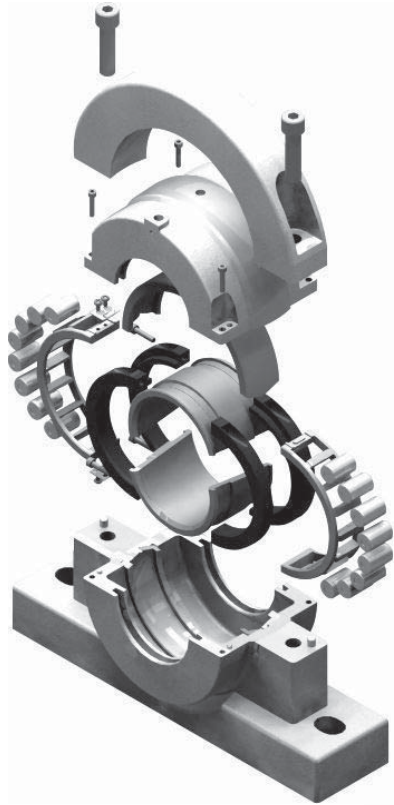
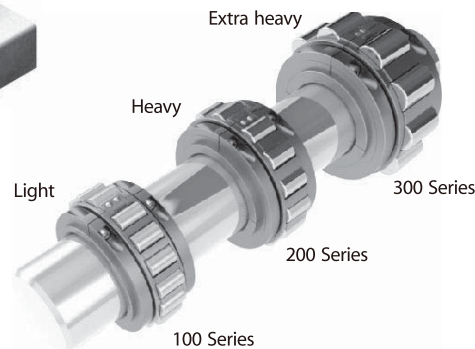


## Split cylindrical roller bearings with housing and support 100, 200, 300, 400 series



### 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;

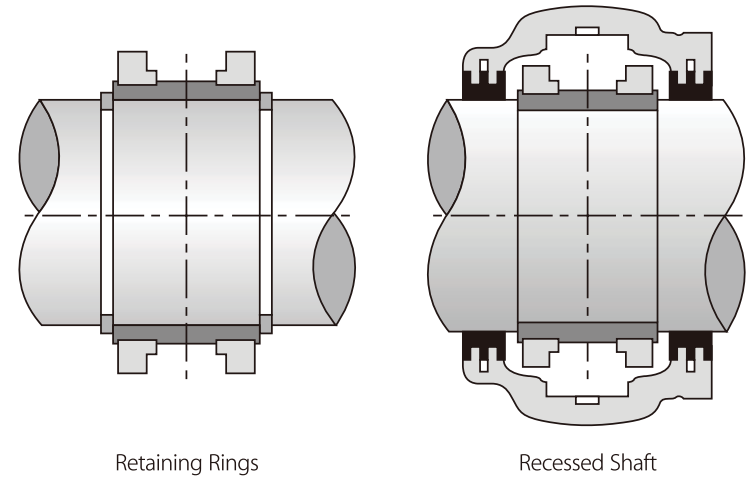
1. h9 : When  $d_n < 50,000$  and  $P \leq 0.1C$
2. h8 : When  $50,000 \leq d_n < 150,000$  and  $P \leq 0.1C$
3. h7 : When  $50,000 \leq d_n < 150,000$  and  $P > 0.1C$
4. h6 : When  $d_n \geq 150,000$ 
  - $d_n = n \cdot d_M$  : Speed parameter
  - $d_M = (d+D)/2$  : Mean bore diameter

