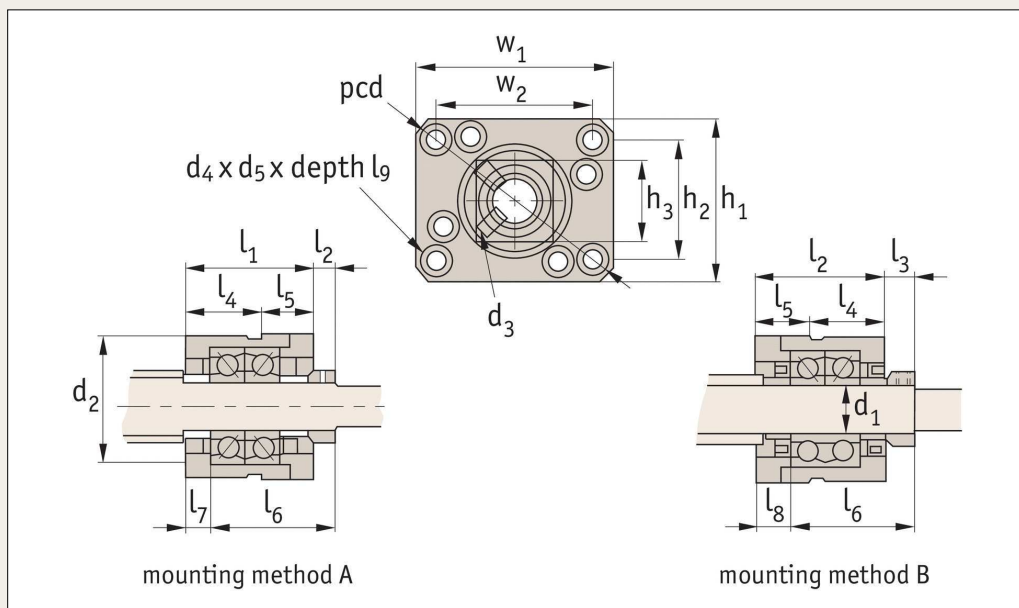


# Fixed Round Support Units (FKA)

for ball & lead screws

Bearing Supports



## L1400

### Material

Steel with black oxide finish.  
Bearings, sealed and lubricated for life.

### Technical notes

Standard units are suitable for ball screws and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 0,018mm.

For dimensions to machine the ends

of the screws to see technical pages.

### Tips

Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

Order No.	For lead screw o.d Ø	For ball screw o.d Ø	d <sub>1</sub> H7	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>
L1400.FKA06	10	8	6	20	30	5,5	6,5	13	7	22,0	3,5
L1400.FKA08	12	10	8	23	30	7,0	8,0	14	9	26,0	4,0
L1400.FKA10	14 - 16	12	10	27	39	7,5	8,5	17	10	29,5	5,0
L1400.FKA12	18 - 20	14 - 16	12	27	39	7,5	8,5	17	10	29,5	5,0
L1400.FKA15	22 - 24	20	15	32	43	10,0	12,0	17	15	36,0	6,0
L1400.FKA20	26 - 32	25 - 28	20	52	59	8,0	12,0	30	22	50,0	10,0

Order No.	l <sub>8</sub>	l <sub>9</sub>	w <sub>1</sub>	w <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	d <sub>2</sub> g6	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	pcd	Max axial load Kgf
L1400.FKA06	4,5	4	36	26,79	20,93	12	28	M3	6,5	3,4	44	74
L1400.FKA08	5,0	4	36	26,79	20,93	14	28	M3	6,5	3,4	44	103
L1400.FKA10	6,0	4	48	35,70	27,39	16	36	M3	8,0	4,5	56	195
L1400.FKA12	6,0	4	48	35,70	27,39	19	36	M4	8,0	4,5	56	217
L1400.FKA15	8,0	6	56	39,40	30,78	22	40	M4	9,5	5,5	65	240
L1400.FKA20	14,0	10	72	56,74	44,33	30	57	M4	11,0	6,6	86	587

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### Notes

When inserting the screw shaft to the support unit, take care not to let the oil seal lip turn upward.

