











Free Guide Arms / Measurements and Inspection Instrument Mounting Components - Overview

MISUMI offers many parts suitable for mounting measurement instruments, lenses and lights for experiments and examinations on factory floors such as Free Guide Arms which make adjusting of instrument positions, Magnetic Bases as the bases for Free Guide Arms or Free Guide Arms Shafts, and holders for mounting dial indicators.

Types and Features of Free Guide Arms

Shape	Free Guide Arms			Flexible Arms	Free Angle Arms	
	Fixed Arm	Flex-Arm	Mechanical Locking Flex-Arm			
						
Features	There are 3 movable sections. Each can be adjusted freely. By fixing only one dial, 3 movable sections can be locked simultaneously. The Fixed Arm bears large allowable load at locked state, therefore, it is suitable for mounting measurement instruments, sensors and lightings.	The arm can be adjusted into shapes freely. Not suitable for mounting heavy loads due to the lack of locking mechanism, but well suited for mounting light objects such as lens and lights, and frequently moving them with good adjustability.	The arm can be adjusted into shapes freely. The arm can be retained in desired shapes by tightening the nuts for holding the lock lever up. As it is more flexible than the Fixed Arm and can support larger loads than the Flexible Arm, it is suitable for adjusting and locking at the same time.	Although the arm can be adjusted into shapes freely, it is not suitable for mounting heavy loads as no lock function is provided. It can be mounted on various devices as the item is sold separately. Also, the length and screw diameter are selectable.	Each joint angle can be adjusted in shape as desired. The unit quantities are also selectable, so use it with the necessary length.	
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Measurements/Inspection Instrument Mounting Components - Overview


Product Name	Bases	Mounting Clamps			Holders
	Magnetic Bases	Shaft Mounts	Dial Mounts	Indicator Mounts	Dial Holders
Appearance					
Features	Compact but generates strong attraction force by using Neodymium Iron Boron Magnets. Smaller sizes such as 30SQ are available.	Mounts for adjusting angles and fixing 2 shafts. Highly efficient Spring Built-in Types are also offered.	Mounts for mounting Dial Gauges. Adjust the gauge angle and turn the knurled screw to fix it.	Mounts for mounting Indicators. The angle adjustment for the tip can be done by turning the knurled screw.	As the dial holder is fixed by tightening the spindle of the dial gauge, mounting does not damage the spindle.
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Free Guide Arm Sets

Fixed Arm / Flex-Arm / Mechanical Locking Flex-Arm

■Features: A set of a Free Guide Arm and a Magnetic Base. Suitable for holding measurement instruments, sensors and lights with easy adjustment. For Arm only, **P2035**

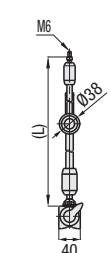
■Fixed Arm



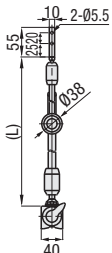
RoHS

■Fixed Arm

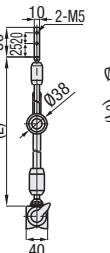
FGPMA
Tip Tapped



FGPMB
Tip Holder Through Hole



FGPMC
Tip Holder Tapped Hole



Material: Body SUM22, Magnet Base SS400, Neodymium Magnet, ABS
Surface Treatment: Main Body Electroless Nickel Plating, Magnetic Base Paint Finish


ⓂMaterial: Body SUM22, Magnet Base SS400, Neodymium Magnet, ABS
ⓈSurface Treatment: Main Body Electroless Nickel Plating, Magnetic Base Paint Finish

■Mechanical Locking Flex-Arm: Locking Method

- To lock, (1) Turn the nut ① counterclockwise. (2) Turn the nut ② counterclockwise. (3) Lift up the lock lever ③ from Left to Up and lock.
- To unlock, (1) Push down the lock lever ③ from Up to Left. (2) Turn the nut ② counterclockwise. (3) Turn the nut ① clockwise and unlock.

■Flex-Arm

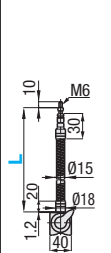
■Mechanical Locking Flex-Arm




RoHS

■Flex-Arm

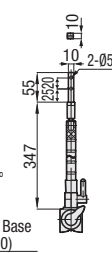
FGLMA
Tip Tapped



FGFMB
Tip Holder Through Hole



FGFMC, FGFKC
Electroless Nickel Plating Black Oxide Tip Holder Tapped Hole



Material: Main Body SUM22, Magnetic Bases SS400, Neodymium Magnet, ABS
Surface Treatment: Main Body Electroless Nickel Plating Black Oxide, Magnetic Base Paint Finish

■Mechanical Locking Flex-Arm: Locking Method

- To lock, (1) Turn the nut ① counterclockwise. (2) Turn the nut ② counterclockwise. (3) Lift up the lock lever ③ from Left to Up and lock.
- To unlock, (1) Push down the lock lever ③ from Up to Left. (2) Turn the nut ② counterclockwise. (3) Turn the nut ① clockwise and unlock.

Fixed Arm

Part Number	Type	No.	(L)	(L1)	(L2)	h1	h2	Weight (kg)	Allowable Load (N) (Ref.)	Attraction Force (N)	FGPMA		FGPMB		FGPMC	
											Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
Tip Tapped (M6)	FGPMA	100	272	145	62	15	56	1.7	24.5	1000	1~4 pc(s)	5~10	1~4 pc(s)	5~10	1~4 pc(s)	5~10
Tip Holder Through Hole	FGPMB	200	432	228	142	17	68	1.9	17.6							
Tip Holder Tapped Hole	FGPMC															

Flex-Arm

Part Number	Type	L	Weight (kg)	Allowable Load (N) (Ref.)	Attraction Force (N)	FGLMA	
						Unit Price	Volume Discount Rate
Tip Tapped (M6)	FGLMA	200	0.8	3.9	800	1~4 pc(s)	5~10
		300	0.9	2.0			

Mechanical Locking Flex-Arm

Part Number	Type	Weight (kg)	Allowable Load (N) (Ref.)	Attraction Force (N)	FGFMB		FGFMC		FGFKC	
					Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
Tip Holder Through Hole	FGFMB	1.1	4.9	800	1~4 pc(s)	5~10	1~4 pc(s)	5~10	1~4 pc(s)	5~10
Tip Holder Tapped Hole	FGFMC, FGFKC									

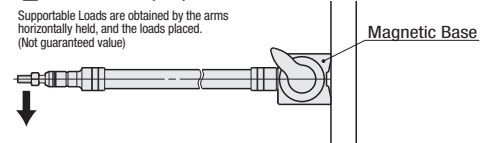
Ordering Example

Part Number

FGPMA100
FGLMA300
FGFMB

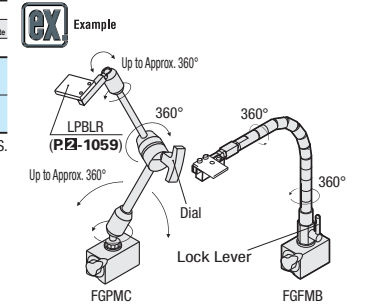
Allowable Load (Ref.)

Supportable Loads are obtained by the arms horizontally held, and the loads placed. (Not guaranteed value)



Example

LPBLR (P2-1059)



Up to Approx. 360°

360°

360°

360°

Dial

Lock Lever

FGPMC

FGFMB

■Features of Fixed Arms
By turning each of 3 movable sections freely and then fixing the dial, all movable sections can be fixed simultaneously.

■Features of Mechanical Locking Flex-Arm
While the lock lever is released, the arm can be adjusted into shapes freely. Engaging the lock lever maintains the desired shape.

For orders larger than indicated quantity, please check with WOS.

Magnetic Bases / Shaft Mounts / Dial Mounts

Indicator Mounts / Dial Holders

Features: Compact but achieves strong attraction forces by using the Neodymium Iron Boron Magnet. For Arm Sets, P2034

Magnetic Bases

MGNBS (No.20) **(No.40, 80, 100)**

Due to the wrinkle paint finish, B Dimension tolerance will be $+1.5$
Do not attach magnetic objects.

Name of Parts	Material	Surface Treatment
Main Body	SS400	Paint Finish
Magnet	Neodymium Magnet	-
Knob	ABS	-

Part Number Type	No.	Attraction Force N	A	B	L	(H)	C	D	M (Coarse)	Weight (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 20 pcs.
MGNBS	20	200	30	30	30	25	9	-	M6	200		
	40	400	40	40	42				M6	400		
	80	800	42	40	62	34	10	8	M8	700		
	100	1000	42	40	73				M8	800		

Shaft Mounts - Built-in Spring

KSHL D12, 16, 20

No d2 holes for D16 and D20. $d1 +0.15$
 $d2 +0.05$

Name of Parts	Material	Surface Treatment
Main Body	S45C	Black Oxide

Part Number Type	DH9	d1 Diameter Tolerance	d2	P	F	H	S	V	T	W	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 20 pcs.
KSHL	10	$+0.036$	8 $+0.05$	6	18.4	28	30	13	14	5	14	
	12	$+0.043$	10 H9 $+0.036$	-	24	26	35	16	20	8	20	
	16	$+0.043$	12 H9 $+0.043$	-	27.5	32	40	22	22	8	28	
	20	$+0.052$	12 H9 $+0.043$	-	38.5	40	50	28	28	10	30	

Shaft Mounts

MGNBSH

Name of Parts	Material	Surface Treatment
D (D=10, 12)	SK5	Black Oxide
D (D=16), D1	SUM22	Black Oxide
Knob	ABS	-

Part Number Type	D	D1	P	Weight (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 20 pcs.
MGNBSH	10	8	14	50		
		10				
	12	8	16.5	50		
		10				
	16	10	14	100		
		12				

Dial Mounts

MGNBSD

Name of Parts	Material	Surface Treatment
Ø10	SK5	Black Oxide
Main Body and Mounting Screw	SUM22	Black Oxide
Knob	ABS	-

Ordering Example

Part Number	D1
MGNBS80	
KSHL12	
MGNBSH12	8
MGNBSD	

Indicator Mounts

MGNBSK

Main Body of Fitting

Name of Parts	Material	Surface Treatment	Accessory
Main Body of Fitting	SUM22	Black Oxide	Reducer 1 pc.
Holder	Ø10 SK5	Black Oxide	(for Conversion from Ø8 to Ø6)
Knob	ABS	-	-

Holder

Tip angle can be adjusted by turning the knurl.

