Hydraulic Double Action Link Clamp

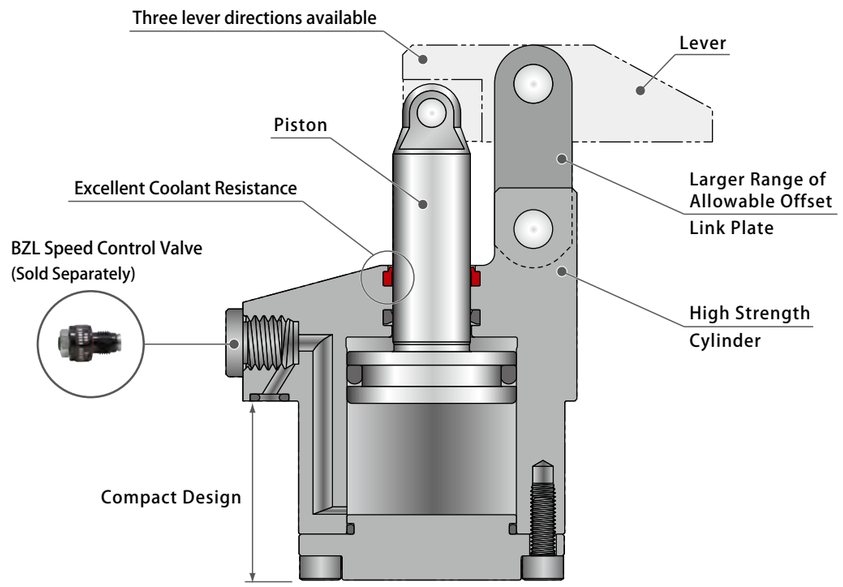
Model **LKA**

Low Pressure (0.5～7MPa)

High Power・Compact Clamp

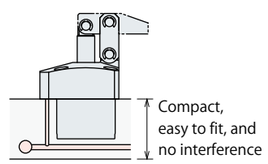
Index

Cross Section



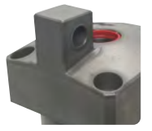
● Compact

The dimension below flange is shortened by 40 percent to enable thinner and lighter fixtures.
The compact body allows the internal fitting without interference and makes fixture design more engineer friendly.



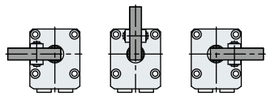
● High Strength Supporting Point

The compact body is able to retain similar clamping and holding forces by including a high strength supporting point within the body cylinder.
Its strength is the best in the industry, by way of casting.



● Lever in Three Directions Available

Lever positioning is available in three directions; L：Left, C：Center, R：Right.
As seen from the port side.

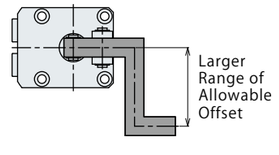


● Excellent Coolant Resistance

Our exclusive dust seal is designed to protect against high pressure coolant.
It also has high durability against chlorine-based coolant by using a sealing material with excellent chemical resistance.

● A Larger Range of Allowable Offset

High strength link plate option is available for larger tolerance.



● Able to Attach Speed Control Valve Directly

When fitting the gasket (-C option), it is able to attach the speed control valve with air venting function. (Speed control valve is sold separately.)

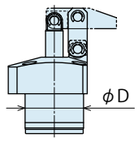
Model No. Indication

LKA 048 0 - C R □ - □

1 2 3 4 5 6

1 Body Size

036 : φD=36mm
040 : φD=40mm
048 : φD=48mm
055 : φD=55mm
065 : φD=65mm
075 : φD=75mm
090 : φD=90mm
105 : φD=105mm



※ Outer diameter (φD) of the cylinder.

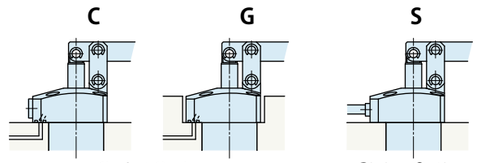
2 Design No.

0 : Revision Number

3 Piping Method

C : Gasket Option (With G Thread Plug)
G : Gasket Option (With R Thread Plug)
S : Piping Option (Rc Thread Port)

※ Speed control valve (BZL) is sold separately. Refer to P.891.

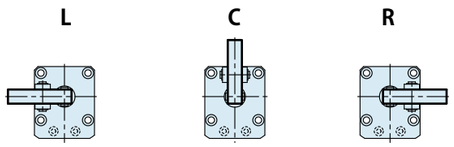


Gasket Option: With G Thread Plug Able to attach speed control valve | With R Thread Plug
Piping Option: Rc Thread Port No Gasket Port

4 Lever Direction

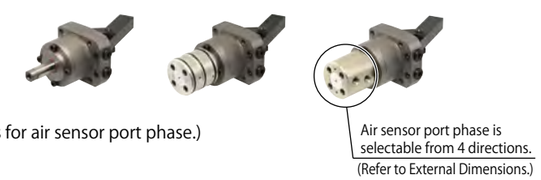
L : Left
C : Center
R : Right

※ The images show the lever direction when the piping port is placed in front of you.



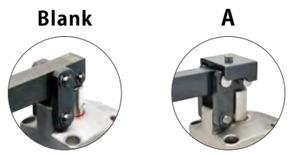
5 Action Confirmation Method

Blank : None (Standard)
D : Double End Rod Option for Dog
M : Air Sensing Manifold Option
N□ : Air Sensing Piping Option
(**N** : Standard Air Sensor Port Phase
NC/NL/NR : Refer to external dimensions for air sensor port phase.)



6 Option

Blank : None (Standard)
A : Quick Change Lever Type A
H : High Strength Link Plate Option (Increase in Allowable Offset)
K : Flange Pin with C Type Circlip



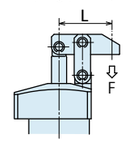
※ H option is only available for 1 body size (036/040/048/055/065/075).
※ Please let us know if you have a question about a combination of option.

Specifications

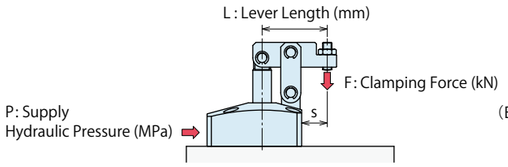
Model No.			LKA0360	LKA0400	LKA0480	LKA0550
No Action Confirmation 5 Option Blank	Cylinder Area for Locking	cm²	4.52	5.31	7.07	9.62
	Clamping Force (Calculation Formula) ※1	kN	$F=\frac{5.90\times P}{L-14.5}$	$F=\frac{7.64\times P}{L-16}$	$F=\frac{11.76\times P}{L-18.5}$	$F=\frac{18.18\times P}{L-21}$
	Cylinder Capacity cm³	Lock	8.4	10.9	16.6	25.0
		Release	6.9	8.6	13.0	19.8
With Action Confirmation 5 Option D/M/N	Cylinder Area for Locking	cm²	4.02	4.18	5.53	8.08
	Clamping Force (Calculation Formula) ※1	kN	$F=\frac{5.24\times P}{L-14.5}$	$F=\frac{6.02\times P}{L-16}$	$F=\frac{9.20\times P}{L-18.5}$	$F=\frac{15.27\times P}{L-21}$
	Cylinder Capacity cm³	Lock	7.4	8.6	13.0	21.0
		Release	6.9	8.6	13.0	19.8
Cylinder Inner Diameter ※2		mm	24	26	30	35
Rod Diameter ※2		mm	10	12	14	16
Full Stroke		mm	18.5	20.5	23.5	26
Lock Stroke		mm	16	17.5	20.5	23
Extra Stroke		mm	2.5	3	3	3
Max. Operating Pressure		MPa	7.0			
Min. Operating Pressure※3		MPa	0.5			
Withstanding Pressure		MPa	10.5			
Operating Temperature		℃	0～70			
Mass ※4 kg	5 Option Blank		0.5	0.6	1.0	1.3
	5 Option D		0.5	0.7	1.0	1.3
	5 Option M / N		0.6	0.8	1.3	1.6

Model No.			LKA0650	LKA0750	LKA0900	LKA1050
No Action Confirmation 5 Option Blank	Cylinder Area for Locking	cm²	15.9	23.8	36.3	50.3
	Clamping Force (Calculation Formula) ※1	kN	$F=\frac{35.06\times P}{L-24.5}$	$F=\frac{64.14\times P}{L-30}$	$F=\frac{117.66\times P}{L-36}$	$F=\frac{199.05\times P}{L-44}$
	Cylinder Capacity cm³	Lock	46.9	83.2	148.9	246.3
		Release	37.7	69.8	123.7	197.8
With Action Confirmation 5 Option D/M/N	Cylinder Area for Locking	cm²	14.4	21.2	33.8	47.7
	Clamping Force (Calculation Formula) ※1	kN	$F=\frac{31.67\times P}{L-24.5}$	$F=\frac{57.27\times P}{L-30}$	$F=\frac{109.42\times P}{L-36}$	$F=\frac{188.97\times P}{L-44}$
	Cylinder Capacity cm³	Lock	42.4	74.2	138.5	233.8
		Release	37.7	69.8	123.7	197.8
Cylinder Inner Diameter ※2		mm	45	55	68	80
Rod Diameter ※2		mm	20	22	28	35.5
Full Stroke		mm	29.5	35	41	49
Lock Stroke		mm	26.5	32	38	46
Extra Stroke		mm	3	3	3	3
Max. Operating Pressure		MPa	7.0			
Min. Operating Pressure※3		MPa	0.5			
Withstanding Pressure		MPa	10.5			
Operating Temperature		℃	0～70			
Mass ※4 kg	5 Option Blank		2.2	3.3	5.8	8.6
	5 Option D		2.3	3.4	5.9	8.7
	5 Option M / N		2.6	3.9	6.5	9.9

Notes:
※ 1. F : Clamping Force (kN), P : Supply Hydraulic Pressure (MPa), L : Distance between the piston center and the clamping point (mm).
※ 2. Clamping force cannot be calculated from the cylinder inner diameter and rod diameter. Please refer to the clamping force curve.
※ 3. Minimum pressure to operate the clamp without load.
※ 4. Mass of single clamp without the link lever.



Clamping Force Curve (Action Confirmation Method···Blank：Standard Model)



Applicable Model

LKA □ 0 - C G S / L C R □ - Blank A H K

1 Body Size

5 Action Confirmation Method ：Blank selected

(Example) When using LKA0480
Hydraulic Supply Pressure 5.0 MPa, Lever Length L=42 mm
Clamping force is about 2.6 kN.

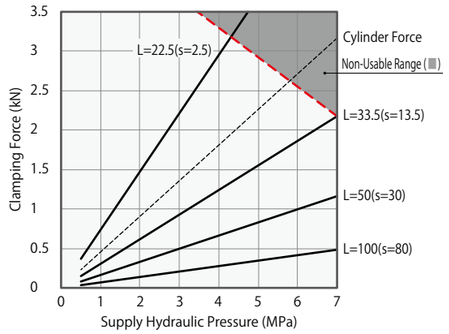
Notes：
1. Tables and graphs shown are the relationships between the clamping force (kN) and supply hydraulic pressure (MPa).
2. Cylinder force (when L=0) cannot be calculated from the calculation formula of clamping force.
3. Using in the non-usable range may damage the clamp and lead to fluid leakage.

※1. F：Clamping Force (kN), P：Supply Hydraulic Pressure (MPa), L：Lever Length (mm).

LKA0360-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(5.90×P)／(L－14.5)

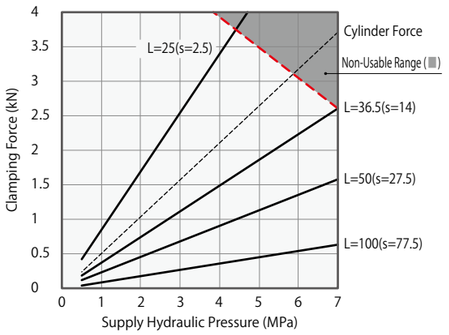
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=22.5	L=27.5	L=33.5	L=40	L=50	L=60	L=80	L=100	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	3.2			2.2	1.7	1.2	1.0	0.7	0.5	33.5
6.5	3.0			2.1	1.6	1.1	0.9	0.6	0.5	31
6	2.8			1.9	1.4	1.0	0.8	0.6	0.5	29
5.5	2.5		2.5	1.8	1.3	1.0	0.8	0.5	0.4	27
5	2.3		2.3	1.6	1.2	0.9	0.7	0.5	0.4	25
4.5	2.1		2.1	1.4	1.1	0.8	0.6	0.5	0.4	24
4	1.9	3.0	1.9	1.3	1.0	0.7	0.6	0.4	0.3	22
3.5	1.6	2.6	1.6	1.1	0.9	0.6	0.5	0.4	0.3	21
3	1.4	2.3	1.4	1.0	0.7	0.5	0.4	0.3	0.3	20
2.5	1.2	1.9	1.2	0.8	0.6	0.5	0.4	0.3	0.2	20
2	1.0	1.5	1.0	0.7	0.5	0.4	0.3	0.2	0.2	20
1.5	0.7	1.2	0.7	0.5	0.4	0.3	0.2	0.2	0.2	20
1	0.5	0.8	0.5	0.4	0.3	0.2	0.2	0.1	0.1	20
0.5	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	20
Max. Operating Pressure (MPa)		4.4	5.8	7.0	7.0	7.0	7.0	7.0	7.0	



LKA0400-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(7.64×P)／(L－16)

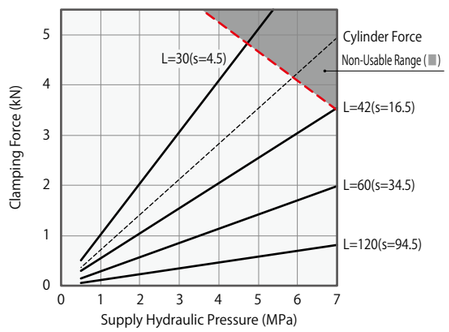
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=25	L=30	L=36.5	L=40	L=50	L=60	L=80	L=100	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	3.8			2.7	2.3	1.6	1.3	0.9	0.7	36.5
6.5	3.5			2.5	2.1	1.5	1.2	0.8	0.6	34
6	3.2			2.3	2.0	1.4	1.1	0.8	0.6	32
5.5	3.0		3.1	2.2	1.8	1.3	1.0	0.7	0.6	29
5	2.7		2.8	2.0	1.6	1.2	0.9	0.6	0.5	27
4.5	2.4	3.9	2.5	1.8	1.5	1.1	0.8	0.6	0.5	26
4	2.2	3.4	2.2	1.6	1.3	0.9	0.7	0.5	0.4	24
3.5	1.9	3.0	2.0	1.4	1.2	0.8	0.7	0.5	0.4	23
3	1.6	2.6	1.7	1.2	1.0	0.7	0.6	0.4	0.3	23
2.5	1.4	2.2	1.4	1.0	0.8	0.6	0.5	0.3	0.3	23
2	1.1	1.7	1.1	0.8	0.7	0.5	0.4	0.3	0.2	23
1.5	0.8	1.3	0.9	0.6	0.5	0.4	0.3	0.2	0.2	23
1	0.6	0.9	0.6	0.4	0.4	0.3	0.2	0.2	0.1	23
0.5	0.3	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1	23
Max. Operating Pressure (MPa)		4.5	5.8	7.0	7.0	7.0	7.0	7.0	7.0	



LKA0480-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(11.76×P)／(L－18.5)

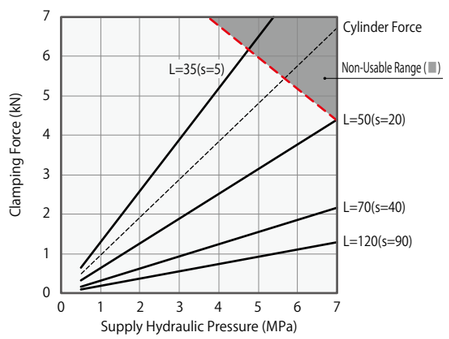
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=30	L=35	L=42	L=50	L=60	L=80	L=100	L=120	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	5.0			3.6	2.7	2.0	1.4	1.1	0.9	42
6.5	4.6			3.3	2.5	1.9	1.3	1.0	0.8	39
6	4.3			3.1	2.3	1.8	1.2	0.9	0.7	36
5.5	3.9		4.0	2.8	2.1	1.6	1.1	0.8	0.7	34
5	3.6		3.6	2.6	1.9	1.5	1.0	0.8	0.6	32
4.5	3.2	4.7	3.3	2.3	1.7	1.3	0.9	0.7	0.6	30
4	2.9	4.1	2.9	2.1	1.5	1.2	0.8	0.6	0.5	28
3.5	2.5	3.6	2.5	1.8	1.4	1.0	0.7	0.6	0.5	26
3	2.2	3.1	2.2	1.6	1.2	0.9	0.6	0.5	0.4	26
2.5	1.8	2.6	1.8	1.3	1.0	0.8	0.5	0.4	0.3	26
2	1.5	2.1	1.5	1.1	0.8	0.6	0.4	0.3	0.3	26
1.5	1.1	1.6	1.1	0.8	0.6	0.5	0.3	0.3	0.2	26
1	0.8	1.1	0.8	0.6	0.4	0.3	0.2	0.2	0.2	26
0.5	0.4	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	26
Max. Operating Pressure (MPa)		4.8	5.9	7.0	7.0	7.0	7.0	7.0	7.0	



LKA0550-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(18.18×P)／(L－21)

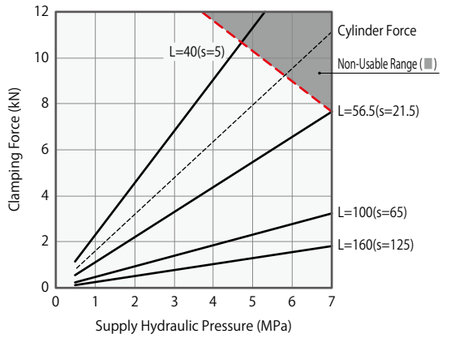
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=35	L=40	L=50	L=60	L=70	L=80	L=100	L=120	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	6.8			4.4	3.3	2.6	2.2	1.7	1.3	50
6.5	6.3			4.1	3.1	2.5	2.1	1.5	1.2	46
6	5.8			3.8	2.8	2.3	1.9	1.4	1.2	43
5.5	5.3		5.3	3.5	2.6	2.1	1.7	1.3	1.1	39
5	4.9		4.8	3.2	2.4	1.9	1.6	1.2	1.0	37
4.5	4.4	5.9	4.4	2.9	2.1	1.7	1.4	1.1	0.9	34
4	3.9	5.2	3.9	2.6	1.9	1.5	1.3	1.0	0.8	32
3.5	3.4	4.6	3.4	2.2	1.7	1.3	1.1	0.9	0.7	30
3	2.9	3.9	2.9	1.9	1.4	1.2	1.0	0.7	0.6	30
2.5	2.5	3.3	2.4	1.6	1.2	1.0	0.8	0.6	0.5	30
2	2.0	2.6	2.0	1.3	1.0	0.8	0.7	0.5	0.4	30
1.5	1.5	2.0	1.5	1.0	0.7	0.6	0.5	0.4	0.3	30
1	1.0	1.3	1.0	0.7	0.5	0.4	0.4	0.3	0.2	30
0.5	0.5	0.7	0.5	0.4	0.3	0.2	0.2	0.2	0.1	30
Max. Operating Pressure (MPa)		4.8	5.7	7.0	7.0	7.0	7.0	7.0	7.0	



LKA0650-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(35.06×P)／(L－24.5)

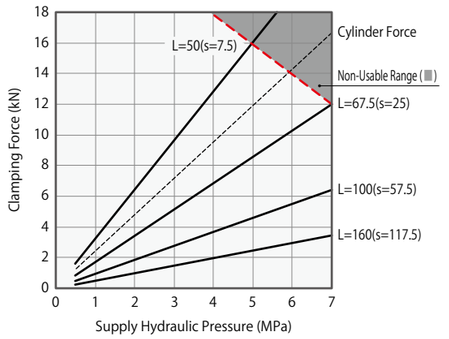
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=40	L=50	L=56.5	L=80	L=100	L=120	L=140	L=160	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	11.2			7.7	4.5	3.3	2.6	2.2	1.9	56.5
6.5	10.4			7.2	4.2	3.1	2.4	2.0	1.7	52
6	9.6		8.3	6.6	3.8	2.8	2.3	1.9	1.6	48
5.5	8.8		7.6	6.1	3.5	2.6	2.1	1.7	1.5	45
5	8.0		6.9	5.5	3.2	2.4	1.9	1.6	1.3	42
4.5	7.2	10.2	6.2	5.0	2.9	2.1	1.7	1.4	1.2	39
4	6.4	9.1	5.5	4.4	2.6	1.9	1.5	1.3	1.1	37
3.5	5.6	8.0	4.9	3.9	2.3	1.7	1.3	1.1	1.0	35
3	4.8	6.8	4.2	3.3	1.9	1.4	1.2	1.0	0.8	35
2.5	4.0	5.7	3.5	2.8	1.6	1.2	1.0	0.8	0.7	35
2	3.2	4.6	2.8	2.2	1.3	1.0	0.8	0.7	0.6	35
1.5	2.4	3.4	2.1	1.7	1.0	0.7	0.6	0.5	0.4	35
1	1.6	2.3	1.4	1.1	0.7	0.5	0.4	0.4	0.3	35
0.5	0.8	1.2	0.7	0.6	0.4	0.3	0.2	0.2	0.2	35
Max. Operating Pressure (MPa)		4.8	6.3	7.0	7.0	7.0	7.0	7.0	7.0	



LKA0750-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(64.14×P)／(L－30)

