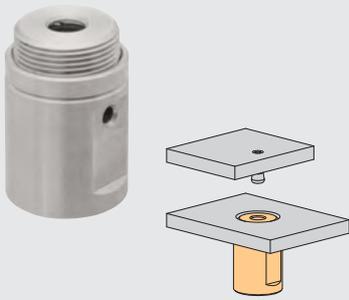


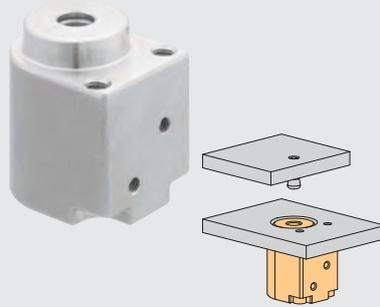
Pneumatic Clamping Fasteners





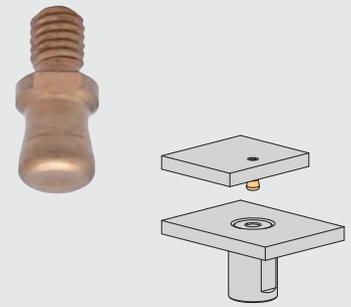
PNEUMATIC PIN HOLDING CLAMP

Part No. PPHC-S



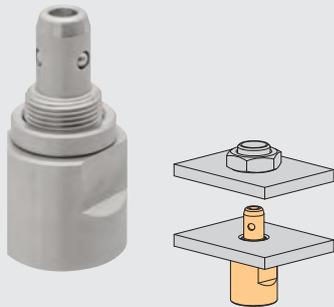
PNEUMATIC PIN HOLDING CLAMP

Part No. PPHC-D



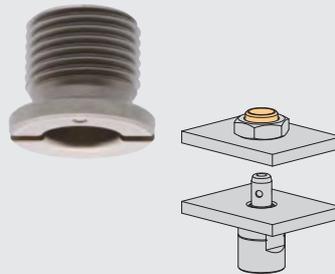
CLAMPING PIN

Part No. QCPC-M



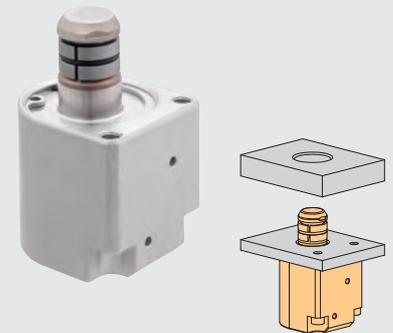
PNEUMATIC BALL-LOCKING CLAMPS

Part No. PBLC



BALL-LOCK RECEPTACLE

Part No. PBLC-M



PNEUMATIC ID HOLDING CLAMP

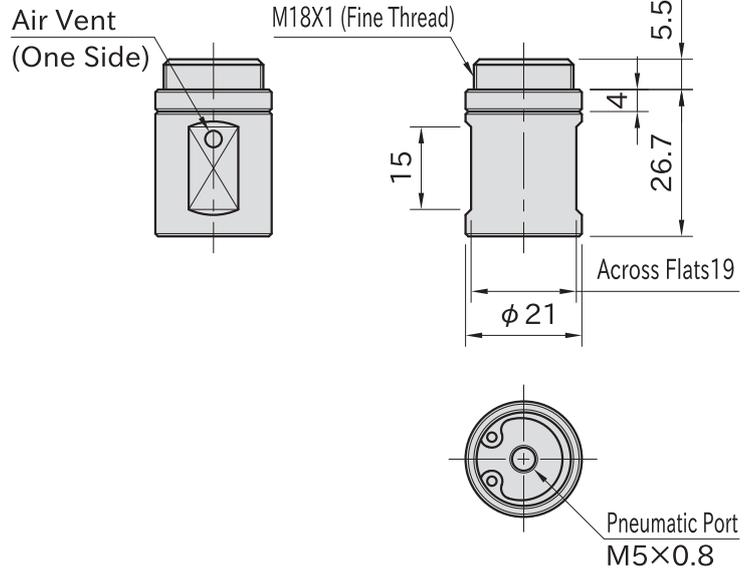
Part No. PIDHC

PPHC-S

PNEUMATIC PIN HOLDING CLAMP



Stainless Steel



★ Key Point

Compact pull down clamp

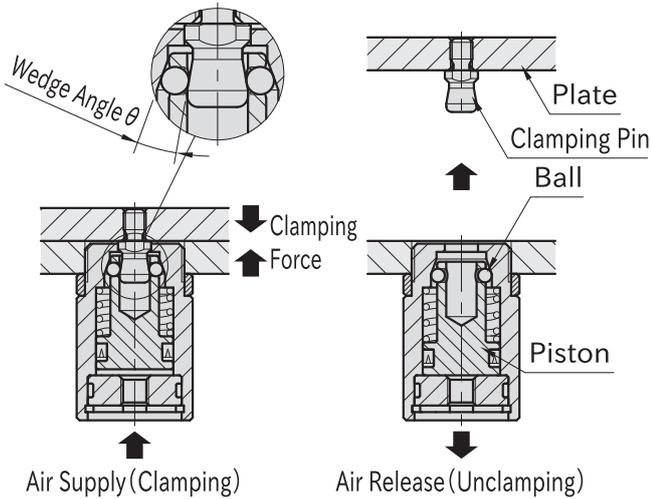
Body/Piston	Wedge/Ball	Spring	Retaining Ring	Seal
SUS303 stainless steel	SUS440C stainless steel Quenched and tempered	SUS304WPB stainless steel	SUS304 stainless steel	Nitrile rubber (NBR)

Part Number	Operating Air Pressure (MPa)	Clamping Force (N) *	Weight (g)	Proper Clamping Pin
PPHC0621S-SUS	0.3~0.7	30	62	QCPC0625-M4-SUS

*) The clamping force above is at 0.5 MPa.

