B-30	8.Y00387	117	GP2-14	7.Y00780	135
GMXH20-40Z	-	92	GFM-A3V5	4.Y00500	119	GP2-20	7.Y00781	135
GMXH20-50Z	-	92	GFM-A4V5	4.Y00501	119	GP2-30	7.Y00782	135
GMXH20-60Z	-	92	GFM-A5V5	4.Y00502	119	GP3-14	7.Y00783	135
PNP	7.Y00800	94	GFM-B3V5	4.Y00503	119	GP3-20	7.Y00700	135
NPN	7.Y00801	94	GFM-B4V5	4.Y00504	119	GP3-20L	7.Y00908	135
GRS08	8.Y00214	95	GFM-B5V5	4.Y00505	119	GP3-30	7.Y00785	135
GRS08-C	8.Y00099	95	GFM-C3V5	4.Y00506	119	GS-14	7.Y00786	135
GRS08-CN	8.Y00011	95	GFM-C4V5	4.Y00507	119	GS-20	7.Y00787	135
GRS08-CP	8.Y00012	95	GFM-C5V5	4.Y00508	119	GS-30	7.Y00788	135
GRM12A	8.Y00103	96	GBS-2B-S01	4.Y00509	120	GOF20-20-NBR	8.Y00396	136
GRM12A-C	8.Y00092	96	GBS-3B-S01	4.Y00510	120	GOF20-20-VMQ	8.Y00395	136
GRM12A-CN	8.Y00009	96	GBS-4B-S01	4.Y00511	120	GOP20-20-NBR	8.Y00398	136
GRM12A-CP	8.Y00010	96	B-2B	1.Y08430	120	GOP20-20-VMQ	8.Y00397	136
GRM12B	8.Y00107	96	B-3B	1.Y08431	120	D-M9B	1.Y00310	137
GRM12B-C	8.Y00106	96	B-4B	1.Y08432	120	D-M9BL	1.Y00307	137
GRM12B-CN	8.Y00104	96	GSMP-04	7.Y00923	121	D-M9BV	1.Y02565	137
GRM12B-CP	8.Y00105	96	GSMP-05	7.Y00924	121	D-M9BVL	1.Y03843	137
GRL12A	8.Y00108	97	GSMP-06	7.Y00925	121	D-M9N	1.Y00311	137
GRL12A-C	8.Y00100	97	GRF-01	7.Y00926	121	D-M9NL	1.Y00295	137



# Index

Model	PN	Page
D-M9NV	1.Y00298	137
D-M9NVL	1.Y03598	137
D-M9P	1.Y00309	137
D-M9PL	1.Y02301	137
D-M9PV	1.Y00296	137
D-M9PVL	1.Y02964	137
D-MQ	1.Y00293	137
GFN20-90	8.Y00094	138
GFN30-90	8.Y00116	138
<b>Air Ripper</b>		
GT-NY05	1.Y00008	144
GT-NY05R	1.Y03612	144
GT-NY05-4	1.Y01317	144
GT-NY05R-4	1.Y06093	144
GT-NY10	1.Y00012	144
GT-NY10R	1.Y00010	144
GT-NY10-4	1.Y02532	144
GT-NY10R-4	1.Y06098	144
GT-NY15	1.Y00006	144
GT-NY15R	1.Y00007	144
GT-NY15-4	1.Y06099	144
GT-NY15R-4	1.Y06100	144
GT-NY25	1.Y00004	144
GT-NY25R	1.Y00005	144
GT-NY25-6	1.Y06101	144
GT-NY25R-6	1.Y06102	144
GT-NY03G	1.Y00013	144
GT-NY03GR	1.Y01115	144
GT-NY03G-4	1.Y06091	144
GT-NY03GR-4	1.Y06092	144
GT-NY10G	1.Y03559	144
GT-NY10GR	1.Y06094	144
GT-NY10G-4	1.Y06095	144
GT-NY10GR-4	1.Y04500	144
GT-NY10S	1.Y06096	145
GT-NY25S	1.Y06097	145
GT-NF05	1.Y01316	145
GT-NF10	1.Y01532	145
GT-NF15	1.Y01350	145
NY03AJ	1.Y00044	146
NY03RAJ	1.Y01116	146
NY05AJ	1.Y00018	146
NY05RAJ	1.Y03613	146
NY05AJB	1.Y06103	146
NY10AJ	1.Y00020	146
NY10RAJ	1.Y00019	146
NY10AJB	1.Y00026	146
NY15AJ	1.Y00016	146
NY15RAJ	1.Y00017	146
NY15AJB	1.Y00043	146
NY25AJ	1.Y00037	146
NY25RAJ	1.Y00039	146
NY25AJB	1.Y00041	146
NY03AJL	1.Y03558	146
NY05AJL	1.Y00023	146
NY10AJL	1.Y00021	146
NY15AJL	1.Y00025	146
NY25AJL	1.Y00036	146
NY03AJT	1.Y03208	146
NY05AJT	1.Y06104	146
NY10AJT	1.Y02234	146
NY15AJT	1.Y00024	146
NY10AD	1.Y05999	147
NY15AD	1.Y01089	147
NY25AD	1.Y03989	147
NY05AH	1.Y04614	147
NY05RAH	1.Y06052	147

