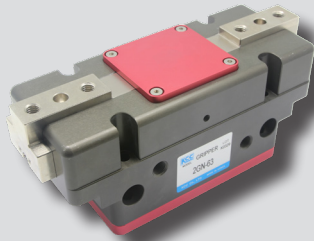


# 2GN series



2GN-63

### Features

- Wedge type, 2-jaw parallel gripper
- Improved stability with longer gripping point between jaw & plunger.
- Made with flexible mounting
- Sensor is applicable

### How to order

2GN - 25 S - BP - PA + 18 N 2 A - 2

①      ②      ③      ④      ⑤      ⑥      ⑦      ⑧      ⑨      ⑩

① Series

2GN	Parallel gripper with 2 jaws
-----	------------------------------

② Bore size

25	Ø25	63	Ø63
30	Ø30	90	Ø90
42	Ø42	125	Ø125
50	Ø50		

③ Jaw type

S	KCC Standard
J	Compatible with third-party products (Key groove)

④ Type

Nil	Standard
SL	Long stroke type
PU	Power boost type

⑤ Optional air port

Nil	Standard
BP	Additional port on base side
PB	Additional port on rear side

※ A separate blocking plug is not provided for the additional air port.  
 ※ Additional air ports are machined from standard.  
 Therefore, the surface condition processed in standard is exposed.

⑥ Sensor

Nil	Without sensor
PA	Sensor with mount
PB	Mount only (without sensor)

※ The sensor standard: DC 3-wire type / NPN output / wire length 2m

⑦ Sensor body length

18	18mm
30	30mm

⑧ Sensor output type

N	NPN
P	PNP

⑨ Sensor wire length

2	2m (Standard)
3	3m
5	5m

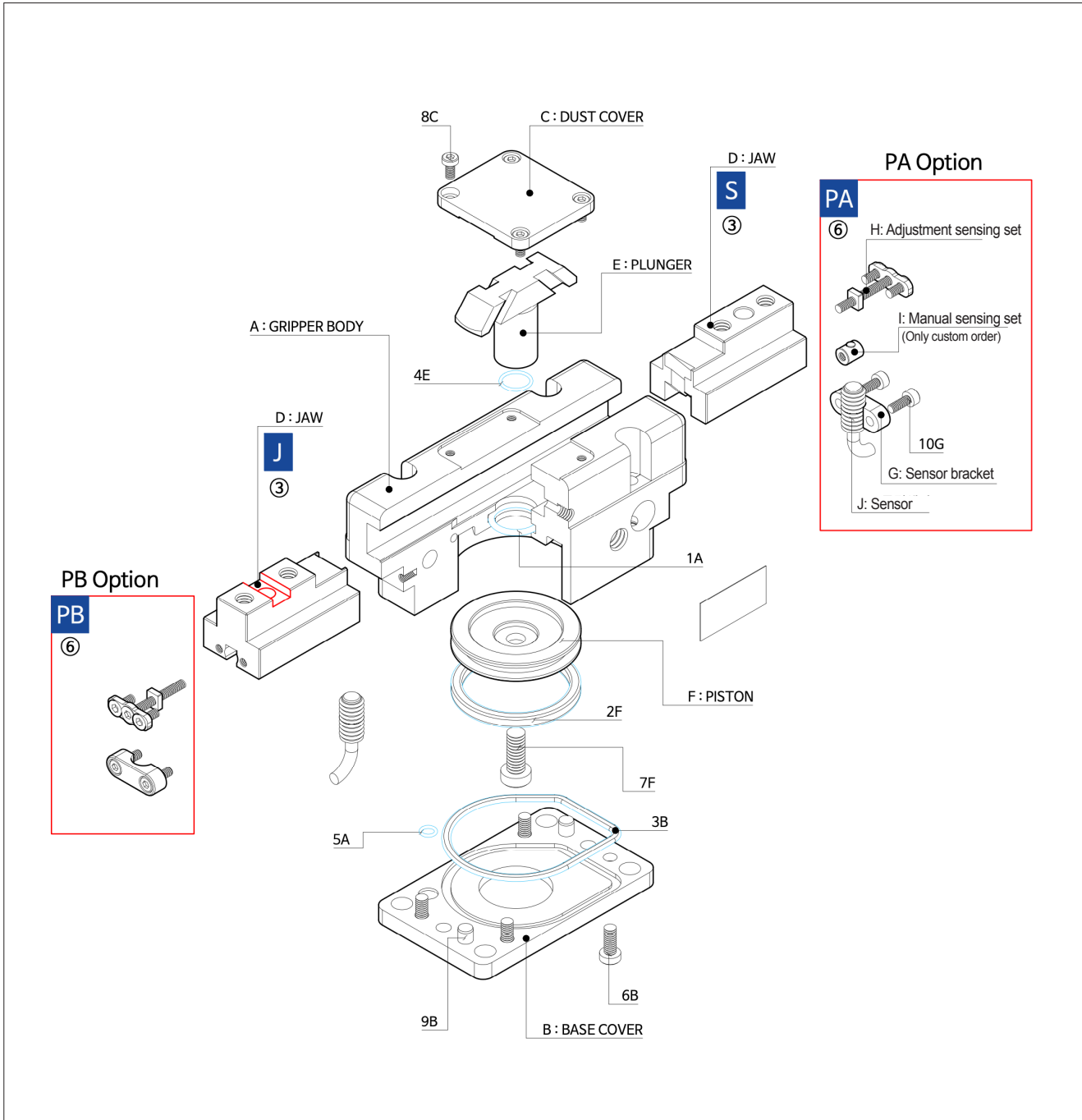
⑩ Quantity of sensor parts

1	1 Set
2	2 Set (Standard)

### Specifications

	2GN-25	2GN-30	2GN-42	2GN-50	2GN-63	2GN-90	2GN-125
Fluid	Compressed air						
Operating Pressure	1~7kgf/cm <sup>2</sup> (0.1~0.7MPa)						
Ambient Temperature	0~60°C						
Stroke(mm)	Standard	2x6	2x8	2x10	2x13	2x16	2x25
	SL	2x7.5	2x10	2x13	2x15.5	2x19	
	PU	2x4	2x5.5	2x7.5	2x9	2x11	
Port size	M5			Rc(PT) 1/8			Rc(PT) 1/4
Air consumption(CC/Cycle)	6.7	12.9	28.5	58.1	114.3	293.5	943.2
Max. gripping point(mm)	56	72	90	110	146	200	250
Frequency(Cycle/min)	60		50		40	30	20
Repeat Accuracy(mm)	±0.01 (After initial 100 operation) / ±0.03 (After 1 million operation)					±0.02 / ±0.05	
Weight(kg)	0.26	0.48	0.78	1.35	2.62	4.89	13.95