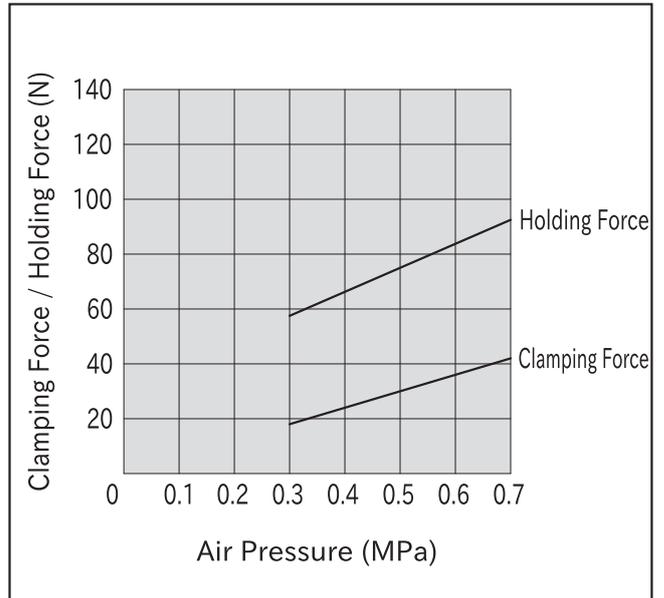


Feature



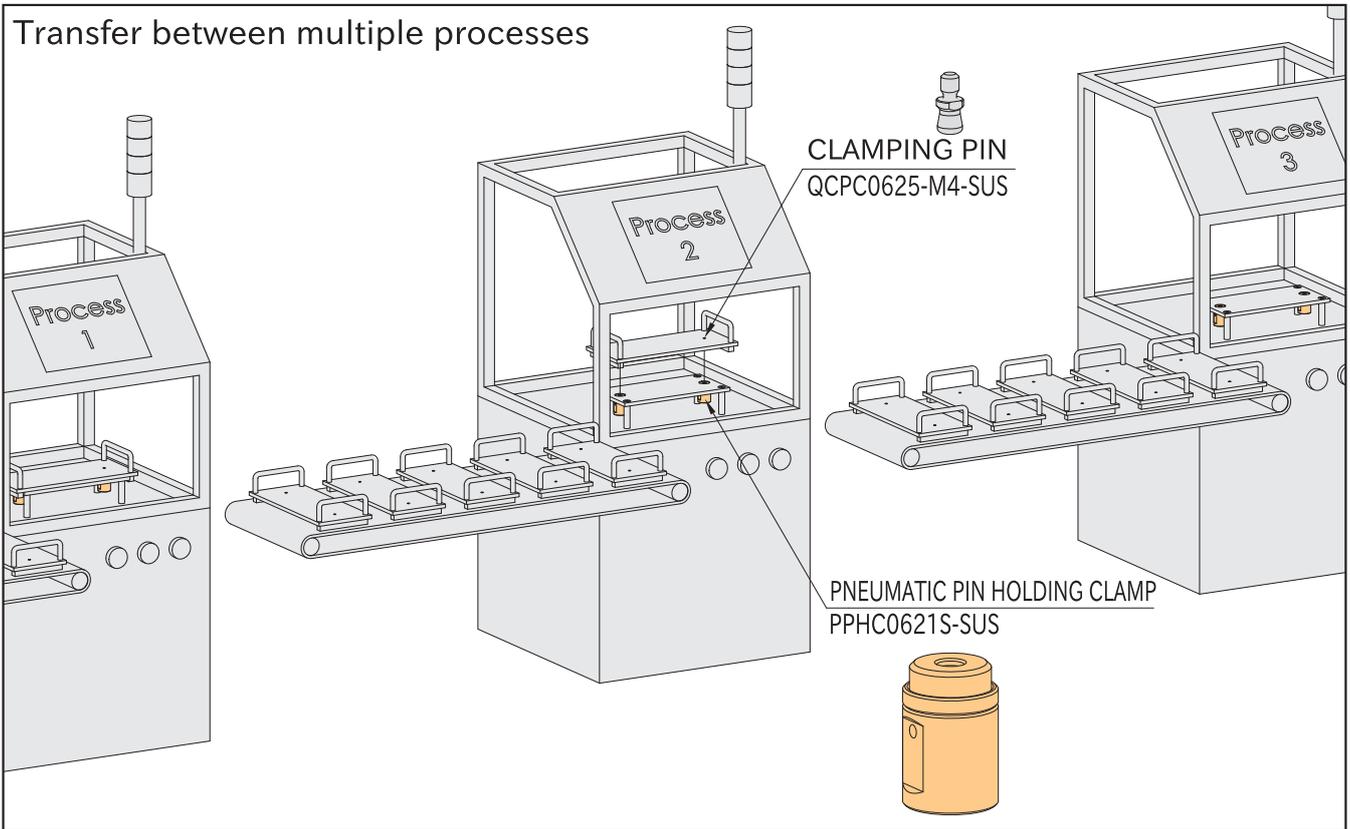
- The piston goes up by air supply and the balls move toward the center to pull down the clamping pin.
- The wedge clamping prevents the plate from lifting up.

Performance Curve

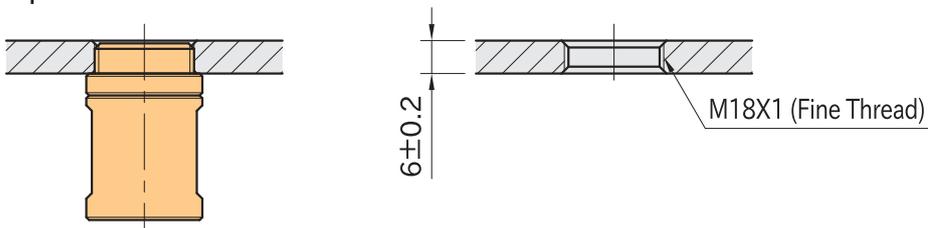


Application Example

Transfer between multiple processes



■ Hole Preparation



■ Machining Accuracy

Spacing tolerance for multiple use should be ± 0.1 .

■ Repeatability

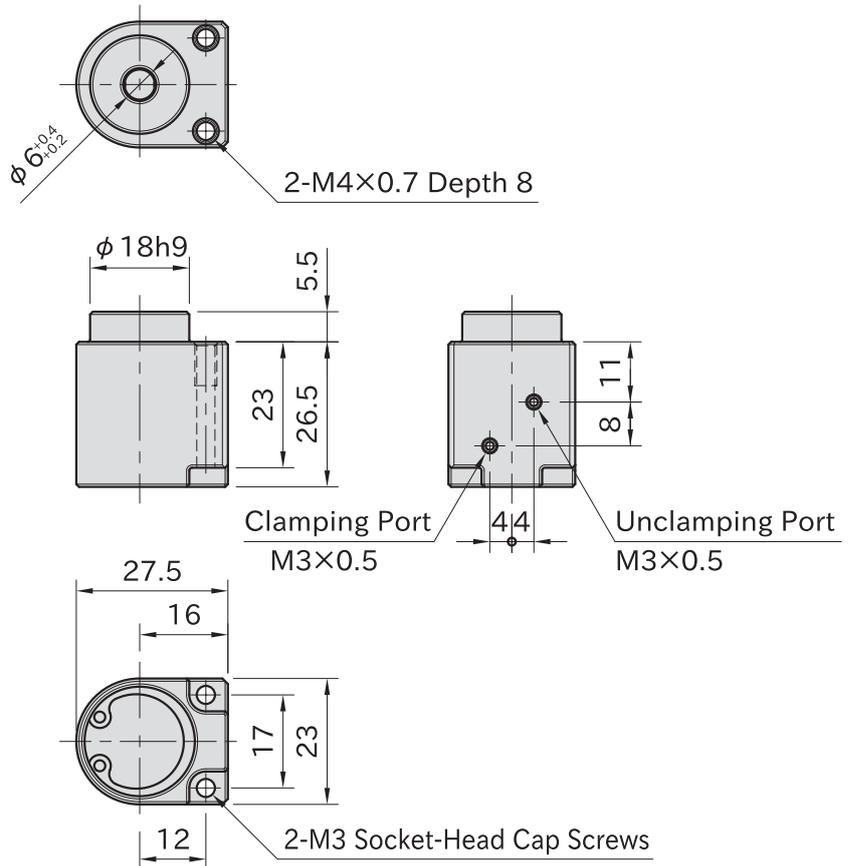
Repeatability is ± 0.2 .
For higher accurate locating, use locating pins.