Part Number	Weight (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 20 pcs.
MGNBSK	170		

Features: As the dial holder is attached by clamping the spindle of the dial gauge with a collet-shaped sleeve, mounting does not damage the spindle.

Dial Holders

DGHL1

Name of Parts	Material	Surface Treatment
Dial Holders	SUP6 (Spring Steel)	Chrome Plating Sandblasted Finish

Example: Dial Gauge, DGHL1, Workpiece, Fixture

Part Number	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10 ~ 20 pcs.	Ordering Example	Part Number
DGHL1			Example	MGNBSK DGHL1

For orders larger than indicated quantity, please check with WOS.

Example

Combination of these app. examples can be selected on our website. Selection Procedure Details P87

e-Catalog Search Keyword #MA541 Search #MA542 Search

*Enter the search keyword in the search box on e-Catalog. The search result will be shown in "Modular Assembler" area.

Spacer Blocks

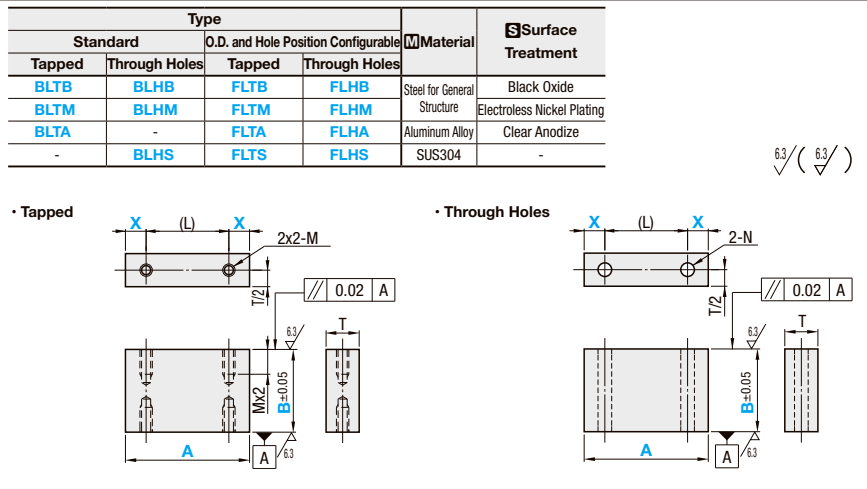
Tapped / Through Holes

■ **Features:** Block to adjust positions as a spacer.

■ Spacer Blocks



RoHS



■ Standard

Part Number	Type	No.	A Selection	B 5mm Increment		T			L	M	N
				Tapped	Through Holes	BLTB BLTM BLTA	BLHB BLHM BLHS	FLTB FLTM FLTA			
Tapped SS400 BLTB BLTM	Through Holes SS400 BLHB BLHM	4	32 38 60 75 100 125	15~80	10~50	9	10	L=A-(2X)	4	4.5	
A6063 BLTA	BLHS	5	60			12	12		5	5.5	
		6	75			16	15		6	6.5	
		8	100			22	20		8	9	

* X Dimension Details			
A	No.4, 5	No.6	No.8
32	6	7	8
38	6.5	8	9
60	10	10	10
100	12.5	12.5	12.5

♥ Taps go through when B≤4xM. When B≤6xM, the tap pilots go through.

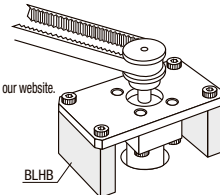
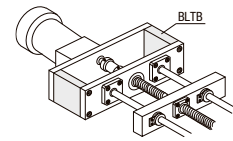
■ O.D. and Hole Position Configurable Type

Part Number	Type	No.	A 1mm Increment	B 1mm Increment		X 1mm Increment	T			L	M	N
				Tapped	Through Holes		FLTB FLTM FLTA	FLHB FLHM FLHA	FLTB FLTM FLTA			
Tapped SS400 FLTB FLTM	Through Holes SS400 FLHB FLHM	4	32 125	15~80	10~50	6~35	9	10	L=A-(2X)	4	4.5	
A6063 FLTA	FLHA	5					12	12		5	5.5	
SUS304 FLTS	FLHS	6					16	15		6	6.5	
		8					22	20		8	9	

♥ Taps go through when B≤4xM. When B≤6xM, the tap pilots go through. ♥ A-(2X)≥16

Ordering Example

Part Number	A	B	X
BLTB4	38	25	
BLHM8	60	30	
FLTM6	78	35	30



Alterations

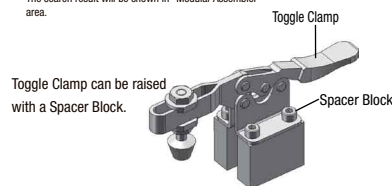
Part Number	A	B	X	(NC)
BLTA8	60	30		NC

Alterations	Code	Spec.
Omits Taps on One Side	NC	Omits tapped holes on one side. Ordering Code NC ♥ Applicable to Tapped Type only.



Combination of these app. examples can be selected on our website. Selection Procedure Details P87

e-Catalog Search Keyword #MA91 Search
* Enter the search keyword in the search box on e-Catalog. The search result will be shown in "Modular Assembler" area.



■ Standard

Part Number	Type	No.	A	Unit Price					
				Tapped			Through Holes		
				Min. B - 30	B35-60	B65-80	Min. B - 30	B35-60	B65-80
SS400D Black Oxide BLTB BLHB	4		32, 38						
			60, 75						
			100, 125						
	5		32, 38						
			60, 75						
			100, 125						
	6		32, 38						
			60, 75						
			100, 125						
	8		32, 38						
			60, 75						
			100, 125						
SS400D Electroless Nickel Plating BLTM BLHM	4		32, 38						
			60, 75						
			100, 125						
	5		32, 38						
			60, 75						
			100, 125						
	6		32, 38						
			60, 75						
			100, 125						
	8		32, 38						
			60, 75						
			100, 125						
A6063 Clear Anodize BLTA	4		32, 38						
			60, 75						
			100, 125						
	5		32, 38						
			60, 75						
			100, 125						
	6		32, 38						
			60, 75						
			100, 125						
	8		32, 38						
			60, 75						
			100, 125						
SUS304 BLHS	4		32, 38						
			60, 75						
			100, 125						
	5		32, 38						
			60, 75						
			100, 125						
	6		32, 38						
			60, 75						
			100, 125						
	8		32, 38						
			60, 75						
			100, 125						

■ O.D. and Hole Position Configurable Type

Part Number	Type	No.	A	Unit Price					
				Tapped			Through Holes		
				Min. B - 34	B35-64	B65-80	Min. B - 34	B35-64	B65-80
SS400D Black Oxide FLTB FLHB	4		32~38						
			39~99						
			100~125						
	5		32~38						
			39~99						
			100~125						
	6		32~38						
			39~99						
			100~125						
	8		32~38						
			39~99						
			100~125						
SS400D Electroless Nickel Plating FLTM FLHM	4		32~38						
			39~99						
			100~125						
	5		32~38						
			39~99						
			100~125						
	6		32~38						
			39~99						
			100~125						
	8		32~38						
			39~99						
			100~125						
A6063 Clear Anodize FLTA FLHA	4		32~38						
			39~99						
			100~125						
	5		32~38						
			39~99						
			100~125						
	6		32~38						
			39~99						
			100~125						
	8		32~38						
			39~99						
			100~125						
SUS304 FLTS FLHS	4		32~38						
			39~99						
			100~125						
	5		32~38						
			39~99						
			100~125						
	6		32~38						
			39~99						
			100~125						
	8		32~38						
			39~99						
			100~125						

Stand-Up Brackets

Side Mounting / Side Mounting, Dowel Hole / Side Mounting, Compact

Features: Easy mounting on transfer lines.



Type	Material	Surface Treatment	Accessory
CLTB	Steel for General Structure	Black Oxide	Hex Socket Head Cap Screw
CLPK	Steel for General Structure	Black Oxide	Hex Socket Head Set Screw
CLTM	Electroless Nickel Plating	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
CLTBM	Aluminum Alloy	Black Anodize	Hex Socket Head Cap Screw
CLTAM	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
CLTS	SUS304	-	Hex Socket Head Cap Screw (Stainless Steel)

Accessory: CB screws (P2-171) are included with black oxide/black anodized products, and SCB screws (P2-173) are included with the other products, respectively. Dowel pins (P2-255) are included with the product with dowel holes.

