



Hydraulic Double Action Compact Link Clamp

Model LKC

Low Pressure (0.5~7MPa)

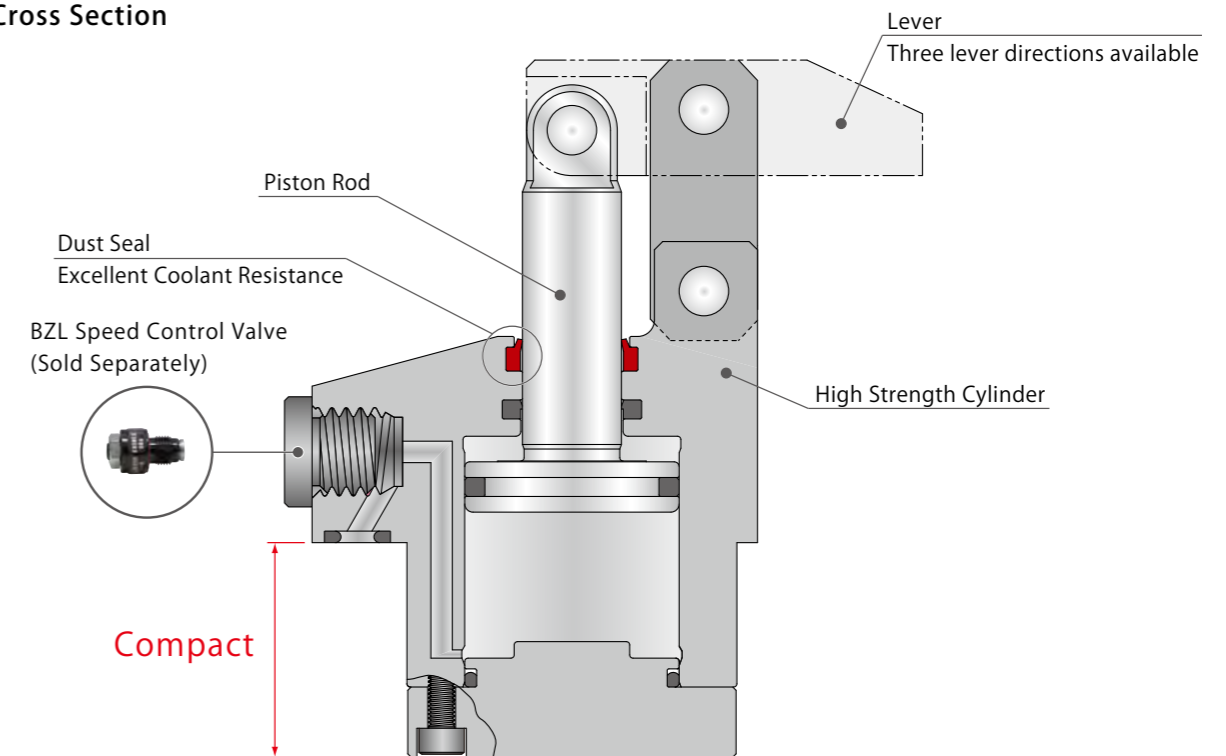
Compact



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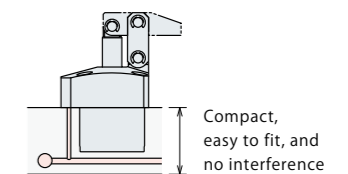
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Cross Section



Compact

The dimension below the flange is shortened to enable smaller footprint fixtures. The compact body enables the internal fitting to limit interference and makes fixture designing 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.

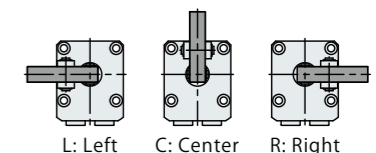


Excellent Coolant Resistance

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.

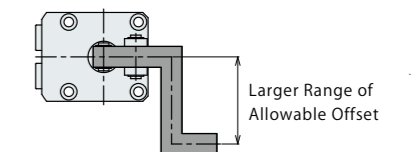
Lever in Three Directions Available

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



A Larger Range of Allowable Offset

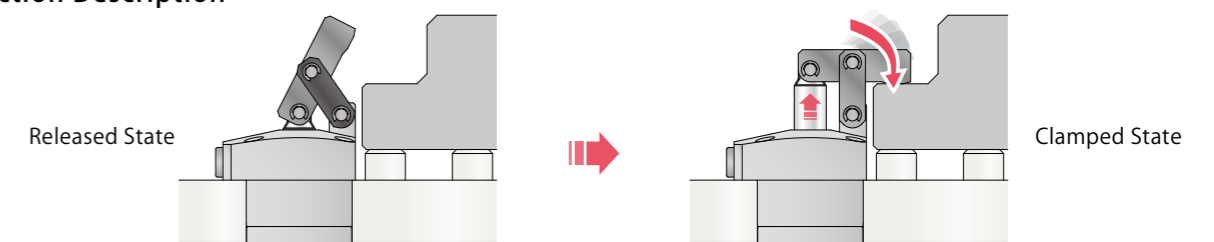
High strength link plate option is available for larger tolerance.



Able to Attach Speed Control Valve Directly

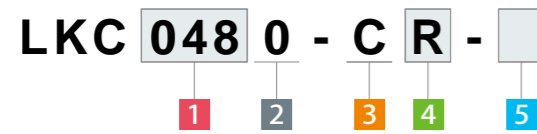
When fitting the gasket (-C option), it is able to attach the speed control valve with air venting function. (Speed control valve is sold separately.)

Action Description



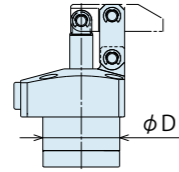
High-Power Series
Pneumatic Series
Hydraulic Series
Valve / Coupler Hydraulic Unit
Manual Operation Accessories
Cautions / Others
Hole Clamp
SFA
SFC
Swing Clamp
LHA
LHC
LHS
LHW
LT/LG
TLA-2
TLB-2
TLA-1
Link Clamp
LKA
LKC
LKW
LM/LJ
TMA-2
TMA-1
Work Support
LD
LC
TNC
TC
Air Sensing Lift Cylinder
LLW
Compact Cylinder
LL
LLR
LLU
DP
DR
DS
DT
Block Cylinder
DBA
DBC
Centering Vise
FVA
FVD
FVC
Control Valve
BZL
BZT
BZX/JZG
Pallet Clamp
VS
VT
Expansion Locating Pin
VFL
VFM
VFJ
VFK
Pull Stud Clamp
FP
FQ
Customized Spring Cylinder
DWA/DWB

Model No. Indication



1 Body Size

- 040 : φD=40mm
- 048 : φD=48mm
- 055 : φD=55mm
- 065 : φD=65mm



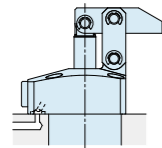
※ Outer diameter (φD) of the cylinder.

