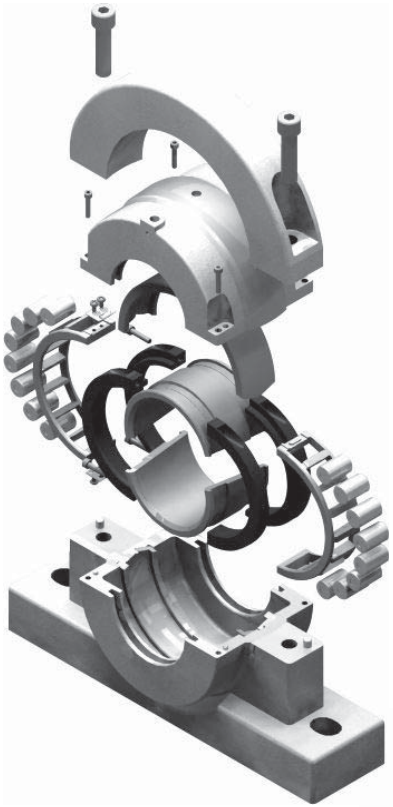
Split cylindrical roller bearings with housing and support
100, 200, 300, 400 series



Components

- Bearing
  - Outer ring
  - Inner ring
  - Clamping ring
  - Cylindrical Roller + Cage assembly
- Housing
- Support

Special features

- Every main component has two halves.
- Outer ring and inner ring has angled joints to ensure continuity of contact with rollers.
- Two halves of inner ring are fully fitted on shaft by two clamping rings.
- When fitting two halves of inner ring on shaft, there should be a gap at the joint in order to ensure full contact between the bore of inner ring and shaft. The gaps differ from the sizes, 0.35mm to 0.55mm.
- HKT use auto-locking cage, made of aluminum or brass Steel clips attached in each halves of cage enable self-locking.
- For fitting in misalignment positions, blocks are separated into two parts, Housing and Support. The joint surface between housing and support are rounded in order for self aligning.

Note: Rating life of split bearings is applied in calculation method of solid cylindrical roller bearing.

Radial internal clearance

Bore d mm		Radial internal clearance							
		CN μm		C3 μm		C4 μm		C5 μm	
Over	incl.	min.	max.	min.	max.	min.	max.	min.	max.
30	40	25	50	45	70	60	85	80	105
40	50	30	60	50	80	70	100	95	125
50	65	40	70	60	90	80	110	110	140
65	80	40	75	65	100	90	125	130	165
80	100	50	85	75	110	105	140	155	190
100	120	50	90	85	125	125	165	180	220
120	140	60	105	100	145	145	190	200	245
140	160	70	120	115	165	165	215	225	275
160	180	75	125	120	170	170	220	250	300
180	200	90	145	140	195	195	250	275	330
200	225	105	165	160	220	220	280	305	365
225	250	110	175	170	235	235	300	330	395
250	280	125	195	190	260	260	330	370	440
280	315	130	205	200	275	275	350	410	485
315	355	145	225	225	305	305	385	455	535
355	400	190	280	280	370	370	460	510	600
400	450	210	310	310	410	410	510	565	665
450	500	220	330	330	440	440	550	625	735

Shaft tolerances

Shaft tolerances for Split roller bearings are recommended as follows;

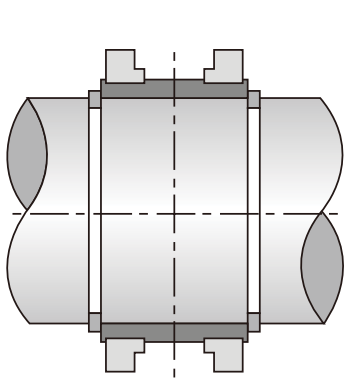
1. h9 : When dn < 50,000 and P ≤ 0.1C
2. h8 : When 50,000 ≤ d_n < 150,000 and P ≤ 0.1C
3. h7 : When 50,000 ≤ d_n < 150,000 and P > 0.1C
4. h6 : When dn ≥ 150,000
   - $d_n = n \cdot d_M$: Speed parameter
   - $d_M=(d+D)/2$: Mean bore diameter

Roundness and cylindricity of shaft must conform to tolerance variation IT6.

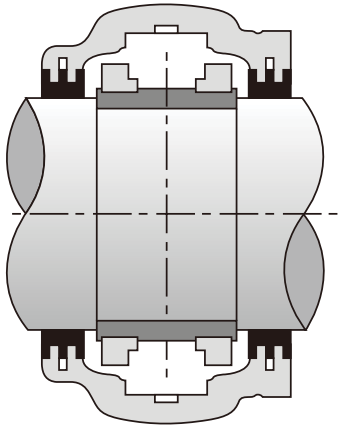
Shaft diameter d(mm)		Deviation of bearing bore diameter Δ_{dmp}		h9	h8	h7	h6	IT6
>	≤	High	Low	Deviations (upper limit, lower limit) Interference/clearance fit				Variation
30	50	0	-12	0 -62 +12 -62	0 -39 +12 -39	0 -25 +12 -25	0 -16 +12 -16	16
50	80	0	-15	0 -74 +15 -74	0 -46 +15 -46	0 -30 +15 -30	0 -19 +15 -19	19
80	120	0	-20	0 -87 +20 -87	0 -54 +20 -54	0 -35 +20 -35	0 -22 +20 -22	22
120	180	0	-25	0 -100 +25 -100	0 -63 +25 -63	0 -40 +25 -40	0 -25 +25 -25	25
180	250	0	-30	0 -115 +30 -115	0 -72 +30 -72	0 -46 +30 -46	0 -29 +30 -29	29
250	315	0	-35	0 -130 +35 -130	0 -81 +35 -81	0 -52 +35 -52	0 -32 +35 -32	32
315	400	0	-40	0 -140 +40 -140	0 -89 +40 -89	0 -57 +40 -57	0 -36 +40 -36	36
400	500	0	-45	0 -155 +45 -155	0 -97 +45 -97	0 -63 +45 -63	0 -40 +45 -40	40
500	630	0	-50	0 -175 +50 -175	0 -110 +50 -110	0 -70 +50 -70	0 -44 +50 -44	44
630	800	0	-75	0 -200 +75 -200	0 -125 +75 -125	0 -80 +75 -70	0 -50 +75 -50	50

Arrangement for High axial load or vertical shaft

Plain parallel shaft are suitable for most applications as long as the actual axial load Pa does not exceed 50% of the Ca value. If actual axial load exceeds 0.5C, or in case of vertical shaft, heavy shock load and widely fluctuating temperature, a recessed shaft or abutment is required. For dimension and tolerances for recessed shaft and abutment, please contact HKT technical department.



Retaining Rings

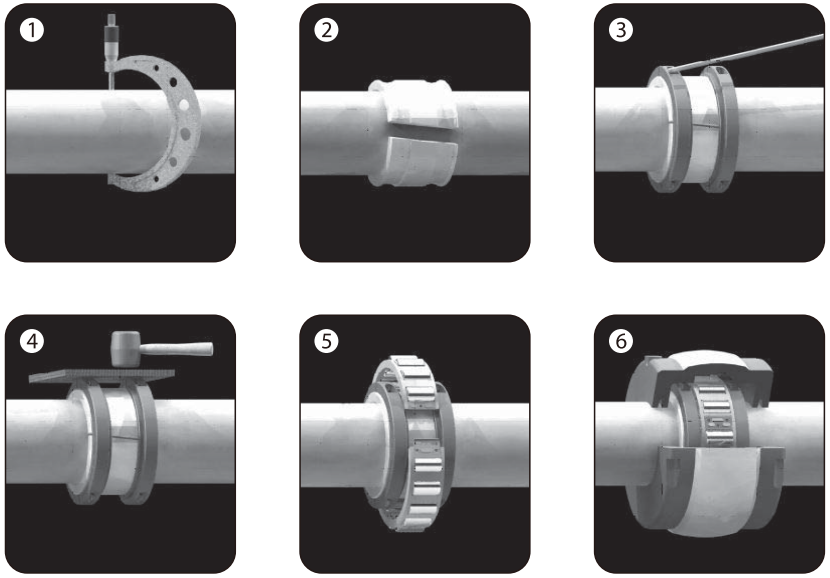


Recessed Shaft

Installation

Handling Before assembly

Unpack and handle all components with care. Cage is easily separated by lifting the clip with common tool which has sharp edge like screwdriver. Clean off preservative oil. Keep the bearing clean and unharmed. Oil lightly all threads and faces, including bores of clamp rings. Care should be taken as some components may have sharp edges. N.B. Do not mix bearing rings and rollers when fitting more than one unit, as individual parts of bearing should not be interchanged. Complete bearings are interchangeable between similar HKT housings. It is also acceptable to interchange housings between standard HKT supports. Note the floating type bearing (BX) has a plain outer race with no lips whereas the locating type bearing (BR) has guiding lips on outer races. In case of series 100 and 200 bearings for sizes over 300mm (12in) and series 300 over 150mm (6in), rollers are guided by the lips of the inner races instead of clamp ring faces.



1. Before Assemble

- Clean the shaft and check diameter, roundness and parallelism. The inner ring, before assembly, measures undersize equivalent to the final gap at the joint. This gap is a feature of the design to ensure that the two halves of inner ring fully seat on the shaft.

2. Assemble Inner Ring

- Fit the two halves of the inner ring at the correct position on the cleaned shaft. There should be a gap at the joint. Floating type inner ring normally is set centrally with the outer ring, but in cases of axial expansion may be offset to within 10% of the outer ring width.

3. Mount Clamp Rings on the Inner Ring

- Fit the clamp rings with the joints at about 90° to the inner ring joint. The pairing marks should coincide. There should be approximately equal gaps at both joints of the clamp rings, inner rings and outer rings. To achieve this more easily use a soft packing in the ring joint under the clamp rings, especially for large bearings. Care should be taken not to damage the joint faces. Alternately and gradually tighten all four clamping screws using the correct hexagon key and torque wrench. (or key and tube extension if torque wrench not available)

4. Seating Inner Ring on the Shaft

- Tap down each half of the inner rings and clamp rings all round the shaft, interposing a fiber or hardwood block between soft hammer and bearing parts. Retighten screws. Repeat until the screws are fully tight. The recommended torque values are shown in page 165. Check there is a gap at both joints of the inner ring. The total gap varies and is not critical provided the shaft is within the required tolerance. Check that floating type inner rings will be central or correctly offset when all parts are finally positioned.

5. Assemble Cages

- Coat the roller cage with grease and lightly cover other parts for protection. Place the cage round the inner ring and press two halves of cage with internal direction so that they are easily assembled and mounted on the inner ring.

6. Assemble Housings

- Clean the housing bore and lightly oil. Place the half outer ring with the lubrication hole into the upper housing and the second half ring into the housing bottom ensuring the pairing marks coincide.

