## **Manifold Block**

Model WHZ-MD

Model LZY-MD

Model LZ-MS

Model LZ-MP

Model TMZ-1MB

Model TMZ-2MB

Model DZ-MG

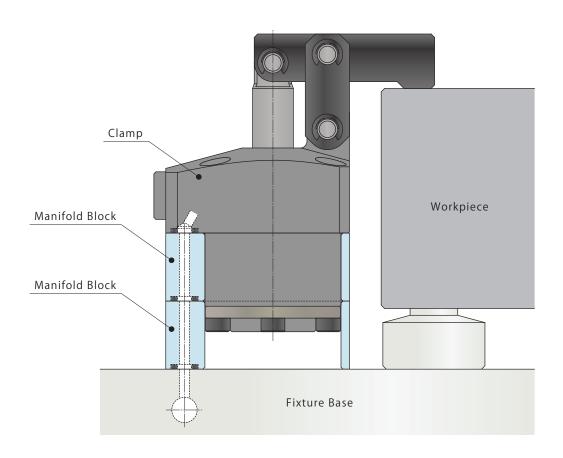
Model DZ-MS





#### Manifold Block

The mounting height of clamp is adjustable with the manifold block.

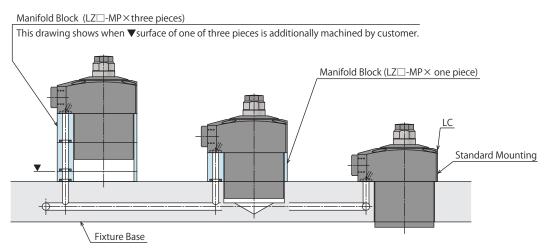




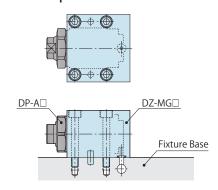
Applicable Model ————				
Manifold Block Model No.		Corresponding It	em Model No.	
Model WHZ-MD	Model WCA	Model WHA		
Model LZY-MD	Model LKA	Model LKE	Model LHC	Model LHS
Model LZ-MS	Model LJ	Model LG		
Model LZ-MP	Model <b>LC</b>	Model <b>TC</b>		
Model TMZ-1MB	Model TMA-1			
Model TMZ-2MB	Model TMA-2			
Model DZ-MG /MS	Model DP			

**Application Examples -**

## • Work Support (LC) Application Example



## • Push Cylinder (DP) Application Example



High-Power Series Pneumatic Series Hydraulic Series Valve / Coupler Hydraulic Unit Manual Operation Accessories Cautions / Others Screw Locator Manual Expansion Locating Pin

> Manifold Block WHZ-MD LZY-MD

VX

VXF/VXE

TMZ-2ME DZ-M

Manifold Block / DZ-R

> DZ-C DZ-P DZ-B LZ-S WNZ-SQ TNZ-S TNZ-SQ

Pressure Switch

Pressure Gauge JGA/JGB

Manifold

Coupler Switch PS

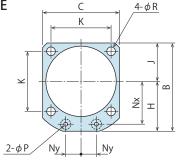
Manifold Block for WCA/WCE/WHA/WHE

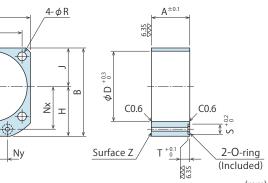
Model No. Indication

**WHZ** 

following table)

(Revision Number)





(mm)

Model No.	WHZ0600-MD	WHZ0320-MD	WHZ0400-MD	WHZ0500-MD	WHZ0630-MD
Corresponding Model No.	WCE0602 WHE0600	WCA0321 WCE1002 WHA0320 WHE1000	WCA0401 WCE1602 WHA0400 WHE1600	WCA0501 WCE2502 WHA0500 WHE2500	WCA0631 WCE4002 WHA0630 WHE4000
A	23	25	27	31	35
В	54	60	67	77	88.5
С	45	50	58	68	81
D	40	46	54	64	77
Н	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
P	3	5	5	5	5
R	5.5	5.5	5.5	6.5	6.5
S	8	10	10	10	10
Т	1.4	1.4	1.4	1.4	1.4
O-ring	1BP5	1BP7	1BP7	1BP7	1BP7
Weight kg	0.1	0.1	0.1	0.2	0.2

Notes: 1. Material: A2017BE-T4 Surface Finishing: Zircon Finishing (Zirconium Chemical Conversion Treatment)

- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.
- 3. For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.

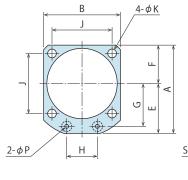
## Manifold Block for LKA/LKC/LKE/LHA/LHC/LHE/LHS/LL

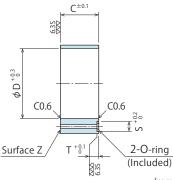
Model No. Indication

LZY

Size following table)







(mm)

Model No.	LZY0360-MD	LZY0400-MD	LZY0480-MD	LZY0550-MD	LZY0650-MD	LZY0750-MD	LZY0900-MD	LZY1050-MD
Corresponding Model No.	LHA0360 / LHC0360	LKA0400 / LKC0400 LKE0400 / LHA0400 LHC0400 / LHE0400 LHS0400 / LL0400			LHA0650 / LHC0650	LKA0750 LHA0750 LHS0750 LL0750	LKA0900 LHA0900 LHS0900 LL0900	LKA1050 LHA1050 LHS1050 LL1050
Α	49	54	61	69	81	92	107	122
В	40	45	51	60	70	80	95	110
С	20	20	27	30	32	37	45	50
D	36	40	48	55	65	75	90	105
Е	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
Н	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
Р	3	3	3	3	5	5	5	5
S	8	8	8	8	10	10	10	10
T	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
O-ring	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
Weight kg	0.2	0.2	0.3	0.4	0.5	0.8	1.2	1.7

Notes: 1. Material:S45C Surface Finishing: Alkaline Blackening

- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
- 3. For other block thickness (dim. C), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.