PPHC-D

PNEUMATIC PIN HOLDING CLAMP



Stainless Steel



★ **Key Point**
Double-acting pull down clamp

Body	Piston	Wedge/Ball	Spring	Retaining Ring	Seal
SCS13 stainless steel (equivalent to SUS304)	SUS303 stainless steel	SUS440C stainless steel Quenched and tempered	SUS304WPB stainless steel	SUS304 stainless steel	Nitrile rubber (NBR)

Part Number	Operating Air Pressure (MPa)	Clamping Force (N)		Weight (g)	Proper Clamping Pin
		With Air *)	Without Air **)		
PPHC0623D-SUS	0.3~0.7	40	6	105	QCPC0625-M4-SUS

*) The clamping force above is at 0.5 MPa.

**) Inner spring provides clamping without air supply.

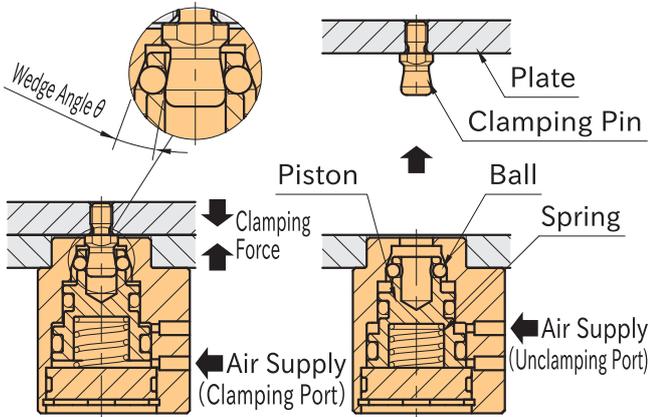
Supplied With

2 of socket-head cap screws(stainless steel), M3×0.5-28L

QCPC-M CLAMPING PIN

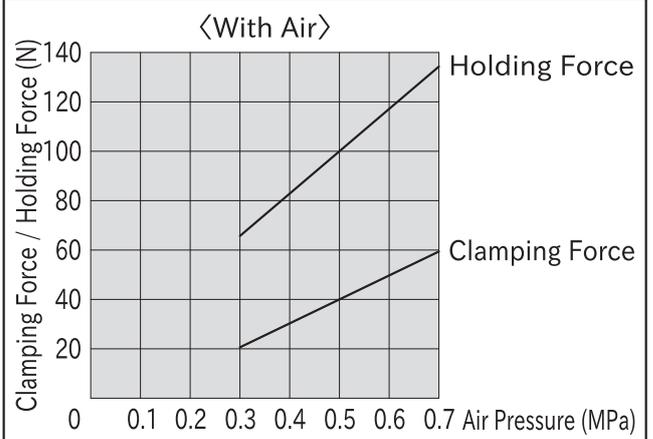


Feature



- The piston goes up by air supply from clamping port and the balls move toward the center to pull down the clamping pin.
- The wedge clamping prevents the plate from lifting up.
- Inner spring keeps clamping without air supply.