- **Fitting an outer race in housing** Make sure that the ends of the outer ring project from the each housing joint face by equal amounts. Fit the half outer rings. Tighten radial screw where provided. (Not using radial screw can be critical cause of bearing broken) It is important to fit the washers. Fit the side rods and screws where provided and very lightly tighten. The outer rings of the locating type bearing (BR) should be clamped axially in housing with side screws and rods, but rods are not required for size 100~155mm in series 100M and 200M. Place together the half housings and fully tighten the housing joint screws. Progressively and fully tighten the radial screws and/or side screws. In some sizes two housing joint screws must be taken out to gain access to the side screws. When subsequently lifting half housings, take care the half outer ring does not fall. Inject grease to fill the grease passages. End bore seals should be well lubricated on assembly including the bores of the revolving triple labyrinth seals. Where fitted, blanking plates should be sealed with grease or an appropriate sealing compound. Add grease to the convex outer surface of the housing.

7. Positioning the Housings and Assemble Supports

- Close housing and tighten joint screws. Floating bearings indicate on shaft the correct axial position of housing. Lubricate spherical seating with anti-scuffing compounds are advantageous. Support bases must be supported to avoid deflection. The shaft should be rotated for a short period in order to allow the self-aligning property of the bearing to follow the plane of the shaft precisely before fully tightening the support cap screws. Where oil lubrication is to be used the support joint faces and screws should be treated with a sealing compound.

Remark

- Individual parts should not be interchanged.
- The correct shaft limit is important.
- Pairing marks should match.
- Lightly oil threads and interfaces.
- Fully tighten the clamp ring.
- Lubricate before closing the housing.
- Lubricate swivel seating.
- Safeguard rolling surfaces for transit.

Clamp Ring Screws & Tightening Torques (Housing & Support Screws are 75 % of values shown below)

Bearing sizes mm	Series 100	40 ~ 75	80 ~ 90	100 ~ 130	135 ~ 200	220 ~ 300	320 ~ 480	500 ~ 600	-	-
	Series 200	-	50 ~ 65	70 ~ 100	110 ~ 150	160 ~ 180	190 ~ 260	280 ~ 460	480 ~ 600	-
	Series 300	-	-	-	-	100 ~ 150	160 ~ 200	220 ~ 260	280 ~ 320	340-600
Screw size		**M4**	**M5**	**M6**	**M8**	**M10**	**M12**	**M16**	**M20**	**M24**
Torque	Nm	4.5	8.5	15	35	70	120	300	560	950
	lbf ft	3.5	6.5	11	26	52	88	220	415	700
Bearing sizes inch	Series 100	1½ ~3	3¼ ~3½	3¾ ~5	5½ ~8	9~12	13~19	20~24	-	-
	Series 200	-	1¾ ~2½	2¾ ~4	4½ ~6	6½ ~7	8~10	11~18	19~24	-
	Series 300	-	-	-	-	4~6	6½ ~8	9~10	11~13	14~23

Lubrication

- For selection of grease & oil for split bearing, please refer to lubrication chapter in cylindrical roller bearing.

Appropriate volume of grease injection

It should be noted that volume of grease load will vary according to operating speeds and bore sizes. To calculate the d_n factor, multiply the shaft diameter by the rotational speed. Eg. 100 mm x 630 rpm = 63000 dn. For speeds up to d_n=50,000 the roller bearing and housing should be packed full on assembly – full pack weight are given in the table below.

Weight of Grease (kg) - full pack

Bearing bore inch	mm	Series 100 kg	Series 200 kg	Series 300 kg
1½	40	0.06		
2	50	0.09	0.15	
2½	65	0.15	0.21	
3	75	0.18	0.30	
3½	90	0.30	0.45	
4	100	0.36	0.60	1.20
4½	110	0.51	0.90	1.40
5	130	0.60	1.10	1.40
5½	140	0.78	1.40	2.00
6	150	0.90	1.40	2.70
6½	170	1.00	1.40	3.60
7	180	1.10	2.00	4.20
8	200	1.40	2.70	5.40
9	220	1.40	3.60	6.90
10	260	2.00	4.20	8.10
11	280	2.00	4.80	10.00
12	300	2.00	5.40	11.00

As the d_n increases, use progressively less grease to coat the bearing parts, from a full coating of the cage and bearing surfaces at d_n = 50,000, down to smear about 1mm thick at d_n = 200,000, the remaining amount to be added in the housing. Proportional amounts are listed on below.

d_n over	d_n To	Percentage of full pack
	50,000	100
50,000	100,000	75
100,000	150,000	50
150,000	200,000	33
200,000		25

All housings and seals should be well lubricated on assembly including the bores of the triple labyrinth seals and of thrust bearings where fitted. Blanking plated should be sealed with grease or jointing compound. **Never assemble the bearings dry and inject the grease after closing the housing. Always coat swivel seatings with oil or grease.**

Lubrication points

Lubrication points of housings are tapped to accommodate grease nipples. The lubricant is injected through the outer ring directly to the rolling surfaces. Pipework must be flexible to allow the swivel housing to function.

Greasing Interval

It is good practice to re-grease while they are rotating. Suggested re-greasing intervals for floating type (BX) and locating type (BR) bearings are every 1000 operating hours, i.e., two or three times a year. The exception being where locating type (BR) are taking thrust load. In this case, reduce re-greasing interval by a factor of 10. (every 100 operating hours or longer) Typically 3 mls of grease should be applied per bearing. For bearings with speeds up to d_n = 50,000 which are assembled with a full pack of grease, re-greasing intervals can be increased to one year, provided the thrust load on the locating type (BR) bearing is nominal. Clean out and replace the grease after several years or as determined by the conditions.

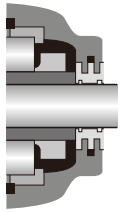
Oil Lubrication

Oil lubrication is normally only required for high temperature, high speed and location type bearings (BR) with high axial loads. For further information please contact our technical department.

Sealant

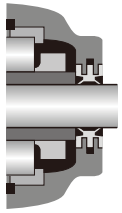
The various types of sealant are applied as follows. Please contact us for technical support.

Felt (F)



Aluminum Triple Labyrinth (ATL)

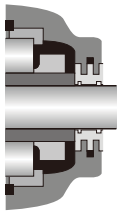
Synthetic nitrile rubber single lip (SRS)



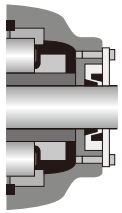
Neoprene rubber triple labyrinth (NTL)

Labyrinth grease groove (LAB)

High Temperature Packing (HTP)

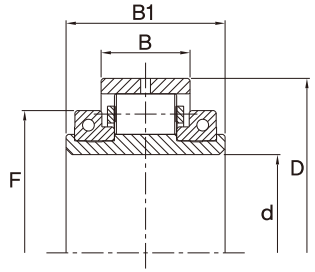


Triple labyrinth with Viton rubber cord insert (TL HT)

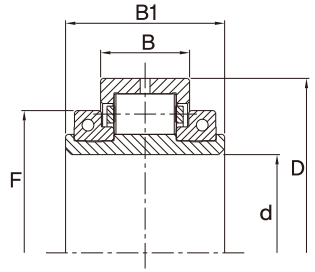


Single lip with spring loaded retaining plate (SRS RP)

100 series - Split roller bearing and housing



Floating Type - BX

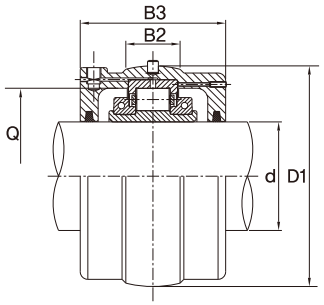


Locating Type - BR

ex) Reference No. 100M100B
- 100M100BX : Floating Type
- 100M100BR : Locating Type

Chamfer in inner race : 1.5mm when d ≤ 90
2.5mm when d > 90
Chamfer in outer race : 1.0mm when d ≤ 105
1.5mm when d > 105

BEARING		Load Ratings		RPM	D	B	B1	F	Wt.	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C(kN)	Stat. C_0(kN)	r/min					(kg)	Shaft Dia.(d)	Designations inch
35	100M35B									1·3/16	100E103B
40	100M40B	75	77	5400	84.14	23.8	50.1	66	1.1	1·4/16	100E104B
										1·7/16	100E107B
										1·8/16	100E108B
45	100M45B									1·11/16	100E111B
50	100M50B	101	113	4630	98.42	25.4	55.7	80	1.5	1·12/16	100E112B
										1·15/16	100E115B
										2	100E200B
60	100M60B									2·3/16	100E203B
65	100M65B	134	156	3490	114.3	27.0	55.7	92	1.5	2·4/16	100E204B
										2·7/16	100E207B
										2·8/16	100E208B
70	100M70B									2·11/16	100E211B
75	100M75B	173	210	3310	133.35	31.8	61.2	106	2.6	2·12/16	100E212B
										2·15/16	100E215B
										3	100E300B
80	100M80B									3·3/16	100E303B
85	100M85B	240	308	2790	152.4	38.9	70.7	128	4.5	3·4/16	100E304B
90	100M90B									3·7/16	100E307B
										3·8/16	100E308B
100	100M100B									3·11/16	100E311B
105	100M105B	322	426	2340	174.62	45.3	81.0	144	5.5	3·12/16	100E312B
										3·15/16	100E315B
										4	100E400B
110	100M110B									4·3/16	100E403B
115	100M115B	331	448	1970	203.2	46.9	84.9	165	9.3	4·7/16	100E407B
										4·8/16	100E408B
120	100M120B									4·15/16	100E415B
125	100M125B	348	528	1740	222.25	54.0	89.7	180	11	5	100E500B
130	100M130B										

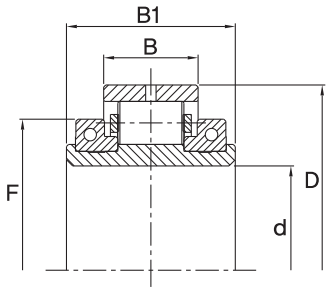


ex) Reference No. 100M100H
- 100M100HX : Floating Type
- 100M100HR : Locating Type

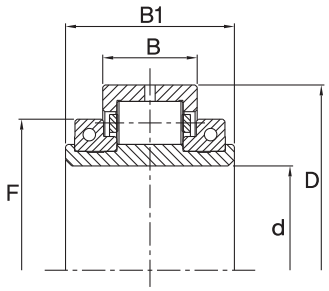
Lubrication points tapped NPT 1/8

HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
35	100M35H						1·3/16	100E103H
40	100M40H	100.00	25	86	75	1.8	1·4/16	100E104H
							1·7/16	100E107H
							1·8/16	100E108H
45	100M45H						1·11/16	100E111H
50	100M50H	117.48	25	98	90	2.9	1·12/16	100E112H
							1·15/16	100E115H
							2	100E200H
60	100M60H						2·3/16	100E203H
65	100M65H	134.94	32	104	105	4.1	2·4/16	100E204H
							2·7/16	100E207H
							2·8/16	100E208H
70	100M70H						2·11/16	100E211H
75	100M75H	157.16	38	114	124	5.2	2·12/16	100E212H
							2·15/16	100E215H
							3	100E300H
80	100M80H						3·3/16	100E303H
85	100M85H	177.80	50	136	142	8.8	3·4/16	100E304H
90	100M90H						3·7/16	100E307H
							3·8/16	100E308H
100	100M100H						3·11/16	100E311H
105	100M105H	203.20	50	134	162	10.2	3·12/16	100E312H
							3·15/16	100E315H
							4	100E400H
110	100M110H						4·3/16	100E403H
115	100M115H	231.78	64	142	182	14.5	4·7/16	100E407H
							4·8/16	100E408H
120	100M120H						4·15/16	100E415H
125	100M125H	266.70	76	156	200	23.4	5	100E500H
130	100M130H							