When securing the set piece with a hexagonal socket head set screw, apply an adhesive to the hexagonal socket head set screw before tightening it in order to prevent the screw from loosening. If planning to use the product in a harsh environment, it is also necessary to take measures to prevent other components/parts from loosening. Contact our Technical Department for details.

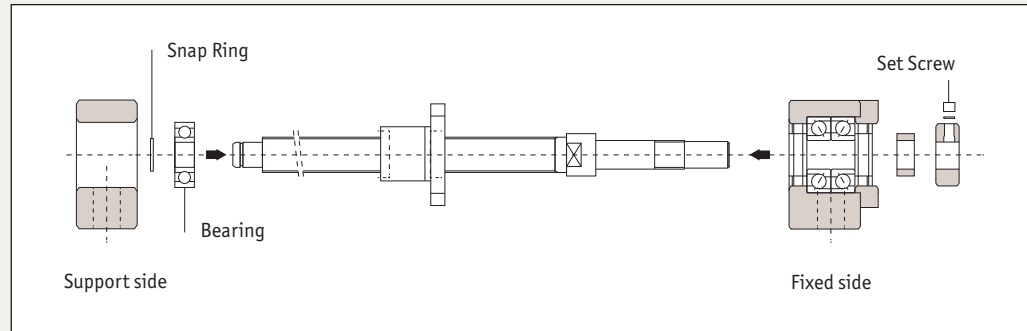
### Notes

If using the fixed side support unit as the reference point, secure a clearance between the ball screw nut and the table or inside the bracket when making adjustment.

If using the table as a reference point, make the adjustment either by using the shim (for a square type support unit), or securing the clearance between the outer surface of the nut and the inner surface of the mounting section (for a round type support unit).

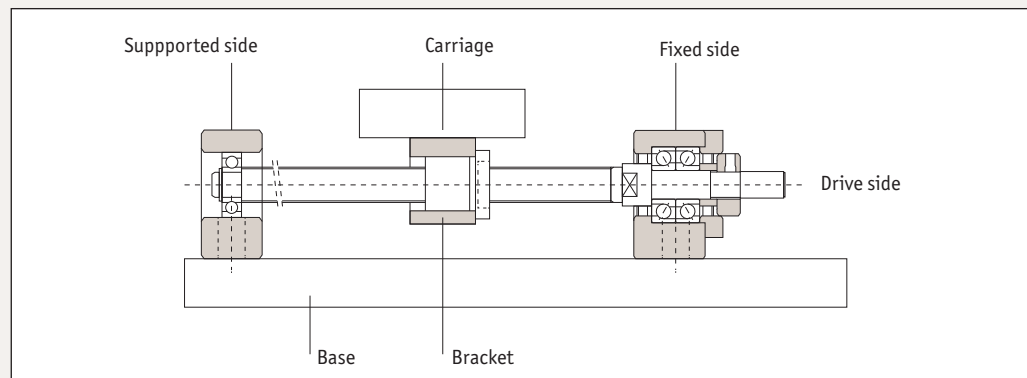
### Installing the support unit

1. Install the fixed side support unit to the screw shaft.
2. After inserting the fixed side support unit, secure the lock nut using the fastening set piece and the hexagonal socket head set screws.
3. Attach the support side bearing to the screw shaft and secure the bearing using the snap ring, and then install the assembly to the housing on the supported side.



