HELIX™
LINEAR TECHNOLOGIES

Bearing Units for Roller Screws

ISO 9001 : 2008 CERTIFIED

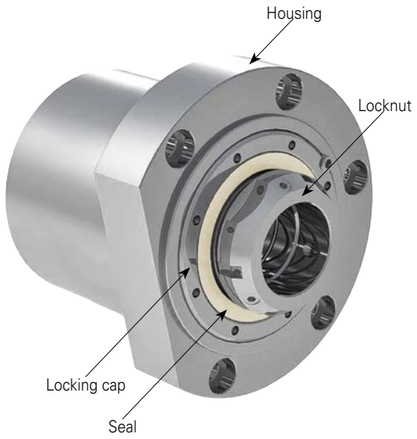
ITAR International Traffic in Arms Regulations Compliant

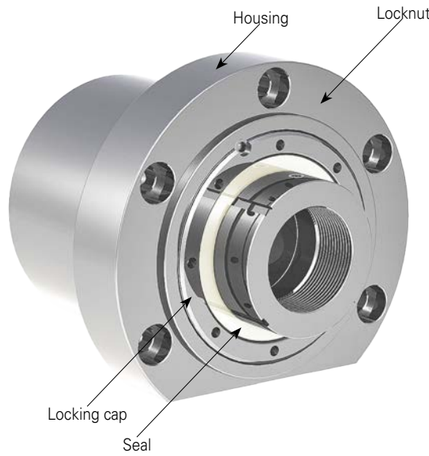
helixlinear.com

Bearing Units

SBU and HHF

Roller screws are continuously improved with advanced tools used to analyze in detail the behaviour of its products in your applications with high security factors.





Helix Roller Screws can accommodate existing bearing designs. The Support Bearing Unit (SBU) can house existing bearing products such as stacked ACBBs (Angular Contact Ball Bearings) and other solutions as defined, including the Herringbone Roller Bearing (integrated into the housing HHF). Both solutions are sealed, lubricated and are designed for easy installation.

The SBU is designed for our planetary roller screws (SRS and URS) with nominal diameters between 8 mm and 80 mm as well as recirculating roller screws (RRS) between 8mm and 125 mm.

For greater capacity and stiffness, the HHF has been developed. Ideal for even more demanding and extreme conditions.

The HHF solution optimizes capacity and space with greater stiffness. Having the highest power density and longer lifetime than any bearing currently available. The HHF can also be customized easily to fit customer needs.

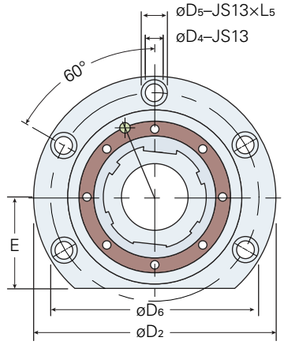
The HHF is designed and can be applied to Standard Roller Screws (SRS or URS) with nominal diameters between 8 to 80 mm and for Recirculating Roller Screws (RRS) with nominal diameters between 8 to 125 mm.

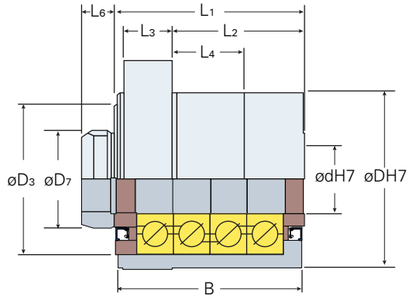
It is of primary importance that the capacity of the bearing unit exceeds the capacity of the roller screw to give the most robust design and reliable operation. The best compact bearing solution that can be assembled of your roller screw.

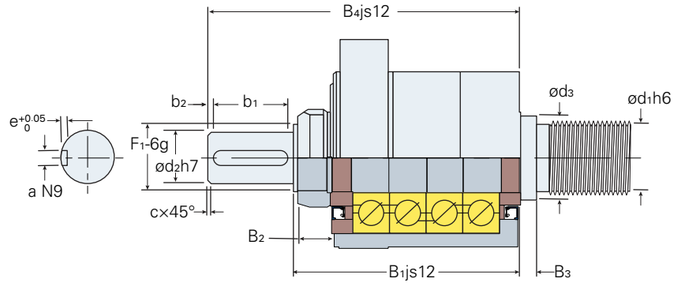
SBU: Support Bearing Units with ACCBs

ø12mm – ø100 mm

Bearing Dimensions				Dynamic Load	Static Load		High Precision KMT Locknut			
Part Number	Internal Diameter (mm)	External Diameter (mm)	B (mm)	Ca (kN)	C0a (kN)	Standard Arrangment	Part Number	Hook Spanner	Tightening Torque (kN)	Mass (kg)
SBU-1	12	47	40	13.3	14.7	1+1	KMT 1	HN 3	15	0.72
SBU-2	17	60	44	27.9	31.9	1+1	KMT 3	HN 4	22	1.16
SBU-3	20	60	74	40.1	63.8	2+2	KMT 4	HN 5	27	1.73
SBU-4	25	80	86	79.8	122	2+2	KMT 5	HN 5	38	3.71
SBU-5	35	100	106	123	212	2+2	KMT 7	HN 7	65	6.72
SBU-6	50	130	136	214	385	2+2	KMT 10	HN 10	110	13.62
SBU-7	65	170	175	314	631	2+2	KMT 14	HN 14	200	29.51
SBU-8	70	220	229	513	1192	2+2	KMT 18	HN 18	300	60.47
SBU-9	100	250	245	615	1600	2+2	KMT 20	HN 20	400	84.21





