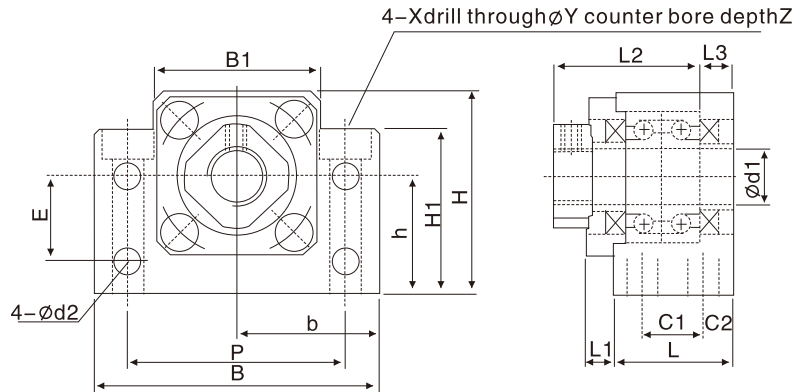




Support - BK/BF Series

1 Support Classification

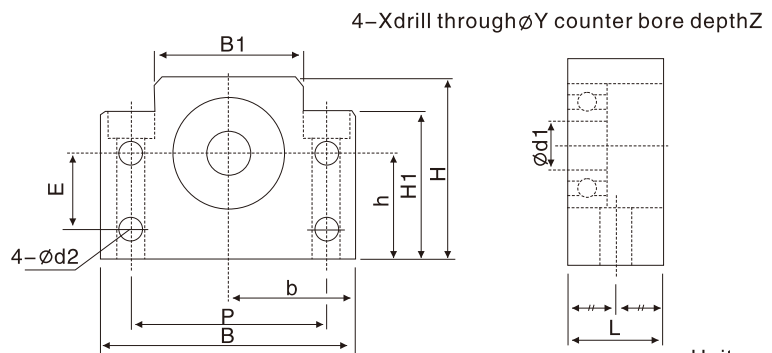
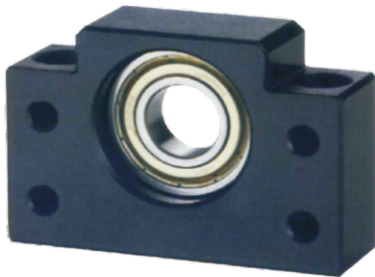
1-1 BK Fixed Side



Unit:mm

Model Number	d1	L	L1	L2	L3	C1	C2	B	H	$b^{±0.02}$	$h^{±0.02}$	B1	H1	E	P	d2	X	Y	Z
BK 10	10	25	5	29	5	13	6	60	39	30	22	34	32.5	15	46	5.5	6.6	10.8	5
BK 12	12	25	5	29	5	13	6	60	43	30	25	34	32.5	18	46	5.5	6.6	10.8	1.5
BK 15	15	27	6	32	6	15	6	70	48	35	28	40	38	18	54	5.5	6.6	11	6.5
BK 17	17	35	9	44	7	19	8	86	64	43	39	50	55	28	68	6.6	9	14	8.5
BK 20	20	35	8	43	8	19	8	88	60	44	34	52	50	22	70	6.6	9	14	8.5
BK 25	25	42	12	54	9	22	10	106	80	53	48	64	70	33	85	9	11	17.5	11
Bk 30	30	45	14	61	9	23	11	128	89	64	51	76	78	33	102	11	14	20	13
Bk 35	35	50	14	67	12	26	12	140	96	70	52	88	79	35	114	11	14	20	13
BK 40	40	61	18	76	15	33	14	160	110	80	60	100	90	37	130	14	18	26	17.5

