air Link clamp

Dual cylinder model Double acting 0.5 MPa

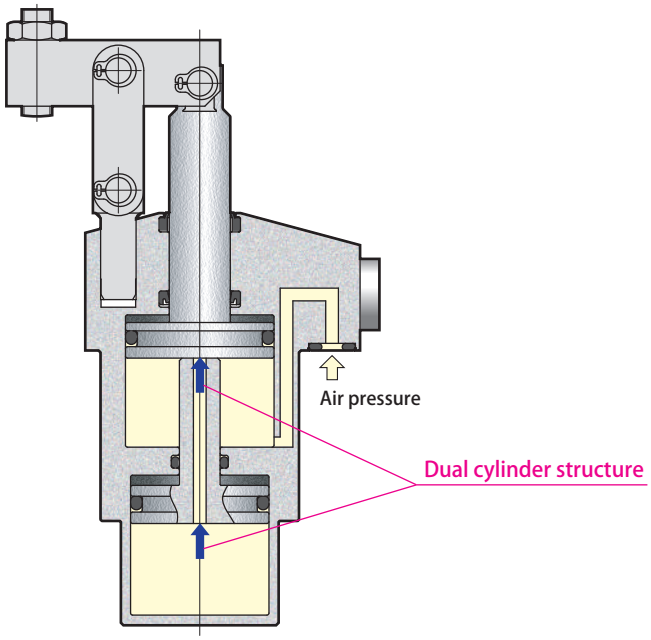
model CLZ

Dual cylinder model
model CLZ25-F

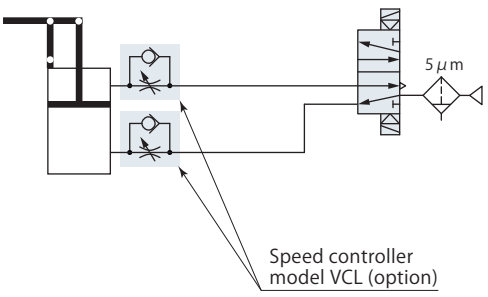
Dual cylinder model

model **CLZ□-□** JP PAT.

Dual cylinder structure enables cylinder force upper than that of single cylinder's.



Pneumatic circuit diagram



Comparison with the current model

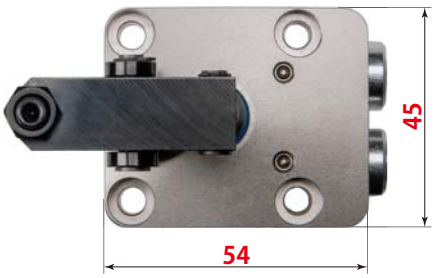
Air link clamp
Dual cylinder model
CLZ25

Cylinder force：**590 N**
（Air pressure 0.5MPa）

Cylinder force
Equality

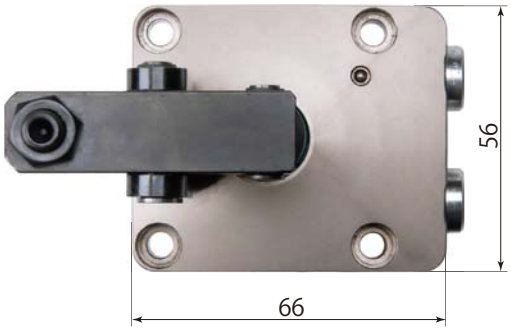
Air link clamp
Standard model
CLX40

Cylinder force：**630 N**
（Air pressure 0.5MPa）



Flange area
approx. **66**%

2 size smaller



Less space

Height from mounting surface
approx. **82**%

2 size smaller

Specifications

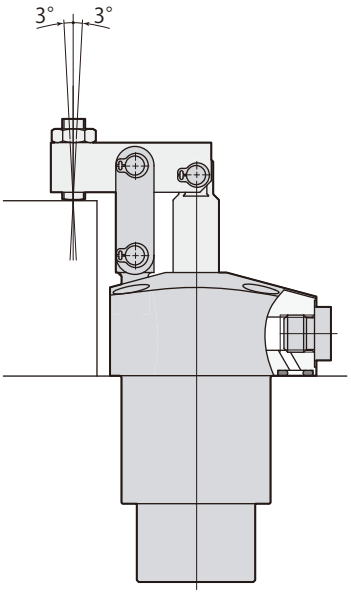
Size　Clamp arm mounting direction

CLZ 25 — L : Left side 
F : Front side 
R : Right side 

indicates made to order.