Model	PN	Page
NY10AH	1.Y00027	147
NY15AH	1.Y00858	147
NY15RAH	1.Y01466	147
NY25AH	1.Y00038	147
NY25RAH	1.Y00076	147
NY05BJ	1.Y03784	147
NY05RBJ	1.Y03114	147
GT-NT03	1.Y03933	148
GT-NT03R	1.Y06105	148
GT-NT03-4	1.Y06106	148
GT-NT03R-4	1.Y06107	148
GT-NT05	1.Y01168	148
GT-NT05R	1.Y06108	148
GT-NT05-4	1.Y04956	148
GT-NT05R-4	1.Y06109	148
GT-NT10	1.Y01098	148
GT-NT10R	1.Y06110	148
GT-NT10-6	1.Y06111	148
GT-NT10R-6	1.Y06112	148
GT-NT20	1.Y01648	148
GT-NT20R	1.Y06113	148
GT-NT20-6	1.Y06114	148
GT-NT20R-6	1.Y06115	148
NT03AJ	1.Y06116	148
NT05AJ	1.Y03935	148
NT05AJH	1.Y06117	148
NT05AJB	1.Y06118	148
NE5AJ	1.Y06119	148
NT10AJ	1.Y00040	148
NT10AJH	1.Y06120	148
NT10AJB	1.Y01099	148
NE10AJ	1.Y00064	148
NT20AJ	1.Y03936	148
NT20AJH	1.Y06121	148
NT20AJB	1.Y06122	148
NT05AJL	1.Y04056	149
NT10AJL	1.Y00034	149
NT20AJL	1.Y01649	149
NT03AJT	1.Y06123	149
NT05AJT	1.Y04955	149
NT10AJT	1.Y01318	149
NT03AJY	1.Y06124	149
NT05AJY	1.Y06125	149
NT10AJY	1.Y06126	149
NT05AD	1.Y06127	150
NT10AD	1.Y02608	150
NT20AD	1.Y06128	150
NT05AJV	1.Y06129	150
NT10AJV	1.Y06130	150
NT05AE	1.Y01169	150
NT10AE	1.Y00022	150
GT-NK10	1.Y02665	151
NK10AJ	1.Y02666	151
GT-TC-02	1.Y03833	151
GT-NKH20XL-25	-	153
GT-NKH20XR-25	-	153
GT-NKH20A-25	1.Y00087	153
GT-NKH20AR-25	1.Y00086	153
GT-NKH10	1.Y04612	154
NKH10AJ	1.Y01474	154
NKH10RAJ	1.Y06241	154
GT-NTH05	1.Y02235	154
GT-NTH10	1.Y01471	154
NTH05AJ	1.Y02236	154
NTH10AJ	1.Y01472	154
DTC-001	1.Y06131	155
GT-NS3	1.Y01269	157

