

# Bar & Bar Clamps

## Arm

Features: Combined with Post Clamps, mounted posts can be adjusted in a circumferential direction.

**Bar Clamps – Arm**

RoHS 10

Type	Material	Surface Treatment	Accessories
KLKA	1018 Carbon Steel or Equivalent	Black Oxide	Hex Socket Head Cap Screws
MKA	Aluminum Alloy	Electroless Nickel Plating	
ALKA	Aluminum Alloy	Black Anodize	
SLKA	304 Stainless Steel	—	

D8-25

D30, 35

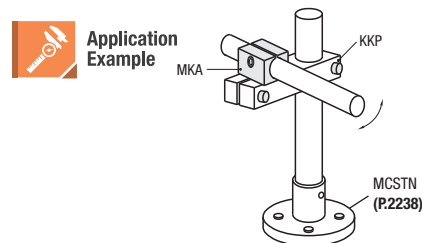
6.3 / (6.3 / 1.6)

Ⓢ For P Dimension 50 or more, a centering hole may remain at the end of D<sub>1</sub>.

Part Number	D <sub>H7</sub>	P Selection			D <sub>196</sub>	A	B	E	H	M	d	d <sub>1</sub>	Z	S	W	Included Screws
		8	10	12												
KLKA	8	+0.015	12	30	8	-0.005	7	12	10.5	7	M3	3.5	6	3	—	CB3-8, 1 pc.
	10	0	13	30	10	-0.014	9	13	13	9	M4	4.5	7.5	4	—	CB4-8, 1 pc.
MKA	12	+0.018	19	30	12	-0.006	11	15	14.5	10						CB4-10, 1 pc.
ALKA	15	0	25	50	15	-0.017	12	19	15	10.5	CB4-15, 1 pc.					
SLKA (D≤30)	20	+0.021	30	50	20	-0.007	15	25	17.5	13	CB4-25, 1 pc.					
	25	0	35	50	25	-0.020	18	30	21	16	CB5-30, 1 pc.					
30	30	0	40	70	30	-0.009	21	36	23.5	18.5	M5	5.5	9	5	—	CB5-35, 2 pcs.
	35	+0.025	40	70	35	-0.009	24	40	26.5	21	M5	5.5	9	5	20	CB5-40, 2 pcs.
														24		

Ⓢ D Dimension for SLKA is available up to 30. Ⓢ D<sub>H7</sub> tolerance is measured before slit machining.  
 Ⓢ Recommended tolerances of mating shafts are g6, f8. Use of a long wrench is recommended for tightening.

**Part Number Example**  
 Part Number - P  
 MKA10 - 30



Features: Bar Clamps can be used as a guide handle in combination with Post Clamps.

**Post Clamps – Bar Clamps**

RoHS 10

Type	Material	Surface Treatment	Accessories
BCLB	1018 Carbon Steel or Equivalent	Black Oxide	Hex Socket Head Cap Screws
BCLM	Aluminum Alloy	Electroless Nickel Plating	
BCLA	Aluminum Alloy	Black Anodize	
BCLS	304 Stainless Steel	—	

\* Included screw: Black oxide and black anodize products have screw of same surface treatment, and electroless nickel plating and stainless steel products have stainless screw.

D8-25

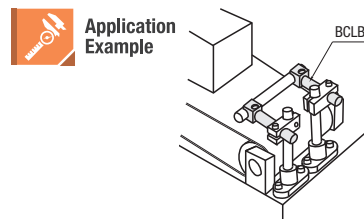
D30, 35

6.3 / (6.3 / 1.6)

Ⓢ For L Dimension 50 or more, a centering hole may remain at the end of D<sub>1</sub>.

**Included Screws**

D	Screw Size
6	M3-8
8	M4-8
10	M5-10
12	M5-10
13	M5-15
15	M6-15
16	M6-15
20	M6-20



Ⓢ D<sub>H7</sub> tolerance is measured before slit machining.

