



# TECHNICAL CATALOGUE





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## Taking the initiative

In today's demanding industrial environment, specialist technology is, more than ever, key to improved efficiency, productivity and ultimately profitability. SRB, is increasingly seen as a brand which routinely challenges technological boundaries.

Rapid response and flexibility are provided from a production facility manufacturing not only split roller bearing assemblies but also cutting edge products for aerospace and motor sport. The unique relationship between manufacturer and distributors combined with innovative cellular manufacturing and modular stocking offer unparalleled availability.

From concept to design, design to production, and then throughout the life cycle of the unit no other split bearing manufacturer works so hard to exceed your expectations.

### Performance

SRB products have been designed and developed to maximise service life and minimise maintenance effort.

SRB bearings have machined brass cages with unique single piece clips as standard, rolling elements are profiled to minimise damaging edge stresses and provide optimum rolling contact.

All supports and housings incorporate pry slots and doweled machined joints for easy separation. Supports are manufactured from high strength cast iron and feature double webs and thick sections; product life is thus enhanced due to high rigidity and inherent strength.

### Innovation in application

The benefits of totally split-to-the-shaft bearing assemblies are long established, subsequent savings in production and maintenance are well documented.

However, split roller bearings are today being selected for an ever-wider range of applications. Additional features and benefits available from the SRB range allow our products to run faster, take higher loads, at higher temperatures and in increasingly hostile environments.

Optimisation of plant efficiency is the goal of today's maintenance engineer. The application of reliable products offering real savings, derived from increased mean time between failures, which widens periods between planned shutdowns, and the elimination of unplanned downtime are becoming a reality when utilising advanced components accommodating split options.



## Introduction



### Innovation in Service

Producing products that push the boundaries of performance is only the beginning. SRB recognises that users and specifiers of split roller bearings demand logistical, technical and after sales support.

Experienced application engineering support is available to assist customers with concepts through consultation, commissioning, training, supply and post installation support.

Cellular manufacture, modular stocking, logistical expertise and unique distributor/manufacturer interfaces provide excellent availability of product in the right place at the right time.

A team of design engineers provides bespoke solutions on state of the art CAD systems. Close liaison with our customers allows SRB to continuously refine and improve products, production processes and service procedures.

This enables ongoing development allowing SRB to provide a benchmark in technical support.





## *Specialised Bearings*

Over the past 10 years, SRB have built a reputation throughout the world for the manufacture of highly specialised bearing units. From thin section, high speed bearings for wire stranding machines to robust, dependable water cooled units for continuous casting, SRB have the capability to provide products at least equal to, and usually far in excess of, the performance of bearings of other manufacture.

The cornerstone of this growing reputation is SRB's willingness to work closely with equipment manufacturers and end users to solve specific application problems. This has led to the development of a number of innovative designs, some of which have now been incorporated into the SRB product range.

With a grinding capacity of 1.5m and turning capacity greater than 1.8m, SRB have ability to produce bearings substantially larger than those listed in the main body of this or other catalogues. With a number of bearings of bore sizes in excess of 700mm in service, SRB have repeatedly demonstrated their ability in this sector.

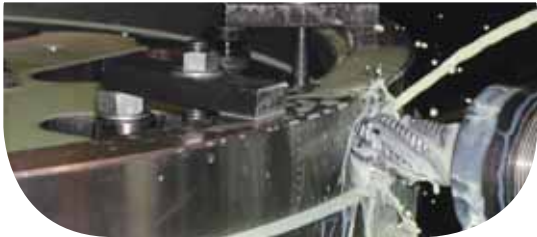
Continuous casting plant found throughout the steel industry provides one of the most challenging operating environments for any bearing system. SRB, by working in conjunction with a number of OEMs and end-users have established a growing reputation in this field. SRB have introduced a number of design innovations whilst maintaining the envelope, layout and fitting conditions stipulated by current applications.

As a result, a bearing operation life in excess of one million tons of cast steel is not uncommon.





*Manufacture of SRB's highly specialised bearing units.*



## The Advantages of Split Roller Bearings



Split Roller Bearings are essential in applications involving limited access and are highly cost effective where down time due to change-outs results in significant production losses.

Split Roller Bearings are completely split to the shaft. Installation and inspection times are therefore dramatically reduced. Additionally the time saved and costs eliminated by not having to remove ancillary equipment results in even higher potential savings.

### Inspection Simplified

No matter what the size or type of split roller bearing, inspection is straight forward. Simply remove the support cap and the top half of the housing and all bearing parts become visible and accessible.

As a result considerable numbers of man-hours can be saved during planned maintenance, further adding to the potential cost savings available.

### Short Term Payback, Long Term Benefits.

Though it would be easy to cite examples where the use of split bearings results in spectacular savings, the truth of the matter is that savings of a significant amount can be made in almost any application. Even modest savings can be enough to justify the use of split bearings. Depending on the application, down times for replacement of split bearings can be a small fraction of those required for solid bearings. This yields savings in both maintenance man-hours and lost production.