Model	PN	Page
GT-NS5	1.Y01036	157
GT-NS7	1.Y01037	157
GT-NS10L	1.Y01214	157
GT-NS20	1.Y00009	157
GT-NS30	1.Y00002	157
GT-NS20H-1	1.Y06133	157
GT-N3	1.Y05900	157
GT-N5	1.Y06134	157
GT-N7	1.Y02077	157
GT-N10	1.Y06135	157
GT-N12	1.Y01531	157
GT-N20	1.Y01436	157
GT-N30	1.Y00003	157
GT-N50	1.Y06136	157
GT-NR3	1.Y03036	158
GT-NR5	1.Y02105	158
GT-NR7	1.Y03324	158
GT-NR10L	1.Y00015	158
GT-NR20	1.Y00222	158
GT-NR30	1.Y00001	158
GT-NR50	1.Y01349	158
NR10LST	1.Y06137	158
NR20ST	1.Y02115	158
NR30ST	1.Y03140	158
NR50ST	1.Y03141	158
P-10L	1.Y06200	158
P-20	1.Y04318	158
P-30	1.Y04310	158
P-50	1.Y06201	158
GT-NWR1	1.Y06202	159
GT-NWR10	1.Y06143	159
GT-NWR20	1.Y06144	159
GT-NWR30	1.Y06145	159
GT-NWS1	1.Y06146	159
GT-NWS10	1.Y02979	159
GT-NWS20	1.Y06147	159
GT-NB20LW-10TM	1.Y06148	159
GT-NB30LW-10TM	1.Y04593	159
GT-NB20LW-10SM	1.Y06149	159
GT-NB30LW-10SM	1.Y06150	159
N3AS	1.Y01534	160
N3HS	1.Y04954	160
N5AS	1.Y02440	160
N5HS	1.Y06151	160
N7AS	1.Y06152	160
N7HS	1.Y02078	160
N10AS	1.Y06153	160
N10HS	1.Y06154	160
N10LAS	1.Y03670	160
N12AS	1.Y05861	160
N12HS	1.Y06155	160
N20AS	1.Y00066	160
N30AS	1.Y06156	160
NW1BJ	1.Y06157	160
N3BJ	1.Y01270	160
N5BJ	1.Y06158	160
N7BJ	1.Y06159	160
NW10BJ	1.Y02980	160
NW20BJ	1.Y03431	160
NW30BJ	1.Y06160	160
N20AG	1.Y06174	160
N20HS	1.Y00063	160
N30BBB	1.Y02533	161
N50BBB	1.Y06161	161
N20BFB	1.Y01647	161
N50AS	1.Y04623	161
N30ACD	1.Y03115	161



# Index

Model	PN	Page
N3AP	1.Y05931	162
N5AP	1.Y00077	162
N7AP	1.Y00955	162
N10AP	1.Y01444	162
N10LAP	1.Y00956	162
N12AP	1.Y06167	162
N20AP	1.Y00060	162
N30AP	1.Y00062	162
N3AE	1.Y03037	162
N5AE	1.Y02106	162
N7AE	1.Y03325	162
N20AE	1.Y00057	162
N30AE	1.Y00061	162
NW10AJ	1.Y06168	162
N20AJ	1.Y00056	162
N20AJB	1.Y00033	162
NW20AJ	1.Y06169	162
N30AJ	1.Y00059	162
NW30AJ	1.Y06170	162
N10LAJ141	1.Y01176	163
N20AJL	1.Y00035	163
N20AB39	1.Y00028	163
N30AJ163	1.Y04313	163
N30AJL	1.Y00067	163
N7PF	1.Y06171	163
N10LPF	1.Y06172	163
N20PF	1.Y00065	163
N30PF	1.Y00058	163
N20AH	1.Y00032	163
N20AML1498	1.Y00047	164
N20AMR1499	1.Y00046	164
N10LAB152	1.Y06173	164
N20AA27	1.Y00030	164
N20AA239	1.Y00045	164
N20AB360	1.Y00042	164
N30AA114	1.Y00052	164
N20AE19	1.Y00071	164
N30AE53	1.Y00078	164
N20AH533	1.Y04197	165
N20AH152	1.Y06199	165
N30AL525	1.Y00050	165
N20AK249	1.Y00051	166
N20AE1205		166
NR20-P	8.Y00113	167
NR30-P	8.Y00237	167
NS20-P	8.Y00079	167
NS30-P	8.Y00080	167
NT-2010TM-P	8.Y00006	168
NT-2010SM-P	8.Y00003	168
NY10-P	8.Y00270	168
NY15-P	8.Y00249	168
GT-BH2060	8.Y00346	168

