

Self-Lube product range

NSK manufactures several ranges of mounted units. These include Self-Lube, our recognised standard, and recently introduced ranges such as Silver-Lube, Life-Lube and Molded-Oil units. In each type, there are two basic components, the insert and the housing.

Self-Lube bearing inserts

The Self-Lube bearing insert, commonly known as a wide inner ring bearing, is designed to suit the wide range of housings offered by NSK in the Self-Lube bearing family and is also suitable for applications where the user's own housing is preferred.

They are basically deep-groove ball bearings, to the popular 6200 series configuration, with integral design features making them more functional and versatile than standard ball bearings. The radial internal clearance is C3 for standard bearing inserts and bearings can be offered with either parallel or spherical outside diameter outer rings with the latter being the type fitted in the bearing unit. The integral design features of the bearing insert, such as shaft locking, sealing and lubrication, are explained in the following pages.

Self-Lube bearing units

The range of Self-Lube bearing units offers a wide choice of cast iron, pressed steel, synthetic rubber, thermoplastic or stainless steel housings fitted with spherical outside diameter Self-Lube bearing inserts. They will generally accommodate initial housing misalignment up to 0.030 radians but are not recommended for running misalignment in excess of 0.001 radians.

The general housing types are pillow blocks, flange units,

take-up units, cartridge units and hanger units. Choice is very much determined by the requirements of the application, although the aesthetic appearance of the machine design is often an important consideration. Self-Lube units have been designed to meet the needs of both criteria.

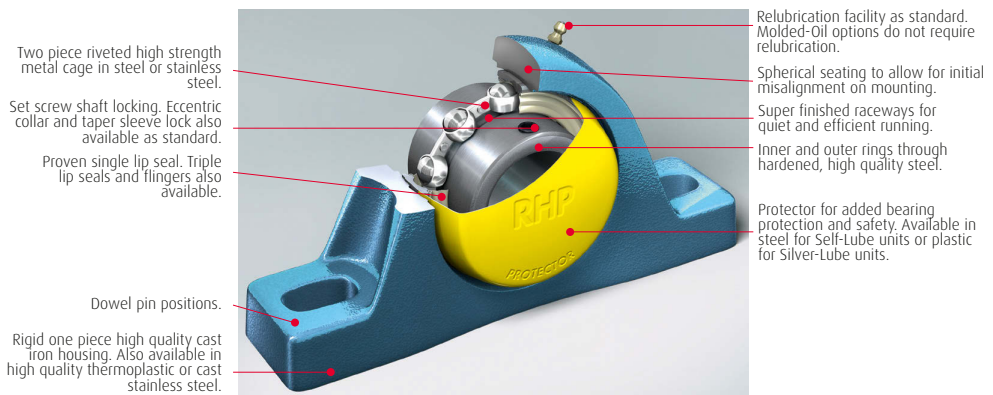
- › Cast iron unit castings are made from high-quality cast iron, and finished on unmachined surfaces with an electrostatic air-drying paint.
- › Pressed steel housings are made from mild steel strip, and are zinc plated.
- › Thermoplastic housings are moulded in highgrade PBT, a high quality thermoplastic polyester resin.
- › Stainless steel housings are made from austenitic stainless steel castings (SCS13).

Additional products

NSK recognises the need for 'tailor made' solutions and is always willing to help customers who have a requirement for something out of the ordinary.

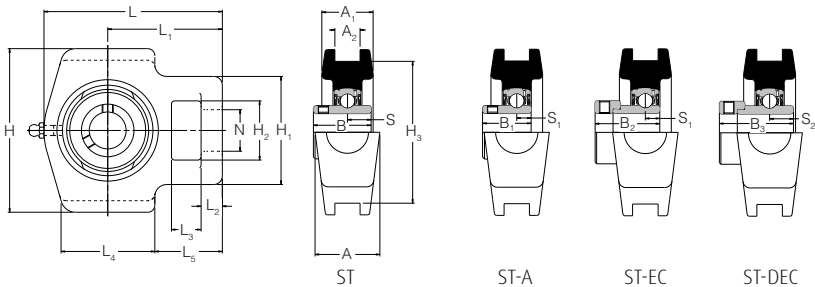
Dynamic load ratings

The NSK dynamic load ratings given in this catalogue and the relationship between these and bearing fatigue life are based on ISO standard 281.



Self-Lube cast iron take-up bearing units

ST Series

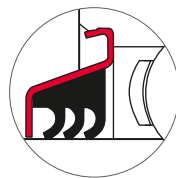
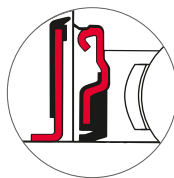