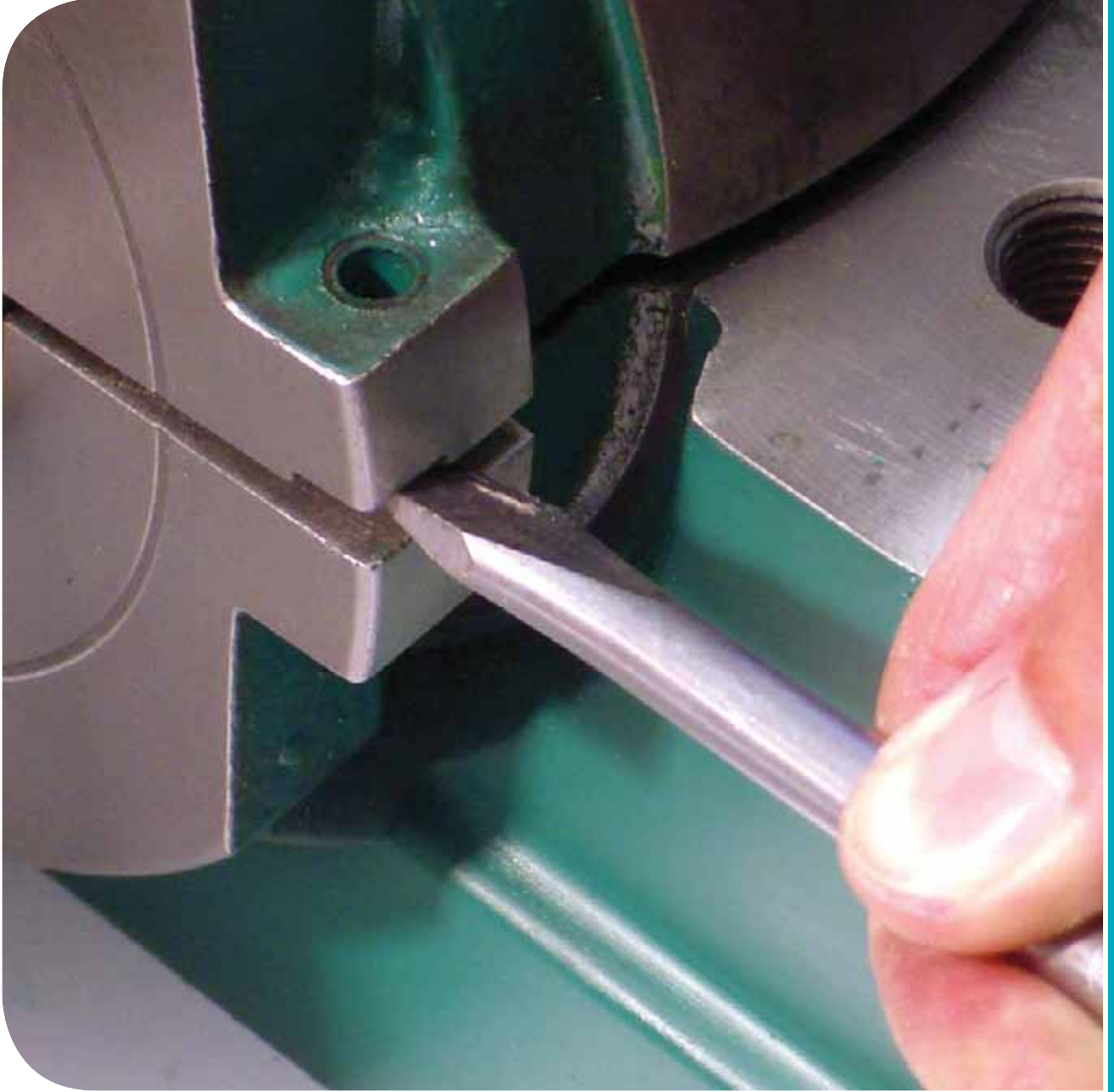
When such cost savings are taken into account at the bearing selection stage, the case for SRB split roller bearings becomes irrefutable.

### Further Savings

Even in situations where SRB bearings are used to replace other split bearing brands the potential for savings exists. Through the use of machined brass cages as standard, inclusion of profiled rolling elements and the incorporation of high-grade materials for housings and supports, SRB bearings have the capability to extend service life leading to a reduction in bearing consumption.







## Features & Benefits

### Features

All components are totally split to the shaft

Support caps and housing halves are quickly removed

Replacement bearing interchangeability with existing housing

Unit accommodates initial misalignment

Machined brass cage as standard

Innovative cage clip design

250 Grade cast iron to BS EN1561 : 1997

Profiled rolling elements

### Benefits

Quick and easy installation. Substantial reduction in downtime compared to replacement of solid bearings

Easy visual inspection to assess the condition of the bearing (during planned maintenance)

Simple and economic bearing replacement

Simplifies installation of associated equipment

Enhanced ability to accommodate higher speeds and temperatures

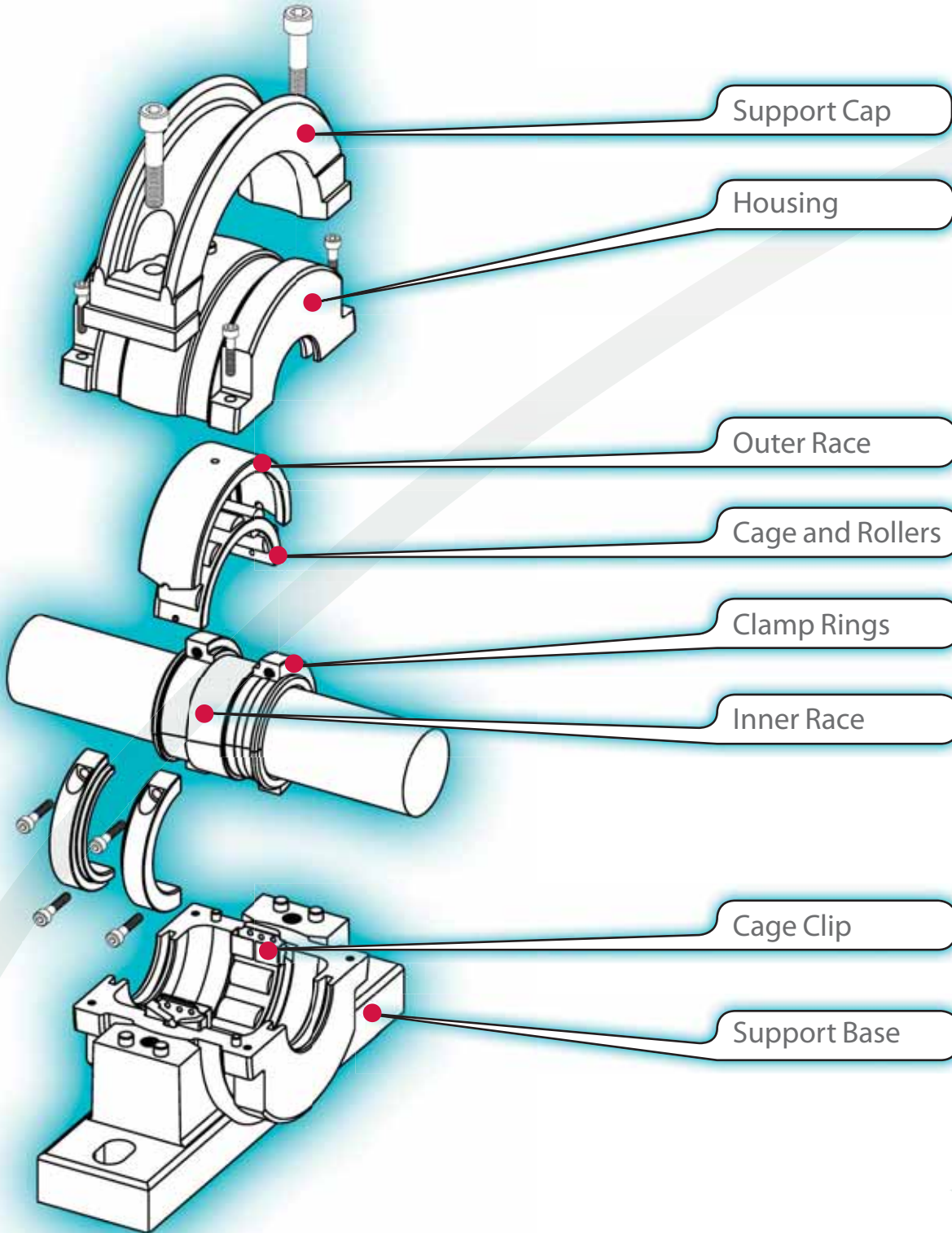
Clips retained on one cage half during assembly and disassembly