2 Design No.

- 0 : Revision Number

3 Piping Method

- C : Gasket Option (With G Thread Plug)

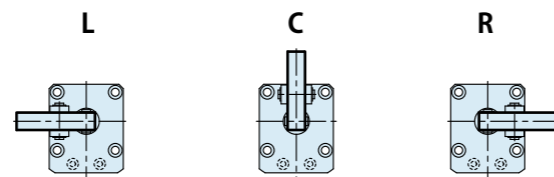


With G Thread Plug
Able to attach the speed control valve

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

4 Lever Direction

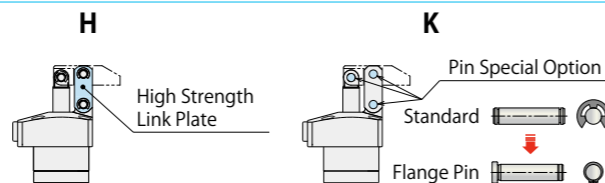
- L : Left
- C : Center
- R : Right



5 Option

- Blank : None (Standard)
- H : High Strength Link Plate (Increase in Allowable Offset)
- K : Flange Pin with C Type Circlip

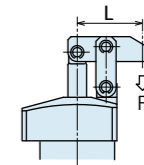
※ Please contact us for a combination of option.



Specifications

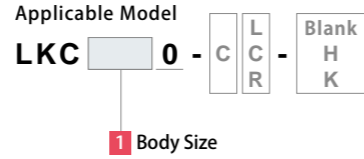
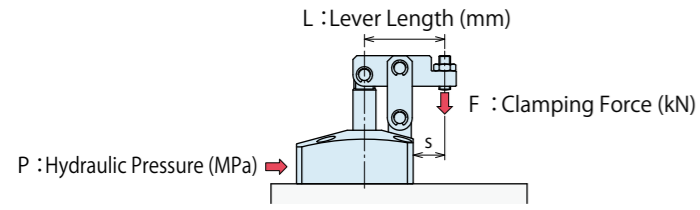
Model No.	LKC0400-C□-□	LKC0480-C□-□	LKC0550-C□-□	LKC0650-C□-□
Cylinder Area for Locking	cm ² 5.31	7.07	9.62	15.9
Clamping Force (Calculation Formula) ※1	kN $F = \frac{7.64 \times P}{L-16}$	$F = \frac{11.76 \times P}{L-18.5}$	$F = \frac{18.18 \times P}{L-21}$	$F = \frac{35.06 \times P}{L-24.5}$
Cylinder Inner Diameter ※2	mm 26	30	35	45
Rod Diameter ※2	mm 12	14	16	20
Cylinder Capacity	Lock	10.9	16.6	25.0
	Release	8.6	13.0	19.8
Full Stroke	mm 20.5	23.5	26	29.5
Lock Stroke	mm 17.5	20.5	23	26.5
Extra Stroke	mm 3	3	3	3
Maximum Operating Pressure	MPa	7.0		
Minimum Operating Pressure ※3	MPa	0.5		
Withstanding Pressure	MPa	10.5		
Operating Temperature	°C	0~70		
Usable Fluid	General Hydraulic Oil Equivalent to ISO-VG32			
Mass ※4	kg 0.6	1.0	1.3	2.2

- 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 link lever.



- High-Power Series
- Pneumatic Series
- Hydraulic Series
- Valve / Coupler Hydraulic Unit
- Manual Operation Accessories
- Cautions / Others
- Hole Clamp
 - SFA
 - SFC
- Swing Clamp
 - LHA
 - LHC
 - LHS
 - LHW
 - LT/LG
 - TLA-2
 - TLB-2
 - TLA-1
- Link Clamp
 - LKA
 - LKC
 - LKW
 - LM/LJ
 - TMA-2
 - TMA-1
- Work Support
 - LD
 - LC
 - TNC
 - TC
- Air Sensing Lift Cylinder
 - LLW
- Compact Cylinder
 - LL
 - LLR
 - LLU
 - DP
 - DR
 - DS
 - DT
- Block Cylinder
 - DBA
 - DBC
- Centering Vise
 - FVA
 - FVD
 - FVC
- Control Valve
 - BZL
 - BZT
 - BZX/JZG
- Pallet Clamp
 - VS
 - VT
- Expansion Locating Pin
 - VFL
 - VFM
 - VFJ
 - VFK
- Pull Stud Clamp
 - FP
 - FQ
- Customized Spring Cylinder
 - DWA/DWB

Clamping Force Graph

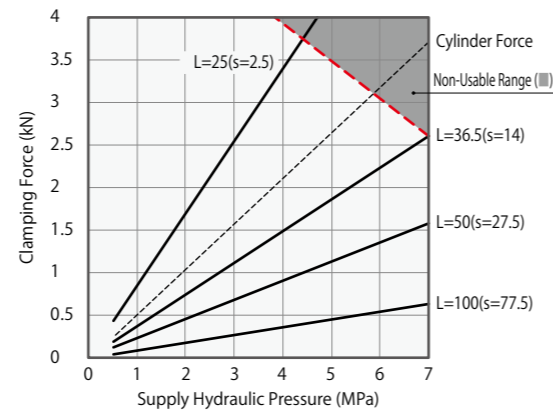


(Example) When using LKC0480,
Supply Hydraulic Pressure 5.0MPa, Lever Length L=42mm, the clamping force is about 2.6kN.

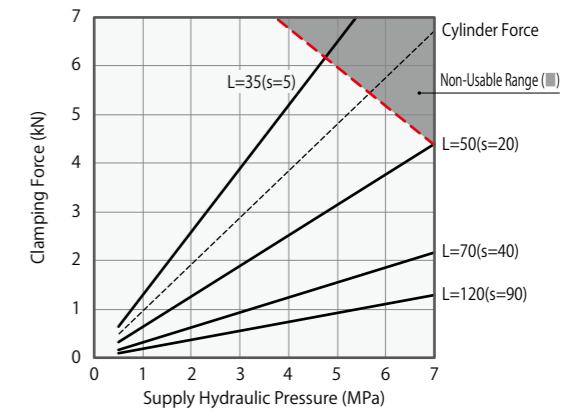
Notes :

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).

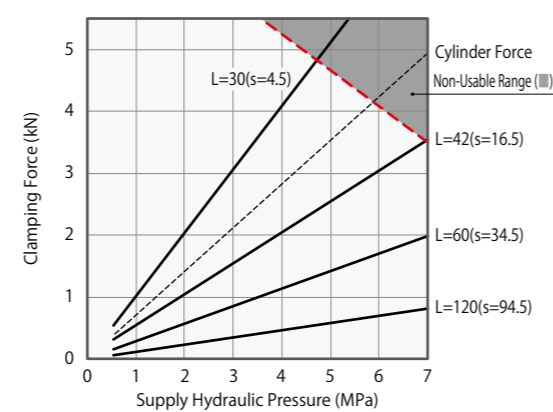
LKC0400		Clamping Force Calculation Formula ※1 (kN) $F = (7.64 \times P) / (L - 16)$									
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L(mm)								Non-Usable Range (mm)	Min. Lever Length (L) (mm)
		L=25	L=30	L=36.5	L=40	L=50	L=60	L=80	L=100		
7	3.8			2.7	2.3	1.6	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	0.1	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		