**Structure**



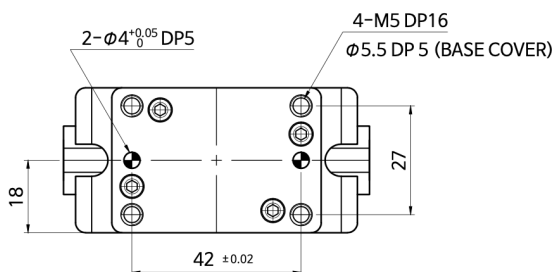
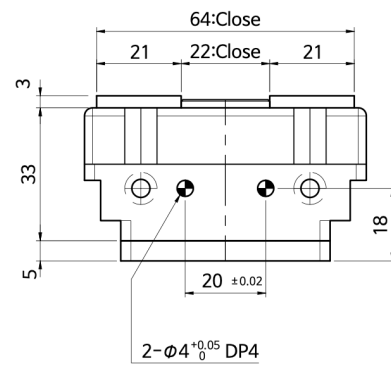
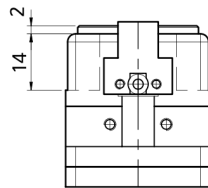
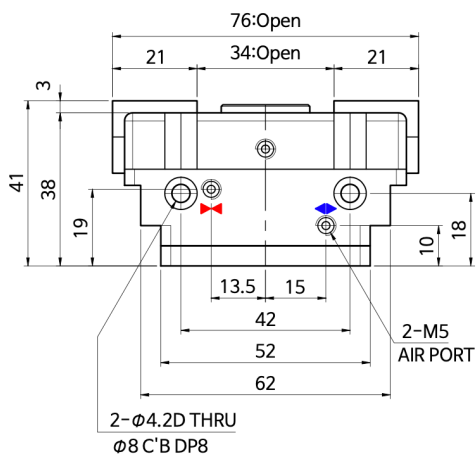
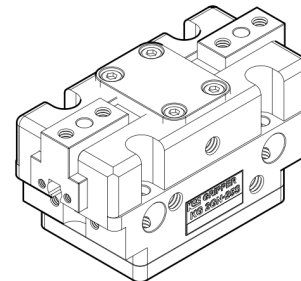
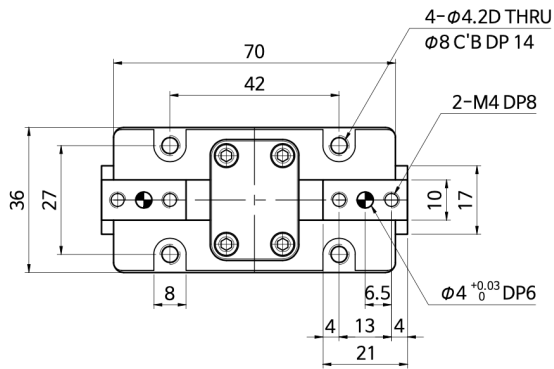
No	Parts	Material	Remark
A	Gripper Body	Aluminum alloy	Standard
B	Base Cover	Aluminum alloy	
C	Dust Cover	Aluminum alloy	
D	Jaw	Carbon steel	
E	Plunger	Steel alloy	
F	Piston	Aluminum alloy	
G	Sensor bracket	Aluminum alloy	Option PA(B)
H	Adjustable sensing set	Optional	Only custom order
I	Manual sensing set	Optional	
J	Auto switch	M8x16(30)	Option PA

No	Parts	Material	Remark
1A	Rod Packing	NBR	Standard
2F	Piston Packing	NBR	
3B	Sealing O-Ring	NBR	
4E	O-Ring	NBR	
5A	O-Ring	NBR	
6C	Fastner	Stainless steel	
7F	Fastner	Stainless steel	Option PA(B)
8C	Fastner	Stainless steel	
9B	Dowel Pin	Steel alloy	
10G	Fastner	Stainless steel	

**Dimensions-Standard**

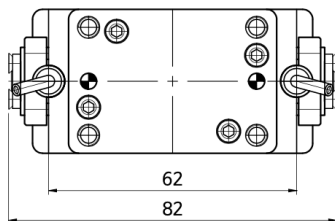
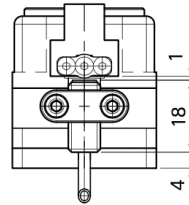
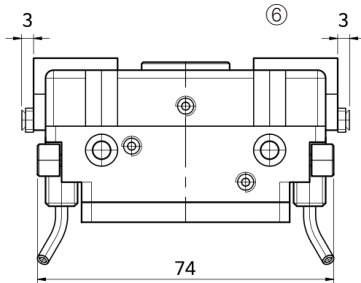
**2GN-25S**

③

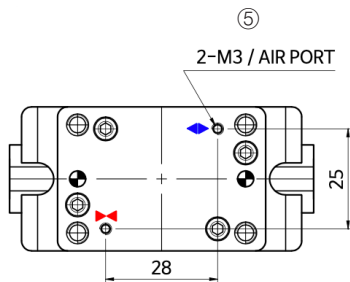


**Dimensions-Option**

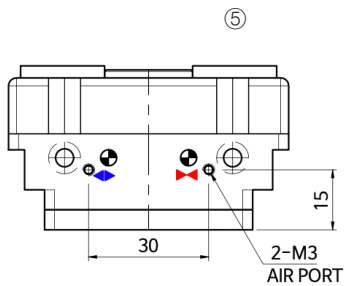
**2GN-25□+PA**



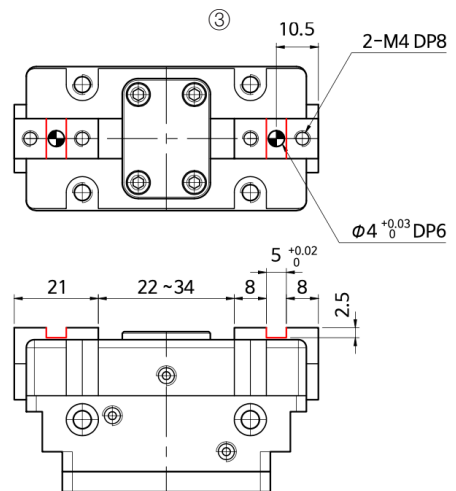
**2GN-25□-BP**



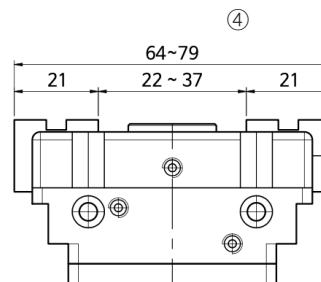
**2GN-25□-RP**



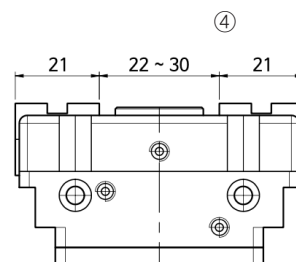
**2GN-25J**



**2GN-25J-SL**



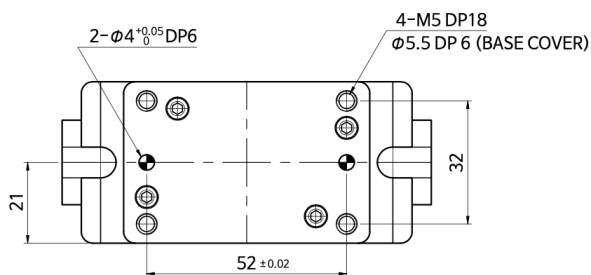
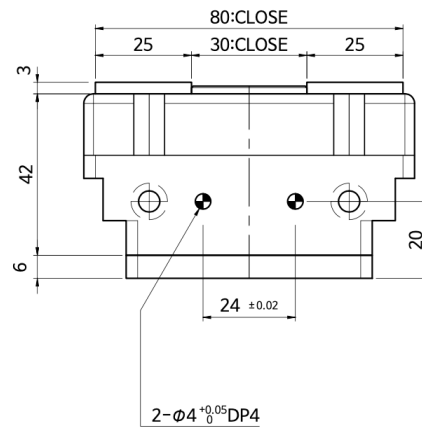
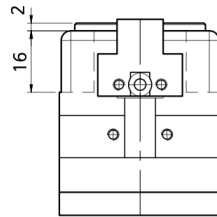
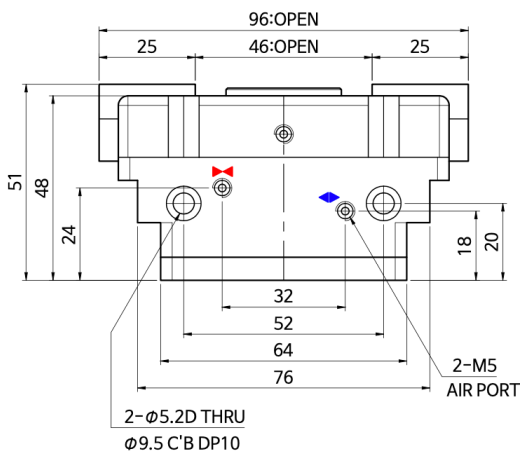
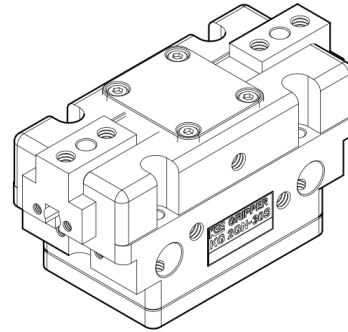
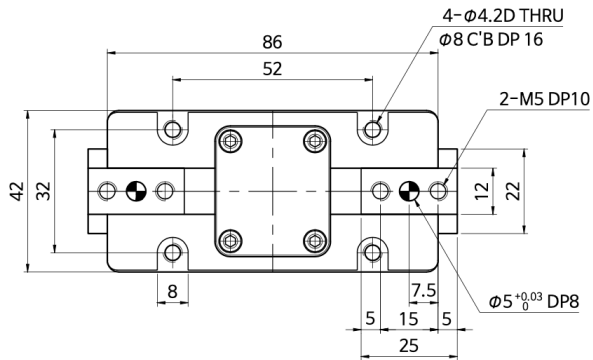
**2GN-25J-PU**