BF Floted Side



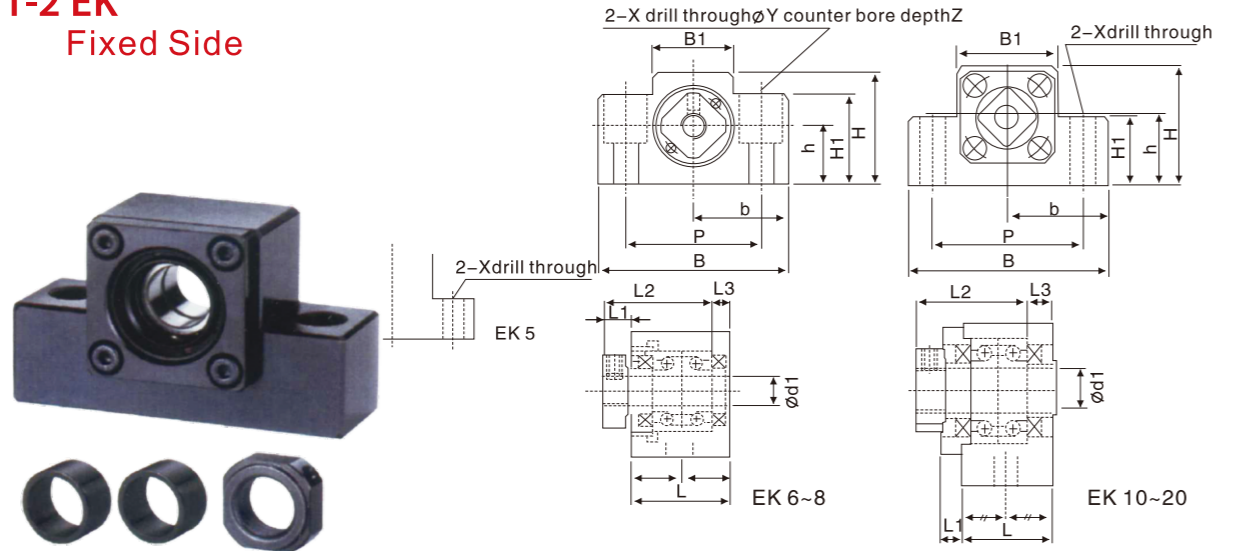
Unit:mm

Model Number	d1	L	B	H	$b^{±0.02}$	$h^{±0.02}$	B1	H1	E	P	d2	X	Y	Z
BF 10	8	20	60	39	30	22	34	32.5	15	46	5.5	6.6	10.8	5
BF 12	10	20	60	43	30	25	34	32.5	18	46	5.5	6.6	10.8	1.5
BF 15	15	20	70	48	35	28	40	38	18	54	5.5	6.6	11	6.5
BF 17	17	23	86	64	43	39	50	55	28	68	6.6	9	14	8.5
BF 20	20	26	88	60	44	34	52	50	22	70	6.6	9	14	8.5
BF 25	25	30	106	80	53	48	64	70	33	85	9	11	17.5	11
BF 30	30	32	128	89	64	51	76	78	33	102	11	14	20	13
BF 35	35	32	140	96	70	52	88	79	35	114	11	14	20	13
BF 40	40	37	160	110	80	60	100	90	37	130	14	18	26	17.5

Support - EK/EF Series



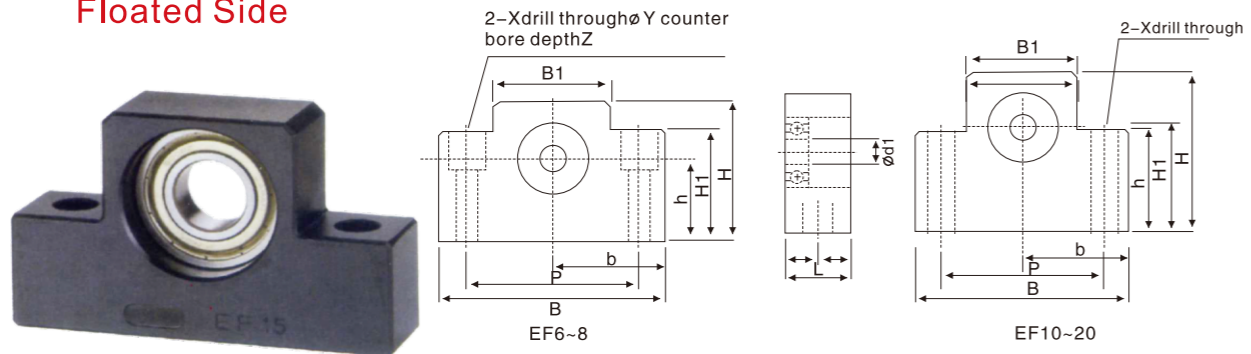
1-2 EK Fixed Side



Unit:mm

Model Number	d1	L	L1	L2	L3	B	H	b ^{±0.02}	h ^{±0.02}	B1	H1	P	X	Y	Z
EK 5	5	16.5	5.5	18.5	3.5	36	21	18	11	20	8	28	4.5	-	-
EK 6	6	20	5.5	22	3.5	42	25	21	13	18	20	30	5.5	9.5	11
EK 8	8	23	7	26	4	52	32	26	17	25	26	38	6.6	11	12
EK 10	10	24	6	29.5	6	70	43	35	25	36	24	52	9	-	-
EK 12	12	24	6	29.5	6	70	43	35	25	36	24	52	9	-	-
EK 15	15	25	6	36	5	80	49	40	30	41	25	60	11	-	-
EK 20	20	42	10	50	10	95	58	47.5	30	56	25	75	11	-	-