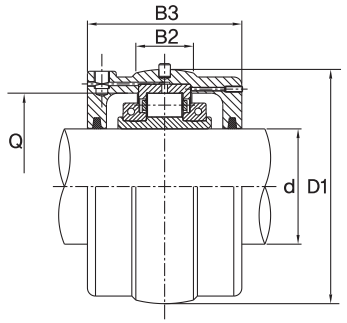
100 series - Split roller bearing and housing



Floating Type - BX



Locating Type - BR



ex) Reference No. 100M100B
- 100M100BX : Floating Type
- 100M100BR : Locating Type

Chamfer in inner race : 2.5mm when d ≤ 155
3.0mm when d ≥ 160
Chamfer in outer race : 1.5mm when d ≤ 155
3.0mm when d ≥ 160

BEARING		Load Ratings		RPM	D	B	B1	F	Wt.	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C(kN)	Stat. C_0(kN)	r/min					(kg)	Shaft Dia.(d)	Designations inch
135	100M135B									5-3/16	100E503B
140	100M140B	386	590	1570	241.30	55.6	98.4	198	11.2	5-7/16	100E507B
										5-8/16	100E508B
150	100M150B	469	683	1450	254.00	55.6	98.4	214	16.8	5-15/16	100E515B
155	100M155B									6	100E600B
160	100M160B	529	791	1320	273.05	60.3	109	234	21.0	6-7/16	100E607B
										6-8/16	100E608B
170	100M170B	556	866	1220	285.75	55.5	109	246	22.0	6-15/16	100E615B
180	100M180B									7	100E700B
190	100M190B	645	1063	1070	311.15	60.3	109	270	25.0	7-15/16	100E715B
200	100M200B									8	100E800B
220	100M220B	695	1193	930	342.90	63.5	115	300	32.3	9	100E900B
240	100M240B	727	1300	820	374.65	66.7	122	330	39.1	10	100E1000B
260	100M260B	884	1600	730	406.40	69.0	128	360	40.6	11	100E1100B
280	100M280B										

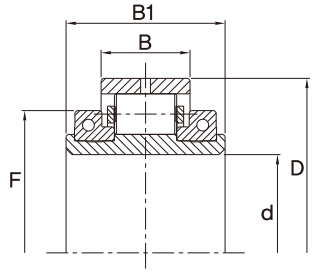
- 160mm size can also be supplied with overall dimensions and ratings as 150mm - 100M150/160B
- 170mm size can also be supplied with overall dimensions and ratings as 160mm - 100M160/170B

ex) Reference No. 100M100H
- 100M100HX : Floating Type
- 100M100HR : Locating Type

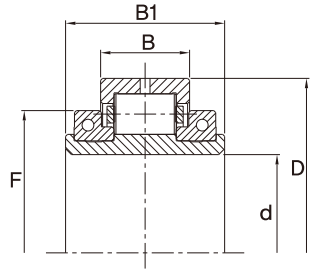
Lubrication points ;
to 240mm : NPT 1/8
over 240mm : NPT 1/4

HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
135	100M135H						5-3/16	100E503H
140	100M140H	279.40	76	168	216	24.0	5-7/16	100E507H
							5-8/16	100E508H
150	100M150H	295.28	82	174	230	28.8	5-15/16	100E515H
155	100M155H						6	100E600H
160	100M160H	311.15	76	172	248	30.8	6-7/16	100E607H
							6-8/16	100E608H
170	100M170H	323.85	70	172	260	30.7	6-15/16	100E615H
180	100M180H						7	100E700H
190	100M190H	358.78	86	172	285	37.8	7-15/16	100E715H
200	100M200H						8	100E800H
220	100M220H	387.35	82	178	315	40.0	9	100E900H
240	100M240H	419.10	90	188	344	51.0	10	100E1000H
260	100M260H	454.00	95	204	375	70.0	11	100E1100H
280	100M280H							

100 series - Split roller bearing and housing



Floating Type - BX

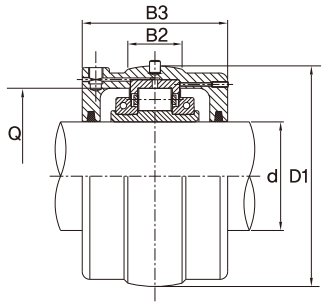


Locating Type - BR

ex) Reference No. 100M100B
- 100M100BX : Floating Type
- 100M100BR : Locating Type

Chamfer in inner race : 3.0mm
Chamfer in outer race : 3.0mm

BEARING		Load Ratings		RPM	D	B	B1	F	Wt.	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C(kN)	Stat. C_0(kN)	r/min					(kg)	Shaft Dia.(d)	Designations inch
300	**100M300B**	926	1741	650	438.15	74.6	143	388	55.3	**12**	**100E1200B**
320	**100M320B**	975	1831	590	463.55	74.6	136	418	72.0	**13**	**100E1300B**
340	**100M340B**	1014	1973	540	488.95	74.6	136	444	78.0	**14**	**100E1400B**
360	**100M360B**	1132	2244	500	520.70	76.2	140	474	68.6	**15**	**100E1500B**
380	**100M380B**										
400	**100M400B**	1170	2394	460	546.10	76.2	140	494	95.0	**16**	**100E1600B**
420	**100M420B**	1206	2546	430	571.50	76.2	140	520	104.0	**17**	**100E1700B**
440	**100M440B**	1240	2697	410	596.90	76.2	140	546	77.8	**18**	**100E1800B**
460	**100M460B**										
480	**100M480B**	1310	2841	380	628.65	81.0	144	570	128.0	**19**	**100E1900B**
500	**100M500B**	1364	3008	360	654.05	80.2	168	600	105.2	**20**	**100E2000B**
530	**100M530B**	1399	3178	340	692.15	81.0	168	632	164.0	**21**	**100E2100B**
560	**100M560B**	1433	3345	330	717.55	81.0	168	658	178.0	**22**	**100E2200B**
–	–	1544	3624	310	749.00	84.1	172	686	195.0	**23**	**100E2300B**
600	**100M600B**	1599	3805	300	774.70	84.1	172	712	210.0	**24**	**100E2400B**

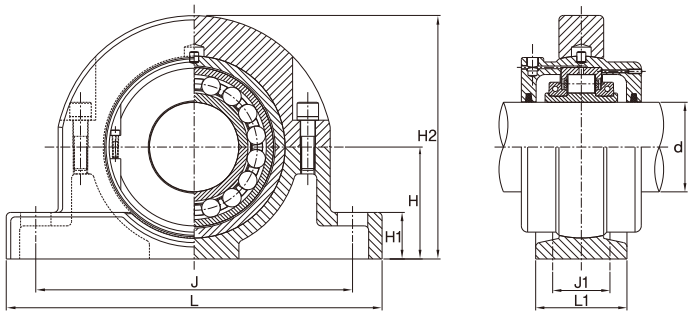


ex) Reference No. 100M100H
- 100M100HX : Floating Type
- 100M100HR : Locating Type

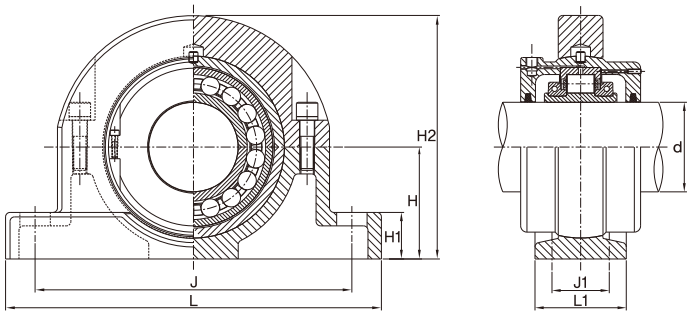
Lubrication points ; NPT 1/4

HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
300	**100M300H**	489.00	98	248	404	70.6	**12**	**100E1200H**
320	**100M320H**	520.70	95	266	432	106.0	**13**	**100E1300H**
340	**100M340H**	546.10	98	266	456	117.0	**14**	**100E1400H**
360	**100M360H**	571.50	98	274	486	126.0	**15**	**100E1500H**
380	**100M380H**							
400	**100M400H**	603.30	102	280	512	141.0	**16**	**100E1600H**
420	**100M420H**	628.70	102	292	538	150.0	**17**	**100E1700H**
440	**100M440H**	650.98	108	304	562	151.0	**18**	**100E1800H**
460	**100M460H**							
480	**100M480H**	682.60	108	318	594	162.0	**19**	**100E1900H**
500	**100M500H**	717.60	114	324	618	200.0	**20**	**100E2000H**
530	**100M530H**	755.70	114	330	650	226.0	**21**	**100E2100H**
560	**100M560H**	781.10	114	336	675	252.0	**22**	**100E2200H**
–	–	816.00	120	342	706	273.0	**23**	**100E2300H**
600	**100M600H**	841.40	120	342	732	290.0	**24**	**100E2400H**

100 series - Support



Support Designation	Shaft Dia.(d) mm	Shaft Dia.(d) inch	H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
S01	35 40	1·3/16 1·4/16 1·7/16 1·8/16	60	22	138	182	228x60	2.9	2-M12
S02	45 50	1·11/16 1·12/16 1·15/16 2	70	25	158	215	270x60	3.6	2-M16
S03	60 65	2·3/16 2·4/16 2·7/16 2·8/16	80	32	180	234	280x70	6.3	2-M16
S04	70 75	2·11/16 2·12/16 2·15/16 3	95	38	208	270	330x76	10	2-M20
S05/2B	80 85 90	3·3/16 3·4/16 3·7/16 3·8/16	112	44	252	320	380x90	15.4	2-M24
S05/4B						328x88	380x140	16.5	4-M20
S06/2B	100 105	3·11/16 3·12/16 3·15/16 4	125	52	272	354	420x102	19	2-M20
S06/4B						368x102	426x152	21.5	4-M20
S07/2B	110 115	4·3/16 4·7/16 4·8/16	143	60	314	392	466x120	30.1	2-M20
S07/4B						412x114	476x172	32	4-M20
S08	120 125 130	4·15/16 5	162	38	372	450x120	508x178	41.3	4-M24
S09	135 140	5·3/16 5·7/16 5·8/16	181	40	405	482x120	558x178	53.75	4-M24
S10	150 155	5·15/16 6	181	40	415	496x120	558x178	61.2	4-M24

