ORDERING INFORMATION

SWP - 0 5 0 1 [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Pin Style
- D   3-Finger Contact Datum
- C   2-Finger Contact 2-way
- M   3-Finger Contact - Floating Pin

Part Hole Size
- C&D= 7.90-13.00   M=9.90-13.00
  (9.00mm Dia Shown)

Actuator Option
- 0   Non Locking Option
- L   Locking Option

Mounting Option
- 0   No Mounting option - (Pin Clamp Only)
- S   Standard (Pilot mounted)
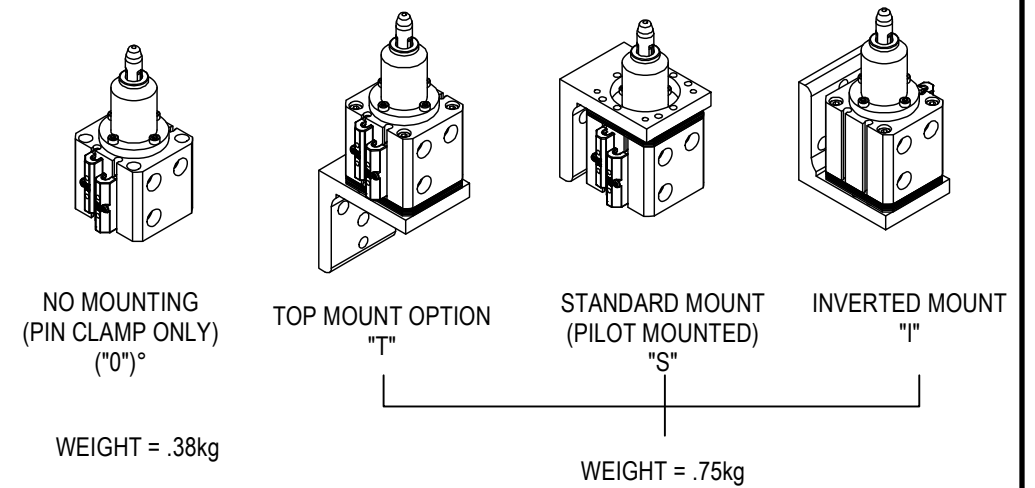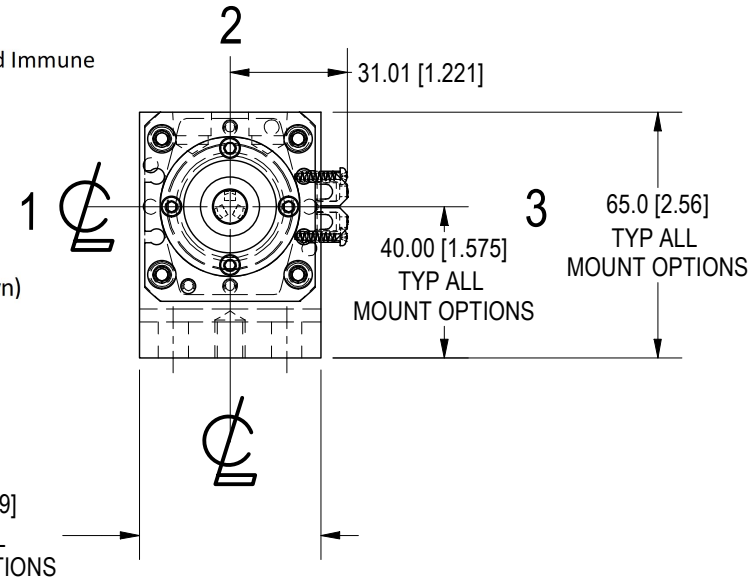- I   Inverted mount
- T   Top mount