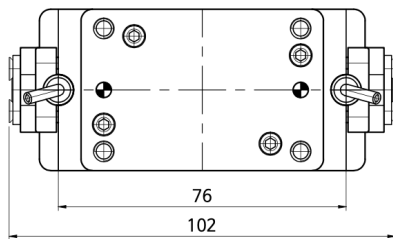
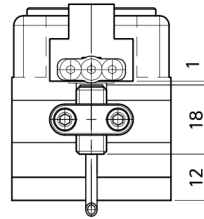
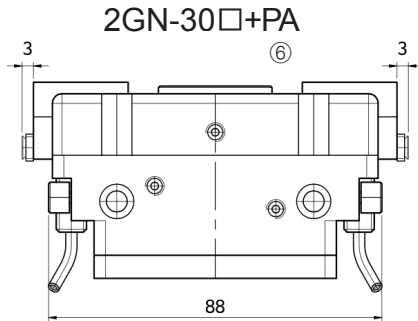
Dimensions-Standard

2GN-30S

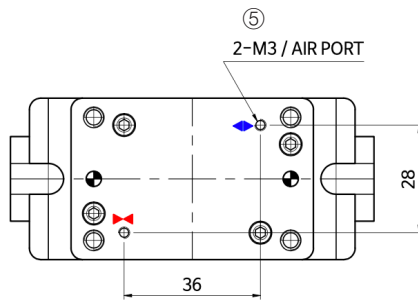
③



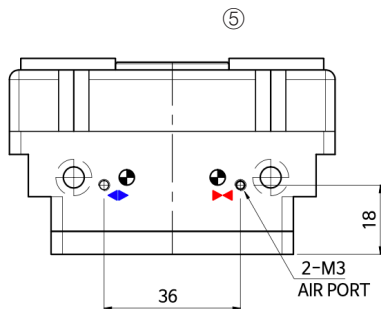
**Dimensions-Option**



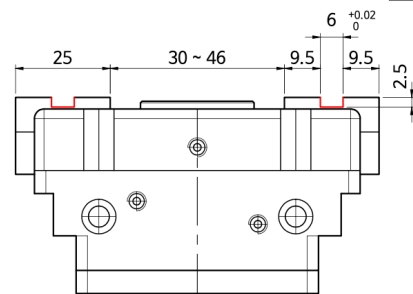
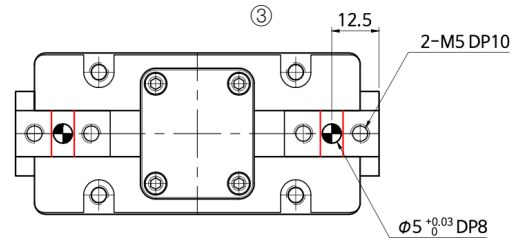
**2GN-30□-BP**



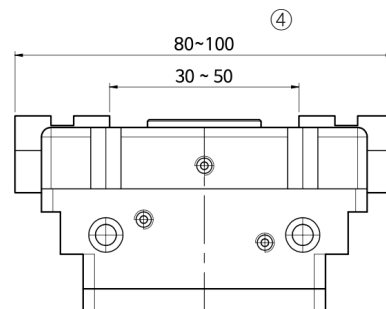
**2GN-30□-RP**



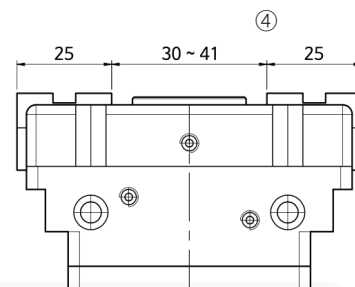
**2GN-30J**



**2GN-30J-SL**



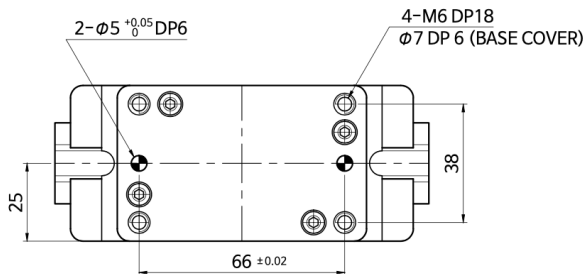
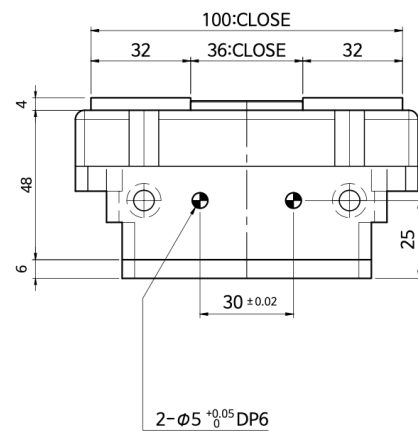
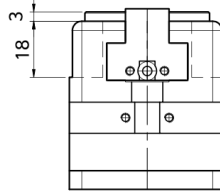
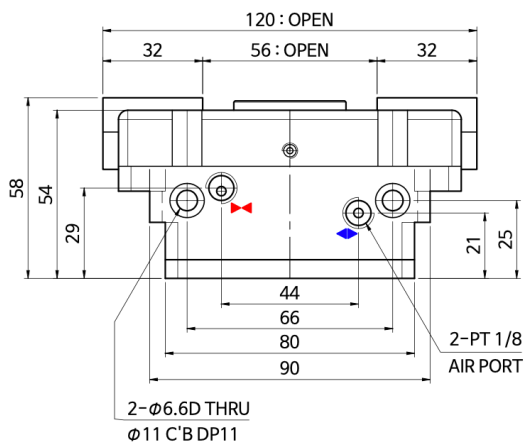
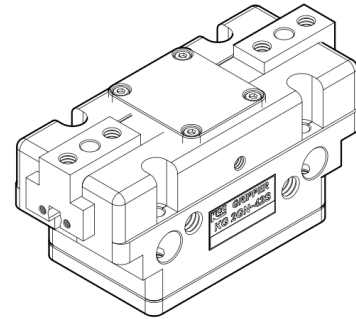
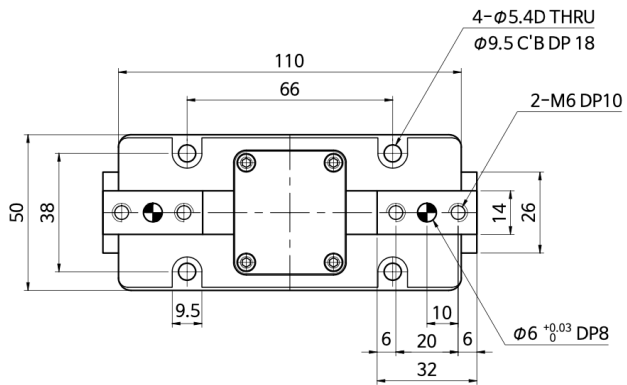
**2GN-30J-PU**



Dimensions-Standard

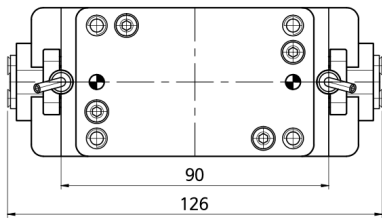
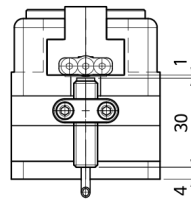
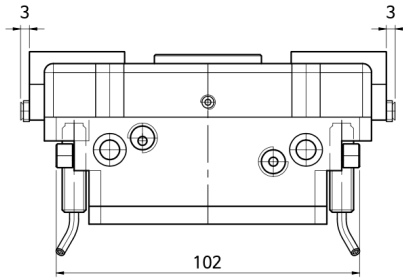
2GN-42S