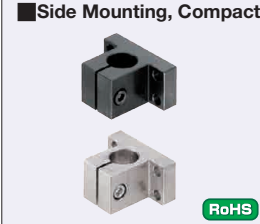
Included Dowel Pins:
 20 MSTM6-20
 25 MSTM8-20
 30 MSTM8-20
 35 MSTM8-20
 40 MSTM10-30
 50 MSTM10-30

Part Number	Type	DH7	Unit Price												Included Screw	Side Mounting, Dowel Hole																	
			A	B	L	T	F	G	K	h	H	E	d	d1		Z	MA	W	PH7	Tolerance	CLTB	CLTM	CLTBM	CLTAM	CLTS	CLPK	CLPM						
Side Mounting, Dowel Holes	10	$+0.015$	40	35	32	10	30	18	4.4	15	10.5	20	5	8	4.5	M4	2	-	M4-15, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-			
	12	$+0.018$	44	40	38	12	34	18	5.5	14	11.5	22	5.5	9	5.5	M5	2	-	M5-15, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-			
	15	0	50	40	38	12	38	20	6.6	18	12.5	25	6.6	11	6.5	M6	2	-	M6-15, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-		
	20	$+0.021$	65	45	45	12	50	25	6.6	22	15	30	6.6	11	6.5	M6	2	$+0.012$	M6-20, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-		
	25	0	80	50	45	12	60	30	7	27	18	35	7	14	9	M8	2	$+0.015$	M6-25, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	
Side Mounting, Compact	30	0	90	60	15	70	36	9	30	21	45	9	14	9	M8	2	0	M8-35, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-		
	35	$+0.025$	105	60	15	80	40	11	35	24	50	9	14	9	M8	3	$+0.015$	M8-40, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	40	0	115	80	15	90	40	11	38	27	60	11	17.5	11	M10	3	0	M10-45, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	40	0	135	100	18	105	50	14	43	33	70	11	17.5	11	M10	3	0	M10-50, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	0	135	100	18	105	50	14	43	33	70	11	17.5	11	M10	3	0	M10-50, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ordering Example: Part Number CLTB35 CLPM30

RoHS

Features: Compact Stand-Up Brackets 25 ~ 30% shorter in height, and approximately 10% narrower in width compared to standard Side Mounting Type (P2157).



Type	Material	Surface Treatment	Accessory
CLCB	Steel for General Structure	Black Oxide	Hex Socket Head Cap Screw
CLCNM	Steel for General Structure	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
CLCBM	Aluminum Alloy	Black Anodize	Hex Socket Head Cap Screw
CLCAM	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
CLCS	SUS304	-	Hex Socket Head Cap Screw (Stainless Steel)

Accessory: CB screws (P2-171) are included with black oxide/black anodized products, and SCB screws (P2-173) are included with the other products, respectively.

Part Number	Type	DH7	Unit Price												Included Screw	Side Mounting, Dowel Hole																			
			A	B	L	T	F	G	K	h	H	E	d	d1		Z	MA	W	PH7	Tolerance	CLCB	CLCNM	CLCBM	CLCAM	CLCS										
Side Mounting, Compact	20	$+0.021$	60	30	45	12	45	18	6.6	22	15	30	6.6	11	6.5	M6	2	-	M6-12, 1 pc.	-	-	-	-	-	-	-	-	-	-	-	-	-			
	25	0	73	45	53	12	54	30	9	27	18	35	9	14	9	M8	2	-	M6-25, 1 pc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	30	0	83	45	60	15	64	30	9	30	21	45	9	14	9	M8	2	-	M8-35, 1 pc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	35	$+0.025$	94	60	68	15	72	35	11	35	24	50	11	17.5	11	M10	3	-	M8-40, 1 pc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	40	0	104	76	76	18	82	45	14	38	27	60	11	17.5	11	M10	3	-	M10-45, 1 pc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	0	118	75	87	18	94	45	14	43	33	70	11	17.5	11	M10	3	-	M10-50, 1 pc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ordering Example: Part Number CLCB35

RoHS

Stand-Up Brackets

Side Mounting, Casting, Dowel Holes / Slotted Holes

Features: Up to 67% price reduction by cast-producing compared to the standard products (left-hand page).



Type	Material	Surface Treatment	Accessory
CLTBD	Steel for General Structure	Black Oxide	Hex Socket Head Cap Screw
CLPBD	Steel for General Structure	Black Oxide	Hex Socket Head Set Screw
CLTMD	Electroless Nickel Plating	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
CLPMD	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw (Stainless Steel)

Accessory: CB screws (P2-171) are included with black oxide or phosphate conversion coated products, and SCB screws (P2-173) are included with electroless nickel plated products. Dowel pins (P2-255) are included with the product with dowel holes.

Tolerance of Cast Products:
 A, B, L, E and T dimensions are for casting tolerance.
 Casting Tolerance Class CT12 for JISB0403

over	or Less	Tolerance
10	16	± 2.2
17	25	± 2.3
26	40	± 2.5
41	63	± 2.8
64	100	± 3.0
101	160	± 3.5

Included Dowel Pins:
 20 MSTM6-20
 25 MSTM8-20
 30 MSTM8-20
 35 MSTM8-20
 40 MSTM10-30
 50 MSTM10-30

* ± 0.01 of F/2 part is only applicable to hole pitch tolerance of dowel holes and not applicable to through holes.
 * B ends are milled for aesthetics.
 * L and T have 2 degrees of draft for cast-mold extraction.
 * Antirust oil is applied with black oxide or phosphate conversion coating and electroless nickel plating finish.

Part Number	Type	DH7	Unit Price												Included Screw	Side Mounting, Casting, Dowel Holes																			
			A	B	L	T	F	G	K	J	h	H	E	d		d1	Z	MA	W	PH7	Tolerance	CLTBD	CLTMD	CLPBD	CLPMD										
Side Mounting, Casting, Dowel Holes	20	$+0.021$	65	45	45	12	50	25	6.6	13	22	15	30	6.6	11	6.5	M6	2	$+0.012$	M6-20, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-		
	25	0	80	60	53	12	60	36	9	18	27	18	35	9	14	9	M8	2	-	M6-25, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-		
	30	0	90	60	60	15	70	36	9	20	30	21	45	9	14	9	M8	2	$+0.015$	M8-35, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Side Mounting, Casting, Slotted Holes	35	$+0.025$	105	80	68	15	80	40	11	20	35	24	50	11	17.5	11	M10	3	-	M8-40, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	40	0	115	80	76	18	90	40	11	20	38	27	60	11	17.5	11	M10	3	0	M10-45, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	0	135	100	87	18	105	50	14	24	43	33	70	11	17.5	11	M10	3	0	M10-50, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ordering Example: Part Number CLTBD20 CLPMD30

RoHS

Side Mounting, Slotted Holes

Type	Material	Surface Treatment	Accessory
CLNB	Steel for General Structure	Black Oxide	Hex Socket Head Cap Screw
CLNM	Steel for General Structure	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
CLNA	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw (Stainless Steel)
CLNS	SUS304	-	Hex Socket Head Cap Screw (Stainless Steel)

Accessory: For CLNB, CB Screws (P2-171), for others, SCB Screws (P2-173)

Part Number	Type	DH7	Unit Price												Included Screw	Side Mounting, Casting, Slotted Holes																			
			A	B	L	T	G	F	J	K	h	H	E	d		d1	Z	MA	W	PH7	Tolerance	CLNB	CLNM	CLNA	CLNS										
Side Mounting, Slotted Holes	20	$+0.021$	65	45	45	12	25	47.5	5.5	6.6	22	15	30	6.6	11	6.5	M6	2	-	M6-20, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-		
	25	0	80	60	53	12	36	57.5	7.5	9	27	18	35	9	14	9	M8	2	-	M6-25, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	30	0	90	60	60	15	40	67.5	9.5	11	30	21	45	9	14	9	M8	2	-	M8-35, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	35	$+0.025$	105	80	68	15	40	77.5	9.5	11	35	24	50	11	17.5	11	M10	3	-	M8-40, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	40	0	115	80	76	18	50	87.5	12.5	14	38	27	60	11	17.5	11	M10	3	-	M10-45, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	0	135	100	87	18	50	102.5	12.5	14	43	33	70	11	17.5	11	M10	3	-	M10-50, 2 pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ordering Example: Part Number CLNB25 CLNA20

RoHS

Round Strut Clamp

Equal Dia., Perpendicular Configuration

Application for design registration

■Features: Round strut clamp with highly efficient workability, capable of easy clamping by providing flats around the shaft bore. Maximum of 44% price reduction is possible compared to similar products (on the right page).

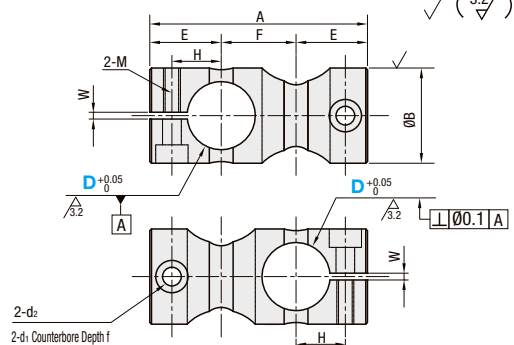
Equal Dia., Perpendicular Configuration

Type	Material	Surface Treatment	Accessory
C-KDST	S45C	Black Oxide	Hex Socket Head Cap Screw (Black Oxide)
C-MDKT	Equivalent	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
C-ALKD	Aluminum Alloy	Black Anodize	Hex Socket Head Cap Screw (Black Oxide)
C-HLKD	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw (Stainless Steel)

ⓈCB screws are included with the black oxide and black anodized products, and SCB screws are included with the other products.