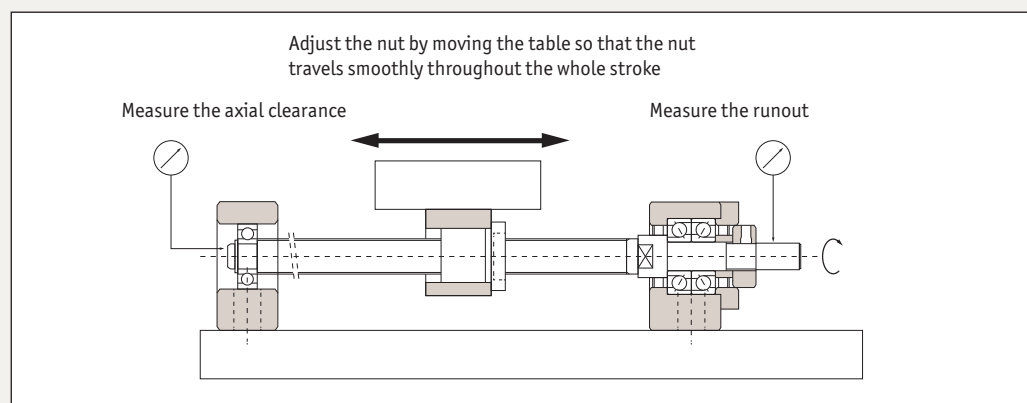
### Installation onto the table and the base

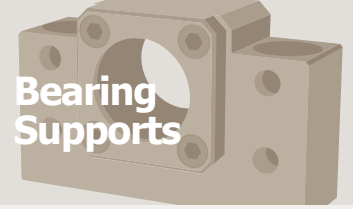
1. If using a bracket when mounting the ball screw nut to the carriage, insert the nut into the bracket and temporarily fasten it.
2. Temporarily fasten the fixed side support unit to the base. In doing so, press the table toward the fixed side support unit to align the axial centre, and adjust the carriage so that it can travel freely.
3. Press the carriage toward the fixed side support unit to align the axial centre. Make the adjustment by reciprocating the table several times so that the nut travels slowly over the whole stroke, and temporarily secure the support unit to the base.