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

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

## Arrangement for High axial load or vertical shaft

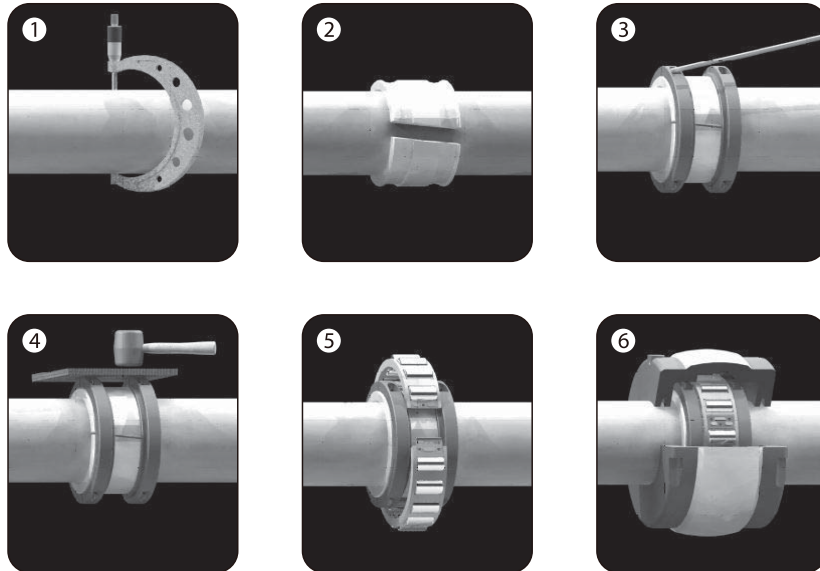
Plain parallel shaft are suitable for most applications as long as the actual axial load  $P_a$  does not exceed 50% of the  $C_a$  value. If actual axial load exceeds  $0.5C_a$ , or in case of vertical shaft, heavy shock load and widely fluctuating temperature, a recessed shaft or abutment is required.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



## 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		<b>M4</b>	<b>M5</b>	<b>M6</b>	<b>M8</b>	<b>M10</b>	<b>M12</b>	<b>M16</b>	<b>M20</b>	<b>M24</b>
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	¾~3½	¾~5	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  $d_n$ . 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		Series 100	Series 200	Series 300
inch	mm	kg	kg	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.

$d_n$		Percentage of full pack
over	To	
	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

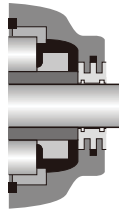
Oil lubrication is normally only required for high temperature, high speed and location type bearings (BR) with high axial loads. For further information please contact our technical department.

## 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)



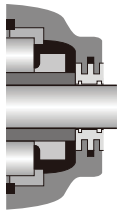
Neoprene rubber triple labyrinth (NTL)



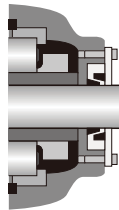
Labyrinth grease groove (LAB)



High Temperature Packing (HTP)

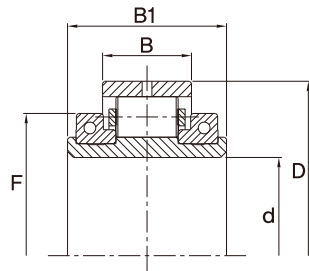


Triple labyrinth with Viton rubber cord insert (TL HT)

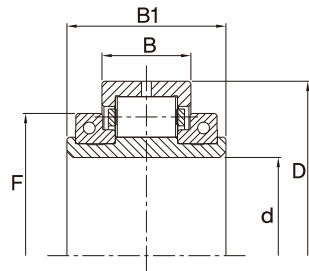


Single lip with spring loaded retaining plate (SRS RP)

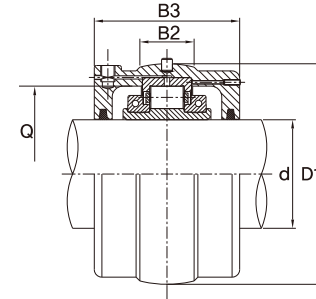
## 100 series - Split roller bearing and housing



Floating Type - BX



Locating Type - BR



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

Chamfer in inner race : 1.5mm when  $d \leq 90$   
 2.5mm when  $d > 90$   
 Chamfer in outer race : 1.0mm when  $d \leq 105$   
 1.5mm when  $d > 105$

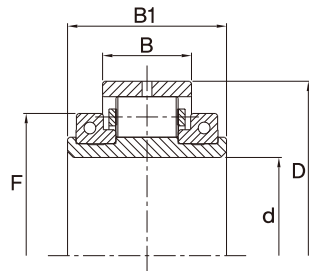
ex) Reference No. 100M100H  
 - 100M100HX : Floating Type  
 - 100M100HR : Locating Type