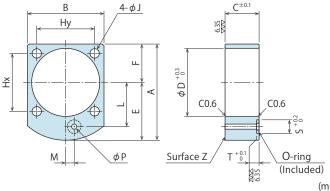
#### Manifold Block for LJ/LM/LG/LT

Model No. Indication



following table)

(Revision Number)



		I			I				(mm)
Model No.	LZ0300-MS	LZ0360-MS	LZ0400-MS	LZ0480-MS	LZ0550-MS	LZ0650-MS	LZ0750-MS	LZ0900-MS	LZ1050-MS
Corresponding	LG0301 / LT0301	LG036□ / LT036□	LG040□ / LT040□					LG090□	LG105□
Model No.	LJ0302 / LM0300	LJ0362 / LM0360	LJ0402 / LM0400	LJ0482 / LM0480	LJ0552 / LM0550	LJ0652 / LM0650	LJ0752 / LM0750	LJ0902	LJ1052
А	48	51.5	56.5	62	70	82	93	107	122
В	34	40	45	51	60	70	80	95	110
С	18	20	20	27	30	32	37	45	50
D	30	36	40	48	55	65	75	90	105
Е	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
Ну	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
Р	3	3	3	3	3	5	5	5	5
S	8	8	8	8	8	10	10	10	10
T	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
O-ring	1BP5	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
Weight kg	0.1	0.2	0.2	0.3	0.4	0.5	0.8	1.2	1.7

- Notes: 1. Material:S45C
- Surface Finishing: Alkaline Blackening
- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
- 3. For other block thickness (dim. C), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.

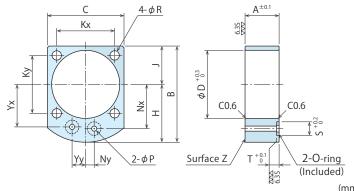
#### Manifold Block for LC/TC

Model No. Indication

LZ

Size following table)

Design No. (Revision Number)



									(111111)
Model No.	LZ0260-MP	LZ0300-MP	LZ0360-MP	LZ0400-MP	LZ0480-MP	LZ0550-MP	LZ0650-MP	LZ0750-MP	LZ0900-MP
Corresponding Model No.	LC0262	LC0302	LC0362	LC0402 / TC0402	LC0482 / TC0482	LC0552 / TC0552	LC0652 / TC0652	LC0752 / TC0752	LC0902
Α	18	18	20	20	27	30	32	37	45
В	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
Н	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
Ку	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
Р	3	3	3	3	3	3	5	5	5
S	8	8	8	8	8	8	10	10	10
Т	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
O-ring	1BP5	1BP5	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7
Weight kg	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.8	1.2

Notes:

- 1. Material:S45C
- Surface Finishing: Alkaline Blackening
- 3. For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.

High-Power

**Pneumatic Series** 

Series

Hydraulic Series

Valve / Coupler Hydraulic Unit

Cautions / Others

Screw Locator

VXF/VXF Manual Expansion Locating Pin VX

> WHZ-MD LZY-MD TMZ-1MB

TMZ-2MB DZ-M Manifold Block /

Nut DZ-R

> DZ-C DZ-P DZ-B

LZ-S LZ-SQ WNZ-SQ

TNZ-S TNZ-SQ

Pressure Switch

Pressure Gauge JGA/JGB

Manifold

JX Coupler Switch

PS

#### Manifold Block for TMA-1

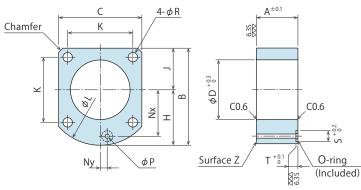
Model No. Indication

**TMZ** 040

Size (Refer to following table)

1MB

(Revision Number)



(mm)

Model No.	TMZ0250-1MB	TMZ0400-1MB	TMZ0600-1MB	TMZ1000-1MB	TMZ1600-1MB	TMZ2500-1MB	TMZ3200-1MB
Corresponding Model No.	TMA0250-1	TMA0400-1	TMA0600-1	TMA1000-1	TMA1600-1	TMA2500-1	TMA3200-1
Α	18	21	24	28	35	42	46
В	56.5	62	69	83	95	110	122
C	45	51	60	73	85	100	110
D	33	36	43	48	60	70	85
Н	34	36.5	39	46.5	52.5	60	67
J	22.5	25.5	30	36.5	42.5	50	55
K	34	40	47	57	65	75	88
L	68	73	80	97	112	129	147
Nx	26	30	33.5	40	45	52.5	60
Ny	5	0	0	0	0	0	0
R	5.5	5.5	6.8	9	11	14	14
Р	3	3	3	3	5	5	5
S	8	8	8	8	10	10	10
T	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Chamfer	3	3	(\$\phi 80)	(φ97)	(φ112)	(φ129)	(φ147)
O-ring	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7
Weight kg	0.2	0.3	0.5	0.9	1.4	2.2	2.6

Notes: 1. Material:S45C

- Surface Finishing: Alkaline Blackening
- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.
- 3. For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.

