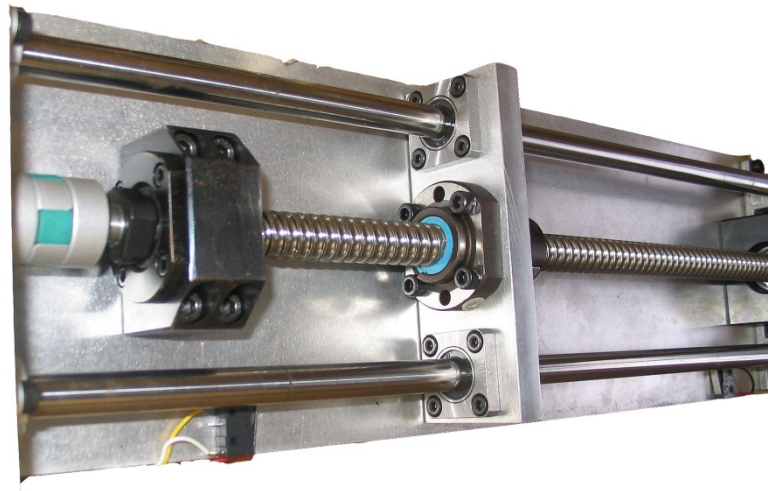




Shaft support units

A range of flanged and block type screw shaft supports that save time and money designing and machining parts to hold shaft bearings. These units allow for easy mounting of screw shafts to bulkheads or base plates. SBC can also offer the blocks with corrosion resistant Raydent treatment.



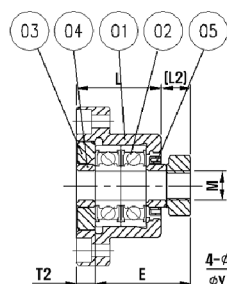
BK/FK types have angular contact bearings for rigid mounting of the driven end and support of thrust and radial loads. This end should be placed between the shaft and the motor driven end to eliminate reflected loads on motors, pulleys and couplings. Fixed supports come complete with precision lock nut.

BF/FF types have a simple radial bearing and are designed to allow a degree of axial play. This avoids compressive loading on the shaft and reduces the risk of buckling the screw shaft.

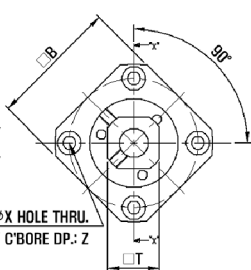
- Recommended shaft machining drawings can be provided on request.
- Bearings are preloaded and suitable for ball screws down to C3 precision (0.013/300mm) and have Japanese NSK bearings.
- Supports down to 6mm journals can be supplied on indent



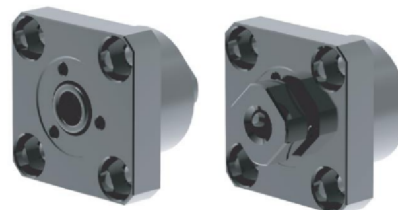
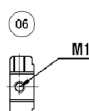
Fixed shaft supports



Assemble method "B"



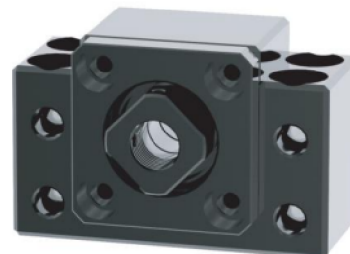
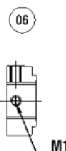
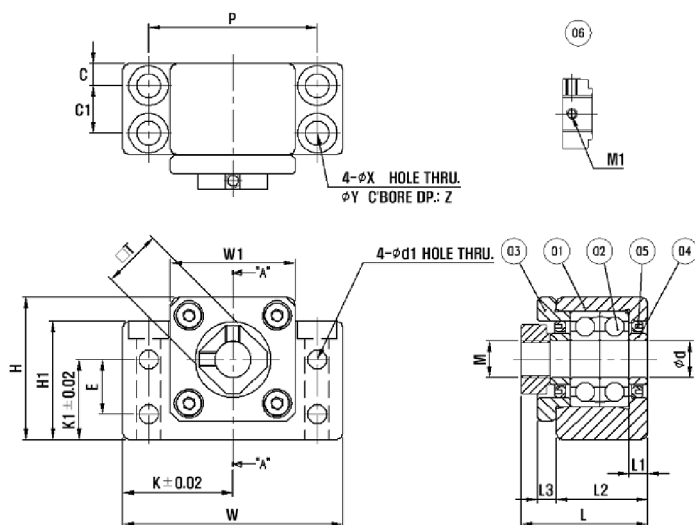
Assemble method "A"