EF Floated Side



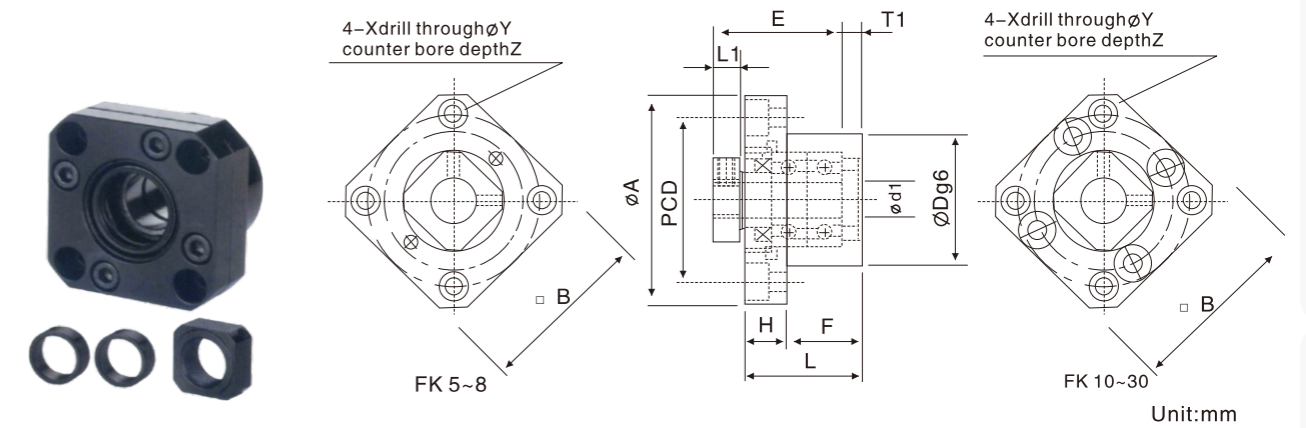
Unit:mm

Model Number	d1	L	B	H	b ^{±0.02}	h ^{±0.02}	B1	H1	P	X	Y	Z
EF 6	6	12	42	25	31	13	18	20	30	5.5	9.5	11
EF 8	6	14	52	32	26	17	25	26	38	6.6	11	12
EF 10	8	20	70	43	35	25	36	24	52	9	-	-
EF 12	10	20	70	43	35	25	36	24	52	9	-	-
EF 15	15	20	80	49	40	30	41	25	60	9	-	-
EF 20	20	26	95	58	47.5	30	56	25	75	11	-	-

Support - FK/FF Series



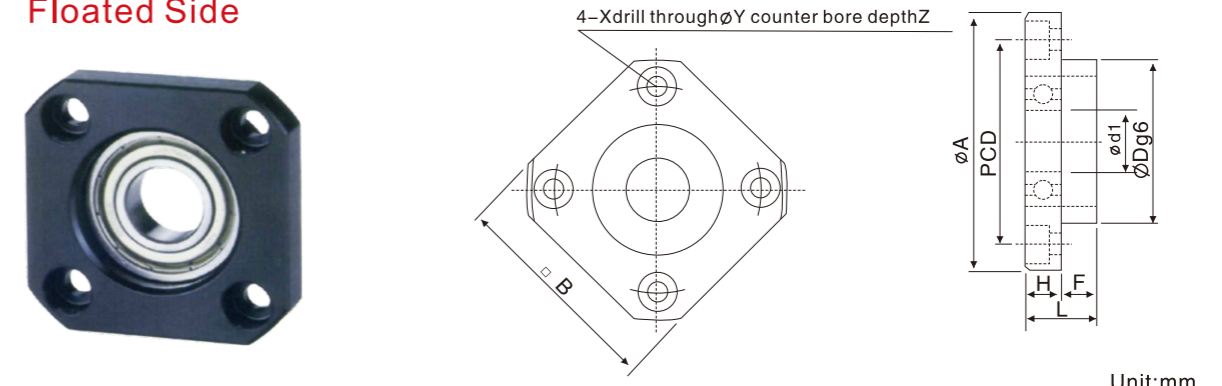
1-3 FK Fixed Side



Unit:mm

Model Number	d1	L	H	F	E	Dg6	A	PCD	B	L1	T1	X	Y	Z
FK 5	5	16.5	6	10.5	18.5	20	34	26	26	5.5	3.5	3.4	6.5	4
FK 6	6	20	7	13	22	22	36	28	28	5.5	3.5	3.4	6.5	4
FK 8	8	23	9	14	26	28	43	35	35	7	4	3.4	6.5	4
FK 10	10	27	10	17	29.5	34	52	42	42	7.5	5	4.5	8	4
FK 12	12	27	10	17	29.5	36	54	44	44	7.5	5	4.5	8	4
FK 15	15	32	15	17	36	40	63	50	52	10	6	5.5	9.5	6
FK 17	17	45	22	23	47	50	77	62	61	11	9	6.6	11	10
FK 20	20	52	22	30	50	57	85	70	68	8	10	6.6	11	10
FK 25	25	57	27	30	60	63	98	80	79	13	10	9	15	13
FK 30	30	62	30	32	61	75	117	95	93	11	12	11	17.5	15

FF Floated Side



Unit:mm

Model Number	d1	L	H	F	Dg6	A	PCD	B	X	Y	Z
FF 6	6	10	6	4	22	36	28	28	3.4	6.5	4
FF 10	8	12	7	5	28	43	35	35	3.4	6.5	4
FF 12	10	15	7	8	34	52	42	42	4.5	8	4
FF 15	15	17	9	8	40	63	50	52	5.5	9.5	5.5
FF 17	17	20	11	9	50	77	62	61	6.6	11	6.5
FF 20	20	20	11	9	57	85	70	68	6.6	11	6.5
FF 25	25	24	14	10	63	98	80	79	9	14	8.5
FF 30	30	27	18	9	75	117	95	93	11	17.5	11