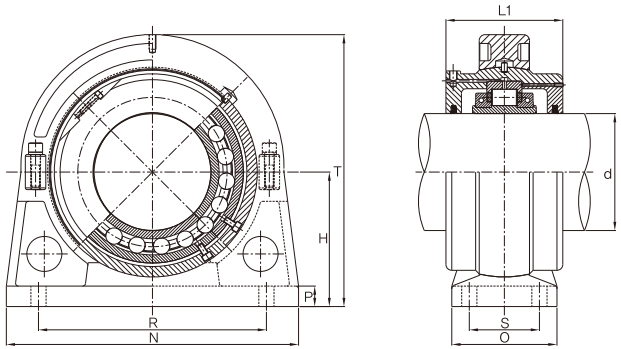


Support Designation	Shaft Dia.(d) mm	Shaft Dia.(d) inch	H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
S11	160	6·7/16 6·8/16	213	32	430	368x114	508x178	57	4-M24
S12	170 180	6·15/16 7	235	35	470	388x128	534x190	65	4-M24
S13	190 200	7·15/16 8	248	38	495	422x140	572x204	75	4-M24
S14	220	9	270	40	540	460x140	636x216	70	4-M30
S15	240	10	292	44	585	502x140	686x228	102	4-M30
S16	260 280	11	311	48	620	534x140	724x228	116	4-M30
S17	300	12	343	50	685	584x178	762x254	188	4-M30
S18	320	13	368	54	735	622x178	812x254	136	4-M36
S19	340	14	387	57	775	654x166	850x254	157	4-M36
S20	360 380	15	397	60	795	676x166	902x254	202	4-M36
S21	400	16	432	67	865	724x166	940x254	214	4-M36
S22	420	17	445	67	890	756x166	966x254	212	4-M36
S23	440 460	18	464	70	925	788x190	1042x280	256	4-M42
S24	480	19	483	73	965	816x188	1092x304	332	4-M42
S25	500	20	489	76	980	844x216	1092x304	306	4-M42
S26	530	21	533	80	1065	904x206	1194x304	331	4-M42
S27	560	22	552	83	1110	936x206	1220x304	392	4-M42
S28	-	23	578	83	1156	876/1080x220	1372x304	437	8-M36
S29	600	24	597	90	1200	908/1118x226	1372x304	510	8-M36

- Standard cast iron bases normally have longitudinal bolt slots, amount of movement in either direction : size to 90mm : 4, over 90mm to 200mm : 6, over 200mm : 10, upper surface as cast.
- Cast steel or other special bases normally have drilled holes, spot faced.

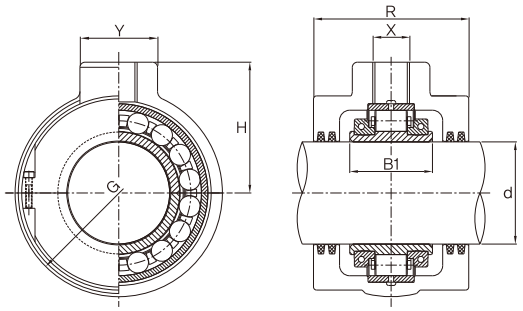
- Base dowel diameter when required
  size to 65mm : 6mm, over 65mm to 105mm : 10mm, over 105mm : 12mm.

100 series - Low profile support for cooling bed



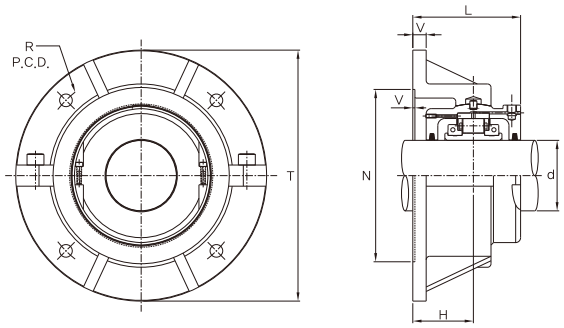
L-SUPPORT Designation	Shaft Dia.(d)		L1	P	H	T	N x O	R x S	볼트	무게
	mm	inch								(kg)
SL05/2B	80 85	3-3/16 3-4/16	136	30	105	225	360 x 90	300	2-M24	21
SL05/4B	90	3-7/16 3-8/16	136	30	105	225	340 x 120	290 x 70	4-M20	22
SL06/2B	100 105	3-11/16 3-12/16	134	30	120	250	410 x 80	350	2-M24	25
SL06/4B		3-15/16 4	134	30	120	250	380 x 130	330 x 80	4-M20	27
SL07/2B	110 115	4-3/16 4-4/16	142	30	135	285	430 x 100	365	2-M24	39
SL07/4B		4-7/16	142	30	135	285	410 x 140	350 x 90	4-M20	41
SL08	120 125 130	4-15/16 5	156	35	155	330	480 x 160	430 x 110	4-M20	60
SL09	135 140	5-3/16 5-7/16 5-8/16	168	35	160	340	480 x 170	420 x 110	4-M24	66
SL10	150 155	5-15/16 6	174	35	170	360	480 x 170	430 x 110	4-M24	76
SL11	160	6-7/16 6-8/16	192	35	200	400	480 x 180	350 x 120	4-M24	103
SL12	170 180	6-15/16 7	200	35	210	420	480 x 180	360 x 120	4-M24	110
SL13	190 200	7-15/16 8	200	35	230	465	500 x 180	390 x 120	4-M24	140
SL14	220	9	216	35	230	480	500 x 180	390 x 120	4-M24	175

100 series - Hanger



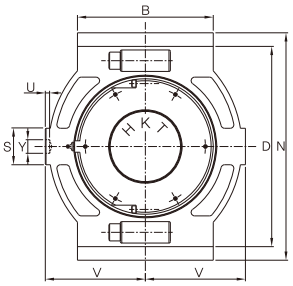
Shaft Dia.(d) (mm)	Designation	B1	G	L	H	X	Y	R	HANGER mass kg
40	100M40HG	50.1	100	108	66	M30	50	105	4
50	100M50HG	55.7	117	108	76	M30	50	121	5
60 65	100M60HG 100M65HG	55.7	135	108	82	M30	50	137	6
70 75	100M70HG 100M75HG	61.2	157	130	92	M30	50	162	8
80 85 90	100M80HG 100M85HG 100M90HG	70.7	178	146	114	M36	76	187	13
100 105	100M100HG 100M105HG	81.0	203	152	128	M36	76	200	17
110 115	100M110HG 100M115HG	84.9	232	156	140	M36	76	222	24

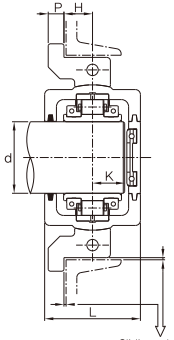
100 series - Flange



Shaft Dia.(d) (mm)	Designation	T	R	P	H	N	V	L	Bolt	Flange mass kg
40	**F01**	204	164	13	51	119.06	3	94	4-M12	8
50	**F02**	216	180	13	57	136.52	3	106	4-M12	11
60 **65**	**F03**	260	218	16	67	166.69	3	120	4-M12	15
70 **75**	**F04**	286	242	16	73	192.09	3	130	4-M12	21
80 **85** **90**	**F05**	330	274	19	79	215.90	3	148	4-M16	31
100 **105**	**F06**	356	302	19	86	244.47	3	154	4-M16	37
110 **115**	**F07**	382	334	22	92	276.22	3	164	4-M16	51
120 **125** **130**	**F08**	432	374	22	98	314.32	3	176	4-M24	72
135 **140**	**F09**	444	384	25	98	317.50	3	182	4-M24	72
150 **155**	**F10**	470	412	25	114	346.07	3	202	4-M24	94
160	**F11**	496	426	25	105	352.42	3	202	4-M24	100
170 **180**	**F12**	508	438	29	108	365.12	3	208	4-M24	105
190 **200**	**F13**	534	474	32	108	400.05	3	208	4-M24	126
220	**F14**	584	512	35	117	431.80	3	226	4-M30	148
240	**F15**	610	542	35	117	463.55	3	228	4-M30	168
260 **280**	**F16**	660	584	38	124	504.82	3	240	4-M30	215
300	**F17**	712	626	38	133	539.75	3	258	4-M30	265

100 series - Take up push type (TP)



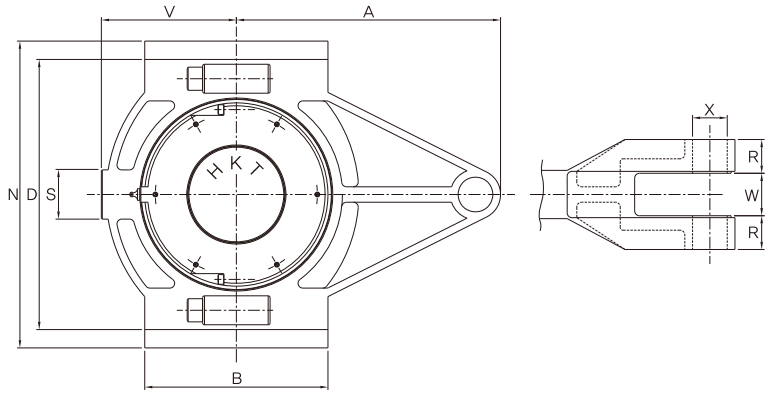


Sliding clearance
1,5mm to 3,0mm

This arrangement for sizes up to 90mm, for larger sizes use two fixed BR bearings.

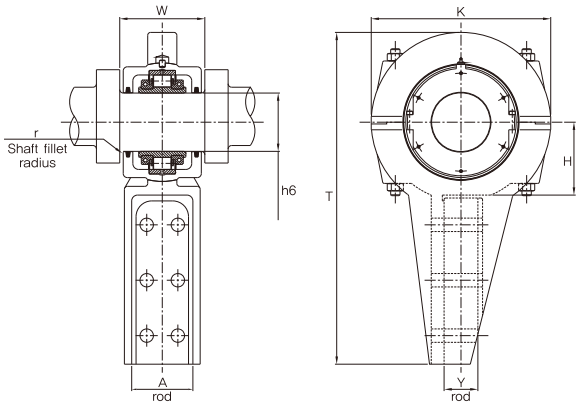
Shaft Dia.(d) (mm)	Designation	B	N	D	V	K	P	H	L	S	Y	U	TP mass kg
40	**TP01**	102	172	153	76	27	14	29	86	25	13	5	6
50	**TP02**	114	204	178	88	29	16	29	98	29	13	5	9
60 **65**	**TP03**	128	235	203	102	30	20	32	104	38	16	6	12
70 **75**	**TP04**	152	266	229	114	35	22	40	114	41	16	6	17
80 **85** **90**	**TP05**	190	318	280	140	40	22	40	136	51	16	6	27
100 **105**	**TP06**	204	342	305	152	–	22	43	134	51	19	6	31
110 **115**	**TP07**	216	382	343	162	–	22	48	142	70	19	6	46
120 **125** **130**	**TP08**	254	420	381	190	–	25	51	156	76	19	6	65
135 **140**	**TP09**	266	438	400	196	–	25	54	168	76	23	8	80
150 **155**	**TP10**	266	464	426	204	–	25	57	174	86	23	8	91

100 series - Take up tension type (TT)