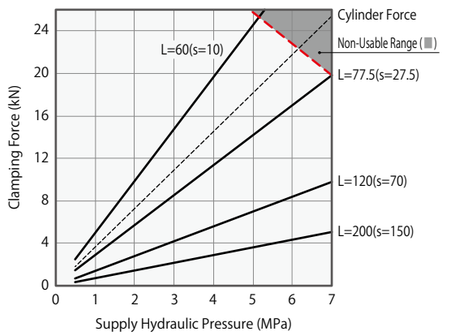
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=50	L=60	L=67.5	L=80	L=100	L=120	L=140	L=160	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	16.7			12.0	9.0	6.5	5.0	4.1	3.5	67.5
6.5	15.5			11.2	8.4	6.0	4.7	3.8	3.3	63
6	14.3		12.9	10.3	7.7	5.5	4.3	3.5	3.0	58
5.5	13.1		11.8	9.5	7.1	5.1	4.0	3.3	2.8	54
5	11.9	16.1	10.7	8.6	6.5	4.6	3.6	3.0	2.5	51
4.5	10.7	14.5	9.7	7.7	5.8	4.2	3.3	2.7	2.3	48
4	9.6	12.9	8.6	6.9	5.2	3.7	2.9	2.4	2.0	45
3.5	8.4	11.3	7.5	6.0	4.5	3.3	2.5	2.1	1.8	43
3	7.2	9.7	6.5	5.2	3.9	2.8	2.2	1.8	1.5	43
2.5	6.0	8.1	5.4	4.3	3.3	2.3	1.8	1.5	1.3	43
2	4.8	6.5	4.3	3.5	2.6	1.9	1.5	1.2	1.0	43
1.5	3.6	4.9	3.3	2.6	2.0	1.4	1.1	0.9	0.8	43
1	2.4	3.3	2.2	1.8	1.3	1.0	0.8	0.6	0.5	43
0.5	1.2	1.7	1.1	0.9	0.7	0.5	0.4	0.3	0.3	43
Max. Operating Pressure (MPa)		5.0	6.3	7.0	7.0	7.0	7.0	7.0	7.0	



LKA0900-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(117.66×P)／(L－36)

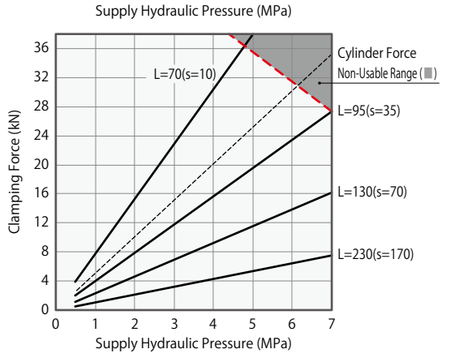
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=60	L=70	L=77.5	L=100	L=120	L=140	L=160	L=200	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	25.5			19.9	12.9	9.9	8.0	6.7	5.1	77.5
6.5	23.7			18.5	12.0	9.2	7.4	6.2	4.7	72
6	21.8		20.8	17.1	11.1	8.5	6.8	5.7	4.4	67
5.5	20.0		19.1	15.6	10.2	7.8	6.3	5.3	4.0	63
5	18.2	24.6	17.4	14.2	9.2	7.1	5.7	4.8	3.6	59
4.5	16.4	22.1	15.6	12.8	8.3	6.4	5.1	4.3	3.3	56
4	14.6	19.7	13.9	11.4	7.4	5.7	4.6	3.8	2.9	53
3.5	12.8	17.2	12.2	10.0	6.5	5.0	4.0	3.4	2.6	50
3	10.9	14.8	10.4	8.6	5.6	4.3	3.4	2.9	2.2	50
2.5	9.1	12.3	8.7	7.1	4.6	3.6	2.9	2.4	1.8	50
2	7.3	9.9	7.0	5.7	3.7	2.9	2.3	1.9	1.5	50
1.5	5.5	7.4	5.2	4.3	2.8	2.2	1.7	1.5	1.1	50
1	3.7	5.0	3.5	2.9	1.9	1.5	1.2	1.0	0.8	50
0.5	1.9	2.5	1.8	1.5	1.0	0.8	0.6	0.5	0.4	50
Max. Operating Pressure (MPa)		5.2	6.4	7.0	7.0	7.0	7.0	7.0	7.0	



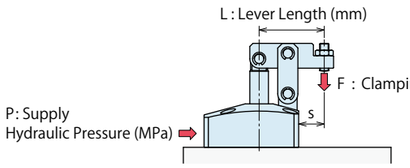
LKA1050-□□-□

Clamping Force Calculation Formula ※1 (kN) F＝(199.05×P)／(L－44)

Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=70	L=80	L=95	L=110	L=130	L=150	L=170	L=230	Non-Usable Range(■) Min. Lever Length (L) (mm)
7	35.2			27.4	21.2	16.3	13.2	11.1	7.5	95
6.5	32.7			25.4	19.7	15.1	12.3	10.3	7.0	89
6	30.2			23.5	18.1	13.9	11.3	9.5	6.5	83
5.5	27.7		30.5	21.5	16.6	12.8	10.4	8.7	5.9	77
5	25.2		27.7	19.6	15.1	11.6	9.4	7.9	5.4	73
4.5	22.7	34.5	24.9	17.6	13.6	10.5	8.5	7.2	4.9	68
4	20.2	30.7	22.2	15.7	12.1	9.3	7.6	6.4	4.3	65
3.5	17.6	26.8	19.4	13.7	10.6	8.2	6.6	5.6	3.8	61
3	15.1	23.0	16.6	11.8	9.1	7.0	5.7	4.8	3.3	60
2.5	12.6	19.2	13.9	9.8	7.6	5.8	4.7	4.0	2.7	60
2	10.1	15.4	11.1	7.9	6.1	4.7	3.8	3.2	2.2	60
1.5	7.6	11.5	8.3	5.9	4.6	3.5	2.9	2.4	1.7	60
1	5.1	7.7	5.6	4.0	3.1	2.4	1.9	1.6	1.1	60
0.5	2.6	3.9	2.8	2.0	1.6	1.2	1.0	0.8	0.6	60
Max. Operating Pressure (MPa)		4.8	5.9	7.0	7.0	7.0	7.0	7.0	7.0	



Clamping Force Curve (Action Confirmation Method···D：Double End Rod Option for Dog / M：Air Sensing Manifold Option / N：Air Sensing Piping Option)



Applicable Model

LKA □ 0 - C G S / L C R / D M N - Blank A H K

1 Body size

5 Action Confirmation Method ：D/M/N selected

(Example) When using LKA0480-□□D/M/N
Supply Hydraulic Pressure 5.0 MPa, Lever Length L=42 mm
Clamping force is about 2.0 kN.

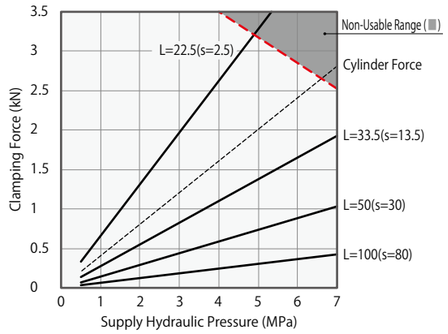
Notes：
1. Tables and graphs shown are the relationships between the clamping force (kN) and supply hydraulic pressure (MPa).
2. Cylinder force (when L=0) cannot be calculated from the calculation formula of clamping force.
3. Using in the non-usable range may damage the clamp and lead to fluid leakage.

※1. F：Clamping Force (kN), P：Supply Hydraulic Pressure (MPa), L：Lever Length (mm).

LKA0360-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(5.24×P)／(L－14.5)

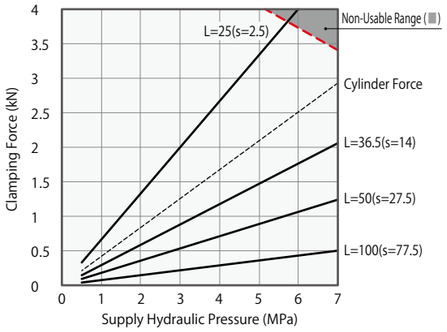
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=22.5	L=27.5	L=33.5	L=40	L=50	L=60	L=80	L=100	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	2.9			2.0	1.5	1.1	0.9	0.6	0.5		29
6.5	2.7		2.7	1.8	1.4	1.0	0.8	0.6	0.4		28
6	2.5		2.5	1.7	1.3	0.9	0.7	0.5	0.4		26
5.5	2.3		2.3	1.6	1.2	0.9	0.7	0.5	0.4		25
5	2.1		2.1	1.4	1.1	0.8	0.6	0.4	0.4		23
4.5	1.9	3.0	1.9	1.3	1.0	0.7	0.6	0.4	0.3		22
4	1.7	2.7	1.7	1.2	0.9	0.6	0.5	0.4	0.3		21
3.5	1.5	2.3	1.5	1.0	0.8	0.6	0.5	0.3	0.3		20
3	1.3	2.0	1.3	0.9	0.7	0.5	0.4	0.3	0.2		20
2.5	1.1	1.7	1.1	0.7	0.6	0.4	0.3	0.2	0.2		20
2	0.9	1.4	0.9	0.6	0.5	0.3	0.3	0.2	0.2		20
1.5	0.7	1.0	0.7	0.5	0.4	0.3	0.2	0.2	0.1		20
1	0.5	0.7	0.5	0.3	0.3	0.2	0.2	0.1	0.1		20
0.5	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1		20
Max. Operating Pressure (MPa)		4.9	6.6	7.0	7.0	7.0	7.0	7.0	7.0		



LKA0400-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(6.02×P)／(L－16)

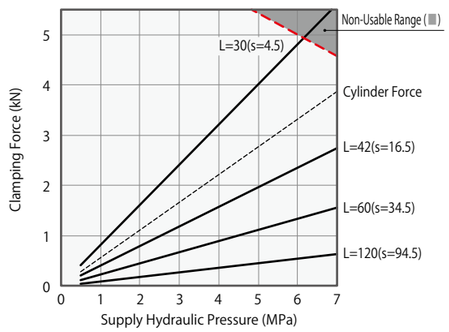
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=25	L=30	L=36.5	L=40	L=50	L=60	L=80	L=100	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	3.0		3.1	2.2	1.8	1.3	1.0	0.7	0.6		29
6.5	2.8		2.8	2.0	1.7	1.2	0.9	0.7	0.5		27
6	2.6		2.6	1.9	1.6	1.1	0.9	0.6	0.5		26
5.5	2.3	3.7	2.4	1.7	1.4	1.0	0.8	0.6	0.4		25
5	2.1	3.4	2.2	1.6	1.3	0.9	0.7	0.5	0.4		24
4.5	1.9	3.1	2.0	1.4	1.2	0.8	0.7	0.5	0.4		23
4	1.7	2.7	1.8	1.3	1.1	0.8	0.6	0.4	0.3		23
3.5	1.5	2.4	1.6	1.1	0.9	0.7	0.5	0.4	0.3		23
3	1.3	2.1	1.3	1.0	0.8	0.6	0.5	0.3	0.3		23
2.5	1.1	1.7	1.1	0.8	0.7	0.5	0.4	0.3	0.2		23
2	0.9	1.4	0.9	0.7	0.6	0.4	0.3	0.2	0.2		23
1.5	0.7	1.1	0.7	0.5	0.4	0.3	0.3	0.2	0.2		23
1	0.5	0.7	0.5	0.4	0.3	0.2	0.2	0.1	0.1		23
0.5	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1		23
Max. Operating Pressure (MPa)		5.8	7.0	7.0	7.0	7.0	7.0	7.0	7.0		



LKA0480-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(9.20×P)／(L－18.5)

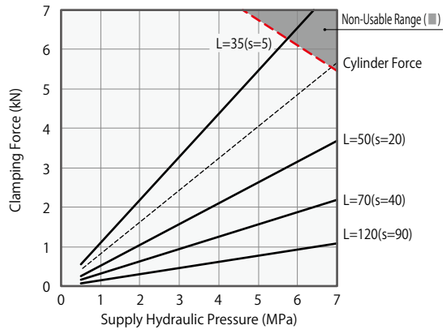
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=30	L=35	L=42	L=50	L=60	L=80	L=100	L=120	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	3.9		4.0	2.8	2.1	1.6	1.1	0.8	0.7		33
6.5	3.6		3.7	2.6	1.9	1.5	1.0	0.8	0.6		31
6	3.4	4.8	3.4	2.4	1.8	1.4	0.9	0.7	0.6		30
5.5	3.1	4.4	3.1	2.2	1.7	1.3	0.9	0.7	0.5		29
5	2.8	4.0	2.8	2.0	1.5	1.2	0.8	0.6	0.5		27
4.5	2.5	3.6	2.6	1.8	1.4	1.0	0.7	0.6	0.5		26
4	2.3	3.2	2.3	1.6	1.2	0.9	0.6	0.5	0.4		26
3.5	2.0	2.8	2.0	1.4	1.1	0.8	0.6	0.4	0.4		26
3	1.7	2.4	1.7	1.2	0.9	0.7	0.5	0.4	0.3		26
2.5	1.4	2.0	1.4	1.0	0.8	0.6	0.4	0.3	0.3		26
2	1.2	1.6	1.2	0.8	0.6	0.5	0.3	0.3	0.2		26
1.5	0.9	1.2	0.9	0.6	0.5	0.4	0.3	0.2	0.2		26
1	0.6	0.8	0.6	0.4	0.3	0.3	0.2	0.2	0.1		26
0.5	0.3	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1		26
Max. Operating Pressure (MPa)		6.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0		



LKA0550-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(15.27×P)／(L－21)

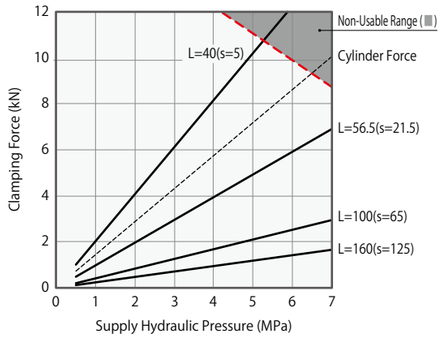
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=35	L=40	L=50	L=60	L=70	L=80	L=100	L=120	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	5.7			3.7	2.8	2.2	1.9	1.4	1.1		41
6.5	5.3		5.3	3.5	2.6	2.1	1.7	1.3	1.1		39
6	4.9		4.9	3.2	2.4	1.9	1.6	1.2	1.0		37
5.5	4.5	6.0	4.5	2.9	2.2	1.8	1.5	1.1	0.9		35
5	4.1	5.5	4.1	2.7	2.0	1.6	1.3	1.0	0.8		33
4.5	3.7	5.0	3.7	2.4	1.8	1.5	1.2	0.9	0.7		31
4	3.3	4.4	3.3	2.2	1.6	1.3	1.1	0.8	0.7		30
3.5	2.9	3.9	2.9	1.9	1.4	1.1	1.0	0.7	0.6		30
3	2.5	3.3	2.5	1.6	1.2	1.0	0.8	0.6	0.5		30
2.5	2.1	2.8	2.1	1.4	1.0	0.8	0.7	0.5	0.4		30
2	1.7	2.2	1.7	1.1	0.8	0.7	0.6	0.4	0.4		30
1.5	1.3	1.7	1.3	0.8	0.6	0.5	0.4	0.3	0.3		30
1	0.9	1.1	0.9	0.6	0.4	0.4	0.3	0.2	0.2		30
0.5	0.5	0.6	0.5	0.3	0.2	0.2	0.2	0.1	0.1		30
Max. Operating Pressure (MPa)		5.8	6.9	7.0	7.0	7.0	7.0	7.0	7.0		



LKA0650-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(31.67×P)／(L－24.5)

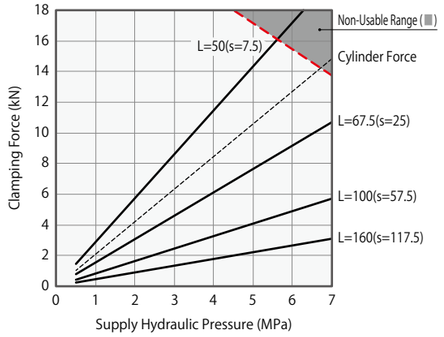
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=40	L=50	L=56.5	L=80	L=100	L=120	L=140	L=160	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	10.1		8.7	7.0	4.0	3.0	2.4	2.0	1.7		50
6.5	9.4		8.1	6.5	3.8	2.8	2.2	1.8	1.6		47
6	8.7		7.5	6.0	3.5	2.6	2.0	1.7	1.5		44
5.5	8.0		6.9	5.5	3.2	2.4	1.9	1.6	1.3		42
5	7.2	10.3	6.3	5.0	2.9	2.1	1.7	1.4	1.2		39
4.5	6.5	9.2	5.6	4.5	2.6	1.9	1.5	1.3	1.1		37
4	5.8	8.2	5.0	4.0	2.3	1.7	1.4	1.1	1.0		35
3.5	5.1	7.2	4.4	3.5	2.0	1.5	1.2	1.0	0.9		35
3	4.4	6.2	3.8	3.0	1.8	1.3	1.0	0.9	0.8		35
2.5	3.6	5.2	3.2	2.5	1.5	1.1	0.9	0.7	0.6		35
2	2.9	4.1	2.5	2.0	1.2	0.9	0.7	0.6	0.5		35
1.5	2.2	3.1	1.9	1.5	0.9	0.7	0.5	0.5	0.4		35
1	1.5	2.1	1.3	1.0	0.6	0.5	0.4	0.3	0.3		35
0.5	0.8	1.1	0.7	0.5	0.3	0.3	0.2	0.2	0.2		35
Max. Operating Pressure (MPa)		5.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0		



LKA0750-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(57.27×P)／(L－30)

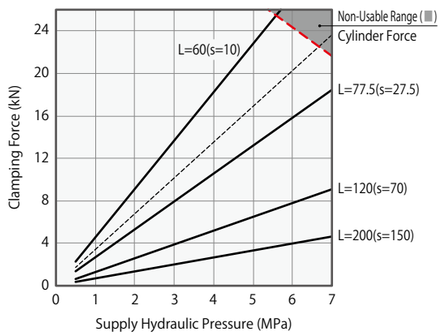
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=50	L=60	L=67.5	L=80	L=100	L=120	L=140	L=160	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	14.9		13.4	10.7	8.1	5.8	4.5	3.7	3.1		60
6.5	13.8		12.5	10.0	7.5	5.4	4.2	3.4	2.9		56
6	12.8		11.5	9.2	6.9	5.0	3.9	3.2	2.7		53
5.5	11.7	15.8	10.5	8.4	6.3	4.5	3.5	2.9	2.5		50
5	10.7	14.4	9.6	7.7	5.8	4.1	3.2	2.7	2.3		47
4.5	9.6	12.9	8.6	6.9	5.2	3.7	2.9	2.4	2.0		45
4	8.5	11.5	7.7	6.2	4.6	3.3	2.6	2.1	1.8		43
3.5	7.5	10.1	6.7	5.4	4.1	2.9	2.3	1.9	1.6		43
3	6.4	8.6	5.8	4.6	3.5	2.5	2.0	1.6	1.4		43
2.5	5.4	7.2	4.8	3.9	2.9	2.1	1.6	1.4	1.2		43
2	4.3	5.8	3.9	3.1	2.3	1.7	1.3	1.1	0.9		43
1.5	3.2	4.3	2.9	2.3	1.8	1.3	1.0	0.8	0.7		43
1	2.2	2.9	2.0	1.6	1.2	0.9	0.7	0.6	0.5		43
0.5	1.1	1.5	1.0	0.8	0.6	0.5	0.4	0.3	0.3		43
Max. Operating Pressure (MPa)		5.7	7.0	7.0	7.0	7.0	7.0	7.0	7.0		



LKA0900-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(109.42×P)／(L－36)

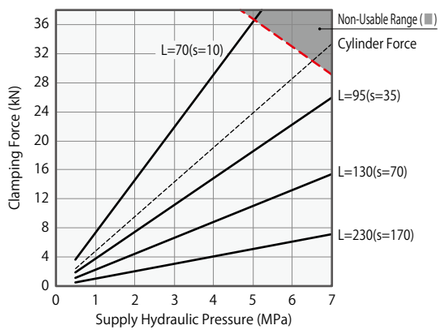
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=60	L=70	L=77.5	L=100	L=120	L=140	L=160	L=200	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	23.7			18.5	12.0	9.2	7.4	6.2	4.7		72
6.5	22.0		21.0	17.2	11.2	8.5	6.9	5.8	4.4		67
6	20.3		19.4	15.9	10.3	7.9	6.4	5.3	4.1		63
5.5	18.6	25.1	17.8	14.6	9.5	7.2	5.8	4.9	3.7		60
5	16.9	22.8	16.1	13.2	8.6	6.6	5.3	4.5	3.4		57
4.5	15.2	20.6	14.5	11.9	7.7	5.9	4.8	4.0	3.1		54
4	13.6	18.3	12.9	10.6	6.9	5.3	4.3	3.6	2.7		51
3.5	11.9	16.0	11.3	9.3	6.0	4.6	3.7	3.1	2.4		50
3	10.2	13.7	9.7	8.0	5.2	4.0	3.2	2.7	2.1		50
2.5	8.5	11.4	8.1	6.6	4.3	3.3	2.7	2.3	1.7		50
2	6.8	9.2	6.5	5.3	3.5	2.7	2.2	1.8	1.4		50
1.5	5.1	6.9	4.9	4.0	2.6	2.0	1.6	1.4	1.1		50
1	3.4	4.6	3.3	2.7	1.8	1.4	1.1	0.9	0.7		50
0.5	1.7	2.3	1.7	1.4	0.9	0.7	0.6	0.5	0.4		50
Max. Operating Pressure (MPa)		5.6	6.9	7.0	7.0	7.0	7.0	7.0	7.0		



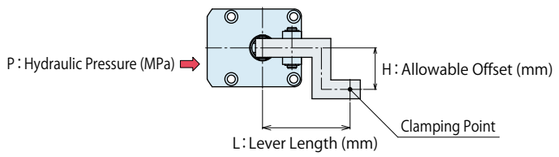
LKA1050-□□D/M/N-□

Clamping Force Calculation Formula※1 (kN) F＝(188.97×P)／(L－44)

Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L (mm) L=70	L=80	L=95	L=110	L=130	L=150	L=170	L=230	Non-Usable Range(■)	Min. Lever Length (L) (mm)
7	33.5			26.0	20.1	15.4	12.5	10.5	7.2		90
6.5	31.1			24.1	18.7	14.3	11.6	9.8	6.7		84
6	28.7		31.5	22.3	17.2	13.2	10.7	9.0	6.1		79
5.5	26.3		28.9	20.4	15.8	12.1	9.9	8.3	5.6		74
5	23.9	36.4	26.3	18.6	14.4	11.0	9.0	7.5	5.1		70
4.5	21.5	32.8	23.7	16.7	12.9	9.9	8.1	6.8	4.6		66
4	19.1	29.1	21.0	14.9	11.5	8.8	7.2	6.0	4.1		63
3.5	16.8	25.5	18.4	13.0	10.1	7.7	6.3	5.3	3.6		60
3	14.4	21.9	15.8	11.2	8.6	6.6	5.4	4.5	3.1		60
2.5	12.0	18.2	13.2	9.3	7.2	5.5	4.5	3.8	2.6		60
2	9.6	14.6	10.5	7.5	5.8	4.4	3.6	3.0	2.1		60
1.5	7.2	11.0	7.9	5.6	4.3	3.3	2.7	2.3	1.6		60
1	4.8	7.3	5.3	3.8	2.9	2.2	1.8	1.5	1.1		60
0.5	2.4	3.7	2.7	1.9	1.5	1.1	0.9	0.8	0.6		60
Max. Operating Pressure (MPa)		5.1	6.2	7.0	7.0	7.0	7.0	7.0	7.0		



Allowable Offset Graph (Option・・・Blank: Standard)



Applicable Model

LKA [ ] 0 - [C / G / S] [L / C / R] [Blank / D / M / N] - [Blank / A / K]

1 Body Size

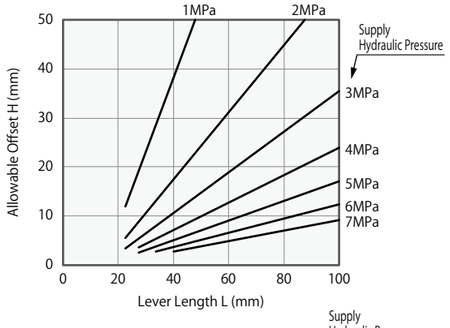
6 Option Blank (Or A/K)

(Example) When using LKA0480
Supply Hydraulic Pressure 5.0 MPa, Lever Length L=80 mm
Allowable Offset is about 10 mm.