Linear Guideways

Ball Screw

Support

Linear Bushing

Linear Guideways

Ball Screw

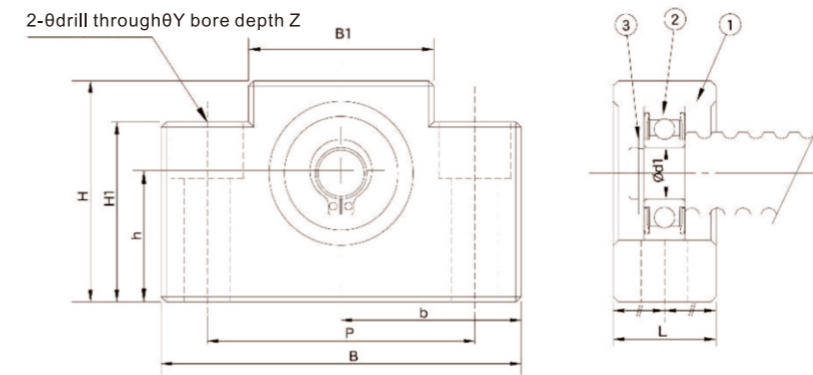
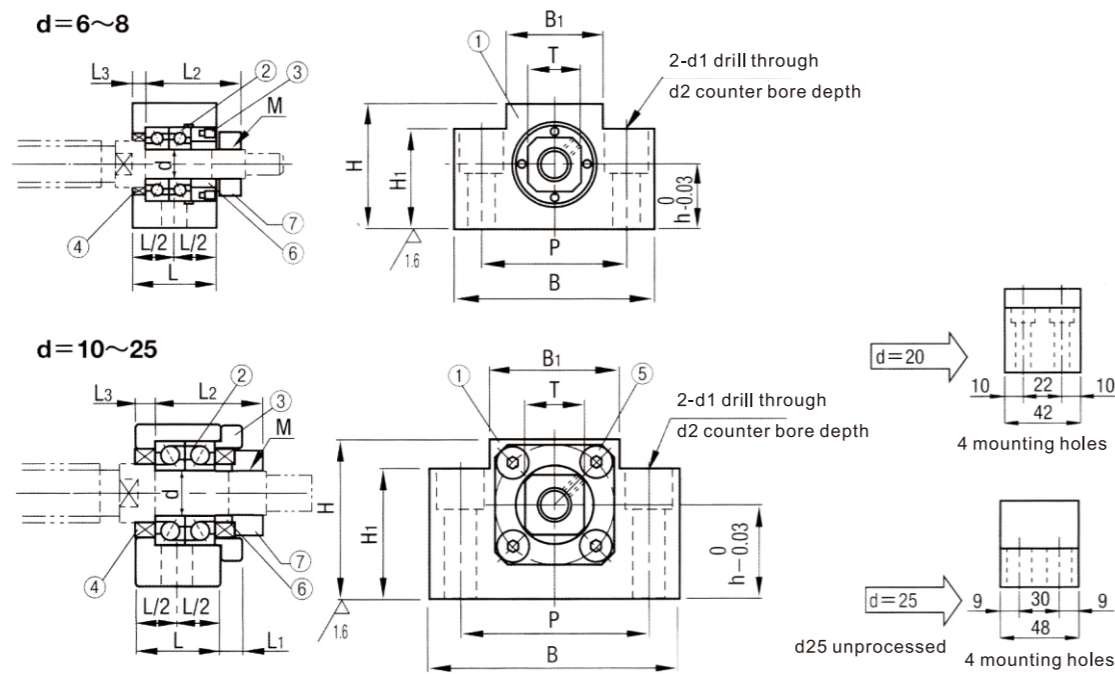
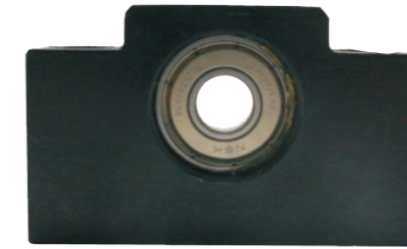
Support

Linear Bushing



1-4 Support Unit AK (fixed-side rectangular type)

Park No.	Part name	Qty
1	Housing	1
2	Bearing	set
3	Holding lid	1
4	Collar	2
5	Seal	1
6	Lock nut	set
7	Hexagon socket-head screw	2



Unit:mm

Model Number	Shaft diameter d1	L	L1	L2	L3	B	H	h	B1	H1	P	d1	d2	e	M (screw thread)	T	Oil Seal (Applicable axle dia.)
AK6	6	20	-	22.5	3.5	42	25	13	18	20	30	5.5	9.5		M6×0.75	12	-
AK8	8	23	-	26	4	52	32	17	25	26	38	6.6	11		M8×1.0	14	10 11.54
AK10	10	24	6	29.5	6	6	40	22		32				11	M10×1.0	17	14
							43	25		35		52	9				14
AK12	12						41	23		33					M12×1.0	19	15
							43	25		35							
							46	26		36							
AK15	15	25	6	38	5	80	48	28		41	38			M15×1.0	22	20	
							50	30		40	60	11	17			15	
							50	30		40	60	11	17			15	
AK20	20	42	10	52	10	95	58	30	56	45	75	11	-	M20×1.0	30	25	
AK25	25	48	13	59	14	105	68	35	66	25	85	11	-	M25×1.5	35	31	

Note:
 1.The use of C7(prefix6) deep groove ball bearing maximum axial clearance of 0.05-0.1mm.
 2. The use of C5(prefix7) by pre-loading angular contact bearings, axial clearance 0.
 3.The bearing is made of German brand, which is assembled by DF.