INDIVIDUAL MOUNTING BRACKET
ORDER AS - SWPD05

5MM SHIM PACK
ORDER AS - SWPZ0501-S5
- (2) 0.25mm
- (3) 0.5mm
- (3) 1.0mm

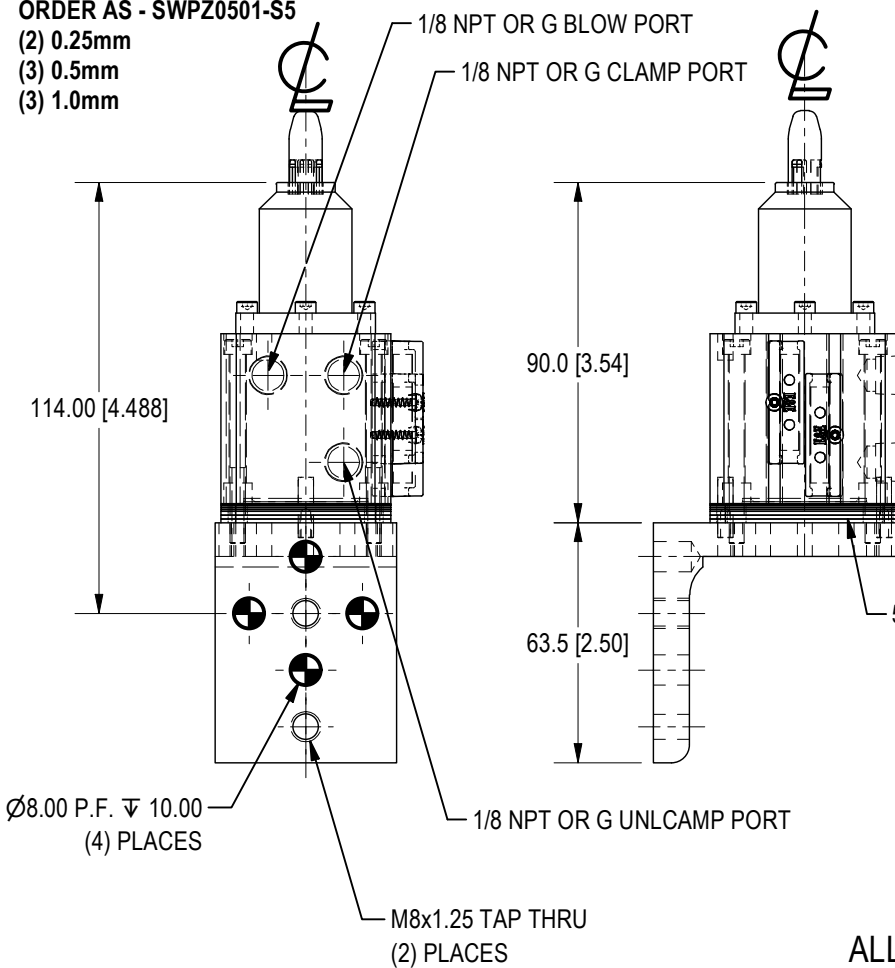**Switch**
- E   Efector Weld Immune
- B   Balluff
- T   Turck
- S   Sick (Standard) Weld Immune
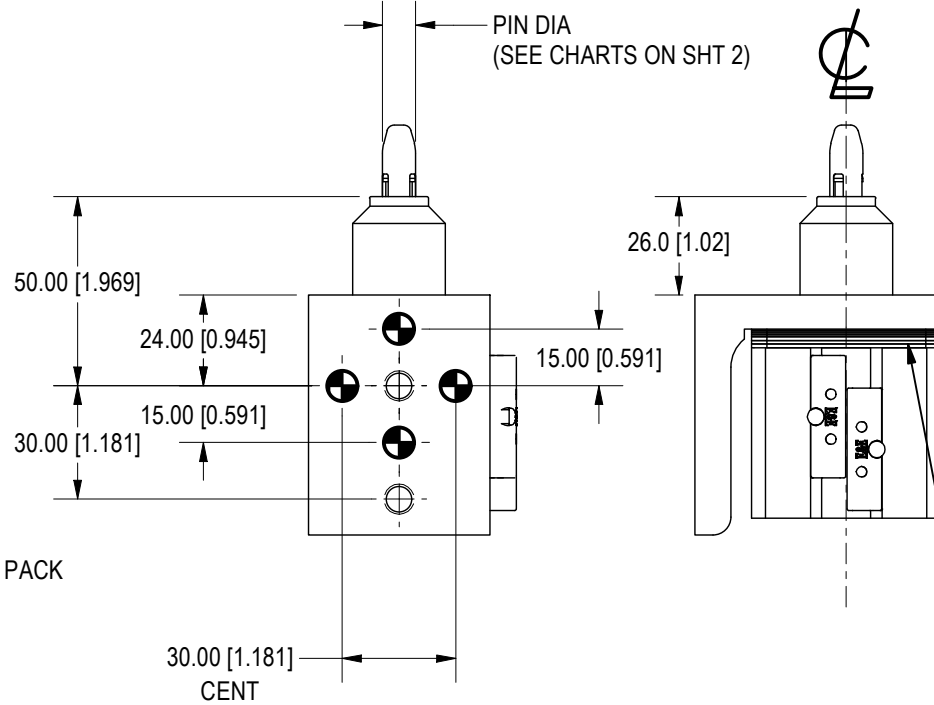
Ports
- N   NPT Ports
- G   BSPP Ports (G)

