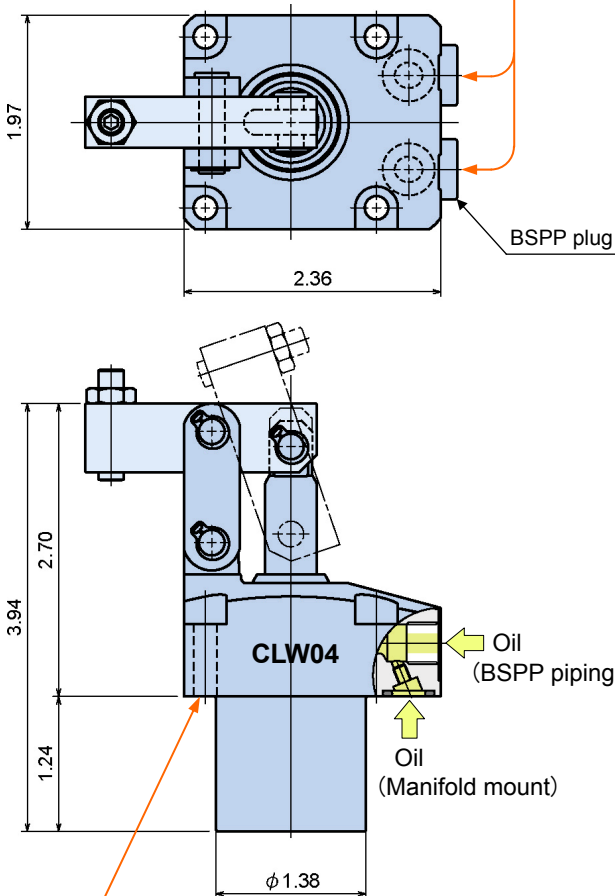




● A new compact size model CLW04 has been added to the CLW link clamp series.

(Existing model : CLW06, 10, 16, 25)

For manifold mounting, a flow control valve (option) can be mounted directly for easy adjustment of the clamp speed. (Go on Sale in September, 2008.)



Available for flange mounting applications with piped or manifold mount oil feed options.

Specifications		CLW04
Cylinder force at 5000 psi		1190 lbs
Clamping force ※1	at 5000 psi	850 lbs
	at 3500 psi	600 lbs
	at 2000 psi	340 lbs
Standard clamp arm length (LH)		1.65 in
Cylinder inner diameter		0.55 in
Rod diameter		0.47 in
Cylinder effective area (A)		0.24 in <sup>2</sup>
Full stroke		0.93 in
Clamp stroke		0.81 in
Safety stroke		0.12 in
Maximum oil flow rate		23 in <sup>3</sup> /min
Cylinder oil capacity	Clamping side	0.22 in <sup>3</sup>
	Unclamping side	0.06 in <sup>3</sup>
weight		2.0 lbs

Working pressure range 450 ~ 5000 psi

Operating temperature 32 ~ 158 °F

※1 : With standard length clamp (G1 series)  
(See below "Clamping force")

※ : Fluorocarbon (Viton) is adopted at the sealing portions for protection against chlorine coolant.  
(This is not a heat proof specification.)

**Clamping force**

The clamping force varies according to the clamp arm length and hydraulic pressure. See following table or backside chart.

CLW04		Clamping force (lbs)								Minimum clamp arm length (in)
Hydraulic pressure (psi)	Cylinder force (lbs)	Clamp arm length LH (in)								
		1.20	1.30	1.65	2.00	2.50	3.00	4.00	5.00	
5000	1190			850	610	440	340	240	180	1.62
4500	1070			760	550	400	310	210	160	1.44
4000	950		1090	680	490	350	270	190	150	1.29
3500	840	1170	960	600	430	310	240	170	130	1.20
3000	720	1000	830	510	370	270	210	140	110	↑
2500	600	830	690	430	310	220	170	120	90	↑
2000	480	670	550	340	250	180	140	100	70	↑
1500	360	500	410	260	190	130	100	70	60	↑
1000	240	330	280	170	120	90	70	50	40	↑
500	120	170	140	90	60	40	30	20	20	↑
450	110	150	120	80	60	40	30	20	20	1.20
Maximum working pressure (psi)		3630	4040	5000	5000	5000	5000	5000	5000	