Support Unit AF (Supported-side rectangular type)

Unit:mm

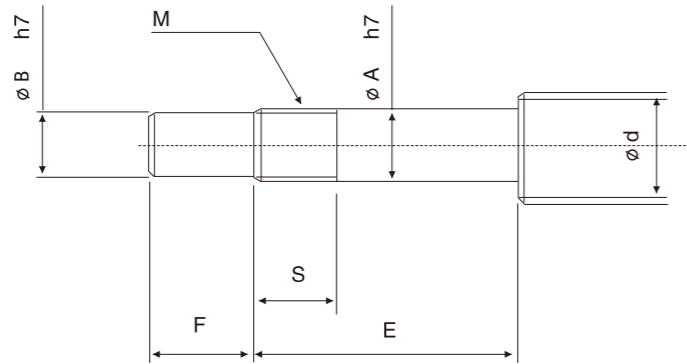
Model Number	Shaft diameter d1	L	B	H	b	h	B1	H1	P	X	Y	Z	Bearing	Snapping	Weight (kgs)
AF10	8	20	70	43	35	25	36	35	52	9	14	11	608ZZ	S08	0.37
AF12	10	20	70	43	35	25	36	35	52	9	14	11	6000ZZ	S10	0.37
AF15	15	20	80	49	40	30	41	40	60	9	14	11	6002ZZ	S15	0.45
AF20	20	26	95	58	47.5	30	56	45	75	11	17	15	6204ZZ	S20	0.75
AF25	25	30	105	68	52.5	35	66	25	85	11	-	-	6205ZZ	S25	0.95

Note:
 The use of (prefix 6) deep groove ball bearing maximum axial clearance of 0.05-0.01mm.



1-5 Recommended ball screw end machining size

Fixed side



Unit:mm

Model Number	Ball Screw shaft OD	Shaft Support Portion OD					Metric screw thread	
Type BK	d	A	B	E	F	M	S	
BK 10	12/14/15	10	8	36	15	M10×1	16	
BK 12	14/15/16	12	10	36	15	M12×1	14	
BK 15	18/20	15	12	40	20	M15×1	12	
BK 17	20/25	17	15	53	23	M17×1	17	
BK 20	25/28	20	17	53	25	M20×1	15	
BK 25	32/36	25	20	65	30	M25×1.5	18	
BK 30	36/40	30	25	72	38	M30×1.5	25	
BK 35	45	35	30	81	45	M35×1.5	18	
BK 40	50	40	35	93	50	M40×1.5	35	

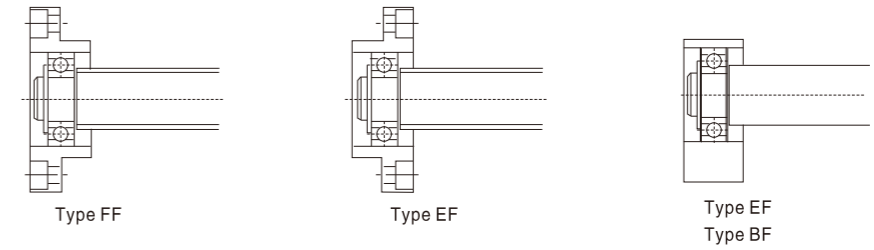
Unit:mm

Model Number	Ball Screw shaft OD	Shaft Support Portion OD					Metric screw thread	
Type FK	Type FK	d	A	B	E	F	M	S
FK 6	EK6	8	6	4	28	8	M6×0.75	8
FK 8	EK8	10/12	8	6	32	9	M8×1	10
FK 10	EK10	12/14/15	10	8	36	15	M10×1	11
FK 12	EK12	14/15/16	12	10	36	15	M12×1	11
FK 15	EK15	18/20	15	12	47	20	M15×1	13
FK 17	-	20/25	17	15	58	23	M17×1	15
FK 20	EK20	25/28/30	20	17	62	25	M20×1	17
FK 25	-	30/32/36	25	20	76	30	M25×1.5	20
FK 30	-	36/40	30	25	72	38	M30×1.5	25