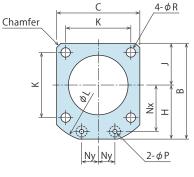
#### Manifold Block for TMA-2

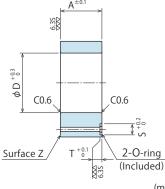
Model No. Indication

**TMZ** Size

following table)







(mm)

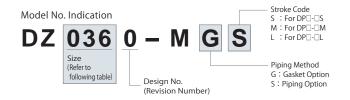
Model No.	TMZ0250-2MB	TMZ0400-2MB	TMZ0600-2MB	TMZ1000-2MB	TMZ1600-2MB	TMZ2500-2MB	TMZ3200-2MB
Corresponding Model No.	TMA0250-2	TMA0400-2	TMA0600-2	TMA1000-2	TMA1600-2	TMA2500-2	TMA3200-2
A	15	16	18	20	24	28	32
В	54	61	69	82.5	94.5	109.5	122
С	45	51	60	73	85	100	110
D	33	36	43	48	60	70	85
Н	31.5	35.5	39	46	52	59.5	67
J	22.5	25.5	30	36.5	42.5	50	55
K	34	40	47	57	65	75	88
L	68	75	83	100	113	133	147
Nx	26	30	33.5	40	45	52.5	60
Ny	9	10	12	15	16	18.5	20
R	5.5	5.5	6.8	9	11	14	14
Р	3	3	3	3	5	5	5
S	8	8	8	8	10	10	10
T	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Chamfer	3	3	3	4	5	8	( <i>ϕ</i> 147)
O-ring	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7
Weight kg	0.2	0.3	0.4	0.6	0.9	1.5	1.8

1. Material:S45C

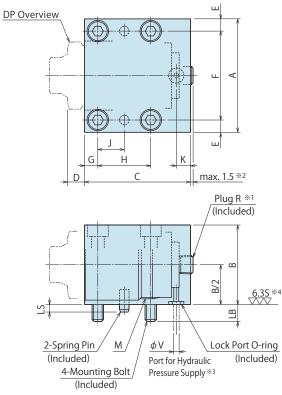
- Surface Finishing: Alkaline Blackening
- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.
- 3. For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.



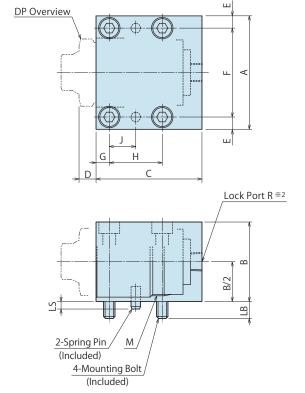
#### Manifold Block for DP



 $\fint The drawing below shows DZ$\subseteq 0-MG$\subseteq (Gasket option).$ 



%The drawing below shows DZ $\square$ 0-MS $\square$  (Piping option).



#### Notes:

- 1. Material:S45C Surface Finishing:Alkaline Blackening
- \*1. G option: the R-thread plug is screwed in at shipment. There is variance in protrusion amount of the plug.
- ※2. Plug is not included in the S option.
- \*\*3. Recommended hole size for a hydraulic pressure supply port drilled by Customer.
  Make sure there are no burrs around the connection and no cutting chips or other foreign substances inside.
- $\times$ 4. The surface touching the O-ring should have a roughness of  $\frac{6.35}{\checkmark\checkmark\checkmark}$ .

%4. The S	surface touch	ing tn	1e O-	ring	SHOU	ila II	iave a	rou	gnne	SS OI	$\sim$	▽-															(r	mm)
	LNI	DZ01	160-N	ΛG□	DZ0	220-	MG□	DZ0	240-1	ΛG□	DZ0	300-N	ΛG□	DZ0	360-1	MG□	DZ0	450-N	ΛG□	DZ0	550-N	NG□	DZ06	50-N	ΛG□	DZ08	1-00	MG□
Mod	el No.	DZ01	160-1	NS□	DZ0	220-	MS□	DZ0	240-1	ΛS□	DZ0	300-1	ΛS□	DZ0	360-l	MS□	DZ0	450-1	MS□	DZ0	550-1	MS□	DZ06	550-N	ΛS□	DZ08	300-l	MS□
Stroke	e Code	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	S M L	
Corresponding	Model No.	DPO	0160	-	DP	022	1-□	DP	0241	-	DP	0301	-	DP	0361	-	DP	0451	-	DP	0551	-	DPO	0651	-	DPC	0801	I- <u></u>
Model No.	Stroke Code	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L	S	М	L
	A		32			38			45			50			60			75			90			105			120	
	В		22			28			32			38			42			52			62			72			88	
(	C	34	40	49	32.5	38.5	51.5	35	42.5	59	38.5	45.5	65	43	56	77	50	63	85.5	56	69.5	92	65	79	108.5	70	88	119
	D		6			8			8			9			9			13			13			15			15	
	E		4.5			4.5			6			6			6.5			8.5			10			11			11	
	F		23			29			33			38			47			58			70			83			98	
(	G		5			5			6			6			7			8			9			11			11	
I	Н	12	18	8	12		18	12	1	8	16	2.	2	18	2	.8	20	30	0	24	3	6	30	42	2	34	5.	2
	J	6	9	)	6		9	6	9	)	8	1	1	9	1	4	10	1:	5	12	1	8	15	2	1	17	2	6
	K		7.5			7.5			7.5			7.5			7.5			11.5			11.5			11.5			11.5	
L	_B		7			6			8			7			9			11			13			15			15	
L	_S		3			3			3			4			4			4			4			6			7	
M (Nomin	nal × Pitch)	M1	16×1	1.5	M	22×	1.5	М	24×	1.5	M	30×1	1.5	M:	36×	1.5	M	45×1	1.5	N	155×	2	М	65×	2	М	80×	<2
	R	F	Rc1/8	3		Rc1/	8		Rc1/8	3		Rc1/8	3	ſ	Rc1/8	3	ı	Rc1/4	ļ		Rc1/4	1	F	Rc1/4		F	Rc1/4	4
Mount	ing Bolt	M4×	<0.72	×25	M42	×0.7	′×30	M5	×0.8	×35	M52	<0.8	×40	Ν	16×4	15	N	18×5	55	М	10×	65	M	12×7	75	M1	12×	90
0-1	ring	1	1BP5			1BP	5		1BP5			1BP5			1BP5	5		1BP7	,		1BP7	,		1BP7		1	IBP7	7
Sprir	ng Pin	¢	63×8	8	(	φ3×	8		φ3×	8	¢	5×1	2	¢	55×1	12	¢	6×1	12	¢	6×1	12	φ	8×1	6	φ1	10×	20
,	V		3			3			3			5			5			5			5			5			5	
We	ight kg	0.15	0.15	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.5	0.6	0.6	0.7	1	1	1.2	1.7	1.5	1.8	2.5	2.2	2.8	3.8	3.2	4	5.5