Lubrication points tapped NPT 1/8

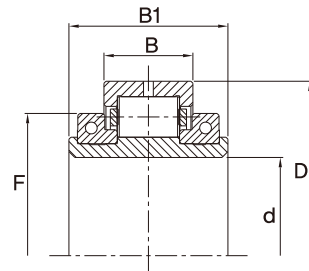
BEARING		Load Ratings		RPM r/min	D	B	B1	F	Wt. (kg)	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C <sub>d</sub> (kN)	Stat. C <sub>s</sub> (kN)							Shaft Dia.(d)	Designations inch
35	100M35B	75	77	5400	84.14	23.8	50.1	66	1.1	1-3/16	100E103B
40	100M40B									1-4/16	100E104B
										1-7/16	100E107B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

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

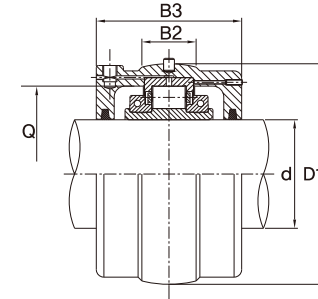
## 100 series - Split roller bearing and housing



Floating Type - BX



Locating Type - BR



ex) Reference No. 100M100B

- 100M100BX : Floating Type
- 100M100BR : Locating Type

Chamfer in inner race : 2.5mm when  $d \leq 155$   
 3.0mm when  $d \geq 160$   
 Chamfer in outer race : 1.5mm when  $d \leq 155$   
 3.0mm when  $d \geq 160$

ex) Reference No. 100M100H

- 100M100HX : Floating Type
- 100M100HR : Locating Type

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

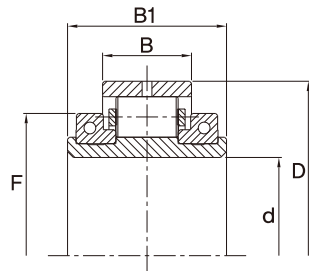
BEARING		Load Ratings		RPM r/min	D	B	B1	F	Wt. (kg)	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C <sub>r</sub> (kN)	Stat. C <sub>0</sub> (kN)							Shaft Dia.(d)	Designations inch
135	100M135B									5-3/16	100E503B
140	100M140B	386	590	1570	241.30	55.6	98.4	198	11.2	5-7/16	100E507B
										5-8/16	100E508B
150	100M150B									5-15/16	100E515B
155	100M155B	469	683	1450	254.00	55.6	98.4	214	16.8	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									6-15/16	100E615B
180	100M180B	556	866	1220	285.75	55.5	109	246	22.0	7	100E700B
190	100M190B									7-15/16	100E715B
200	100M200B	645	1063	1070	311.15	60.3	109	270	25.0	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									11	100E1100B
280	100M280B	884	1600	730	406.40	69.0	128	360	40.6		

- 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

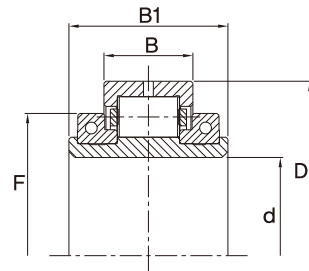
HOUSING		D1	B2	B3	Q	Hsg Mass kg	HOUSING	
Shaft Dia.(d)	Designations millimeter						Shaft Dia.(d)	Designations inch
135	100M135H						5-3/16	100E503H
140	100M140H	279.40	76	168	216	24.0	5-7/16	100E507H
							5-8/16	100E508H
150	100M150H						5-15/16	100E515H
155	100M155H	295.28	82	174	230	28.8	6	100E600H
160	100M160H	311.15	76	192	248	30.8	6-7/16	100E607H
							6-8/16	100E608H
170	100M170H						6-15/16	100E615H
180	100M180H	323.85	70	200	260	30.7	7	100E700H
190	100M190H						7-15/16	100E715H
200	100M200H	358.78	86	200	285	37.8	8	100E800H
220	100M220H	387.35	82	216	315	40.0	9	100E900H
240	100M240H	419.10	90	222	344	51.0	10	100E1000H
260	100M260H						11	100E1100H
280	100M280H	454.00	95	232	375	70.0		