③

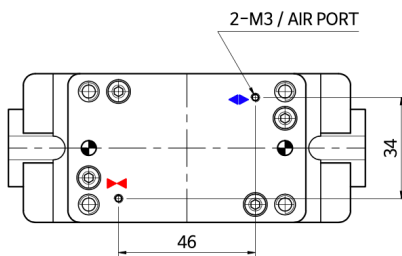


Dimensions-Option

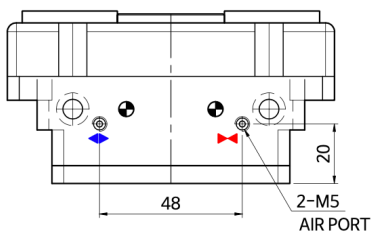
2GN-42□+PA  
⑥



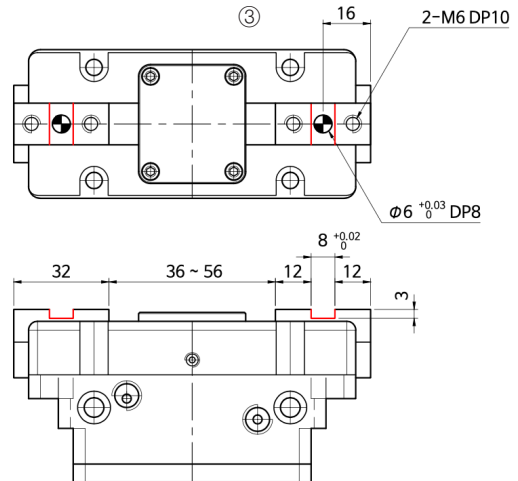
2GN-42□-BP  
⑤



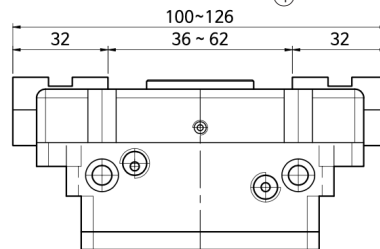
2GN-42□-RP  
⑤



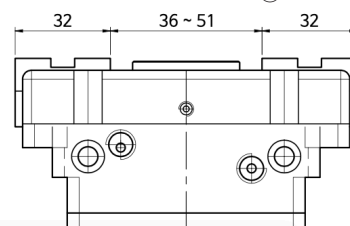
2GN-42J  
③



2GN-42J-SL  
④



2GN-42J-PU  
④

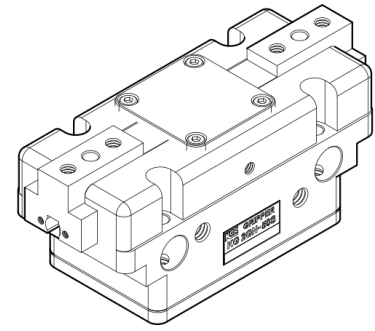
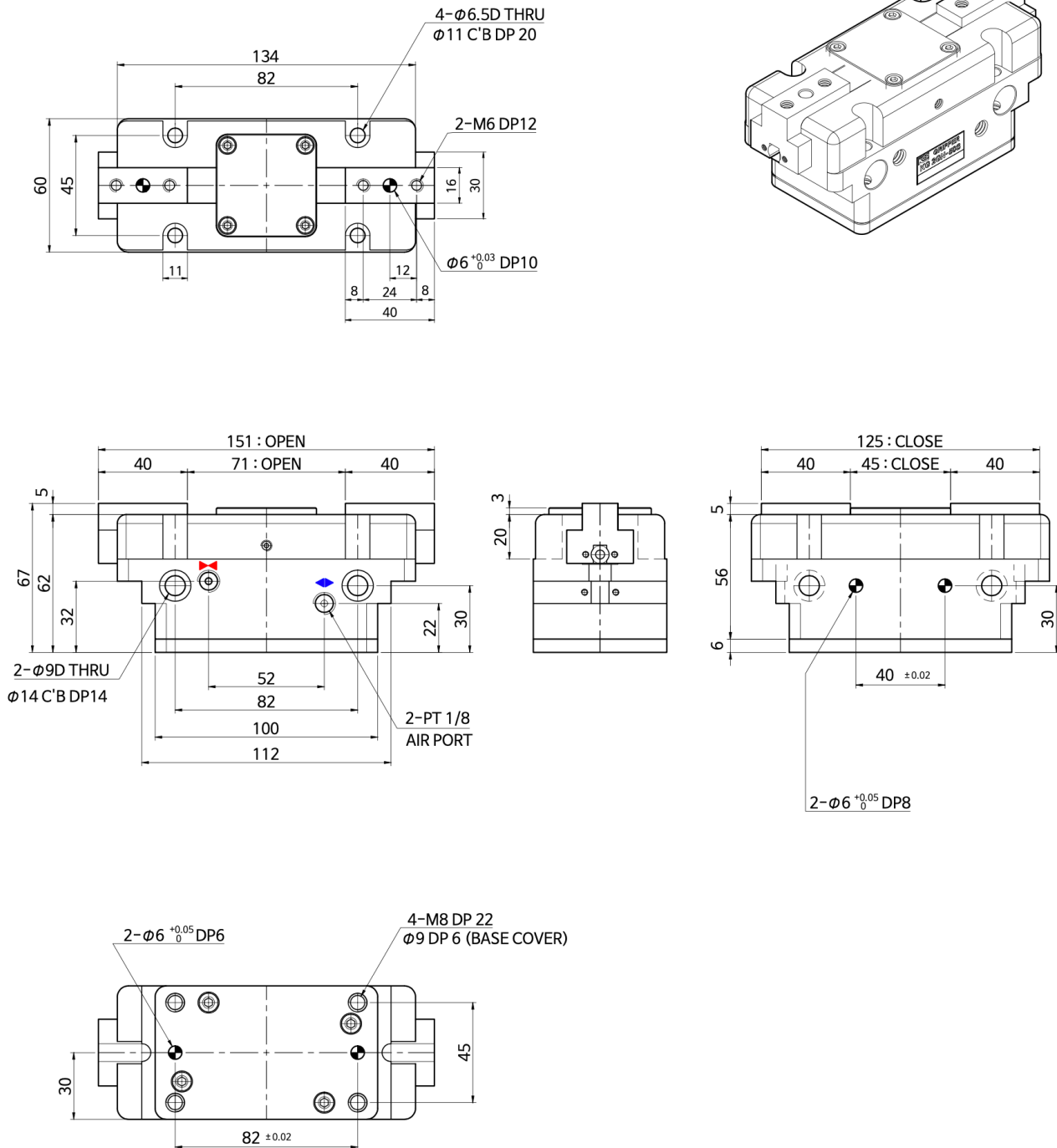