Notes：
1. Tables and graphs shown are the relationships between the lever length (mm) for supply hydraulic pressure (MPa) and the allowable offset (mm).
2. Using the lever beyond allowable offset may cause deformation, galling and fluid leakage etc.
3. The tables and graphs are only for reference. The design should be carried out with allowance fully taken into consideration.

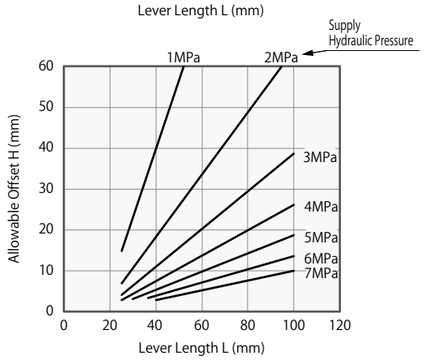
LKA0360-□□□ / LKA0360-□□□-A / LKA0360-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=22.5	L=27.5	L=33.5	L=40	L=50	L=60	L=80	L=100
7	▨	▨	▨	3	4	5	7	9
6.5	▨	▨	▨	3	4	6	8	11
6	▨	▨	3	4	5	7	10	12
5.5	▨	2	3	4	6	8	11	15
5	▨	3	4	5	7	9	13	17
4.5	▨	3	4	6	8	11	15	20
4	2	4	5	7	10	13	18	24
3.5	3	4	6	9	12	15	22	29
3	3	5	8	11	15	19	27	36
2.5	4	7	10	13	19	24	34	45
2	5	9	13	17	24	31	45	59
1.5	8	12	18	24	34	43	63	82
1	12	19	28	38	53	68	98	128



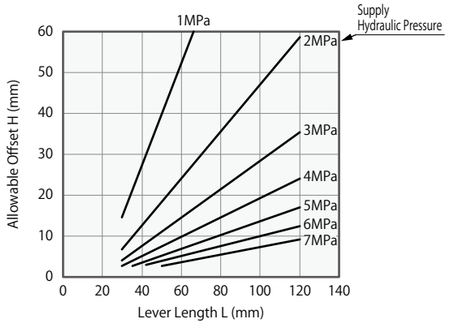
LKA0400-□□□ / LKA0400-□□□-A / LKA0400-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=25	L=30	L=36.5	L=40	L=50	L=60	L=80	L=100
7	▨	▨	▨	3	4	5	8	10
6.5	▨	▨	3	3	5	6	9	12
6	▨	▨	3	4	5	7	10	14
5.5	▨	3	4	5	6	8	12	16
5	▨	3	5	5	8	10	14	19
4.5	▨	4	5	6	9	12	17	22
4	3	4	6	7	11	14	20	26
3.5	3	5	8	9	13	17	24	32
3	4	6	9	11	16	20	30	39
2.5	5	8	12	14	20	26	37	49
2	7	11	16	18	26	34	49	64
1.5	10	15	22	26	36	47	68	89
1	15	23	34	40	57	73	106	140



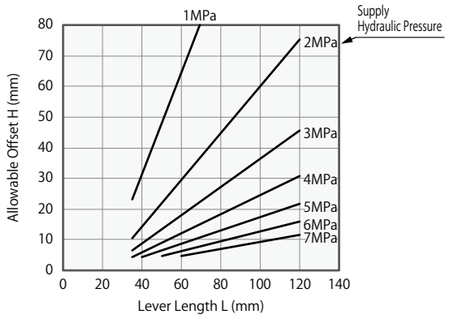
LKA0480-□□□ / LKA0480-□□□-A / LKA0480-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=30	L=35	L=42	L=50	L=60	L=80	L=100	L=120
7	▨	▨	▨	3	4	6	7	9
6.5	▨	▨	2	3	4	6	9	11
6	▨	▨	3	4	5	8	10	12
5.5	▨	2	3	5	6	9	12	15
5	▨	3	4	5	7	10	14	17
4.5	▨	3	5	6	8	12	16	20
4	3	4	6	7	10	15	19	24
3.5	3	5	7	9	12	18	23	29
3	4	6	8	11	15	22	29	36
2.5	5	7	10	14	18	27	36	45
2	7	10	14	18	24	36	47	59
1.5	9	13	19	25	33	50	66	82
1	14	21	30	40	52	77	103	128



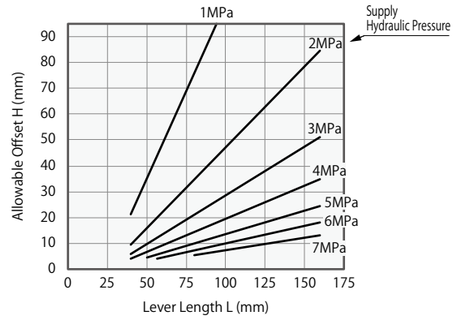
LKA0550-□□□ / LKA0550-□□□-A / LKA0550-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=35	L=40	L=50	L=60	L=70	L=80	L=100	L=120
7	▨	▨	▨	5	6	7	9	12
6.5	▨	▨	4	5	7	8	11	14
6	▨	▨	5	6	8	10	13	16
5.5	▨	▨	5	7	9	11	15	19
5	▨	4	6	9	11	13	17	22
4.5	▨	5	8	10	13	15	21	26
4	4	6	9	12	15	18	25	31
3.5	5	7	11	15	18	22	30	37
3	6	9	13	18	23	27	36	46
2.5	8	11	17	23	28	34	46	57
2	11	14	22	30	37	45	60	75
1.5	15	20	31	41	52	62	84	105
1	23	31	48	65	81	98	131	164



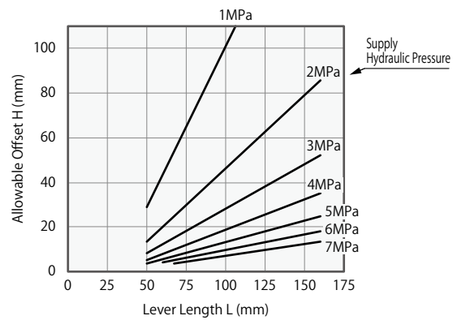
LKA0650-□□□ / LKA0650-□□□-A / LKA0650-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=40	L=50	L=56.5	L=80	L=100	L=120	L=140	L=160
7	▨	▨	▨	5	7	9	11	13
6.5	▨	▨	4	6	9	11	13	15
6	▨	▨	4	7	10	13	15	18
5.5	▨	4	5	9	12	15	18	21
5	▨	5	6	10	14	17	21	25
4.5	3	5	7	12	16	20	25	29
4	4	7	8	14	19	24	30	35
3.5	5	8	10	17	23	29	36	42
3	6	10	12	21	29	36	44	51
2.5	7	12	15	26	36	46	55	65
2	10	16	20	35	47	60	72	85
1.5	13	22	28	48	66	83	101	118
1	21	35	44	76	103	130	157	185



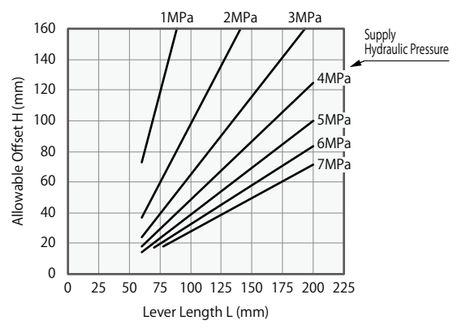
LKA0750-□□□ / LKA0750-□□□-A / LKA0750-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=50	L=60	L=67.5	L=80	L=100	L=120	L=140	L=160
7	▨	▨	▨	5	7	9	11	13
6.5	▨	▨	5	6	8	11	13	16
6	▨	4	5	7	10	13	15	18
5.5	▨	5	6	8	11	15	18	21
5	4	6	7	10	13	17	21	25
4.5	5	7	9	11	16	20	25	30
4	5	8	10	14	19	24	30	35
3.5	7	10	12	16	23	29	36	42
3	8	12	15	20	28	36	44	52
2.5	10	15	19	25	35	45	56	66
2	13	20	25	33	46	60	73	86
1.5	18	28	35	46	65	83	101	120
1	29	43	54	72	101	130	159	188



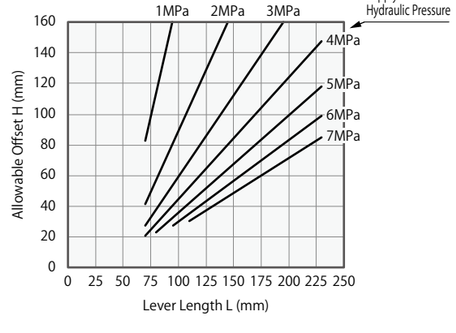
LKA0900-□□□ / LKA0900-□□□-A / LKA0900-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=60	L=70	L=77.5	L=100	L=120	L=140	L=160	L=200
7	▨	▨	▨	28	37	45	54	71
6.5	▨	▨	19	30	39	49	58	77
6	▨	▨	21	33	43	53	63	83
5.5	▨	19	23	35	47	58	69	91
5	▨	21	25	39	51	63	76	100
4.5	16	23	28	43	57	70	84	111
4	18	26	32	49	64	79	94	125
3.5	21	30	36	56	73	91	108	143
3	24	35	42	65	85	106	126	167
2.5	29	41	51	78	102	127	151	200
2	37	52	63	98	128	158	189	250
1.5	49	69	84	130	171	211	252	333
1	73	104	126	195	256	317	378	500

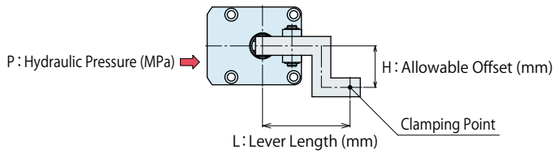


LKA1050-□□□ / LKA1050-□□□-A / LKA1050-□□□-K

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range (▨) Lever Length L (mm)							
	L=70	L=80	L=95	L=110	L=130	L=150	L=170	L=230
7	▨	▨	▨	30	39	48	57	84
6.5	▨	▨	25	32	42	52	62	91
6	▨	▨	27	35	46	56	67	99
5.5	▨	▨	29	38	50	61	73	107
5	▨	23	32	42	55	67	80	118
4.5	▨	25	36	47	61	75	89	131
4	21	29	41	52	68	84	100	148
3.5	24	33	46	60	78	96	114	169
3	28	38	54	70	91	112	133	197
2.5	33	46	65	84	109	135	160	236
2	41	57	81	105	137	168	200	296
1.5	55	76	108	140	182	225	267	394
1	83	114	162	210	273	337	400	591



Allowable Offset Graph (Option···H：High Strength Link Plate)



Applicable Model

LKA □ 0 - C G S / L C R / Blank D M N - H

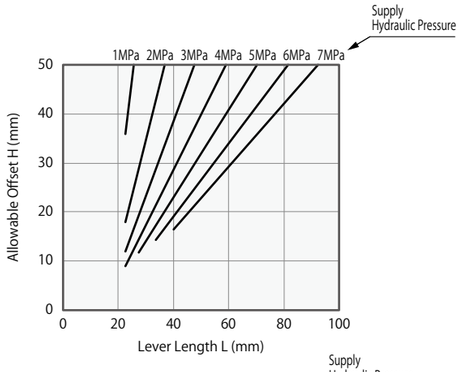
1 Body Size

6 Option：H selected

(Example) When using LKA0480-□□□-H
Supply Hydraulic Pressure 5.0 MPa, Lever Length L=80 mm
Allowable offset is about 46 mm.

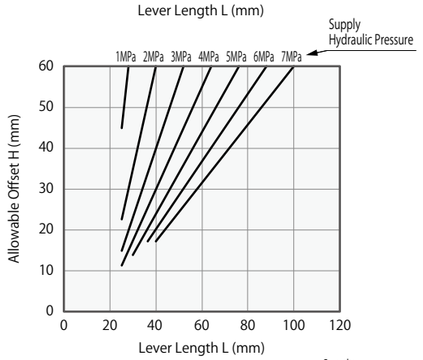
LKA0360-□□□-H

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range ▨ Lever Length L (mm)							
	L=22.5	L=27.5	L=33.5	L=40	L=50	L=60	L=80	L=100
7	▨	▨	▨	16	23	29	42	55
6.5	▨	▨	13	18	25	31	45	59
6	▨	▨	14	19	27	34	49	64
5.5	▨	11	16	21	29	37	53	70
5	▨	12	17	23	32	41	59	77
4.5	▨	13	19	25	35	45	65	85
4	9	15	21	29	40	51	73	96
3.5	10	17	24	33	46	58	84	110
3	12	19	28	38	53	68	98	128
2.5	14	23	34	46	64	82	118	153
2	18	29	43	57	80	102	147	192
1.5	24	39	57	76	106	136	196	256
1	36	58	85	114	159	204	294	384



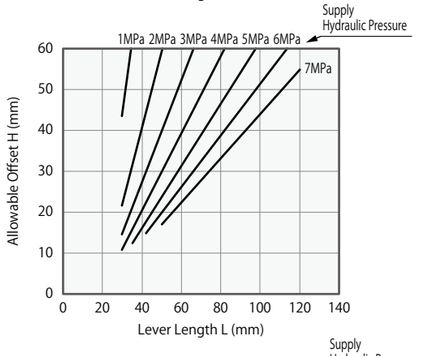
LKA0400-□□□-H

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range ▨ Lever Length L (mm)							
	L=25	L=30	L=36.5	L=40	L=50	L=60	L=80	L=100
7	▨	▨	▨	17	24	31	46	60
6.5	▨	▨	16	18	26	34	49	64
6	▨	▨	17	20	28	37	53	70
5.5	▨	13	19	22	31	40	58	76
5	▨	14	20	24	34	44	64	84
4.5	▨	16	23	27	38	49	71	93
4	11	17	26	30	42	55	80	105
3.5	13	20	29	34	48	63	91	120
3	15	23	34	40	57	73	106	140
2.5	18	28	41	48	68	88	128	168
2	22	35	51	60	85	110	160	210
1.5	30	47	68	80	113	146	213	279
1	45	70	102	120	170	220	319	419



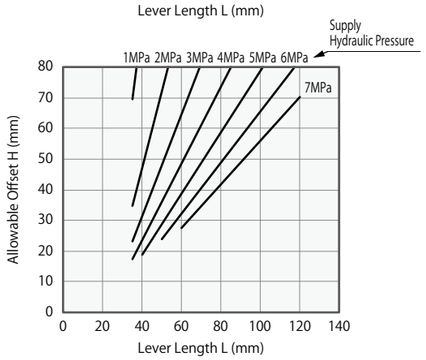
LKA0480-□□□-H

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range ▨ Lever Length L (mm)							
	L=30	L=35	L=42	L=50	L=60	L=80	L=100	L=120
7	▨	▨	▨	17	22	33	44	55
6.5	▨	▨	14	18	24	36	47	59
6	▨	▨	15	20	26	39	51	64
5.5	▨	11	16	22	29	42	56	70
5	▨	12	18	24	31	46	62	77
4.5	▨	14	20	26	35	52	68	85
4	11	16	22	30	39	58	77	96
3.5	12	18	25	34	45	66	88	110
3	14	21	30	40	52	77	103	128
2.5	17	25	36	48	63	93	123	153
2	22	31	44	60	78	116	154	192
1.5	29	42	59	79	105	155	205	256
1	43	62	89	119	157	232	308	384



LKA0550-□□□-H

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range ▨ Lever Length L (mm)							
	L=35	L=40	L=50	L=60	L=70	L=80	L=100	L=120
7	▨	▨	▨	28	35	42	56	70
6.5	▨	▨	22	30	37	45	60	76
6	▨	▨	24	32	41	49	65	82
5.5	▨	▨	26	35	44	53	71	89
5	▨	19	29	39	49	59	79	98
4.5	▨	21	32	43	54	65	87	109
4	17	24	36	48	61	73	98	123
3.5	20	27	41	55	70	84	112	141
3	23	31	48	65	81	98	131	164
2.5	28	38	58	78	97	117	157	197
2	35	47	72	97	122	147	196	246
1.5	46	63	96	129	162	196	262	328
1	70	94	144	194	244	293	393	492

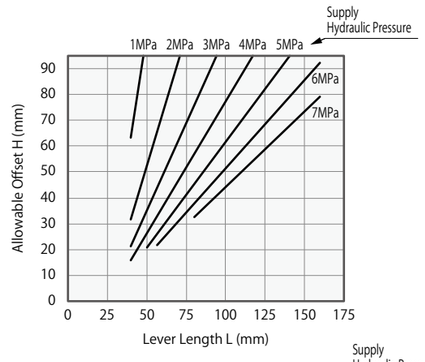


Notes：

1. Tables and graphs shown are the relationships between the lever length (mm) for supply hydraulic pressure (MPa) and the allowable offset (mm).
2. Using the lever beyond allowable offset may cause deformation, galling and fluid leakage etc.
3. The tables and graphs are only for reference. The design should be carried out with allowance fully taken into consideration.
4. The allowable offset graph of LKA0900 and LKA1050 is the same as that of Standard Model (Option：Blank).