Port Position
- 1   Port Position
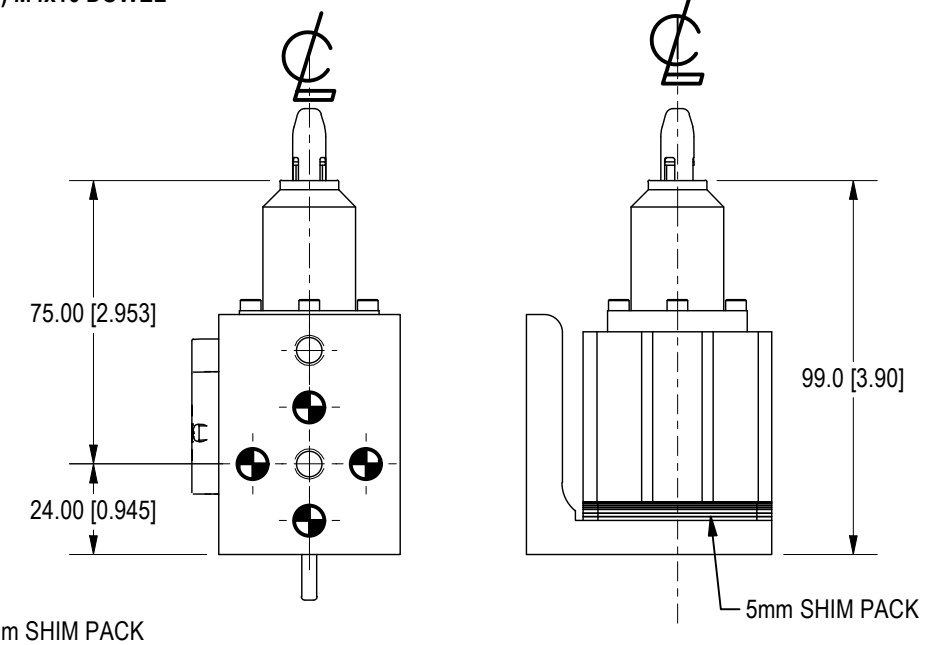- 2   Port Position (Shown)
- 3   Port Position

31.01 [1.221]

65.0 [2.56] TYP ALL MOUNT OPTIONS

40.00 [1.575] TYP ALL MOUNT OPTIONS

48.0 [1.89] TYP ALL MOUNT OPTIONS

NO MOUNTING (PIN CLAMP ONLY) ("0")°

WEIGHT = .38kg

TOP MOUNT OPTION "T"

STANDARD MOUNT (PILOT MOUNTED) "S"

INVERTED MOUNT "I"