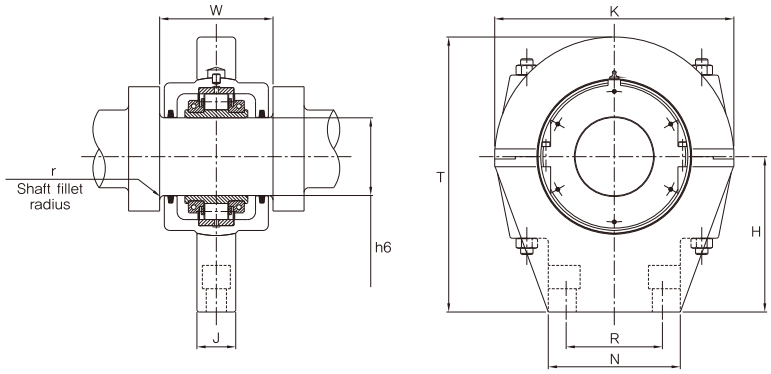
Shaft Dia.(d) (mm)	Designation	B	N	D	A	T	X	V	K	P	H	W	R	L	TT mass kg
40	**TT01**	102	172	153	114	216	20	76	27	14	29	25	24	86	7
50	**TT02**	114	204	178	128	242	24	88	29	16	29	25	25	98	10
60 **65**	**TT03**	128	235	203	146	280	24	102	30	20	32	30	29	104	13
70 **75**	**TT04**	152	266	229	158	305	24	114	35	22	40	30	32	114	19
80 **85** **90**	**TT05**	190	318	280	190	368	30	140	40	22	40	38	35	136	30
100 **105**	**TT06**	204	342	305	210	414	36	152	–	22	43	44	35	134	34
110 **115**	**TT07**	216	382	343	228	445	42	162	–	22	48	44	41	142	51
120 **125** **130**	**TT08**	254	420	381	260	508	42	190	–	25	51	44	44	156	71
135 **140**	**TT09**	266	438	400	266	514	42	196	–	25	54	44	48	168	89
150 **155**	**TT10**	266	464	426	280	546	48	204	–	25	57	50	51	174	100

100 series - Rod end shoe type (RES)



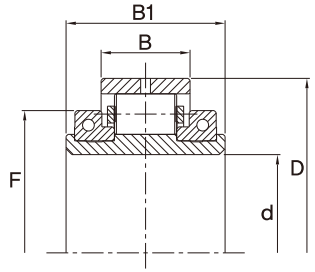
Shaft Dia.(d) (mm)	Designation	W	r	A x Y	H	K	T	ROD END mass kg
40	**RES 01**	92	3.0	62 x 10	65	160	258	5
50	**RES 02**	104	3.0	62 x 10	70	166	308	7
60 **65**	**RES 03/2**	113	4.5	62 x 10	79	190	330	13
70 **75**	**RES 04**	126	6.0	88 x 50	108	248	432	22
80 **85** **90**	**RES 05**	148	6.0	100 x 50	133	264	602	43
100 **105**	**RES 06**	146	6.0	100 x 58	125	308	572	44
110 **115**	**RES 07**	154	6.0	126 x 58	149	354	618	63
120 **125** **130**	**RES 08**	168	6.0	126 x 64	158	400	654	83
135 **140**	**RES 09**	187	9.5	152 x 76	177	442	696	98
150 **155**	**RES 10**	193	9.5	152 x 76	177	442	696	107

100 series - Rod end tee type (RET)

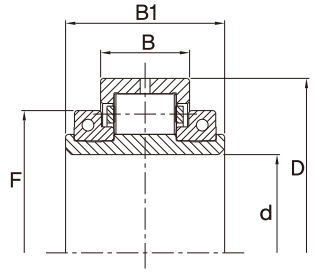


Shaft Dia.(d) (mm)	Designation	W	r	N x J	H	K	T	R x Bolts	ROD END mass kg
40	**RET 01**	92	3.0	86 x 30	76	140	152	57 x M12	6
50	**RET 02**	104	3.0	102 x 32	102	166	190	70 x M10	8
60 **65**	**RET 03**	113	4.5	115 x 38	95	198	194	76 x M16	9
70 **75**	**RET 04**	126	6.0	128 x 44	108	216	220	89 x M16	13
80 **85** **90**	**RET 05/1**	148	6.0	146 x 48	127	248	256	102 x M20	20
100 **105**	**RET06**	146	6.0	170 x 76	200	308	356	124 x M24	36
110 **115**	**RET07/3**	154	6.0	190 x 86	222	334	390	136 x M30	52
120 **125** **130**	**RET08**	168	6.0	190 x 86	222	375	425	136 x M30	65
135 **140**	**RET09**	187	9.5	204 x 102	279	442	502	140 x M30	89
150 **155**	**RET10**	193	9.5	204 x 102	279	442	502	140 x M30	99

200 series - Split roller bearing and housing



Floating Type - BX

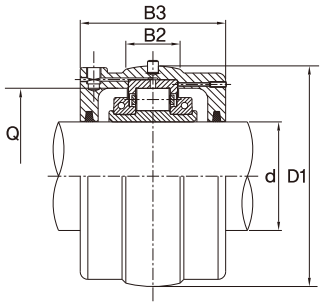


Locating Type - BR

ex) Reference No. 200M100B
- 200M100BX : Floating Type
- 200M100BR : Locating Type

Chamfer in inner race : 1.5mm when d ≤ 90
2.5mm when d > 90
Chamfer in outer race : 1.0mm when d ≤ 100
1.5mm when d > 100

BEARING		Load Ratings		RPM	D	B	B1	F	Wt.	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C(kN)	Stat. C_0(kN)	r/min					(kg)	Shaft Dia.(d)	Designations inch
50	**200M50B**	127	135	4350	107.95	35.0	67.5	80	2	**1·15/16**	**200E115B**
										2	**200E200B**
60	**200M60B**									**2·3/16**	**200E203B**
65	**200M65B**	178	205	3680	127.00	38.9	72.3	102	3.3	**2·4/16**	**200E204B**
										2·7/16	**200E207B**
										2·8/16	**200E208B**
70	**200M70B**									**2·11/16**	**200E211B**
75	**200M75B**	246	293	3080	149.22	46.1	82.6	118	3.5	**2·12/16**	**200E212B**
										2·15/16	**200E215B**
										3	**200E300B**
80	**200M80B**									**3·3/16**	**200E303B**
85	**200M85B**	309	390	2520	169.86	48.4	89.7	136	7	**3·4/16**	**200E304B**
90	**200M90B**									**3·7/16**	**200E307B**
										3·8/16	**200E308B**
100	**200M100B**									**3·11/16**	**200E311B**
		389	498	2130	193.68	51.6	92.1	156	10.1	**3·12/16**	**200E312B**
										3·15/16	**200E315B**
										4	**200E400B**
110	**200M110B**									**4·3/16**	**200E403B**
115	**200M115B**	491	643	1820	228.60	57.2	100.0	175	15.5	**4·7/16**	**200E407B**
										4·8/16	**200E408B**
120	**200M120B**									**4·15/16**	**200E415B**
125	**200M125B**	588	778	1600	254.00	63.5	114.3	194	20	**5**	**200E500B**
130	**200M130B**										
140	**200M140B**									**5·3/16**	**200E503B**
		652	878	1450	273.05	66.7	117.5	210	24.5	**5·7/16**	**200E507B**
										5·8/16	**200E508B**
150	**200M150B**									**5·15/16**	**200E515B**
		766	1087	1320	292.10	68.3	123.8	232	29.9	**6**	**200E600B**

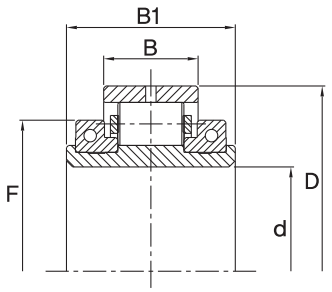


ex) Reference No. 200M100H
- 200M100HX : Floating Type
- 200M100HR : Locating Type

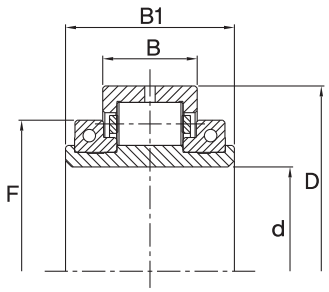
Lubrication points tapped NPT 1/8

HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
50	**200M50H**	134.94	32	114	98	4.0	**1·15/16**	**200E115H**
							2	**200E200H**
60	**200M60H**						**2·3/16**	**200E203H**
65	**200M65H**	157.16	38	126	116	3.9	**2·4/16**	**200E204H**
							2·7/16	**200E207H**
							2·8/16	**200E208H**
70	**200M70H**						**2·11/16**	**200E211H**
75	**200M75H**	177.80	50	140	138	4.9	**2·12/16**	**200E212H**
							2·15/16	**200E215H**
							3	**200E300H**
80	**200M80H**						**3·3/16**	**200E303H**
85	**200M85H**	203.20	50	154	156	12.5	**3·4/16**	**200E304H**
90	**200M90H**						**3·7/16**	**200E307H**
							3·8/16	**200E308H**
100	**200M100H**						**3·11/16**	**200E311H**
		231.78	64	146	178	16.2	**3·12/16**	**200E312H**
							3·15/16	**200E315H**
							4	**200E400H**
110	**200M110H**						**4·3/16**	**200E403H**
115	**200M115H**	266.70	76	162	202	24.5	**4·7/16**	**200E407H**
							4·8/16	**200E408H**
120	**200M120H**						**4·15/16**	**200E415H**
125	**200M125H**	295.28	82	184	224	32.3	**5**	**200E500H**
130	**200M130H**							
140	**200M140H**						**5·3/16**	**200E503H**
		323.85	90	188	240	42.0	**5·7/16**	**200E507H**
							5·8/16	**200E508H**
150	**200M150H**						**5·15/16**	**200E515H**
		336.55	95	204	258	46.3	**6**	**200E600H**

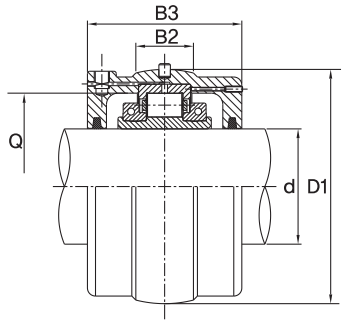
200 series - Split roller bearing and housing



Floating Type - BX



Locating Type - BR



ex) Reference No. 200M100B
- 200M100BX - Floating Type
- 200M100BR - Locating Type

Chamfer in inner race 3.0mm
Chamfer in outer race 3.0mm

ex) Reference No. 200M100H
- 200M100HX - Floating Type
- 200M100HR - Locating Type