Shaft diameter		RHP designation				Basic bearing insert	Casting group	Dimensions (mm)							
								L	L1	L2	L3	L4	L5	H	
mm	inches														
20		ST20	ST20A	ST20EC	ST20DEC	1020	2	95.5	62.0	11.5	16.0	50.5	36.5	88.5	
	¾	ST¾	ST¾A	ST¾EC	ST¾DEC										
25		ST25	ST25A	ST25EC	ST25DEC	1025	3	98.0	62.0	11.5	16.0	50.5	36.5	88.5	
	⅞	ST⅞		ST⅞EC	ST⅞DEC										
	1⅝	ST1⅝		ST1⅝EC	ST1⅝DEC										
	1	ST1	ST1A	ST1EC	ST1DEC										
30		ST30	ST30A	ST30EC	ST30DEC	1030	4	115.5	72.5	12.5	16.5	64.5	43.0	101.5	
	1⅛	ST1⅛		ST1⅛EC	ST1⅛DEC										
	1⅜	ST1⅜		ST1⅜EC	ST1⅜DEC										
	1¼	ST1¼R	ST1¼AR	ST1¼ECR	ST1¼DEC R										
35		ST35	ST35A	ST35EC	ST35DEC	1035	5	124.0	75.5	12.5	16.5	64.5	43.0	101.5	
	1¼	ST1¼	ST1¼A	ST1¼EC	ST1¼DEC										
	1⅜	ST1⅜		ST1⅜EC	ST1⅜DEC										
	1⅞	ST1⅞		ST1⅞EC	ST1⅞DEC										
40		ST40	ST40A	ST40EC	ST40DEC	1040	6	143.5	89.2	15.5	20.5	81.5	50.5	118.0	
	1½	ST1½	ST1½A	ST1½EC	ST1½DEC										
45		ST45	ST45A	ST45EC	ST45DEC	1045	7	147.0	89.2	15.5	20.5	81.5	50.5	118.0	
	1⅝	ST1⅝		ST1⅝EC	ST1⅝DEC										
	1⅞	ST1⅞		ST1⅞EC	ST1⅞DEC										
	1¾	ST1¾	ST1¾A	ST1¾EC	ST1¾DEC										
50		ST50	ST50	ST50EC	ST50DEC	1050	8	151.0	90.5	15.5	20.5	81.5	50.5	118.0	
	1⅞	ST1⅞		ST1⅞EC	ST1⅞DEC										
	1⅞	ST1⅞		ST1⅞EC	ST1⅞DEC										
	2	ST2R													
55		ST55			ST55DEC	1055	9	182.0	114.0	19.0	32.0	97.5	70.0	146.0	
	2	ST2			ST2DEC										
	2⅛	ST2⅛			ST2⅛DEC										
	2⅜	ST2⅜			ST2⅜DEC										
60		ST60			ST60DEC	1060	10	192.0	119.0	19.0	32.0	97.5	70.0	146.0	
	2¼	ST2¼			ST2¼DEC										
	2⅝	ST2⅝			ST2⅝DEC										
	2⅞	ST2⅞			ST2⅞DEC										
65		ST65			ST65DEC	1070	11	222.5	137.5	21.5	32.0	120.5	77.0	166.5	
70		ST70			ST70DEC										
	2½	ST2½			ST2½DEC										
	2⅞	ST2⅞			ST2⅞DEC										
75		ST75			ST75DEC	1075	12	222.5	137.5	21.5	32.0	120.5	77.0	166.5	
	2¾	ST2¾			ST2¾DEC										
	2⅞	ST2⅞			ST2⅞DEC										
	2⅞	ST2⅞			ST2⅞DEC										
80		ST80			ST80DEC	1080	13	231.5	139.5	20.5	32.0	125.0	74.0	184.0	
	3	ST3													
	3⅜	ST3⅜													
85		ST85				1085	14	260.5	162.0	28.5	38.0	140.0	90.5	198.5	
	3¼	ST3¼													
	3⅝	ST3⅝													
	3⅞	ST3⅞													

Please check availability

Bearing inserts with flinger seals shown on pages 89 and 90 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. ST45FS.

Triple seal bearing inserts shown on pages 86 to 88 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TST45.



Dimensions (mm)														ISO Load ratings		Rec. max. speed rev/min	Mass (approx.) kg
H1	H2	H3	N	A	A1	A2	B	B1	B2	B3	s	s1	s2	dynamic Cr newtons	static Cor newtons		
58.5	32.0	76.0	22.5	36.0	27.5	13.50	31.00	25.80	31.03	43.73	12.73	7.53	17.13	12800	6650	6700	0.8
58.5	32.0	76.0	22.5	36.0	27.5	13.50	34.10	27.30	31.03	44.43	14.33	7.53	17.53	14000	7880	6250	1.0
64.5	37.5	89.0	22.5	36.5	30.0	13.50	38.10	31.20	35.73	48.43	15.93	9.03	18.33	19500	11300	5300	1.6
64.5	37.5	89.0	22.5	36.5	30.0	13.50	42.90	34.90	38.93	51.13	17.53	9.53	18.83	25700	15300	4500	1.6
82.5	49.5	101.0	29.0	49.5	37.0	17.50	49.20	41.20	43.73	56.33	19.03	11.03	21.43	32500	19900	4000	2.7
82.5	49.5	101.0	29.0	49.5	37.0	17.50	49.20	41.20	43.73	56.33	19.04	11.03	21.43	32500	20500	3700	2.8
82.5	49.5	101.0	29.0	49.5	37.0	17.50	51.60	43.50	43.73	62.73	19.04	11.03	24.64	35000	23200	3400	2.8
101.0	64.0	130.0	35.0	63.5	46.5	27.00	55.60	-	-	71.42	22.24	-	27.84	43500	29200	3100	4.2
101.0	64.0	130.0	35.0	63.5	46.5	27.00	65.10	-	-	77.84	25.44	-	31.04	48000	33000	2800	5.4
113.0	70.0	150.8	42.0	70.0	50.5	27.00	74.60	-	-	85.74	30.24	-	34.14	61000	45000	2450	7.9
113.0	70.0	150.8	42.0	70.0	50.5	27.00	77.80	-	-	92.14	33.34	-	37.34	66000	49500	2300	8.4
113.0	70.0	165.1	42.0	70.0	54.0	27.00	82.60	-	-	-	33.34	-	-	71500	54500	2150	9.0
124.0	73.0	173.0	47.5	79.5	68.5	46.05	85.70	-	-	-	34.15	-	-	83000	64000	2000	13.7