High-Power Series

**Pneumatic Series** 

Hydraulic Series

Valve / Coupler Hydraulic Unit

Manual Operatio

Cautions / Others

Screw Locator

VXF/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

WNZ-SQ TNZ-S

TNZ-SQ

Pressure Switch

- 30/

Pressure Gauge

JGA/JGB

Manifold JX

Coupler Switch PS

## Manifold Block / Nut

Model DZ-R

Model DZ-C

Model DZ-P

Model DZ-B

Model LZ-S

Model LZ-SQ

Model WNZ-SQ

Model TNZ-S

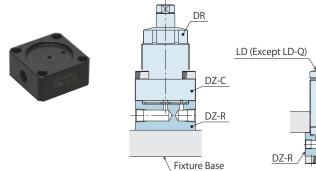
Model TNZ-SQ



## Applicable Model/Application Examples

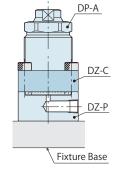
Model **DZ-R**Manifold Block for DR/LD/WNC

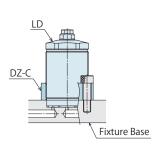
Corresponding Model: DR / LD / WNC



Model **DZ-C**Flanged Nut for
DP/DR/DS/DT/LD/WNC

Corresponding Model: DP / DR / DS / DT / LD / WNC





Fixture Base



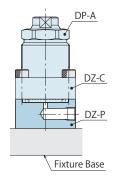
### Applicable Model/Application Examples

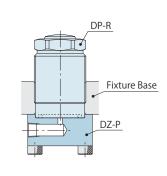
 $\mathsf{Model}\, DZ\text{-}P$ 

## Manifold Block for DP

Corresponding Model: DP





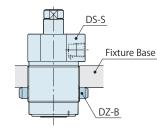


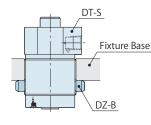
Model DZ-B

# Bulkhead Nut for DP/DR/DS/DT

Corresponding Model: DP / DR / DS / DT







Model LZ-S

### Manifold Block for LD/WNC

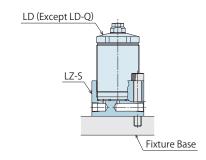
Corresponding Model:LD/WNC

Model TNZ-S

Manifold Block for TNC

Corresponding Model: TNC





 $\mathsf{Model}\,\boldsymbol{LZ}\text{-}\boldsymbol{SQ}$ 

Manifold Block for LD-Q

Corresponding Model:LD-Q

Model WNZ-SQ

Manifold Block for WNC-Q

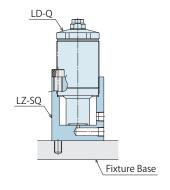
Corresponding Model: WNC-Q

Model TNZ-SQ

Manifold Block for TNC-Q

Corresponding Model:TNC-Q





High-Power Series

Pneumatic Series

Hydraulic Series

Valve / Coupler

Hydraulic Unit

Accessories

Cautions / Others

Screw Locator

VXF/VXE

Manual Expansion Locating Pin

VX

Manifold Block

LZY-MD
LZ-MS
LZ-MP

TMZ-1MB
TMZ-2MB
DZ-M

lanifold Block / lut

DZ-R

DZ-P

DZ-B LZ-S

LZ-SQ

TNZ-S

TNZ-SO

Pressure Switch JBA

Pressure Gauge

JGA/JGB

Manifold

Coupler Switch

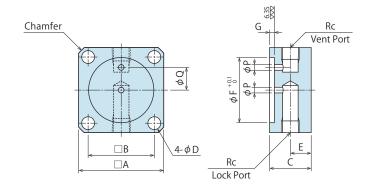
PS

### Manifold Block for DR/LD/WNC

Model No. Indication

DZ 036
Size
(Refer to following table)

O Design No. (Revision Number)



(mm)

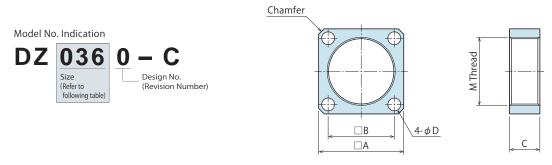
Model No.	DZ0220-R	DZ0240-R	DZ0260-R	DZ0300-R	DZ0360-R	DZ0450-R	DZ0550-R	DZ0600-R	DZ0650-R	DZ0800-R
Corresponding	DR0221	DR0241	-	DR0301	DR0361	DR0451	DR0551	-	DR0651	DR0801
Model No.	LD0222*1	-	LD0262 <sup>*1</sup>	LD0302*1	LD0362*1	LD0452*1	-	-	-	-
Model No.	WNC0350	-	WNC0600	WNC1000	WNC1600	WNC3000	-	WNC6000	-	-
Α	28	32	35	38	45	55	70	75	80	90
В	21	23	26	29	35	42	54	59	62	72
С	19	19	19	22	22	25	25	25	25	28
D	4.5	5.5	5.5	5.5	6.8	9	11	11	14	14
Е	9.5	9.5	9.5	11	11	12.5	12.5	12.5	12.5	14
F	20.5	22.5	24.5	28.5	34.5	43.5	53	58	63	78
G	2.5	2.5	2.5	2.5	2.5	3.5	3.5	3.5	3.5	4
Р	2	3	2.5	3	3	5	5	5	5	5
Q	7	7.5	9.5	10	12.5	15	19	24	24	30
Rc	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc1/4
Chamfer	C2	C3	C3	C3	C3	C4	C5	C4	C5.5	C5.5
Weight kg	0.1	0.2	0.2	0.2	0.3	0.6	0.8	0.9	1.0	1.5

Notes: 1. Material:S45C

Surface Finishing: Alkaline Blackening

- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
- %1. It is not applicable for LD-Q:Work Support Hydraulic Advance Long Stroke Option. (Please select from LZ-SQ.)