Strength and durability

Minimises damaging edge stresses



## Standard Unit Anatomy





## Applications & Case Studies

The key benefit of split roller bearings is the savings that can be made in relation to reducing downtime. This is an advantage which can be utilised in any industry. Along with our distributors throughout the world, SRB have a proactive approach to market evolution and are constantly identifying and developing new applications for split roller bearings. SRB continue to service and supply a wide range of Industries and associated applications including:

- | Air Movement
- | Cement
- | Conveyor Systems
- | Metal Processing
- | Mining
- | Power Generation
- | Quarrying
- | Sugar
- | Timber
- | Manufacturing





## Case Study 1

### Pelletiser Drive Problem

*Solved by SRB*



SRB were invited to supply product on a problem application at a major UK steel producer. A drive to a pelletiser supported on split roller bearings had become a major headache.

Regular bearing failures were being experienced; sometimes bearings lasted no longer than 3 or 4 months.

The latest design of a competitor's split bearing featuring a pressed steel cage was used in an attempt to extend bearing life, however, it quickly became clear that this product was unable to solve the problem.

It was agreed that a brass caged SRB bearing should be fitted in a final attempt to solve the problem.

An engineer from SRB supervised the fitting of the bearing and, following a check of all mating components, the SRB bearing was mounted into the competitor's cast iron support.

The bearings and housing have now operated for over two years without problems. The success of the SRB product in this application lead to many other opportunities with this customer.



## Case Study 2

### Zambesi Rapid Water Ride



SRB have supplied ground breaking split bearing assemblies to resolve the support problems for the twin ascender screw providing water to the massive Zambesi Rapid Water ride in the Gold Reef City theme park, RSA.

The lower bearings, traditionally of an inefficient plain bearing design, are completely submerged in water. The water also contains sand and silt in suspension as a result of the constant churning. This forms an abrasive solution.

In contrast, the upper bearing, though in dry conditions, must accommodate some 16 tonnes of thrust load.

The screw conveyors are 11m long and 2.7m diameter angled 30 degrees and rotating at 27.5 rpm. Together, the twin units are capable of supplying 7 cubic meters of water per second

(25,200 tonnes per hour).

The lower bearing, a Light Series 200mm diameter, features sealing adequate to exclude water and other contaminants from the bearing enclosure. This is achieved via an arrangement of two lip seals with garter springs with a central grease feed. The sealing efficiency and grease purge provides long term reliable operation.

The upper bearing, a Medium Series 250mm diameter, was designed to accommodate the large axial load. The load is carried between the inner race

shoulder on one side and the outer race lip on the other. Both shoulders and lips are specially designed to facilitate the generation of an oil film between the sliding surfaces of roller ends and lips, thereby reducing wear and limiting temperature generation.

The bearings operate in an ambient temperature of up to 40°C and have now run problem free for over six years. This illustrates how SRB can design and manufacture units to accept conditions outside of the normal perceived split bearing capabilities.





## Case Study 3

### **High Capacity Unit from SRB Reduces Downtime**

A continuing problem with bearing failure on the raw mill drive pinions at a major Cement manufacturer has been solved by employing SRB's high capacity Heavy Series units. The 13 inch bore bearings originally used were prone to premature failure and a replacement was being fitted every twelve months. The job was taking over two days to complete and causing unnecessary cost and disruption meaning partial plant shutdowns in each instance.



Working closely with the end users engineering staff, SRB were able to provide a solution in the shape of our Heavy Series Units using high quality materials and drawing on years of field experience to improve on existing designs. The SRB units are produced with a machined brass cage as standard rather than the aluminium type found in older designs. A strong, bolt located "H" section clip ensures secure and accurate alignment of the cage halves further improving the performance characteristics.

To date the bearing has been in operation for some three years and is performing as well as when first fitted. The bearing has now been joined on site by numerous others as a result of maintenance staff actively seeking for applications which would benefit by specifying SRB units. As a result of continuing successes in both standard and specialised applications, SRB bearings are now in use at all sites throughout the UK.



## Case Study 4

# Replacement SRB Split Bearing keeps the Roof on at Ibstock Brick

SRB's recently launched range of interchangeable Split Plummer Block mounted bearings has emphatically proved the value of the new designs by ensuring that one of the two central brick production lines at Ibstock Brick was kept in operation cost effectively. Using the split design as a direct replacement for a failed conventional interference fit SN housed bearing, SRB demonstrated a huge saving in terms of time and cost of replacement.

Engineers took just three hours to complete the replacement whereas the alternative of replacing the original like-for-like would have taken 3–4 working days and required a crane to remove part of the factory roof. In all, the cost would have been approaching £10,000 and required far more logistical planning. As it was, the repair work took just three hours and cost a little over £2,000 fitted, including a James Walker split seal to help prevent liquid contaminants entering the bearing enclosure and causing future failures.

The failed bearing supported one of the main power transmission shafts in one of the two central brick production lines at Ibstock. Until recently, there were only two choices open to maintenance engineers faced with this situation; the first would be to fit another standard bearing and the second to adapt the mounting and shaft positions to accommodate a traditional split roller bearing.

The first option would have required the complete dismantling of a large part of the plant with all the incumbent costs. To fit the second option – a traditional split roller bearing, would also have required a significant amount of work to alter or replace the main support beam in order to accommodate the larger housing dimensions normally associated with a split bearing design. The new 'compact' SRB split plummer block bearing however, is the first split cylindrical roller bearing assembly to be dimensionally interchangeable with standard SN and SD series plummer blocks and therefore could be installed without the major drawbacks associated with the other two options.