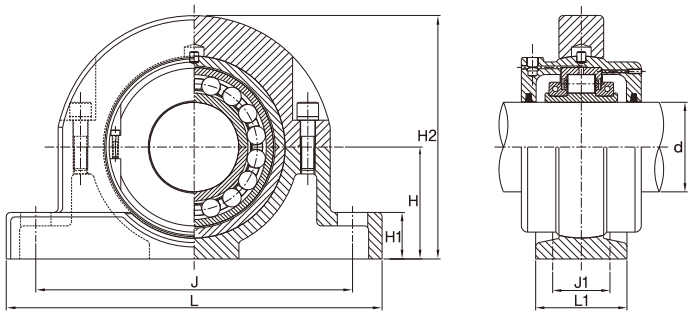
Lubrication points ;
to 170mm : NPT 1/8
over 170mm : NPT 1/4

BEARING		Load Ratings		RPM	D	B	B1	F	Wt.	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C(kN)	Stat. C_0(kN)	r/min					(kg)	Shaft Dia.(d)	Designations inch
160	200M160B	823	1148	1200	317.50	83.3	140	250	40.7	6-7/16	200E607B
170	200M170B									6-8/16	200E608B
180	200M180B	908	1320	1120	330.20	83.3	140	262	45.0	6-15/16	200E615B
										7	200E700B
190	200M190B	1045	1545	960	368.30	90.5	156	302	58.2	7-15/16	200E715B
200	200M200B									8	200E800B
220	200M220B	1129	1762	850	393.70	90.5	163	324	68.0	9	200E900B
240	200M240B	1312	2085	750	431.80	96.8	170	354	77.0	10	200E1000B
260	200M260B										
280	200M280B	1488	2393	670	463.55	101.6	186	390	86.0	11	200E1100B
300	200M300B	1585	2672	610	495.30	103.2	193	420	123.0	12	200E1200B
320	200M320B	1677	2851	550	527.05	106.4	192	448	150.0	13	200E1300B
340	200M340B	1919	3314	500	565.15	115.9	200	488	182.0	14	200E1400B
360	200M360B										
380	200M380B	1973	3518	460	584.20	111.1	200	512	186.0	15	200E1500B
400	200M400B	2014	3791	430	615.95	115.9	200	534	209.0	16	200E1600B
420	200M400B	2219	4026	400	647.70	119.1	200	572	241.0	17	200E1700B
440	200M440B	2290	4290	380	666.75	115.9	200	596	250.0	18	200E1800B
460	200M460B										
480	200M480B	2456	4805	360	698.50	119.1	223	614	263.0	19	200E1900B
500	200M500B	2541	5051	340	717.55	115.9	226	640	272.0	20	200E2000B
530	200M530B	2680	5217	330	762.00	119.1	229	670	309.0	21	200E2100B
560	200M560B	2732	5372	310	793.75	122.2	233	698	336.0	22	200E2200B
–	–	2799	5665	300	813.00	119.1	232	722	341.0	23	200E2300B
600	200M600B	2947	6081	290	838.20	119.1	214	750	381.0	24	200E2400B

- 160mm size can also be supplied with overall dimensions and ratings as 150mm - 200M150/160B

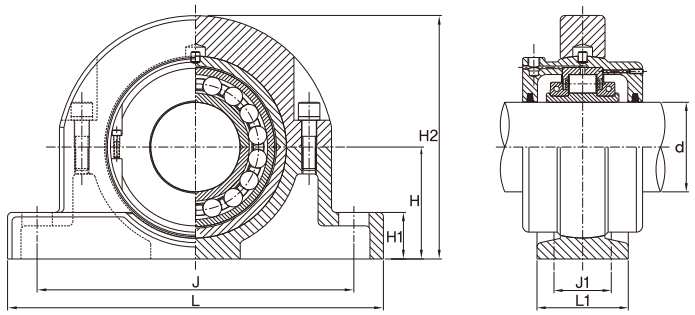
HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
160	200M160H	368.3	95	206	280	56	6-7/16	200E607H
170	200M170H						6-8/16	200E608H
180	200M180H	381.0	95	222	294	66	6-15/16	200E615H
							7	200E700H
190	200M190H	425.5	105	235	328	86	7-15/16	200E715H
200	200M200H						8	200E800H
220	200M220H	457.2	110	242	354	98	9	200E900H
240	200M240H	495.3	118	248	388	105	10	200E1000H
260	200M260H							
280	200M280H	527.1	130	264	420	131	11	200E1100H
300	200M300H	552.5	128	268	448	129	12	200E1200H
320	200M320H	587.4	128	298	478	172	13	200E1300H
340	200M340H	628.7	146	305	514	186	14	200E1400H
360	200M360H							
380	200M380H	647.7	146	305	536	209	15	200E1500H
400	200M400H	685.8	146	324	566	254	16	200E1600H
420	200M400H	717.6	146	324	596	264	17	200E1700H
440	200M440H	733.4	146	324	618	265	18	200E1800H
460	200M460H							
480	200M480H	762.0	146	338	648	272	19	200E1900H
500	200M500H	787.4	146	350	670	323	20	200E2000H
530	200M530H	831.9	150	350	710	351	21	200E2100H
560	200M560H	866.8	152	356	738	379	22	200E2200H
–	–	883.0	152	374	754	386	23	200E2300H
600	200M600H	914.4	152	388	768	454	24	200E2400H

200 series - Support



Support Designation	Shaft Dia.(d) mm	Shaft Dia.(d) inch	H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
S03	50	1-15/16 2	80	32	180	234	280x70	6.3	2-M16
S04	60 65	2-3/16 2-4/16 2-7/16 2-8/16	95	38	208	270	330x76	10	2-M20
S05/2B	70 75	2-11/16 2-12/16 2-15/16 3	112	44	252	320	380x90	15.4	2-M24
S05/4B						328x88	380x140	16.5	4-M20
S06/2B	80 85 90	3-3/16 3-4/16 3-7/16 3-8/16	125	52	272	354	420x102	19	2-M24
S06/4B						368x102	426x152	21.5	4-M20
S07/2B	100	3-11/16 3-12/16 3-15/16 4	143	60	314	392	466x120	30.1	2-M24
S07/4B						412x114	476x172	32	4-M20
S08	110 115	4-3/16 4-7/16 4-8/16	162	38	372	450x120	508x178	41.3	4-M24
S10	120 125 130	4-15/16 5	181	40	415	496x120	558x178	61.2	4-M24
S30	140	5-3/16 5-7/16 5-8/16	203	50	460	546x120	610x178	65	4-M24

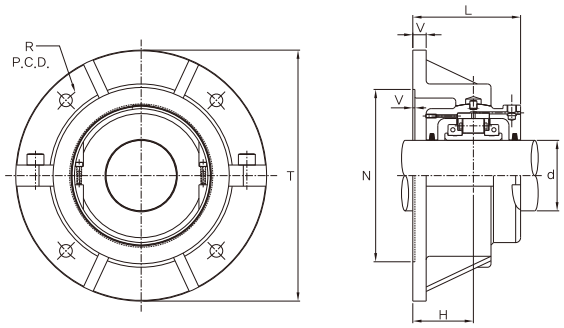
- Base dowel diameter when required
  size to 50mm : 6mm, over 50mm to 90mm : 10mm, over 90mm : 12mm.



Support Designation	Shaft Dia.(d) mm	Shaft Dia.(d) inch	H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
S31	150	5-15/16 6	210	50	470	559x127	636x204	71.6	4-M24
S32	160 170	6-7/16 6-8/16	267	44	535	448x172	596x242	75	4-M30
S33	180	6-15/16 7	273	44	545	457x166	636x242	89	4-M30
S34	190 200	7-15/16 8	305	50	610	508x190	686x266	148	4-M30
S35	220	9	324	50	650	549x190	750x280	156	4-M30
S36	240 260	10	356	54	710	597x204	812x292	195	4-M36
S37	280	11	378	60	760	533/736x254	914x330	242	8-M30
S38	300	12	394	60	790	565/768x254	958x330	250	8-M30
S39	320	13	419	64	840	610/813x210	1016x292	233	8-M30
S40	340 360	14	451	67	900	660/863x280	1092x368	290	8-M36
S41	380	15	464	67	925	683/886x280	1092x368	304	8-M36
S42	400	16	495	70	990	730/933x280	1168x368	328	8-M36
S43	420	17	514	70	1030	768/971x280	1194x368	344	8-M36
S44	440	18	533	73	1070	787/997x280	1244x368	370	8-M36
S45	480	19	552	76	1110	813/1042x280	1270x368	427	8-M36
S46	500	20	572	80	1145	845/1073x280	1296x368	473	8-M36
S47	530	21	594	83	1180	889/1118x280	1398x368	596	8-M36
S48	560	22	616	86	1230	930/1159x280	1422x382	629	8-M42
S49	–	23	635	89	1270	959/1187x280	1448x382	659	8-M42
S50	600	24	673	92	1345	1010/1238x280	1524x382	669	8-M42

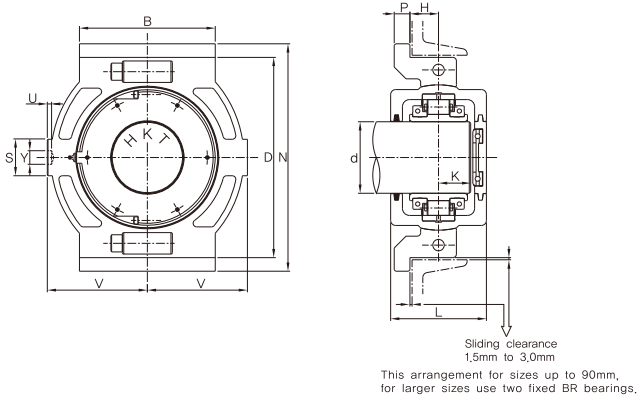
- Standard cast iron bases normally have longitudinal bolt slots, amount of movement in either direction :
  size to 75mm : 4, over 75mm to 150mm : 6, over 150mm to 530mm : 10, over 530mm : 13, upper surface as cast.
- Cast steel or other special bases normally have drilled holes, spot faced.

200 series - Flange



Shaft Dia.(d) (mm)	Flange Only	T	R	P	H	N	V	L	Bolt	Flange mass kg
50	**F03**	260	218	16	67	166.69	3	124	4-M12	15
60 **65**	**F04**	286	242	16	73	192.09	3	136	4-M12	22
70 **75**	**F05**	330	274	19	79	215.90	3	150	4-M16	33
80 **85** **90**	**F06**	356	302	19	86	244.47	3	164	4-M16	40
100	**F07**	382	334	22	92	276.22	3	166	4-M16	51
110 **115**	**F08**	432	374	22	98	314.32	3	180	4-M24	75
120 **125** **130**	**F10**	470	412	25	114	346.07	3	206	4-M24	100
140	**F30**	508	444	25	114	377.82	3	208	4-M24	120
150	**F31**	534	466	25	124	393.70	3	226	4-M24	140
160 **170**	**F32**	584	508	29	124	428.62	5	240	4-M30	170
180	**F33**	596	524	32	130	444.50	5	252	4-M30	210
190 **200**	**F34**	648	572	32	137	492.12	5	266	4-M30	290
220	**F35**	712	620	35	146	527.05	5	284	4-M36	318
240 **260**	**F36**	736	660	38	149	568.32	5	290	4-M36	340
280	**F37**	762	682	38	159	603.25	5	310	8-M30	395
300	**F38**	788	708	41	162	628.65	5	316	8-M30	446

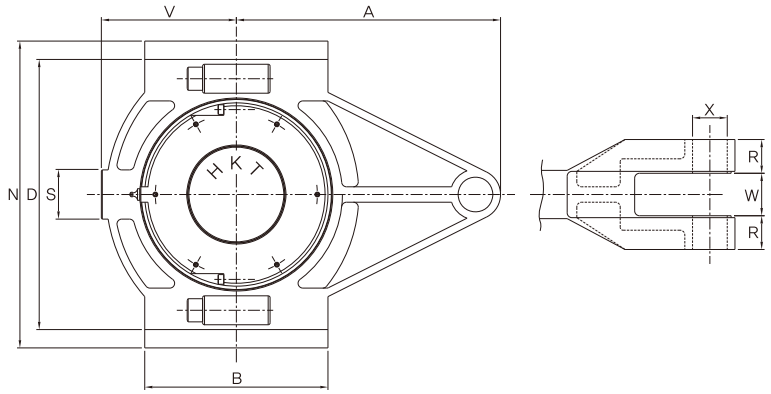
200 series - Take up push type (TP)



This arrangement for sizes up to 90mm, for larger sizes use two fixed BR bearings.