WEIGHT = .75kg

*NOTE: WHEN ORDERING "0" NO MOUNT, UNITS ARE PROVIDED WITH:
(1) SWPZ051-S5 SHIM PACK
(4) M4x50 SHCS
(1) M4x16 DOWEL

1/8 NPT OR G BLOW PORT

1/8 NPT OR G CLAMP PORT

PIN DIA (SEE CHARTS ON SHT 2)

90.0 [3.54]

114.00 [4.488]

63.5 [2.50]

26.0 [1.02]

50.00 [1.969]

24.00 [0.945]

15.00 [0.591]

15.00 [0.591]

30.00 [1.181]

75.00 [2.953]

99.0 [3.90]

24.00 [0.945]

5mm SHIM PACK

5mm SHIM PACK

5mm SHIM PACK

30.00 [1.181] CENT

Ø8.00 P.F. ▽ 10.00 (4) PLACES

1/8 NPT OR G UNLCAMP PORT

M8x1.25 TAP THRU (2) PLACES

STANDARD MOUNT OPTION (PILOT MOUNTED)

INVERTED MOUNT OPTION

TOP MOUNT OPTION

ALL UNITS COME STANDARD WITH A 5mm SHIM PACK CONSISTING OF:
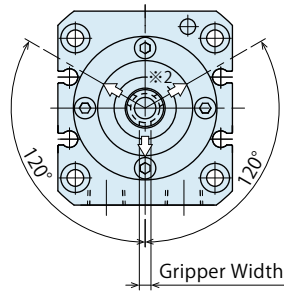(2) 0.25mm (3) 0.50mm (3) 1.00mm

SEE FOLLOWING SHEETS FOR ADDITIONAL INFORMATION

E & E CUSTOM PRODUCTS

TITLE: 0501 SERIES PIN CLAMP

PART NO.

7200 MILLER DR.
WARREN, MI 48092
EE-CP.COM

DRAWN BY: EE	CHK'D BY: EC	APPR'D BY: MH
DATE: 12/7/2021	DATE: 8/22/2024	DATE: 8/22/2024
SCALE: 1 / 2	DWG. NO.	
SHT 1 OF 1	SWP0501-TEMPLATE	

Function **D**

3 FINGER CONTACT DATUM

Function **C**

2 FINGER CONTACT 2-WAY

4-φ4.5 Through Hole
φ7.5 Spot Facing (on Both Sides)
(M4×0.7 Mounting Bolt Prepared by Customer)

1-φ4H8 $^{+0.018}_{0}$ Hole Depth 7

45

36

11±0.02

50

36

21±0.02

φ62

Gripper Width

Gripper Width

Locked State (without workpiece)

Released State

Clamping Part

Gripper

Lock Stroke

0.4

Gripper Thickness

K

t

Clamping Part

Locating Part

Locating Part

Seating Outer Diam.

φE $^{0}_{-0.05}$

φF

30°

Clamping Part

Locating Part

Seating Inner Diam.

G

45°

Pin Height

φ24.5

φ37g8 $^{-0.009}_{-0.048}$

Lock Air Port 1/8 Thread

Air Blow Port ※1 1/8 Thread

40±0.05

3

5.5

5.5

11

85±0.1

34

10 10

23

45

5.5

11

Release Air Port 1/8 Thread

3   39   3

Switch Slot

21±0.02

21±0.02

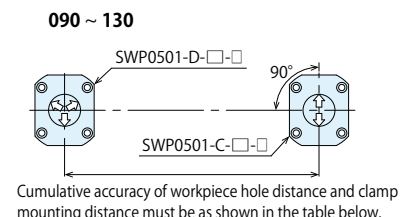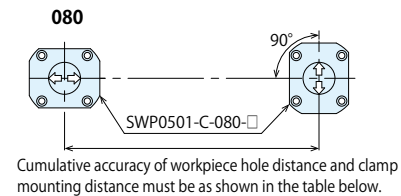2-φ4H8 $^{+0.018}_{0}$ Hole Depth 7

◉ External Dimension List : SWP0501-D/C
(mm)