Part	Name	Q'ty
1	Housing	1
2	Bearing(*1)	2
3	Pressure plate	1
4	collar	2
5	Seal	2
6	Lock nut	1

Model no.	Φd	L	H	F	E	ΦD g6	A	PCD	B	"A" Type		"B" Type		ΦX	ΦY	Z	M	M1	T	Weight
										L1	T1	L2	T2							
FK05	5	16.5	6	10.5	18.5	20	34	26	26	5.5	3.5	5	3	3.4	6.5	4	M5x0.5	M3	11	0.08
FK06	5	20	7	13	22	22	36	28	28	5.5	3.5	6.5	4.5	3.4	6.5	4	M6x0.75	M3	12	0.1
FK08	8	23	9	14	26	28	43	35	35	7	4	8	5	3.4	6.5	4	M8x1	M3	14	0.15
FK10	10	27	10	17	29.5	34	52	42	42	7.5	5	8.5	6	4.5	8	4	M10x1	M3	16	0.23
FK12	12	27	10	17	29.5	36	54	44	44	7.5	5	8.5	6	4.5	8	4	M12x1	M4	19	0.25
FK15	15	32	15	17	36	40	63	50	52	10	6	12	8	5.5	9.5	5	M15x1	M4	22	0.39
FK17	17	45	22	23	47	50	77	62	61	11	9	14	12	6.6	11	10	M17x1	M4	24	0.81
FK20	20	52	22	30	50	57	85	70	68	8	10	12	14	6.6	11	10	M20x1	M4	30	1.02
FK25	25	57	27	30	59	63	98	80	79	13	10	20	17	9	15	13	M25x1.5	M5	35	1.48
FK30	30	60	30	32	61	75	117	95	93	11	12	17	18	11	17.5	15	M30x1.5	M6	40	2.32

Normal stock items in bold type



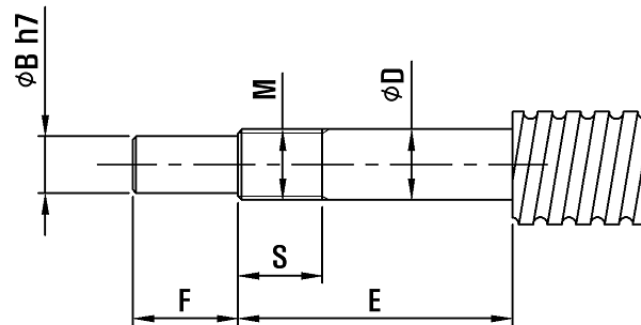
Part no.	Name	Q'ty
1	Housing	1
2	Bearing(*1)	2
3	Pressure plate	1
4	collar	2
5	Seal	2
6	Lock nut	1

Model no.	Φd	W	W1	H	H1	K	K1	L	L1	L2	L3	P	C	C1	ΦX	ΦY	Z	E	Φd1	T	M	M1	Weight
BK10	10	60	34	39	32.5	30	22	34.5	5	25	5	46	13	6	6.6	10.8	5	15	5.5	16	M10x1	M3	0.4
BK12	12	60	34	43	32.5	30	25	34.5	5	25	5	46	13	6	6.6	10.8	1.5	18	5.5	19	M12x1	M4	0.41
BK15	15	70	40	48	38	35	28	38	6	27	6	54	15	6	6.6	11	6.5	18	5.5	22	M15x1	M4	0.58
BK17	17	86	50	64	55	43	39	51	7	35	9	68	19	8	9	14	8.5	28	6.6	24	M17x1	M4	1.3
BK20	20	88	52	60	50	44	34	51	8	35	8	70	19	8	9	14	8.5	22	6.6	30	M20x1	M4	1.2
BK25	25	106	64	80	70	53	48	63	9	42	12	85	22	10	11	17	11	33	9	35	M25x1.5	M6	2.35
BK30	30	128	76	89	78	64	51	70	9	45	14	102	23	11	14	20	13	33	11	40	M30x1.5	M6	3.33
BK35	35	140	88	96	79	70	52	79	12	50	14	114	26	12	14	20	13	35	11	50	M35x1.5	M6	4.4
BK40	40	160	100	110	90	80	60	91	15	61	18	130	33	14	18	26	17.5	37	14	50	M40x1.5	M6	6.8