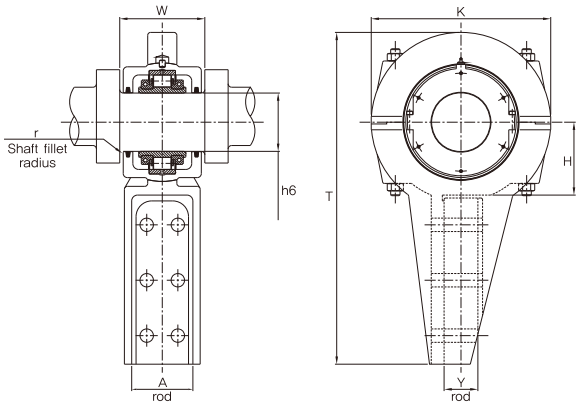
Shaft Dia.(d) (mm)	TAKE UP TP Only	B	N	D	V	K	P	H	L	S	Y	U	TP mass kg
50	**TP03**	128	235	203	102	30	20	32	104	38	16	6	12
60 **65**	**TP04**	152	266	229	114	35	22	40	114	41	16	6	18
70 **75**	**TP05**	190	318	280	140	40	22	40	136	51	16	6	29
80 **85** **90**	**TP06**	204	342	305	152	–	22	43	134	51	19	6	34
100	**TP07**	216	382	343	162	–	22	48	142	70	19	6	46
110 **115**	**TP08**	254	420	381	190	–	25	51	156	76	19	6	68
120 **125** **130**	**TP10**	266	464	426	204	–	25	57	174	86	23	8	94
140	**TP30**	280	502	464	222	–	25	60	188	92	23	8	109
150	**TP31**	305	528	489	235	–	25	64	204	92	26	10	124

200 series - Take up tension type (TT)



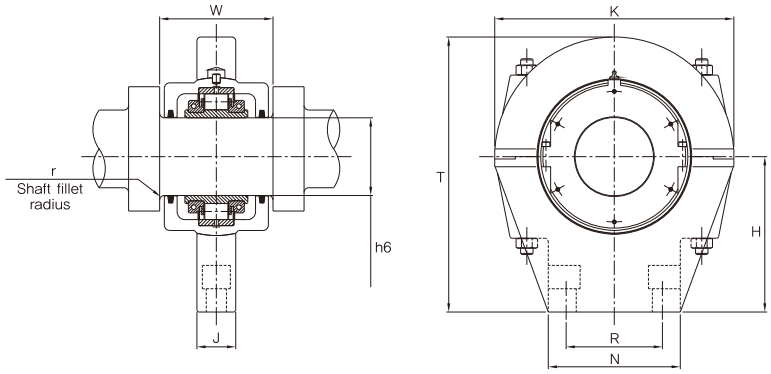
Shaft Dia.(d) (mm)	TAKE UP TT Only	B	N	D	A	T	X	V	K	P	H	W	R	L	TT mass kg
50	**TT03**	128	235	203	146	280	24	102	30	20	32	30	29	104	14
60 **65**	**TT04**	152	266	229	158	305	24	114	35	22	40	30	32	114	20
70 **75**	**TT05**	190	318	280	190	368	30	140	40	22	40	38	35	136	32
80 **85** **90**	**TT06**	204	342	305	210	414	36	152	–	22	43	44	35	134	37
100	**TT07**	216	382	343	228	445	42	162	–	22	48	44	41	142	51
110 **115**	**TT08**	254	420	381	260	508	42	190	–	25	51	44	44	156	74
120 **125** **130**	**TT10**	266	464	426	280	546	48	204	–	25	57	50	51	174	103
140	**TT30**	280	502	464	298	584	48	222	–	25	60	50	54	188	119
150	**TT31**	305	528	489	312	616	48	235	–	25	64	50	57	204	141

200 series - Rod end shoe type (RES)



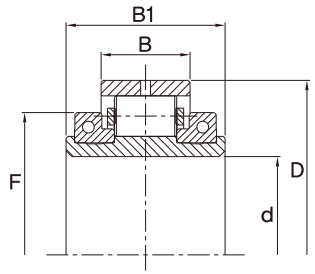
Shaft Dia.(d) (mm)	ROD END SHOE Only	W	r	A x Y	H	K	T	ROD END mass kg
50	**RES 03/1**	123	4.5	62 x 32	76	190	330	10
60 **65**	**RES 04**	138	6.0	88 x 50	108	248	432	20
70 **75**	**RES 05/3**	152	6.0	114 x 38	130	248	540	40
80 **85** **90**	**RES 06/6**	173	9.5	126 x 76	149	334	610	62
100	**RES 07/3**	171	12.5	126 x 76	149	354	618	71
110 **115**	**RES 08/2**	187	12.5	126 x 76	162	400	654	91
120 **125** **130**	**RES 10**	209	12.5	152 x 76	177	442	696	124
140	**RES 30**	213	12.5	152 x 76	177	442	696	145
150	**RES 31**	229	12.5	152 x 64	203	444	736	166

200 series - Rod end tee type (RET)

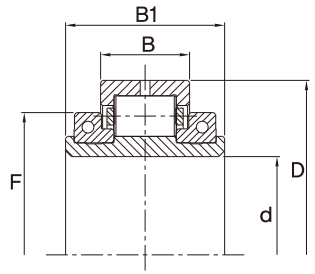


Shaft Dia.(d) (mm)	ROD END TEE Only	W	r	N x J	H	K	T	R x Bolts	ROD END mass kg
50	**RET 03**	113	4.5	115 x 38	95	198	194	75 x M16	9
60 **65**	**RET 04**	138	6.0	128 x 44	108	216	220	89 x M16	14
70 **75**	**RET 05/1**	152	6.0	146 x 48	127	248	256	102 x M20	20
80 **85** **90**	**RET 06**	173	9.5	170 x 76	200	308	356	124 x M24	41
100	**RET 07**	171	12.5	204 x 102	241	324	445	140 x M30	57
110 **115**	**RET 08/1**	187	12.0	204 x 102	279	442	502	140 x M30	84
120 **125** **130**	**RET 10**	209	12.5	204 x 102	279	442	502	140 x M30	101
140	**RET 30**	213	12.5	204 x 102	279	445	558	140 x M30	119
150	**RET 31**	229	12.5	204 x 102	279	445	558	140 x M30	131

300 series - Split roller bearing and housing



Floating Type - BX



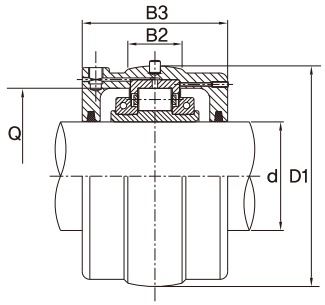
Locating Type - BR

ex) Reference No. 300M100B
- 300M100BX : Floating Type
- 300M100BR : Locating Type

Chamfer in inner race : 2.5mm when d ≤ 150
3.0mm when d > 150
Chamfer in outer race : 3.0mm

BEARING		Load Ratings		RPM	D	B	Ba	B1	F	Wt.	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C(kN)	Stat. C_0(kN)	r/min						(kg)	Shaft Dia.(d)	Designations inch
100	300M100B	667	764	1820	254.00	84.2	–	136	180	30	3-15/16	300E315B
											4	300E400B
110	300M110B	696	824	1640	266.70	87.3	–	147	198	36	4-7/16	300E407B
120	300M120B										4-8/16	300E408B
130	300M130B	763	937	1500	279.40	73.1	84.2	140	210	36	4-15/16	300E415B
											5	300E500B
140	300M140B	959	1191	1340	304.80	79.4	90.5	147	222	44	5-7/16	300E507B
											5-8/16	300E508B
150	300M150B	1081	1362	1220	330.20	81.0	96.9	160	242	48.9	5-15/16	300E515B
											6	300E600B
160	300M160B	1242	1711	1110	355.60	103.2	–	171	264	72	6-7/16	300E607B
170	300M170B										6-8/16	300E608B
180	300M180B	1342	1878	1030	374.65	92.1	108.8	178	280	79	6-15/16	300E615B
											7	300E700B
190	300M190B	1568	2227	880	419.10	97.7	118.3	191	314	105	7-15/16	300E715B
200	300M200B										8	300E800B

- 160mm size can also be supplied with overall dimensions and ratings as 150mm - 300M150/160B

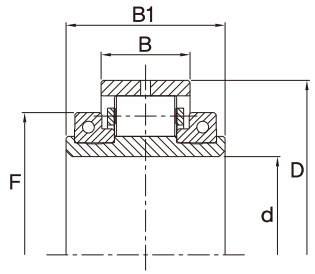


ex) Reference No. 100M100H
- 300M100HX : Floating Type
- 300M100HR : Locating Type

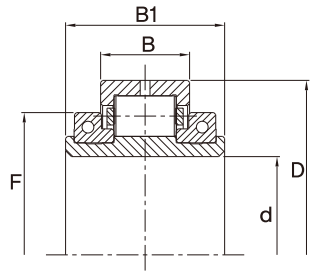
Lubrication points ;
to 120mm : NPT 1/8
over 120mm : NPT 1/4

HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
100	300M100H	308.00	95	206	219	41	3-15/16	300E315H
							4	300E400H
110	300M110H	323.85	102	222	232	46	4-7/16	300E407H
120	300M120H						4-8/16	300E408H
130	300M130H	323.85	102	222	245	48	4-15/16	300E415H
							5	300E500H
140	300M140H	355.60	108	230	270	52	5-7/16	300E507H
							5-8/16	300E508H
150	300M150H	393.70	114	254	292	70	5-15/16	300E515H
							6	300E600H
160	300M160H	422.30	120	268	308	81	6-7/16	300E607H
170	300M170H						6-8/16	300E608H
180	300M180H	431.80	132	284	326	87	6-15/16	300E615H
							7	300E700H
190	300M190H	489.00	146	300	366	109	7-15/16	300E715H
200	300M200H						8	300E800H