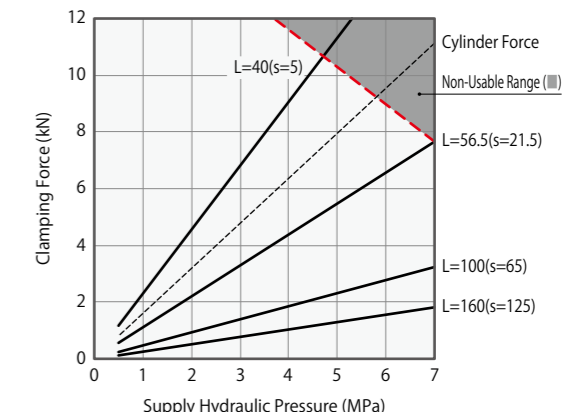
LKC0550		Clamping Force Calculation Formula ※1 (kN) $F = (18.18 \times P) / (L - 21)$									
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L(mm)								Non-Usable Range (mm)	Min. Lever Length (L) (mm)
		L=35	L=40	L=50	L=60	L=70	L=80	L=100	L=120		
7	6.8			4.4	3.3	2.6	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		



LKC0480		Clamping Force Calculation Formula ※1 (kN) $F = (11.76 \times P) / (L - 18.5)$									
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L(mm)								Non-Usable Range (mm)	Min. Lever Length (L) (mm)
		L=30	L=35	L=42	L=50	L=60	L=80	L=100	L=120		
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		

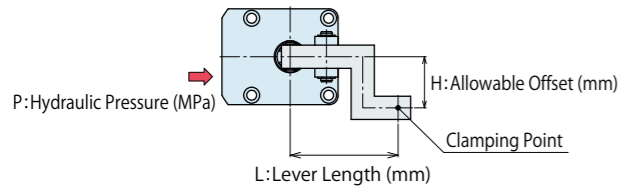


LKC0650		Clamping Force Calculation Formula ※1 (kN) $F = (35.06 \times P) / (L - 24.5)$									
Hydraulic Pressure (MPa)	Cylinder Force (kN)	Clamping Force (kN) Lever Length L(mm)								Non-Usable Range (mm)	Min. Lever Length (L) (mm)
		L=40	L=50	L=56.5	L=80	L=100	L=120	L=140	L=160		
7	11.2			7.7	4.5	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			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		

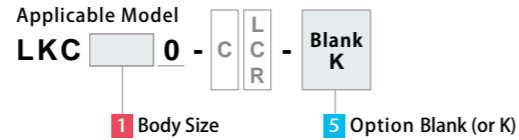


- High-Power Series
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- Hydraulic Series
- Valve / Coupler Hydraulic Unit
- Manual Operation Accessories
- Cautions / Others
- Hole Clamp
 - SFA
 - SFC
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 - LT/LG
 - TLA-2
 - TLB-2
 - TLA-1
- Link Clamp
 - LKA
 - LKC
 - LKW
 - LM/LJ
 - TMA-2
 - TMA-1
- Work Support
 - LD
 - LC
 - TNC
 - TC
- Air Sensing Lift Cylinder
 - LLW
- Compact Cylinder
 - LL
 - LLR
 - LLU
 - DP
 - DR
 - DS
 - DT
- Block Cylinder
 - DBA
 - DBC
- Centering Vise
 - FVA
 - FVD
 - FVC
- Control Valve
 - BZL
 - BZT
 - BZX/JZG
- Pallet Clamp
 - VS
 - VT
- Expansion Locating Pin
 - VFL
 - VFM
 - VFJ
 - VFK
- Pull Stud Clamp
 - FP
 - FQ
- Customized Spring Cylinder
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Allowable Offset Graph (Option . . . Blank: Standard)

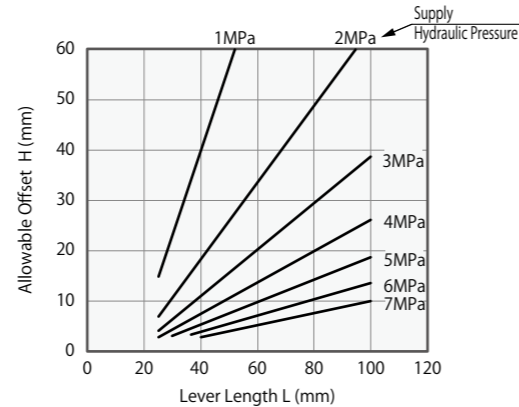


(Example) When using LKC0480-C□
Supply Hydraulic Pressure 5.0MPa, Lever Length L=80mm
Allowable Offset is about 10mm.

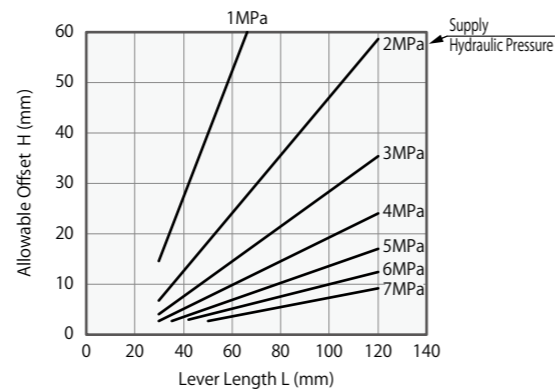


- Notes :
- Tables and graphs shown are the relationships between the lever length (mm) for supply hydraulic pressure (MPa) and the allowable offset (mm).
 - Using the lever beyond allowable offset may cause deformation, galling and fluid leakage etc.
 - The tables and graphs are only for reference.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

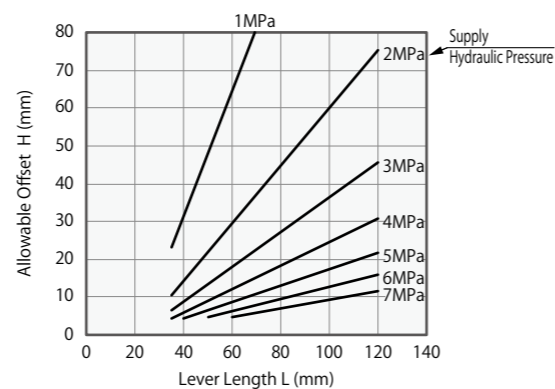
Hydraulic Pressure (MPa)	Allowable Offset H(mm)						Non-Usable Range(■)	
	Lever Length L(mm)							
	L=25	L=30	L=36.5	L=40	L=50	L=60	L=80	L=100
7				3	4	5	8	10
6.5			3	3	5	6	9	12
6			3	4	5	7	10	14
5.5		3	4	5	6	8	12	16
5		3	5	5	8	10	14	19
4.5		4	5	6	9	12	17	22
4	3	4	6	7	11	14	20	26
3.5	3	5	8	9	13	17	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



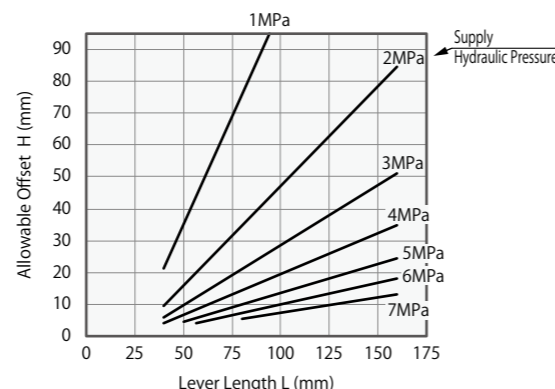
Hydraulic Pressure (MPa)	Allowable Offset H(mm)						Non-Usable Range(■)	
	Lever Length L(mm)							
	L=30	L=35	L=42	L=50	L=60	L=80	L=100	L=120
7				3	4	6	7	9
6.5			2	3	4	6	9	11
6			3	4	5	8	10	12
5.5		2	3	5	6	9	12	15
5		3	4	5	7	10	14	17
4.5		3	5	6	8	12	16	20
4	3	4	6	7	10	15	19	24
3.5	3	5	7	9	12	18	23	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