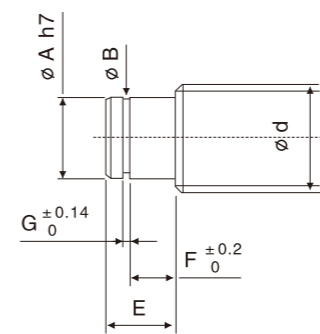


Recommended ball screw end machining size

Floated Side



Model Number			Ball Screw shaft OD	Shaft Support Portion OD
Type FF	Type EF	Type BF	d	A
FF10	EF10	BF10	12/14/15	8
FF12	EF12	BF12	14/15/16	10
FF15	EF15	BF15	18/20	15
FF17	-	BF17	20/25	17
FF20	EF20	(BF20)NOTE	25/28/30	20
FF25	-	BF25	30/32/36	25
FF30	-	BF30	36/40	30
-	-	BF35	40/45	35
-	-	BF40	50	40



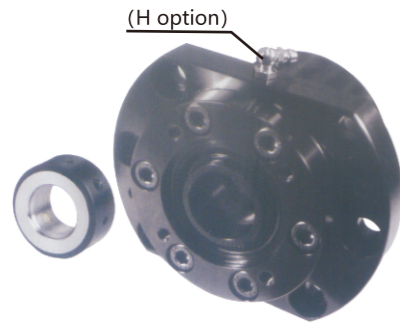
Note:
In this table, dimensions in parentheses are those of type BF20. These dimensions differ from those of type FF20 and EF20. When placing an order, always specify the model number of the Support Unit to be used

Unit:mm

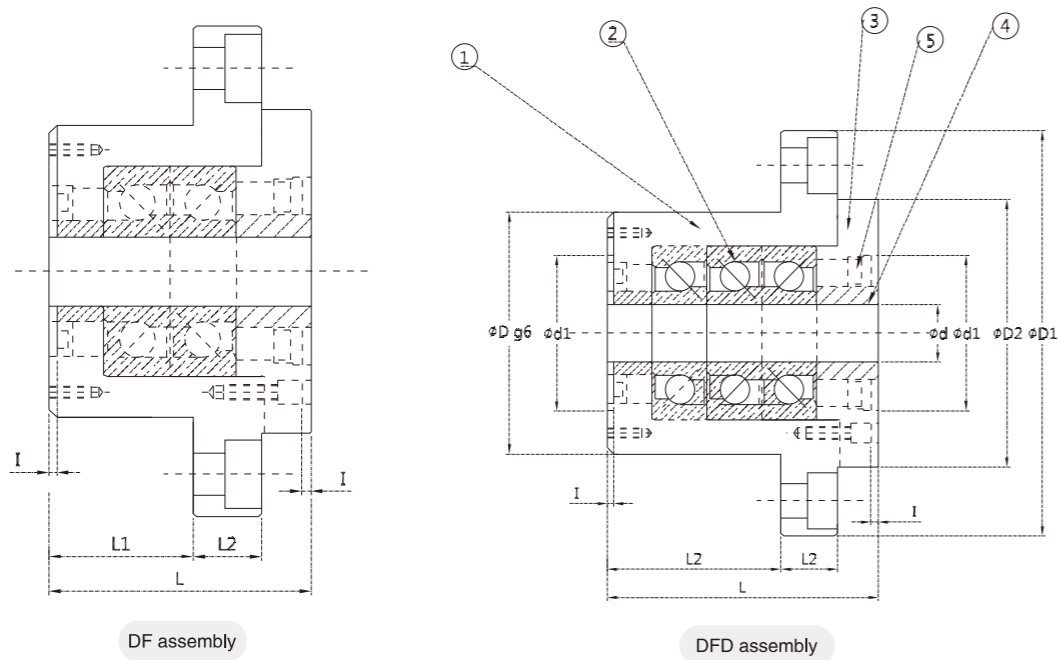
Snap-ring Groove			
E	B	F	G
10	7.6	7	0.9
11	9.6	8	1.15
13	14.3	9	1.15
16	16.2	12	1.15
19(16)	19	14(12)	1.35
20	23.9	15	1.35
21	28.6	16	1.75
22	33	17	1.75
23	38	18	1.75



1-6 WBK High Load Support



Park No.	Part name	Qty
1	Housing	1
2	Bearing	1 set
3	Holding lid	1
4	Collar	2
5	Seal	2
6	Lock nut	1 set
7	Hexagon socket-head Setscrew	4