Performance Curve

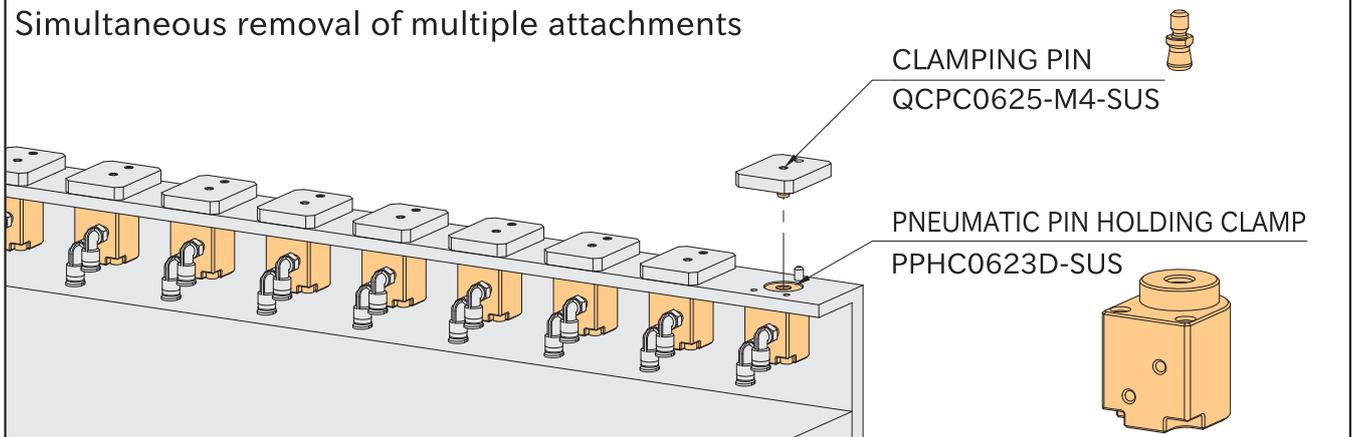


<Without Air>

Clamping Force (N)	Holding Force (N)
6	40

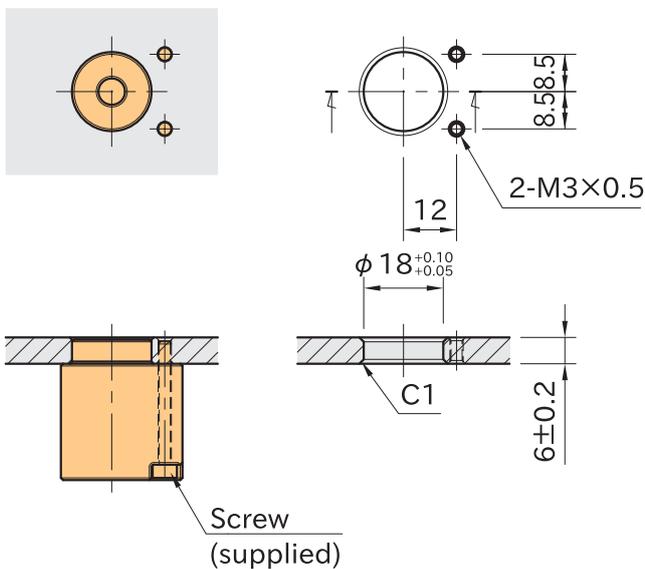
Application Example

Simultaneous removal of multiple attachments

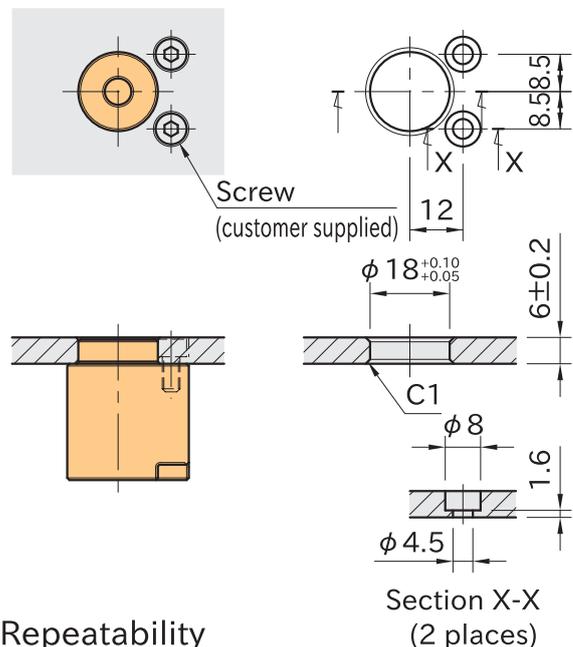


■ Hole Preparation

With M3 Socket-Head Cap Screws (supplied)



With M4 Socket-Head Cap Screws (customer supplied)



■ Machining Accuracy

Spacing tolerance for multiple use should be ± 0.1 .

■ Repeatability

Repeatability is ± 0.2

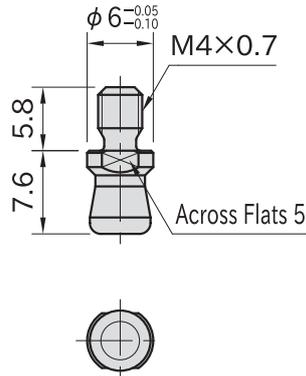
For higher accurate locating, use locating pins.

QCPC-M

CLAMPING PIN



Stainless Steel



Body
SUS630 stainless steel Precipitation hardened

Part Number	Weight (g)	Proper pneumatic pin holding clamps
QCPC0625-M4-SUS	2	PPHC0621S-SUS, PPHC0623D-SUS

Note: Spacing tolerance for multiple use should be ± 0.1 .
Refer to the product pages of clamps for repeatability.



Note

Color difference by the hardening treatment does not affect function or quality of the product.

How To Install

Hole Preparation



PBLC

PNEUMATIC BALL-LOCKING CLAMPS



Stainless Steel



PBL1023S-SUS

(Spring Clamping/Single Acting)



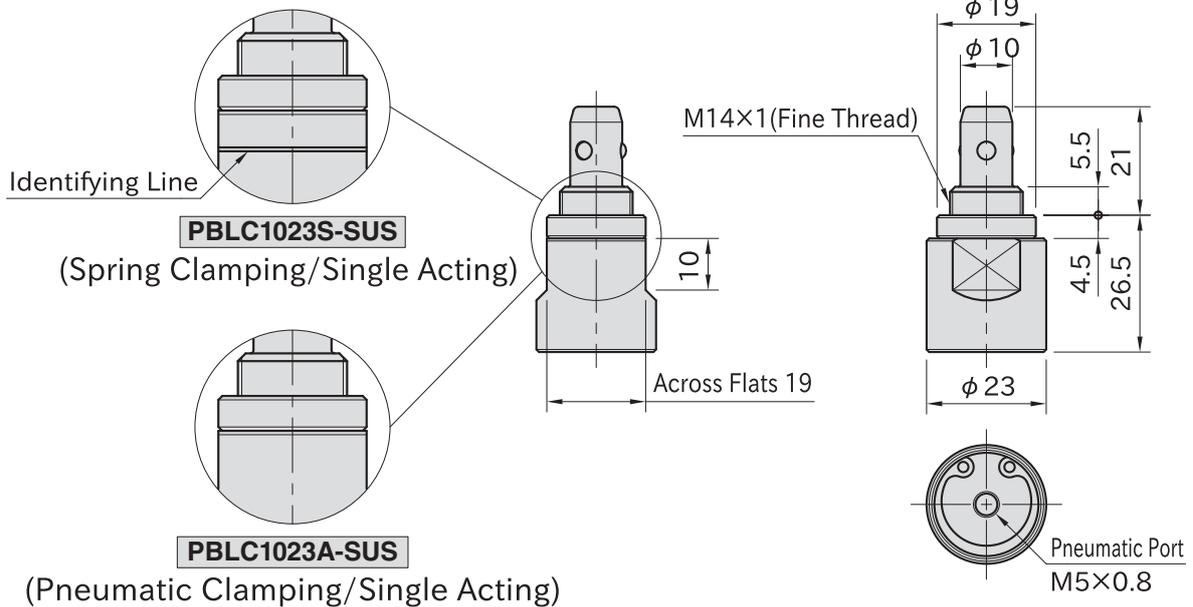
PBL1023A-SUS

(Pneumatic Clamping/Single Acting)

★ **Key Point**

Two clamping types are available.

Body	Shaft	Ball	Spring	Retaining Ring	Seal
SUS303 stainless steel	SUS420J2 stainless steel Electroless nickel plated Quenched and tempered	SUS440C stainless steel Quenched and tempered	SUS304WPB stainless steel	SUS304 stainless steel	Nitrile rubber (NBR)



Part Number	Operating Air Pressure (MPa)	Clamping Force (N)	Weight (g)	Proper Receptacle
PBL1023S-SUS	0.3~0.7	50	71	PBL1023A-SUS
PBL1023A-SUS		150 *)		

*) The clamping force above is at 0.5 MPa.