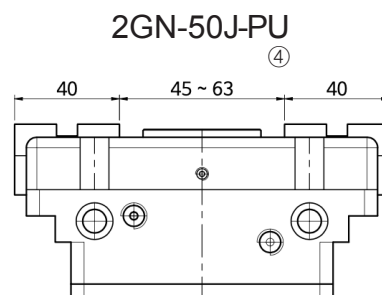
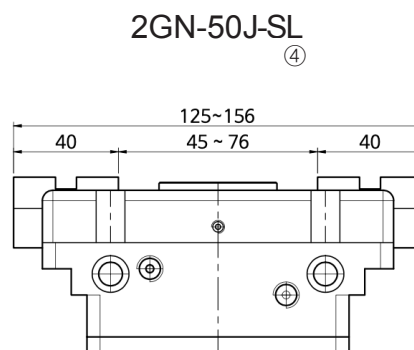
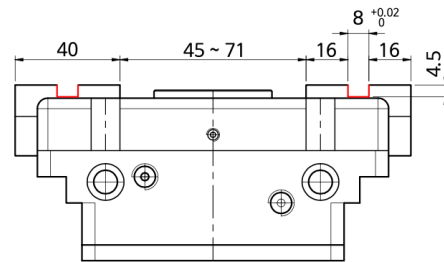
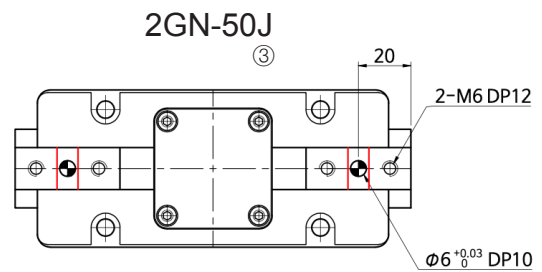
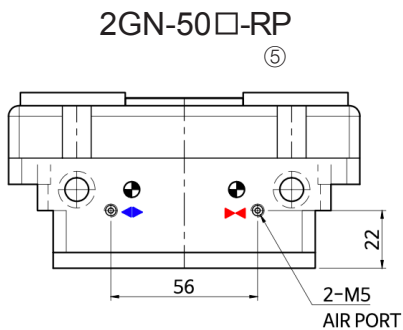
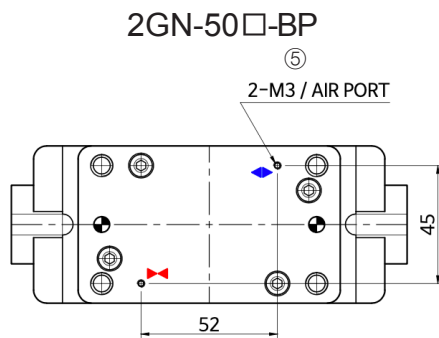
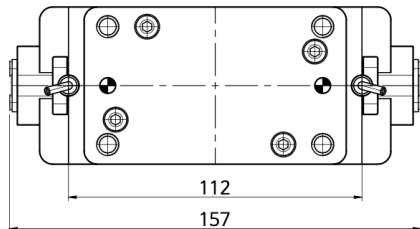
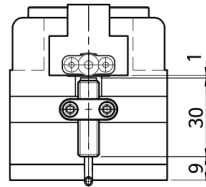
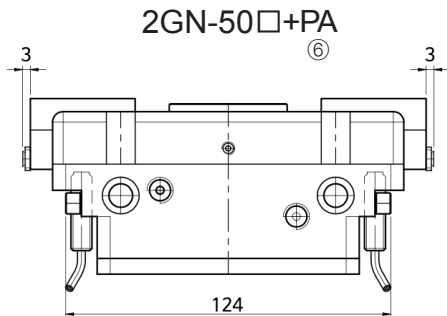
Dimensions-Standard

2GN-50S

③



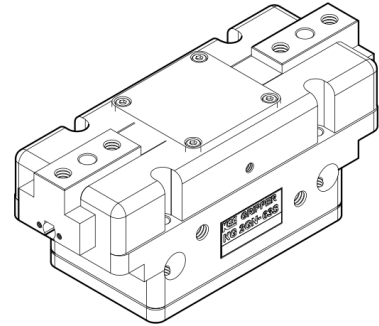
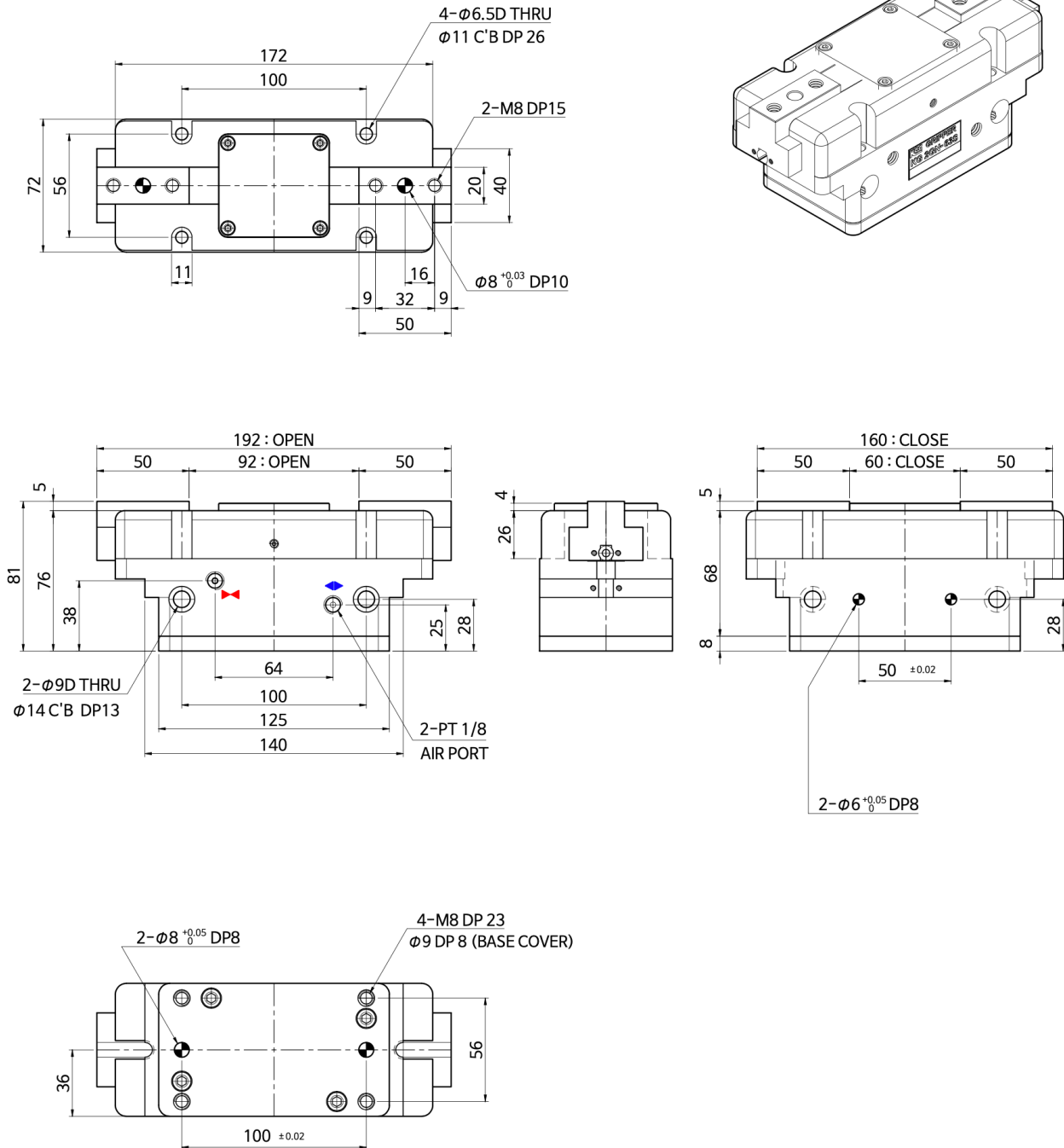
**Dimensions-Option**