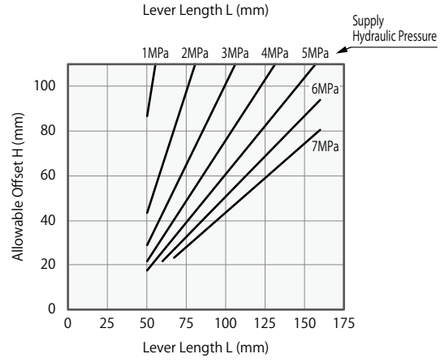
LKA0650-□□□-H

Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range ▨ Lever Length L (mm)							
	L=40	L=50	L=56.5	L=80	L=100	L=120	L=140	L=160
7	▨	▨	▨	32	44	56	67	79
6.5	▨	▨	20	35	47	60	73	85
6	▨	▨	22	38	51	65	79	92
5.5	▨	19	24	41	56	71	86	101
5	▨	21	26	45	62	78	94	111
4.5	14	23	29	50	69	87	105	123
4	16	26	33	57	77	98	118	139
3.5	18	30	37	65	88	112	135	158
3	21	35	44	76	103	130	157	185
2.5	25	42	52	91	123	156	189	222
2	32	52	65	113	154	195	236	277
1.5	42	70	87	151	206	260	315	369
1	63	104	131	227	309	390	472	554



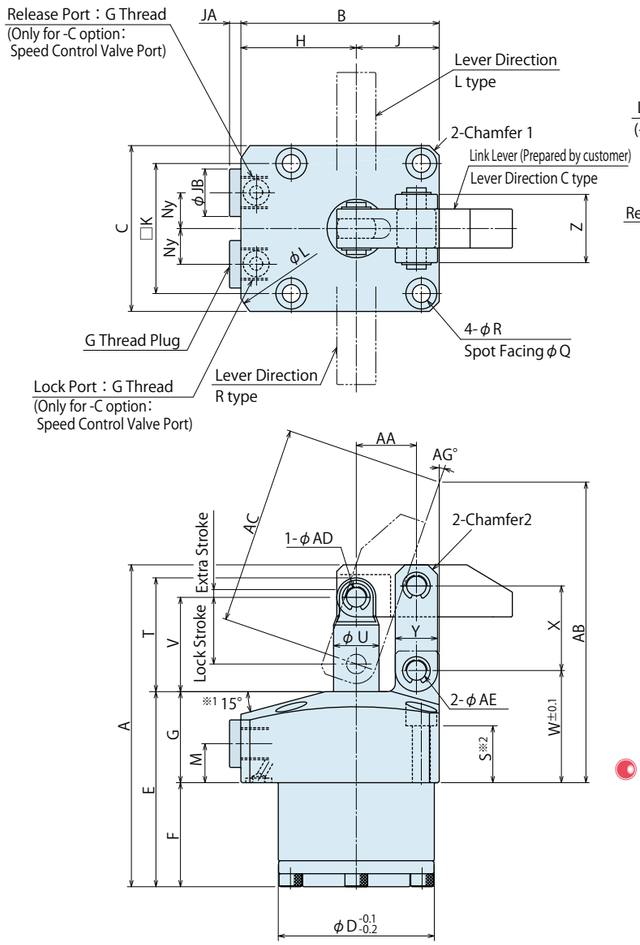
LKA0750-□□□-H

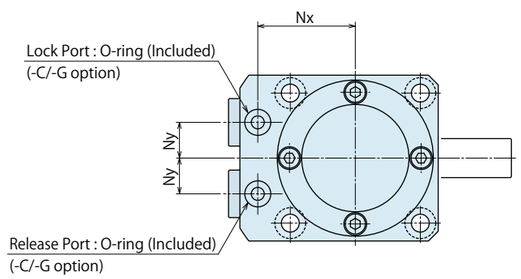
Hydraulic Pressure (MPa)	Allowable Offset H (mm) Non-Usable Range ▨ Lever Length L (mm)							
	L=50	L=60	L=67.5	L=80	L=100	L=120	L=140	L=160
7	▨	▨	▨	31	43	56	68	80
6.5	▨	▨	25	33	47	60	73	87
6	▨	22	27	36	51	65	79	94
5.5	▨	24	30	39	55	71	87	102
5	17	26	32	43	61	78	95	113
4.5	19	29	36	48	67	87	106	125
4	22	32	41	54	76	97	119	141
3.5	25	37	46	62	87	111	136	161
3	29	43	54	72	101	130	159	188
2.5	35	52	65	87	121	156	190	225
2	43	65	81	108	152	195	238	281
1.5	58	87	108	144	202	260	317	375
1	87	130	162	216	303	390	476	563



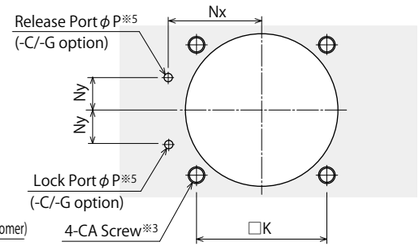
External Dimensions

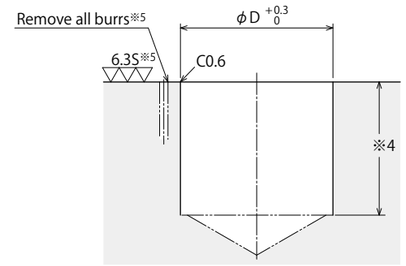
C：Gasket Option (With Ports for Speed Controller：G-Thread Plug Included)
※The drawing shows the locked state of LKA-CC.





Machining Dimensions of Mounting Area

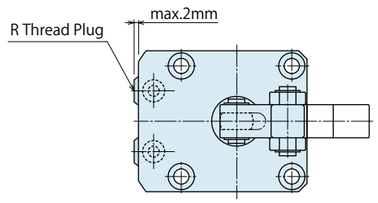




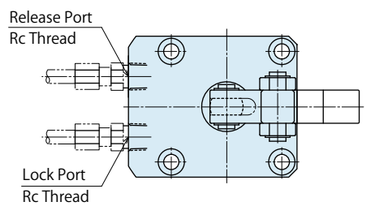
Notes：
※3. CA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension 'S'.
※4. The depth of the body mounting hole φD should be decided according to the mounting height referring to dimension 'F'.
※5. The machining dimension is for -C/-G：Gasket option.

Piping Method

G：Gasket Option (With R Thread Plug)
※ The drawing shows the locked state of LKA-GC.



S：Piping Option (Rc Thread)
※The drawing shows the locked state of LKA-SC.



Notes：
※1. Flange inclination angle is 12°only for LKA0650.
※2. Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension 'S'.
1. Please use the provided pin (equivalent to φADf6, φAEf6, HRC60) as mounting pin for lever.

Model No. Indication

(Format Example：LKA0550-CC, LKA0750-SR-H)

LKA 048 0 – C G S | L C R | Blank -H -K
1 2 3 4 6

1 Body Size
2 Design No.
3 Piping Method
4 Lever Direction
5 Action Confirmation (When Blank is chosen)
6 Option

Notes：
1. For option -H, the material of link plate has higher intensity than that of standard plate, and the form of chamfering 2 is round.
2. For option -K, flange pin is used as link pin (3 parts) and C type circlip is used as stop ring.

External Dimensions and Machining Dimensions for Mounting

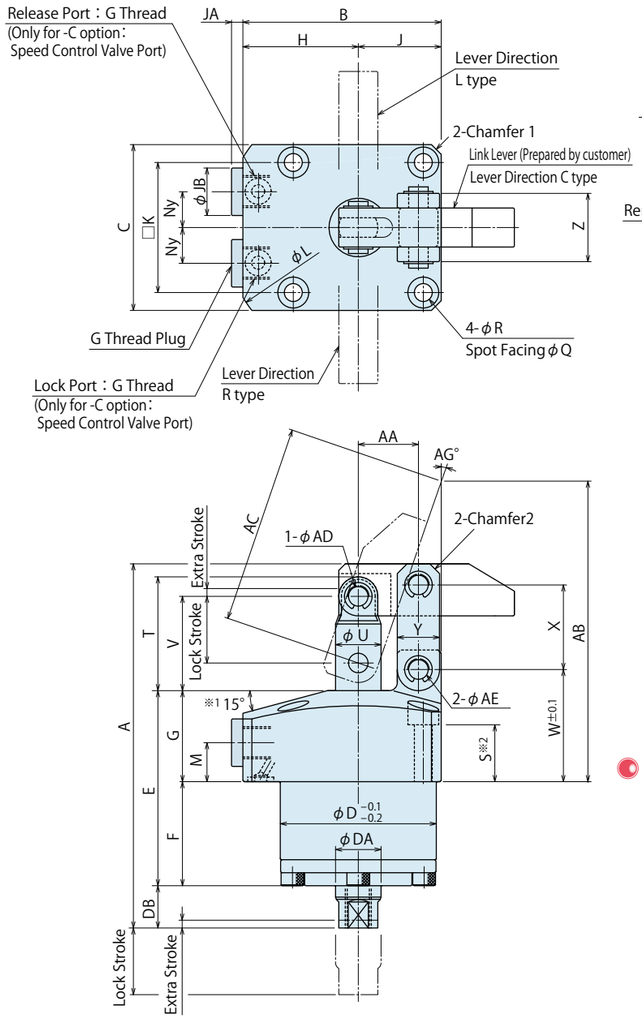
(mm)

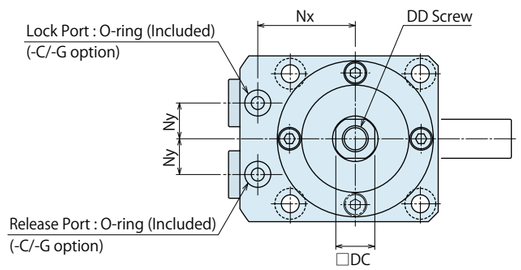
Model No.	LKA0360-□□	LKA0400-□□	LKA0480-□□	LKA0550-□□	LKA0650-□□	LKA0750-□□	LKA0900-□□	LKA1050-□□
Full Stroke	18.5	20.5	23.5	26	29.5	35	41	49
Lock Stroke	16	17.5	20.5	23	26.5	32	38	46
Extra Stroke	2.5	3	3	3	3	3	3	3
A	78.5	87.5	99	110.5	127.5	151	180	209
B	49	54	61	69	81	94.5	109.5	127
C	40	45	51	60	70	85	100	120
D	36	40	48	55	65	75	90	105
E	48	54	60	65	73.5	84	101	115
F	23	29	32	37	43.5	47	61	65
G	25	25	28	28	30	37	40	50
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
M	11	11	12	12	13	16	16	19
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
T	27	30.5	35	37.5	45	55	64.5	77
U	10	12	14	16	20	22	28	35.5
V	22.5	25	29	31.5	37	45	52	62
W	30	30.5	34.5	35.5	39	48	52.5	64
X	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
Z	19	21	24	28	37	40	49	64
Chamfer 1	C2	C3	C3	C3	C4	C10	C11	(φ152)
Chamfer 2	C2.5	C3	C3	C3	C5	C5	R16	R18
AA	14.5	16	18.5	21	24.5	30	36	44
AB	74.3	77.7	92.4	101.9	111.4	130.8	146.5	173.6
AC	47.3	50.2	61.2	71.7	78.7	90.8	104.6	122.5
AD	5	6	6	6	8	10	12	15
AE	5	6	6	8	10	12	15	18
AG	19.6	20.2	18.9	19.9	20.5	21.4	22.4	23.1
CA (Nominal × Pitch)	M4×0.7	M5×0.8	M5×0.8	M6×1	M6×1	M8×1.25	M10×1.5	M12×1.75
JA	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	19	19	22	22
Lock / Release Port -C option	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
Lock / Release Port -S option	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R Thread Plug -G option	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O-ring (-C/-G option)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

External Dimensions

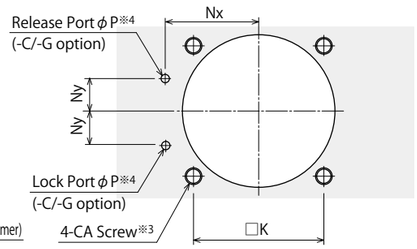
C：Gasket Option (With Ports for Speed Controller：G-Thread Plug Included)

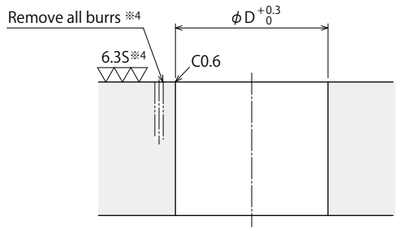
※The drawing shows the locked state of LKA-CCD.





Machining Dimensions of Mounting Area





Notes：

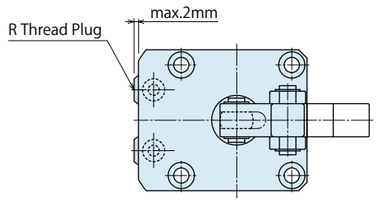
※3. CA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension 'S'.

※4. The machining dimension is for -C/-G：Gasket option.

Piping Method

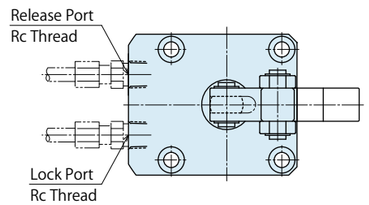
G：Gasket Option (With R Thread Plug)

※ The drawing shows the locked state of LKA-GCD.



S：Piping Option (Rc Thread)

※The drawing shows the locked state of LKA-SCD.



Notes：

※1. Flange inclination angle is 12°only for LKA0650.

※2. Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension 'S'.

1. Please use the provided pin (equivalent to φADf6, φAEf6, HRC60) as mounting pin for lever.

Model No. Indication

(Format Example：LKA0550-CCD, LKA0750-SRD-H)

LKA 048 0 – C G S | L C R | D | Blank -H -K

1 2 3 4 5 6

1 Body Size
2 Design No.
3 Piping Method
4 Lever Direction
5 Action Confirmation (When D is chosen)
6 Option

Notes：

1. For option -H, the material of link plate has higher intensity than that of standard plate, and the form of chamfering 2 is round.
2. For option -K, flange pin is used as link pin (3 parts) and C type circlip is used as stop ring.

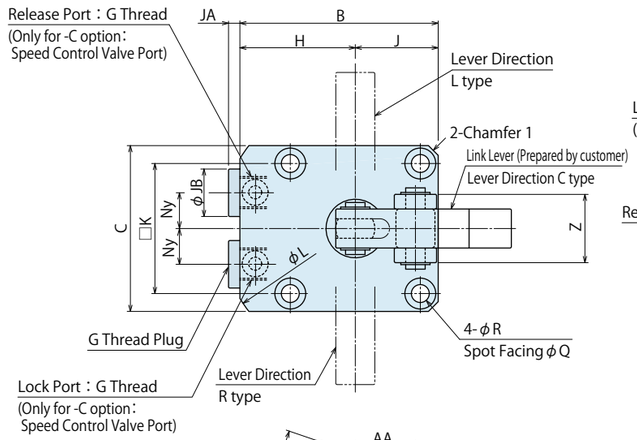
External Dimensions and Machining Dimensions for Mounting

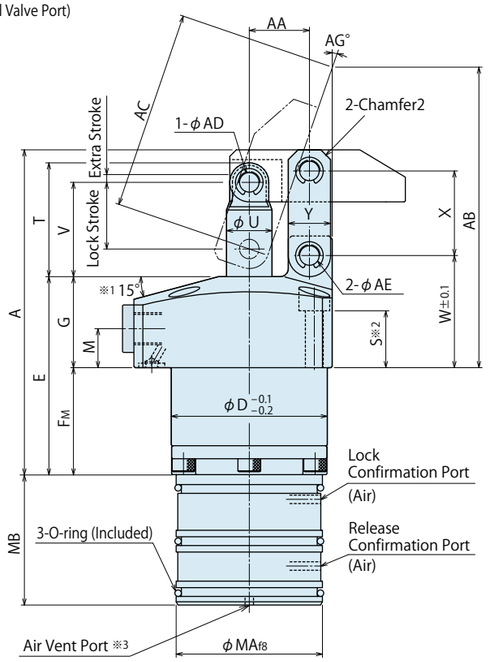
(mm)

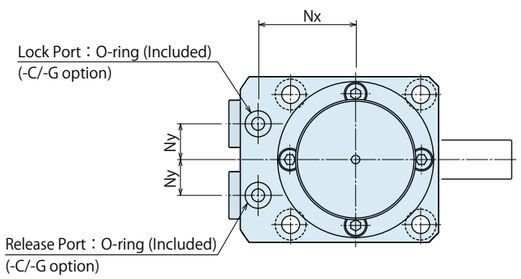
Model No.	LKA0360-□□D	LKA0400-□□D	LKA0480-□□D	LKA0550-□□D	LKA0650-□□D	LKA0750-□□D	LKA0900-□□D	LKA1050-□□D
Full Stroke	18.5	20.5	23.5	26	29.5	35	41	49
Lock Stroke	16	17.5	20.5	23	26.5	32	38	46
Extra Stroke	2.5	3	3	3	3	3	3	3
A	89	100.5	112	123.5	140.5	164	193	222
B	49	54	61	69	81	94.5	109.5	127
C	40	45	51	60	70	85	100	120
D	36	40	48	55	65	75	90	105
E	48	54	60	65	73.5	84	101	115
F	23	29	32	37	43.5	47	61	65
G	25	25	28	28	30	37	40	50
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
M	11	11	12	12	13	16	16	19
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
T	27	30.5	35	37.5	45	55	64.5	77
U	10	12	14	16	20	22	28	35.5
V	22.5	25	29	31.5	37	45	52	62
W	30	30.5	34.5	35.5	39	48	52.5	64
X	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
Z	19	21	24	28	37	40	49	64
Chamfer 1	C2	C3	C3	C3	C4	C10	C11	(φ152)
Chamfer 2	C2.5	C3	C3	C3	C5	C5	R16	R18
AA	14.5	16	18.5	21	24.5	30	36	44
AB	74.3	77.7	92.4	101.9	111.4	130.8	146.5	173.6
AC	47.3	50.2	61.2	71.7	78.7	90.8	104.6	122.5
AD	5	6	6	6	8	10	12	15
AE	5	6	6	8	10	12	15	18
AG	19.6	20.2	18.9	19.9	20.5	21.4	22.4	23.1
CA (Nominal × Pitch)	M4×0.7	M5×0.8	M5×0.8	M6×1	M6×1	M8×1.25	M10×1.5	M12×1.75
JA	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	19	19	22	22
DA	8	12	14	14	14	18	18	18
DB	10.5	13	13	13	13	13	13	13
DC	6	10	12	12	12	16	16	16
DD (Nominal×Pitch×Depth)	M4×0.7×10	M6×1×15	M8×1.25×18	M8×1.25×18	M8×1.25×18	M10×1.5×21	M10×1.5×21	M10×1.5×21
Lock / Release Port -C option	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
Lock / Release Port -S option	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R Thread Plug -G option	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O-ring (-C/-G option)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

External Dimensions

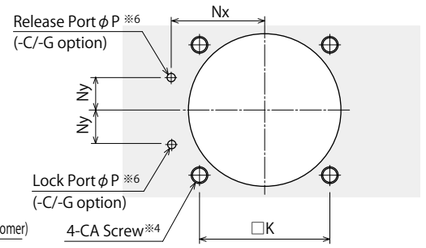
C：Gasket Option (With Ports for Speed Controller：G-Thread Plug Included)
※The drawing shows the locked state of LKA-CCM.

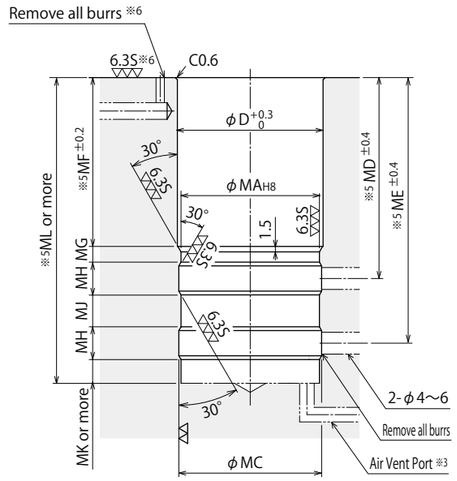






Machining Dimensions of Mounting Area

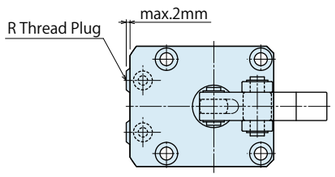




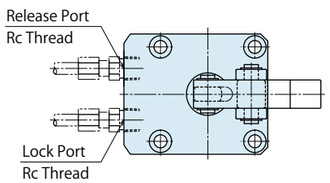
Notes：
※3. Air vent port must be open to the atmosphere, and prevent coolant and chips from entering the air vent port.
※4. CA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension 'S'.
※5. The dimensions indicate those under the flange.
※6. The machining dimension is for -C/-G：Gasket option.

Piping Method

G：Gasket Option (With R Thread Plug)
※ The drawing shows the locked state of LKA-GCM.



S：Piping Option (Rc Thread)
※The drawing shows the locked state of LKA-SCM.



Notes：
※1. Flange inclination angle is 12°only for LKA0650.
※2. Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension 'S'.
1. Please use the provided pin (equivalent to φADf6, φAEf6, HRC60) as mounting pin for lever.

Model No. Indication

(Format Example：LKA0550-CCM, LKA0750-SRM-H)

LKA 048 0 – C G S | L C R | M | Blank -H -K

1 2 3 4 5 6

1 Body Size
2 Design No.
3 Piping Method
4 Lever Direction
5 Action Confirmation (When M is chosen)
6 Option

Notes：
1. For option -H, the material of link plate has higher intensity than that of standard plate, and the form of chamfering 2 is round.
2. For option -K, flange pin is used as link pin (3 parts) and C type circlip is used as stop ring.