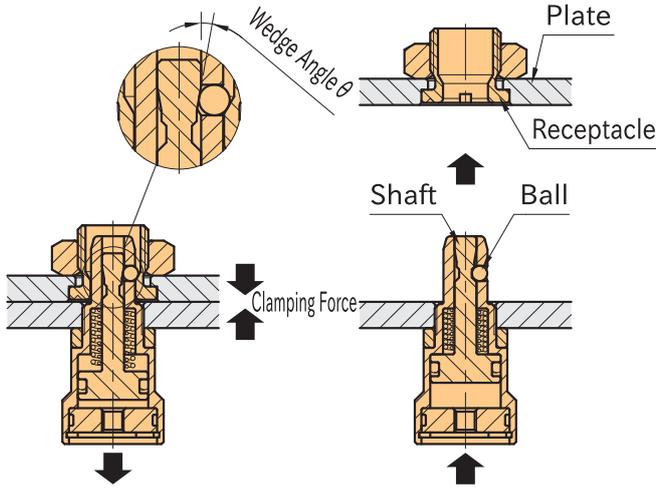


Note

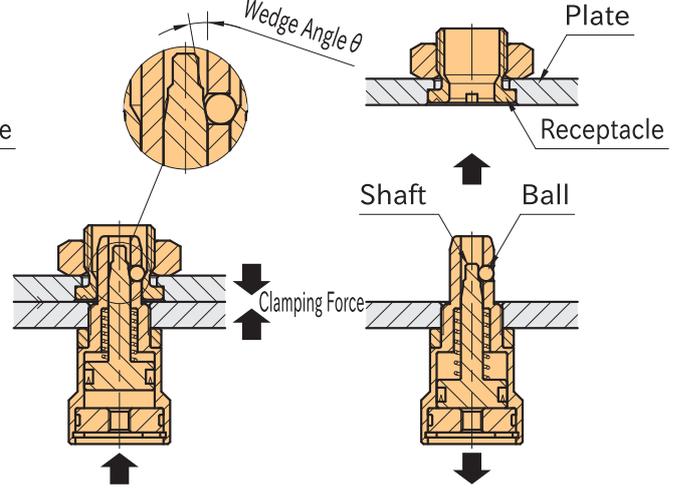
PBL1023S-SUS has an identifying line and **PBL1023A-SUS** does not.

Feature

PBLC1023S-SUS (Spring Clamping)



PBLC1023A-SUS (Pneumatic Clamping)



Air Release (Clamping)

Air Supply (Unclamping)

Air Supply (Clamping)

Air Release (Unclamping)

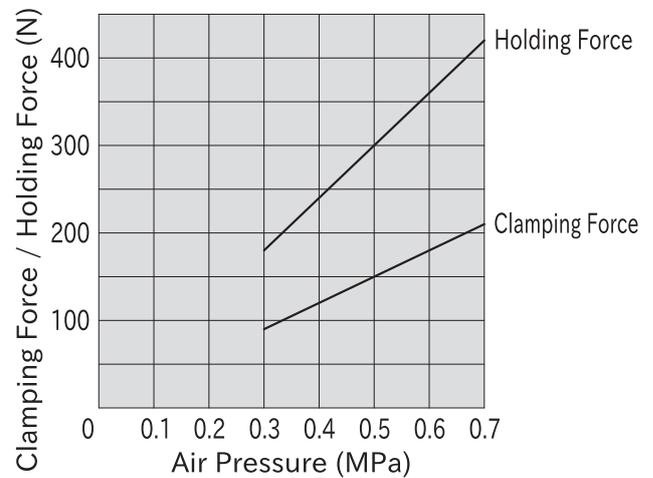
- The shaft pushes out the balls onto the tapered surface of the receptacle to pull down the plate.
- The wedge clamping prevents the plate from lifting up.
- Spring clamping type can keep clamping without air supply.

Performance Curve

PBLC1023S-SUS (Spring Clamping)

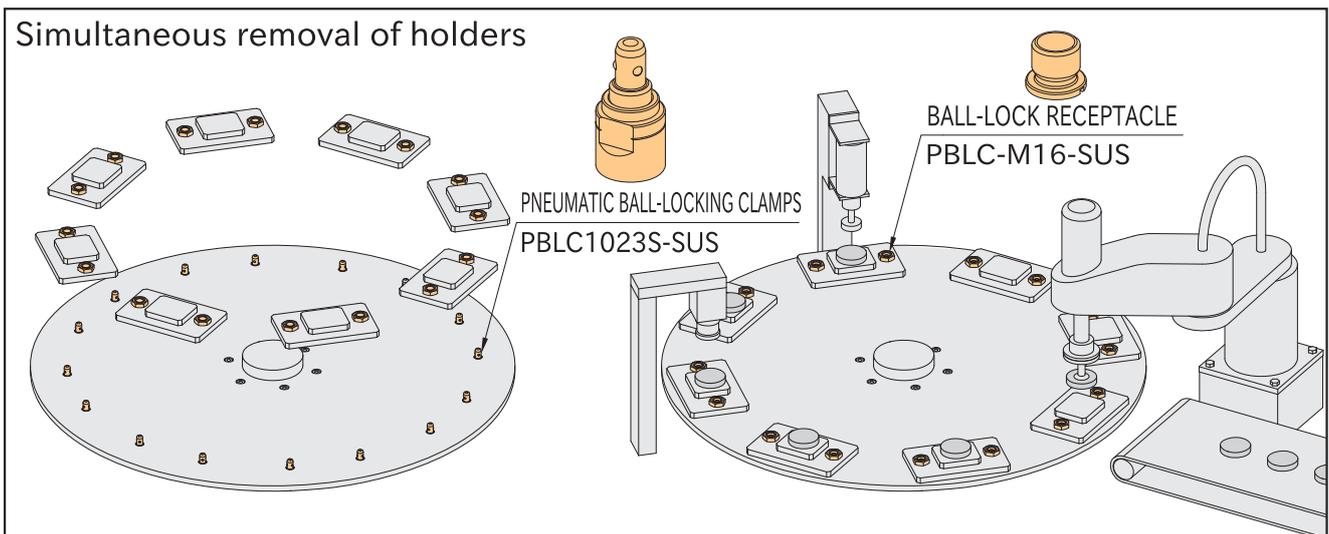
Clamping Force (N)	Holding Force (N)
50	150

PBLC1023A-SUS (Pneumatic Clamping)