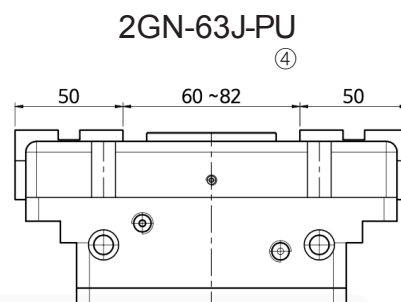
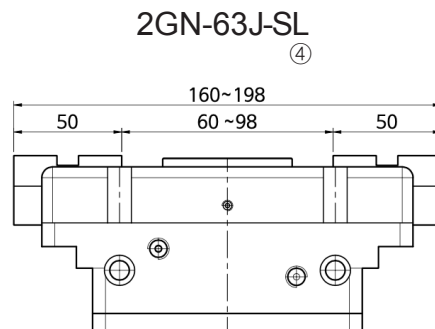
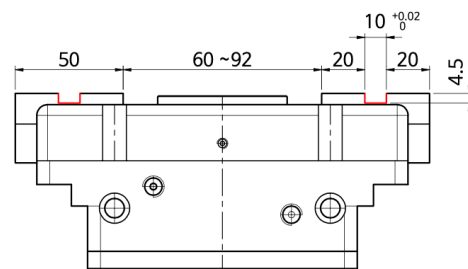
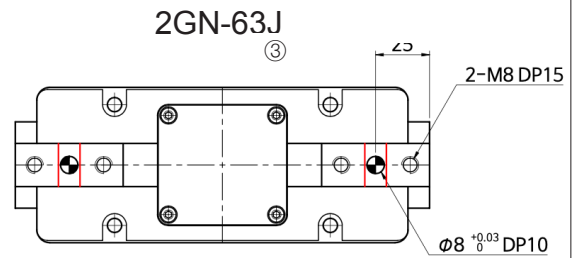
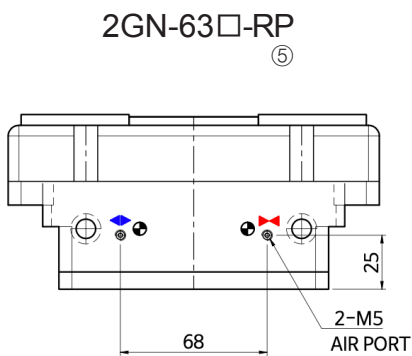
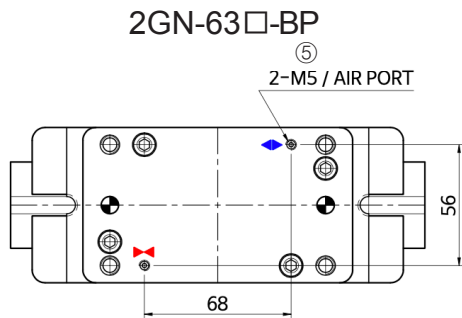
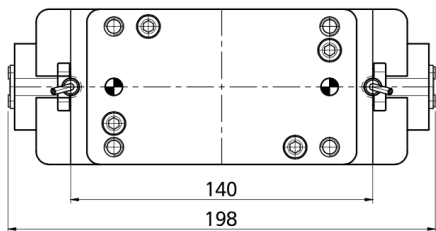
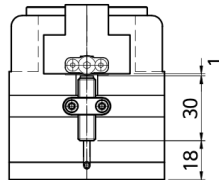
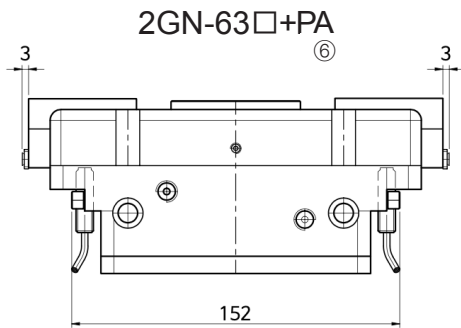
**Dimensions-Standard**

**2GN-63S**

③



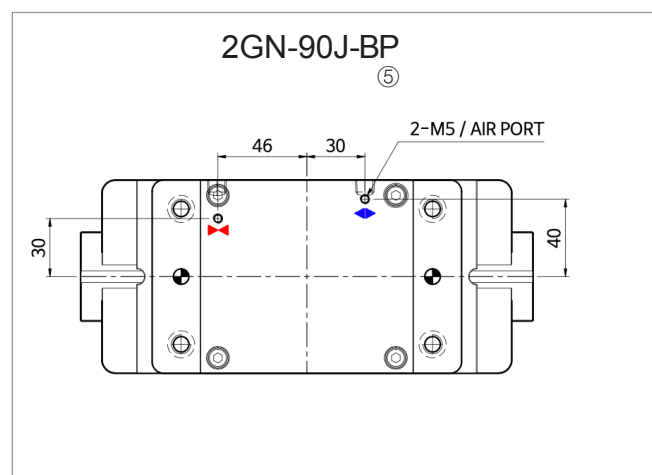
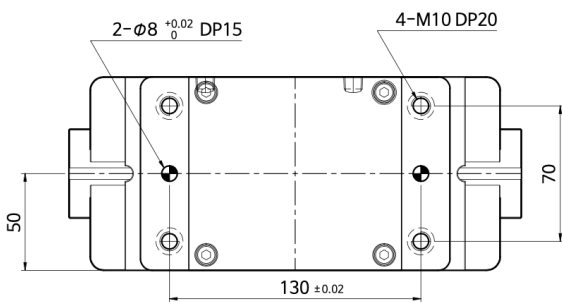
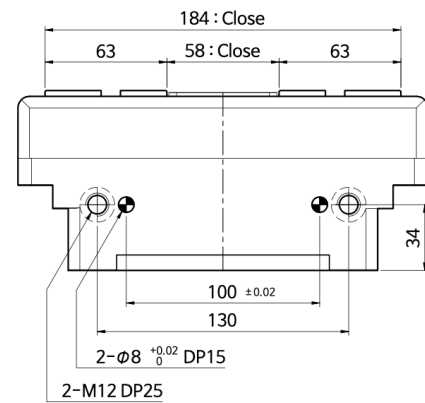
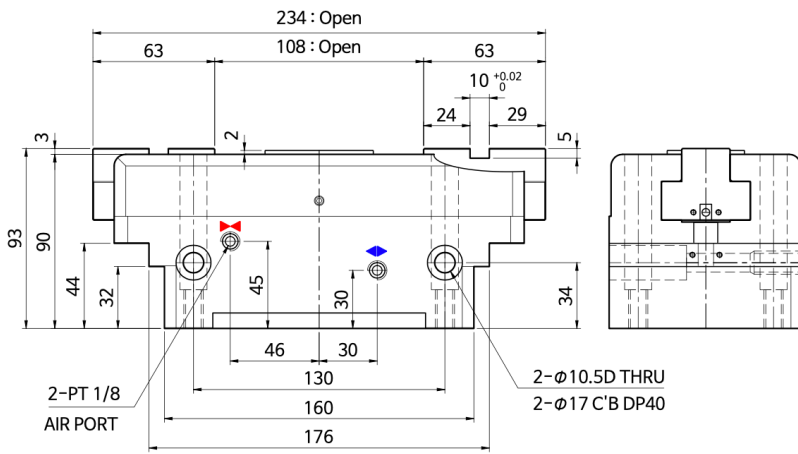
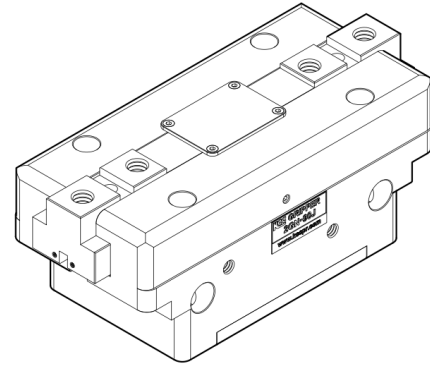
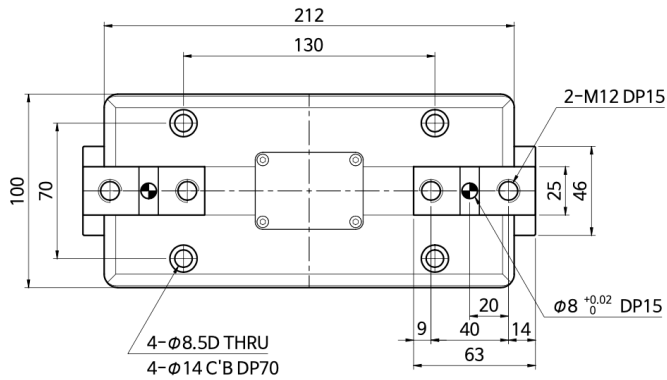
**Dimensions-Option**