### Vacuum Module

Model	STN	SI	NBR	Page
VS-PG2	-	1.Y03289	1.Y09807	169
VS-PG3.5	-	1.Y03290	1.Y09808	169
VS-PG5	-	1.Y03291	1.Y09809	169
VS-PG6	1.Y05881	1.Y03292	1.Y09810	169
VS-PG8	1.Y05882	1.Y03293	1.Y09811	169
VS-PG10	1.Y05883	1.Y03294	1.Y09812	169
VS-PG15	1.Y05884	1.Y03301	1.Y09813	169
VS-PG20	1.Y05885	1.Y03295	1.Y09814	169
VS-PG25	1.Y05886	1.Y03296	1.Y09815	169
VS-PG30	1.Y05887	1.Y03297	1.Y09816	169
VS-PG35	-	1.Y03298	1.Y09817	169
VS-PG40	1.Y05889	1.Y03299	1.Y09818	169
VS-PG50	1.Y05890	1.Y03300	1.Y09819	169

Model	STN	SI	NBR	Page
VS-PG60	1.Y05891	1.Y03302	1.Y09820	169
VS-PG80	1.Y05892	1.Y03303	1.Y09821	169
VS2-SA5	1.Y05308	1.Y05178	1.Y09822	170
VS2-SA11	1.Y04899	1.Y03085	1.Y09823	170
VS2-SA14	1.Y05309	1.Y03311	1.Y09824	170
VS2-SA16	1.Y04659	1.Y03086	1.Y09825	170
VS2-SA18	1.Y05315	1.Y05317	1.Y09826	170
VS2-SA20	1.Y05310	1.Y03088	1.Y09827	170
VS2-SA22	1.Y04658	1.Y03312	1.Y09828	170
VS2-SA25	1.Y04657	1.Y03089	1.Y09829	170
VS2-SA33	1.Y04656	1.Y03090	1.Y09830	170
VS2-SA43	1.Y04655	1.Y04636	1.Y09831	170
VS2-SA53	1.Y04654	1.Y03313	1.Y09832	170
VS2-SA63	1.Y04653	1.Y04637	1.Y09833	170
VS3-S5	1.Y05304	1.Y05297	1.Y09834	171
VS3-S7	1.Y05286	1.Y05636	1.Y09836	171
VS3-S9	1.Y05634	1.Y05299	1.Y09837	171
VS3-S12	1.Y05630	1.Y05300	1.Y09838	171
VS3-S14	1.Y05635	1.Y05301	1.Y09839	171
VS3-S18	1.Y05305	1.Y05302	1.Y09840	171
VS3-S20	1.Y05287	1.Y03314	1.Y09841	171
VS3-S25	1.Y05288	1.Y03315	1.Y09842	171
VS3-S32	1.Y05289	1.Y03316	1.Y09843	171
VS3-S42	1.Y05290	1.Y03317	1.Y09844	171
VS3-S52	1.Y05291	1.Y03318	1.Y09845	171
VS3-S62	1.Y05292	1.Y03319	1.Y09846	171

Model	STN	SI	Page
VS-PO24	1.Y08504	1.Y08506	172
VS-PO357	1.Y08505	1.Y08507	172
VS-PO515	1.Y05638	1.Y03306	172
VS-PO618	1.Y05639	1.Y03307	172
VS-PO824	1.Y05640	1.Y03308	172
VS-PO1030	1.Y05641	1.Y03309	172
VS-PO1545	1.Y05642	1.Y03310	172
VS-PO2060	1.Y05643	1.Y05646	172
VS-PO2575	1.Y05644	1.Y05647	172
VS-PO3090	1.Y05645	1.Y05648	172