Application Example

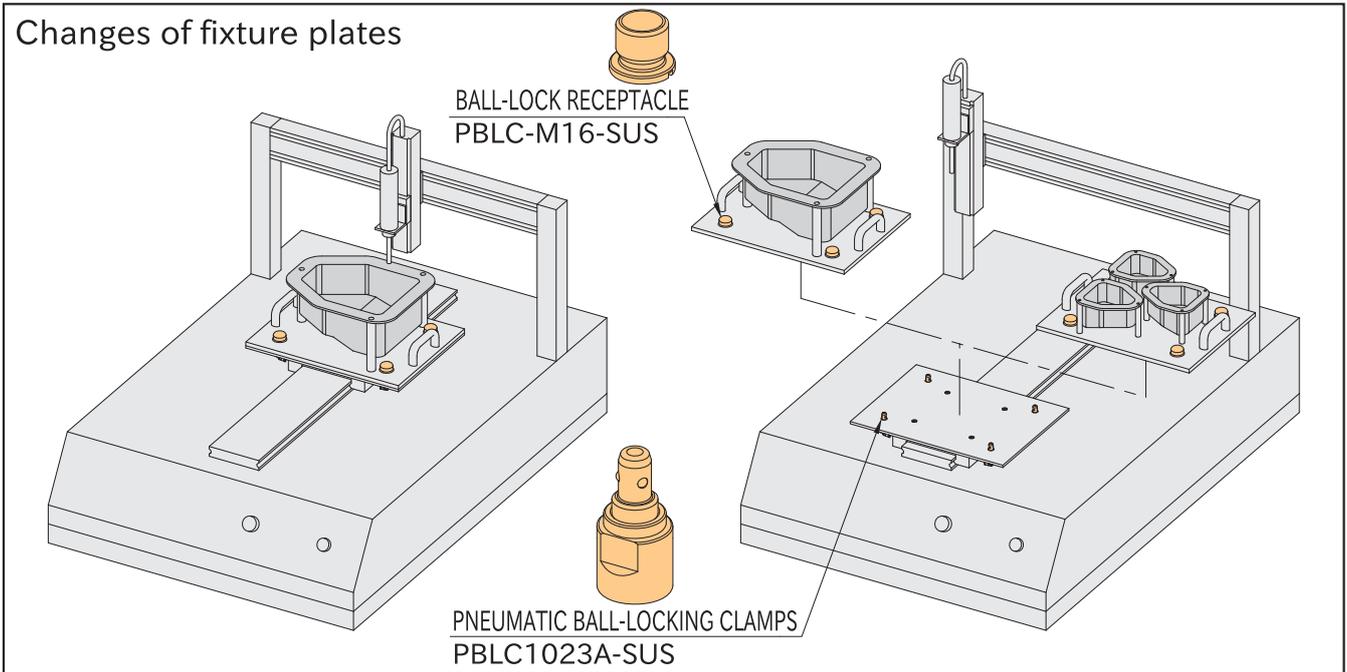
Simultaneous removal of holders



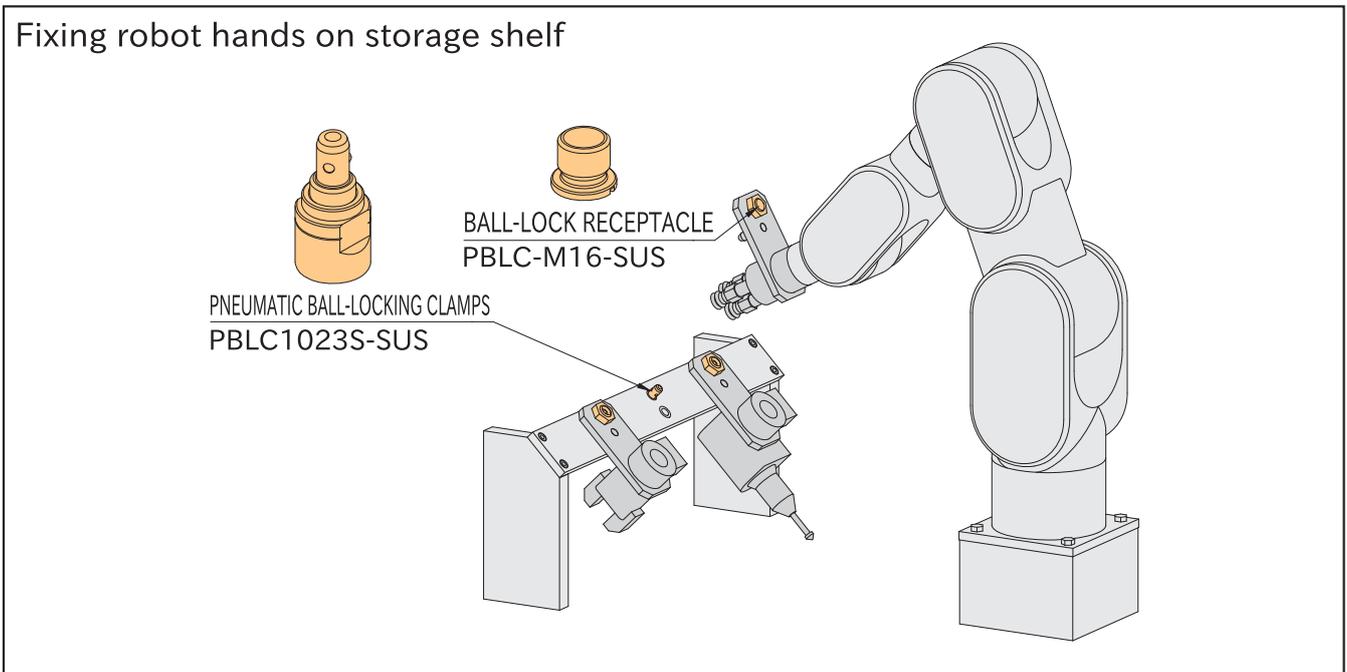
Continuing on Next Page

Application Example

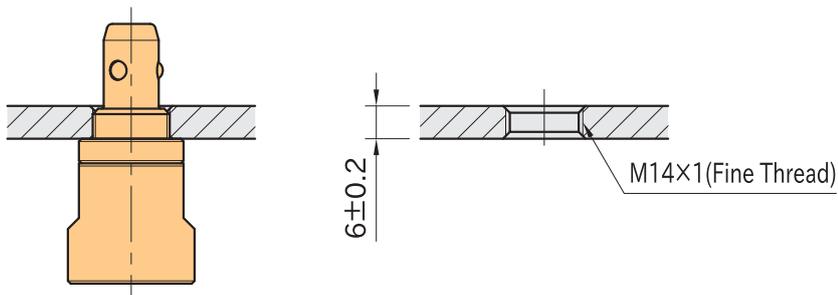
Changes of fixture plates



Fixing robot hands on storage shelf



■ Hole Preparation



■ Machining Accuracy

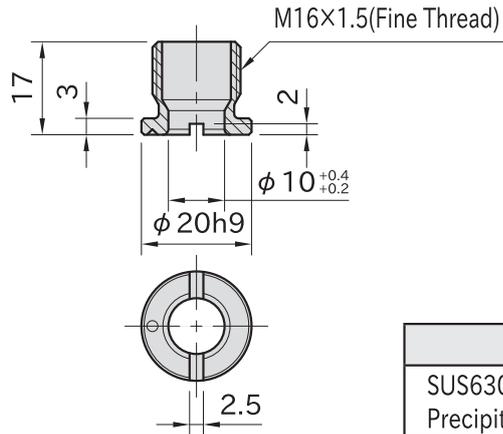
Spacing tolerance for multiple use should be ± 0.1 .

■ Repeatability

Repeatability is ± 0.2 .
For higher accurate locating, use locating pins.

PBLC-M

BALL-LOCK RECEPTACLE



Body
SUS630 stainless steel Precipitation hardened

Part Number	Proper Plate Thickness	Weight (g)	Proper Pneumatic Ball-Locking Clamps
PBLC-M16-SUS	6 or more	13	PBLC1023S-SUS, PBLC1023A-SUS

※Note: Spacing tolerance for multiple use should be ± 0.1 .
Refer to the product pages of clamps for repeatability.

Note

Color difference by the hardening treatment does not affect function or quality of the product.