Dimensions-Standard

2GN-90J

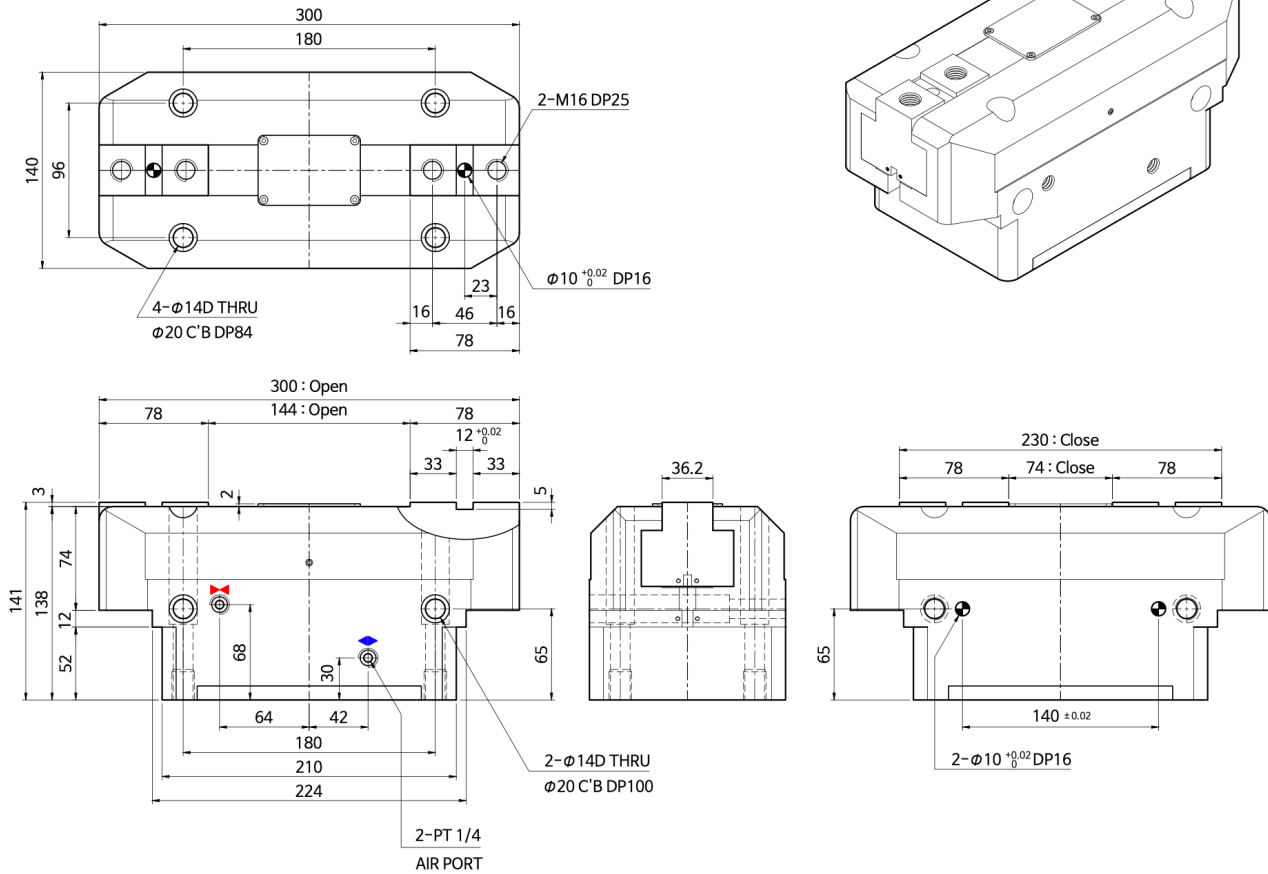
③



**Dimensions-Standard**

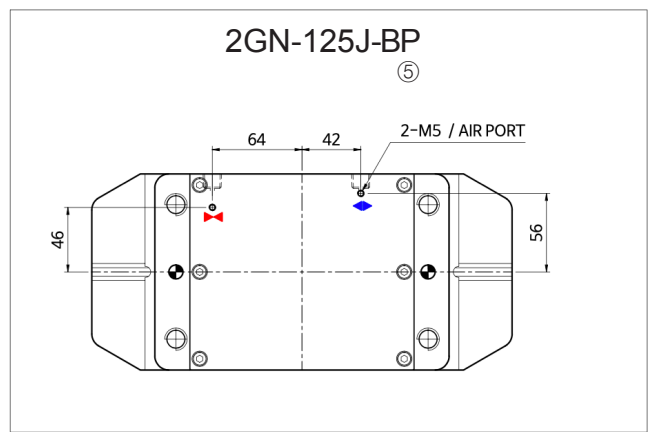
**2GN-125J**

③



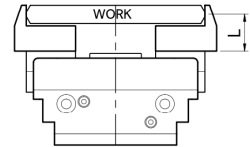
**2GN-125J-BP**

⑤



**Gripping force calculation formula**

	Standard		SL		PU	
	Open	Close	Open	Close	Open	Close
2GN-25	$\frac{400.4xp}{1+0.0062xL}$	$\frac{359.4xp}{1+0.0062xL}$	$\frac{348.9xp}{1+0.0062xL}$	$\frac{312.2xp}{1+0.0062xL}$	$\frac{527.1xp}{1+0.0062xL}$	$\frac{473.1xp}{1+0.0062xL}$
2GN-30	$\frac{581.8xp}{1+0.0051xL}$	$\frac{517.1xp}{1+0.0051xL}$	$\frac{506.9xp}{1+0.0051xL}$	$\frac{450.6xp}{1+0.0051xL}$	$\frac{765.8xp}{1+0.0051xL}$	$\frac{680.7xp}{1+0.0051xL}$
2GN-42	$\frac{1142.5xp}{1+0.0044xL}$	$\frac{1015.5xp}{1+0.0044xL}$	$\frac{995.4xp}{1+0.0044xL}$	$\frac{884.8xp}{1+0.0044xL}$	$\frac{1503.9xp}{1+0.0044xL}$	$\frac{1336.8xp}{1+0.0044xL}$
2GN-50	$\frac{1624.1xp}{1+0.0036xL}$	$\frac{1457.8xp}{1+0.0036xL}$	$\frac{1415xp}{1+0.0036xL}$	$\frac{1270.1xp}{1+0.0036xL}$	$\frac{2137.9xp}{1+0.0036xL}$	$\frac{1918.9xp}{1+0.0036xL}$
2GN-63	$\frac{2603.3xp}{1+0.0028xL}$	$\frac{2340.9xp}{1+0.0028xL}$	$\frac{2268.2xp}{1+0.0028xL}$	$\frac{2039.6xp}{1+0.0028xL}$	$\frac{3426.9xp}{1+0.0028xL}$	$\frac{3081.5xp}{1+0.0028xL}$
2GN-90	$\frac{3294.4xp}{1+0.002xL}$	$\frac{3040.2xp}{1+0.002xL}$				
2GN-125	$\frac{8664.9xp}{1+0.0016xL}$	$\frac{7985.5xp}{1+0.0016xL}$				



※ Gripping force unit: [N], Pressure unit: [MPa], L(Gripping point distance) unit = [mm]  
 ※ This formula is used to calculate the gripping force using an arbitrary pressure and <L> value.

**Effective gripping force (Standard: Default, SL: 17% Down, PU: 32% Up)**

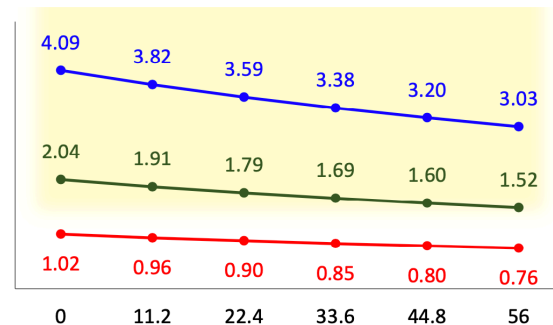
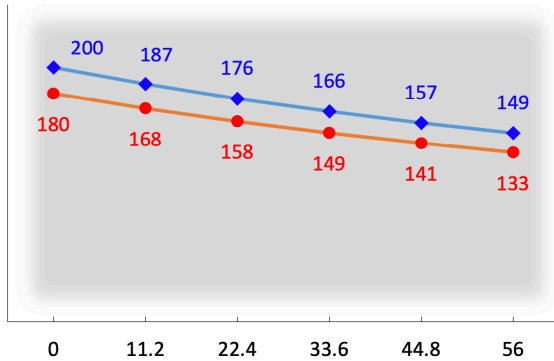
Gripping force [N] (Pressure = 0.5[MPa])

WORK weight by condition when closed [kg] (Pressure = 0.5[MPa])