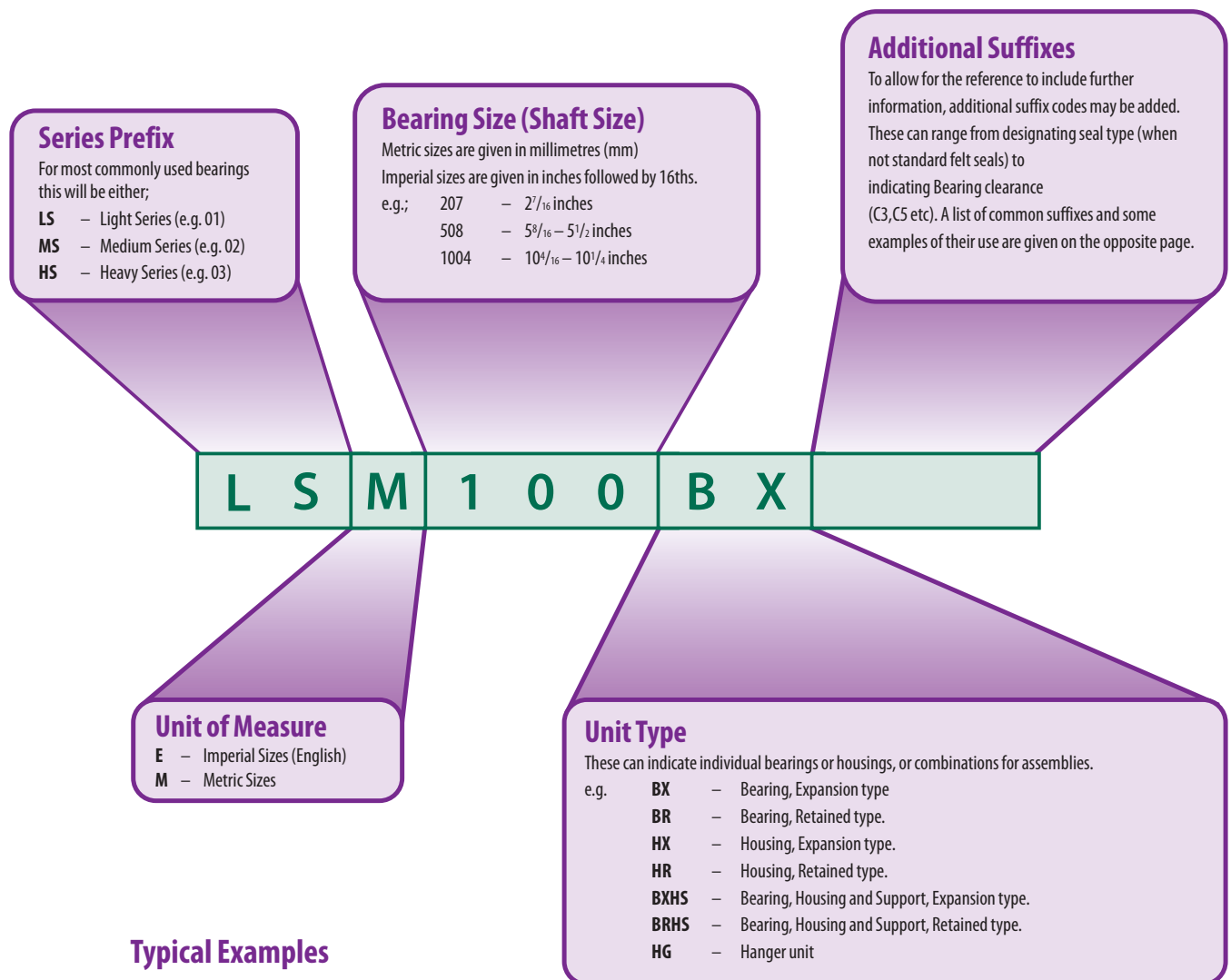


Simple inspection is another key advantage of the SRB design. With a solid bearing, specialised vibration analysis may be required to detect bearing wear. Many are replaced routinely rather than risk downtime due to failure; the top sections of an SRB unit, however, can be simply unbolted and lifted off to provide a rapid visual inspection. Again, this feature can save time and reduce the risk of unplanned or pressurised downtime.

SRB bearings can also compensate for a higher degree of shaft misalignment. Self-aligning ball and spherical roller bearings allow misalignment of the shaft relative to the seal, which results in inefficient sealing performance. The SRB bearing is enclosed by a housing that can swivel within the cast iron support allowing the bearing and seals to remain concentric to the shaft. This feature prevents the characteristic shaft wear and seal damage caused by standard bearings compensating for misalignment within the bearing.

## Quick Reference Guide

In order to provide our customers with clear and concise labelling, SRB have endeavoured to keep things simple when creating references. The following should cover the majority of ordering situations, however, as always, your local SRB distributor or SRB Technical Services will be pleased to provide further assistance if required.



### Typical Examples

#### LSM50BR

Light Series 50mm Retained Bearing

#### LSE108BXH

Light Series 1<sup>1</sup>/<sub>2</sub> inch Expansion Bearing with Housing

#### MSM100HR

Medium Series 100mm Retained Housing

#### MSE200BXHS

Medium Series 2 inch Expansion Bearing with Housing and Support

#### LSM75BXHG

Light Series 75mm Expansion Bearing in Hanger Unit

Series Prefixes

<b>LSM</b>	Light Series Metric
<b>LSE</b>	Light Series Imperial
<b>MSM</b>	Medium Series Metric
<b>MSE</b>	Medium Series Imperial
<b>HSM</b>	Heavy Series Metric
<b>HSE</b>	Heavy Series Imperial
<b>XSM</b>	Tubular Strander Series Metric
<b>XSE</b>	Tubular Strander Series Imperial
<b>CCM</b>	Water Cooled Series Metric
<b>CCE</b>	Water Cooled Series Imperial

Examples of Additional Suffixes

<b>AF</b>	Axial Float
<b>AP</b>	Air Purge
<b>ATL</b>	Aluminium Triple Labyrinth
<b>BEM</b>	Base Ends Machined
<b>BL</b>	Brass Label
<b>BOEC</b>	Bolt On End Cover
<b>C2,C3,C5</b>	Bearing Clearance (ISO)
<b>CH</b>	Inner Race bore Chamfer with size eg CH6mm, CH11mm
<b>EC</b>	End Cover
<b>ECTL</b>	End Cover for Triple Labyrinth Bore
<b>ES</b>	Electrical Specification
<b>FC</b>	Full Compliment of rollers
<b>GE</b>	Grease Escape
<b>HTPS</b>	High Temperature Packing Seal
<b>LSR</b>	Laminar Seal Rings
<b>NTL</b>	Nitrile Triple Labyrinth
<b>OB</b>	Overbored with size eg OB160mm
<b>OTL</b>	Overbored Triple Labyrinth Seal
<b>RSS</b>	Nitrile Single Lip Seal
<b>S1,S2,S3</b>	Designation for Tempered Bearings (ISO)
<b>SFO</b>	Swivel fit, Zero clearance.
<b>SLO</b>	Single Lipped Outer
<b>SLUB</b>	Spherical Lubrication
<b>TE</b>	Temperature Probe hole
<b>WSRP</b>	Single Lip Seal with Garter Spring and Retaining Plate
<b>XAR</b>	Extended Antirotation Pin

