

Leveling Mounts

Wedge-Style

More precise leveling adjustment can be achieved with this leveling mount. Use it for the leveling by installing onto the device.

Type	Main Body		Adjusting Bolt		Stabilizer		Rubber		
	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	Material (Color)	Hardness	
KHWM-C	FCD Cast Iron	Baked Finish	1045 Carbon Steel or Equivalent	Electrolytic Zinc Plating	1018 Carbon Steel or Equivalent	Electrolytic Zinc Plating	Nitrile Rubber (Blue)	Shore A95	
KHWM-P								Nitrile Rubber (Blue)	Shore A95
KHWM-SC									
KHWM-SP									

Without Stabilizer

KHWM-C (Without Pad)

KHWM-P (With Pad)

With Stabilizer

KHWM-SC (Without Pad)

KHWM-SP (With Pad)

Type	Part Number	Type	H	A	C	H	h ₁	h ₂	Y	E	F	Adjusting Bolt Dimension		Stabilizer	Pad	Allowable Vert. Load (kN)	Height Adjustment (mm)	Level Accuracy (mm/rev.)	Incline Adjustment Angle	Mass (kg)	
												B	b								D
Without Stabilizer	Without Pad	KHWM-C	47	110	115	47	41	53	20	64	51	—	—	—	—	50	—	—	—	—	3.3
		KHWM-P	51	130	140	51	45	57	—	74	66	—	—	—	—	70	—	—	—	—	5.4
		KHWM-SC	52	110	115	52	46	58	—	64	51	22	12	—	—	111	106	16	—	—	3.4
With Stabilizer	With Pad	KHWM-SC	56	130	140	56	50	62	—	74	66	—	—	—	—	70	—	—	±6	0.24	5.5
		KHWM-P	62	110	115	62	56	68	—	64	51	22	12	108	78	111	106	16	—	—	3.6
		KHWM-SP	67	130	140	67	61	73	—	74	66	—	—	—	—	136	126	25	—	—	6.0

Feature

- This leveling mount enables installation and height adjustment of devices and apparatuses due to the effect of integrated special springs.
- Working efficiency is increased since the adjusting bolt head doesn't move back and forth when adjusted.
- Low particle generation fluorinated grease is applied to Standard Type, which is suitable for clean environments. (Clean Room Class is not guaranteed.)
- With Pad Type has an attenuation effect for self-induced vibration. Also excels in oil resistance and antitransparency (color transfer to the floor).
- With Stabilizer Type is applicable to the floor inclination (±3°) to maintain the device horizontal, which ensures stable work environments.

Rubber Pad Characteristics

Item	Unit	HDR Rubber
Hardness	Shore A	95
Specific Gravity	—	1.25
Tensile Strength	MPa	6.5
Elongation	%	100
Max. Operating Temperature	°C	80
Continuous Use Temperature	°C	70
Cold Resistance	°C	0

Bolt, Nut and Washer Selection Example

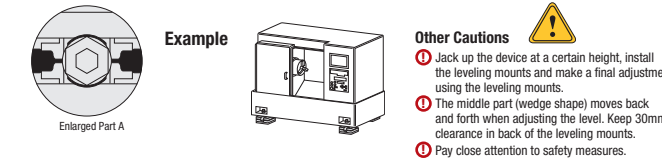
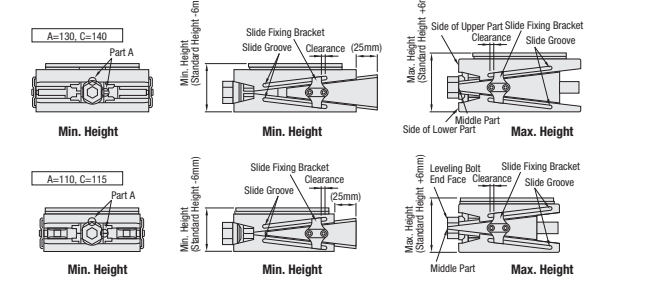
Part Number	How to Mount	Screw-In Depth (Overall Depth)	Base Thickness	Mounting Height H		Selected Bolt
				Nut	Washer	
KHWM-P52	Device Mounting	53	Arbitrary	P.2429	P.2346	P.2391
KHWM-P56		57				
KHWM-SP61		62				
KHWM-SP67		68				
KHWM-C47		53				
KHWM-C51		57				
KHWM-SC56		62				
KHWM-SC62		68				

About Anchor Bolts

- Anchor Customers are to provide the mounting bolts. Please provide M16 (Coarse).
- Length of anchor bolts = device flange/frame thickness + depth of screwed-in leveling mount (total depth) + hex nut and plain washer thickness.
- Anchor bolt mounting holes can be ignored when not necessary.

Leveling Adjustment Range

Be sure to use within the leveling adjustment range (±6mm) as shown in the table above. 1 mm clearance at part A should be remained for the minimum height. This clearance is to avoid interference between the slide groove and the slide fixing bracket. Note that if the level is lower, the casted main body will be in contact and the slide fixing bracket will come off from the slide groove, which will cause damage or breakage. For maximum height, the tip of the middle part slides to the side edge of the upper/lower part for A130 and C140, while it slides to the edge of the leveling bolt for A110 and C115. Do not increase the height further.



Grease Characteristics

Name	Item	Contained Amount	Unit	Measurement Method	Conditions
Fluorinated Resin	Thickener	—	—	—	—
Per-Fluoro Polyether Oil	Base Oil	—	—	—	—
Dropping Point	None	—	—	JIS K-2220 5, 4	—
Evaporation Amount	≤0.2	mass %	Proprietary scheme	—	—
Oil Separation	≤10	mass %	Proprietary scheme	—	200°C, 24h

Feature: Achieves good lubricating performance in wide range of temperature from low to high.