Normal stock items in bold type



Shaft machining details for fixed supports



Model no.				Screw shaft diameter	D	B	E	F	M	S	Collar length
FK05	-	-	-	Φ8	5	4	23	6	M5x0.75	7	3.5
FK06	EK06	-	-	Φ8	6	4	28	8	M6x0.75	10	5
FK08	EK08	-	-	Φ10, Φ12	8	6	33	9	M8x1	10	5.5
-	-	BK10	-	Φ12, Φ14, Φ15	10	8	40	15	M10x1	16	5.5
FK10	EK10	-	AK10	Φ12, Φ14, Φ15	10	8	36	15	M10x1	11	5.5
-	-	BK12	-	Φ14, Φ15, Φ16	12	10	39	15	M12x1	14	5.5
FK12	EK12	-	AK12	Φ14, Φ15, Φ16	12	10	36	15	M12x1	11	5.5
-	-	BK15	-	Φ18, Φ20	15	12	40	20	M15x1	12	6
FK15	EK15	-	AK15	Φ18, Φ20	15	12	49	20	M15x1	13	10
-	-	BK17	-	Φ20, Φ25	17	15	53	23	M17x1	17	7
FK17	-	-	-	Φ20, Φ25	17	15	59	23	M17x1	16	10
-	-	BK20	-	Φ25, Φ28	20	17	53	25	M20x1	15	8
FK20	EK20	-	AK20	Φ25, Φ28	20	17	64	25	M20x1	16	11
-	-	BK25	-	Φ32, Φ36	25	20	64	30	M25x1.5	18	9
FK25	-	-	AK25	Φ32, Φ36	25	20	76	30	M25x1.5	20	14
-	-	BK30	-	Φ36, Φ40	30	25	72	38	M30x1.5	25	9
FK30	-	-	-	Φ36, Φ40	30	25	72	38	M30x1.5	25	9
-	-	BK35	-	Φ45	35	30	83	45	M35x1.5	28	12
-	-	BK40	-	Φ50	40	35	98	50	M40x1.5	35	15

Bearing ratings

Model No.	Bearing	Cr (kN)	Cro (kN)	Max speed (rpm)
FK06, EK06	706A	2.28	0.93	85000
FK08, EK08	708A	3.75	1.66	67000
BK10, FK10, EK10, AK10	7000A	4.05	2	56000
EK12, FK12, EK12, AK12	7001A	4.55	2.5	50000
BK15, FK15, EK15, AK15	7002A	6	3.25	43000
BK17, FK17	7203A	10.4	5.6	36000
BK20	4004A	10	5.7	32000
EK20, FK20, AK20	7204A	14	7.8	30000
BK25, FK25, AK25	7205A	15	14	26000
BK30, FK30	7206A	22	13.5	22000
BK35	7207B	27.1	18.4	9300
BK40	7208B	32	23	8300

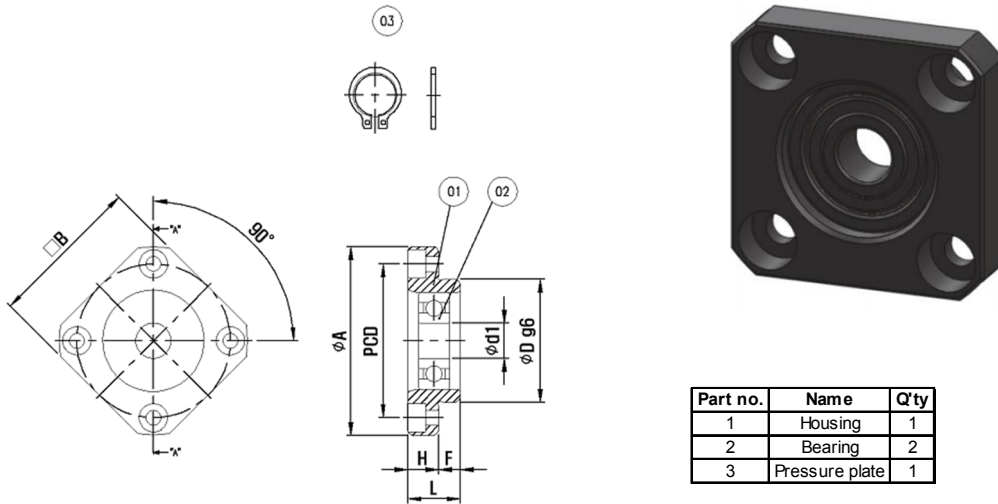
Cr : Basic dynamic load rating (1x10⁶ revs)