External Dimensions and Machining Dimensions for Mounting

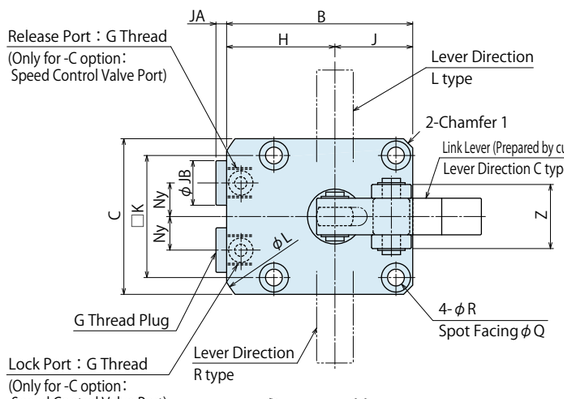
(mm)

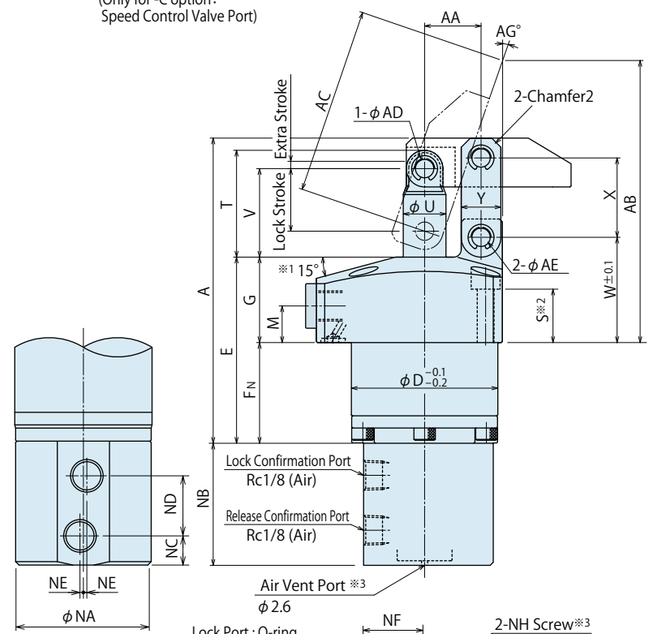
Model No.	LKA0360-□□M	LKA0400-□□M	LKA0480-□□M	LKA0550-□□M	LKA0650-□□M	LKA0750-□□M	LKA0900-□□M	LKA1050-□□M
Full Stroke	18.5	20.5	23.5	26	29.5	35	41	49
Lock Stroke	16	17.5	20.5	23	26.5	32	38	46
Extra Stroke	2.5	3	3	3	3	3	3	3
A	78.5	88.5	100	114	134.5	153	186	223
B	49	54	61	69	81	94.5	109.5	127
C	40	45	51	60	70	85	100	120
D	36	40	48	55	65	75	90	105
E	48	55	61	68.5	80.5	86	107	129
FM	23	30	33	40.5	50.5	49	67	79
G	25	25	28	28	30	37	40	50
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
M	11	11	12	12	13	16	16	19
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
T	27	30.5	35	37.5	45	55	64.5	77
U	10	12	14	16	20	22	28	35.5
V	22.5	25	29	31.5	37	45	52	62
W	30	30.5	34.5	35.5	39	48	52.5	64
X	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
Z	19	21	24	28	37	40	49	64
Chamfer 1	C2	C3	C3	C3	C4	C10	C11	(φ152)
Chamfer 2	C2.5	C3	C3	C3	C5	C5	R16	R18
AA	14.5	16	18.5	21	24.5	30	36	44
AB	74.3	77.7	92.4	101.9	111.4	130.8	146.5	173.6
AC	47.3	50.2	61.2	71.7	78.7	90.8	104.6	122.5
AD	5	6	6	6	8	10	12	15
AE	5	6	6	8	10	12	15	18
AG	19.6	20.2	18.9	19.9	20.5	21.4	22.4	23.1
CA (Nominal × Pitch)	M4×0.7	M5×0.8	M5×0.8	M6×1	M6×1	M8×1.25	M10×1.5	M12×1.75
JA	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	19	19	22	22
MAf8	34.5 -0.025 -0.064	38 -0.025 -0.064	45 -0.025 -0.064	45 -0.025 -0.064	45 -0.025 -0.064	53 -0.030 -0.076	53 -0.030 -0.076	53 -0.030 -0.076
MAH8	34.5 +0.039 0	38 +0.039 0	45 +0.039 0	45 +0.039 0	45 +0.039 0	53 +0.046 0	53 +0.046 0	53 +0.046 0
MB	31	36	40	40	40	59.5	59.5	59.5
MC	35.7	39.2	46.2	46.2	46.2	54.2	54.2	54.2
MD	32.5	40	43	50.5	60.5	61	79	91
ME	45.5	56.5	63.5	71	81	93.5	111.5	123.5
MF	23.5	30.5	33.5	41	51	49.5	67.5	79.5
MG	4.5	5	5	5	5	5.5	5.5	5.5
MH	9	9	9	9	9	12	12	12
MJ	4	7.5	11.5	11.5	11.5	20.5	20.5	20.5
MK	6	7	7	7	7	11	11	11
ML	56	68	75	82.5	92.5	110.5	128.5	140.5
Lock / Release Port -C option	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
Lock / Release Port -S option	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R Thread Plug -G option	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O-ring (-C/-G option)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
3-O-ring	AS568-025(70)	AS568-028(70)	AS568-030(70)	AS568-030(70)	AS568-030(70)	AS568-032(70)	AS568-032(70)	AS568-032(70)

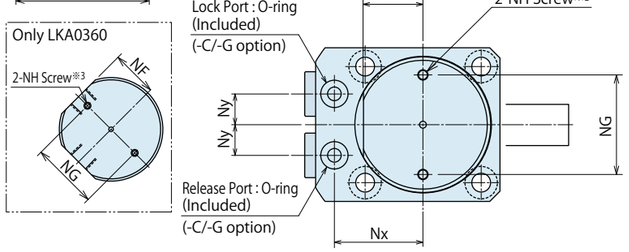
External Dimensions

C：Gasket Option (With Ports for Speed Controller：G-Thread Plug Included)

※The drawing shows the locked state of LKA-CCN.







Notes：

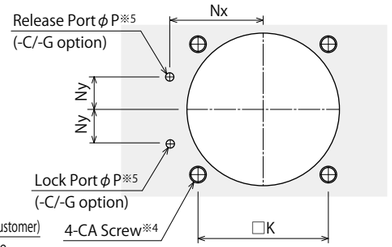
※1. Flange inclination angle is 12°only for LKA0650.

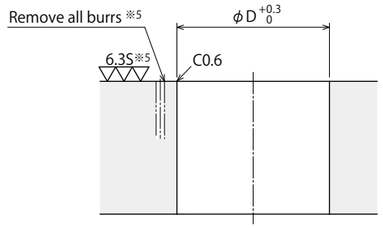
※2. Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension 'S'.

※3. Air vent port must be open to the atmosphere, and prevent coolant and chips from entering the air vent port. If exposed to coolant, install an attachment on NH screw to prevent coolant and chips, but do not block the air vent hole.

1. Please use the provided pin (equivalent to φADf6, φAEf6, HRC60) as mounting pin for lever.

Machining Dimensions of Mounting Area





Notes：

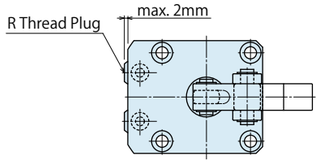
※4. CA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension 'S'.

※5. The machining dimension is for -C/-G：Gasket option.

Piping Method

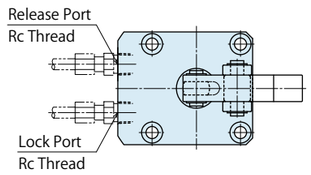
G：Gasket Option (With R Thread Plug)

※ The drawing shows the locked state of LKA-GCN.



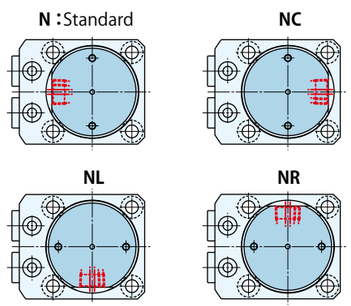
S：Piping Option (Rc Thread)

※The drawing shows the locked state of LKA-SCN.



Lock/Release Confirmation Port Phase

※ The drawings shown are for LKA0400~LKA1050.



Model No. Indication

(Format Example：LKA0550-CCN, LKA0750-SRNC-H)

LKA 048 0 – C G S | L C R | N NC NL NR | Blank -H -K

1 Body Size
2 Design No.
3 Piping Method
4 Lever Direction
5 Action Confirmation (When N□ is chosen)
6 Option

Notes：

1. For option -H, the material of link plate has higher intensity than that of standard plate, and the form of chamfering 2 is round.
2. For option -K, flange pin is used as link pin (3 parts) and C type circlip is used as stop ring.

External Dimensions and Machining Dimensions for Mounting

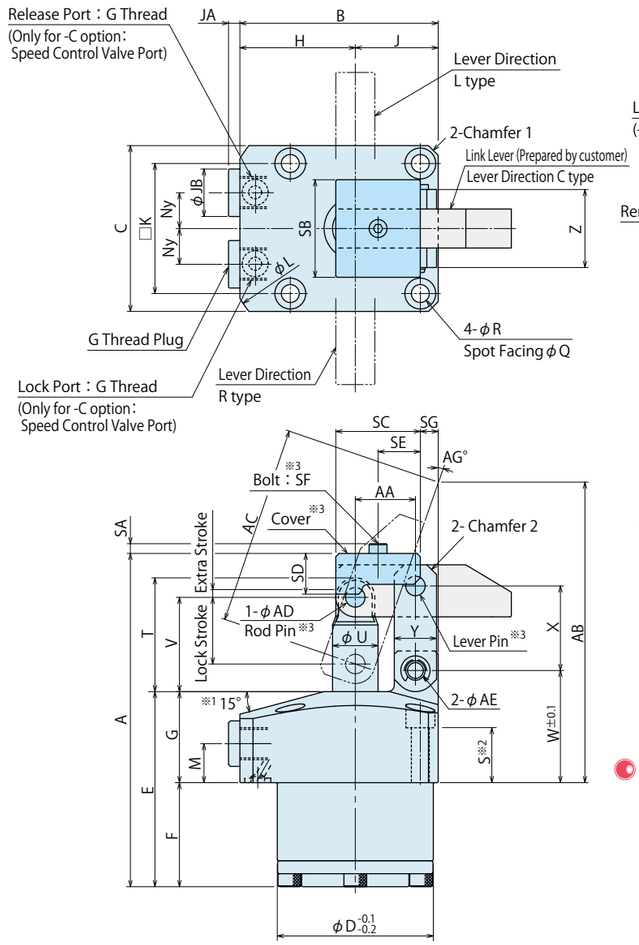
(mm)

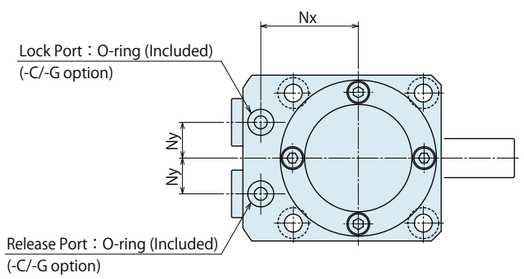
Model No.	LKA0360-□□N□	LKA0400-□□N□	LKA0480-□□N□	LKA0550-□□N□	LKA0650-□□N□	LKA0750-□□N□	LKA0900-□□N□	LKA1050-□□N□
Full Stroke	18.5	20.5	23.5	26	29.5	35	41	49
Lock Stroke	16	17.5	20.5	23	26.5	32	38	46
Extra Stroke	2.5	3	3	3	3	3	3	3
A	78.5	88.5	100	114	134.5	153	186	223
B	49	54	61	69	81	94.5	109.5	127
C	40	45	51	60	70	85	100	120
D	36	40	48	55	65	75	90	105
E	48	55	61	68.5	80.5	86	107	129
FN	23	30	33	40.5	50.5	49	67	79
G	25	25	28	28	30	37	40	50
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
M	11	11	12	12	13	16	16	19
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
T	27	30.5	35	37.5	45	55	64.5	77
U	10	12	14	16	20	22	28	35.5
V	22.5	25	29	31.5	37	45	52	62
W	30	30.5	34.5	35.5	39	48	52.5	64
X	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
Z	19	21	24	28	37	40	49	64
Chamfer 1	C2	C3	C3	C3	C4	C10	C11	(φ152)
Chamfer 2	C2.5	C3	C3	C3	C5	C5	R16	R18
AA	14.5	16	18.5	21	24.5	30	36	44
AB	74.3	77.7	92.4	101.9	111.4	130.8	146.5	173.6
AC	47.3	50.2	61.2	71.7	78.7	90.8	104.6	122.5
AD	5	6	6	6	8	10	12	15
AE	5	6	6	8	10	12	15	18
AG	19.6	20.2	18.9	19.9	20.5	21.4	22.4	23.1
CA (Nominal×Pitch)	M4×0.7	M5×0.8	M5×0.8	M6×1	M6×1	M8×1.25	M10×1.5	M12×1.75
JA	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	19	19	22	22
NA	35.5	39.5	45	45	45	53	53	53
NB	31	36	40	40	40	59.5	59.5	59.5
NC	9	8.5	12	12	12	20	20	20
ND	12.5	17.5	18	18	18	29.5	29.5	29.5
NE	-	1	2	2	2	3	3	3
NF	17	18.5	20	20	20	24	24	24
NG	25	29	29	29	29	38	38	38
NH (Nominal×Pitch×Depth)	M3×0.5×6	M3×0.5×6	M3×0.5×6	M3×0.5×6	M3×0.5×6	M4×0.7×7	M4×0.7×7	M4×0.7×7
Lock / Release Port -C option	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
Lock / Release Port -S option	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R Thread Plug -G option	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O-ring (-C/-G option)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

External Dimensions

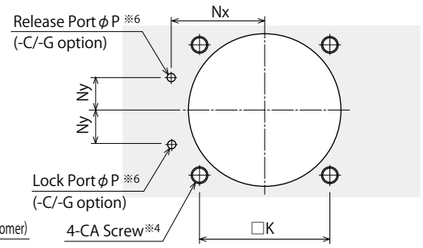
C：Gasket Option (With Ports for Speed Controller：G-Thread Plug Included)

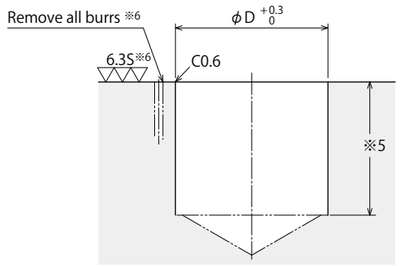
※The drawing shows the locked state of LKA-CC-A.





Machining Dimensions of Mounting Area





Notes：

※4. CA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension 'S'.

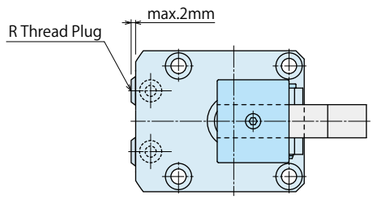
※5. The depth of the body mounting hole φD should be decided according to the mounting height referring to dimension 'F'.

※6. The machining dimension is for -C/-G：Gasket option.

Piping Method

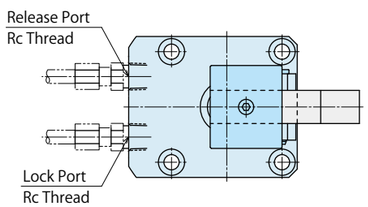
G：Gasket Option (With R Thread Plug)

※ The drawing shows the locked state of LKA-GC-A.



S：Piping Option (Rc Thread)

※The drawing shows the locked state of LKA-SC-A.



Notes：

※1. Flange inclination angle is 12°only for LKA0650.

※2. Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension 'S'.

※ 3. Tightening Kit (LZK□-W) including the cover (with bolt), rod pin and lever pin is sold separately.

Model No. Indication

(Format Example：LKA0550-CC-A, LKA0750-SR-A)

LKA 048 0 – C G S | L C R | -A

1 Body Size
2 Design No.
3 Piping Method
4 Lever Direction
5 Action Confirmation (Blank)
6 Option A

Note：

1. When selecting 6 Option **A**, unlike **Blank/H/K**, the lever mounting pin is not included. The dimensions of clamp main body are the same as **Blank/H/K**.

External Dimensions and Machining Dimensions for Mounting

(mm)

Model No.	LKA0360-□□-A	LKA0400-□□-A	LKA0480-□□-A	LKA0550-□□-A	LKA0650-□□-A	LKA0750-□□-A	LKA0900-□□-A	LKA1050-□□-A
Full Stroke	18.5	20.5	23.5	26	29.5	35	41	49
Lock Stroke	16	17.5	20.5	23	26.5	32	38	46
Extra Stroke	2.5	3	3	3	3	3	3	3
A	81.5	91	102.5	114.5	131.5	156	187	216
B	49	54	61	69	81	94.5	109.5	127
C	40	45	51	60	70	85	100	120
D	36	40	48	55	65	75	90	105
E	48	54	60	65	73.5	84	101	115
F	23	29	32	37	43.5	47	61	65
G	25	25	28	28	30	37	40	50
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
M	11	11	12	12	13	16	16	19
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
T	27	30.5	35	37.5	45	55	64.5	77
U	10	12	14	16	20	22	28	35.5
V	22.5	25	29	31.5	37	45	52	62
W	30	30.5	34.5	35.5	39	48	52.5	64
X	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
Z	19	21	24	28	37	40	49	64
Chamfer 1	C2	C3	C3	C3	C4	C10	C11	(φ152)
Chamfer 2	C2.5	C3	C3	C3	C5	C5	R16	R18
AA	14.5	16	18.5	21	24.5	30	36	44
AB	74.3	77.7	92.4	101.9	111.4	130.8	146.5	173.6
AC	47.3	50.2	61.2	71.7	78.7	90.8	104.6	122.5
AD	5	6	6	6	8	10	12	15
AE	5	6	6	8	10	12	15	18
AG	19.6	20.2	18.9	19.9	20.5	21.4	22.4	23.1
CA (Nominal×Pitch)	M4×0.7	M5×0.8	M5×0.8	M6×1	M6×1	M8×1.25	M10×1.5	M12×1.75
SA	3	3	3	3	4	4	5	5
SB	24	26	30	35	45	50	58	73
SC	21	24	26	29	34.5	43	50	60
SD	10.5	11.5	13	17	20	25	32	36
SE	11	12.5	13	16.5	18.5	23	26	32
SF (Nominal×Pitch×Depth)	M3×0.5×6	M3×0.5×6	M3×0.5×6	M3×0.5×8	M4×0.7×8	M4×0.7×10	M5×0.8×12	M5×0.8×12
SG	3.5	4	5.5	7	8.5	9.5	11	13
JA	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	19	19	22	22
Lock/Release Port -C option	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
Lock/Release Port -S option	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R Thread Plug -G option	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O-ring (-C/-G option)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

Air Sensing Option (Action Confirmation Method･･･M：Air Sensing Manifold Option / N：Air Sensing Piping Option)

Action confirmation can be conducted by detecting differential pressure with the air catch sensor connected to lock confirmation port and release confirmation port.

Applicable Model

LKA 048 0 - C G S / L C R / M N - Blank A H K

5 Action Confirmation Method
：When M/N is chosen

About Air Catch Sensor

The air catch sensor is necessary to confirm the piston rod action.

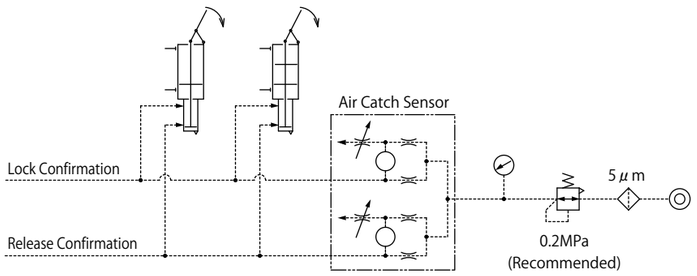
The essential condition: Air catch sensor that have a consumption rate more than 22～25L/min (at 0.2 MPa) is needed.

Recommended Operating Air Pressure : 0.2 MPa

Recommended Air Catch Sensor

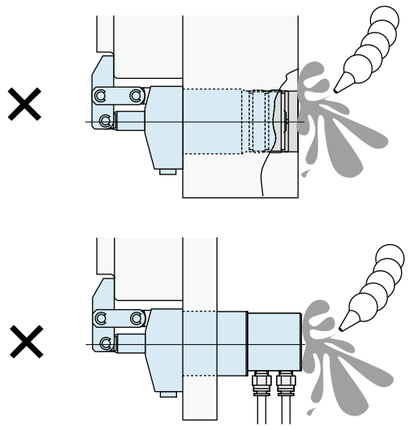
Manufacturer	SMC	CKD
Name	Air Catch Sensor	Gap Switch
Model No.	ISA1, ISA2-H	GPS2-07-15

In order to carry out stabilized detection, the number of clamps connected per one air catch sensor should be no more than 4.
The air pressure to the air catch sensor should be 0.2MPa.
Refer to the drawing below for the pneumatic circuit composition.

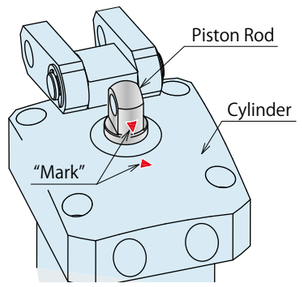


Notes for Design・Installation・Use

- Air vent port must be open to the atmosphere, and prevent coolant and chips from entering the air vent port. The air catch sensor can malfunction if the air vent port is blocked.



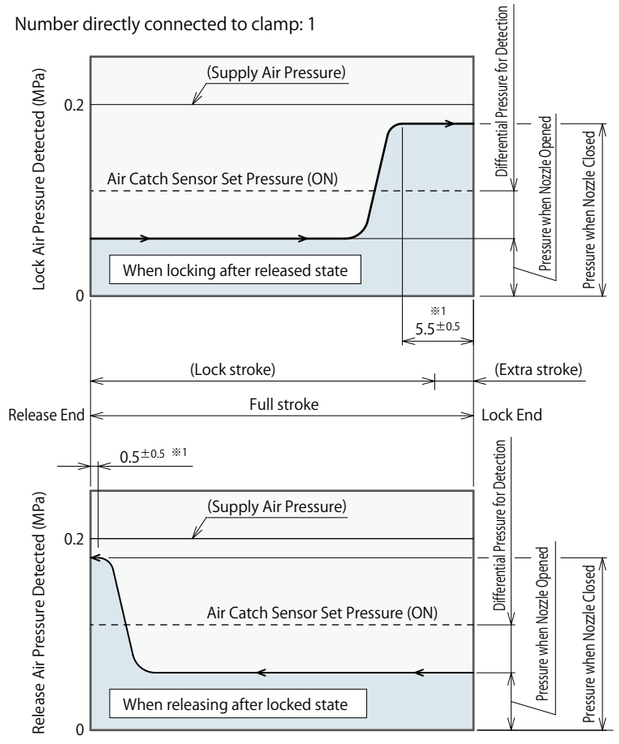
- When mounting the lever, match the marks on the piston rod and cylinder. Detection is not possible if it is mounted reversely by 180°.