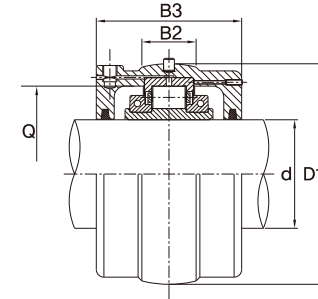
## 100 series - Split roller bearing and housing



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

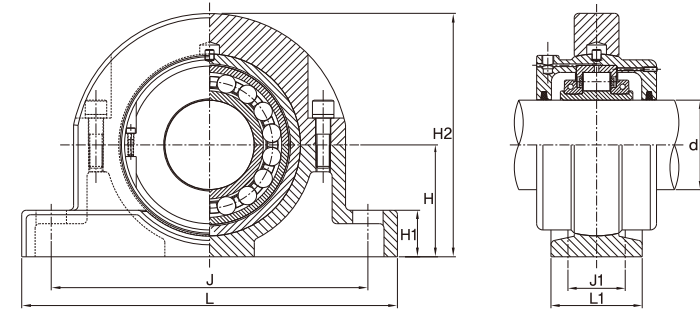
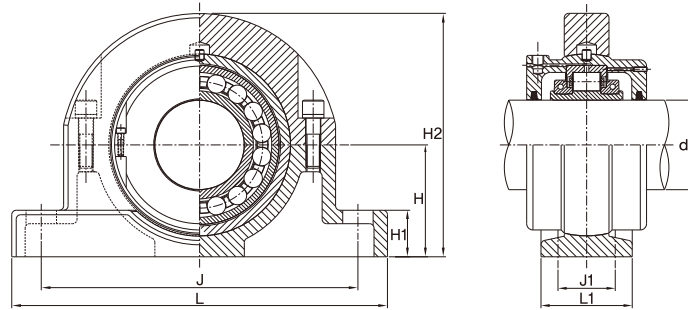
ex) Reference No. 100M100H  
 - 100M100HX : Floating Type  
 - 100M100HR : Locating Type

Lubrication points ; NPT 1/4

BEARING		Load Ratings		RPM r/min	D	B	B1	F	Wt. (kg)	BEARING	
Shaft Dia.(d)	Designations millimeter	Dyn. C <sub>d</sub> (kN)	Stat. C <sub>s</sub> (kN)							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

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



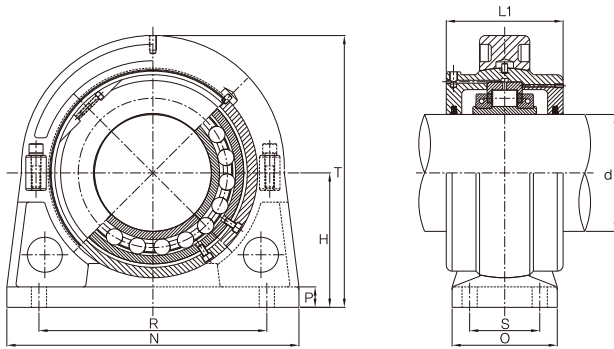
Support Designation	Shaft Dia.(d)		H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
	mm	inch							
S01	35	1-3/16	60	22	138	182	228x60	2.9	2-M12
	40	1-4/16							
		1-7/16							
		1-8/16							
S02	45	1-11/16	70	25	158	215	270x60	3.6	2-M16
	50	1-12/16							
		1-15/16							
		2							
S03	60	2-3/16	80	32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

Support Designation	Shaft Dia.(d)		H	H1	H2	J x J1	L x L1	Support mass kg	Bolt
	mm	inch							
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.

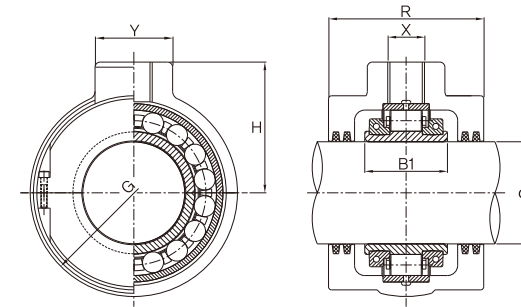
- Base dowel diameter when required  
size to 65mm : 6mm, over 65mm to 105mm : 10mm, over 105mm : 12mm.