**Model designation** (Example : CLW04-F)

Size                      Clamp arm mounting direction ※

**CLW**    **04**    —    L : Left    F : Forward    R : Right

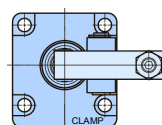
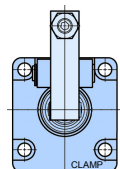
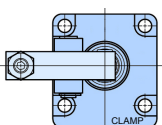
※ Refer to below diagram.

**Clamp arm mounting direction**

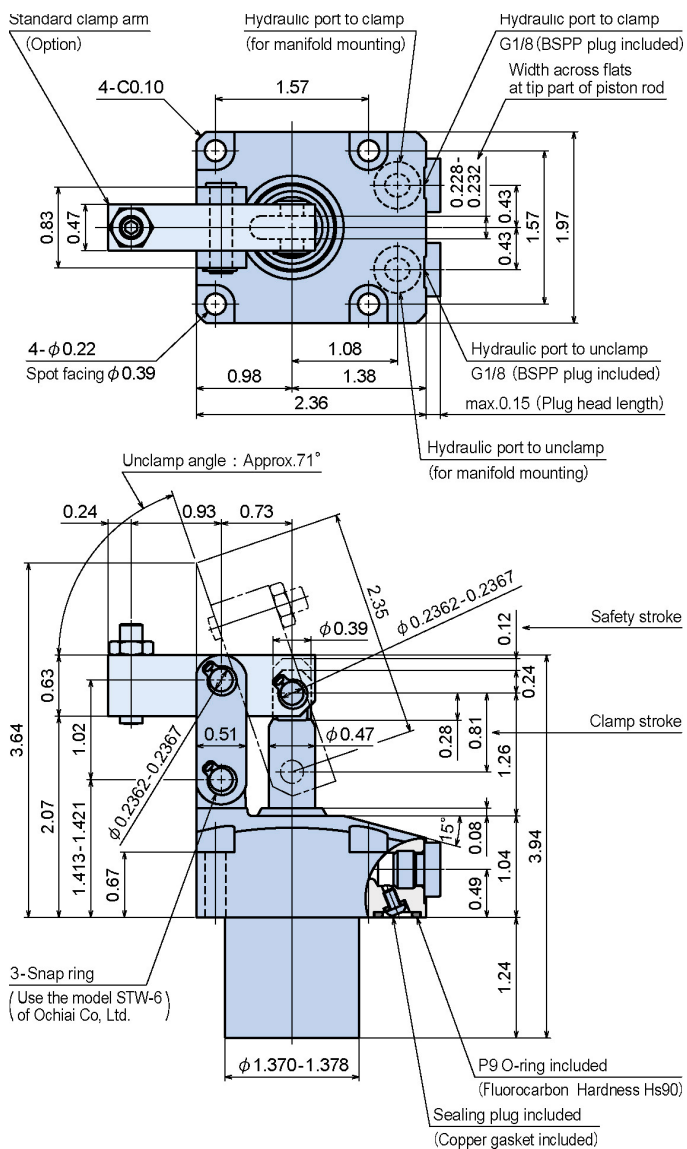
**CLW04-L**  
Left

**CLW04-F**  
Forward

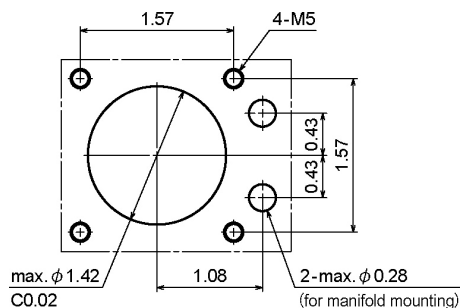
**CLW04-R**  
Right



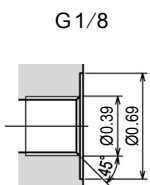
**CLW04-F Dimensions**



**Mounting details**

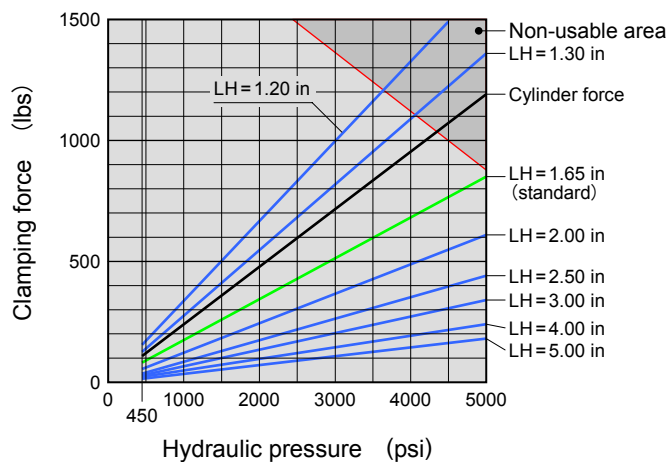


**BSPP details**



1. The drawing shows the outline of CLW04 - F. CLW04 - L and CLW04 - R have different clamp arm mounting directions from CLW04 - F, while other dimensions are all the same.