Bottom Pad

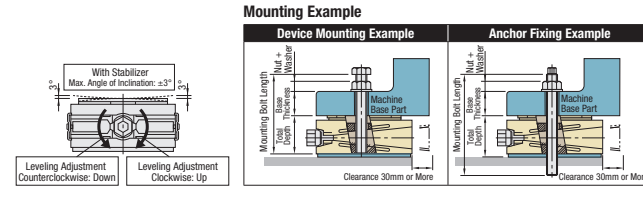
Example of Stabilizer

Major Application

- FPD Manufacturing Processor
- Semiconductor Manufacturing Processor
- Precision Metal Processor
- Large Precision Measuring Instrument
- Other Devices and Apparatuses

How to Mount

- The flange, frame and the floor of the device on which leveling mounts are to be mounted require adequate rigidity.
- Place a device gently onto the leveling mount.
- When mounting a leveling mount on the device with bolts, align the mounting holes of the device and the tap position of the leveling mounts. Insert a hex bolt, a hex nut and a plain washer into a mounting hole of the device and screw them in the tap of the leveling mount. Do not tighten the hex nut at this point. (Hex bolts, hex nuts and plain washers are supplied by users.) After level adjustment is complete, tighten hex nuts and plain washers. Please note that if the support load is very light, the leveling mount may slant due to the overtightening of nuts.
- Turn the hex head (hole) on the front side of the leveling mount by a tool and adjust the level of the device. Turn clockwise to increase the level and counterclockwise to decrease the level.
- Adjust each leveling mount gradually to avoid load concentration on the leveling mount.



Leveling Bolts

Squared Chamfered / Hex Chamfered / Flanged Tip

Leveling Bolts – Squared Chamfered Tip

Coarse / Fine

Type	L Dimension	L Selectable	Material	Hardness (Tip Induction Hardened)	Surface Treatment
FJKB	—	—	1045 Carbon Steel or Equivalent	50~56 HRC min.	Trivalent Chromate
FJKBF	—	—			
FJKBS	—	—	304 Stainless Steel	—	—

Tip SR Square Chamfered Type

Type	Part Number		L	d	E	F	H	SR	J	K	r	B	(e)	T	Load Capacity (kN)	Mass (g)
	Coarse	Fine														
FJKB	12 x1.75	—	10	8	6	1	8	8	8	10	0.5	19	21.9	10	23.6	75
FJKBS	16 x2.0	—	12	13	6	1.6	10	14	10	13	1.0	24	27.7	13	44.0	171
FJKBF	20 x2.5	20 x2.5	13.5	15	6.5	2	12	16	12	16	—	30	34.6	16	68.6	252
FJKBB	24 x3.0	24 x1.5	14	18	8	2.5	14	18	14	18	1.2	36	41.6	19	98.8	436
FJKBB	—	30 x1.5	16	22	10	3	17	24	16	25	1.2	46	53.1	24	123.3	680

L Dimension Fixed Type

Type	Part Number		L
	Coarse	Fine	
FJKB	12 x1.75	—	80
FJKBS	16 x2.0	—	98
FJKBF	20 x2.5	20 x2.5	100
FJKBB	24 x3.0	24 x1.5	112
FJKBB	—	30 x1.5	130

L Dimension Selectable Type

Type	Part Number		L	
	M (xP)	L	Load Capacity (kN)	Mass (g)
FJKBF	12 x1.75	60	100	120
	16 x2.0	80	100	120
	20 x2.5	—	—	—

Leveling Bolts – Hex Chamfered Tip

Coarse

Type	L Dimension	L Dimension Selectable	Material	Hardness (Tip Induction Hardened)	Surface Treatment
FJKC	—	—	1045 Carbon Steel or Equivalent	—	Trivalent Chromate
FJKCF	—	—			
FJKCS	—	—	304 Stainless Steel	—	—

Tip SR Hex Chamfered Type

Type	Part Number		A	B	d	SR	(e)	T	Load Capacity (kN)	Mass (g)
	Coarse	Fine								
FJKC	12 x1.75	—	8	19	8	8	21.9	10	7.1	100
FJKCF	16 x2.0	—	10	24	13	14	27.7	13	9.8	200
FJKCS	20 x2.5	—	13	30	15	16	34.6	16	21.0	300

L Fixed Type

Type	Part Number		L
	M (xP)	L	
FJKC	12 x1.75	—	136
FJKCS	16 x2.0	—	—
FJKCS	20 x2.5	—	—

L Selectable Type

Type	Part Number		L	
	M (xP)	L	Load Capacity (kN)	Mass (g)
FJKCF	12 x1.75	60	80	100
	16 x2.0	80	100	120
	20 x2.5	—	—	—

Leveling Bolts – Flanged Tip

Coarse

Type	L Dimension	L Selectable	Material	Hardness (Tip Induction Hardened)	Surface Treatment
FJKF	—	—	1045 Carbon Steel or Equivalent	50~56 HRC min.	Trivalent Chromate
FJKFF	—	—			

Flanged Tip SR Type

Type	Part Number		L	L ₁	d	E	(e)	SR	r	B	T	Load Capacity (kN)	Mass (g)	
	M (xP)	L												
FJKF	12 x1.75	60	80	100	20	12	6	21.9	10	1	19	10	23.6	110
	16 x2.0	80	100	120	25	16	8	27.7	14	2	24	13	44.0	210
	20 x2.5	—	—	—	34	20	10	34.6	16	2	30	16	68.6	315

Part Number Example

Part Number - L

FJKB12

FJKCF16 - 80