Type References

<b>BX</b>	Expansion Bearing
<b>BR</b>	Retained Bearing
<b>HX</b>	Expansion Housing
<b>HR</b>	Retained Housing
<b>HG</b>	Hanger Housing
<b>BXH</b>	Expansion Bearing with Housing
<b>BRH</b>	Retained Bearing with Housing
<b>BXHG</b>	Expansion Bearing with Hanger
<b>BXHS</b>	Expansion Bearing with Housing and Support
<b>BRHS</b>	Retained Bearing with Housing and Support
<b>BXHF</b>	Expansion Bearing with Housing and Flange
<b>BRHF</b>	Retained Bearing with Housing and Flange
<b>BXHTT</b>	Expansion Bearing with Housing and Tension Type Take Up
<b>BRHTT</b>	Retained Bearing with Housing and Tension Take Up
<b>BXHTP</b>	Expansion Bearing with Housing and Pull Type Take Up
<b>BRHTP</b>	Retained Bearing with Housing and Pull Type Take Up

Light Series

mm	inch	Support	Flange	Take Ups
35 to 40	1 <sup>3</sup> / <sub>16</sub> to 1 <sup>1</sup> / <sub>2</sub>	S01	F01	TT01 TP01
45 to 50	1 <sup>1</sup> / <sub>16</sub> to 2	S02	F02	TT02 TP02
60 to 65	2 <sup>3</sup> / <sub>16</sub> to 2 <sup>1</sup> / <sub>2</sub>	S03	F03	TT03 TP03
70 to 75	2 <sup>1</sup> / <sub>16</sub> to 3	S04	F04	TT04 TP04
80 to 90	3 <sup>3</sup> / <sub>16</sub> to 3 <sup>1</sup> / <sub>2</sub>	S05	F05	TT05 TP05
100 to 105	3 <sup>1</sup> / <sub>16</sub> to 4	S06	F06	TT06 TP06
110 to 115	4 <sup>3</sup> / <sub>16</sub> to 4 <sup>1</sup> / <sub>2</sub>	S07	F07	TT07 TP07
120 to 130	4 <sup>1</sup> / <sub>16</sub> to 5	S08	F08	TT08 TP08
135 to 140	5 <sup>3</sup> / <sub>16</sub> to 5 <sup>1</sup> / <sub>2</sub>	S09	F09	TT09 TP09
150 to 155	5 <sup>1</sup> / <sub>16</sub> to 6	S10	F10	TT10 TP10
160	6 <sup>7</sup> / <sub>16</sub> to 6 <sup>1</sup> / <sub>2</sub>	S11	F11	
170 to 180	6 <sup>1</sup> / <sub>16</sub> to 7	S12	F12	
190 to 200	7 <sup>1</sup> / <sub>4</sub> to 8	S13	F13	
220 to 230	8 <sup>1</sup> / <sub>2</sub> to 9	S14	F14	
240 to 250	9 <sup>1</sup> / <sub>2</sub> to 10	S15	F15	
260 to 280	10 <sup>1</sup> / <sub>2</sub> to 11	S16	F16	
300	11 <sup>1</sup> / <sub>2</sub> to 12	S17		
320 to 330	12 <sup>1</sup> / <sub>2</sub> to 13	S18		
340 to 350	14	S19		
360 to 380	15	S20		
400	16	S21		
420	17	S22		
440 to 460	18	S23		
480	19	S24		
500	20	S25		
530	21	S26		
560	22	S27		
580	23	S28		
600	24	S29		

Medium Series

mm	inch	Support	Flange	Take Ups
45 to 50	1 <sup>1</sup> / <sub>16</sub> to 2	S03	F03	TT03 TP03
60 to 65	2 <sup>3</sup> / <sub>16</sub> to 2 <sup>1</sup> / <sub>2</sub>	S04	F04	TT04 TP04
70 to 75	2 <sup>1</sup> / <sub>16</sub> to 3	S05	F05	TT05 TP05
80 to 90	3 <sup>3</sup> / <sub>16</sub> to 3 <sup>1</sup> / <sub>2</sub>	S06	F06	TT06 TP06
100 to 105	3 <sup>1</sup> / <sub>16</sub> to 4	S07	F07	TT07 TP07
110 to 115	4 <sup>3</sup> / <sub>16</sub> to 4 <sup>1</sup> / <sub>2</sub>	S08	F08	TT08 TP08
120 to 130	4 <sup>1</sup> / <sub>16</sub> to 5	S10	F10	TT09 TP09
135 to 140	5 <sup>3</sup> / <sub>16</sub> to 5 <sup>1</sup> / <sub>2</sub>	S30	F30	TT30 TP30
150 to 155	5 <sup>1</sup> / <sub>16</sub> to 6	S31	F31	TT31 TP31
160 to 170	6 <sup>7</sup> / <sub>16</sub> to 6 <sup>1</sup> / <sub>2</sub>	S32	F32	
180	6 <sup>1</sup> / <sub>16</sub> to 7	S33	F33	
190 to 200	7 <sup>1</sup> / <sub>4</sub> to 8	S34	F34	
220 to 230	8 <sup>1</sup> / <sub>2</sub> to 9	S35	F35	
240 to 260	9 <sup>1</sup> / <sub>2</sub> to 10	S36	F36	
280	10 <sup>1</sup> / <sub>2</sub> to 11	S37	F37	
300	11 <sup>1</sup> / <sub>2</sub> to 12	S38	F38	
320 to 330	12 <sup>1</sup> / <sub>2</sub> to 13	S39		
340 to 360	14	S40		
380	15	S41		
400	16	S42		
420	17	S43		
440 to 460	18	S44		
480	19	S45		
500	20	S46		
530	21	S47		
560	22	S48		
580	23	S49		
600	24	S50		

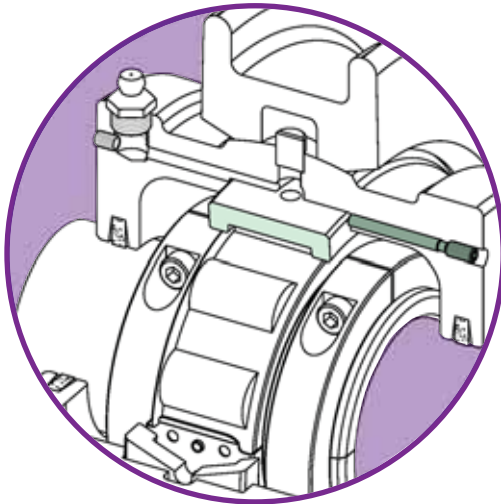
Heavy Series

mm	inch	Support	Flange
100 to 105	3 <sup>1</sup> / <sub>16</sub> to 4	S54	F54
110 to 120	4 <sup>3</sup> / <sub>16</sub> to 4 <sup>1</sup> / <sub>2</sub>	S55	F55
125 to 130	4 <sup>1</sup> / <sub>16</sub> to 5	S56	F56
135 to 140	5 <sup>3</sup> / <sub>16</sub> to 5 <sup>1</sup> / <sub>2</sub>	S57	F57
150 to 155	5 <sup>1</sup> / <sub>16</sub> to 6	S58	F58
160 to 170	6 <sup>7</sup> / <sub>16</sub> to 6 <sup>1</sup> / <sub>2</sub>	S59	F59
180	6 <sup>1</sup> / <sub>16</sub> to 7	S60	F60
190 to 200	7 <sup>1</sup> / <sub>4</sub> to 8	S61	F61
220 to 230	8 <sup>1</sup> / <sub>2</sub> to 9	S62	F62
240 to 260	9 <sup>1</sup> / <sub>2</sub> to 10	S63	F63
280	11	S83	F64
300	12	S65	F65
320 to 330	13	S66	
340 to 360	14	S86	
380 to 400	15 to 16	S68	
420 to 440	17	S89	
460	18	S90	
480	19	S94	
500	20	S94	
530	21	S94	
560	22	S94	
580	23	S95	
600	24	S95	