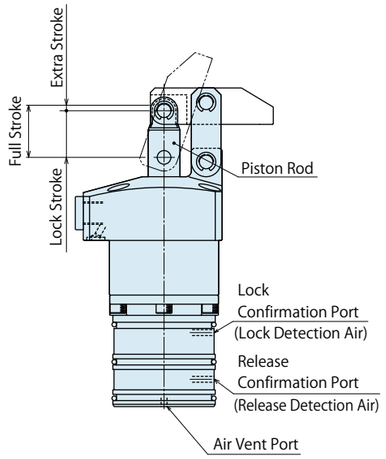


- Before mounting M：Manifold Model, apply adequate amounts of grease on O-ring of the manifold.
The O-ring can be twisted or damaged when in a dry state.
If too much grease is applied, the air catch sensor can malfunction due to overflow grease blocking the detection port.

Air Sensing Chart

Number directly connected to clamp: 1





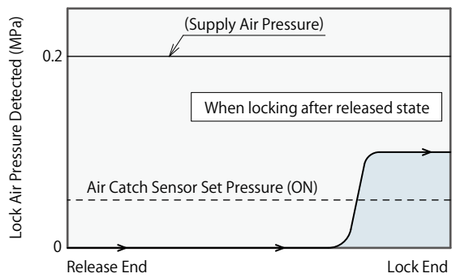
Notes :

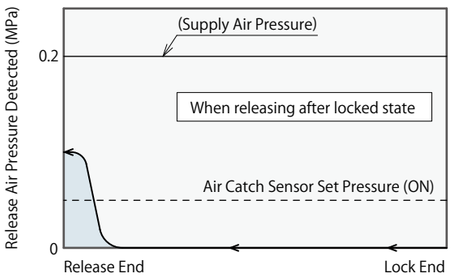
1. Sensing chart shown is the relationship between the stroke and detection circuit air pressure.
2. The position where the air sensor has ON signal output varies as per the sensor setting.
3. The detection pressure varies depending on the number of clamps connected per circuit. (Maximum number of clamps connected : 4)
4. The features may vary depending on the air circuit structure. Please contact us for further information.

※1. There is certain tolerance with regard to the position where the pressure for fully closing the detection nozzle is reached depending on the clamp structure. (Refer to the sensing chart.)

Model No.		LKA0360-□□M / LKA0360-□□N	LKA0400-□□M / LKA0400-□□N	LKA0480-□□M / LKA0480-□□N	LKA0550-□□M / LKA0550-□□N	LKA0650-□□M / LKA0650-□□N	LKA0750-□□M / LKA0750-□□N	LKA0900-□□M / LKA0900-□□N	LKA1050-□□M / LKA1050-□□N
Full Stroke	mm	18.5	20.5	23.5	26	29.5	35	41	49
Lock Stroke	mm	16	17.5	20.5	23	26.5	32	38	46
Extra Stroke	mm	2.5	3	3	3	3	3	3	3

Number directly connected to clamp : 4 (for reference)





Link Lever Design Dimension

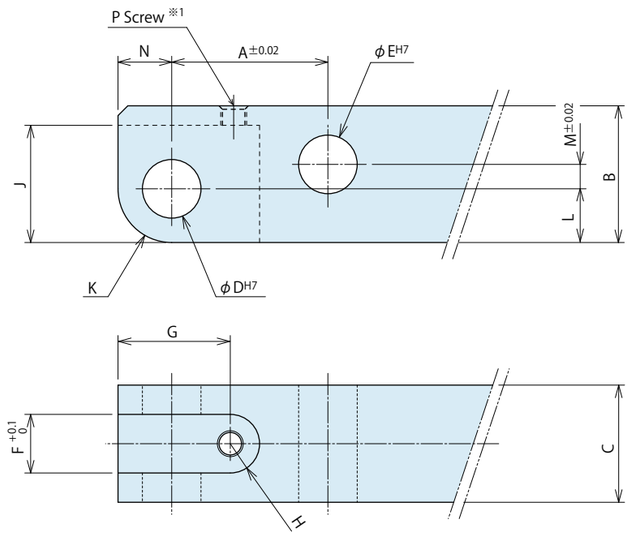
※ Reference for designing link lever.

Corresponding Model No.

LKA [ ] 0 - [C G S / L C R / Blank M N] - [Blank A H K]

1 Body Size

6 Option



Calculation List of Link Lever Design Dimension

(mm)

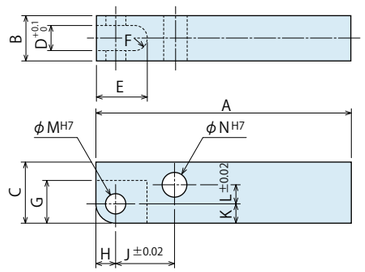
Corresponding Model No.	LKA0360	LKA0400	LKA0480	LKA0550	LKA0650	LKA0750	LKA0900	LKA1050
A	14.5	16	18.5	21	24.5	30	36	44
B	12.5	14	16	20	25	32	38	45
C	10 0 −0.2	12 0 −0.3	12 0 −0.3	16 0 −0.3	19 0 −0.3	22 0 −0.3	25 0 −0.3	32 0 −0.4
D	5 +0.012 0	6 +0.012 0	6 +0.012 0	6 +0.012 0	8 +0.015 0	10 +0.015 0	12 +0.018 0	15 +0.018 0
E	5 +0.012 0	6 +0.012 0	6 +0.012 0	8 +0.015 0	10 +0.015 0	12 +0.018 0	15 +0.018 0	18 +0.018 0
F	5	6	6	8	10	11	13	16
G	10	11.5	13	12.5	16	20	24	28
H	R2.5	R3	R3	R4	R5	R5.5	R6.5	R8
J	10	12	13	13	17.5	22	26	30.5
K	R4.5	R5.5	R6	R6	R8	R10	R11	R13
L	4.5	5.5	6	6	8	10	11	13
M	2.5	2.5	3.5	6	7.5	9.5	13	16
N	4.5	5.5	6	6	8	10	11	13
P (Nominal×Depth) ※1	M3×0.5 Through	M3×0.5 Through	M3×0.5 Through	M3×0.5×6	M4×0.7 Through	M4×0.7×7	M5×0.8×8	M5×0.8×8

Notes :

1. Link lever should be designed with its length according to performance curve.
2. If the link lever is not in accordance with the dimension shown above, performance may be degraded and damage can occur.
3. For 6 Option **Blank/H/K**, use the attached pin (equivalent to ϕADf6, ϕAEf6, HRC60) as the lever mounting pin.
   (Refer to external dimensions of the clamp body for the dimensions of ϕAD, ϕAE.)
4. For 6 Option **A**, the lever mounting pin is not included in the clamp.
   Please order Tightening Kit for Quick Change Lever Type A (LZK□-W).

※1. Machining of P Screw is required only when using Tightening Kit for Quick Change Lever Type A (LZK□-W).

Accessories：Material Link Lever



Model No. Indication

LZK 048 0 – L

048: Size (Refer to the table.)

0 – L: Design No. (Revision Number)

(mm)

Model No.	LZK0360-L	LZK0400-L	LZK0480-L	LZK0550-L	LZK0650-L	LZK0750-L	LZK0900-L	LZK1050-L
Corresponding Model No.	LKA0360	LKA0400	LKA0480	LKA0550	LKA0650	LKA0750	LKA0900	LKA1050
A	65	75	85	90	105	110	160	220
B	10 0 −0.2	12 0 −0.3	12 0 −0.3	16 0 −0.3	19 0 −0.3	22 0 −0.3	25 0 −0.3	32 0 −0.4
C	12.5	14	16	20	25	32	38	45
D	5	6	6	8	10	11	13	16
E	12.5	14.5	16	16.5	21	25.5	30.5	36
F	R2.5	R3	R3	R4	R5	R5.5	R6.5	R8
G	10	12	13	13	17.5	22	26	30.5
H	4.5	5.5	6	6	8	10	11	13
J	14.5	16	18.5	21	24.5	30	36	44
K	4.5	5.5	6	6	8	10	11	13
L	2.5	2.5	3.5	6	7.5	9.5	13	16
M	5 +0.012 0	6 +0.012 0	6 +0.012 0	6 +0.012 0	8 +0.015 0	10 +0.015 0	12 +0.018 0	15 +0.018 0
N	5 +0.012 0	6 +0.012 0	6 +0.012 0	8 +0.015 0	10 +0.015 0	12 +0.018 0	15 +0.018 0	18 +0.018 0

Notes :

1. Material S45C
2. If necessary, the front end should be additionally machined.
3. For 6 Option **Blank/H/K**, use the attached pin (equivalent to ϕADf6, ϕAEf6, HRC60) as the lever mounting pin.
4. For 6 Option **A**, the lever mounting pin is not included in the clamp.
   Please order Tightening Kit for Quick Change Lever Type A (LZK□-W).
5. When using Tightening Kit for Quick Change Lever Type A (LZK□-W), a tapped hole should be additionally machined.
   Refer to the link lever design dimensions (P Screw part) for additional machining.

Accessories：Tightening Kit for Quick Change Lever Type A

Model No. Indication

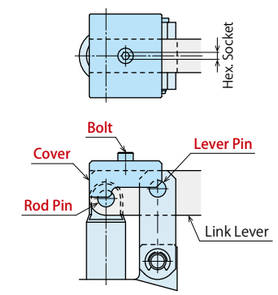
LZK 040 0 – W

040: Size (Refer to the table.)

0 – W: Design No. (Revision Number)

Tightening Kit for mounting Quick Change Lever Type A.
Sold separately from clamp body.

【Contents of Tightening Kit】
・Cover (with Bolt) ・Rod Pin ・Lever Pin



Model No.	LZK0360-W	LZK0400-W	LZK0480-W	LZK0550-W	LZK0650-W	LZK0750-W	LZK0900-W	LZK1050-W
Corresponding Model No.	LKA0360-□-A	LKA0400-□-A	LKA0480-□-A	LKA0550-□-A	LKA0650-□-A	LKA0750-□-A	LKA0900-□-A	LKA1050-□-A
Nominal×Pitch of Bolt	M3×0.5	M3×0.5	M3×0.5	M3×0.5	M4×0.7	M4×0.7	M5×0.8	M5×0.8
Hex. Socket mm	2.5	2.5	2.5	2.5	3	3	4	4
Tightening Torque N・m	1.3	1.3	1.3	1.3	3.2	3.2	6.3	6.3

Cautions

Notes for Design

1) Check Specifications

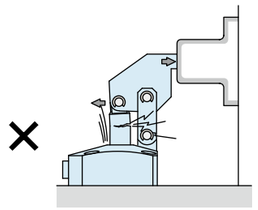
- Please use each product according to the specifications.

2) Notes for Circuit Design

- Please read "Notes on Hydraulic Cylinder Speed Control Circuit" on P.1238 to assist with proper hydraulic circuit designing. Improper circuit design may lead to malfunctions and damages.
- Ensure there is no possibility of supplying hydraulic pressure to the lock and release ports simultaneously.

3) Notes for Link Lever Design

- Make sure no force is applied to the piston rod except the axial direction. (Make sure the clamp surface and the mounting surface on the workpiece are parallel.) The usage like the one shown in the drawing below will apply a large bending stress to the piston rod and must be avoided.



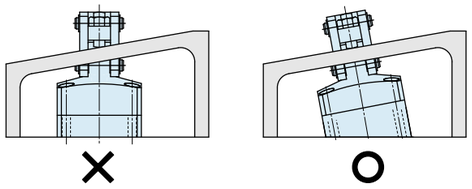
- If offset load is applied on the link part, use it within the allowable range of "Allowable Offset Graph".

4) When using on a welding fixture, the exposed area of piston rod and link plate should be protected.

- If spatter gets onto the sliding surface it may lead to malfunction and fluid leakage.

5) When clamping on a sloped surface on the workpiece.

- Make sure the clamp surface and the mounting surface on the workpiece are parallel.



6) When using in a dry environment.

- The link pin can dry out. Grease it periodically or use a special pin. Contact us for the specifications for special pins.

7) Notes for LKA-M/N, LKW

- When using air sensing link clamp (LKA-M/N, LKW), make sure to check the Notes for Design・Installation・Use (Pages shown below).
  ・Link clamp with air sensing option LKA-M/N：Refer to P.583.
  ・Link clamp with air sensing valve LKW：Refer to P.603.

Notes on installation.

1) Check the fluid to use.

- Please use the appropriate fluid by referring to the Hydraulic Fluid List (P.1237).

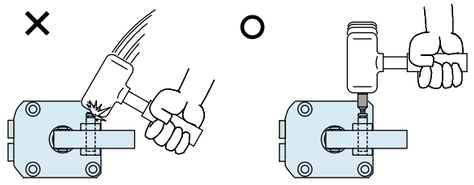
2) Mounting / Removing clamp.

- When mounting the clamp, use hexagon socket bolts as multiple bolt holes for mounting (with tensile strength of 12.9) and tighten them with the torque shown in the chart below. Tightening with greater torque than recommended can depress the seating surface or break the bolt.

Model No.		Thread Size	Tightening Torque (N·m)
LKA LKC LKW	LKA0360	M4×0.7	4.0
	LKA0400 LKC0400/LKW0401	M5×0.8	8.0
	LKA0480 LKC0480/LKW0481	M5×0.8	8.0
	LKA0550 LKC0550/LKW0551	M6×1	14
	LKA0650 LKC0650/LKW0651	M6×1	14
	LKA0750/LKW0751	M8×1.25	33
	LKA0900	M10×1.5	65
	LKA1050	M12×1.75	114
LM/LJ	LM0300/LJ0302	M4×0.7	3.2
	LM0360/LJ0362	M4×0.7	3.2
	LM0400/LJ0402	M5×0.8	6.3
	LM0480/LJ0482	M5×0.8	6.3
	LM0550/LJ0552	M6×1	10
	LM0650/LJ0652	M6×1	10
	LM0750/LJ0752	M8×1.25	25
	LJ0902	M10×1.5	58.8
	LJ1052	M12×1.75	98
TMA	TMA0250	M5×0.8	6.9
	TMA0400	M5×0.8	6.9
	TMA0600	M6×1	11.8
	TMA1000	M8×1.25	25
	TMA1600	M10×1.5	58.8
	TMA2500	M12×1.75	98
	TMA3200	M12×1.75	98

3) Installation / Removal of the Link Lever

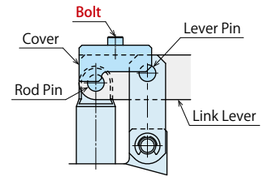
- When inserting the link pin, do not hit the pin directly with a hammer. When using a hammer to insert the pin, always use a cover plate with a smaller diameter than the snap ring groove on the pin.



- Tighten the bolt of Quick Change Lever Type A with the torque shown below.

Quick Change Lever Type A

Model No.	Thread Size	Tightening Torque (N·m)
LKA0360-□□-A	M3×0.5	1.3
LKA0400-□□-A	M3×0.5	1.3
LKA0480-□□-A	M3×0.5	1.3
LKA0550-□□-A	M3×0.5	1.3
LKA0650-□□-A	M4×0.7	3.2
LKA0750-□□-A	M4×0.7	3.2
LKA0900-□□-A	M5×0.8	6.3
LKA1050-□□-A	M5×0.8	6.3

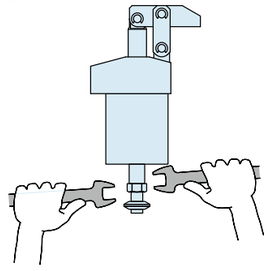


4) Speed Adjustment

- Adjust the speed so that the total operating time is one second or more. If the clamp operates too fast the parts will wear out leading to premature damage and ultimately complete equipment failure.
- Please make sure to release air from the circuit before adjusting speed. It will be difficult to adjust the speed accurately with air mixed in the circuit.
- Turn the speed control valve gradually from the low-speed side (small flow) to the high-speed side (large flow) to adjust the speed.

5) Notes on Double End Rod Option (-D) for Dog Application

- When installing a dog, secure the dog and prevent any rotation or torque on the piston rod, and fix the width part of the rod end with a spanner.



Model No.		Thread Size	Tightening Torque (N·m)
LKA-D	LKA0360-□□D	M4×0.7	3.2
	LKA0400-□□D	M6×1	10
	LKA0480-□□D	M8×1.25	25
	LKA0550-□□D	M8×1.25	25
	LKA0650-□□D	M8×1.25	25
	LKA0750-□□D	M10×1.5	50
	LKA0900-□□D	M10×1.5	50
	LKA1050-□□D	M10×1.5	50

※ Please refer to P.1237 for common cautions. ・Installation Notes ・Hydraulic Fluid List ・Notes on Hydraulic Cylinder Speed Control Circuit ・Notes on Handling ・Maintenance/Inspection ・Warranty

Cautions

Installation Notes (For Hydraulic Series)

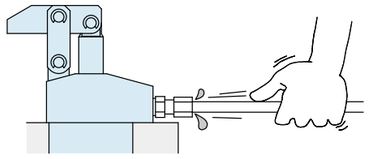
1) Check the Usable Fluid
- Please use the appropriate fluid by referring to the Hydraulic Fluid List.

2) Procedure before Piping
- The pipeline, piping connector and fixture circuits should be cleaned by thorough flushing.
- The dust and cutting chips in the circuit may lead to fluid leakage and malfunction.
- There is no filter provided with Kosmek's product except for a part of valves which prevents foreign materials and contaminants from getting into the circuit.

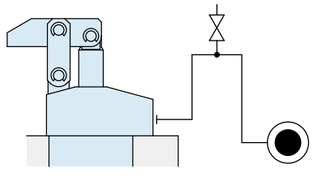
3) Applying Sealing Tape
- Wrap with tape 1 to 2 times following the screw direction.
- Pieces of the sealing tape can lead to oil leakage and malfunction.
- In order to prevent a foreign substance from going into the product during the piping work, it should be carefully cleaned before working.

4) Air Bleeding of the Hydraulic Circuit
- If the hydraulic circuit has excessive air, the action time may become very long. If air enters the circuit after connecting the hydraulic port or under the condition of no air in the oil tank, please perform the following steps.

① Reduce hydraulic pressure to less than 2MPa.
② Loosen the cap nut of pipe fitting closest to the clamp by one full turn.
③ Wiggle the pipeline to loosen the outlet of pipe fitting.
Hydraulic fluid mixed with air comes out.



④ Tighten the cap nut after bleeding.
⑤ It is more effective to bleed air at the highest point inside the circuit or at the end of the circuit.
(Set an air bleeding valve at the highest point inside the circuit.)



5) Checking Looseness and Retightening
- At the beginning of the machine installation, the bolt and nut may be tightened lightly. Check the looseness and re-tighten as required.

Hydraulic Fluid List

ISO Viscosity Grade ISO-VG-32

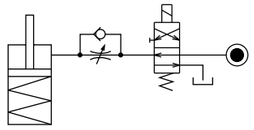
Maker	Anti-Wear Hydraulic Oil	Multi-Purpose Hydraulic Oil
Showa Shell Sekiyu	Tellus S2 M 32	Morlina S2 B 32
Idemitsu Kosan	Daphne Hydraulic Fluid 32	Daphne Super Multi Oil 32
JX Nippon Oil & Energy	Super Hyrando 32	Super Mulpus DX 32
Cosmo Oil	Cosmo Hydro AW32	Cosmo New Mighty Super 32
ExxonMobil	Mobil DTE 24	Mobil DTE 24 Light
Matsumura Oil	Hydol AW-32	
Castrol	Hyspin AWS 32	

Note As it may be difficult to purchase the products as shown in the table from overseas, please contact the respective manufacturer.

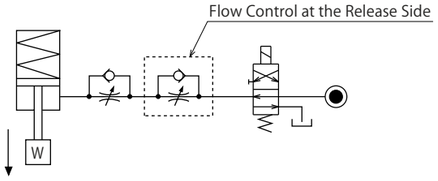
Notes on Hydraulic Cylinder Speed Control Unit

Please pay attention to the cautions below. Design the hydraulic circuit for controlling the action speed of hydraulic cylinder.
Improper circuit design may lead to malfunctions and damages. Please review the circuit design in advance.

- Flow Control Circuit for Single Acting Cylinder
For spring return single acting cylinders, restricting flow during release can extremely slow down or disrupt release action. The preferred method is to control the flow during the lock action using a valve that has free-flow in the release direction. It is also preferred to provide a flow control valve at each actuator.

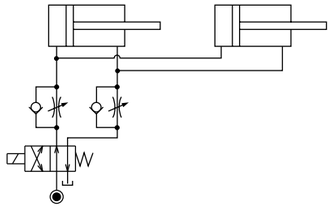


Accelerated clamping speed by excessive hydraulic flow to the cylinder may sustain damage. In this case add flow control to regulate flow. (Please add flow control to release flow if the lever weight is put on at the time of release action when using swing clamps.)

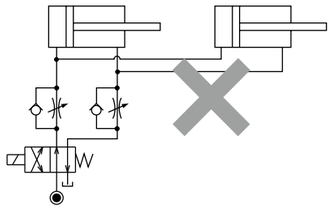


- Flow Control Circuit for Double Acting Cylinder
Flow control circuit for double acting cylinder should have meter-out circuits for both the lock and release sides. Meter-in control can have adverse effect by presence of air in the system.
However, in the case of controlling LKE, TMA, TLA, both lock side and release side should be meter-in circuit.
Refer to P.75 for speed adjustment of LKE.
For TMA and TLA, if meter-out circuit is used, abnormal high pressure is created, which causes oil leakage and damage.