How To Install

Hole Preparation

Plate thickness: 6mm to 10mm

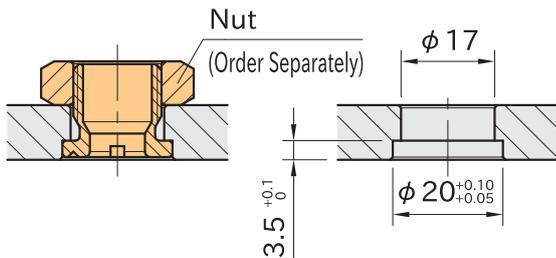
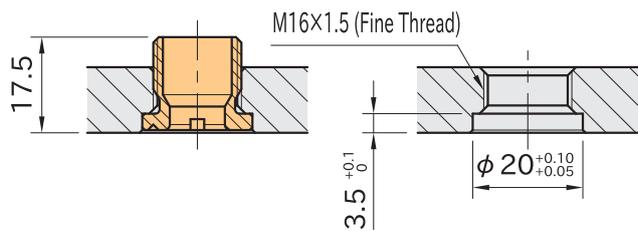
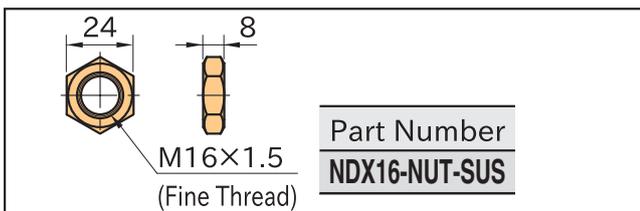


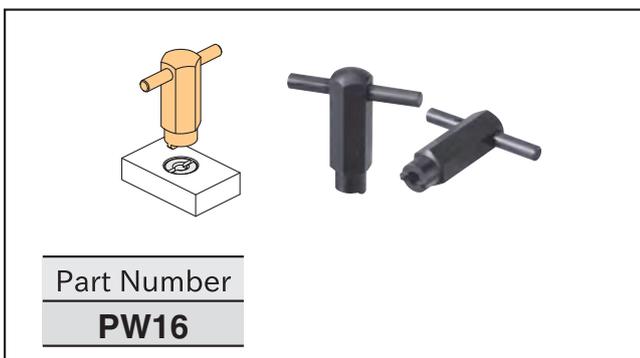
Plate thickness: over 10mm



Order Separately Nut (Stainless Steel)



Order Separately Installation Wrench





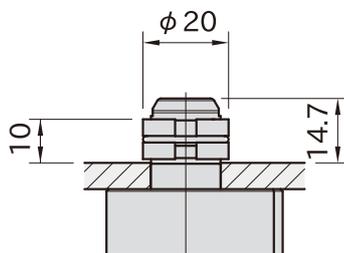
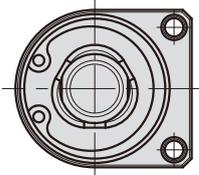
(Double Acting)

★Key Point

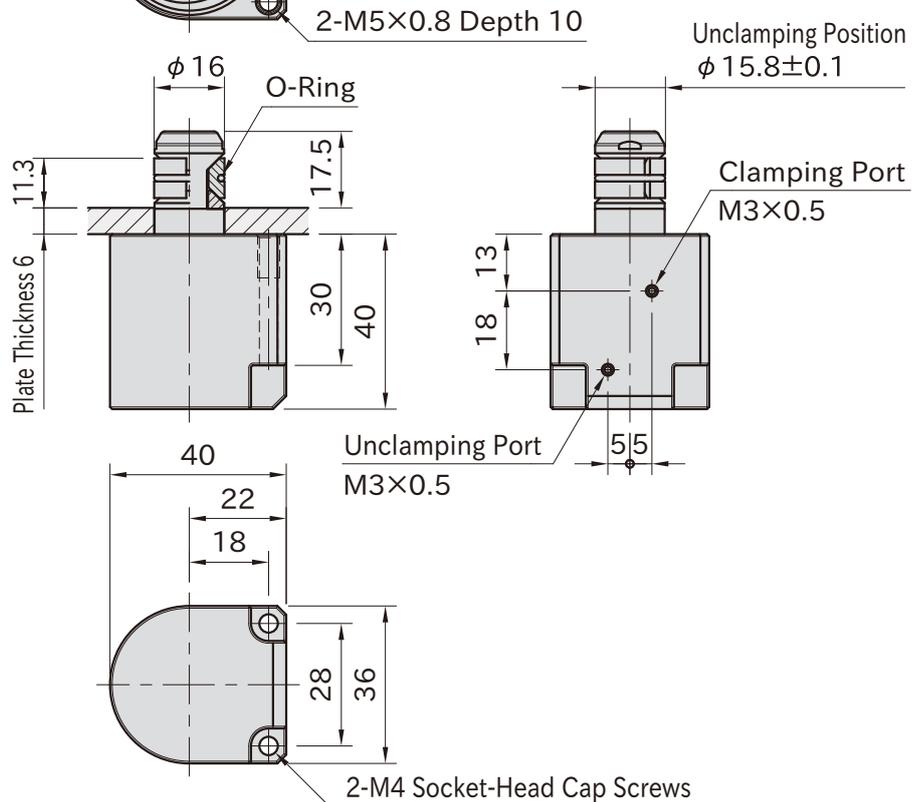
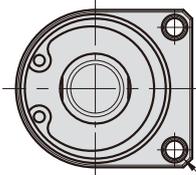
Holds the internal diameter

Body	Jaw/Washer	Piston	
SCS13 stainless steel (Equivalent to SUS304)	SUS630 stainless steel Precipitation hardened	SUS303 stainless steel	
Pulling Shaft	Spring	Retaining Ring	Seal
SUS420J2 stainless steel Electroless nickel plated Quenched and tempered	SUS304WPB stainless steel	SUS304 stainless steel	Nitrile rubber (NBR)

Clamping Dia. ϕ 20



Clamping Dia. ϕ 16



Part Number	Recommended Clamping Dia.*)	Operating Air Pressure (MPa)	Holding Force (N) **)	Weight (g)	O-Ring Size for Replacement
PIDHC20-SUS	ϕ 16~ ϕ 20	0.3~0.7	77	336	S12 (CS 1.5/ID 11.5)

*) Maximum Clamping Dia. is ϕ 22.