Cro : Basic static load rating

1kN = 101 kgf

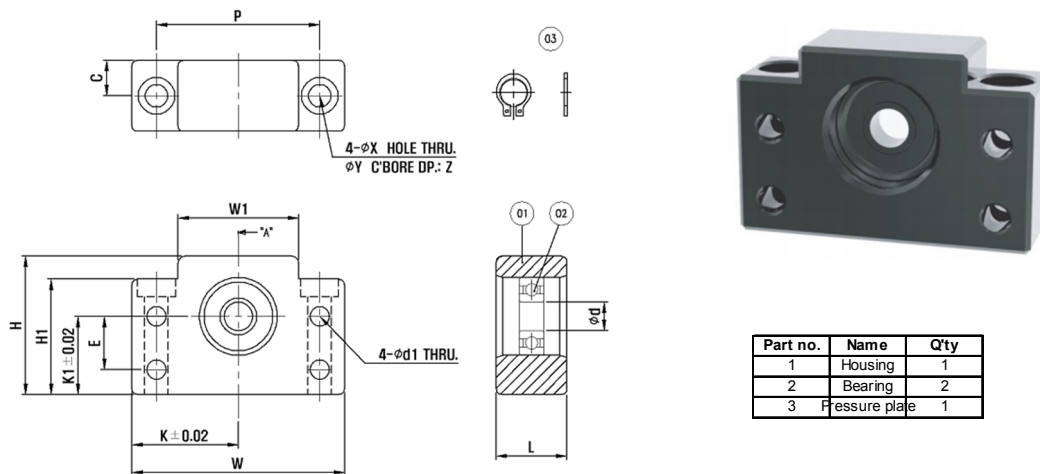


Free shaft supports



Model no.	Φd	ΦA	B	L	H	F	ΦD g6	PCD	ΦX	ΦY	Z	Weight
FF08	6	36	28	10	6	4	22	28	3.4	6.5	4	0.06
FF10	8	43	35	12	7	5	28	35	3.4	6.5	4	0.1
FF12	10	52	42	15	7	8	34	42	4.5	8	4	0.13
FF15	15	63	52	17	9	8	40	50	5.5	9.5	5.5	0.2
FF17	17	77	61	20	11	9	50	62	6.6	11	6.5	0.33
FF20	20	85	68	20	11	9	57	70	6.6	11	6.5	0.43
FF25	25	98	79	24	14	10	63	80	9	14	8.5	0.66
FF30	30	117	93	27	18	9	75	95	11	17	11	1.03

Normal stock items in bold type

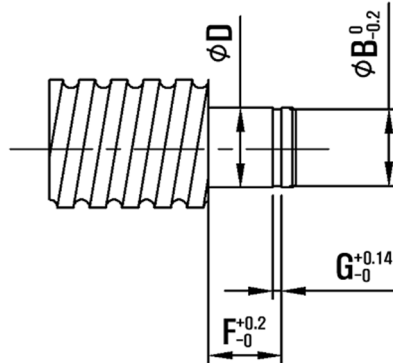


Model no.	Φd	W	W1	K	K1	H	H1	E	Φd1	L	P	C	ΦX	ΦY	Z	Weight
BF10	8	60	34	30	22	39	32.5	15	5.5	20	46	10	6.6	10.8	5	0.3
BF12	10	60	34	30	25	43	32.5	18	5.5	20	46	10	6.6	10.8	1.5	0.3
BF15	15	70	40	35	28	48	38	18	5.5	20	54	10	6.6	11	6.5	0.4
BF17	17	86	50	43	39	64	55	28	6.6	23	68	11.5	9	14	8.5	0.75
BF20	20	88	52	44	34	60	50	22	6.6	26	70	13	9	14	8.5	0.76
BF20H	20	88	52	44	48	74	64	-	-	26	70	13	9	14	8.5	1.02
BF25	25	106	64	53	48	80	70	33	9	30	85	15	11	17	11	1.43
SF25	25	128	76	64	51	89	78	-	-	32	102	16	14	20	13	-
BF30	30	128	76	64	51	89	78	33	11	32	102	16	14	20	13	1.94
BF35	35	140	88	70	52	96	79	35	11	32	114	16	14	20	13	2.25
SF40	40	140	88	70	52	96	79	-	-	32	114	16	14	20	13	-
BF40	40	160	100	80	60	110	90	37	14	37	130	18.5	18	26	17.5	3.3