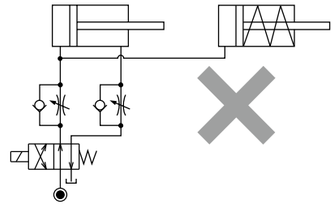
【Meter-out Circuit】(Except LKE/TMA/TLA)



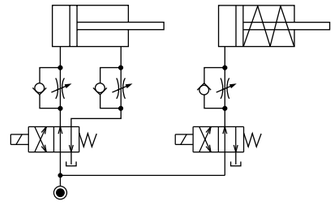
【Meter-in Circuit】(LKE/TMA/TLA must be controlled with meter-in.)



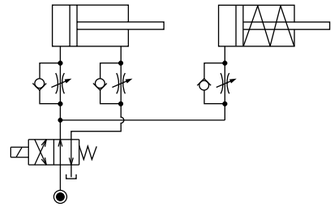
In the case of meter-out circuit, the hydraulic circuit should be designed with the following points.
① Single acting components should not be used in the same flow control circuit as the double acting components.
The release action of the single acting cylinders may become erratic or very slow.



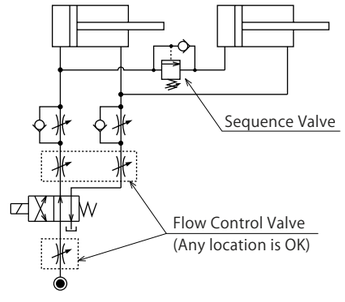
Refer to the following circuit when both the single acting cylinder and double acting cylinder are used together.
○ Separate the control circuit.



○ Reduce the influence of double acting cylinder control unit.
However, due to the back pressure in tank line, single action cylinder is activated after double action cylinder works.



② In the case of meter-out circuit, the inner circuit pressure may increase during the cylinder action because of the fluid supply. The increase of the inner circuit pressure can be prevented by reducing the supplied fluid beforehand via the flow control valve. Especially when using sequence valve or pressure switches for clamping detection. If the back pressure is more than the set pressure then the system will not work as it is designed to.



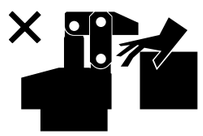
Cautions

Notes on Handling

1) It should be handled by qualified personnel.
- The hydraulic machine and air compressor should be handled and maintained by qualified personnel.

2) Do not handle or remove the machine unless the safety protocols are ensured.
① The machine and equipment can only be inspected or prepared when it is confirmed that the preventive devices are in place.
② Before the machine is removed, make sure that the above-mentioned safety measures are in place. Shut off the air of hydraulic source and make sure no pressure exists in the hydraulic and air circuit.
③ After stopping the machine, do not remove until the temperature cools down.
④ Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.

3) Do not touch clamp (cylinder) while clamp (cylinder) is working. Otherwise, your hands may be injured due to clinching.

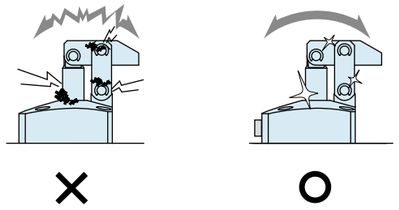


4) Do not disassemble or modify.
- If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.

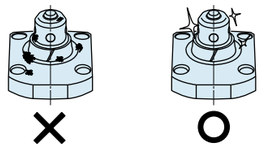
Maintenance and Inspection

1) Removal of the Machine and Shut-off of Pressure Source
- Before the machine is removed, make sure that the above-mentioned safety measures are in place. Shut off the air of hydraulic source and make sure no pressure exists in the hydraulic and air circuit.
- Make sure there is no abnormality in the bolts and respective parts before restarting.

2) Regularly clean the area around the piston rod and plunger.
- If it is used when the surface is contaminated with dirt, it may lead to packing seal damage, malfunctioning, fluid leakage and air leaks.



3) Please clean out the reference surface regularly (taper reference surface and seating surface) of locating machine. (VS/VT/VFL/VFM/VFJ/VFK/WVS/VWM/VWK/VX/VXF)
- Location products, except VX/VXF model, can remove contaminants with cleaning functions.
When installing pallets makes sure there is no thick sludge like substances on pallets.
- Continuous use with dirt on components will lead to locating functions not work properly, leaking and malfunction.



4) If disconnecting by couplers on a regular basis, air bleeding should be carried out daily to avoid air mixed in the circuit.

5) Regularly tighten nuts, bolts, pins, cylinders and pipe line to ensure proper use.

6) Make sure the hydraulic fluid has not deteriorated.

7) Make sure there is smooth action and no abnormal noise.
- Especially when it is restarted after left unused for a long period, make sure it can be operated correctly.

8) The products should be stored in the cool and dark place without direct sunshine or moisture.

9) Please contact us for overhaul and repair.

Warranty

1) Warranty Period
- The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.

2) Warranty Scope
- If the product is damaged or malfunctions during the warranty period due to faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
Defects or failures caused by the following are not covered.

① If the stipulated maintenance and inspection are not carried out.
② If the product is used while it is not suitable for use based on the operator's judgment, resulting in defect.
③ If it is used or handled in inappropriate way by the operator.
(Including damage caused by the misconduct of the third party.)
④ If the defect is caused by reasons other than our responsibility.
⑤ If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
⑥ Other caused by natural disasters or calamities not attributable to our company.
⑦ Parts or replacement expenses due to parts consumption and deterioration.
(Such as rubber, plastic, seal material and some electric components.)

Damages excluding from direct result of a product defect shall be excluded from the warranty.

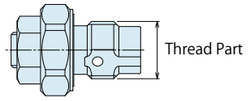
Model No. Indication (Speed Control Valve for Low Pressure)

BZL 0 10 0 - B

1 2 3

1 G Thread Size

10 : Thread Part G1/8A Thread
20 : Thread Part G1/4A Thread
30 : Thread Part G3/8A Thread



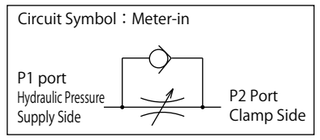
2 Design No.

0 : Revision Number

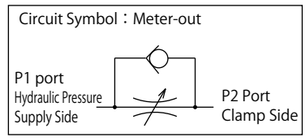
3 Control Method

A : Meter-in
B : Meter-out

A



B



Specifications

Model No.		BZL0100-A	BZL0200-A	BZL0300-A	BZL0100-B	BZL0200-B	BZL0300-B
Max. Operating Pressure	MPa	7					
Withstanding Pressure	MPa	10.5					
Control Method		Meter-in			Meter-out		
G Thread Size		G1/8A	G1/4A	G3/8A	G1/8A	G1/4A	G3/8A
Cracking Pressure	MPa	0.04			0.12		
Max. Passage Area	mm^2	2.6	5.0	11.6	2.6	5.0	10.2
Usable Fluid		General Hydraulic Oil Equivalent to ISO-VG-32					
Operating Temperature	℃	0 ~ 70					
Tightening Torque for Main Body	N·m	10	25	35	10	25	35

Notes : 1. Minimum passage area when fully opened is the same as the maximum passage area in the table above.
2. It must be mounted with recommended torque. Because of the structure of the metal seal, if mounting torque is insufficient, the flow control valve may not be able to adjust the flow rate.
3. Don't use used BZL to other clamps. Flow control will not be made because the bottom depth difference of G thread makes metal seal insufficient.

Applicable Products

Model No.	DBA (Double Action) Block Cylinder	DBC (Double Action) Block Cylinder	LC (Single Action) Work Support	LHA (Double Action) Swing Clamp	LHC (Double Action) Swing Clamp	LHE (Double Action) High-Power Swing Clamp	LHS (Double Action) Swing Clamp	LHW (Double Action) Swing Clamp
BZL0100-A	(DBA0250-C□) (DBA0320-C□)	(DBC0250-C□) (DBC0320-C□)	LC0262-C□ LC0302-C□ LC0362-C□ LC0402-C□□-□ LC0482-C□□-□ LC0552-C□□-□ LC0652-C□□-□	(LHA0360-C□□-□) (LHA0400-C□□-□) (LHA0480-C□□-□) (LHA0550-C□□-□)	(LHC0360-C□□-□) (LHC0400-C□□-□) (LHC0480-C□□-□) (LHC0550-C□□-□)		(LHS0360-C□□-□) (LHS0400-C□□-□) (LHS0480-C□□-□) (LHS0550-C□□-□)	(LHW040□-C□□-□) (LHW048□-C□□-□) (LHW055□-C□□-□)
BZL0100-B	DBA0250-C□ DBA0320-C□	DBC0250-C□ DBC0320-C□		LHA0360-C□□-□ LHA0400-C□□-□ LHA0480-C□□-□ LHA0550-C□□-□	LHC0360-C□□-□ LHC0400-C□□-□ LHC0480-C□□-□ LHC0550-C□□-□	LHE0300-C□ LHE0360-C□ LHE0400-C□ LHE0480-C□ LHE0550-C□	LHS0360-C□□-□ LHS0400-C□□-□ LHS0480-C□□-□ LHS0550-C□□-□	LHW040□-C□□-□ LHW048□-C□□-□ LHW055□-C□□-□
BZL0200-A	(DBA0400-C□) (DBA0500-C□)	(DBC0400-C□) (DBC0500-C□)	LC0752-C□□-□ LC0902-C□□-□	(LHA0650-C□□-□) (LHA0750-C□□-□)	(LHC0650-C□□-□)		(LHS0650-C□□-□) (LHS0750-C□□-□)	(LHW065□-C□□-□) (LHW0751-C□□-□)
BZL0200-B	DBA0400-C□ DBA0500-C□	DBC0400-C□ DBC0500-C□		LHA0650-C□□-□ LHA0750-C□□-□	LHC0650-C□□-□		LHS0650-C□□-□ LHS0750-C□□-□	LHW065□-C□□-□ LHW0751-C□□-□
BZL0300-A				(LHA0900-C□□-□) (LHA1050-C□□-□)			(LHS0900-C□□-□) (LHS1050-C□□-□)	
BZL0300-B				LHA0900-C□□-□ LHA1050-C□□-□			LHS0900-C□□-□ LHS1050-C□□-□	

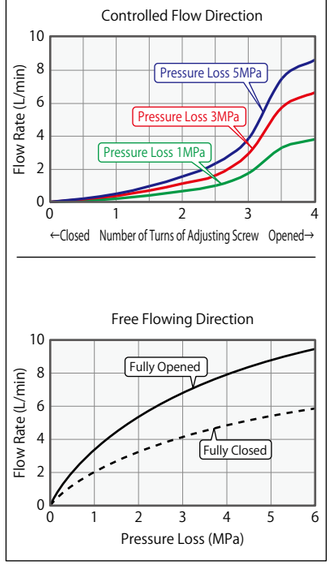
Model No.	LT (Single Action) Swing Clamp	LG (Single Action) Swing Clamp	LKA (Double Action) Link Clamp	LKC (Double Action) Link Clamp	LKE (Double Action) High-Power Link Clamp	LKW (Double Action) Link Clamp	LM (Single Action) Link Clamp	LJ (Single Action) Link Clamp
BZL0100-A	LT0301-C□-□ LT036□-C□-□ LT040□-C□-□ LT048□-C□-□ LT055□-C□-□	LG0301-C□-□ LG036□-C□-□ LG040□-C□-□ LG048□-C□-□ LG055□-C□-□	(LKA0360-C□□-□) (LKA0400-C□□-□) (LKA0480-C□□-□) (LKA0550-C□□-□)	(LKC0400-C□-□) (LKC0480-C□-□) (LKC0550-C□-□)	LKE0300-C□ LKE0360-C□ LKE0400-C□ LKE0480-C□ LKE0550-C□	(LKW040□-C□□-□) (LKW048□-C□□-□) (LKW055□-C□□-□)	LM0300-C□ LM0360-C□ LM0400-C□ LM0480-C□ LM0550-C□	LJ0302-C□ LJ0362-C□ LJ0402-C□ LJ0482-C□ LJ0552-C□
BZL0100-B			LKA0360-C□□-□ LKA0400-C□□-□ LKA0480-C□□-□ LKA0550-C□□-□	LKC0400-C□-□ LKC0480-C□-□ LKC0550-C□-□		LKW040□-C□□-□ LKW048□-C□□-□ LKW055□-C□□-□		
BZL0200-A	LT065□-C□-□ LT075□-C□-□	LG065□-C□-□ LG075□-C□-□	(LKA0650-C□□-□) (LKA0750-C□□-□)	(LKC0650-C□-□)		(LKW065□-C□□-□) (LKW0751-C□□-□)	LM0650-C□ LM0750-C□	LM0652-C□ LM0752-C□
BZL0200-B			LKA0650-C□□-□ LKA0750-C□□-□	LKC0650-C□-□		LKW065□-C□□-□ LKW0751-C□□-□		
BZL0300-A		LG090□-C□-□ LG105□-C□-□	(LKA0900-C□□-□) (LKA1050-C□□-□)					LJ0902-C□ LJ1052-C□
BZL0300-B			LKA0900-C□□-□ LKA1050-C□□-□					

Model No.	LL (Double Action) Linear Cylinder	LLR (Double Action) Linear Cylinder	LLW (Double Action) Lift Cylinder
BZL0100-A	(LL0360-C□□-□) (LL0400-C□□-□) (LL0480-C□□-□) (LL0550-C□□-□)	(LLR0360-C□□-□-□) (LLR0400-C□□-□-□) (LLR0480-C□□-□-□) (LLR0550-C□□-□-□)	(LLW036□-C□□-□) (LLW040□-C□□-□) (LLW048□-C□□-□)
BZL0100-B	LL0360-C□□-□ LL0400-C□□-□ LL0480-C□□-□ LL0550-C□□-□	LLR0360-C□□-□-□ LLR0400-C□□-□-□ LLR0480-C□□-□-□ LLR0550-C□□-□-□	LLW036□-C□□-□ LLW040□-C□□-□ LLW048□-C□□-□
BZL0200-A	(LL0650-C□□-□) (LL0750-C□□-□)	(LLR0650-C□□-□-□) (LLR0750-C□□-□-□)	
BZL0200-B	LL0650-C□□-□ LL0750-C□□-□	LLR0650-C□□-□-□ LLR0750-C□□-□-□	
BZL0300-A	(LL0900-C□□-□) (LL1050-C□□-□)	(LLR0900-C□□-□-□) (LLR1050-C□□-□-□)	
BZL0300-B	LL0900-C□□-□ LL1050-C□□-□	LLR0900-C□□-□-□ LLR1050-C□□-□-□	

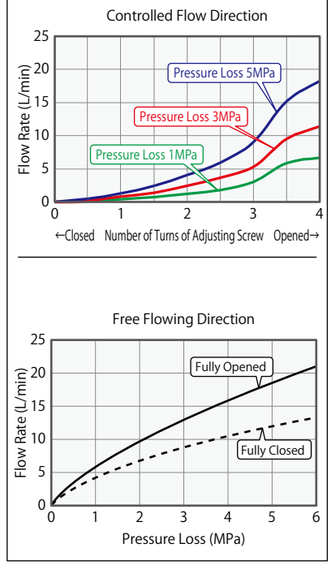
Note : 1. Flow control circuit for double action cylinder should have meter-out circuits for both the lock and release sides (except model LKE/TLA/TMA). Meter-in circuits can be adversely affected by any air in the system.

Flow Rate Graph ＜Hydraulic Fluids ISO-VG32 (25～35℃)＞

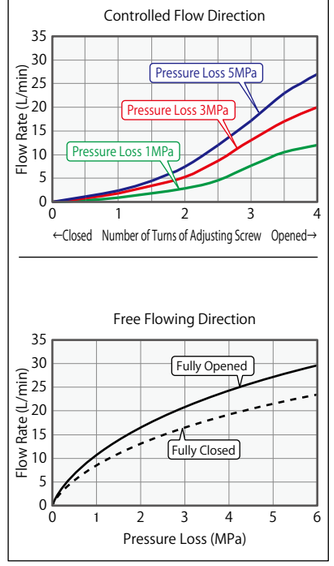
BZL0100-A：Meter-in



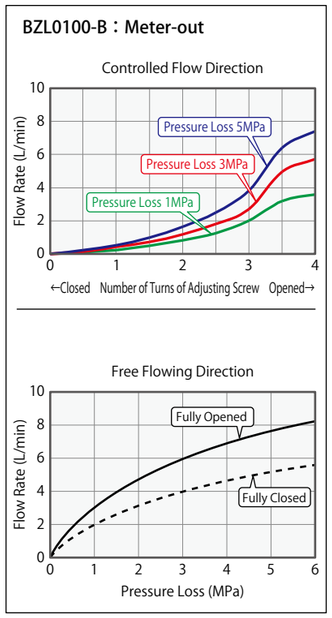
BZL0200-A：Meter-in



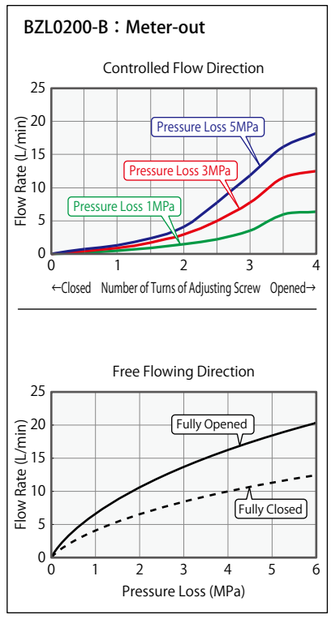
BZL0300-A：Meter-in



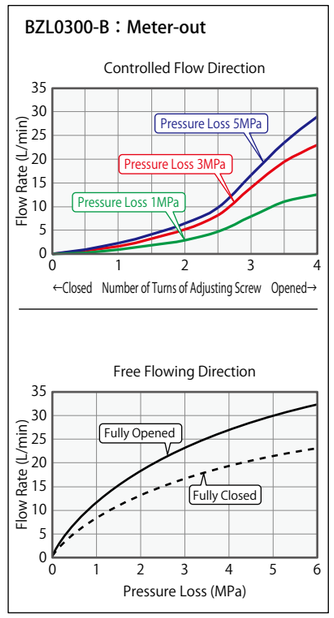
BZL0100-B：Meter-out



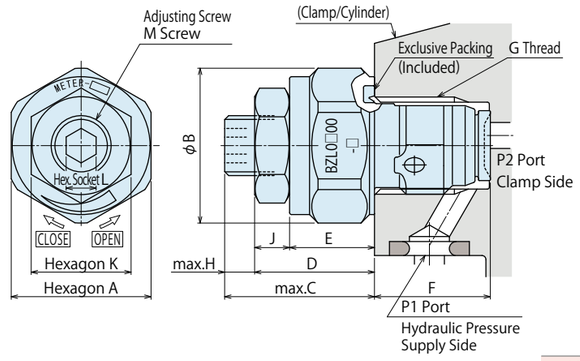
BZL0200-B：Meter-out



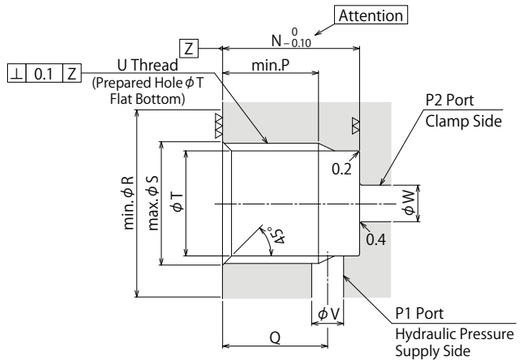
BZL0300-B：Meter-out



External Dimensions



Machining Dimensions of Mounting Area



(mm)

Model No.	BZL0100-□	BZL0200-□	BZL0300-□
A	14	18	22
B	15.5	20	24
C	15	16	19
D	12	13	16
E	8.5	9.5	11
F	(11.6)	(15.1)	(17.6)
G	G1/8	G1/4	G3/8
H	3	3	3
J	3.5	3.5	5
K	10	10	13
L	3	3	4
M (Nominal×Pitch)	M6×0.75	M6×0.75	M8×0.75
N	11.5	15	17.5
P	8.5	11※1	13
Q	9	11.5	13
R (Flat Surface Area)	16	20.5	24.5
S	10	13.5	17
T	8.7	11.5	15
U	G1/8	G1/4	G3/8
V	2～3	3～4	4～5
W	2.5～5	3.5～7	4.5～9

Notes :

1. Since the ▽▽▽ area is sealing part, be careful not to damage it.
2. Since the ▽▽ area is the metal sealing part of BZL, be careful not to damage it. (Especially when deburring)
3. No cutting chips or burr should be at the tolerance part of machining hole.
4. As shown in the drawing, P1 port is used as the hydraulic supply and P2 port as the clamp side.
5. If mounting plugs or fittings with G thread specification available in the market, the dimension '※1' should be 12.5.

Notes

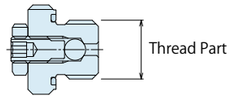
1. Please read "Notes on Hydraulic Cylinder Speed Control Circuit" to assist with proper hydraulic circuit design.
   If there is something wrong with the circuit design, it leads to the applications malfunction and damage. (Refer to P.1238)
2. It is dangerous to air bleed during operation under high pressure. It must be done under lower pressure.
   (For reference: the minimum operating range of the product within the circuit.)