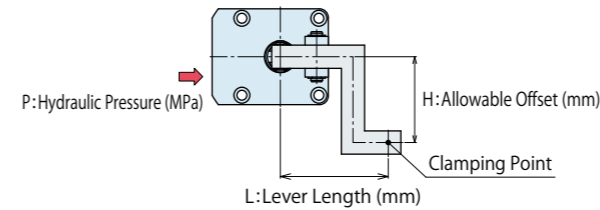
Hydraulic Pressure (MPa)	Allowable Offset H(mm)						Non-Usable Range(■)	
	Lever Length L(mm)							
	L=35	L=40	L=50	L=60	L=70	L=80	L=100	L=120
7				5	6	7	9	12
6.5			4	5	7	8	11	14
6			5	6	8	10	13	16
5.5			5	7	9	11	15	19
5		4	6	9	11	13	17	22
4.5		5	8	10	13	15	21	26
4	4	6	9	12	15	18	25	31
3.5	5	7	11	15	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



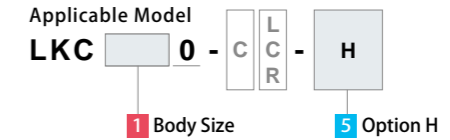
Hydraulic Pressure (MPa)	Allowable Offset H(mm)						Non-Usable Range(■)	
	Lever Length L(mm)							
	L=40	L=50	L=56.5	L=80	L=100	L=120	L=140	L=160
7				5	7	9	11	13
6.5			4	6	9	11	13	15
6			4	7	10	13	15	18
5.5		4	5	9	12	15	18	21
5		5	6	10	14	17	21	25
4.5	3	5	7	12	16	20	25	29
4	4	7	8	14	19	24	30	35
3.5	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



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

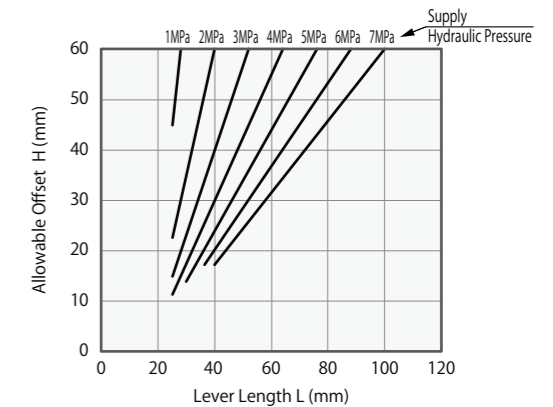


(Example) When using LKC0480-C□-H
Supply Hydraulic Pressure 5.0MPa, Lever Length L=80mm
Allowable Offset is about 46mm.

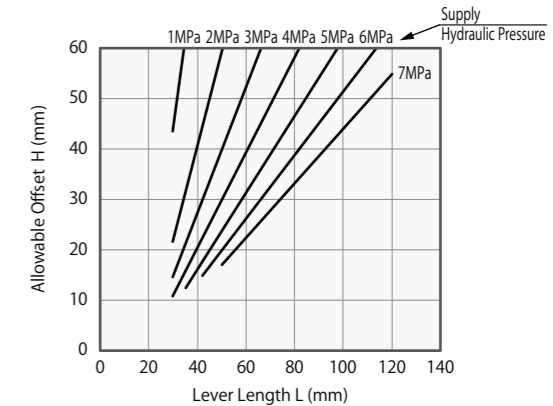


- Notes :
- Tables and graphs shown are the relationships between the lever length (mm) for supply hydraulic pressure (MPa) and the allowable offset (mm).
 - Using the lever beyond allowable offset may cause deformation, galling and fluid leakage etc.
 - The tables and graphs are only for reference.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

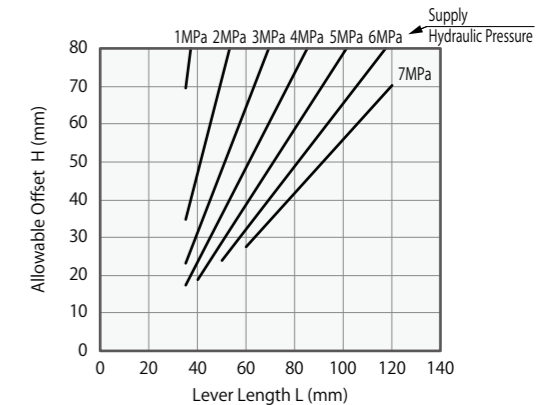
Hydraulic Pressure (MPa)	Allowable Offset H(mm)						Non-Usable Range(■)	
	Lever Length L(mm)							
	L=25	L=30	L=36.5	L=40	L=50	L=60	L=80	L=100
7				17	24	31	46	60
6.5			16	18	26	34	49	64
6			17	20	28	37	53	70
5.5		13	19	22	31	40	58	76
5		14	20	24	34	44	64	84
4.5		16	23	27	38	49	71	93
4	11	17	26	30	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



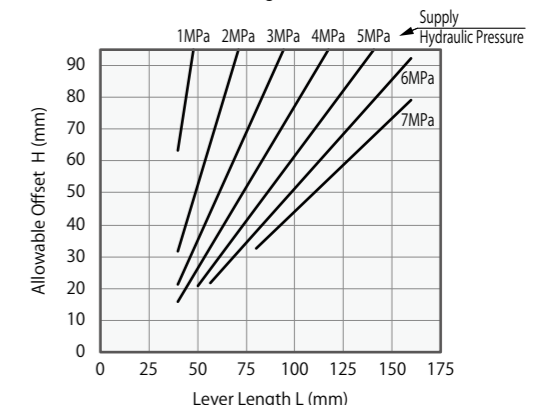
Hydraulic Pressure (MPa)	Allowable Offset H(mm)						Non-Usable Range(■)	
	Lever Length L(mm)							
	L=30	L=35	L=42	L=50	L=60	L=80	L=100	L=120
7				17	22	33	44	55
6.5			14	18	24	36	47	59
6			15	20	26	39	51	64
5.5		11	16	22	29	42	56	70
5		12	18	24	31	46	62	77
4.5		14	20	26	35	52	68	85
4	11	16	22	30	39	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