Model	SI	Page
VSH-S2	1.Y07282	173
VSH-S4	1.Y07283	173
VSH-S6	1.Y07284	173
VSH-S8	1.Y07285	173
VSH-S10	1.Y07286	173
VSH-S12	1.Y07287	173
VSH-S15	1.Y07288	173
VSH-S20	1.Y07289	173
VSH-S25	1.Y07290	173
VSH-S30	1.Y07291	173
VSH-M4	1.Y07292	173
VSH-M6	1.Y07293	173
VSH-M8	1.Y07294	173
VSH-M10	1.Y07295	173
VSH-M12	1.Y07296	173
VSH-M15	1.Y07297	173
VSH-M20	1.Y07298	173
VSH-M25	1.Y07299	173
VSH-M30	1.Y07300	173
VSH-M40	1.Y07301	173
VSH-M50	1.Y07302	173
VSH2-S4	1.Y07303	174
VSH2-S6	1.Y07304	174
VSH2-S8	1.Y07305	174
VSH2-S10	1.Y07306	174
VSH2-S12	1.Y07307	174
VSH2-S15	1.Y07308	174
VSH2-S20	1.Y07309	174
VSH2-S25	1.Y07310	174

Model	SI	Page
VSH2-S30	1.Y07311	174
VSH2-M6	1.Y07312	174
VSH2-M8	1.Y07313	174
VSH2-M10	1.Y07314	174
VSH2-M12	1.Y07315	174
VSH2-M15	1.Y07316	174
VSH2-M20	1.Y07317	174
VSH2-M25	1.Y07318	174
VSH2-M30	1.Y07319	174
VSH2-M35	1.Y07320	174
VSH2-M40	1.Y07321	174
VSH2-M50	1.Y07322	174
VSH3-S6	1.Y07323	175
VSH3-S8	1.Y07324	175
VSH3-S10	1.Y07325	175
VSH3-S12	1.Y07326	175
VSH3-S15	1.Y07327	175
VSH3-M8	1.Y07328	175
VSH3-M10	1.Y07329	175
VSH3-M12	1.Y07330	175
VSH3-M15	1.Y07331	175
VSH3-M20	1.Y07332	175
VSH3-M25	1.Y07333	175
VSH3-M30	1.Y07334	175
VSH3-M40	1.Y07335	175
VSH3-M50	1.Y07336	175

Model	F38G	M38G	Page
VFC 35	1.Y08448	1.Y08477	176
VFC 50	1.Y08449	1.Y08478	176
VFC 75	1.Y08450	1.Y08503	176
VFC 100	1.Y08451	1.Y08479	176
VFC 125	1.Y08452	1.Y08480	176
VOFC 2565	1.Y08453	1.Y08481	176
VOFC 3080	1.Y08454	1.Y08482	176
VOFC 4080	1.Y08455	1.Y08483	176
VOFC 50100	1.Y08484	1.Y08485	176
VBC 22	1.Y08456	1.Y08486	177
VBC 30	1.Y08457	1.Y08487	177
VBC 45	1.Y08458	1.Y08488	177
VBC 60	1.Y08459	1.Y08489	177
VBC 85	1.Y08460	1.Y08490	177
VBC 115	1.Y08461	1.Y08491	177
VOBC3065	1.Y08462	1.Y08492	177
VOBC4080	1.Y08463	1.Y08493	177
VOBC55110	1.Y08464	1.Y08494	177
VOBC70140	1.Y08465	1.Y08495	177

Model	PN	Page
VM02-G18	7.Y00703	178
VM04-G14	7.Y00709	178
VM06-G14	7.Y00768	178
VM07-G18	7.Y00767	178
VM08-M8	1.Y05275	178
VM09-M5	1.Y05274	178
VM10-G18	7.Y00902	179
VM11-M5	1.Y05327	179
VM12-M5	7.Y00762	179
VM13-M5	7.Y00761	179
VM14-M5	7.Y00760	179
VM15-G18	7.Y00759	179
VM16-G18	7.Y00758	180
VM17-G18	7.Y00757	180
VM18-M5	1.Y05314	180
VM20-G14	4.Y00058	180
VM21-M5	1.Y01986	180
VM22-M5	1.Y05790	180
VM23-G18	7.Y00900	181
VM24-G18	7.Y00898	181