Model No.			SWP0501 -C-080-□	SWP0501 -D/C-090-□	SWP0501 -D/C-100-□	SWP0501 -D/C-110-□	SWP0501 -D/C-120-□	SWP0501 -D/C-130-□
Workpiece	Hole Diameter		8 $^{+0.2}_{-0.1}$	9 $^{+0.2}_{-0.1}$	10 ±0.2	11 ±0.2	12 ±0.2	13 ±0.2
	Thickness t	Min.	0.45					
		Max.	2.3	3.6	5.5	6	6.5	7
Pin Height			17	19	23	23.5	24	24.5
Pin Outer Diam. E			7.8	8.8	9.5	10	11	12
Pin End Diam. F			4.5	5.5	5.5	6	7	8
Clamping Part	At Released		7.7	8.7	9.3	9.8	10.8	11.8
	At Locked without workpiece		9.8	10.8	11.8	12.8	13.8	14.8
Locating Part	At Released		6.1	7.1	7.7	8.2	9.2	10.2
	At Locked without workpiece		8.2	9.2	10.2	11.2	12.2	13.2
Gripper Width	Function **D**		-	3	3	3.5	3.5	3.5
	Function **C**		3	3	3.5	3.5	3.5	3.5
Gripper Thickness			2	2	3	3	3	3
Released Height K			2.7	4	5.9	6.4	6.9	7.4
Seating Inner Diam.			8.3	9.3	10.3	11.3	12.3	13.3
Seating Outer Diam.			15	15.5	16	17	18	19
Seating Part G			2.5	2.5	3	3	3	3
Lock Stroke			2.3	3.6	5.5	6	6.5	7

080

90°

SWP0501-C-080-□

Cumulative accuracy of workpiece hole distance and clamp mounting distance must be as shown in the table below.

090 ~ 130

SWP0501-D-□-□

90°

SWP0501-C-□-□

Cumulative accuracy of workpiece hole distance and clamp mounting distance must be as shown in the table below.

| Hole Diam.	Distance Accuracy
080~090	±0.05mm or better
100	±0.15mm or better
110~130	±0.40mm or better