## Flange Nut for DP/DR/DS/DT/LD/WNC



(mm)

Model No.	DZ0160-C	DZ0220-C	DZ0240-C	DZ0260-C	DZ0300-C	DZ0360-C	DZ0450-C	DZ0550-C	DZ0600-C	DZ0650-C	DZ0800-C
	DP0160	DP0221	DP0241	-	DP0301	DP0361	DP0451	DP0551	-	DP0651	DP0801
	-	DR0221	DR0241	-	DR0301	DR0361	DR0451	DR0551	-	DR0651	DR0801
Corresponding	-	DS0221	DS0241	-	DS0301	DS0361	DS0451	DS0551	-	DS0651	DS0801
Model No.	-	-	-	-	-	DT0361	DT0451	DT0551	-	DT0651	DT0801
	-	LD0222	-	LD0262	LD0302	LD0362	LD0452	-	-	-	-
	-	WNC0350	-	WNC0600	WNC1000	WNC1600	WNC3000	-	WNC6000	-	
Α	25	28	32	35	38	45	55	70	75	80	90
В	18	21	23	26	29	35	42	54	59	62	72
С	12	14	14	14	15	16	18	20	22	25	25
D	4.5	4.5	5.5	5.5	5.5	6.8	9	11	11	14	14
$M \; (Nominal \times Pitch)$	M16×1.5	M22×1.5	M24×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M55×2	M60×2	M65×2	M80×2
Chamfer	C2	C2	C3	C3	C3	C3	C4	C5	C4	C5.5	C5.5
Weight kg	0.04	0.04	0.06	0.07	0.08	0.1	0.2	0.4	0.45	0.5	0.6

Notes: 1.

- 1. Material:S45C
- Surface Finishing: Alkaline Blackening
- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.



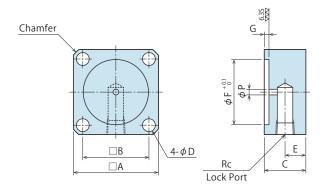
#### Manifold Block for DP

Model No. Indication

DZ 036
Size
(Refer to following table)

O – P

Design No.
(Revision Number)



									(mm)
Model No.	DZ0160-P	DZ0220-P	DZ0240-P	DZ0300-P	DZ0360-P	DZ0450-P	DZ0550-P	DZ0650-P	DZ0800-P
Corresponding Model No.	DP0160	DP0221	DP0241	DP0301	DP0361	DP0451	DP0551	DP0651	DP0801
А	25	28	32	38	45	55	70	80	90
В	18	21	23	29	35	42	54	62	72
С	19	19	19	22	22	25	25	25	28
D	4.5	4.5	5.5	5.5	6.8	9	11	14	14
Е	9.5	9.5	9.5	11	11	12.5	12.5	12.5	14
F	14.5	20.5	22.5	28.5	34.5	43.5	53	63	78
G	1.5	2.5	2.5	2.5	2.5	3.5	3.5	3.5	4
Р	3	3	3	3	3	5	5	5	5
Rc	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc1/4	Rc1/4
Chamfer	C2	C2	C3	С3	С3	C4	C5	C5.5	C5.5
Weight kg	0.1	0.1	0.2	0.2	0.3	0.6	0.8	1.0	1.5
Natas 1 Mat	- wi- 1 · C 4 F C	Cfo an Fin		a Dia alcandina					

Notes:

- 1. Material:S45C
- Surface Finishing: Alkaline Blackening
- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

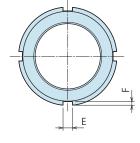
## Bulkhead Nut for DP/DR/DS/DT

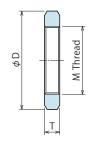
Model No. Indication

DZ 036

Size (Refer to following table)







(mm)

									(111111)
Model No.	DZ0160-B	DZ0220-B	DZ0240-B	DZ0300-B	DZ0360-B	DZ0450-B	DZ0550-B	DZ0650-B	DZ0800-B
	DP0160	DP0221	DP0241	DP0301	DP0361	DP0451	DP0551	DP0651	DP0801
Corresponding	-	DR0221	DR0241	DR0301	DR0361	DR0451	DR0551	DR0651	DR0801
Model No.	_	DS0221	DS0241	DS0301	DS0361	DS0451	DS0551	DS0651	DS0801
	_	_	_	_	DT0361	DT0451	DT0551	DT0651	DT0801
D	25	32	38	45	52	65	75	85	105
Е	4	5	5	5	5	6	7	7	8
F	2	2	2	2	2	2.5	3	3	3.5
M (Nominal×Pitch)	M16×1.5	M22×1.5	M24×1.5	M30×1.5	M36×1.5	M45×1.5	M55×2	M65×2	M80×2
T	5	6	7	7	8	10	11	12	15
Weight kg	0.02	0.03	0.03	0.05	0.08	0.1	0.2	0.3	0.5

Note: 1. Material: S45C

Surface Finishing: Alkaline Blackening

High-Power Series

Pneumatic Series

Hydraulic Series

Valve / Coupler Hydraulic Unit

Manual Operatio

Cautions / Others

Screw Locator

VXF/VXE

Manual Expansion
Locating Pin

Manifold Block

VX

LZY-MD LZ-MS LZ-MP TMZ-1MB TMZ-2MB

Manifold Block / Nut

DZ-R
DZ-C
DZ-P
DZ-B
LZ-S
LZ-SQ
WNZ-SQ

WNZ-SQ TNZ-S TNZ-SQ

Pressure Switch

Pressure Gauge JGA/JGB

Manifold JX

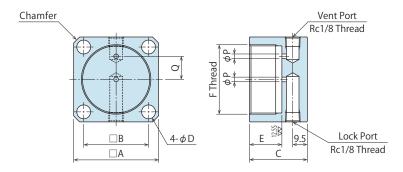
Coupler Switch

#### Manifold Block for LD/WNC

Model No. Indication

LZ 036 (Refer to

Design No. (Revision Number) following table)