Model			CLZ25
Cylinder force (Air pressure 0.5 MPa)		N	590
Rod diameter		mm	12
Effective area (clamp)		mm^2	1183
Full stroke		mm	19
Clamp stroke		mm	17.5
Stroke margin		mm	1.5
Cylinder capacity	Clamp	cm^3	22.5
	Unclamp	cm^3	20.3
Mass		kg	0.34
Recommended tightening torque of mounting screws*1		N·m	4.0

● Air pressure range : 0.1–0.5 MPa ● Proof pressure : 0.75 MPa ● Operating temperature : 0–70 ℃
● Fluid used : Air*2 ● Oil supply : Not required
● Seals are resistant to chlorine-based cutting fluid.
*1 : ISO R898 class 12.9
*2 : Supply the dry and filtered air. Particulate size 5 μm or less is recommended.



Clamping point

When clamping the workpiece, the clamp arm should be situated l ike the sketch as shown below. (Clamping point)
Please avoid any non-axial force such as the bending moment toward the piston rod.
(Allowable angle ±3 °)

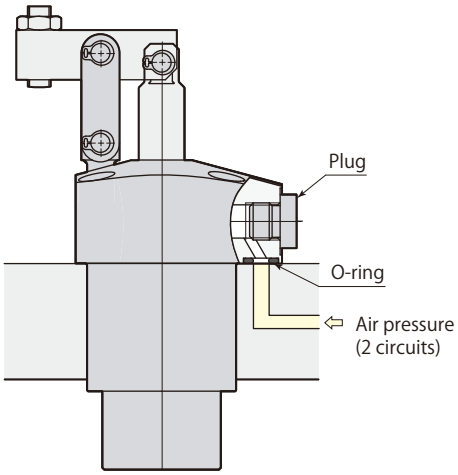
Manifold piping and G port piping are available.

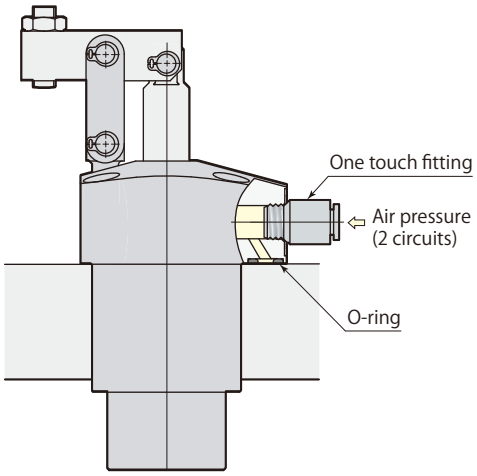
Manifold piping

When choosing manifold piping, a speed controller model VCL is mountable on the G ports of the clamp.

G port piping

Dismount plugs when choosing G port piping. (O-ring must be used.) The one touch fitting or the speed controller with one touch fitting should be mounted when choosing G port piping.





Speed controller model VCL

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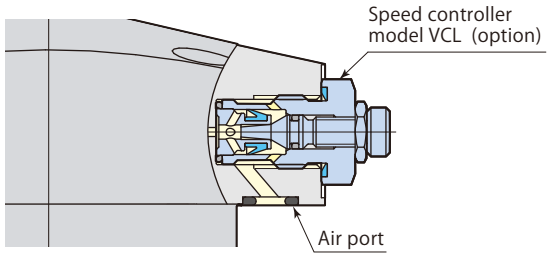


Performance diagram and Performance table

Clamping force varies depending on the clamp arm length (LH) and air pressure (P).