### Checking the accuracy and fully fastening the support unit

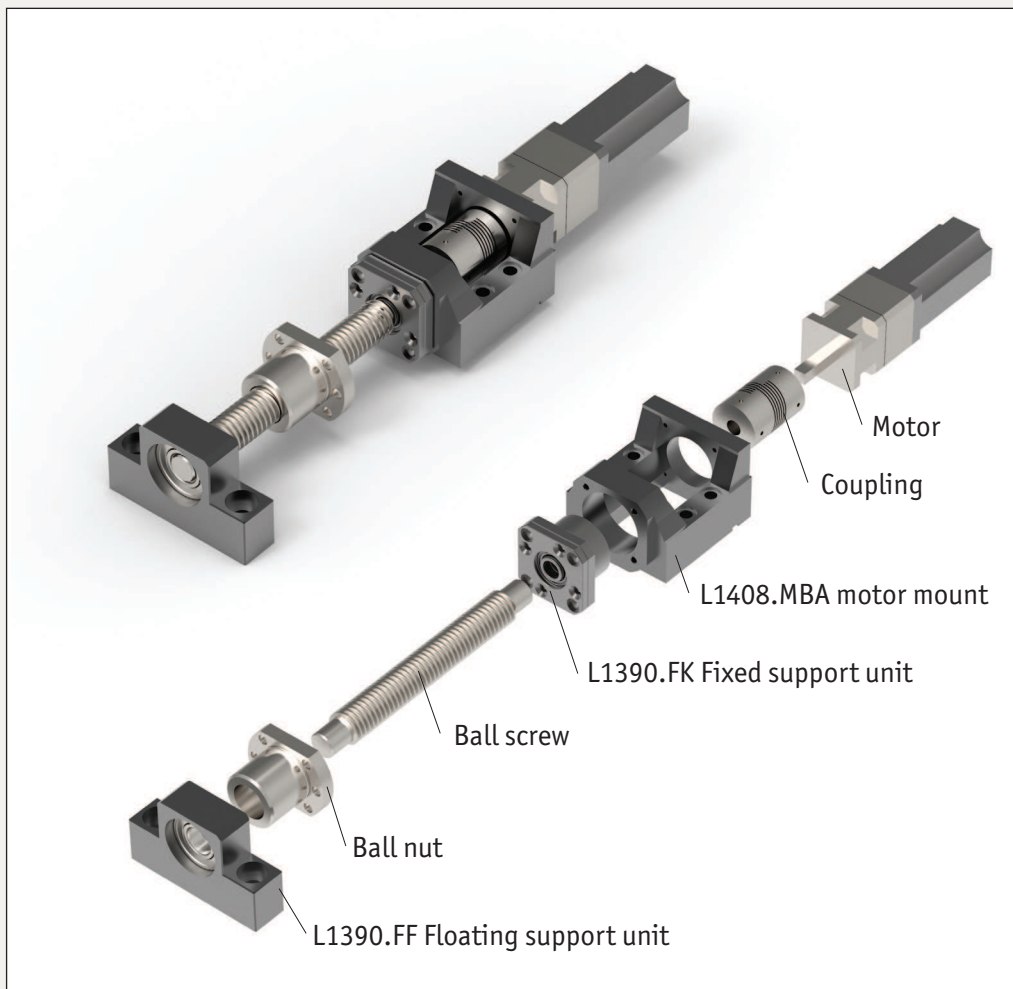
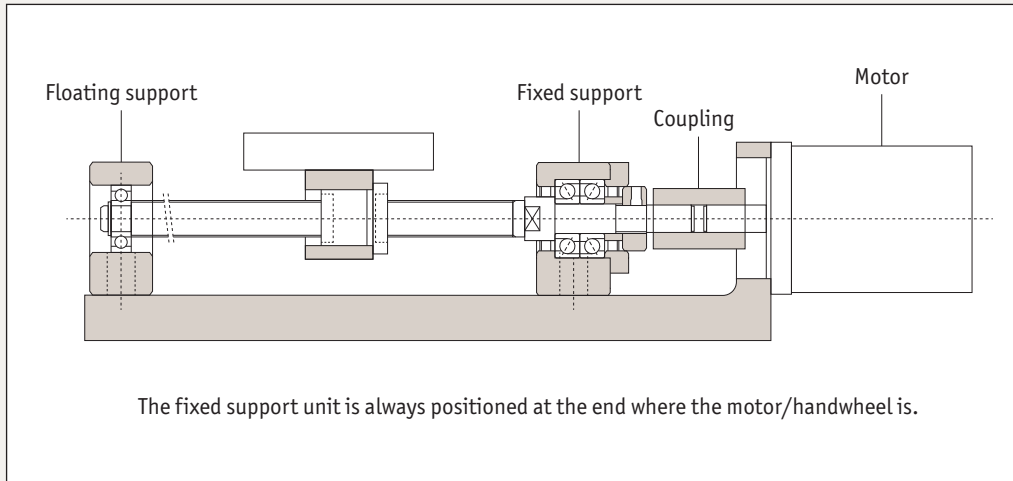
1. While checking the runout of the ball screw shaft end and the axial clearance using a dial gauge, fully fasten the ball screw nut, the nut bracket, the fixed side support unit and the support side unit, in this order.

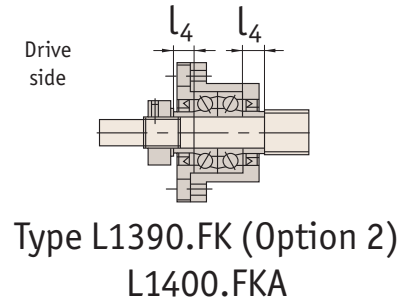
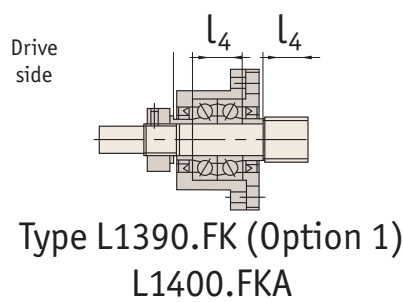
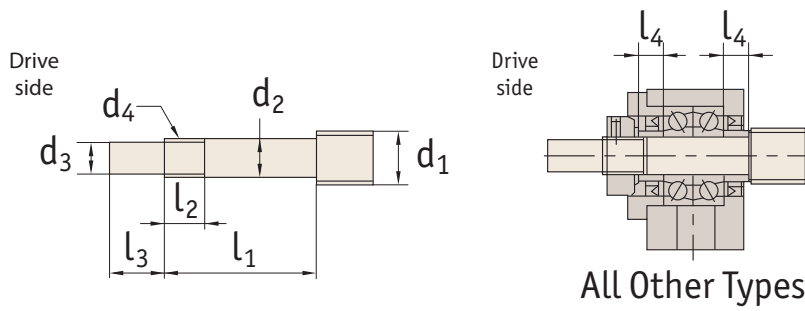