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



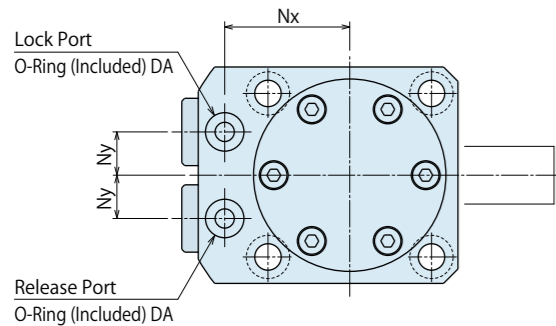
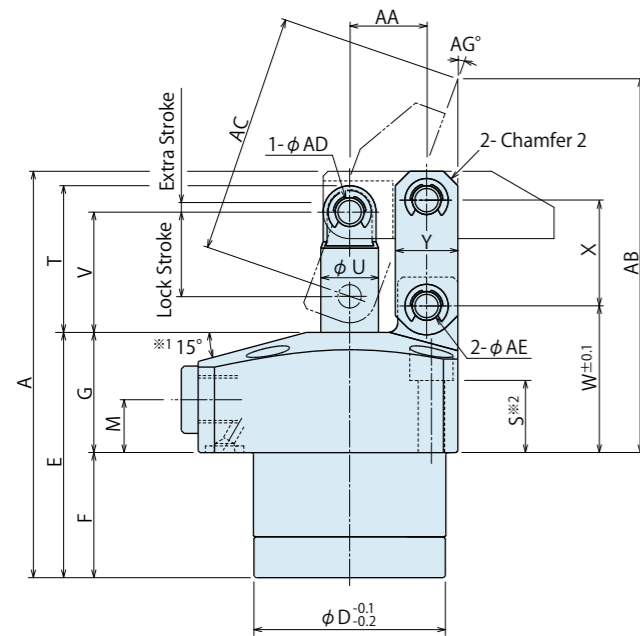
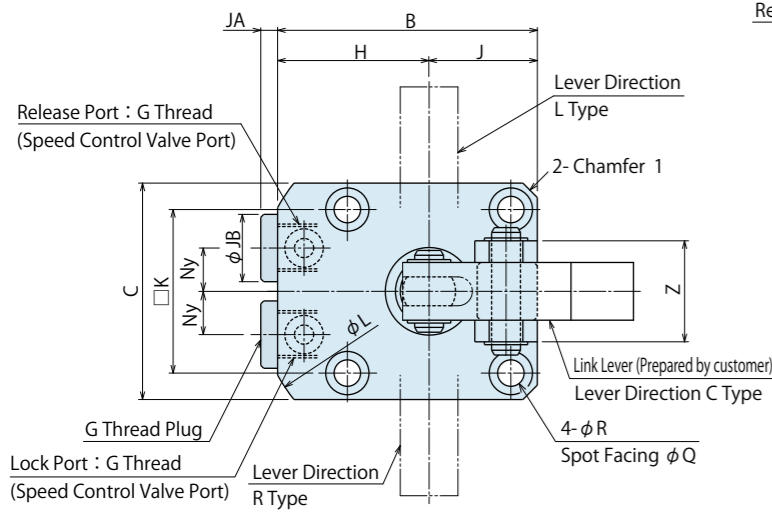
Hydraulic Pressure (MPa)	Allowable Offset H(mm)						Non-Usable Range(■)	
	Lever Length L(mm)							
	L=40	L=50	L=56.5	L=80	L=100	L=120	L=140	L=160
7				32	44	56	67	79
6.5			20	35	47	60	73	85
6			22	38	51	65	79	92
5.5		19	24	41	56	71	86	101
5		21	26	45	62	78	94	111
4.5	14	23	29	50	69	87	105	123
4	16	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



- High-Power Series
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- Valve / Coupler Hydraulic Unit
- Manual Operation Accessories
- Cautions / Others
- Hole Clamp
 - SFA
 - SFC
- Swing Clamp
 - LHA
 - LHC
 - LHS
 - LHW
 - LT/LG
 - TLA-2
 - TLB-2
 - TLA-1
- Link Clamp**
 - LKA
 - LKC**
 - LKW
 - LM/LJ
 - TMA-2
 - TMA-1
- Work Support
 - LD
 - LC
 - TNC
 - TC
- Air Sensing Lift Cylinder
 - LLW
- Compact Cylinder
 - LL
 - LLR
 - LLU
 - DP
 - DR
 - DS
 - DT
- Block Cylinder
 - DBA
 - DBC
- Centering Vise
 - FVA
 - FVD
 - FVC
- Control Valve
 - BZL
 - BZT
 - BZX/JZG
- Pallet Clamp
 - VS
 - VT
- Expansion Locating Pin
 - VFL
 - VFM
 - VFJ
 - VFK
- Pull Stud Clamp
 - FP
 - FQ
- Customized Spring Cylinder
 - DWA/DWB

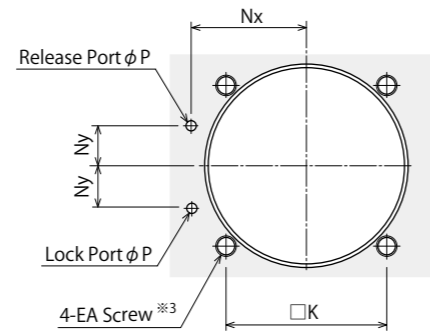
External Dimensions

※ The drawing shows the locked state of LKC-CC.

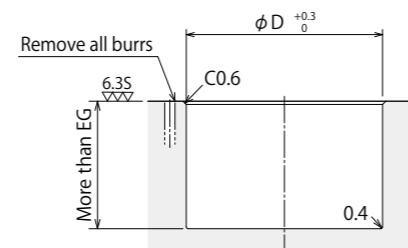


- Notes:
- ※ 1. Flange inclination angle is 12° only for LKC0650.
 - ※ 2. Mounting bolts are not provided. Please prepare them based on dimension 'S'.
 1. Please use the provided pin (equivalent to φADf6, φAEf6, HRC60) as mounting pin for lever.
 2. Please prepare speed control valve (Refer to P.891) if necessary.

Machining Dimensions of Mounting Area



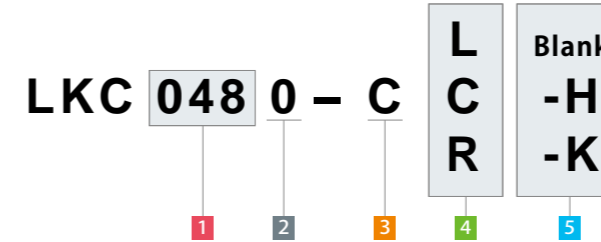
For Blind Hole



For Through Hole

- Notes:
- ※ 3. EA 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'.

Model No. Indication



(Format Example : LKC0480-CC, LKC0550-CL-H)

- 1 Body Size
- 2 Design No.
- 3 Piping Method
- 4 Lever Direction
- 5 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.

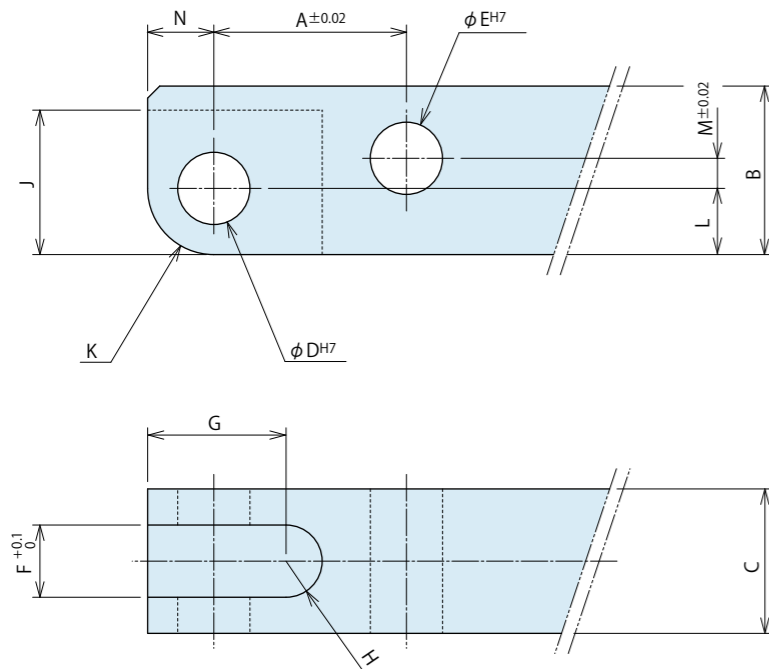
External Dimensions and Machining Dimensions for Mounting (mm)