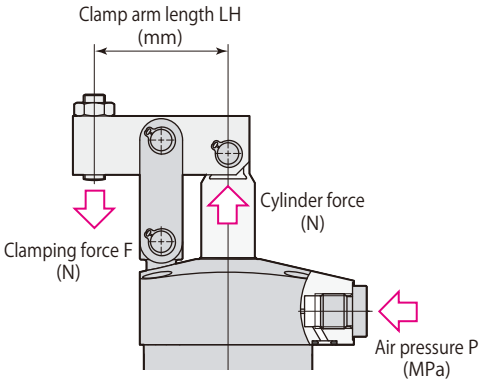
Clamping force calculation formula

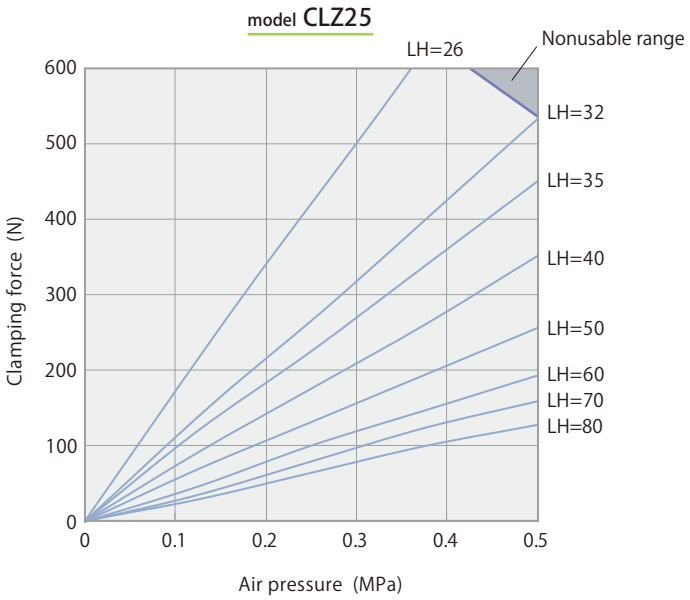
F = Coefficient 1×P×1000/ (LH - Coefficient 2)

F:Clamping force P:Air pressure LH:Clamp arm length

Clamp arm length (LH) 50 mm、at air pressure 0.5 MPa,
Clamping force F=17.03×0.5×1000/(50-16)=250.44 N

Do not use the clamp in the nonusable range. It may cause damage of link mechanism.





model CLZ25 Clamping force F=17.03×P×1000/(LH-16)

Air pressure MPa	Cylinder force N	Clamping force N								Min. arm length Min. LH mm
		Clamp arm length LH mm								
		26	32	35	40	50	60	70	80	
0.5	590		530	450	350	250	190	160	130	32
0.4	470		420	360	280	200	150	130	110	27
0.3	350	500	320	270	210	150	110	90	80	24
0.2	240	350	220	180	140	100	80	60	50	24
0.1	120	170	110	90	70	50	40	30	30	24

indicates nonusable range

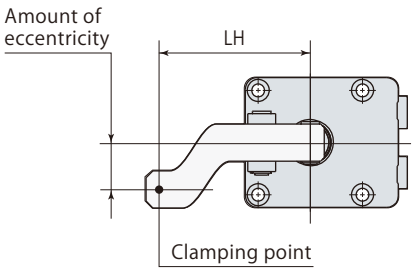
Clamp arm allowable eccentricity

An eccentric shape clamp arm, as shown in diagram on right can be used with link clamp model CLZ, if it is not possible to set clamping point at tip section of clamp arm in alignment with center line of piston rod and clamp arm.

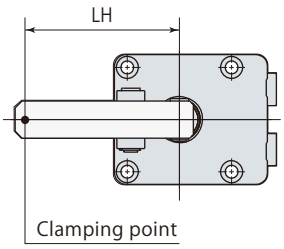
Amount of eccentricity, however, must be within allowable eccentricity shown below.