## 100 series - Low profile support for cooling bed



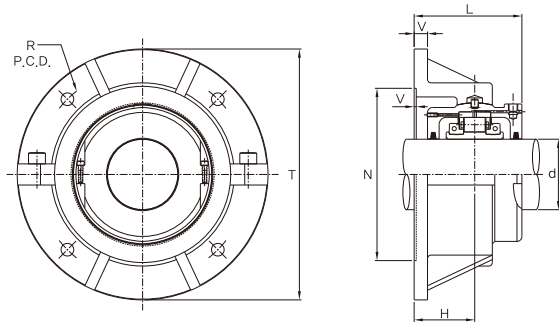
L-SUPPORT Designation	Shaft Dia.(d)		L1	P	H	T	N x O	R x S	볼트	무게 (kg)
	mm	inch								
SL05/2B	80	3-3/16	136	30	105	225	360 x 90	300	2-M24	21
	85	3-4/16								
SL05/4B	90	3-7/16	136	30	105	225	340 x 120	290 x 70	4-M20	22
		3-8/16								
SL06/2B	100	3-11/16	134	30	120	250	410 x 80	350	2-M24	25
	105	3-12/16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

## 100 series - Hanger



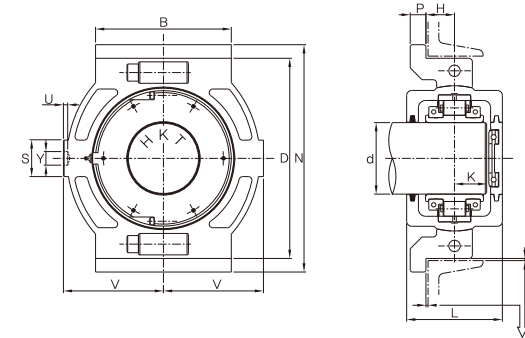
Shaft Dia.(d) (mm)	Designation	B1	G	L	H	X	Y	R	HANGER mass kg
40	100M40HG	50.1	100	108	66	M30	50	105	4
50	100M50HG	55.7	117	108	76	M30	50	121	5
60	100M60HG	55.7	135	108	82	M30	50	137	6
65	100M65HG								
70	100M70HG	61.2	157	130	92	M30	50	162	8
75	100M75HG								
80	100M80HG	70.7	178	146	114	M36	76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

## 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	F03	260	218	16	67	166.69	3	120	4-M12	15
65										
70	F04	286	242	16	73	192.09	3	130	4-M12	21
75										
80	F05	330	274	19	79	215.90	3	148	4-M16	31
85										
90										
100	F06	356	302	19	86	244.47	3	154	4-M16	37
105										
110	F07	382	334	22	92	276.22	3	164	4-M16	51
115										
120	F08	432	374	22	98	314.32	3	176	4-M24	72
125										
130										
135	F09	444	384	25	98	317.50	3	182	4-M24	72
140										
150	F10	470	412	25	114	346.07	3	202	4-M24	94
155										
160	F11	496	426	25	105	352.42	3	202	4-M24	100
170	F12	508	438	29	108	365.12	3	208	4-M24	105
180										
190	F13	534	474	32	108	400.05	3	208	4-M24	126
200										
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	F16	660	584	38	124	504.82	3	240	4-M30	215
280										
300	F17	712	626	38	133	539.75	3	258	4-M30	265

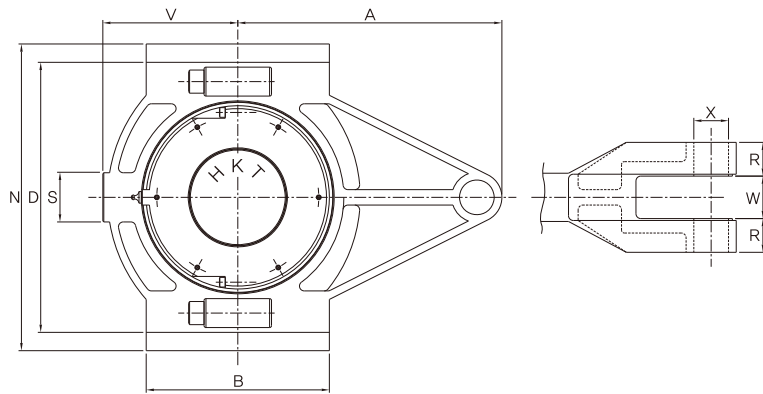
## 100 series - Take up push type (TP)