Model No.	LKC0400-C□□	LKC0480-C□□	LKC0550-C□□	LKC0650-C□□
Full Stroke	20.5	23.5	26	29.5
Lock Stroke	17.5	20.5	23	26.5
Extra Stroke	3	3	3	3
A	84.5	95	104	121.5
B	54	61	69	81
C	45	51	60	70
D	40	48	55	65
E	51	56	58.5	67.5
F	26	28	30.5	37.5
G	25	28	28	30
H	31.5	35.5	39	46
J	22.5	25.5	30	35
K	34	40	47	55
L	72	81	88	106
M	11	12	12	13
Nx	26	30	33.5	39.5
Ny	9	11	12	15
P	3	3	3	5
Q	9	9	11	11
R	5.5	5.5	6.8	6.8
S	15	16	13.5	16
T	30.5	35	37.5	45
U	12	14	16	20
V	25	29	31.5	37
W	30.5	34.5	35.5	39
X	22	26	30	35.5
Y	13	13	16	19
Z	21	24	28	37
Chamfer 1	C3	C3	C3	C4
Chamfer 2	C3	C3	C3	C5
AA	16	18.5	21	24.5
AB	77.7	92.4	101.9	111.4
AC	50.2	61.2	71.7	78.7
AD	6	6	6	8
AE	6	6	8	10
AG	20.2	18.9	19.9	20.5
EA (Nominal×Pitch)	M5×0.8	M5×0.8	M6×1	M6×1
EG	26.5	28.5	31	38
JA	3.5	3.5	3.5	4.5
JB	14	14	14	19
Lock Port : G Thread	G1/8	G1/8	G1/8	G1/4
Release Port : G Thread	G1/8	G1/8	G1/8	G1/4
O-Ring	DA	1BP5	1BP5	1BP7

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 - TLB-2
 - TLA-1
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 - LKC**
 - LKW
 - LM/LJ
 - TMA-2
 - TMA-1
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 - LD
 - LC
 - TNC
 - TC
- Air Sensing Lift Cylinder
 - LLW
- Compact Cylinder
 - LL
 - LLR
 - LLU
 - DP
 - DR
 - DS
 - DT
- Block Cylinder
 - DBA
 - DBC
- Centering Vise
 - FVA
 - FVD
 - FVC
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 - BZL
 - BZT
 - BZX/JZG
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- Pull Stud Clamp
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 - FQ
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● Link Lever Design Dimension

※ Reference for designing link lever.



● Link Lever Design Dimension List

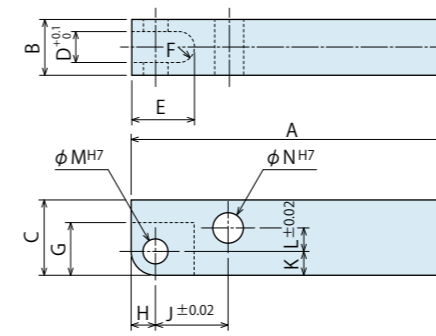
(mm)

Corresponding Model No.	LKC0400	LKC0480	LKC0550	LKC0650
A	16	18.5	21	24.5
B	14	16	20	25
C	12 ⁰ _{-0.3}	12 ⁰ _{-0.3}	16 ⁰ _{-0.3}	19 ⁰ _{-0.3}
D	6 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀
E	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀
F	6	6	8	10
G	11.5	13	12.5	16
H	R3	R3	R4	R5
J	12	13	13	17.5
K	R5.5	R6	R6	R8
L	5.5	6	6	8
M	2.5	3.5	6	7.5
N	5.5	6	6	8

Notes :

1. Please design the link lever length according to the 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. Please use the attached pin (equivalent to $\phi ADf6$, $\phi AEf6$, HRC60) as the mounting pin for lever.
(Please refer to each external dimension of LKC for the dimensions ϕAD and ϕAE .)

● Accessory : Material Link Lever



Model No. Indication

LZK 048 0 - L

Size (Refer to the table) Design No. (Revision Number)

(mm)

Model No.	LZK0400-L	LZK0480-L	LZK0550-L	LZK0650-L
Corresponding Model No.	LKC0400	LKC0480	LKC0550	LKC0650
A	75	85	90	105
B	12 ⁰ _{-0.3}	12 ⁰ _{-0.3}	16 ⁰ _{-0.3}	19 ⁰ _{-0.3}
C	14	16	20	25
D	6	6	8	10
E	14.5	16	16.5	21
F	R3	R3	R4	R5
G	12	13	13	17.5
H	5.5	6	6	8
J	16	18.5	21	24.5
K	5.5	6	6	8
L	2.5	3.5	6	7.5
M	6 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀
N	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀

Notes :

1. Material S45C
2. If necessary, the front end should be additionally machined.
3. Please use the attached pin (equivalent to $\phi ADf6$, $\phi AEf6$, HRC60) as the mounting pin for lever.

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 - VFJ
 - VFK
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Cautions

● Notes for Design

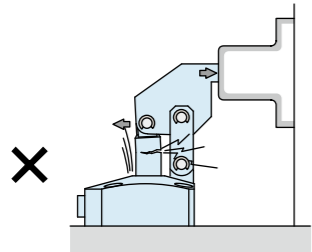
- 1) Check Specifications
 - Please use each product according to the specifications.

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.



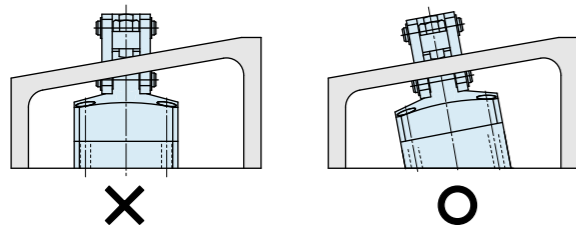
- If offset load is applied on the link part, use it within the allowable range of "Allowable Offset Graph".

- 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).

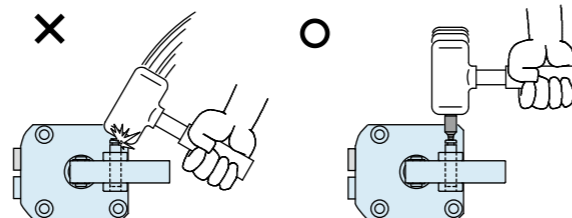
2) Mounting / Removing clamp.