300 series - Split roller bearing and housing



Floating Type - BX

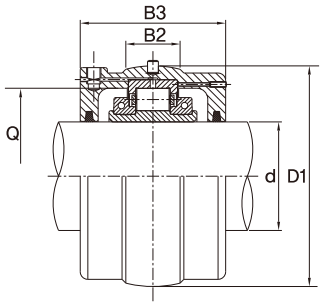


Locating Type - BR

ex) Reference No. 300M100B
- 300M100BX : Floating Type
- 300M100BR : Locating Type

Chamfer in inner race : 3.0mm
Chamfer in outer race : 3.0mm

BEARING		Load Ratings		RPM	D	B	Ba	B1	F	Wt.	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C(kN)	Stat. C_0(kN)	r/min						(kg)	Shaft Dia.(d)	Designations inch
220	**300M220B**	1715	2384	780	469.90	109.6	131.8	212	352	145	**9**	**300E900B**
240	**300M240B**	1925	2811	700	482.60	105.6	124.6	211	382	150	**10**	**300E1000B**
260	**300M260B**											
280	**300M280B**	2343	3733	620	495.30	139.7	–	244	418	182	**11**	**300E1100B**
300	**300M300B**	2328	3660	560	558.80	139.7	–	244	454	238	**12**	**300E1200B**
320	**300M320B**	2764	4275	500	622.30	160.4	–	272	480	327	**13**	**300E1300B**
340	**300M340B**	2882	4659	460	615.95	158.0	–	279	514	318	**14**	**300E1400B**
360	**300M360B**											
380	**300M380B**	3296	5365	420	685.80	166.7	–	292	548	431	**15**	**300E1500B**
400	**300M400B**											
420	**300M420B**	3616	6340	360	700.00	160.0	–	284	582	395	**17**	**300E1700B**
440	**300M440B**											
460	**300M460B**	3808	6534	340	740.00	170.0	–	294	618	431	**18**	**300E1800B**
500	**300M500B**	4424	7782	310	850.90	187.4	–	300	688	730	**20**	**300E2000B**
530	**300M530B**											
560	**300M560B**	4922	9112	280	863.60	196.9	–	310	728	635	**22**	**300E2200B**
600	**300M600B**	5029	9475	270	890.00	184.0	–	310	754	680	**23**	**300E2300B**

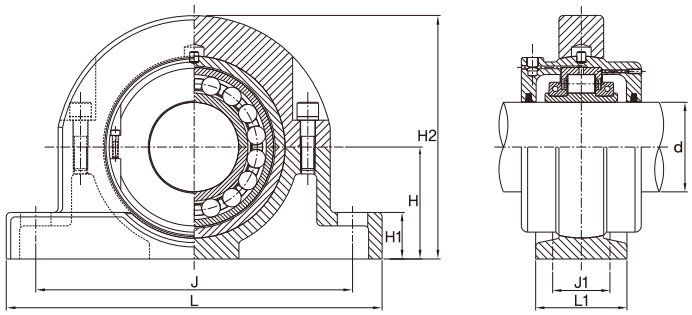


ex) Reference No. 300M100H
- 300M100HX : Floating Type
- 300M100HR : Locating Type

Lubrication points ; NPT 1/4

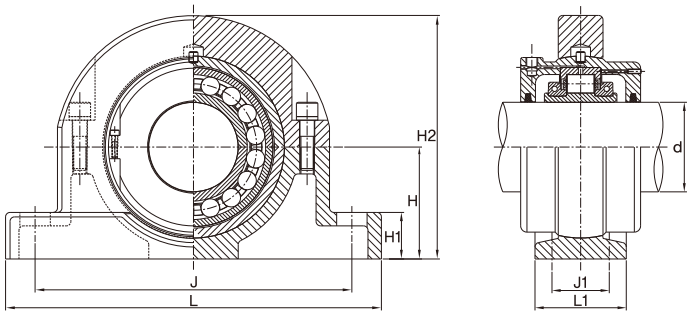
HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
220	**300M220H**	546.10	165	334	410	171	**9**	**300E900H**
240	**300M240H**	558.80	165	334	430	161	**10**	**300E1000H**
260	**300M260H**							
280	**300M280H**	571.50	165	356	452	204	**11**	**300E1100H**
300	**300M300H**	641.40	165	370	496	230	**12**	**300E1200H**
320	**300M320H**	717.60	170	412	550	273	**13**	**300E1300H**
340	**300M340H**	704.90	196	426	556	385	**14**	**300E1400H**
360	**300M360H**							
380	**300M380H**	774.70	202	432	610	399	**15**	**300E1500H**
400	**300M400H**							
420	**300M420H**	788.00	200	436	640	408	**17**	**300E1700H**
440	**300M440H**							
460	**300M460H**	840.00	200	444	680	454	**18**	**300E1800H**
500	**300M500H**	958.90	204	502	765	770	**20**	**300E2000H**
530	**300M530H**							
560	**300M560H**	958.90	204	484	800	671	**22**	**300E2200H**
600	**300M600H**	990.00	204	484	826	720	**23**	**300E2300H**

300 series - Support



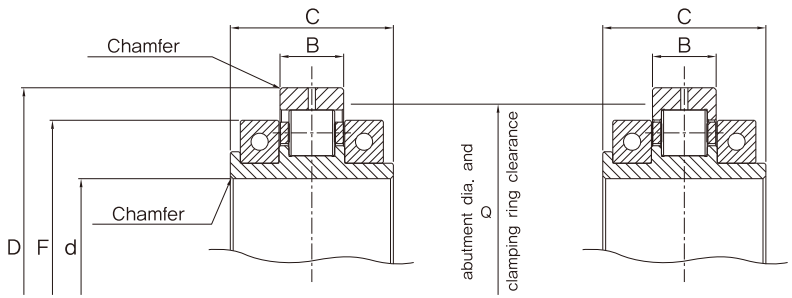
Support Designation	Shaft Dia.(d)		H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
	mm	inch							
S54	**100**	**3·15/16**	191	38	405	438x82	514x152	74	4-M24
		4							
S55	**110**	**4·7/16**	197	38	425	458x88	534x166	86	4-M24
	120	**4·8/16**							
S56	**130**	**4·15/16**	203	48	435	470x96	546x166	98	4-M24
		5							
S57	**140**	**5·7/16**	229	54	485	514x102	622x178	126	4-M30
		5·8/16							
S58	**150**	**5·15/16**	254	57	535	558x120	666x204	183	4-M30
		6							
S59	**160**	**6·7/16**	267	60	570	628x140	736x228	187	4-M30
	170	**6·8/16**							
S60	**180**	**6·15/16**	279	64	580	636x152	762x254	219	4-M30
		7							
S61	**190**	**7·15/16**	311	67	655	636x172	838x266	301	4-M36
	200	**8**							

- Standard cast iron bases normally have longitudinal bolt slots, amount of movement in either direction : size to 130mm : 6mm, over 130mm to 320mm : 10mm, over 320mm : 13mm, upper surface as cast.
- Cast steel or other special bases normally have drilled holes, spot faced.



Support Designation	Shaft Dia.(d)		H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
	mm	inch							
S62	**220**	**9**	349	76	730	736x178	952x280	399	4-M42
S63	**240**	**10**	394	76	790	670x304	914x406	504	4-M42
	260								
S83	**280**	**11**	368	70	785	502/742x178	940x280	214	8-M36
S65	**300**	**12**	457	76	915	674/876x330	1092x420	667	8-M36
S66	**320**	**13**	518	80	1035	763/979x266	1194x356	670	8-M36
S86	**340**	**14**	470	82	1000	660/928x190	1220x318	1067	8-M42
	360								
S68	**380**	**15**	559	92	1120	806/1036x292	1270x394	940	8-M42
	400								
S89	**420**	**17**	508	90	1075	690/990x210	1270x360	522	8-M48
	440								
S90	**460**	**18**	550	95	1165	781/1079x220	1370x380	705	8-M48
S94	**500**	**20**	622	102	1340	940/1270x242	1600x406	994	8-M56
	530								
	560	**22**							
S95	**600**	**23**	622	102	1340	940/1270x242	1600x406	994	8-M56

400 series - Split roller bearing for high speeds



Chamfer in inner race : Sizes to E3000 : 1.0mm, over E3000 : 2.0mm
Chamfer in outer race : Sizes to E3600 : 1.5mm, over E3600 : 4.5mm

BEARING			Load Ratings			RPM	D	B	B1	F	Q	Wt.
Shaft Dia.(d)	Designations		Dyn. C(kN)	Stat. C_0(kN)	Axial C_a(kN)	r/min						(kg)
	inch	millimeter										
152.4	**400E600BX**	-	168	229	11.5	3000	257.18	38.1	79.4	210	231	14.0
269.9	**400E1010BX**	-	424	444	22.2	2740	365.13	48.4	103	330	340	27.0
342.9	**400E1308BX**	-	330	342	17.1	1950	438.15	48.4	103	404	414	34.0
400.0	-	**400M400BR**	270	284	14.2	1650	505.00	36.0	100	466	475	34.0
444.5	**400E1708BX**	-	382	444	22.2	1460	546.10	48.4	108	516	524	45.3
469.9	**400E1808BX**	-	399	477	23.9	1370	571.50	48.4	108	542	550	47.1
527.1	**400E2012BX**	-	412	512	25.6	1210	635.00	48.4	108	602	610	58.6
550.0	-	**400M550BR**	297	350	17.5	1150	655.00	36.0	98	624	634	54.0
558.8	**400E2200BX**	-	414	546	27.3	1130	666.75	38.1	101	634	644	51.3
584.2	**400E2300BX**	-	422	569	28.5	1080	692.15	38.1	101	660	670	59.0
609.6	**400E2400BX**	-	467	657	32.9	1020	717.55	38.1	101	684	696	62.0
673.1	**400E2608BR**	-	643	990	49.5	910	781.05	48.4	114	748	755	73.8
762.0	**400E3000BX**	-	458	616	30.8	790	882.65	44.5	114	844	856	95.0
812.8	**400E3200BX**	-	498	699	35	730	939.80	44.5	114	894	906	104.0
838.2	**400E3300BX**	-	508	728	36.4	705	965.20	44.5	114	920	932	104.0
914.4	**400E3600BX**	-	472	672	33.6	620	1041.40	44.5	114	996	1008	101.6
1060.0	-	**400M1060BR**	755	1313	65.6	560	1220.00	60.0	127	1140	1772	180.0
1117.6	**400E4400BX**	-	1472	2206	110.3	140	1295.40	76.2	168	1210	1255	200.0
1219.2	**400E4800BX**	-	1383	2048	–	350	1371.60	69.9	140	1298	1334	146.0
1295.0	-	**400M1295BX-A**	1248	1944	–	340	1435.10	63.5	127	1372	1404	193.0
1295.0	-	**400M1295BX-B**	2315	3482	65.6	120	1473.20	76.2	168	1388	1432	313.0
1550.0	-	**400M1550BR**	1725	2927	146.4	300	1720.00	75.0	140	1652	1672	336.0