Notes :
※1. Continuously supply air pressure to the air blow port.
※2. The arrow ⇨ in the drawing shows expanding direction of grippers.
Since the clamping part is not a floating structure, when clamping a workpiece with two of these products, consider distance accuracy and use them with arrangement shown in the drawing on the right. With out-of specification distance accuracy, workpiece will interfere with the guide part causing damages.
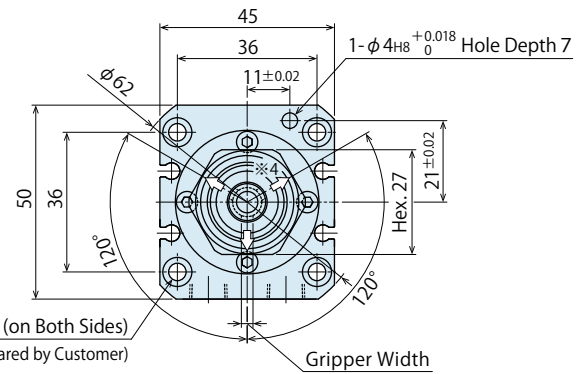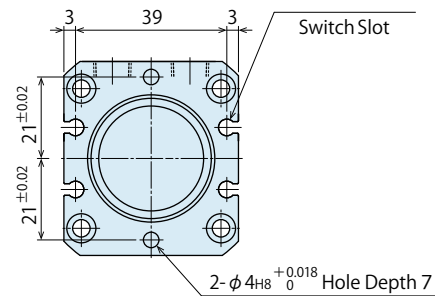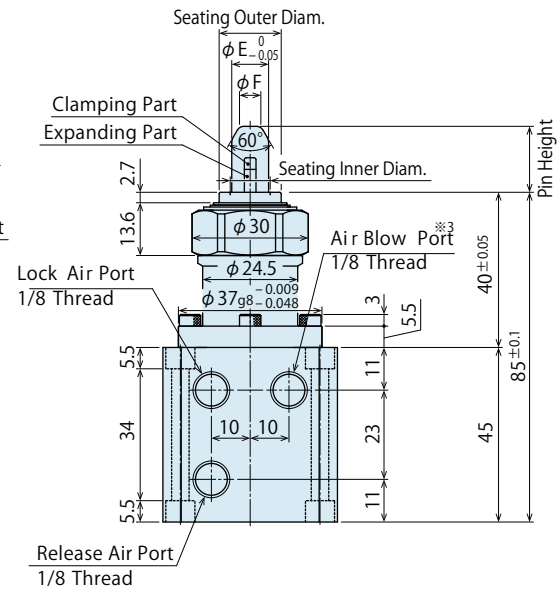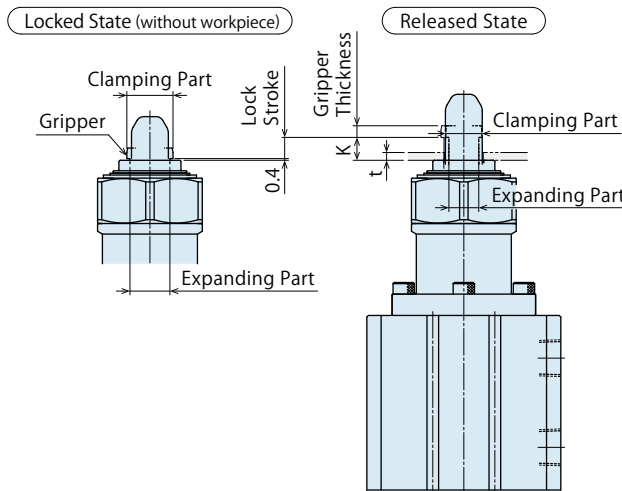
45
36
11 ±0.02
1-φ4H8 $^{+0.018}_{0}$ Hole Depth 7
φ62
50
36
21 ±0.02
※4
Hex. 27
120°
120°
4-φ4.5 Through Hole φ7.5 Spot Facing (on Both Sides)
(M4×0.7 Mounting Bolt Prepared by Customer)
Gripper Width

Locked State (without workpiece)

Clamping Part
Gripper
Lock Stroke
Gripper Thickness
0.4
K
t
Clamping Part
Expanding Part
Expanding Part

Released State

Clamping Part
Expanding Part

Seating Outer Diam.
φE $^{0}_{-0.05}$
φF
60°
2.7
Clamping Part
Expanding Part
Seating Inner Diam.
13.6
φ30
Air Blow Port ※3
1/8 Thread
Lock Air Port
1/8 Thread
φ24.5
φ37g8 $^{-0.009}_{-0.048}$
3
5.5
40 ±0.05
Pin Height
85 ±0.1
5.5
11
23
45
34
10 10
5.5
11
Release Air Port
1/8 Thread

3
39
3
Switch Slot
21 ±0.02
21 ±0.02
21 ±0.02
2-φ4H8 $^{+0.018}_{0}$ Hole Depth 7

◉ External Dimension List : SWP0501-M (mm)

Model No.			SWP0501 -M-100-□	SWP0501 -M-110-□	SWP0501 -M-120-□	SWP0501 -M-130-□
Workpiece	Hole Diameter		10 ±0.2	11 ±0.2	12 ±0.2	13 ±0.2
	Thickness t	Min.	0.45			
		Max.	5.5	6	6.5	7
Pin Height			17	19	19.5	20
Pin Outer Diam. E			9.5	10	11	12
Pin End Diam. F			5.5	6	7	8
Clamping Part	At Released		9.3	9.8	10.8	11.8
	At Locked without workpiece		11.8	12.8	13.8	14.8
Locating Part	At Released		7.7	8.2	9.2	10.2
	At Locked without workpiece		10.2	11.2	12.2	13.2
Gripper Width			3	3.5	3.5	3.5
Gripper Thickness			3	3	3	3
Released Height K			5.9	6.4	6.9	7.4
Seating Inner Diam.			10.3	11.3	12.3	13.3
Seating Outer Diam.			16	17	18	19
Lock Stroke			5.5	6	6.5	7

Notes :
※3. Continuously supply air pressure to the air blow port.
※4. The arrow ⇨ in the drawing shows expanding direction of grippers.