RoHS

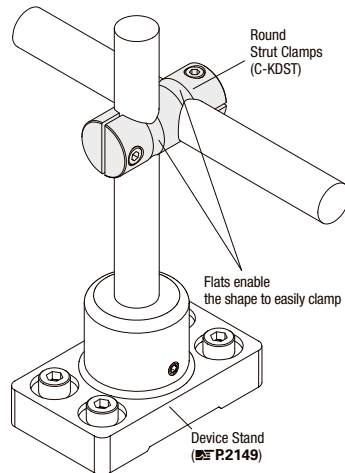


Part Number Type	D	A	B	E	F	H	W	M (Coarse)	Counterbore		
									d1	d2	f
Equal Dia., Perpendicular Configuration C-KDST C-MDKT C-ALKD C-HLKD	6	33	12	12.5	8	7.5	1	M3	6.5	3.4	3.3
	8	40	14	15	10	9	1	M4	8	4.5	4.4
	10	44	16	16	12	10	2	M4	8	4.5	4.4
	12	47	18	16.5	14	10.5	2	M4	8	4.5	4.4
	15	55	22	19	17	12.5	2	M5	9.5	5.5	5.4
	20	64	28	21	22	14.5	2	M5	9.5	5.5	5.4
25	77	32	25	27	17.5	2	M6	11	6.6	6.5	
30	87	38	27.5	32	20	2	M6	11	6.6	6.5	

- Ⓢ There is no D dimension 6 for C-KDST and C-MDKT.
- Ⓢ There is no D dimension 30 for C-ALKD and C-HLKD.
- Ⓢ The tolerance and perpendicularity of D^{H7} are before slitting.
- Ⓢ For mating, g6, f8 shaft tolerances are recommended.
- Ⓢ For overview of round strut clamp, refer to P2162

Ordering Example
Part Number
Example C-KDST20

Example



D	Unit Price			
	C-KDST	C-MDKT	C-ALKD	C-HLKD
6	-	-	-	-
8	-	-	-	-
10	-	-	-	-
12	-	-	-	-
15	-	-	-	-
20	-	-	-	-
25	-	-	-	-
30	-	-	-	-

Included Screw	
D	Included Screw
6	M3- 8
8	M4- 8
10	M4-10
12	M4-12
15	M5-15
20	M5-20
25	M6-22
30	M6-30

Strut Clamps

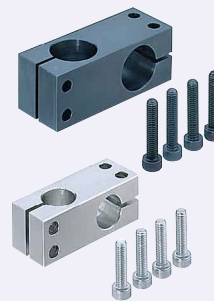
Equal Dia., Perpendicular Configuration / Reversed

■Features: Most common type of perpendicular configuration with equal diameter

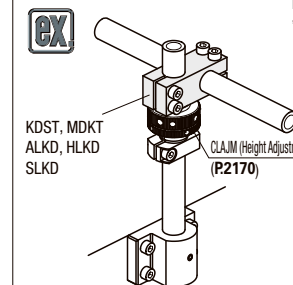
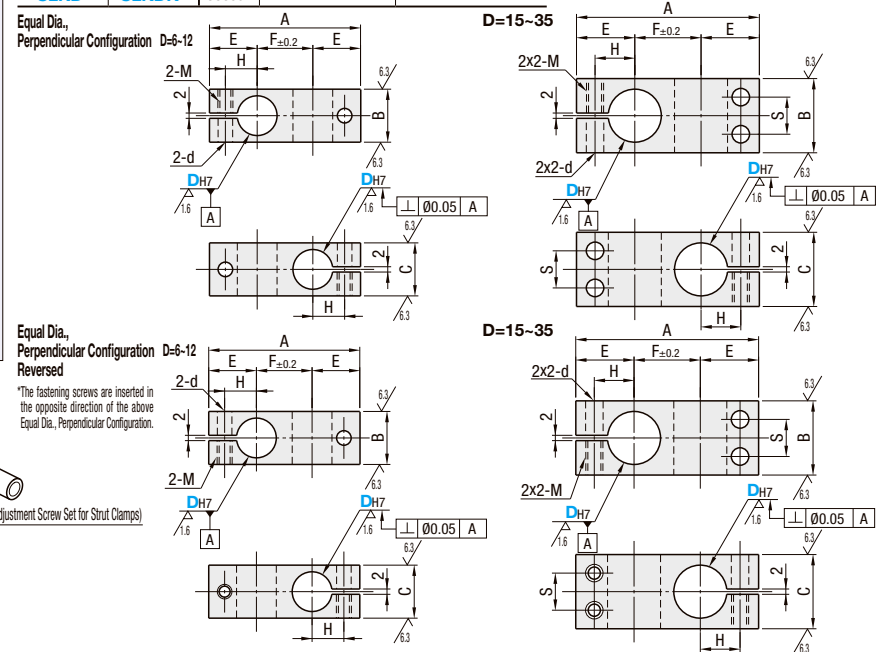
Equal Dia., Perpendicular Configuration / Equal Dia., Perpendicular Configuration, Reversed

Type	Material	Surface Treatment	Accessory
KDST	Steel for General Structure	Black Oxide	Hex Socket Head Cap Screw
MDKT	Steel for General Structure	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
ALKD	Aluminum Alloy	Black Anodize	Hex Socket Head Cap Screw
HLKD	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
SLKD	SUS304	-	Hex Socket Head Cap Screw (Stainless Steel)

ⓈCB screws are included with the black oxide and black anodized products, and SCB screws are included with the other products.



RoHS



Part Number Type	D	DH7	A	B	C	E	F	H	S	M (Coarse)	d
Equal Dia., Perpendicular Configuration, Reversed	8	+0.015	41	12	12	14	13	8	-	M5	5.5
	10	0	45	16	16	15	15	9	-		
C-KDST	12	+0.018	49	16	16	16	17	10	-	M5	5.5
	15	0	57	22	22	18	21	12	11		
C-MDKT	20	+0.021	69	28	28	22	25	15	14	M6	6.6
	16	0	83	32	32	25	33	18	16		
C-ALKD	25	0	95	40	40	29	37	21	20	M8	9
	30	+0.025	107	45	45	32	43	24	24		

- Ⓢ D Dimension for SLKD and SLKDK is available up to 30.
- Ⓢ The tolerance and perpendicularity of DH7 are before slitting.
- Ⓢ D Dimension 6 is not available for ALKD, ALKDK, HLKD, HLKDK, SLKD and SLKDK.
- Ⓢ D Dimension 16 is not available for HLKD and Reversed Type.
- Ⓢ For mating, g6, f8 shaft tolerances are recommended. Tightening with a long wrench is recommended.

Ordering Example
Part Number
KDST20

D	Unit Price							
	Equal Dia., Perpendicular Configuration	Equal Dia., Perpendicular Configuration, Reversed	Equal Dia., Perpendicular Configuration, Reversed	Equal Dia., Perpendicular Configuration, Reversed	Equal Dia., Perpendicular Configuration, Reversed	Equal Dia., Perpendicular Configuration, Reversed	Equal Dia., Perpendicular Configuration, Reversed	Equal Dia., Perpendicular Configuration, Reversed
6	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-

Included Screw	
D	Included Screw
6	M4-10, 2 pcs.
8	M5-12, 2 pcs.
10	M5-15, 2 pcs.
12	M5-15, 2 pcs.
15	M5-20, 4 pcs.
16	M5-20, 4 pcs.
20	M6-25, 4 pcs.
25	M6-30, 4 pcs.
30	M8-35, 4 pcs.
35	M8-40, 4 pcs.

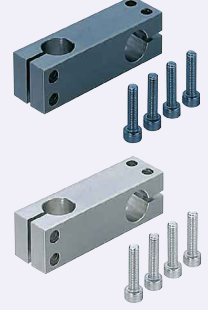
Strut Clamps

Equal / Unequal Dia., Perpendicular Configuration, Hole Pitch Selectable

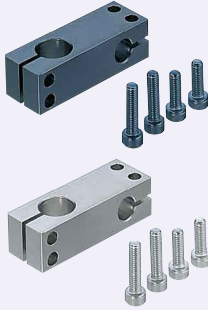
Height Adjustment Screw Set for Strut Clamps

■ Features: Selectable shaft pitch between two Posts for Stands.

■ Equal Dia., Perpendicular Configuration, Hole Pitch Selectable



■ Unequal Dia., Perpendicular Configuration, Hole Pitch Selectable



Type	Material	Surface Treatment	Accessory
Equal Dia., Perpendicular Configuration KMKC	Steel for General Structure	Black Oxide	Hex Socket Head Cap Screw
Unequal Dia., Perpendicular Configuration MMKC	Steel for General Structure	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
AMKC	Aluminum Alloy	Black Anodize	Hex Socket Head Cap Screw
SMKC	SUS304	-	Hex Socket Head Cap Screw (Stainless Steel)

⚠ CB screws are included with the black oxide and black anodized products, and SCB screws are included with the other products.

Equal Dia. Perpendicular Configuration D=6-12

D=15-35

Unequal Dia., Perpendicular Configuration D=8-12

D=15-35

• P Dimension Tolerance: JIS B 0405 Medium Class (P2286)

• P Dimension Tolerance: JIS B 0405 Medium Class (P2286)

■ Equal Dia., Perpendicular Configuration, Hole Pitch Selectable

Type	Part Number	DH7	P Selection				A	B	C	E	H	S	M	d
			10	15	20	25								
KMKC MMKC AMKC SMKC	6	+0.012	10	15	20	A=P+(2xE)	10	10	12	7	-	-	M4	4.5
	8	+0.015	10	15	20		12	12	14	8	-	-	-	-
	10	0	15	20	25		16	16	15	9	-	-	M5	5.5
	12	+0.018	20	25	30		22	22	18	12	11	-	-	-
	15	0	20	25	30	28	28	22	15	14	-	-	M6	6.6
	20	+0.021	30	40	50	32	32	25	18	16	-	-	-	
	25	0	30	40	50	40	40	29	21	20	-	-	M8	9
	30	+0.025	50	75	100	45	45	32	24	24	-	-	-	
	35	0	50	75	100	50	75	100	150	-	-	-	-	

⚠ For the available sizes, refer to the price list. ⚠ The tolerance and perpendicularity of DH7 are before slitting.
⚠ For mating, g6, f8 shaft tolerances are recommended. Tightening with a long wrench is recommended.

■ Unequal Dia., Perpendicular Configuration, Hole Pitch Selectable

Type	Part Number	DH7	D1H7	P Selection				A	B	C	E	G	H	K	S1	S2	M	d		
				10	15	20	25													
KMKD MMKD AMKD SMKD	8	+0.015	6	+0.012	10	15	20	A=P+E+G	12	9	13	12	8	7	-	-	M4	4.5		
	10	0	8	+0.015	15	20	25		16	12	15	14	9	8	-	-	M5	5.5		
	12	+0.018	10	0	15	20	25		30	16	16	15	10	9	-	-	-	-		
	15	0	15	20	25	30	22		18	18	15	12	10	11	9	-	-	-		
	20	+0.021	15	+0.018	20	25	30	40	28	22	20	15	13	14	11	-	-	M6	6.6	
	25	0	20	+0.018	25	30	40	50	32	25	20	18	13	16	14	-	-	-		
	30	+0.021	20	+0.021	30	40	50	75	40	30	29	24	21	16	20	15	-	-	M8	9
	35	+0.025	25	0	50	75	100	150	45	35	32	27	24	19	24	20	-	-	-	

⚠ D Dimension for SMKD is available up to 30. ⚠ D Dimension 8 is not available for AMKD and SMKD. ⚠ The tolerance and perpendicularity of DH7 and D1H7 are the tolerances before slitting.
⚠ For mating, g6, f8 shaft tolerances are recommended. Tightening with a long wrench is recommended.