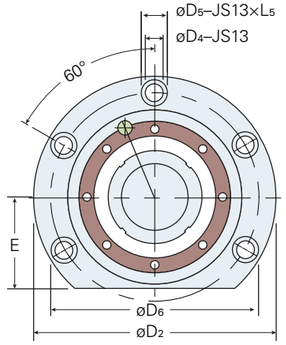


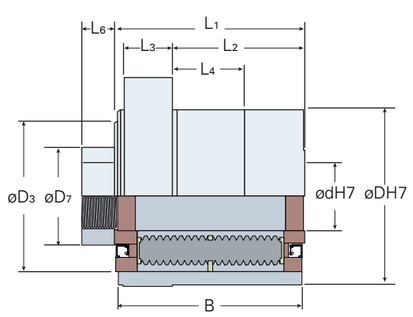
Part Number	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	D6 (mm)	D7 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	E (mm)	d1 (mm)	d2 (mm)	d3 (mm)	B1 (mm)	B2 (mm)	B3 (mm)	B4 (mm)	f1	c (mm)	b1 (mm)	b2 (mm)	a (mm)	e (mm)
SBU-1	77	47	6.6	11	63	22	42	25	12	10	2	8	27	12	10	17	51	10	5	71	M12×1	0.5	16	1.5	3	1.8
SBU-2	92	57	6.6	11	76	28	46	32	12	15	2	10	32	17	15	23	66	21	5	96	M17×1	0.5	25	2	5	3
SBU-3	92	58	9	14	74	38	77	60	15	27	2	10	32	20	17	27	98	22	7	138	M20×1	0.5	32	3	5	3
SBU-4	122	74	11	17	100	45	89	68	19	33	3	20	44	25	20	34	111	24	7	156	M25×1.5	1	40	2.5	6	3.5
SBU-5	144	94	13	19	120	58	110	82	25	42	5	22	54	35	30	45	134	26	10	189	M35×1.5	1	45	2.5	8	4
SBU-6	177	128	13	19	152	75	140	98.5	36	52	11	25	67	50	40	62	168	30	12	233	M50×1.5	1	56	4	12	5
SBU-7	230	164	17	25	198	105	180	133.5	41	50	11	32	87	65	60	78	215	37	18	315	M65×2	1	90	3	18	7
SBU-8	292	215	22	32	252	130	235	179	48	94	13	38	115	70	85	108	275	43	25	395	M90×2	1	100	8	25	9
SBU-9	330	240	25	38	285	140	253	195	50	109	14	38	130	100	95	120	293	43	25	433	M100×2	1	125	7	25	9

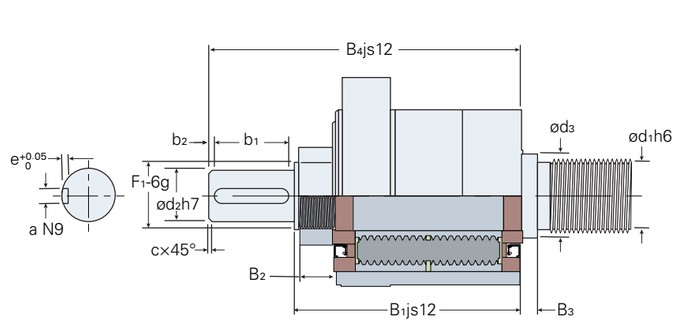
HHF: Support Bearing Units with HRB

ø12mm – ø100 mm

	Bearing Dimensions			Dynamic Load	Static Load		Speed Ratings		
	Internal Diameter (mm)	External Diameter (mm)	B (mm)	C_a (kN)	C_{0a} (kN)	Lifetime Benefit	Reference Speed	Limiting Speed	Mass (kg)
HHF-1	12	47	40	19	17	4x	25,000	29,100	0.72
HHF-2	17	60	44	42	53	4x	17,600	20,500	1.16
HHF-3	20	60	74	138	258	50x	15,000	17,500	1.73
HHF-4	25	80	86	206	430	26x	12,000	14,000	3.71
HHF-5	35	100	106	314	736	24x	8,500	10,000	6.72
HHF-6	50	130	136	640	1,483	34x	6,000	7,000	13.62
HHF-7	65	170	175	885	2,399	25x	4,600	5,300	29.51
HHF-8	90	220	229	1,546	5,087	45x	3,300	3,800	60.47
HHF-9	100	250	245	1,783	6,285	31x	3,000	3,500	84.21







	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	D6 (mm)	D7 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	E (mm)
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	d1 (mm)	d2 (mm)	d3 (mm)	B1 (mm)	B2 (mm)	B3 (mm)	B4 (mm)	f1	c (mm)	b1 (mm)	b2 (mm)	a (mm)	e (mm)
HHF-1	12	10	17	51	10	5	71	M12×1	0.5	16	1.5	3	1.8
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Notes

Notes

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