Model No. Indication (Air Bleed Valve)

BZX0 1 0
1 2

1 G Thread Size

1 : Thread Part G1/8A Thread
2 : Thread Part G1/4A Thread
3 : Thread Part G3/8A Thread



2 Design No.

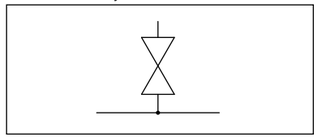
0 : Revision Number

Specifications

Model No.		BZX010	BZX020	BZX030
Max. Operating Pressure	MPa	25		
Withstanding Pressure	MPa	37.5		
G Thread Size		G1/8A	G1/4A	G3/8A
Usable Fluid		General Hydraulic Oil Equivalent to ISO-VG-32		
Operating Temperature	℃	0 ~ 70		
Tightening Torque for Main Body	N·m	10	25	35

Notes : 1. Do not over loosen the plug during air venting.
(Do not loosen for more than 2 turns from the fully closed position.)
2. It is dangerous to have air venting operation under high pressure. It must be done under lower pressure.
(For reference: the minimum operation pressure range of the product within the circuit)
3. Refer to the machining dimensions for BZL mounting area.

Circuit Symbol



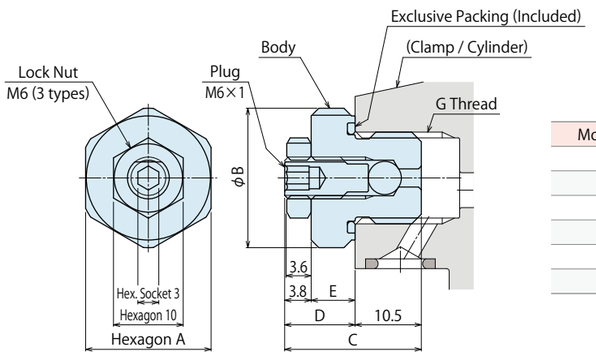
Applicable Products

Model No.	DBA (Double Action) Block Cylinder	DBC (Double Action) Block Cylinder	LC (Single Action) Work Support	LHA (Double Action) Swing Clamp	LHC (Double Action) Swing Clamp	LHE (Double Action) High-Power Swing Clamp	LHS (Double Action) Swing Clamp	LHW (Double Action) Swing Clamp
BZX010	DBA0250-C□ DBA0320-C□	DBC0250-C□ DBC0320-C□	LC0262-C□ LC0302-C□ LC0362-C□ LC0402-C□□-□ LC0482-C□□-□ LC0552-C□□-□ LC0652-C□□-□	LHA0360-C□□-□ LHA0400-C□□-□ LHA0480-C□□-□ LHA0550-C□□-□	LHC0360-C□□-□ LHC0400-C□□-□ LHC0480-C□□-□ LHC0550-C□□-□	LHE0300-C□ LHE0360-C□ LHE0400-C□ LHE0480-C□ LHE0550-C□	LHS0360-C□□-□ LHS0400-C□□-□ LHS0480-C□□-□ LHS0550-C□□-□	LHW040□-C□□-□ LHW048□-C□□-□ LHW055□-C□□-□
BZX020	DBA0400-C□ DBA0500-C□	DBC0400-C□ DBC0500-C□	LC0752-C□□-□ LC0902-C□□-□	LHA0650-C□□-□ LHA0750-C□□-□	LHC0650-C□□-□		LHS0650-C□□-□ LHS0750-C□□-□	LHW065□-C□□-□ LHW0751-C□□-□
BZX030				LHA0900-C□□-□ LHA1050-C□□-□			LHS0900-C□□-□ LHS1050-C□□-□	

Model No.	LT (Single Action) Swing Clamp	LG (Single Action) Swing Clamp	LKA (Double Action) Link Clamp	LKC (Double Action) Link Clamp	LKE (Double Action) High-Power Link Clamp	LKW (Double Action) Link Clamp	LM (Single Action) Link Clamp	LJ (Single Action) Link Clamp
BZX010	LT0301-C□-□ LT036□-C□-□ LT040□-C□-□ LT048□-C□-□ LT055□-C□-□	LG0301-C□-□ LG036□-C□-□ LG040□-C□-□ LG048□-C□-□ LG055□-C□-□	LKA0360-C□□-□ LKA0400-C□□-□ LKA0480-C□□-□ LKA0550-C□□-□	LKC0400-C□-□ LKC0480-C□-□ LKC0550-C□-□	LKE0300-C□ LKE0360-C□ LKE0400-C□ LKE0480-C□ LKE0550-C□	LKW040□-C□□-□ LKW048□-C□□-□ LKW055□-C□□-□	LM0300-C□ LM0360-C□ LM0400-C□ LM0480-C□ LM0550-C□	LJ0302-C□ LJ0362-C□ LJ0402-C□ LJ0482-C□ LJ0552-C□
BZX020	LT065□-C□-□ LT075□-C□-□	LG065□-C□-□ LG075□-C□-□	LKA0650-C□□-□ LKA0750-C□□-□	LKC0650-C□-□		LKW065□-C□□-□ LKW0751-C□□-□	LM0650-C□ LM0750-C□	LJ0652-C□ LJ0752-C□
BZX030		LG090□-C□-□ LG105□-C□-□	LKA0900-C□□-□ LKA1050-C□□-□					LJ0902-C□ LJ1052-C□

Model No.	LL (Double Action) Linear Cylinder	LLR (Double Action) Linear Cylinder	LLW (Double Action) Lift Cylinder
BZX010	LL0360-C□□-□ LL0400-C□□-□ LL0480-C□□-□ LL0550-C□□-□	LLR0360-C□□-□-□ LLR0400-C□□-□-□ LLR0480-C□□-□-□ LLR0550-C□□-□-□	LLW036□-C□□-□ LLW040□-C□□-□ LLW048□-C□□-□
BZX020	LL0650-C□□-□ LL0750-C□□-□	LLR0650-C□□-□-□ LLR0750-C□□-□-□	
BZX030	LL0900-C□□-□ LL1050-C□□-□	LLR0900-C□□-□-□ LLR1050-C□□-□-□	

External Dimensions



(mm)

Model No.	BZX010	BZX020	BZX030
A	14	18	22
B	15.5	20	24
C	19.8	20.6	20.6
D	9.3	10.1	10.1
E	5.5	6.3	6.3
G	G1/8	G1/4	G3/8

Model No. Indication (G Thread Plug with Air Bleeding Function)

JZG0 1 0

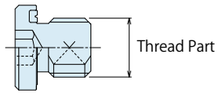
1 2

1 G Thread Size

1 : Thread Part G1/8A Thread

2 : Thread Part G1/4A Thread

3 : Thread Part G3/8A Thread



2 Design No.

0 : Revision Number

Specifications

Model No.		JZG010	JZG020	JZG030
Max. Operating Pressure	MPa	35		
Withstanding Pressure	MPa	42		
G Thread Size		G1/8A	G1/4A	G3/8A
Usable Fluid		General Hydraulic Oil Equivalent to ISO-VG-32		
Operating Temperature	℃	0 ~ 70		
Tightening Torque for Main Body N·m	Female Thread Side Material : Steel	10	25	35
	Female Thread Side Material : Aluminum (For LT/LM※1)	8	20	28

Notes : 1. It is dangerous to have air venting operation under high pressure. It must be done under lower pressure. (For reference : the minimum operation pressure range of the product within the circuit)

2. Refer to the machining dimensions for BZL mounting area.

※1. Body material of LT/LM is aluminum alloy, so install it with the tightening torque for aluminum.

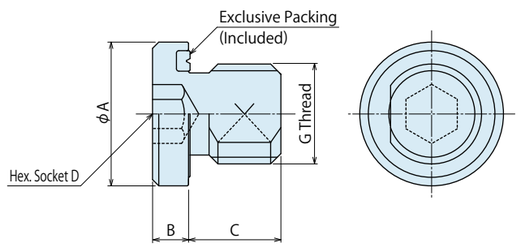
Applicable Products

Model No.	DBA (Double Action) Block Cylinder	DBC (Double Action) Block Cylinder	LC (Single Action) Work Support	LHA (Double Action) Swing Clamp	LHC (Double Action) Swing Clamp	LHE (Double Action) High-Power Swing Clamp	LHS (Double Action) Swing Clamp	LHW (Double Action) Swing Clamp
JZG010	DBA0250-C□ DBA0320-C□	DBC0250-C□ DBC0320-C□	LC0262-C□ LC0302-C□ LC0362-C□ LC0402-C□□-□ LC0482-C□□-□ LC0552-C□□-□ LC0652-C□□-□	LHA0360-C□□-□ LHA0400-C□□-□ LHA0480-C□□-□ LHA0550-C□□-□	LHC0360-C□□-□ LHC0400-C□□-□ LHC0480-C□□-□ LHC0550-C□□-□	LHE0300-C□ LHE0360-C□ LHE0400-C□ LHE0480-C□ LHE0550-C□	LHS0360-C□□-□ LHS0400-C□□-□ LHS0480-C□□-□ LHS0550-C□□-□	LHW040□-C□□-□ LHW048□-C□□-□ LHW055□-C□□-□
JZG020	DBA0400-C□ DBA0500-C□	DBC0400-C□ DBC0500-C□	LC0752-C□□-□ LC0902-C□□-□	LHA0650-C□□-□ LHA0750-C□□-□	LHC0650-C□□-□		LHS0650-C□□-□ LHS0750-C□□-□	LHW065□-C□□-□ LHW0751-C□□-□
JZG030				LHA0900-C□□-□ LHA1050-C□□-□			LHS0900-C□□-□ LHS1050-C□□-□	

Model No.	LT (Single Action) Swing Clamp	LG (Single Action) Swing Clamp	LKA (Double Action) Link Clamp	LKC (Double Action) Link Clamp	LKE (Double Action) High-Power Link Clamp	LKW (Double Action) Link Clamp	LM (Single Action) Link Clamp	LJ (Single Action) Link Clamp
JZG010	LT0301-C□-□ LT036□-C□-□ LT040□-C□-□ LT048□-C□-□ LT055□-C□-□	LG0301-C□-□ LG036□-C□-□ LG040□-C□-□ LG048□-C□-□ LG055□-C□-□	LKA0360-C□□-□ LKA0400-C□□-□ LKA0480-C□□-□ LKA0550-C□□-□	LKC0400-C□-□ LKC0480-C□-□ LKC0550-C□-□	LKE0300-C□ LKE0360-C□ LKE0400-C□ LKE0480-C□ LKE0550-C□	LKW040□-C□□-□ LKW048□-C□□-□ LKW055□-C□□-□	LM0300-C□ LM0360-C□ LM0400-C□ LM0480-C□ LM0550-C□	LJ0302-C□ LJ0362-C□ LJ0402-C□ LJ0482-C□ LJ0552-C□
JZG020	LT065□-C□-□ LT075□-C□-□	LG065□-C□-□ LG075□-C□-□	LKA0650-C□□-□ LKA0750-C□□-□	LKC0650-C□-□		LKW065□-C□□-□ LKW0751-C□□-□	LM0650-C□ LM0750-C□	LJ0652-C□ LJ0752-C□
JZG030		LG090□-C□-□ LG105□-C□-□	LKA0900-C□□-□ LKA1050-C□□-□					LJ0902-C□ LJ1052-C□

Model No.	LL (Double Action) Linear Cylinder	LLR (Double Action) Linear Cylinder	LLW (Double Action) Lift Cylinder	TLA-2 (Double Action) Swing Clamp	TLB-2 (Double Action) Swing Clamp	TLA-1 (Single Action) Swing Clamp	TMA-2 (Double Action) Link Clamp	TMA-1 (Double Action) Link Clamp
JZG010	LL0360-C□□-□ LL0400-C□□-□ LL0480-C□□-□ LL0550-C□□-□	LLR0360-C□□-□-□ LLR0400-C□□-□-□ LLR0480-C□□-□-□ LLR0550-C□□-□-□	LLW036□-C□□-□ LLW040□-C□□-□ LLW048□-C□□-□	TLA0401-2C□-□ TLA0601-2C□-□ TLA0801-2C□-□ TLA1001-2C□-□ TLA1601-2C□-□	TLB0401-2C□-□ TLB0601-2C□-□ TLB0801-2C□-□ TLB1001-2C□-□ TLB1601-2C□-□	TLA0402-1C□ TLA0602-1C□ TLA0802-1C□ TLA1002-1C□ TLA1602-1C□	TMA0250-2C□ TMA0400-2C□ TMA0600-2C□ TMA1000-2C□	TMA0250-1C□ TMA0400-1C□ TMA0600-1C□ TMA1000-1C□
JZG020	LL0650-C□□-□ LL0750-C□□-□	LLR0650-C□□-□-□ LLR0750-C□□-□-□		TLA2001-2C□-□ TLA2501-2C□-□ TLA4001-2C□-□	TLB2001-2C□-□ TLB2501-2C□-□ TLB4001-2C□-□	TLA2002-1C□ TLA2502-1C□ TLA4002-1C□	TMA1600-2C□ TMA2500-2C□ TMA3200-2C□	TMA1600-1C□ TMA2500-1C□ TMA3200-1C□
JZG030	LL0900-C□□-□ LL1050-C□□-□	LLR0900-C□□-□-□ LLR1050-C□□-□-□						

External Dimensions



(mm)

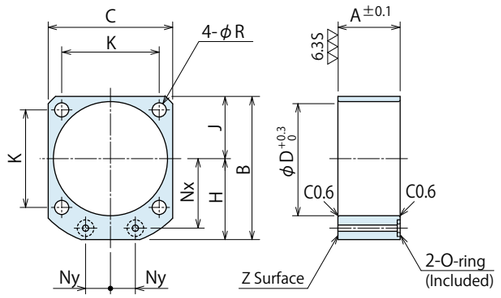
Model No.	JZG010	JZG020	JZG030
A	14	18	22
B	3.5	4.5	4.5
C	8	9	10
D	5	6	8
G	G1/8A	G1/4A	G3/8A

Manifold Block for WCA/WCE/WHA/WHE

Model No. Indication

WHZ 048 0 – MD

- 048: Size (Refer to following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	WHZ0600-MD	WHZ0320-MD	WHZ0400-MD	WHZ0500-MD	WHZ0630-MD
Corresponding Item Model Number	WCE0602 WHE0600	WCA0321 WCE1002 WHA0320 WHE1000	WCA0401 WCE1602 WHA0400 WHE1600	WCA0501 WCE2502 WHA0500 WHE2500	WCA0631 WCE4002 WHA0630 WHE4000
A	23	25	27	31	35
B	54	60	67	77	88.5
C	45	50	58	68	81
D	40	46	54	64	77
H	31.5	35	38	43	48
J	22.5	25	29	34	40.5
K	34	39	45	53	65
Nx	26	28	31	36	41
Ny	9	10	13	15	20
R	5.5	5.5	5.5	6.5	6.5
O-ring	1BP5	1BP7	1BP7	1BP7	1BP7
Mass kg	0.1	0.1	0.1	0.2	0.2

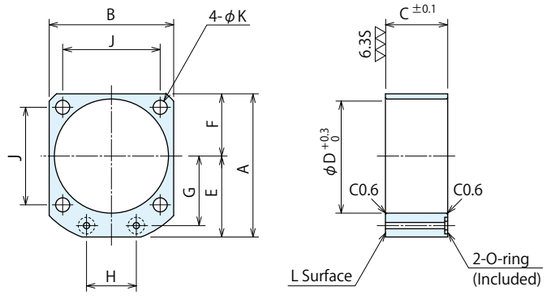
Notes : 1. Material:A2017BE-T4
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the A dimensions as a reference.
3. If thickness other than A is required, perform additional machining on surface Z. Please refer to the drawing.

Manifold Block for LKA/LKC/LKE/LHA/ LHC/LHE/LHS/LL

Model No. Indication

LZY 048 0 – MD

- 048: Size (Refer to following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	LZY0360-MD	LZY0400-MD	LZY0480-MD	LZY0550-MD	LZY0650-MD	LZY0750-MD	LZY0900-MD	LZY1050-MD
Corresponding Item Model Number	LKA0360 / LKE0360 LHA0360 / LHC0360 LHE0360 / LHS0360 LL0360	LKA0400 / LKC0400 LKE0400 / LHA0400 LHC0400 / LHE0400 LHS0400 / LL0400	LKA0480 / LKC0480 LKE0480 / LHA0480 LHC0480 / LHE0480 LHS0480 / LL0480	LKA0550 / LKC0550 LKE0550 / LHA0550 LHC0550 / LHE0550 LHS0550 / LL0550	LKA0650 / LKC0650 LHA0650 / LHC0650 LHS0650 LL0650	LKA0750 LHA0750 LHS0750 LL0750	LKA0900 LHA0900 LHS0900 LL0900	LKA1050 LHA1050 LHS1050 LL1050
A	49	54	61	69	81	92	107	122
B	40	45	51	60	70	80	95	110
C	20	20	27	30	32	37	45	50
D	36	40	48	55	65	75	90	105
E	29	31.5	35.5	39	46	52	59.5	67
F	20	22.5	25.5	30	35	40	47.5	55
G	23.5	26	30	33.5	39.5	45	52.5	60
H	16	18	22	24	30	32	37	45
J	31.4	34	40	47	55	63	75	88
K	4.5	5.5	5.5	6.8	6.8	9	11	14
O-ring	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
Mass kg	0.2	0.2	0.3	0.4	0.5	0.8	1.2	1.7

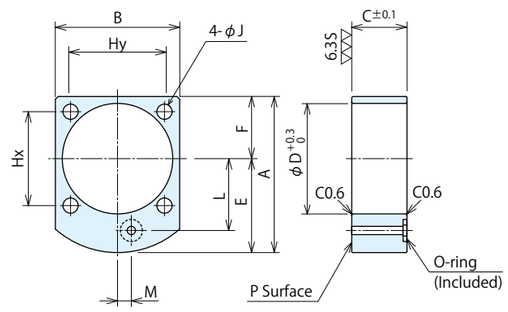
Notes : 1. Material:S45C
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the C dimensions as a reference.
3. If thickness other than C is required, perform additional machining on surface L. Please refer to the drawing.

Manifold Block for LM/LJ/LT/LG

Model No. Indication

LZ 048 0 – MS

- 048: Size (Refer to following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	LZ0300-MS	LZ0360-MS	LZ0400-MS	LZ0480-MS	LZ0550-MS	LZ0650-MS	LZ0750-MS	LZ0900-MS	LZ1050-MS
Corresponding Item Model Number	LT0301 / LG0301 LM0300 / LJ0302	LT036□ / LG036□ LM0360 / LJ0362	LT040□ / LG040□ LM0400 / LJ0402	LT048□ / LG048□ LM0480 / LJ0482	LT055□ / LG055□ LM0550 / LJ0552	LT065□ / LG065□ LM0650 / LJ0652	LT075□ / LG075□ LM0750 / LJ0752	LG090□ LJ0902	LG105□ LJ1052
A	48	51.5	56.5	62	70	82	93	107	122
B	34	40	45	51	60	70	80	95	110
C	18	20	20	27	30	32	37	45	50
D	30	36	40	48	55	65	75	90	105
E	28.5	31.5	34	36.5	40	47	53	59.5	67
F	19.5	20	22.5	25.5	30	35	40	47.5	55
Hx	30	31.4	34	40	47	55	63	75	88
Hy	23	31.4	34	40	47	55	63	75	88
J	4.5	4.5	5.5	5.5	6.8	6.8	9	11	14
L	20.5	23.5	26	30	33.5	39.5	45	52.5	60
M	3	5	5	0	0	0	0	0	0
O-ring	1BP5	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
Mass kg	0.1	0.2	0.2	0.3	0.4	0.5	0.8	1.2	1.7

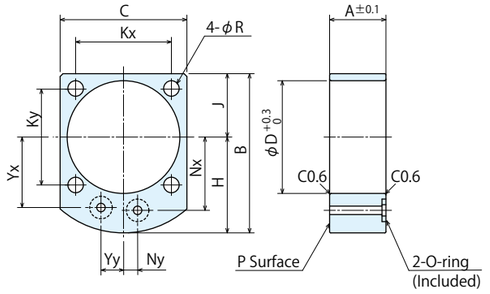
Notes : 1. Material:S45C
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the C dimensions as a reference.
3. If thickness other than C is required, perform additional machining on surface P. Please refer to the drawing.

Manifold Block for LC/TC

Model No. Indication

LZ 048 0 – MP

- 048: Size (Refer to following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	LZ0260-MP	LZ0300-MP	LZ0360-MP	LZ0400-MP	LZ0480-MP	LZ0550-MP	LZ0650-MP	LZ0750-MP	LZ0900-MP
Corresponding Item Model Number	LC0262	LC0302	LC0362	LC0402 TC0402	LC0482 TC0482	LC0552 TC0552	LC0652 TC0652	LC0752 TC0752	LC0902
A	18	18	20	20	27	30	32	37	45
B	43	48	51.5	56.5	62	70	82	93	107
C	29	34	40	45	51	60	70	80	95
D	26	30	36	40	48	55	65	75	90
H	26.5	28.5	31.5	34	36.5	40	47	53	59.5
J	16.5	19.5	20	22.5	25.5	30	35	40	47.5
Kx	25	30	31.4	34	40	47	55	63	75
Ky	21	23	31.4	34	40	47	55	63	75
Nx	18.5	20.5	23.5	26	30	33.5	39.5	45	52.5
Ny	3	3	5	5	0	0	0	0	0
R	3.4	4.5	4.5	5.5	5.5	6.8	6.8	9	11
Yx	18.5	20.5	23.5	25	28	31	37	42.5	50
Yy	7	7	8	8	11	13	14	15	15
O-ring	1BP5	1BP5	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7
Mass kg	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.8	1.2

Notes : 1. Material:S45C
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the A dimensions as a reference.
3. If thickness other than A is required, perform additional machining on surface P. Please refer to the drawing.