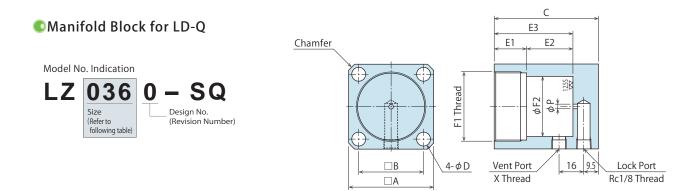


(mm)

Model No.	LZ0220-S	LZ0260-S	LZ0300-S	LZ0360-S	LZ0450-S	LZ0600-S
Corresponding	LD0222 (Except -Q)*1	LD0262 (Except -Q)*1	LD0302 (Except -Q)**1	LD0362 (Except -Q)*1	LD0452 (Except -Q)**1	-
Model No.	WNC0350 (Except -Q)*2	WNC0600 (Except -Q)*2	WNC1000 (Except -Q)*2	WNC1600 (Except -Q)*2	WNC3000 (Except -Q)*2	WNC6000 (Except -Q)*2
А	28	35	38	45	55	75
В	21	26	29	35	42	59
С	30.5	32.5	33.5	34.5	37.5	41.5
D	4.5	5.5	5.5	6.8	9	11
Е	14	16	17	18	21	25
F (Nominal × Pitch)	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
Р	2	2.5	3	3	3	3
Q	7	9.5	11	13	15	24
Chamfer	C2	C3	C3	C3	C4	C4
Weight kg	0.12	0.20	0.24	0.34	0.52	1.12

Notes: 1. Material:S45C

- Surface Finishing: Alkaline Blackening
- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
- %1. It is not applicable for LD-Q: Work Support Hydraulic Advance Long Stroke Option. (Please select from LZ-SQ.)
- \*\*2. It is not applicable for WNC-Q: High-Power Pneumatic Work Support Pneumatic Advance Long Stroke Option. (Please select from WNZ-SQ.)



(mm)

Model No.	LZ0220-SQ	LZ0260-SQ	LZ0300-SQ	LZ0360-SQ	LZ0450-SQ
Corresponding Model No.	LD0222-Q*2	LD0262-Q*2	LD0302-Q**2	LD0362-Q <sup>**2</sup>	LD0452-Q <sup>*2</sup>
Α	28	35	38	45	55
В	21	26	29	35	42
С	50	49.5	53	60.5	67.5
D	4.5	5.5	5.5	6.8	9
E1	14	16	17	18	21
E2	19.5	17	19.5	26	30
E3	33.5	33	36.5	44	51
F1 (Nominal×Pitch)	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5
F2	16	20	24	30	39
Р	3	3	3	3	3
X Thread	M5×0.8	Rc1/8	Rc1/8	Rc1/8	Rc1/8
Chamfer	C2	C3	C3	C3	C4
Weight kg	0.21	0.31	0.38	0.58	0.89

Surface Finishing: Alkaline Blackening

- 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
- \*\*2. It is not applicable for LD-EQ: Work Support Spring Advance Long Stroke Option. (Please select from LZ-S.)



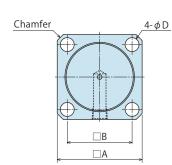
### Manifold Block for WNC-Q

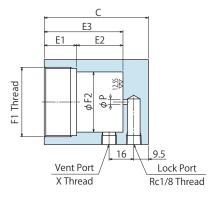
Model No. Indication

WNZ

035
Size
(Refer to following table)







(mm)

Model No.	WNZ0350-SQ	WNZ0600-SQ	WNZ1000-SQ	WNZ1600-SQ	WNZ3000-SQ	WNZ6000-SQ
Corresponding Model No.	WNC0350-Q	WNC0600-Q	WNC1000-Q	WNC1600-Q	WNC3000-Q	WNC6000-Q
А	28	35	38	45	55	75
В	21	26	29	35	42	59
C	49	51	52	56	59	68
D	4.5	5.5	5.5	6.8	9	11
E1	14	16	17	18	21	25
E2	18.5	18.5	18.5	21.5	21.5	26.5
E3	32.5	34.5	35.5	39.5	42.5	51.5
F1 (Nominal×Pitch)	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
F2	16	20	24	30	39	53
Р	3	3	3	3	3	3
X Thread	M5×0.8	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8
Chamfer	C2	C3	C3	C3	C4	C4
Weight kg	0.20	0.32	0.37	0.55	0.79	1.75

Notes: 1. Material:S45C Surface Finishing: Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

High-Power Series

Pneumatic Series

Hydraulic Series

Valve / Coupler Hydraulic Unit

Manual Operation Accessories

Cautions / Others

Screw Locator

VXF/VXE

Manual Expansion Locating Pin

VX

Manifold Block

WHZ-MD

LZY-MD

LZ-MP
TMZ-1MB
TMZ-2MB
DZ-M

lanifold Block / ut

> DZ-R DZ-C

DZ-P

DZ-B

LZ-S LZ-SQ

WNZ-SQ TNZ-S

TNZ-SQ

Pressure Switch

Pressure Gauge JGA/JGB

Manifold

JX

Coupler Switch PS

#### Manifold Block for TNC φ 17.<u>5</u> Vent Port G1/8 Thread Chamfer Model No. Indication TNZ 060 M Thread O P P (Refer to following table) (Revision Number) Lock Port Ε 9.5 $\square B$

 $\Box A$ 

 $4-\phi D$ 

(mm)