### Connection with motor

1. Mount motor bracket to the base.
2. Connect the motor and the ball screw using a coupling (make sure the mounting accuracy is maintained).
3. Mount motor bracket to the base.

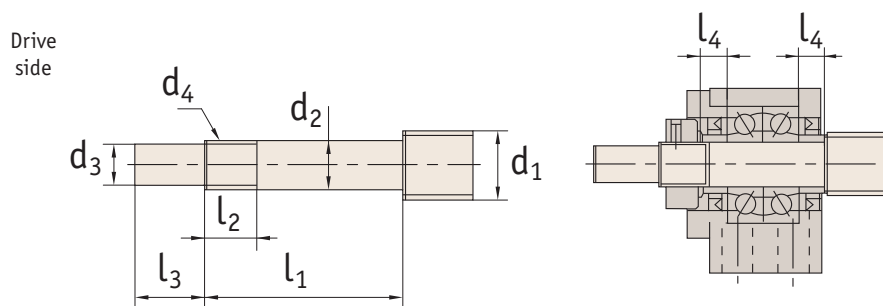
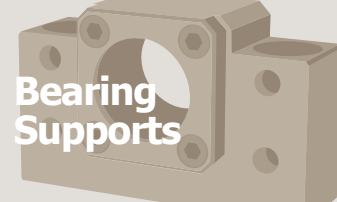




Part no.					Thread $\varnothing$	Shaft support $\varnothing$					For thread		
FK	EK	AK	FKA	LK	$d_1$	$d_2$		$h_7$	$l_1$	$l_3$	$d_4$	$l_2$	$l_4$
L1390.FK05	L1394.EK05	-	-	-	8	5	-0,008 -0,015	4	23	6	M5x0,5	7	3,5
L1390.FK06	L1394.EK06	-	-	-	8	6	-0,008 -0,015	4	28	8	M6x0,75	8	5,0
L1390.FK08	L1394.EK08	-	L1400.FKA08	L1402.LK08	10/12	8	-0,008 -0,015	6	32	9	M8x1,0	10	5,5
L1390.FK10	L1394.EK10	L1388.AK10	L1400.FKA10	L1402.LK08	12/14/15	10	-0,008 -0,015	8	35	15	M10x1,0	12	5,5
L1390.FK12	L1394.EK12	L1388.AK12	L1400.FKA12	L1402.LK08	14/15/16	12	-0,008 -0,015	10	35	15	M12x1,0	12	5,5
L1390.FK15	L1394.EK15	L1388.AK15	L1400.FKA15	L1402.LK08	18/20	15	-0,008 -0,017	12	48	20	M15x1,0	13	10,0
L1390.FK17	-	-	-	-	20/25	17	-0,008 -0,017	15	59	23	M17x1,0	17	10,0
L1390.FK20	L1394.EK20	L1388.AK20	L1400.FKA20	-	25/28/30	20	-0,008 -0,017	17	63	25	M20x1,0	15	11,0
L1390.FK25	-	-	-	-	30/32/36	25	-0,008 -0,017	20	76	30	M25x1,5	20	14,0
L1390.FK30	-	-	-	-	36/40	30	-0,008 -0,018	25	73	38	M30x1,5	25	9,0