**) The holding force above is with 0.5 MPa air pressure and SUS304 (surface roughness Ra1.6) workpiece.

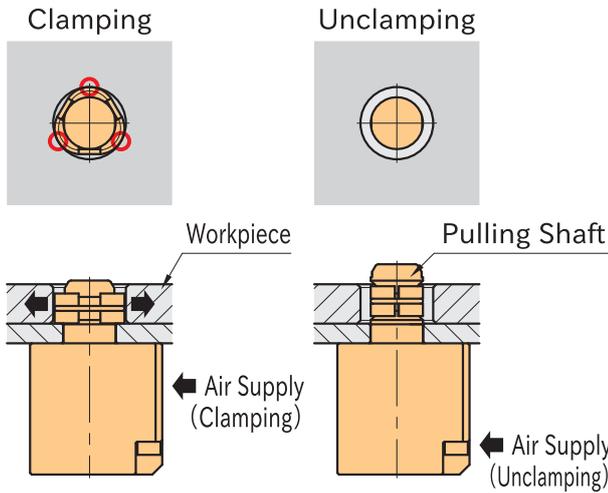
Supplied With

2 of socket-head cap screws(stainless steel), M4x0.7-35L

Note

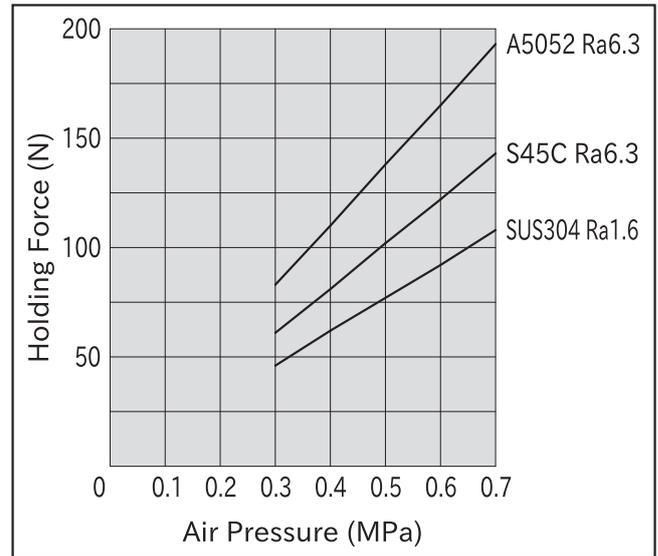
- Color difference by the hardening treatment does not affect function or quality of the product.
- Use clean air by removing moisture and debris with an air dryer and air filter.
- Impurities in the compressed air can cause malfunction.

Feature



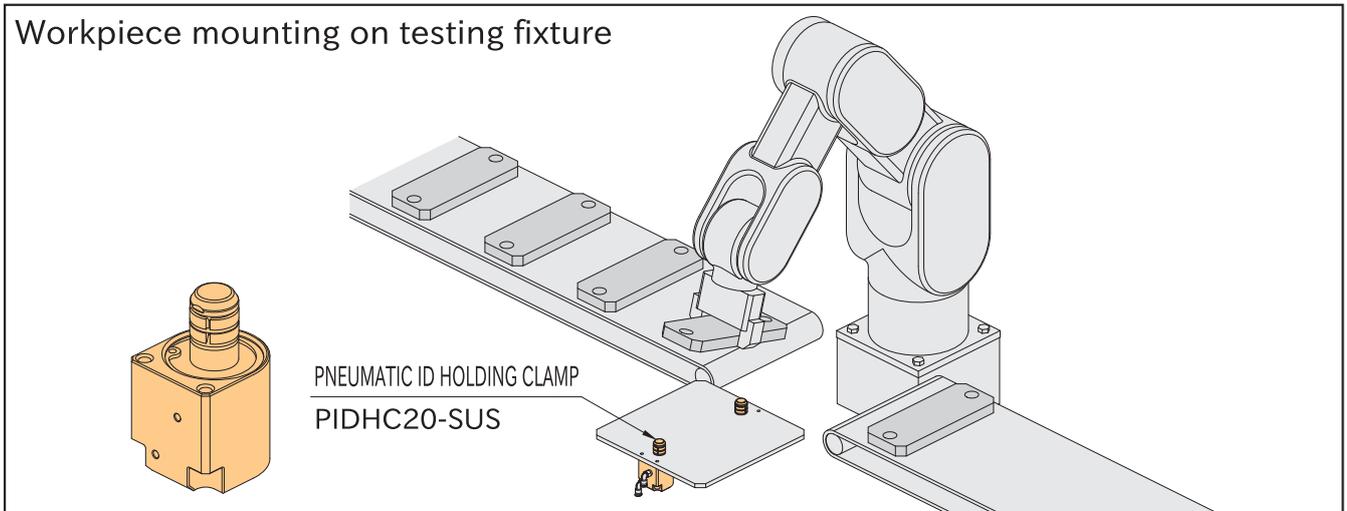
- The pulling shaft goes down by air supply from clamping port and the jaws expand to hold the workpiece.
- The clamp makes a line contact with the workpiece at 3 places.

Performance Curve



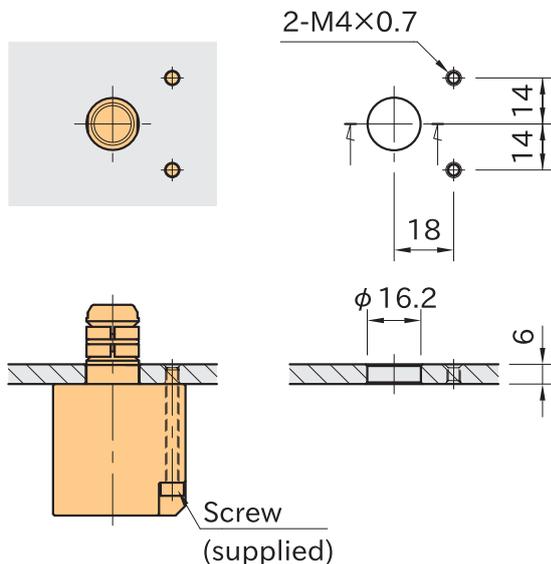
Application Example

Workpiece mounting on testing fixture

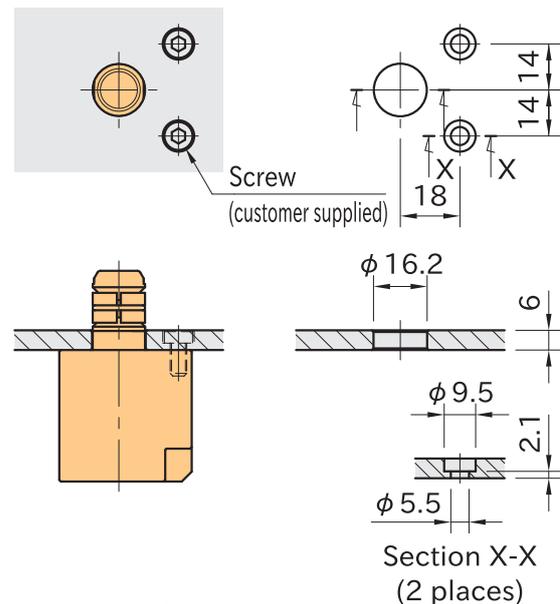


■ Hole Preparation

With M4 Socket-Head Cap Screws (supplied)



With M5 Low-Head Cap Screws (customer supplied)
(Dimension: head dia. 8.5, head height 3.5)



■ Repeatability

Estimated repeatability is ± 0.2 (clamping dia. $\phi 20$, without any load)



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