Ordering Example: Part Number - D1 - P
Example: KMKC10 - 20
MMKD20 - 15 - 30

■ Included Screw

D	Included Screw	
	Equal Dia., Perpendicular Configuration	Unequal Dia., Perpendicular Configuration
6	M4-10, 2 pcs.	-
8	M5-12, 2 pcs.	M4-B/M4-12, 1 pc. each
10	M5-15, 2 pcs.	M5-12/M5-10, 1 pc. each
12	M5-15, 2 pcs.	M5-20, 2 pcs.
15	M5-20, 4 pcs.	M5-20/M5-15, 2 pcs. each
20	M6-25, 4 pcs.	M6-25/M6-20, 2 pcs. each
25	M6-30, 4 pcs.	M6-30/M6-25, 2 pcs. each
30	M8-35, 4 pcs.	M8-35/M8-30, 2 pcs. each
35	M8-40, 4 pcs.	M8-40/M8-35, 2 pcs. each

D	Unit Price							
	Equal Dia., Perpendicular Configuration				Unequal Dia., Perpendicular Configuration			
	KMKC	MMKC	AMKC	SMKC	KMKD	MMKD	AMKD	SMKD
6								
8								
10								
12								
15								
20								
25								
30								
35								

■ Features: By mounting below the clamp, fine manual adjustments are possible (Max. stroke 5mm recommended). Best suited for adjustments of cameras and sensors.

■ With Double Nuts

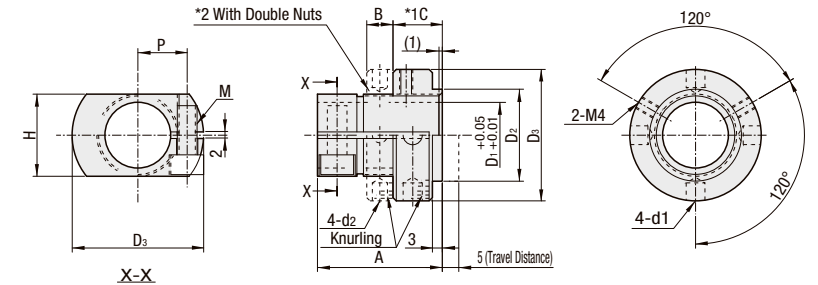


■ Without Double Nuts



Type		Material		Surface Treatment	Accessory
With Double Nuts	Without Double Nuts	Main Body	Nut		
CLAWM	CLAJM	S45C	SUM23 Equivalent	Electroless Nickel Plating	Hex Socket Head Cap Screw (Stainless Steel)
CLAWB	CLAJB			Black Oxide	Hex Socket Head Cap Screw

⚠ CB screws and SCB screws are included with the black oxide products and electroless nickel plating products, respectively.



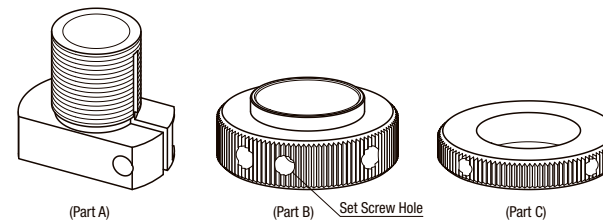
*1. The drawing shows the nut protruding 1mm from the sleeve (Part A).
*2. When the type without the Double Nuts is selected, double nuts will not be included. Only Part A and B are included.
⚠ See the instruction below for Parts A, B, and C.

Part Number	Type	D1	A	B	C	H	P	D2	D3	M	d1	d2	Travel Distance	Included Screw	Unit Price				
															With Double Nuts	Without Double Nuts	Without Double Nuts	Without Double Nuts	
CLAWM CLAWB	CLAJM CLAJB	10	+0.05 +0.01	30	11	14	9.5	16	28	4	4.6	3.4	5	M4-8, 1pc.					
		12		31	6	12	16	10	18					30	M4-10, 1pc.				
		15		33	13	20	12	22	35					5	M5-12, 1pc.				
		20		38	15	25	15	28	40					6	M6-15, 1pc.				
		25		40	8	17	30	17	34					45	6	M6-18, 1pc.			
		30		46	19	36	21	40	55					8	6.8	5.7	M8-20, 1pc.		

⚠ D1 tolerance is before the slit machining. ⚠ Set screw is not included.
⚠ Recommended tolerances of mating shafts for D1: g6, f8.

Ordering Example: Part Number
Example: CLAJM20

⚠ How to Use (Adjustable range is 5mm)



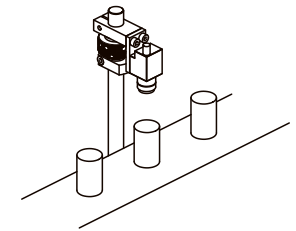
- Mount Part A below a strut clamp to be adjustable.
- Install Part B on the threaded part of Part A.
- After mounting the strut clamp, position Part B with a hand or HEX wrench, adjust the strut clamp to a desired position by utilizing the thread pitch. (Stroke 5mm)
- Secure the strut clamp by tightening the screw. (The Set Screw can be used to temporarily fix the position before the final step ④.)

<Double Nut Type>

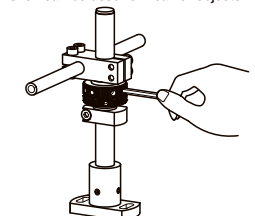
Mount Part C on thread part of Part A after the step ①.
Using the Part C, Double Nut mounting is facilitated.
Can be used as a stopper when the strut clamp is loosened.

Example: "Need a little more fine-adjustment in height"
"Need a more economical mechanism for clamp adjustment"
Ideal for these needs.

• Suitable for 1-2mm adjustments of cameras, etc.



• A wrench can be used for heavier objects.



Super Compact Strut Clamps

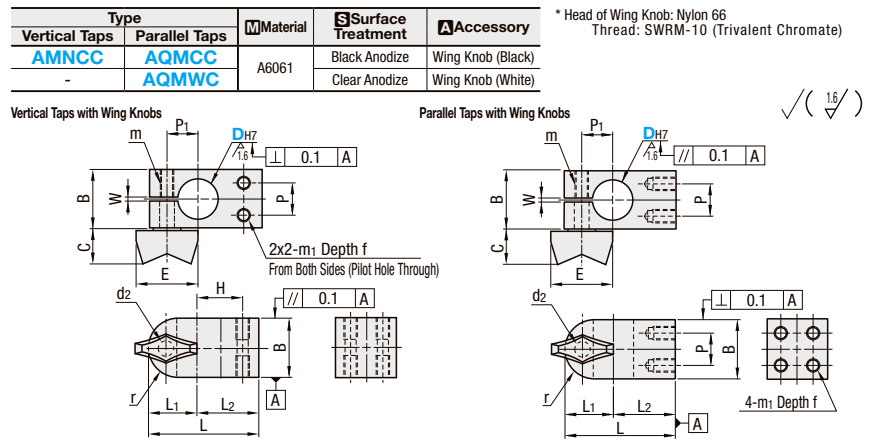
Vertical / Parallel Taps with Wing Knobs / Vertical / Parallel Taps

■ Features: Affordable and compact tapped strut clamps. Wing Knob helps easy setup changes.

Vertical/Parallel Taps with Wing Knobs



RoHS



Part Number	Type	DH7	B	L	L1	L2	r	H	m1	f	P	P1	W	d2	m	Wing Knob	Unit Price		
																	Vertical Taps	Parallel Taps	
6	Vertical Taps	+0.012/0	10	21.5	10.5	11	5	8	M2.6	4	5	6.5	1	3.5	M3	18	10.5		
8	Parallel Taps	+0.015/0	12	25	11	14	6	10	M3	5	6	7							
10	Vertical Taps	+0.018/0	16	29.5	13.5	16	8	11	M4	6	8	8.5	1.5	4.5	M4				
12	Parallel Taps	+0.018/0	18	32	14	18	9	13	M4	6	8	9							
15	Vertical Taps	+0.018/0	22	41	18	23	11	17	M5	8	12	12			M5	28	15		

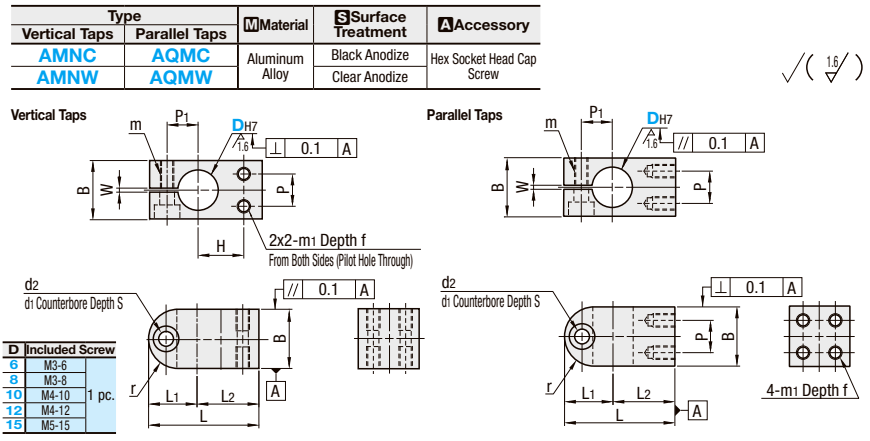
⚠ The tolerance and perpendicularity of DH7 are before slitting. ⚠ For mating, g6, f8 shaft tolerances are recommended. ⚠ Do not tighten the wing nut unless the shaft is set in D part.