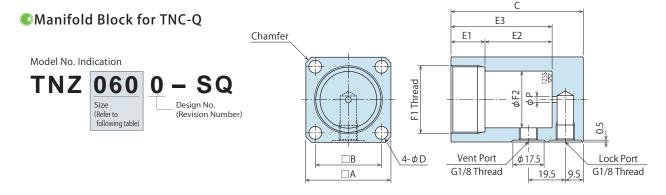
G1/8 Thread

Model No.	TNZ0400-S	TNZ0600-S	TNZ1000-S	TNZ1600-S
Corresponding Model No.	TNC0400 (Except -Q)*3	TNC0600 (Except -Q)*3	TNC1000 (Except -Q)*3	TNC1600 (Except -Q)*3
А	35	38	45	55
В	26	29	35	42
С	32.5	33.5	34.5	37.5
D	5.5	5.5	6.8	9
E	16	17	18	21
M (Nominal×Pitch)	M26×1.5	M30×1.5	M36×1.5	M45×1.5
Р	2.5	3	3	3
Q	9.5	11	13	15
Chamfer	C3	C3	C3	C4
Weight kg	0.20	0.23	0.34	0.52

Notes: 1. Material:S45C Surface Finishing: Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

\*3. It is not applicable for TNC-Q: Work Support Hydraulic Advance Long Stroke Option. (Please select from TNC-SQ.)



(mm)

Model No.	TNZ0400-SQ	TNZ0600-SQ	TNZ1000-SQ	TNZ1600-SQ
Corresponding Model No.	TNC0400-Q	TNC0600-Q	TNC1000-Q	TNC1600-Q
Α	35	38	45	55
В	26	29	35	42
C	56	63.5	70	86.5
D	5.5	5.5	6.8	9
E1	16	17	18	21
E2	23.5	30	35.5	49
E3	39.5	47	53.5	70
F1 (Nominal×Pitch)	M26×1.5	M30×1.5	M36×1.5	M45×1.5
F2	20	24	30	39
Р	2.5	3	3	3
Chamfer	C3	C3	C3	C4
Weight kg	0.36	0.46	0.68	1.16

Notes: 1. Material:S45C Surface Finishing: Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.



MEMO

High-Power Series Pneumatic Series

Hydraulic Series

Valve / Coupler Hydraulic Unit

Manual Operation Accessories

Cautions / Others

Screw Locator VXF/VXE

Manual Expansion Locating Pin

٧X

Manifold Block WHZ-MD

LZY-MD LZ-MS LZ-MP

TMZ-1MB TMZ-2MB

DZ-M

Manifold Block

DZ-R

DZ-C DZ-P

DZ-B LZ-S

LZ-SQ

WNZ-SQ

TNZ-S

Pressure Switch

Pressure Gauge

JGA/JGB

Manifold

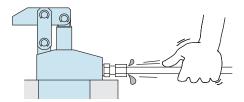
JX

Coupler Switch PS

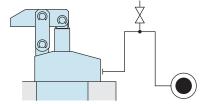
#### Cautions

#### 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.
- Please implement piping construction in a clear environment to prevent anything getting in products.
- 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 Shake the pipeline to loosen the outlet of pipe fitting. Hydraulic fluid mixed with air comes out.



- ④ Tighten the cap nut after bleeding.
- It is more effective to release 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

	15	60 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	

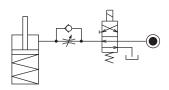
 $\label{thm:please} \mbox{Note: Please contact manufacturers when customers require products in the list above.}$ 

## Notes on Hydraulic Cylinder Speed Control Unit

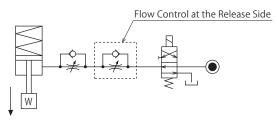


Please pay attention to the cautions below. Design the hydraulic circuit for controlling the action speed of hydraulic cylinder. Improper circuit design may lead to malfunctions and damages. Please review the circuit design in advance.

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.

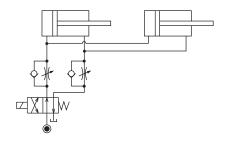


Accelerated clamping speed by excessive hydraulic flow to the cylinder may sustain damage. In this case add flow control to regulate flow. (Please add flow control to release flow if the lever weight is put on at the time of release action when using swing clamps.)

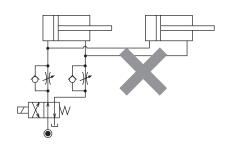


■ Flow Control Circuit for Double Acting Cylinder
Flow control circuit for double acting cylinder should have meter-out
circuits for both the lock and release sides. Meter-in control can
have adverse effect by presence of air in the system.
However, in the case of controlling LKE, TMA, TLA, both lock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

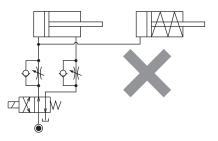


[Meter-in Circuit] (LKE/TMA/TLA must be controlled with meter-in.)



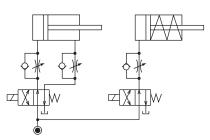
In the case of meter-out circuit, the hydraulic circuit should be designed with the following points.

 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.

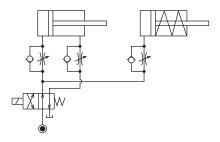


Refer to the following circuit when both the single acting cylinder and double acting cylinder are used together.

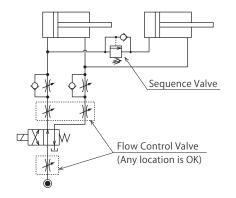
 $\bigcirc$  Separate the control circuit.



O 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

**Pneumatic Series** 

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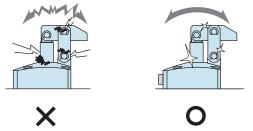
- 1) It should be operated by qualified personnel.
- The hydraulic machine and air compressor should be operated and maintained by qualified personnel.
- Do not operate or remove the product unless the safety protocols are ensured.
- ① The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.
- ② Before the product is removed, make sure that the above-mentioned safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
- ③ After stopping the product, do not remove until the temperature drops.
- 4 Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.
- Do not touch a clamp (cylinder) while it is working.
   Otherwise, your hands may be injured due to clinching.