Part Number	D <sub>H7</sub>	L Selection		B	D <sub>196</sub>	G	E	C	H	M	d	d <sub>1</sub>	Z	J	Available Types				
		25	40												BCLB	BCLM	BCLA	BCLS	
BCLB	6	+0.012	25	40	8	-0.005	14	1	1	8	M3	3.4	6.5	3.5	17	•	•	•	•
	8	0	14	10	-0.014	15	1.5	9		M4	4.5	8	4.5	19	•	•	•	•	
BCLM	10	+0.015	30	50	10	-0.006	17	2.5	1	10	M5	5.5	9.5	5.5	22	•	•	•	•
	12	0								18					12	-0.017	17	2.5	11
BCLA	13	+0.018	50	70	12	-0.007	19	2.5	2	11	M6	6.6	11	6.5	27	•	•	•	•
	15	0								20					15	-0.017	19	2.5	12
BCLS	16	+0.021	50	70	15	-0.007	20	3	2	13	M6	6.6	11	6.5	34	•	•	•	•
	20	0								23					16	-0.020	21	3	14

**Part Number Example**  
 Part Number - L  
 BCLB16 - 70

# Flexible Clamp / Holder Hollow

Features: A circular post and a hexagonal post can be clamped together.

**Flexible Clamp**

RoHS 10

Type	Material	Surface Treatment
FLEC	Low Carbon Steel	Electroless Nickel Plating
FLEB	304 Stainless Steel	—
FLHC	Low Carbon Steel	Electroless Nickel Plating
FLES	304 Stainless Steel	—

Wing Nut

Hexagon Socket Head Cap Screws

Wing Nut High Torque

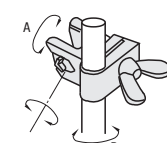
Ⓢ For P Dimension 50 or more, a centering hole may remain at the end of D<sub>1</sub>.

Part Number	Type	D	Nominal	Clamping Range	W	E	P <sub>1</sub> (min.)	P <sub>2</sub> (max.)	Lmax	ℓ	t <sub>1</sub>	t <sub>2</sub>		Available Types				
												Low Carbon Steel	304 Stainless Steel	FLEC	FLES	FLEB	FLEBS	FLHC
Wing Nut Hex Socket Head Cap Screws	FLEC	12	8	Ø8-12	16	8	(23.5)	(26.3)	39.1	30	2	1.6	1.5	•	•	•	•	—
	FLEB	15	8	Ø8-12	19	9.5	(25.0)	(27.8)	40.6	35				•	•	•	•	—
High Torque FLHC	FLEC	12	8	Ø8-12	16	8	(24.9)	(27.7)	40.5	30	2	1.6	1.5	—	—	—	—	•
	FLEB	15	8	Ø8-12	19	9.5	(26.4)	(29.2)	42	35				—	—	—	—	•

Ⓢ Do not tighten the wing nut and cap screw unless shaft is set in D part. Excessive tightening may cause deformation.  
 Ⓢ Recommended diameter tolerances of mating posts: ±0.05 for Wing Nuts; +0.05 for Hexagon Socket Head Cap Screws.

### Features

- Two axes can be clamped by tightening one wing nut.
- Flexible clamping is possible as shown in the right figure.



**Part Number Example**  
 Part Number - D<sub>1</sub>  
 FLEC12 - 8

### Reference: Moment Capacity Data

Data	Sample	Tightening Conditions	Standard		High Torque			
			Low Carbon Steel	Stainless Steel	Low Carbon Steel	Low Carbon Steel		
A (Ncm)	1	1	FLEC12-8 FLEB	FLEC15-8 FLEB	FLEC12-8	FLEC15-8		
			102.9	235.2	132.3	161.7	232.3	313.1
B (Ncm)	2	2	102.9	235.2	132.3	161.7	232.3	313.1
			220.5	470.4	249.9	294.0	429.2	502.7
A (Ncm)	1	1	102.9	235.2	132.3	161.7	232.3	313.1
			205.8	470.4	249.9	294.0	429.2	502.7
B (Ncm)	2	2	102.9	235.2	132.3	161.7	232.3	313.1
			294.0	578.0	299.8	367.5	518.4	603.4

Ⓢ The above data is an example of actually measured values, not guaranteed.  
 Ⓢ A, B correspond with A and B in the above figure.  
 Ⓢ The data shows the results of tightening with Hex Nuts instead of Wing Nuts. The posts are 1045 Carbon Steel or Equivalent, Low Carbon Steel.  
 Tightening Condition 1: Tightening Torque 100 Ncm  
 Tightening Condition 2: Tightening Torque 200 Ncm

**Holder Hollows**

RoHS 10

Part Number	H	L	
HLPY	4.5	150	250
	5.5	150	250

**Part Number Example**  
 Part Number - L  
 HLPY4.5 - 150

Material: 1018 Carbon Steel or Equivalent  
 Surface Treatment: Electroless Nickel Plating