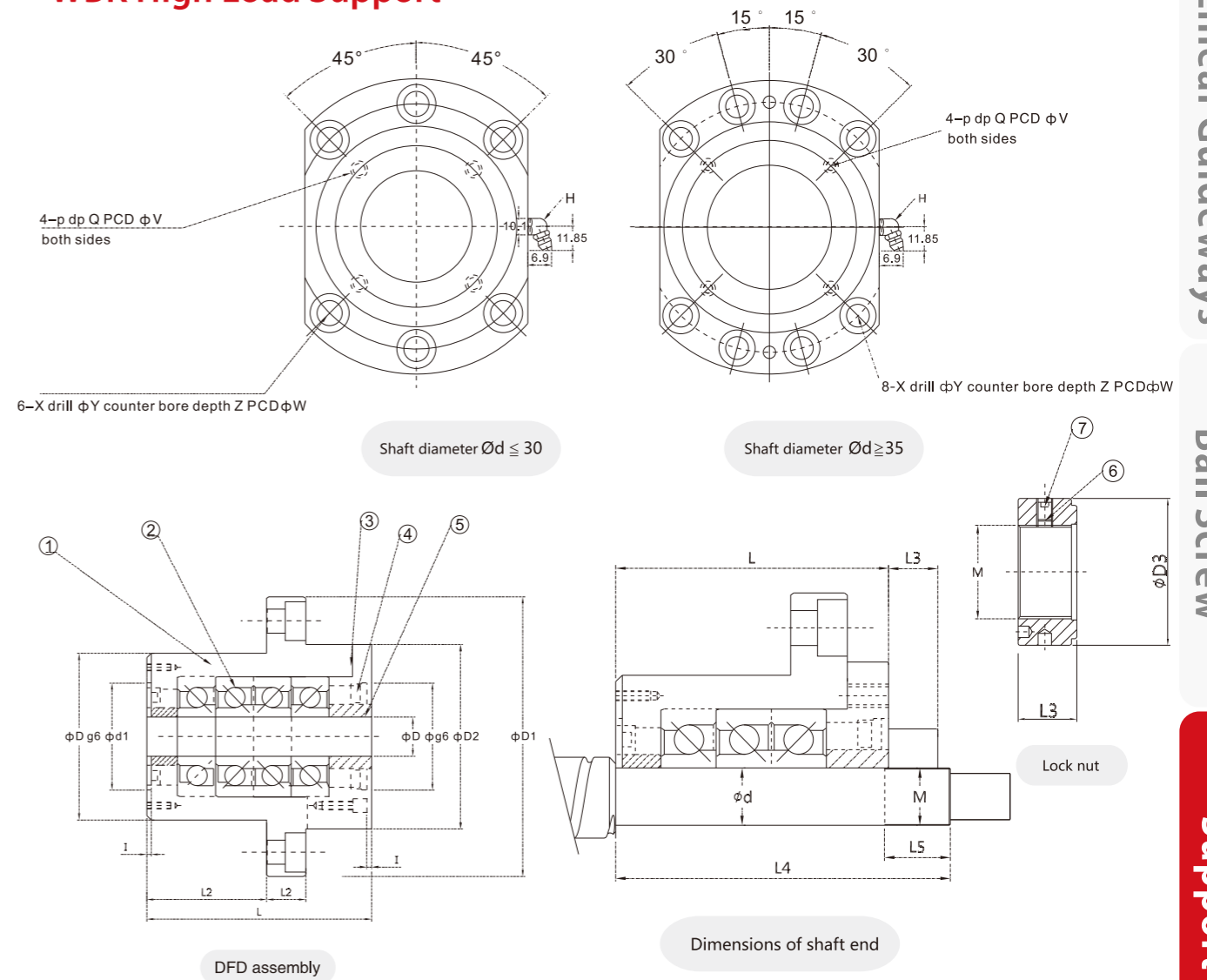
Unit:mm

Model Number	Dimensions of support unit																	
	d	D	D1	D2	L	L1	L2	A	W	X	Y	Z	d1	I	V	P	Q	H
WBK 17DF	17	70	106	72	60	32	15	80	88	9	14	8.5	45	3	58	M5	10	M6
WBK 20DF	20	70	106	72	60	32	15	80	88	9	14	8.5	45	3	58	M5	10	M6
WBK 25DF	25	85	130	90	66	33	18	100	110	11	17	11	57	4	70	M6	12	M6
WBK 25DFD					81	48										M6	12	M6
WBK 25DFF					96	48										M6	12	M6
WBK 30DF	30	85	130	90	66	33	18	100	110	11	17	11	57	4	70	M6	12	M6
WBK 30DFD					81	48										M6	12	M6
WBK 30DFF					96	48										M6	12	M6
WBK 35DF	35	95	142	102	66	33	18	106	121	11	17	11	69	4	80	M6	12	M6
WBK 35DFD					81	48										M6	12	M6
WBK 35DFF					96	48										M6	12	M6
WBK 40DF	40	95	142	102	66	33	18	106	121	11	17	11	69	4	80	M6	12	M6
WBK 40DFD					81	48										M6	12	M6
WBK 40DFF					96	48										M6	12	M6

Note:
Inside bearings use high precision P4 grade TAC 60 degree contact ball bearing.
The standard type is without H, if required, please advise in advance.