◉ Clamping Force・Expanding Force

(lbf)

Model No.		SWP0501		SWP1001	
		L：Locking	**0**：Non-Locking	**L**：Locking	**0**：Non-Locking
Clamping Force ※2 ※3	Air Pressure 75 psi	85	75	135	115
	Air Pressure 60 psi	70	60	115	90
	Air Pressure 45 psi	55	45	90	65
	Air Pressure 0 psi	10	-	20	-
Expanding Force ※4	Air Pressure 75 psi	230	200	365	305
	Air Pressure 60 psi	190	160	305	245
	Air Pressure 45 psi	150	120	245	185
	Air Pressure 0 psi	30	-	55	-

Notes :
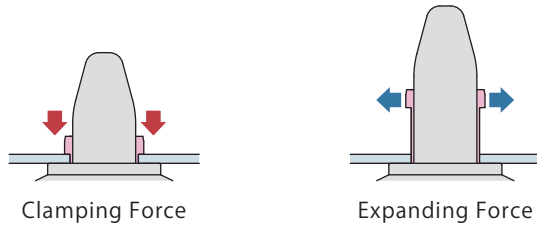※2. Clamping force shows the pressing force against the seating surface.
　　The values in the table shows the calculated value when the workpiece thickness t is 0.45mm.
※3. When supplying air pressure to the air blow port, a clamping force may decrease due to internal pressure.
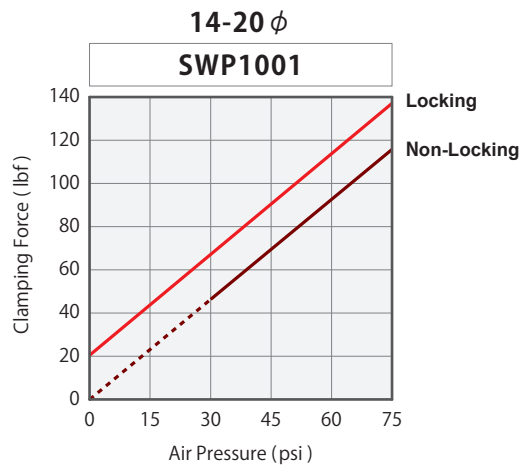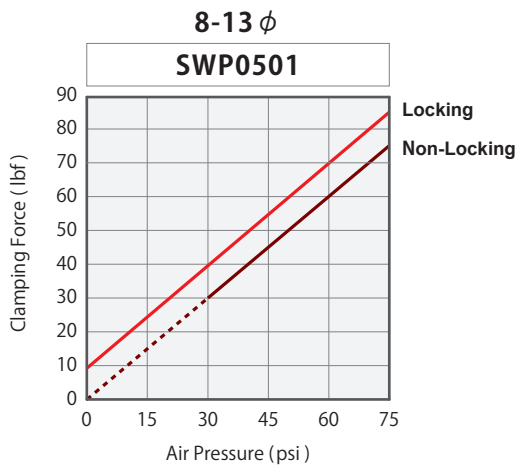※4. Expanding force shows the force acting perpendicular to the pin's center axis.
　　Expanding force shows the calculated value when the friction coefficient is μ 0.15.
　1. Depending on the material, thickness and chamfer shape of a workpiece hole, it can be deformed by clamping action,
　　and the specifications will not be satisfied. Make sure to test clamping beforehand and adjust pressure accordingly.

Clamping Force

Expanding Force

● Clamping Force Curve

8-13 ϕ

SWP0501

Locking
Non-Locking

14-20 ϕ

SWP1001

Locking
Non-Locking

● Expanding Force Curve

SWP0501

Locking
Non-Locking

SWP1001

Locking
Non-Locking