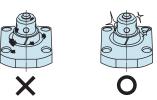
- 4) Do not disassemble or modify.
- If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.

#### Maintenance and Inspection

- 1) Removal of the Machine and Shut-off of Pressure Source
- Before the machine is removed, make sure that safety devices and preventive devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
- 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 and fluid leakage.



- Please clean out the reference surfaces on a regular basis (taper reference surface and seating surface) of the locating products. (VS/VT/VFL/VFM/VFJ/VFK/WVS/VWM/VWK/VX/VXE/VXF)
- The locating products, except VX/VXE/VXF model, can remove contaminants with cleaning functions. However, hardened cutting chips, adhesive coolant and others may not be removed. Make sure there are no contaminants before installing a workpiece/pallet.
- Continuous use with contaminant on components will lead to locating accuracy failure, malfunction and fluid leakage.



- 4) If disconnecting by couplers, air bleeding should be carried out on a regular basis to avoid air mixed in the circuit.
- 5) Regularly tighten nut, bolt, pin, cylinder, pipe line and others to ensure proper use.
- 6) Make sure the hydraulic fluid has not deteriorated.
- 7) Make sure there is a smooth action without an irregular 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 operated in an 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.
- $\ensuremath{\mathfrak{D}}$  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.
- $\ensuremath{{\ensuremath{\bigcirc}}}$  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.



High-Power Series

**Pneumatic Series** 

Hydraulic Series

Valve / Coupler Hydraulic Unit

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## **Sales Offices**

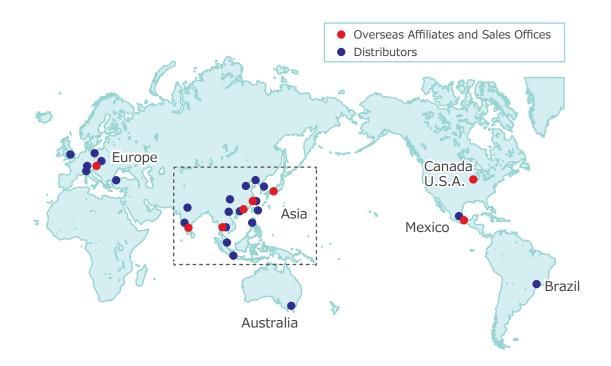
## Sales Offices across the World

JAPAN HEAD OFFICE Overseas Sales	TEL. +81-78-991-5162 KOSMEK LTD. 1-5, 2-chome, Murotani, Nis 〒651-2241 兵庫県神戸市西区室谷2丁目1番5	, , , , , , , , , , , , , , , , , , , ,
United States of America SUBSIDIARY KOSMEK (USA) LTD.	<b>TEL.</b> +1-630-620-7650 650 Springer Drive, Lombard, IL 60148 US	FAX. +1-630-620-9015
MEXICO REPRESENTATIVE OFFICE KOSMEK USA Mexico Office	<b>TEL.</b> +52-442-161-2347  Av. Santa Fe #103 int 59 Col. Santa Fe Juri	iquilla C.P. 76230 Queretaro, Qro Mexico
EUROPE SUBSIDIARY KOSMEK EUROPE GmbH	TEL. +43-463-287587 Schleppeplatz 2 9020 Klagenfurt am Wör	FAX. +43-463-287587-20
CHINA KOSMEK (CHINA) LTD. 考世美(上海)貿易有限公司	TEL. +86-21-54253000 Room601, RIVERSIDE PYRAMID No.55, Lar 中国上海市浦东新区浦三路21弄55号银亿滨江中	FAX. +86-21-54253709 ne21, Pusan Rd, Pudong Shanghai 200125, China n心601室 200125
INDIA BRANCH OFFICE KOSMEK LTD - INDIA	<b>TEL.</b> +91-9880561695 F 203, Level-2, First Floor, Prestige Center	Point, Cunningham Road, Bangalore -560052 India
THAILAND REPRESENTATIVE OFFICE KOSMEK Thailand Representation Office	<b>TEL.</b> +66-2-300-5132 67 Soi 58, RAMA 9 Rd., Suanluang, Suanlu	FAX. +66-2-300-5133 lang, Bangkok 10250, Thailand
TAIWAN (Taiwan Exclusive Distributor) Full Life Trading Co., Ltd. 盈生貿易有限公司	TEL. +886-2-82261860 16F-4, No.2, Jian Ba Rd., Zhonghe District, New 台湾新北市中和區建八路2號 16F-4(遠東世紀)	• •
PHILIPPINES (Philippines Exclusive Distributor) G.E.T. Inc, Phil.	TEL. +63-2-310-7286  Victoria Wave Special Economic Zone Mt. Apo Buildin	FAX. +63-2-310-7286 g, Brgy. 186, North Caloocan City, Metro Manila, Philippines 1427
INDONESIA (Indonesia Exclusive Distributor)	TEL. +62-21-29628607	FAX. +62-21-29628608

## Sales Offices in Japan

Head Office Osaka Sales Office	TEL. 078-991-5162	FAX. 078-991-8787
Overseas Sales	〒651-2241 兵庫県	神戸市西区室谷2丁目1番5号
Talua Calas Office	TEL. 048-652-8839	FAX. 048-652-8828
Tokyo Sales Office	〒331-0815 埼玉県	さいたま市北区大成町4丁目81番地
Nagova Salos Offico	TEL. 0566-74-8778	FAX. 0566-74-8808
Nagoya Sales Office	,,	FAX. 0566-74-8808 安城市美園町2丁目10番地1
Nagoya Sales Office  Fukuoka Sales Office	,,	

## **Global Network**



## Asia Detailed Map