- 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	M5×0.8	8.0
	LKC0400/LKW0401	M5×0.8	8.0
	LKA0480	M5×0.8	8.0
	LKC0480/LKW0481	M5×0.8	8.0
	LKA0550	M6×1	14
	LKC0550/LKW0551	M6×1	14
	LKA0650	M6×1	14
	LKC0650/LKW0651	M6×1	14
	LKA0750/LKW0751	M8×1.25	33
LM/LJ	LKA0900	M10×1.5	65
	LKA1050	M12×1.75	114
	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
TMA	LJ1052	M12×1.75	98
	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

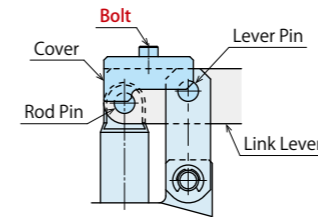
- When inserting the link pin, do not hit the pin directly with a hammer. When using a hammer to insert the pin, always use a cover plate with a smaller diameter than the snap ring groove on the pin.



- 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

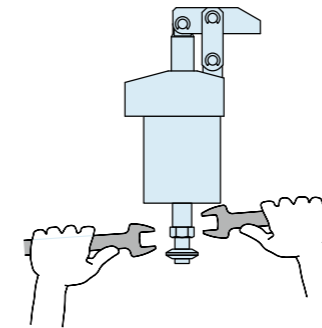


4) Speed Adjustment

- 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

High-Power Series

Pneumatic Series

Hydraulic Series

Valve / Coupler Hydraulic Unit

Manual Operation Accessories

Cautions / Others

Hole Clamp

SFA
SFC

Swing Clamp

LHA
LHC
LHS
LHW
LT/LG
TLA-2
TLB-2
TLA-1

Link Clamp

LKA
LKC
LKW
LM/LJ
TMA-2
TMA-1

Work Support

LD
LC
TNC
TC

Air Sensing Lift Cylinder

LLW

Compact Cylinder

LL
LLR
LLU
DP
DR
DS
DT

Block Cylinder

DBA
DBC

Centering Vise

FVA
FVD
FVC

Control Valve

BZL
BZT
BZX/JZG

Pallet Clamp

VS
VT

Expansion Locating Pin

VFL
VFM
VFJ
VFK

Pull Stud Clamp

FP
FQ

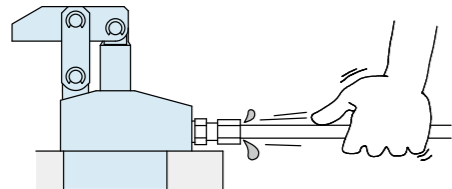
Customized Spring Cylinder

DWA/DWB

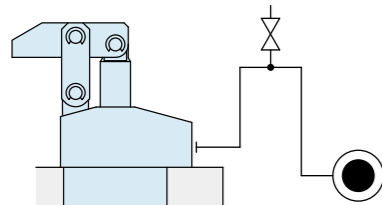
● Cautions

● 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

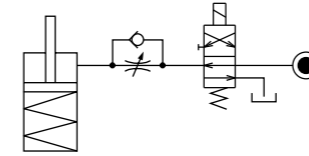
Maker	ISO Viscosity Grade ISO-VG-32	
	Anti-Wear Hydraulic Oil	Multi-Purpose Hydraulic Oil
Showa Shell Sekiyu	Tellus S2 M 32	Morlina S2 B 32
Idemitsu Kosan	Daphne Hydraulic Fluid 32	Daphne Super Multi Oil 32
JX Nippon Oil & Energy	Super Hyrando 32	Super Mulpus DX 32
Cosmo Oil	Cosmo Hydro AW32	Cosmo New 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.

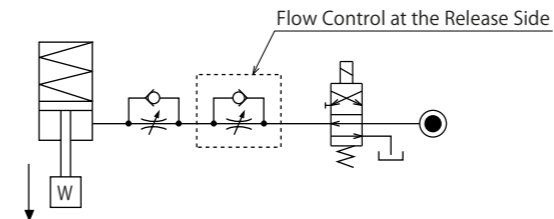
● Notes on Hydraulic Cylinder Speed Control Unit

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.

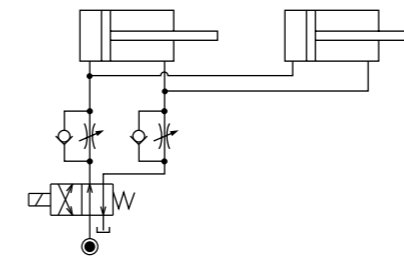


Accelerated clamping speed by excessive hydraulic flow to the cylinder may sustain damage. In this case add flow control to regulate flow. (Please add flow control to release flow if the lever weight is put on at the time of release action when using swing clamps.)

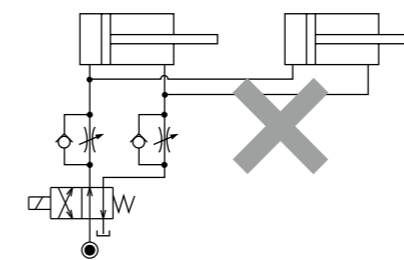


- Flow Control Circuit for Double Acting Cylinder
Flow control circuit for double acting cylinder should have meter-out circuits for both the lock and release sides. Meter-in control can have adverse effect by presence of air in the system. **However, in the case of controlling LKE, TMA, TLA, both lock 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.**

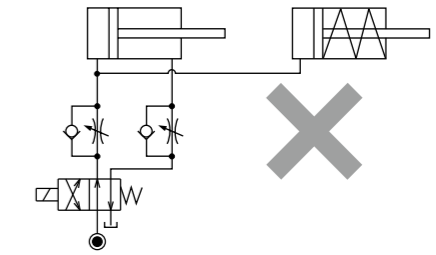
【Meter-out Circuit】 (Except LKE/TMA/TLA)



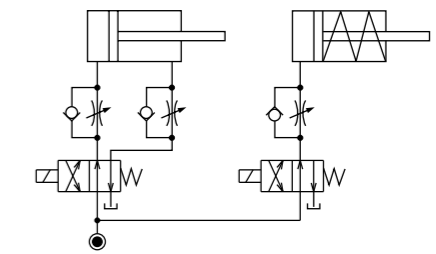
【Meter-in Circuit】 (LKE/TMA/TLA must be controlled with meter-in.)



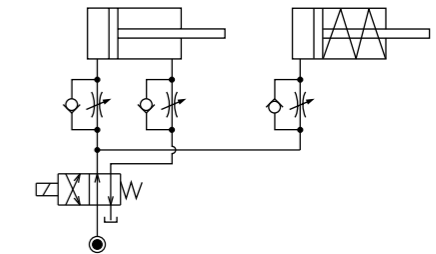
- ① Single acting components should not be used in the same flow control circuit as the double acting components. The release action of the single acting cylinders may become erratic or very slow.



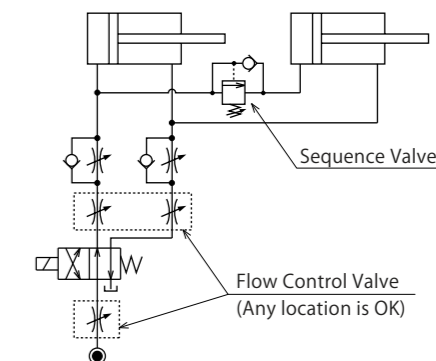
Refer to the following circuit when both the single acting cylinder and double acting cylinder are used together.
○ Separate the control circuit.



- 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.