# Index

Model	PN	Page)	Model	PN	Page	Model	PN	Page
VM25-M3	7.Y00928	181	VFRS-20M10-M5	4.Y00026	190	DNLK14-14-2M/P00	1.Y07463	201
VM27-M5	1.Y01097	181	VFRS-20M16-G18	4.Y00023	190	AJB8M8-3P-D2	4.Y00495	202
VM28-M8	7.Y00475	181	VFM-4014-G18	1.Y01452	190	AJB8M8-3N-D2	4.Y00496	202
VM-G18M-M10M	7.Y00808	182	VFM-2020-G14	1.Y01451	190	ARJ210-M5	1.Y05877	203
VM-G14M-M10M	7.Y00756	182	VFL-20M17-G18	1.Y01453	190	-	1.Y02592	203
VM-G18M-M5F	7.Y00755	182	VFMT-20M14-G18	8.Y00319	190	APB-M3-Ø4	1.Y03145	204
VM-G18M-M8F	7.Y00754	182	VFMT-40M14-G18	8.Y00320	190	APB-M5-Ø4	1.Y05008	204
VM-M5M-M8F	7.Y00473	182	VFST-5M10	1.Y04942	191	APB-M5-Ø6	1.Y01986	204
VM-M5M-G18F	7.Y00474	182	VFST-10M10	1.Y00533	191	APF-M3	1.Y06794	204
VM-G14M-M8F	7.Y00476	183	VFST-20M10	1.Y00531	191	APF-M5	1.Y02510	204
VFN1011-M5	8.Y00064	185	VFST-30M10	1.Y01566	191	APF-G18	1.Y00462	204
VFN1021-M5	8.Y00321	185	VFS-58	1.Y05260	191	APF-G14	1.Y00463	204
VFN1421-G18	8.Y00065	185	VFS-512	1.Y05756	191	APC4-M5	1.Y03809	205
VFN1436-G18	8.Y00322	185	VFS-108	1.Y05261	191	APC4-01	1.Y02726	205
VFN2026-G18	8.Y00066	185	VFS-1012	8.Y00007	191	APC4-02	1.Y04049	205
VFN2051-G18	8.Y00067	185	VFS-208	1.Y05262	191	APC6-M5	1.Y03039	205
VFNT1011-M5	8.Y00068	185	VFS-2012	8.Y00008	191	APC6-01	1.Y02725	205
VFNT1021-M5	8.Y00323	185	VFS-308	1.Y05757	191	APC6-02	1.Y04048	205
VFNT1421-G18	8.Y00204	185	VFS-3012	1.Y05758	191	APC6-03	1.Y05531	205
VFNT1621-G18	8.Y00383	185	VFMT-5M12	1.Y00527	191	APC8-01	1.Y04537	205
VFNT1436-G18	8.Y00324	185	VFMT-10M12	1.Y00522	191	APC8-02	1.Y05532	205
VFNT1636-G18	8.Y00384	185	VFMT-20M12	1.Y00523	191	APC8-03	1.Y05533	205
VFNT2026-G18	8.Y00205	185	VFMT-30M12	1.Y00521	191	APC10-01	1.Y05534	205
VFNT2051-G18	8.Y00206	185	VFM-512	1.Y05759	191	APC10-02	1.Y05535	205
VFR1011-M5	8.Y00060	186	VFM-520	1.Y05760	191	APC10-03	1.Y05536	205
VFR1021-M5	8.Y00325	186	VFM-1012	1.Y03068	191	APL4-M5	1.Y02724	205
VFR1421-G18	8.Y00061	186	VFM-1020	1.Y05761	191	APL4-01	1.Y02810	205
VFR1436-G18	8.Y00326	186	VFM-2012	1.Y04279	191	APL4-02	1.Y03097	205
VFR2026-G18	8.Y00062	186	VFM-2020	1.Y05762	191	APL6-M5	1.Y02809	205
VFR2051-G18	8.Y00063	186	VFM-3012	1.Y03069	191	APL6-01	1.Y02722	205
VFRT1011-M5	8.Y00074	186	VFM-3020	1.Y05763	191	APL6-02	1.Y03988	205
VFRT1021-M5	8.Y00327	186	VUUG-LK14-M52-AT-G18-1HZL-S	1.Y06040	192	APL6-03	1.Y05539	205
VFRT1421-G18	8.Y00075	186	VUUG-LK14-B52-T-G18-1HZL-W1-S	1.Y06288	192	APL8-01	1.Y02723	205