Ordering Example Part Number AQMWC10

Vertical Taps / Parallel Taps



RoHS



Part Number	Type	DH7	B	L	L1	L2	r	H	m1	f	P	P1	W	m	d1	d2	S	Unit Price	
																		Vertical Taps	Parallel Taps
6	Vertical Taps	+0.012/0	10	21.5	10.5	11	5	8	M2.6	4	5	6.5	1	M3	6.5	3.5	3.5		
8	Parallel Taps	+0.015/0	12	25	11	14	6	10	M3	5	6	7							
10	Vertical Taps	+0.018/0	16	29.5	13.5	16	8	11	M4	6	8	8.5	1.5	M4	8	4.5	4.5		
12	Parallel Taps	+0.018/0	18	32	14	18	9	13	M4	6	8	9							
15	Vertical Taps	+0.018/0	22	41	18	23	11	17	M5	8	12	12		M5	9.5	5.5	5.5		

⚠ The tolerance and perpendicularity of DH7 are before slitting. ⚠ For mating, g6, f8 shaft tolerances are recommended. Tightening with a long wrench is recommended.

Ordering Example Part Number AMNC8

Strut Clamps

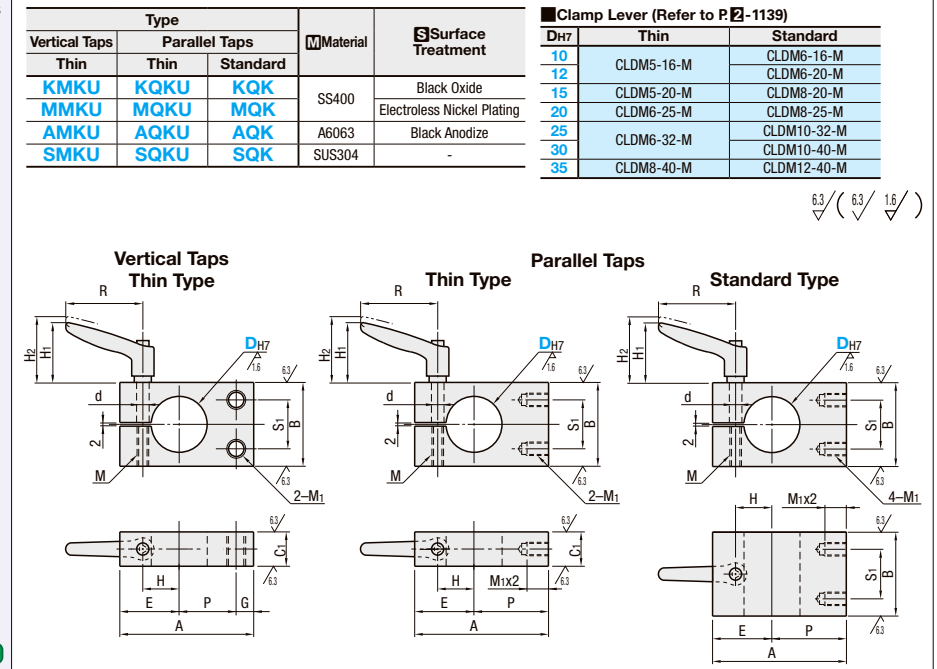
Vertical Taps With Clamp Lever / Parallel Taps With Clamp Lever

■ Features: Convenient for frequent setup changes. Vertically adjustable with a clamp lever without tools.

Vertical/Parallel Taps With Clamp Lever



RoHS



Vertical Taps Thin Type

Part Number	Type	DH7	P	A	B	C1	E	G	H	S1	M1	M	d	Clamp Lever			Unit Price			
														H1	H2	R	KMKU	MMKU	AMKU	SMKU
10	KMKU MMKU AMKU SMKU	+0.015/0	11	31	16	9	15	5	9	8	M4	M5	5.5	35	38.5	45				
12		13	34	16	9	10	8	M5												
15		17	45	22	12	20	8	12	12	M5										
20		+0.021/0	20	52	28	16	22	10	15	16	M6	M6	6.6	35	38.5	45				
25		23	58	32	25	25	18	20	M6											
30	+0.025/0	27	66	38	19	29	10	21	25	M8	M8	9	45.5	49	63					
35	30	72	45	22	32	24	28	M8												

⚠ For the available sizes, refer to the price list. ⚠ DH7 tolerance is before the slit machining. ⚠ For mating, g6, f8 shaft tolerances are recommended.

Parallel Taps Thin Type

Part Number	Type	DH7	P	A	B	C1	E	H	S1	M1	M	d	Clamp Lever			Unit Price			
													H1	H2	R	KQKU	MQKU	AQKU	SQKU
10	KQKU MQKU AQKU SQKU	+0.015/0	16	31	16	9	15	9	8	M4	M5	5.5	35	38.5	45				
12		18	34	16	9	10	12	M5											
15		25	45	22	12	20	12	12	M5										
20		+0.021/0	30	52	28	16	22	15	16	M6	M6	6.6	35	38.5	45				
25		33	58	32	19	25	18	20	M6										
30	+0.025/0	37	66	38	19	29	10	21	25	M8	M8	9	45.5	49	63				
35	40	72	45	22	32	24	28	M8											

⚠ For the available sizes, refer to the price list. ⚠ DH7 tolerance is before the slit machining. ⚠ For mating, g6, f8 shaft tolerances are recommended.

Parallel Taps Standard Type

Part Number	Type	DH7	P	A	B	E	H	S1	M1	M	d	Clamp Lever			Unit Price			
												H1	H2	R	KQK	MQK	AQK	SQK
10	KQK MQK AQK SQK	+0.015/0	16	32	16	10	10	8	M4	M6	6.6	35	38.5	45				
12		18	35	16	11	11	12	M5										
15		25	47	22	12	14	12	12	M5									
20		+0.021/0	30	54	28	24	16	16	M6	M6	6.6	35	38.5	45				
25		33	62	32	29	20	20	M6										
30	+0.025/0	37	68	40	31	22	25	M8	M8	9	45.5	49	63					
35	40	77	45	37	26	28	M8											

⚠ For the available sizes, refer to the price list. ⚠ DH7 tolerance is before the slit machining. ⚠ For mating, g6, f8 shaft tolerances are recommended.

Ordering Example Part Number KMKU20 KQKU25 SQK15

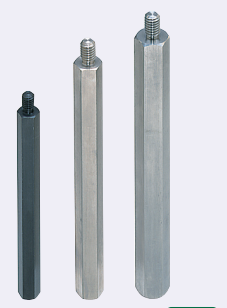
Hex Posts

One End Threaded One End Tapped

For products uncovered by the e-Catalog Standard, see P.131.

For this product, L dim. can be configured in 0.1mm increments by specifying LKC Alteration.

One End Threaded One End Tapped



Type			Material	Surface Treatment
L Dimension Selectable	L Dimension Configurable	L Dim., Thread Dia. Configurable		
LSBWRK	NLSBWF	NLSBG	Steel for General Structure	Black Oxide
PLSBWRK	PLSBWF	PLSBG		
	BLSBWF	BLSBG	SUS304	Electroless Nickel Plating
SLSBWRK	SLSBWF	SLSBG		

• L Dimension Selectable, L Dimension Configurable • L Dimension, Thread Dia. Configurable

Mx1.5 Mx2 Mx1.5 Nx2

$\frac{25}{\sqrt{3}} \left(\frac{6.3}{\sqrt{3}} \frac{1.5}{\sqrt{3}} \right)$

Anti-rust Oil is applied on products made of Steel for General Structure. Trivalent Chromate (Black) may not always be fully deposited on internal tapped threads.

L Dimension Selectable

Part Number Type	B	L Selection																M (Coarse)	(C)		
		6	7	8	10	12	13	14	17	19	15	20	25	30	35	40	45			50	
Steel for General Structure LSBWRK PLSBWRK	6	15	20	25	30	35	40	45	50	60	70	80	90	100	110	120	130	140	150	3	6.9
	7	20	25	30	35	40	45	50	60	70	80	90	100	110	120	130	140	150	200	4	8.1
	8	20	25	30	35	40	45	50	60	70	80	90	100	110	120	130	140	150	200	5	9.2
	10	25	30	35	40	45	50	60	70	80	90	100	110	120	130	140	150	200	6	11.5	
	12	25	30	35	40	45	50	60	70	80	90	100	110	120	130	140	150	200	6	13.9	
SUS304 SLSBWRK	13	30	35	40	45	50	60	70	80	90	100	110	120	130	140	150	200	8	15.0		
	14	35	40	45	50	60	70	80	90	100	110	120	130	140	150	200	8	16.2			
	17	40	45	50	60	70	80	90	100	110	120	130	140	150	200	10	19.6				
19	50	60	70	80	90	100	110	120	130	140	150	200	12	21.9							

L Dimension Configurable

Part Number Type	B	L 0.5mm Increment	M (Coarse)	(C)
Steel for General Structure NLSBWF LSBWF PLSBWF BLSBWF	5	8-100	2.6	5.8
	6	15-100	3	6.9
	7	20-200	4	8.1
	8	20-250	5	9.2
	10	25-350	6	11.5
	12	25-500	6	13.9
SUS304 SLSBWF	13	30-500	8	15.0
	14	30-600	8	16.2
	17	35-600	10	19.6
	19	45-600	12	21.9
	24	55-700	16	27.7
	27	65-800	20	31.2
30	65-1000	20	34.6	
32	80-1000	24	36.9	

L Dimension, Thread Dia. Configurable

Part Number Type	B	L 0.5mm Increment	M (Coarse) Selection	N (Coarse) Selection	(C)
Steel for General Structure NLSBG LSBG PLSBG BLSBG	5	8-100	2 2.6 3	2 2.6	5.8
	6	15-100	3 4 5	3 4	6.9
	7	20-200	3 4 5	3 4	8.1
	8	20-250	3 4 5 6	3 4 5	9.2
	10	25-350	3 4 5 6 8	3 4 5 6	11.5
	12	25-500	3 4 5 6 8 10	3 4 5 6 8	13.9
	13	30-500	3 4 5 6 8 10	3 4 5 6 8	15
	14	35-600	3 4 5 6 8 10 12	3 4 5 6 8 10	16.2
	17	35-600	4 5 6 8 10 12	4 5 6 8 10	19.6
	19	45-600	4 5 6 8 10 12 16	4 5 6 8 10 12	21.9
	24	55-700	5 6 8 10 12 16 20	5 6 8 10 12 16	27.7
	27	65-800	5 6 8 10 12 16 20 24	5 6 8 10 12 16 20	31.2
30	80-1000	5 6 8 10 12 16 20 24	5 6 8 10 12 16 20 24	34.6	
32	80-1000	5 6 8 10 12 16 20 24	5 6 8 10 12 16 20 24	36.9	

When L = 8 or 9, the tapped depth is Mx1.5.