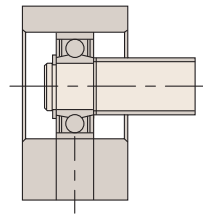
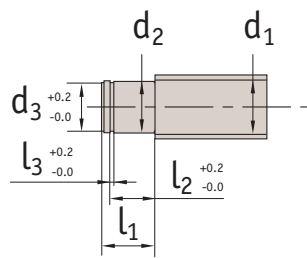
# Technical Information

## Fixed side for unit type L1392.BK

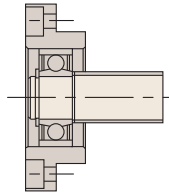


Part sno.	Thread $\phi$	Shaft support $\phi$					Thread		
		$d_1$	$d_2$	$d_3$	$l_1$	$l_3$	$d_4$	$l_2$	$l_4$
<b>BK</b>		$d_1$	$d_2$	$d_3$	$l_1$	$l_3$	$d_4$	$l_2$	$l_4$
<b>L1392.BK10</b>	12/14/15	10	-0,008 -0,015	8	36	15	M10x1,0	12	5,5
<b>L1392.BK12</b>	14/15/16	12	-0,008 -0,015	10	36	15	M12x1,0	12	5,5
<b>L1392.BK15</b>	18/20	15	-0,008 -0,017	12	40	20	M15x1,0	12	6,0
<b>L1392.BK17</b>	20/25	17	-0,008 -0,017	15	53	23	M17x1,0	17	7,0
<b>L1392.BK20</b>	25/28	20	-0,008 -0,017	17	53	25	M20x1,0	15	8,0
<b>L1392.BK25</b>	32/36	25	-0,008 -0,017	20	66	30	M25x1,5	20	9,0
<b>L1392.BK30</b>	36/40	30	-0,008 -0,018	25	73	38	M30x1,5	25	9,0
<b>L1392.BK35</b>	45	35	-0,008 -0,018	30	82	45	M35x1,5	26	12,0
<b>L1392.BK40</b>	50	40	-0,008 -0,018	35	94	50	M40x1,5	30	15,0

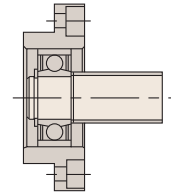
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All Other Types



Type L1391.FF (Option 1)



Type L1391.FF (Option 2)

Part no.					Thread $\varnothing$	Shaft support $\varnothing$					
FF	EF	BF	AF	LF	$d_1$	$d_2$		$l_1$	$d_3$	$l_2$	$l_3$
L1391.FF06	L1395.EF06	-	-	-	8	6	-0,008 -0,015	9	5,7	6,8	0,80
-	L1395.EF08	-	-	L1403.LF08	10	6	-0,008 -0,015	9	5,7	6,8	0,80
L1391.FF10	L1395.EF10	L1393.BF10	L1389.AF10	-	12/14/15	8	-0,008 -0,015	10	7,6	7,9	0,90
L1391.FF12	L1395.EF12	L1393.BF12	L1389.AF12	L1403.LF12	14/15/16	10	-0,008 -0,015	11	9,6	9,15	1,15
L1391.FF15	L1395.EF15	L1393.BF15	L1389.AF15	L1403.LF15	18/20	15	-0,008 -0,017	13	14,3	10,15	1,15
L1391.FF17	-	L1393.BF17	-	-	20/25	17	-0,008 -0,017	16	16,2	13,15	1,15
L1391.FF20	L1395.EF20	(L1393.BF20)	L1389.AF20	-	25/28/30	20	-0,008 -0,017	19 (16*)	19,0	15,35 (13,15)	1,35
L1391.FF25	-	L1393.BF25	L1389.AF25	-	30/32/36	25	-0,008 -0,017	20	23,9	16,35	1,35
L1391.FF30	-	L1393.BF30	L1389.AF30	-	36/40	30	-0,008 -0,018	21	28,6	17,75	1,75
-	-	L1393.BF35	-	-	40/45	35	-0,008 -0,018	22	33,0	18,75	1,75
-	-	L1393.BF40	-	-	50	40	-0,008 -0,018	23	38,0	19,95	1,95

\*applies to L1393.BF20 only.