VFRT1621-G18	8.Y00381	186	VUUG1/8-LK-2F	1.Y06289	192	APL8-02	1.Y03812	205
VFRT1436-G18	8.Y00328	186	VUUG1/8-LK-3F	1.Y06290	192	APL8-03	1.Y05540	205
VFRT1636-G18	8.Y00382	186	VUUG1/8-LK-4F	1.Y06291	192	APL10-01	1.Y03096	205
VFRT2026-G18	8.Y00076	186	VUUG1/8-LK-5F	1.Y06292	192	APL10-02	1.Y05541	205
VFRT2051-G18	8.Y00077	186	VUUG1/8-LK-6F	1.Y06293	192	APL10-03	1.Y05542	205
VFE1011-M5	8.Y00070	187	VUUG1/8-LK-7F	1.Y06294	192	APAX4-M5	1.Y05545	206
VFE1021-M5	8.Y00371	187	VUUG1/8-LK-8F	1.Y06042	192	APAX4-01	1.Y05546	206
VFE1421-G18	8.Y00071	187	VUUG1/8-LK-9F	1.Y07453	192	APAX4-02	1.Y05547	206
VFE1436-G18	8.Y00372	187	VUUG1/8-LK-10F	1.Y06295	192	APAX6-M5	1.Y05548	206
VFE2026-G18	8.Y00072	187	VUUG1/8-LK-11F	1.Y09872	192	APAX6-01	1.Y05549	206
VFE2051-G18	8.Y00073	187	VUUG1/8-LK-12F	1.Y09873	192	APAX6-02	1.Y05550	206
VFET1011-M5	8.Y00069	187	VUUG1/8-LK-13F	1.Y09874	192	APAX6-03	1.Y05551	206
VFET1021-M5	8.Y00374	187	VUUG1/8-LK-14F	1.Y09875	192	APAX8-01	1.Y05552	206
VFET1421-G18	8.Y00228	187	VUUG1/8-LK-15F	1.Y09876	192	APAX8-02	1.Y05553	206
VFET1621-G18	8.Y00379	187	VUUG1/8-LK-16F	1.Y09877	192	APAX8-03	1.Y05554	206
VFET1436-G18	8.Y00375	187	VUUG1/8-LK-17F	1.Y09878	192	APAX10-01	1.Y05555	206
VFET1636-G18	8.Y00380	187	VUUG1/8-LK-18F	1.Y09879	192	APAX10-02	1.Y05556	206
VFET2026-G18	8.Y00229	187	VUUG1/8-LK-19F	1.Y09880	192	APAX10-03	1.Y05557	206
VFET2051-G18	8.Y00230	187	VUUG1/8-LK-20F	1.Y09881	192	APH4-M5	1.Y05560	206
VFC2030-G18	8.Y00313	188	VPN-20	1.Y05963	193	APH4-01	1.Y05561	206
VFCT1620-M5	8.Y00277	188	VPD-12	1.Y05964	195	APH6-M5	1.Y05562	206
VFCT2030-G18	8.Y00314	188	VPD-15	1.Y05965	195	APH6-01	1.Y05563	206
VFG20-10	8.Y00207	189	VPD-20	1.Y05966	195	APH6-02	1.Y05564	206
VFG20-20	8.Y00337	189	LEMAR90X14S	1.Y05969	196	APH8-01	1.Y05565	206
VFG30-20	8.Y00338	189	LCPX90X14SL15PQ11.Y05970	196	APH8-02	1.Y05566	206	
VFRT-7M5	1.Y05764	189	<b>Accessory Components</b>			APH8-03	1.Y05567	206
VFRT-15M5	1.Y05765	189	ASC-8A-B	8.Y00087	198	APH10-02	1.Y05568	206
VFRT-30M5	1.Y05766	189	AJB4M8-3P-M12	4.Y00487	200	APH10-03	1.Y05569	206
VSR-S2	1.Y00435	189	AJB4M8-3N-M12	4.Y00488	200	APT4-M5	1.Y05571	207
VSR-S4	1.Y00436	189	ELK8112-0/9	1.Y07461	200	APT4-01	1.Y05572	207
VSR-S6	1.Y03350	189	M8-M03T	1.Y06722	200	APT4-02	1.Y05573	207
VSR-S8	1.Y00442	189	ELK8-2M/P00	1.Y07462	200	APT6-M5	1.Y05574	207
VSR3-S5	1.Y04179	189	AJB8M8-3P-M16	4.Y00491	201	APT6-01	1.Y05575	207
VSR3-S7	1.Y04444	189	AJB8M8-3N-M16	4.Y00492	201	APT6-02	1.Y05576	207