Normal stock items in bold type



Shaft machining for free supports.



Model no.				Screw shaft diameter	D	E	B	F	G
FF06	EF06	-	-	$\Phi 8$	6	9	5.7	6.8	0.8
-	EF08	-	-	$\Phi 10$	6	9	5.7	6.8	0.8
FF10	EF10	BF10	AF10	$\Phi 12, \Phi 14, \Phi 15$	8	10	7.6	7.9	0.9
FF12	EF12	BF12	AF12	$\Phi 14, \Phi 15, \Phi 16$	10	11	9.6	9.15	1.15
FF15	EF15	BF15	AF15	$\Phi 18, \Phi 20$	15	13	14.3	10.15	1.15
FF17	-	BF17	-	$\Phi 20, \Phi 25$	17	16	16.2	13.15	1.15
-	-	BF20	-	$\Phi 25, \Phi 28, \Phi 30$	20	16	19	13.35	1.35
FF20	EF20	-	AF20	$\Phi 25, \Phi 28, \Phi 30$	20	19	19	15.35	1.35
FF25	-	BF25	AF25	$\Phi 30, \Phi 32, \Phi 36$	25	20	23.9	16.35	1.35
FF30	-	BF30	-	$\Phi 36, \Phi 40$	30	21	28.6	17.75	1.75
-	-	BF35	-	$\Phi 40, \Phi 45$	35	22	33	18.75	1.75
-	-	BF40	-	$\Phi 50$	40	23	38	19.95	1.95

Bearing ratings

Model No.	Bearing	C (kN)	Co (kN)	Max speed (rpm)
FF06, EF06	606ZZ	1.95	0.83	95000
FF08, EF08	606ZZ	1.95	0.83	95000
BF10, FF10, EF10, AF10	608ZZ	3.45	1.37	75000
EF12, FF12, EF12, AF12	6000ZZ	4.75	1.96	67000
BF15, FF15, EF15, AF15	6002ZZ	5.85	2.85	50000
BF17, FF17	6203ZZ	9.95	4.75	38000
BF20, EK20, FK20, AK20	6004ZZ	9.95	5	38000
BF25, FF25, AF25	6205ZZ	14.8	7.8	28000
BF30, FF30	6206ZZ	20.3	11.2	24000
BF35	6207ZZ	27	15.3	20000
BF40	6208ZZ	32.5	19	18000

Cr : Basic dynamic load rating (1×10^6 revs)

Cro : Basic static load rating

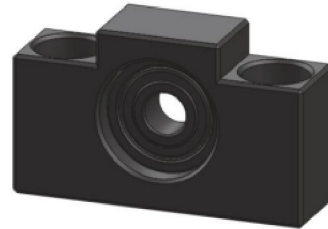
1kN = 101 kgf



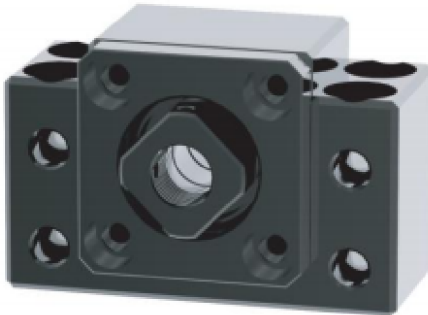
Other types



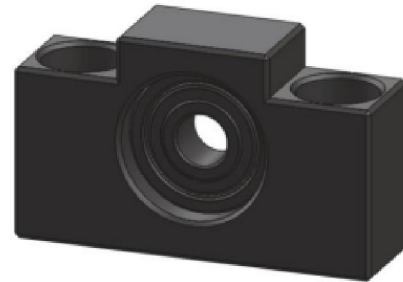
EK



EF



AK



AF



Hiwin WBK