## Bearing Types

### Retained Type Bearings (BR)

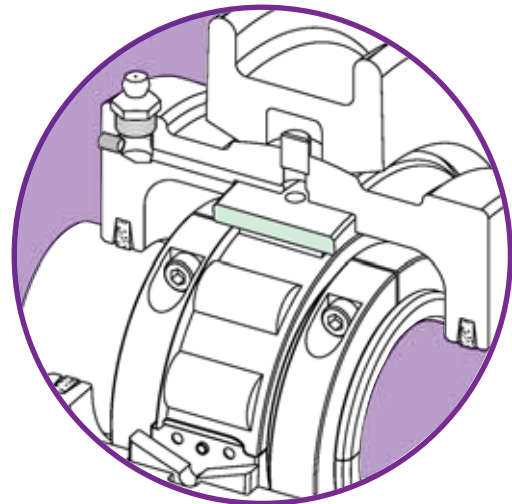
This bearing has integral lips on the outer race to provide a surface for axial load. This axial load is accommodated on the inner race via the hardened clamp rings, which both align the inner race halves and provide roller guidance. In larger bearings the inner race is manufactured with integral ribs for roller guidance and axial load.



This type of bearing will locate the shaft axially as well as provide a means for taking axial load. The retained outer race must be fixed sideways against one of the housing groove shoulders using the pins and screws provided. Only one retained unit should be mounted on any particular shaft. Additional care should be taken when mounting split roller bearing unit on shafts using other, non-split types of bearings (ball, cylindrical and spherical roller etc.) to ensure there are no other locating bearings used.

### Expansion Type Bearings (BX)

This bearing is designed for radial loads only. As in the retained type bearing, the rollers are guided on the inner race by the hardened shoulders of the clamping rings.



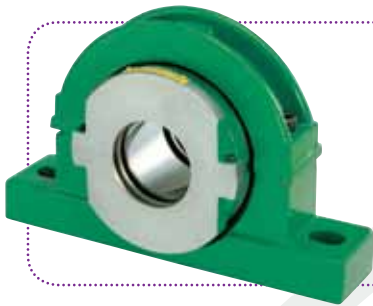
During expansion or contraction of the shaft, rollers are free to move across the plain outer race offering virtually no resistance to axial movement. Limits for the amount of axial movement are given in the Assembly and Maintenance section.



## Support Types

### Support Units

SRB bearings and housings may be mounted in a variety of support units according to the application and loading constraints. A number of variants are available as standard types with other unit types available on request. SRB can also offer a design and manufacturing facility to produce bespoke units to cover more specialised applications.



#### Pillow Block Type

This is by far the most popular method for mounting SRB units. These supports are manufactured from high strength, grade 250 (BS EN1561 :1997) cast iron. This, combined with the robust design, provides a stable, rigid base, allowing the split bearing fitted to give optimum performance.



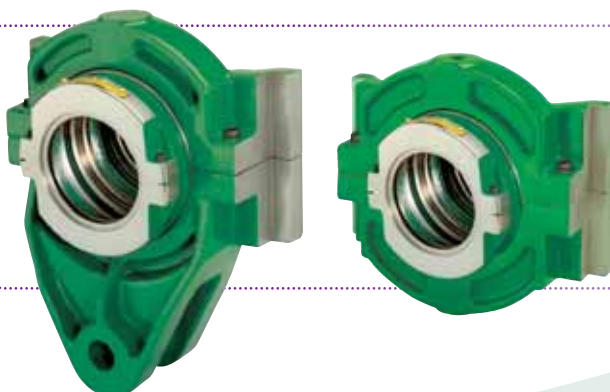
#### Flange Units

In applications where bearings need to be mounted against horizontal or vertical faces, SRB flange units provide a simple means of achieving this goal. Again, the use of Grade 250 cast iron ensures a durable unit.



#### Hanger Units

A compact unit commonly used for supporting screw conveyors or similar equipment.



#### Take-up Units

These sliding units can be used to effectively tension conveyor and elevator systems. Both pull and push types are available.

# Range Comparison

## Bearing Series

### Comparison

SRB offers a range of bearing series, providing solutions for a wide range of operating conditions. Light, Medium and Heavy series offer an increasing ability to accommodate higher loads. As the series increases the speed capability reduces.