High-Power Series
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Valve / Coupler Hydraulic Unit
Manual Operation Accessories
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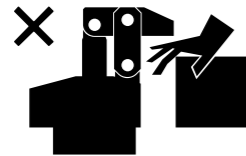
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● Notes on Handling

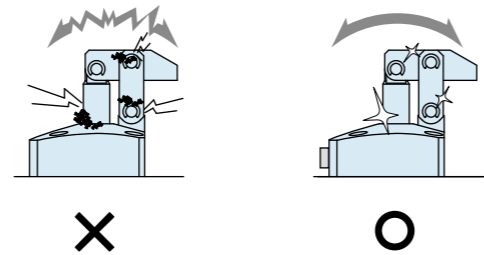
- 1) It should be handled by qualified personnel.
 - The hydraulic machine and air compressor should be handled and maintained by qualified personnel.
- 2) Do not handle or remove the machine unless the safety protocols are ensured.
 - ① The machine and equipment can only be inspected or prepared when 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.



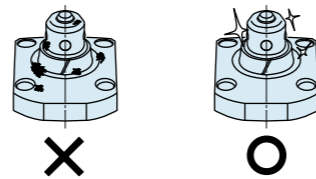
- 4) Do not disassemble or modify.
 - If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.

● 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 make 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.



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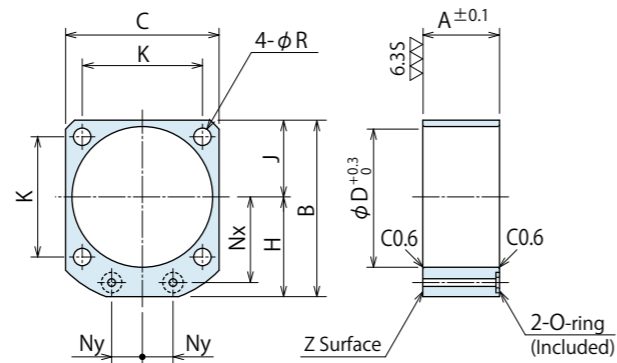
Manifold Block for WCA/WCE/WHA/WHE

Model No. Indication

WHZ 048 0 - MD

Size
(Refer to following table)

Design No.
(Revision Number)



(mm)

Model No.	WHZ0600-MD	WHZ0320-MD	WHZ0400-MD	WHZ0500-MD	WHZ0630-MD
Corresponding Item	WCE0602	WCA0321	WCA0401	WCA0501	WCA0631
Model Number	WHE0600	WHA0320	WHA0400	WHA0500	WHA0630
		WCE1002	WCE1602	WCE2502	WCE4002
		WHE1000	WHE1600	WHE2500	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.

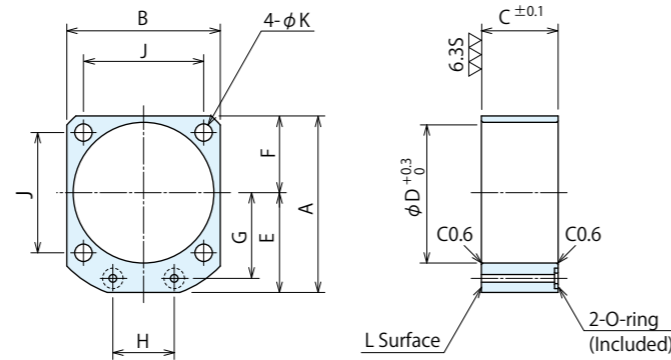
Manifold Block for LKA/LKC/LKE/LHA/LHC/LHE/LHS/LL

Model No. Indication

LZY 048 0 - MD

Size
(Refer to following table)

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	LKA0360 / LKE0360	LKA0400 / LKC0400	LKA0480 / LKC0480	LKA0550 / LKC0550	LKA0650 / LKC0650	LKA0750	LKA0900	LKA1050
Model Number	LHA0360 / LHC0360	LHE0400 / LHA0400	LHE0480 / LHA0480	LHE0550 / LHA0550	LHA0650 / LHC0650	LHA0750	LHA0900	LHA1050
	LHE0360 / LHS0360	LHC0400 / LHE0400	LHC0480 / LHE0480	LHC0550 / LHE0550	LHS0650	LHS0750	LHS0900	LHS1050
	LL0360	LHS0400 / LL0400	LHS0480 / LL0480	LHS0550 / LL0550	LL0650	LL0750	LL0900	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.

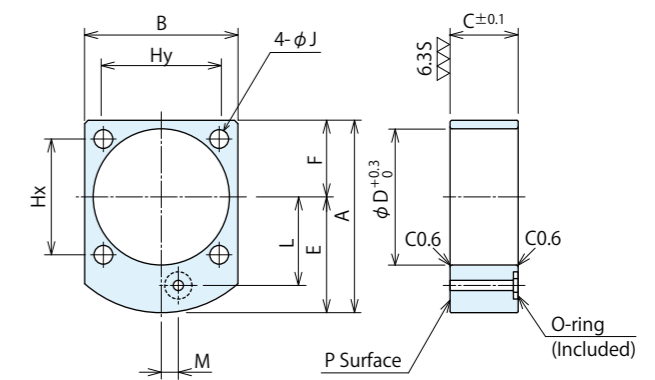
Manifold Block for LM/LJ/LT/LG

Model No. Indication

LZ 048 0 - MS

Size
(Refer to following table)

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	LT0301 / LG0301	LT036□ / LG036□	LT040□ / LG040□	LT048□ / LG048□	LT055□ / LG055□	LT065□ / LG065□	LT075□ / LG075□	LG090□	LG105□
Model Number	LM0300 / LJ0302	LM0360 / LJ0362	LM0400 / LJ0402	LM0480 / LJ0482	LM0550 / LJ0552	LM0650 / LJ0652	LM0750 / LJ0752	LJ0902	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.

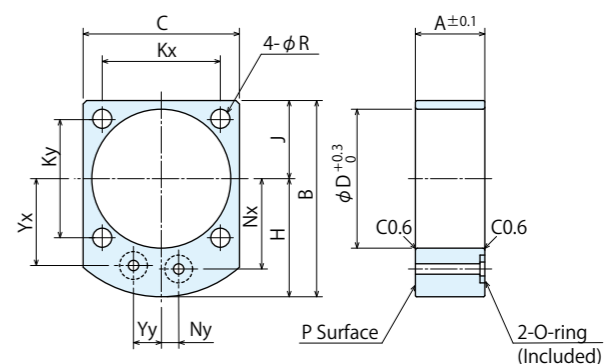
Manifold Block for LC/TC

Model No. Indication

LZ 048 0 - MP

Size
(Refer to following table)

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	LC0262	LC0302	LC0362	LC0402	LC0482	LC0552	LC0652	LC0752	LC0902
Model Number				TC0402	TC0482	TC0552	TC0652	TC0752	
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.

- High-Power Series
- Pneumatic Series
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- Screw Locator
- VXF

- Manual Expansion Locating Pin
- VX

- Manifold Block
- WHZ-MD
- LZY-MD
- LZ-MS
- LZ-MP
- TMZ-1MB
- TMZ-2MB
- DZ-M

- Manifold Block / Nut
- DZ-R
- DZ-C
- DZ-P
- DZ-B
- LZ-S
- LZ-SQ
- TNZ-S
- TNZ-SQ
- WNZ-SQ

- Pressure Switch
- JBA

- Pressure Gauge
- JGA/JGB

- Manifold
- JX

- Coupler Switch
- PS

- G-Thread Fitting