Using a clamp arm that exceeds allowable eccentricity results in significant eccentric load on link mechanism and piston rod, leading to malfunction.

Eccentric shape clamp arm



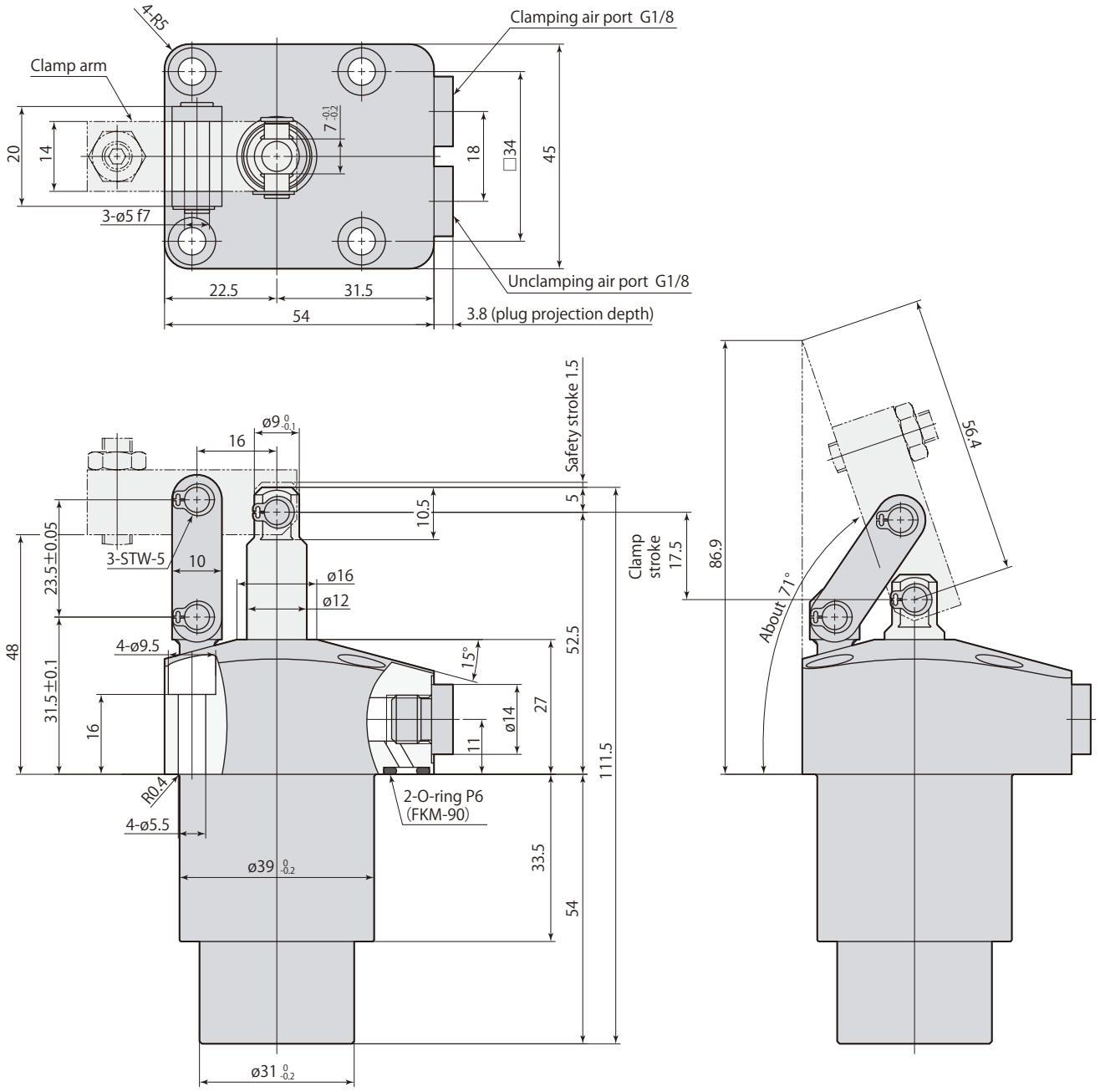
Ordinary clamp arm



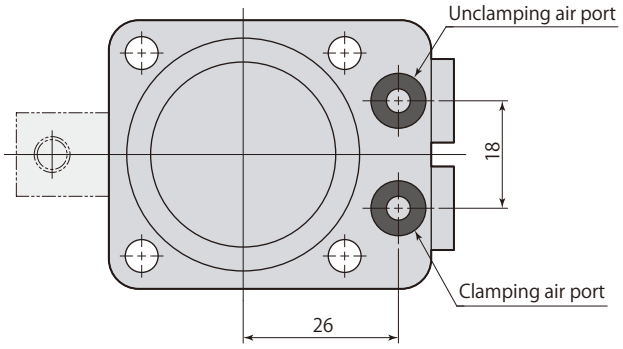
model CLZ25 (shaded cells indicate nonusable range)

Air pressure MPa	Allowable eccentricity mm — Clamp arm length LH mm							
	26	32	35	40	50	60	70	80
0.5				2	6	10	13	18
0.4		2	3	6	12	18	22	28
0.3	1	6	9	13	22	32	41	47
0.2	6	15	19	27	41	53	60	60
0.1	24	32	35	40	50	60	60	60

Dimensions



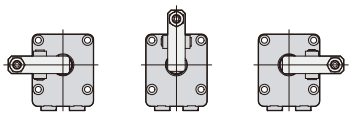