# Index

Model	PN	Page	Model	PN	Page	Model	PN	Page
APT6-03	1.Y05577	207	APEG10-6	1.Y05603	208	AJSC8-01	1.Y05871	210
APT8-01	1.Y05578	207	APEG10-8	1.Y05604	208	AJSC8-02	1.Y05872	210
APT8-02	1.Y05579	207	APEG10-12	1.Y05605	208	AJSU4	1.Y05873	210
APT8-03	1.Y05580	207	APY4	1.Y03810	208	AJSU6	1.Y05874	210
APT10-01	1.Y05581	207	APY6	1.Y03662	208	AJSU8	1.Y05875	210
APT10-02	1.Y05582	207	APY8	1.Y03095	208	AJSU10	1.Y05876	210
APT10-03	1.Y05583	207	APY10	1.Y05608	208	AH4B	1.Y00824	211
APU4	1.Y05586	207	APRG6-4	1.Y05610	209	AH4BU	1.Y03687	211
APU6	1.Y05587	207	APRG8-6	1.Y05611	209	AH4G	1.Y00823	211
APU8	1.Y05588	207	APKG6-4	1.Y05612	209	AH4T	1.Y03686	211
APU10	1.Y05589	207	APKG8-4	1.Y05613	209	AH4Y	1.Y00821	211
APG6-4	1.Y02813	207	APKG8-6	1.Y05614	209	AH4R	1.Y00822	211
APG8-4	1.Y05591	207	APKG10-6	1.Y05615	209	AH4O	1.Y05661	211
APG8-6	1.Y04086	207	APKG10-8	1.Y05616	209	AH6B	1.Y00830	211
APG10-6	1.Y05592	207	APGJ4-6	1.Y05617	209	AH6BU	1.Y00829	211
APG10-8	1.Y04087	207	APGJ6-4	1.Y05618	209	AH6G	1.Y00825	211
APE4	1.Y02811	208	APGJ6-8	1.Y05619	209	AH6T	1.Y00827	211
APE6	1.Y02812	208	APGJ8-4	1.Y05620	209	AH6Y	1.Y00828	211
APE8	1.Y05594	208	APGJ8-6	1.Y05621	209	AH6R	1.Y00826	211
APE10	1.Y05595	208	APGJ8-10	1.Y05622	209	AH6O	1.Y04640	211
APEG4-6	1.Y05597	208	APGJ8-1/4	1.Y05623	209	AH8B	1.Y04478	211
APEG6-4	1.Y05598	208	AJSC4-M5	1.Y05866	210	AH8BU	1.Y00831	211
APEG6-8	1.Y05599	208	AJSC4-01	1.Y05867	210	AH10B	1.Y04476	211
APEG8-4	1.Y05600	208	AJSC6-M5	1.Y05868	210	AH10BU	1.Y05660	211
APEG8-6	1.Y05601	208	AJSC6-01	1.Y05869	210			
APEG8-10	1.Y05602	208	AJSC6-02	1.Y05870	210			





A series of horizontal dashed lines spanning the width of the page, providing a guide for handwriting practice.



A series of horizontal dashed lines spanning the width of the page, intended for handwriting practice.



A series of horizontal dashed lines spanning the width of the page, providing a guide for handwriting practice.