When M=2.6 and L = 8 or 9, the tapped depth is Mx1.5.



Ordering Example

Part Number: (L) - (B) - (M) - (N)

(L Dimension Selectable) LSBWRK10 - 40

(L Dimension Configurable) LSBWF12 - 300

(L Dim., Thread Dia. Configurable) LSBG30 - 700 - M20 - N24



Alterations

Part Number: (L) - (M) - (N) - (LKC, MLC)

LSBWF6 - 30 - LKC

LSBG30 - 700.3 - MD20 - N24 - LKC-MLC20

Applicable to L Dimension Configurable Type and L Dimension, Thread Dia. Configurable Type.

Alterations	L Dimension Tolerance	Threaded Length	Effective Tapped Length
Code	LKC	MLC	MD ND
Spec.	L Dimension tolerances are as follows: Ordering Code: LKC By specifying LKC, L dim. can be configured in 0.1mm increment.	Changes the threaded length. Not applicable to B=5. MLC = 0.1mm Increment Mx1.5-MLC-Mx1.5 Ordering Code: MLC10	Changes the Effective Tapped Length to "M (N) x 3." Ordering Code: MDG/NDG (M is changed to MD, or N is changed to ND.)
	L L Tolerance		
	8-300 ±0.05		
	300.5-600 ±0.10		
	600.5-1000 ±0.15		

L Dimension Selectable

Part Number Type	B	Unit Price			
		Min. L - 50	L60-100	L110-150	L200
Steel for General Structure Black Oxide LSBWRK	6	-	-	-	-
	7	-	-	-	-
	8	-	-	-	-
	10	-	-	-	-
	12	-	-	-	-
	13	-	-	-	-
	14	-	-	-	-
	17	-	-	-	-
	19	-	-	-	-

Part Number Type	B	Unit Price			
		Min. L - 50	L60-100	L110-150	L200
Steel for General Structure Electroless Nickel Plating PLSBWRK	6	-	-	-	-
	7	-	-	-	-
	8	-	-	-	-
	10	-	-	-	-
	12	-	-	-	-
	13	-	-	-	-
	14	-	-	-	-
	17	-	-	-	-
	19	-	-	-	-

Part Number Type	B	Unit Price			
		Min. L - 50	L60-100	L110-150	L200
SUS304 SLSBWRK	6	-	-	-	-
	7	-	-	-	-
	8	-	-	-	-
	10	-	-	-	-
	12	-	-	-	-
	13	-	-	-	-
	14	-	-	-	-
	17	-	-	-	-
	19	-	-	-	-

L Dimension Configurable

Part Number Type	B	Unit Price				
		Min. L - 200	L200.5-400	L400.5-600	L600.5-800	L800.5-1000
Steel for General Structure Electroless Nickel Plating PLSBWF	5	-	-	-	-	-
	6	-	-	-	-	-
	7	-	-	-	-	-
	8	-	-	-	-	-
	10	-	-	-	-	-
	12	-	-	-	-	-
	13	-	-	-	-	-
	14	-	-	-	-	-
	17	-	-	-	-	-
	19	-	-	-	-	-
	24	-	-	-	-	-
	27	-	-	-	-	-
	30	-	-	-	-	-
	32	-	-	-	-	-

Part Number Type	B	Unit Price				
		Min. L - 200	L200.5-400	L400.5-600	L600.5-800	L800.5-1000
Steel for General Structure Trivalent Chromate BLSBWF	5	-	-	-	-	-
	6	-	-	-	-	-
	7	-	-	-	-	-
	8	-	-	-	-	-
	10	-	-	-	-	-
	12	-	-	-	-	-
	13	-	-	-	-	-
	14	-	-	-	-	-
	17	-	-	-	-	-
	19	-	-	-	-	-
	24	-	-	-	-	-
	27	-	-	-	-	-
	30	-	-	-	-	-
	32	-	-	-	-	-

Part Number Type	B	Unit Price				
		Min. L - 200	L200.5-400	L400.5-600	L600.5-800	L800.5-1000
SUS304 SLSBWF	5	-	-	-	-	-
	6	-	-	-	-	-
	7	-	-	-	-	-
	8	-	-	-	-	-
	10	-	-	-	-	-
	12	-	-	-	-	-
	13	-	-	-	-	-
	14	-	-	-	-	-
	17	-	-	-	-	-
	19	-	-	-	-	-
	24	-	-	-	-	-
	27	-	-	-	-	-
	30	-	-	-	-	-
	32	-	-	-	-	-

L Dimension, Thread Dia. Configurable

Part Number Type	B	Unit Price				
		Min. L - 200	L200.5-400	L400.5-600	L600.5-800	L800.5-1000
Steel for General Structure Black Oxide NLSBG	5	-	-	-	-	-
	6	-	-	-	-	-
	7	-	-	-	-	-
	8	-	-	-	-	-
	10	-	-	-	-	-
	12	-	-	-	-	-
	13	-	-	-	-	-
	14	-	-	-	-	-
	17	-	-	-	-	-
	19	-	-	-	-	-
	24	-	-	-	-	-
	27	-	-	-	-	-
	30	-	-	-	-	-
	32	-	-	-	-	-

Part Number Type	B	Unit Price				
		Min. L - 200	L200.5-400	L400.5-600	L600.5-800	L800.5-1000
Steel for General Structure Electroless Nickel Plating PLSBG	5	-	-	-	-	-
	6	-	-	-	-	-
	7	-	-	-	-	-
	8	-	-	-	-	-
	10	-	-	-	-	-
	12	-	-	-	-	-
	13	-	-	-	-	-
	14	-	-	-	-	-
	17	-	-	-	-	-
	19	-	-	-	-	-
	24	-	-	-	-	-
	27	-	-	-	-	-
	30	-	-	-	-	-
	32	-	-	-	-	-

Part Number Type	B	Unit Price				
		Min. L - 200	L200.5-400	L400.5-600	L600.5-800	L800.5-1000
SUS304 SLSBG	5	-	-	-	-	-
	6	-	-	-	-	-
	7	-	-	-	-	-
	8	-	-	-	-	-
	10	-	-	-	-	-
	12	-	-	-	-	-
	13	-	-	-	-	-
	14	-	-	-	-	-
	17	-	-	-	-	-
	19	-	-	-	-	-
	24	-	-	-	-	-
	27	-	-	-	-	-
	30	-	-	-	-	-
	32	-	-	-	-	-

Hollow Stands

Set Screw Type

■Features: Hollow Stands used as a equipment base for touch panel or box. Its Overall length can be specified freely.

■Set Screw

Type		Material		Surface Treatment		Accessory	
Round Flanged Set	Compact Flanged Set	Hollow	Bracket	Hollow	Bracket	Set Screw	
Bracket 2 pcs./Bracket 1 pc.	Bracket 2 pcs./Bracket 1 pc.	STKM13A	SS400	Electroless Nickel Plating			
PSEW PSE	WPSEW WPSE	STKM13A	SS400	Trivalent Chromate			
PSEWK PSEK	WPSEWK WPSEK	STKM13A	SS400	Electroless Nickel Plating			
PSEWS PSES	PPEWS	SUS304	SUS304	Black Oxide			

RoHS

* This product is offered as a set.
L dimension tolerance is approx. ±2mm.
Consider the Z3 Dimension when ordering only hollow tube for combined use with existing Stand-Up Bracket.

Part Number		Nominal	D	L	t	D1	D2	A	P.C.D.	T	H	l1	l2	M	l3	W	Z	W1
Type				1mm Increment										(Coarse)				
Trivalent Chromate Electroless Nickel Plating Black Oxide	(Set)	30	30	200~800	4.0	30.5	42.7	90	70	10	50	15	M6	15	56	56	34	
	(Bracket only)	40	40	200~800		40.5	54.0	100	80		60	25			25	64	62	44
		50	50.8	200~1000		51.5	65.0	110	90		75	30			30	74	74	50
		60	60.5	200~1000		61.0	76.3	120	100		90	35			40	90	76	70
Trivalent Chromate Electroless Nickel Plating Black Oxide		70	70	300~1000	6.0	70.5	89.1	130	110	12	105	45	M8	20	100	80	80	
		80	82.6	300~1000		83.5	101.6	140	120		120	40			60	110	86	90
		100	101.6	350~1000		102.6	120.0	160	140		150	90				130	94	110
		30	32	200~800		32.5	42.7	90	70		50	25			15			
Stainless Steel	(Set)	40	42.7	200~800	3.0	43.0	50.8	100	80	10	60	25	M6	15				
	(Bracket only)	50	50.8	200~1000		51.5	60.5	110	90		75	30			30			
		60	60.5	200~1000		61.0	76.3	120	100		90	35			40			
		70	76.3	300~1000		77.0	89.1	130	110		105	45						
	80	89.1	300~1000	90.0	101.6	140	120	120	40	60								
	100	101.6	350~1000	102.5	114.3	160	140	150	90									

Ordering Example Part Number - L
PSEW50 - 600
PSEF100

■Bracket only

Nominal	Round Flanged		Compact Flanged	
	Trivalent Chromate	Electroless Nickel Plating	Trivalent Chromate	Electroless Nickel Plating
30	PSEF	PSEFM	PSEFS	WPSEF
40				WPSEFM
50				
60				
70				
80				
100				

■Set

Nominal	L	Round Flanged				Compact Flanged			
		Trivalent Chromate	Electroless Nickel Plating	Black Oxide	Stainless Steel	Trivalent Chromate	Electroless Nickel Plating	Black Oxide	Stainless Steel
30	200~400								
	401~600								
	601~800								
40	200~400								
	401~600								
	601~800								
50	200~400								
	401~600								
	601~800								
60	200~400								
	401~600								
	601~800								
70	200~400								
	401~600								
	601~800								
80	200~400								
	401~600								
	601~800								
100	200~400								
	401~600								
	601~800								

■Hollow Stand only

Nominal	L	Unit Price		
		Trivalent Chromate	Electroless Nickel Plating	Stainless Steel
30	200~400			
	401~600			
	601~800			
40	200~400			
	401~600			
	601~800			
50	200~400			
	401~600			
	601~800			
60	200~400			
	401~600			
	601~800			
70	200~400			
	401~600			
	601~800			
80	200~400			
	401~600			
	601~800			
100	200~400			
	401~600			
	601~800			

Hollow Stands

Welded Type

■Features: Hollow Stands with accurate heights that can also be used as a spacer.