#### Light Series:

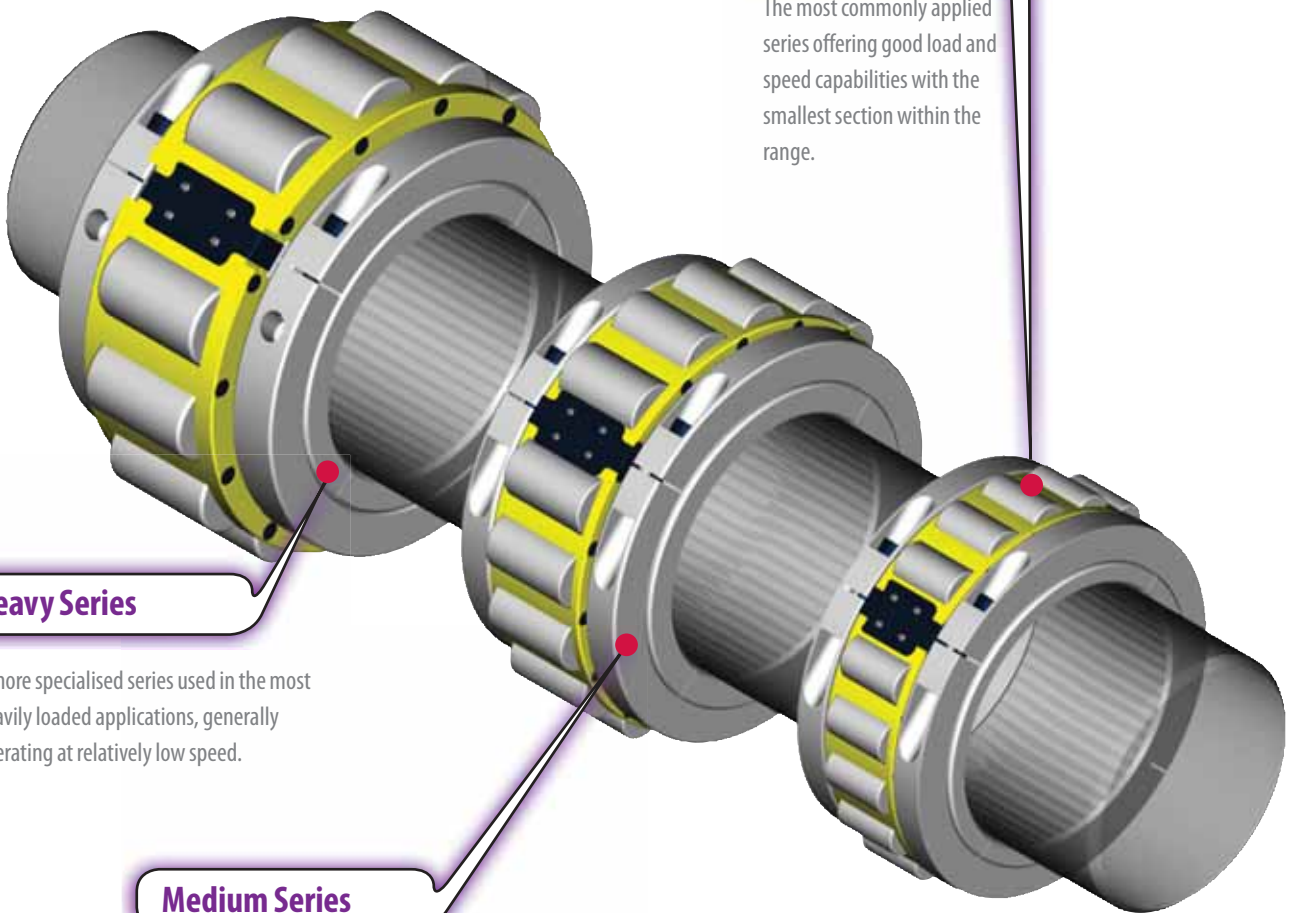
The most commonly applied series offering good load and speed capabilities with the smallest section within the range.

#### Heavy Series

A more specialised series used in the most heavily loaded applications, generally operating at relatively low speed.

#### Medium Series

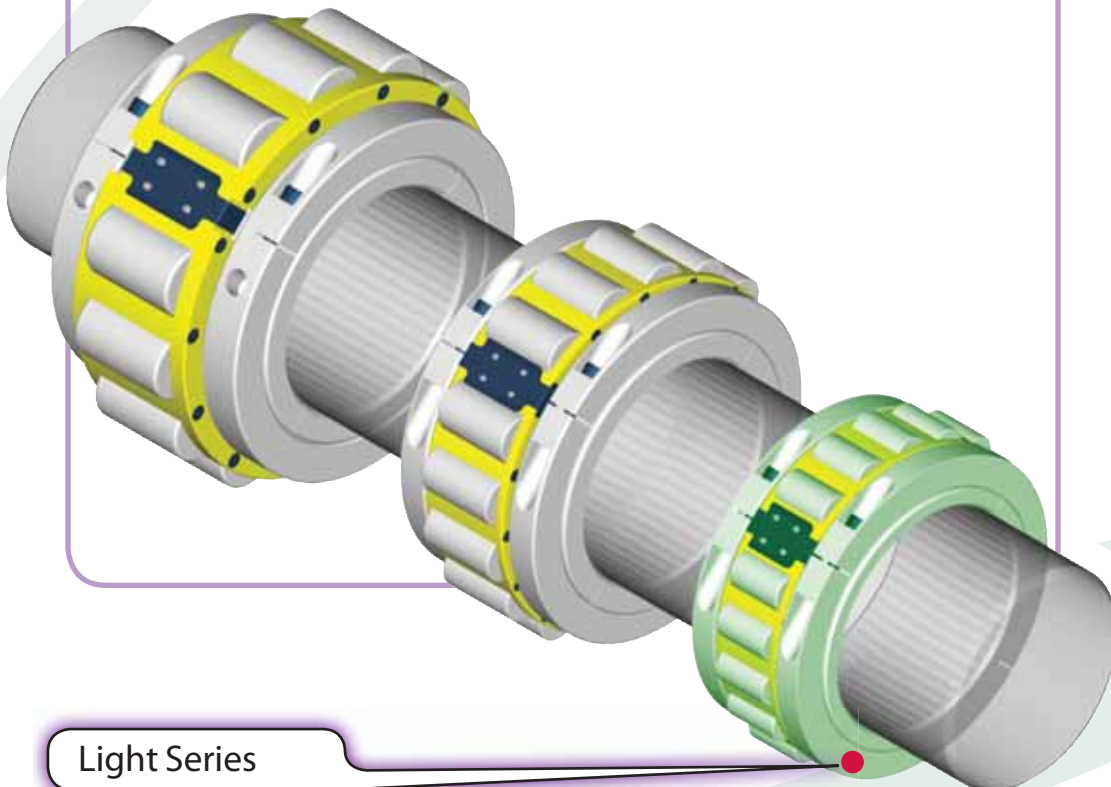
An increased section offers additional load carrying capacity. This series is typically used in arduous, heavily loaded applications where shock load and vibration may be present.



# Light Series

Light Series bearing products are by far the most commonly utilised range within the Split Bearing family. With a wide variety of mounting and sealing solutions available, Light Series bearing units can readily be matched to an ever-increasing range of applications. If a standard catalogue product does not meet your requirements, SRB Technical Services will be happy to provide help and advice on your application.

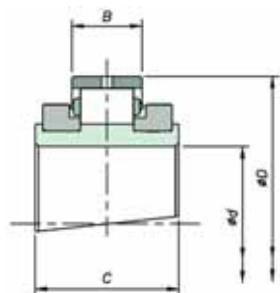
Bearings, Housings & Supports	40mm to 150mm	Page	23 – 24
	160mm to 340mm	Page	25 – 26
	360mm to 600mm	Page	27 – 28
Flange Units		Page	29 – 30
Tensioning Units		Page	31 – 32
Hanger Units		Page	33



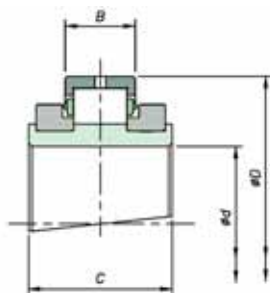
Light Series

# Light Series Bearing & Housing

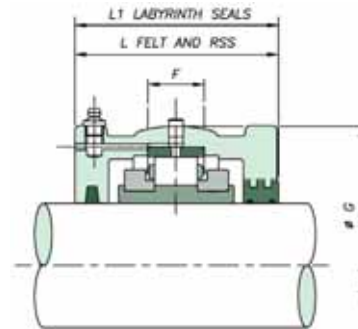
40mm to 150mm



Expansion BX



Retained BR



Shaft (d)		Reference	Bearings Ratings						
mm	inch	Add BR for retained Add BX for expansion e.g. LSM35BR	Dynamic C <sub>d</sub> (kN/lb)	Static C <sub>r</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C