WBK High Load Support



Unit:mm

Model Number	Basic dynamic load rating Ca(kgf)	Permissible axial load (kgf)	Preload (kgf)	Axial rigidity (kgf/um)	Starting torque (kgf-cm)	Lock nut			Weight (kgs)	Dimensions of shaft end		
						M	D3	L3		d	L4	L5
WBK 17DF	2240	2710	220	75	1~1.9	M17x1	37	18	1.97	17	81	23
WBK 20DF	2240	2710	220	75	1~1.9	M20x1	40	18	1.97	20	81	23
WBK 25DF	2910	4150	320	100	1.6~2.9	M25x1.5	45	20	3.3	25	89	26
WBK 25DFD	4700	8300	440	150	2.2~4				3.85		104	
WBK 25DFF	4700	8300	640	200	2.8~5				4.4		119	
WBK 30DF	2980	4400	340	105	1.7~3	M30x1.5	50	20	3.4	30	89	26
WBK 30DFD	4850	8800	460	155	2.2~4				3.7		104	
WBK 30DFF	4850	8800	680	205	2.9~5.2				4.4		119	
WBK 35DF	3150	5100	390	120	1.9~3.5	M35x1.5	55	22	3.75	35	92	30
WBK 35DFD	5150	10200	530	175	2.5~4.6				4.4		107	
WBK35DFF	5150	10200	780	240	3.3~6				5		122	
WBK 40DF	3250	5300	400	125	2~3.7	M40x1.5	60	22	3.65	40	92	30
WBK 40DFD	5250	10600	540	185	2.4~4.0				4.3		107	
WBK 40DFF	5250	10600	800	245	3.4~6.2				5		122	

Note:
Dimensions with * mark can be used for dust cover and damper installation.
About its correct position, please contact SYK.

Linear Guideways

Ball Screw

Support

Linear Bushing

Linear Guideways

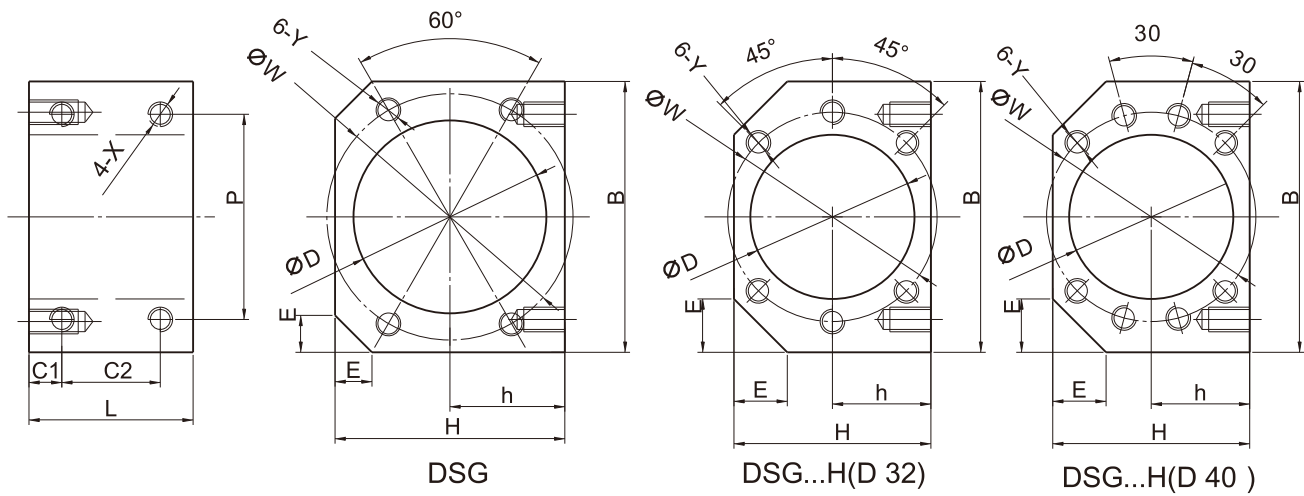
Ball Screw

Support

Linear Bushing



1-7 DSG Ball Screw Nut Support



Model Number	Suitable Nut	D	B	H	h	E	L	C1	C2	P	X	W	Y
DSG12H	SFU1204,SFS1205	22.1 24.1	50	35	17.7	-	36	8	24	36	M4	32	M4
DSG16H	SFU-1604,1605,1610	28	52	40	20	12	40	8	24	40	M5	38	M5
	SFS-1610,1616,1620												
DSG20H	SFU-2004,2005	36	62	44	22	12	40	8	24	48	M6	47	M6
	SFS-2010,2020												
DSG25H	SFU-2504,2505,2510	40	66	48	24	13	40	8	24	50	M6	51	M6
	SFS-2505,2510,2520												
DSG32H	SFU-3204,3205,3210	50	86	62	31	17	40	8	24	66	M8	65	M8
	SFS-3205,3210, 3220,3232												
DSG40H	SFU-4005,4010,	63	100	80	40	/	59	9.5	40	78	M8	78	M8
	SFS-4005,4010, 4020,4040												
DSG50H	SFU-5005,5010	75	120	90	45	/	60	10	40	100	M10	93	M10
	SFS-5020,5050												
DSG1616	SFE/SFY-1616	32	55	40	20	6	27	6	15	46	M4	42	M4
DSG2020	SFE/SFY-2020	39	66	47	23.5	7.5	35	7.5	20	56	M5	50	M5
DSG2525	SFE/SFY-2525	47	80	55	27.5	10	34	7	20	68	M6	60	M6
DSG3232	SFE/SFY-3232	58	95	66	33	10	55	10	35	82	M8	74	M8