■Welded Type

Type		Material		Surface Treatment	
Round Flanged	Compact Flanged	Hollow	Bracket	Hollow	Bracket
PSYM	WPSYM	STKM13A	SS400	Electroless Nickel Plating	
PSYK				Black Oxide	

RoHS

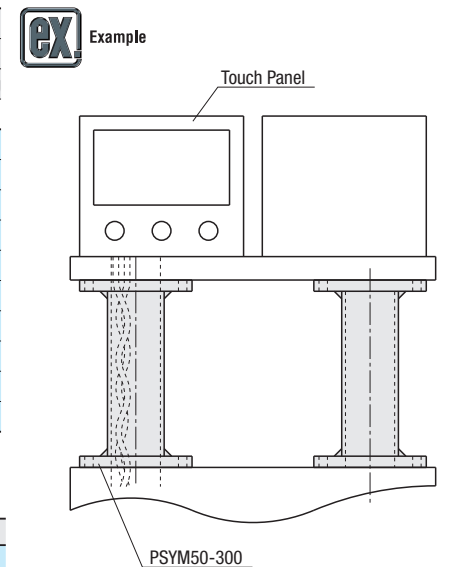
Part Number		Nominal	L	D	t	A	P.C.D.	T	W	Z	W1
Type			1mm Increment								
Round Flanged	PSYM	30	50~300	30	4.0	90	70	10	56	56	34
	PSYK	40		±0.40		100	80		64	62	44
		50		±0.41		110	90		74	74	50
Compact Flanged	WPSYM	60	6.0	60.5	±0.49	120	100	12	90	76	70
		70		±0.56	130	110	100		80	80	

Ordering Example Part Number - L
PSYM40 - 300

Nominal	L	Unit Price		
		Round Flanged		Compact Flanged
		Electroless Nickel Plating	Black Oxide	Electroless Nickel Plating
30	50~150	PSYM	PSYK	WPSYM
	151~300			
40	50~150			
	151~300			
50	50~150			
	151~300			
60	50~150			
	151~300			
70	50~150			
	151~300			

Alterations Part Number - L - (LKC)
PSYM40 - 300 - LKC

Alteration	Code	Spec.
	LKC	Changes the tolerance of L dimension to L±0.05. Ordering Code: LKC



Rotary Connectors

Round Flanged / Compact Flanged

■ Features: Touch panels and boxes can be freely rotated.

Round Flanged



RoHS

Compact Flanged



RoHS

Type	Material	Surface Treatment	Clamp Lever	Screw	Nut
Round Flanged	SS400	Electroless Nickel Plating	CLMD	CB8-20x4	LBNR8x4
Compact Flanged	SS400	Black Oxide	CLMD	CB8-20x4	LBNR8x4
WROCN	SUS304 Equivalent	-	CLMS	SCB8-20x4	SLBNR8x4

Round Flanged

Compact Flanged

⚠ Structure with inner stopper prevents 360 rotation to prevent wiring from being twisted.
 ⚠ Avoid giving excessive impact to the internal stopper when rotating, otherwise, it may cause damages.

Part Number	Type	Nominal	A	D	D ₁	G (PF)	F	H	C	V	P.C.D.	C ₁	W	W ₁	Z	Applicable Tube	*Reference Values	
																	X ₁ (N)	X ₂ (N)
28	Round Flanged	28	20	50	85	G1	23	55	3	35	65	1.5	52	34	56	G28	16.4	23.5
36	ROCN	36	28	60	95	G1 1/4	26	58		45	75		62	44	62	G36	17.2	24.8
42	ROCK	42	33	65	100	G1 1/2				50	80		67	49	64	G42	18.4	30.3
54	ROCSH	54	48	80	120	G2	27	59	5	64	95	3	82	64	72	G54	19.6	32.3
70	WROCN	70	62	96	138	G2 1/2	32	63		78	112		98	76	82	G70	20.8	33.4
82	WROCK	82	72	106	148	G3				90	122		108	86	88	G80	22	34.1
92	WROCS	92	85	118	160	G3 1/2	37	68		103	134		120	94	96	G92	23.2	36.7

⚠ Take note that the applicable hollow tubes are based on JIS C 8305 Rigid Steel Conduits, but the thread section will be JIS B 0202 Parallel Threads for Tubes. (Threads for electrical conduits will not fit.)
 ⚠ * Please note the reference values are not guaranteed.

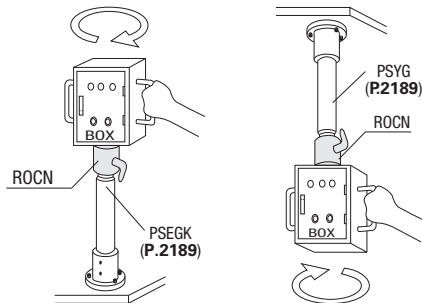
Ordering Example: Part Number **ROCN42**



Example

App. Example 1

App. Example 2



* Assume BOX load is 50kg.
 • As shown in App. Example 1, X₁(N) is the force needed to turn the handle.
 • As shown in App. Example 2, X₂(N) is the force needed to turn the handle.

Nominal	Unit Price				
	ROCN	ROCK	ROCSH	WROCN	WROCK
28					
36					
42					
54					
70					
82					
92					

Rotary Connectors

Moment Load Allowable - Single Flanged, Double Flanged

■ Features: Built-in oil-free bushings enable uses under moment loads.

Single Flanged



RoHS

Doubled Flanged



RoHS

Type	Material	Surface Treatment	Clamp Lever	Screw	Nut
Single Flanged	SS400	Electroless Nickel Plating	CLMD	CB8-20x6	LBNR8x6
Doubled Flanged	HRCN	HRCNW			

Single Flanged (HRCN)

Doubled Flanged (HRCNW)

⚠ Structure with inner stopper prevents 360 rotation to prevent wiring from being twisted.
 ⚠ Avoid giving excessive impact to the internal stopper when rotating, otherwise, it may cause damages.

Part Number	Type	Nominal	A	D	D ₁	G (PF)	F	H	C	V	P.C.D.	C ₁	Applicable Tube	Allowable Moment Load (Calculated Values) N · m	Unit Price 1 ~ 4 pc(s).
42		42	35	75	110	G1 1/2	26	85	3	50	90	1.5	G42	300	
54		54	50	90	125	G2	27	85		64	105		G54	500	
70		70	65	105	140	G2 1/2	32	85		78	120		G70	750	
82		82	80	120	155	G3	37	90		92	135		G80	1000	

⚠ Take note that the applicable hollow tubes are based on JIS C 8305 Rigid Steel Conduits, but the thread section will be JIS B 0202 Parallel Threads for Tubes. (Threads for electrical conduits will not fit.)
 ⚠ Allowable moment loads are not guaranteed values. ⚠ For orders larger than indicated quantity, please request a quotation.

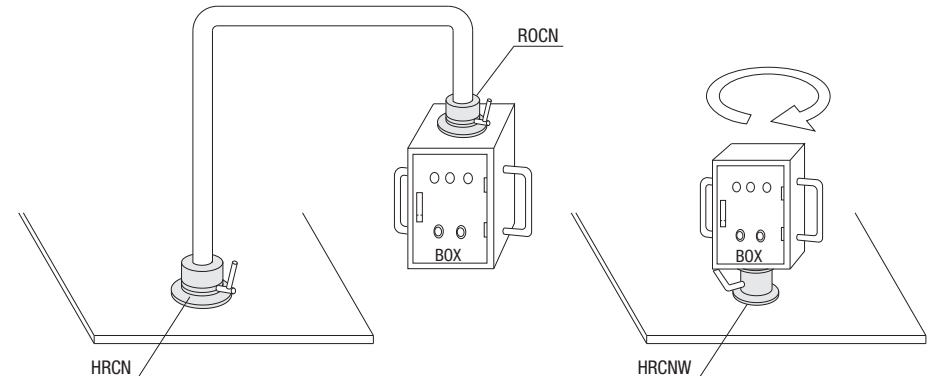
Part Number	Type	Nominal	A	D	D ₁	H	C	P.C.D.	Allowable Moment Load (Calculated Values) N · m	Unit Price 1 ~ 4 pc(s).
42		42	35	75	110	85	1.5	90	300	
54		54	50	90	125	85		105	500	
70		70	65	105	140	85		120	750	
82		82	80	120	155	90		135	1000	

⚠ Allowable moment loads are not guaranteed values. ⚠ For orders larger than indicated quantity, please request a quotation.

Ordering Example: Part Number **HRCNW54**



Example



Usable under Moment Load

Box Mountable without a Hollow Stand