2. For manifold mounting, the O-ring sealing area should have a minimum surface finish of 63 MU in.
3. Mounting screws are not included. (M5, Strength class 12.9, Recommended tightening torque 5.2 ft-lb)

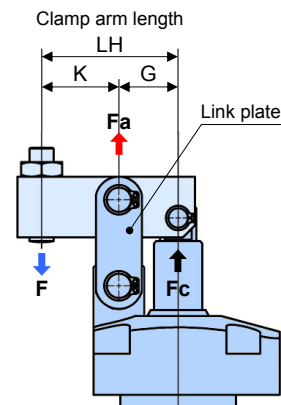
**CLW04 Clamping force chart**



The clamping force can be calculated by applying a formula shown in our catalog (Page 4, No. CLS-23A). Apply the following values as Fa (Max. allowable force at link structure) and G.

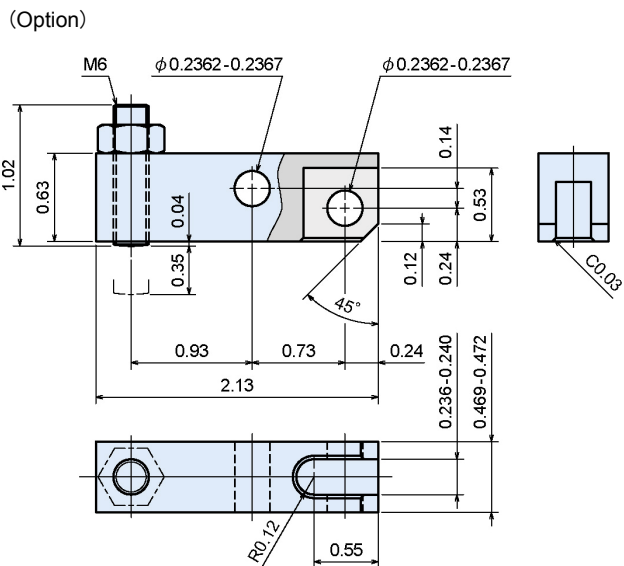
Model	CLW04
Fa	2060 lbs
G	0.728 in
K	※ 0.925 in
LH	※ 1.653 in

※Standard clamp arm length



**Standard clamp arm**

model **CLH04-G1**



Material : Carbon steel (Hardness HRC13.8 ~ 27.6)