Sliding clearance  
1.5mm to 3.0mm  
This arrangement for sizes up to 90mm,  
for larger sizes use two fixed BR bearings.

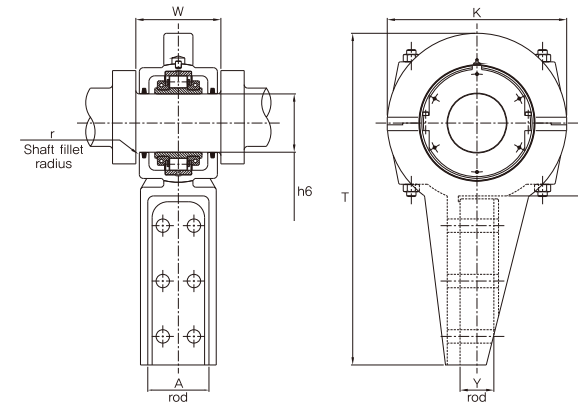
Shaft Dia.(d) (mm)	Designation	B	N	D	V	K	P	H	L	S	Y	U	TP mass kg
40	TP01	102	172	153	76	27	14	29	86	25	13	5	6
50	TP02	114	204	178	88	29	16	29	98	29	13	5	9
60	TP03	128	235	203	102	30	20	32	104	38	16	6	12
65													
70	TP04	152	266	229	114	35	22	40	114	41	16	6	17
75													
80	TP05	190	318	280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

## 100 series - Take up tension type (TT)



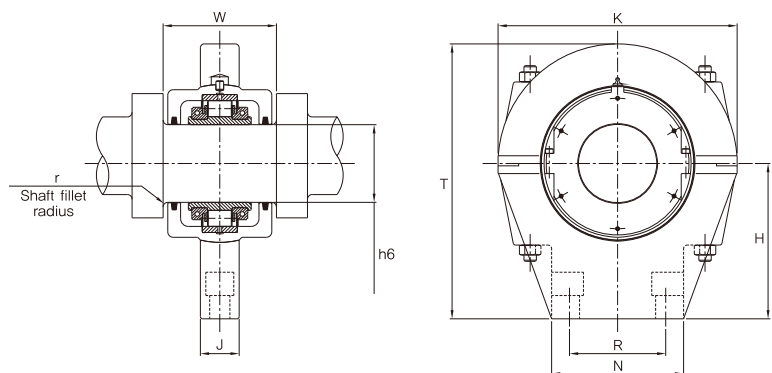
Shaft Dia.(d) (mm)	Designation	B	N	D	A	T	X	V	K	P	H	W	R	L	TT mass kg
40	TT01	102	172	153	114	216	20	76	27	14	29	25	24	86	7
50	TT02	114	204	178	128	242	24	88	29	16	29	25	25	98	10
60	TT03	128	235	203	146	280	24	102	30	20	32	30	29	104	13
65															
70	TT04	152	266	229	158	305	24	114	35	22	40	30	32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

## 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	RES 03/2	113	4.5	62 x 10	79	190	330	13
65								
70	RES 04	126	6.0	88 x 50	108	248	432	22
75								
80	RES 05	148	6.0	100 x 50	133	264	602	43
85								
90								
100	RES 06	146	6.0	100 x 58	125	308	572	44
105								
110	RES 07	154	6.0	126 x 58	149	354	618	63
115								
120	RES 08	168	6.0	126 x 64	158	400	654	83
125								
130								
135	RES 09	187	9.5	152 x 76	177	442	696	98
140								
150	RES 10	193	9.5	152 x 76	177	442	696	107
155								

## 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