Clamp



Unclamp

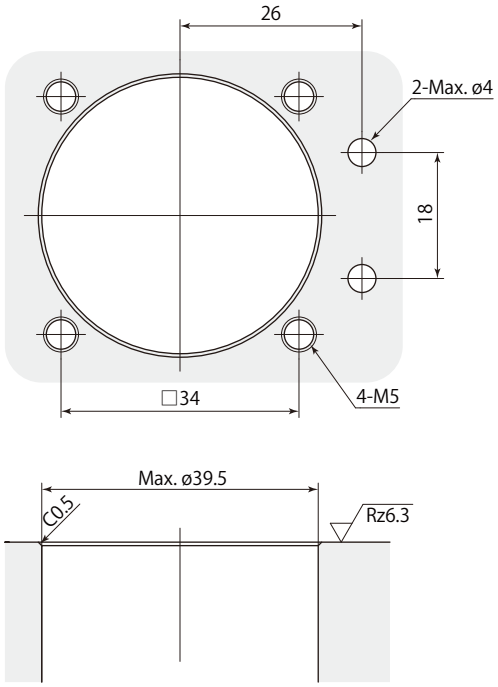
- This diagram represents external contour of CLZ25-F, CLZ25-L and CLZ25-R differ only in terms ofmounting direction of clamp arm and otherwise all dimensions are identical to those of CLZ25-F.

L:Left side F:Front side R:Right side



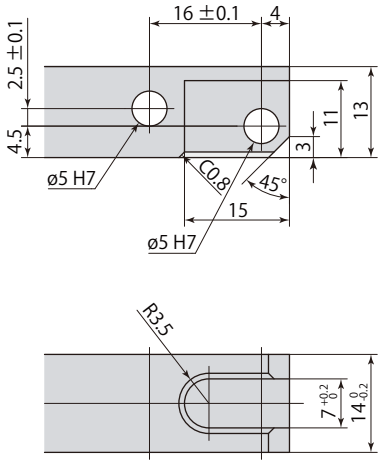
- Clamp arm and mounting screws are not included.
- Use a snap ring (STW-5) and a pin (ø5) when installing a clamp arm.

Mounting details



Clamp arm mounting details

Manufacture a clamp arm with the dimensions shown in the table below.



Recommended material：S45C (HB167～229)