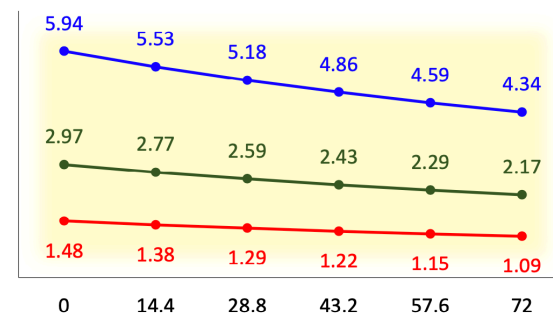
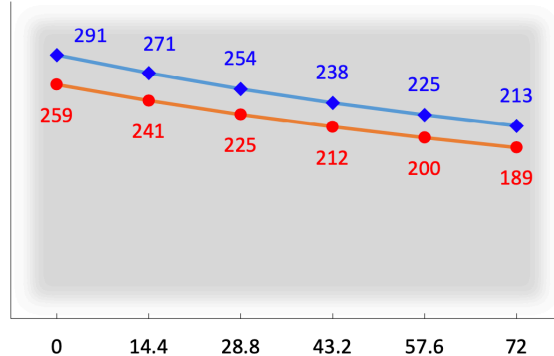
◆ : Open | ● : Close

(Condition of use)  
 — (Fixed or slow moving)  
 — (General deceleration and acceleration such as linear motion)  
 — (Rapid deceleration and acceleration such as robot attachment or rotation)

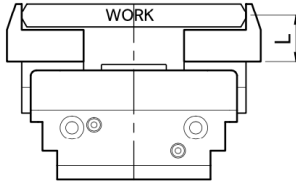
◆ 2GN-25



◆ 2GN-30



**Effective gripping force (Standard: Default, SL: 17% Down, PU: 32% Up)**



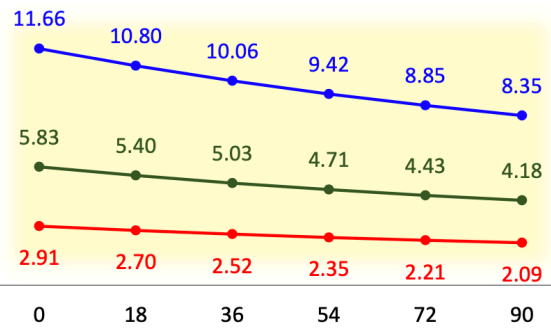
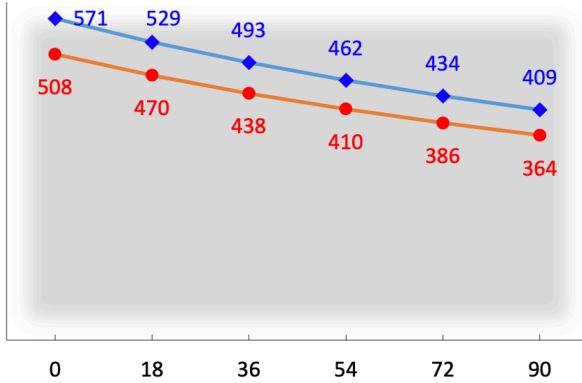
(A graph showing the standard type obtained by dividing the maximum <L> value of a product into five.

- ※ If you calculate the gripping force of the product X 1/5, 1/10, 1/20, you can calculate the work weight for each usage condition.
- ※ It is more stable if the <L> of the attachment is short, the coefficient of friction with the workpiece is large, and the weight is light.)

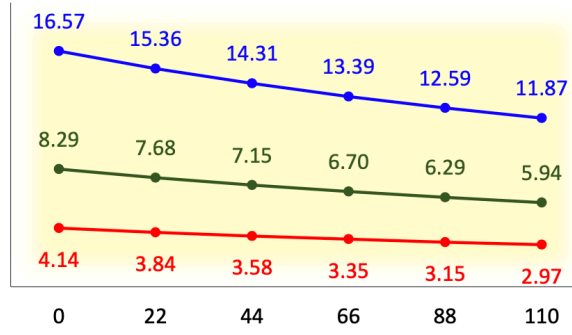
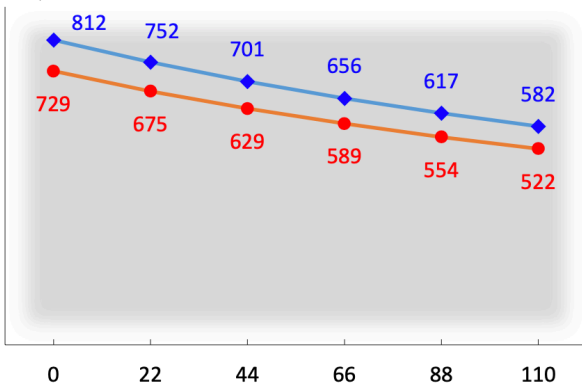
**Gripping force [N] (Pressure = 0.5[MPa])**

**WORK weight by condition when closed [kg] (Pressure = 0.5[MPa])**

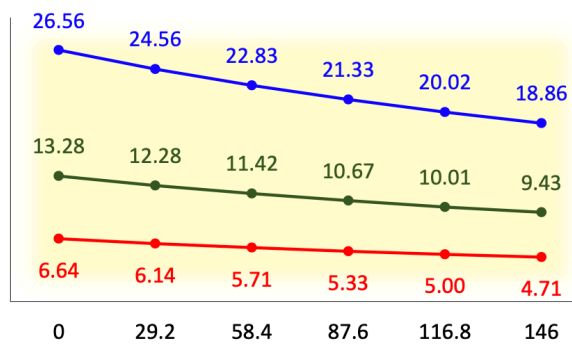
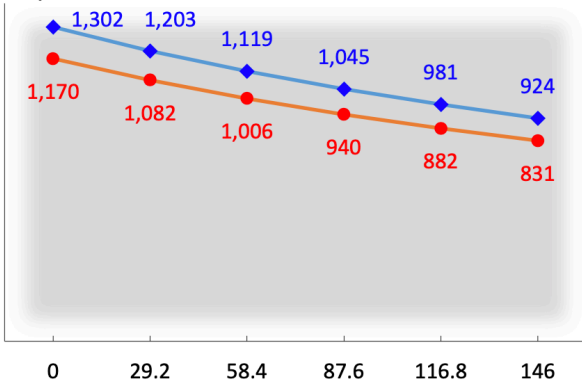
◆ 2GN-42



◆ 2GN-50



◆ 2GN-63

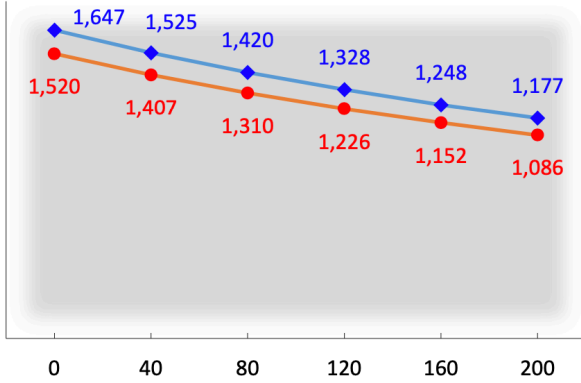




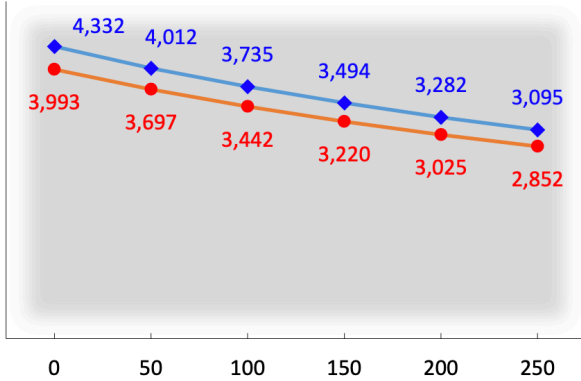
Effective gripping force (Standard: Default, SL: 17% Down, PU: 32% Up)

Gripping force [N] (Pressure = 0.5[MPa])

◆ 2GN-90



◆ 2GN-125



WORK weight by condition when closed [kg] (Pressure = 0.5[MPa])