Housing Reference				
Add HR for retained Add HX for expansion e.g. LSM35HR	G	F	L	L <sub>1</sub>

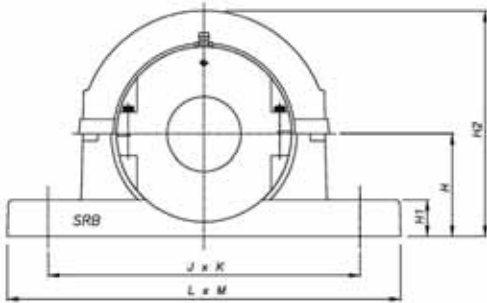
35	1 <sup>3</sup> / <sub>16</sub>	LSM35	LSE103	65	68	3.20	5400	84.14	23.80	55.00
40	1 <sup>1</sup> / <sub>4</sub>	LSM40	LSE104	14613	15287	719.38		3.313	0.937	2.165
	1 <sup>7</sup> / <sub>16</sub>		LSE107							
	1 <sup>1</sup> / <sub>2</sub>		LSE108							
45	1 <sup>11</sup> / <sub>16</sub>	LSM45	LSE111	83	87	3.60	4630	98.42	25.40	60.00
50	1 <sup>3</sup> / <sub>4</sub>	LSM50	LSE112	18659	19558	809.30		3.875	1.000	2.362
	1 <sup>13</sup> / <sub>16</sub>		LSE115							
	2		LSE200							
55	2 <sup>3</sup> / <sub>16</sub>	LSM55	LSE203	103	115	5.40	3940	114.30	27.00	60.00
60	2 <sup>1</sup> / <sub>4</sub>	LSM60	LSE204	23155	25853	1213.95		4.500	1.063	2.362
65	2 <sup>7</sup> / <sub>16</sub>	LSM65	LSE207							
	2 <sup>1</sup> / <sub>2</sub>		LSE208							
70	2 <sup>11</sup> / <sub>16</sub>	LSM70	LSE211	138	161	7.60	3310	133.35	31.80	65.00
75	2 <sup>3</sup> / <sub>4</sub>	LSM75	LSE212	31024	36194	1708.53		5.250	1.252	2.559
	2 <sup>13</sup> / <sub>16</sub>		LSE215							
	3		LSE300							
80	3 <sup>3</sup> / <sub>16</sub>	LSM80	LSE303	187	231	12.40	2790	152.4	38.90	75.00
85	3 <sup>1</sup> / <sub>4</sub>	LSM85	LSE304	42039	51931	2787.59		6.000	1.531	2.953
90	3 <sup>7</sup> / <sub>16</sub>	LSM90	LSE307							
	3 <sup>1</sup> / <sub>2</sub>		LSE308							
100	3 <sup>11</sup> / <sub>16</sub>	LSM100	LSE311	288	366	16.00	2340	174.62	45.30	85.00
105	3 <sup>3</sup> / <sub>4</sub>	LSM105	LSE312	64745	82280	3596.90		6.875	1.783	3.346
	3 <sup>13</sup> / <sub>16</sub>		LSE315							
	4		LSE400							
110	4 <sup>3</sup> / <sub>16</sub>	LSM110	LSE403	316	427	18.60	1970	203.20	46.90	90.00
115	4 <sup>1</sup> / <sub>4</sub>	LSM115	LSE404	71040	95993	4181.39		8.000	1.846	3.543
	4 <sup>7</sup> / <sub>16</sub>		LSE407							
	4 <sup>1</sup> / <sub>2</sub>		LSE408							
120	4 <sup>11</sup> / <sub>16</sub>	LSM120	LSE411	363	496	22.20	1740	222.25	54.00	95.00
125	4 <sup>3</sup> / <sub>4</sub>	LSM125	LSE412	81606	111505	4990.69		8.750	2.126	3.740
130	4 <sup>13</sup> / <sub>16</sub>	LSM130	LSE415							
	5		LSE500							
135	5 <sup>3</sup> / <sub>16</sub>	LSM135	LSE503	422	585	25.80	1570	241.30	55.60	98.40
140	5 <sup>1</sup> / <sub>4</sub>	LSM140	LSE504	94869	131513	5799.99		9.500	2.189	3.874
	5 <sup>7</sup> / <sub>16</sub>		LSE507							
	5 <sup>1</sup> / <sub>2</sub>		LSE508							
150	5 <sup>11</sup> / <sub>16</sub>	LSM150	LSE511	459	664	29.40	1450	254.00	55.60	98.40
155	5 <sup>3</sup> / <sub>4</sub>	LSM155	LSE512	103187	149273	6609.30		10.000	2.189	3.874
160A	5 <sup>13</sup> / <sub>16</sub>	LSM160A	LSE515							
	6		LSE600							

		LSE103			
LSM35	LSE104	100.00	25	84	86
LSM40	LSE107	3.937	1.0	3.3	3.4
	LSE108				
	LSE111				
LSM45	LSE112	117.48	25	96	98
LSM50	LSE115	4.625	1.0	3.8	3.9
	LSE200				
	LSE203				
LSM55	LSE204	134.94	32	102	104
LSM60	LSE207	5.313	1.3	4.0	4.1
LSM65	LSE208				
	LSE211				
LSM70	LSE212	157.16	38	112	114
LSM75	LSE215	6.187	1.5	4.4	4.5
	LSE300				
	LSE303				
LSM80	LSE304	177.80	50	134	136
LSM85	LSE307	7.000	2.0	5.3	5.4
LSM90	LSE308				
	LSE311				
LSM100	LSE312	203.20	50	132	134
LSM105	LSE315	8.000	2.0	5.2	5.3
	LSE400				
	LSE403				
LSM110	LSE404	231.78	64	140	142
LSM115	LSE407	9.125	2.5	5.5	5.6
	LSE408				
	LSE411				
LSM120	LSE412	266.70	76	154	156
LSM125	LSE415	10.500	3.0	6.1	6.1
LSM130	LSE500				
	LSE503				
LSM135	LSE504	279.40	76	166	168
LSM140	LSE507	11.000	3.0	6.5	6.6
	LSE508				
	LSE511				
LSM150	LSE512	295.28	82	172	174
LSM155	LSE515	11.625	3.2	6.8	6.9
LSM160A	LSE600				



## Light Series Support

### S01 - S10

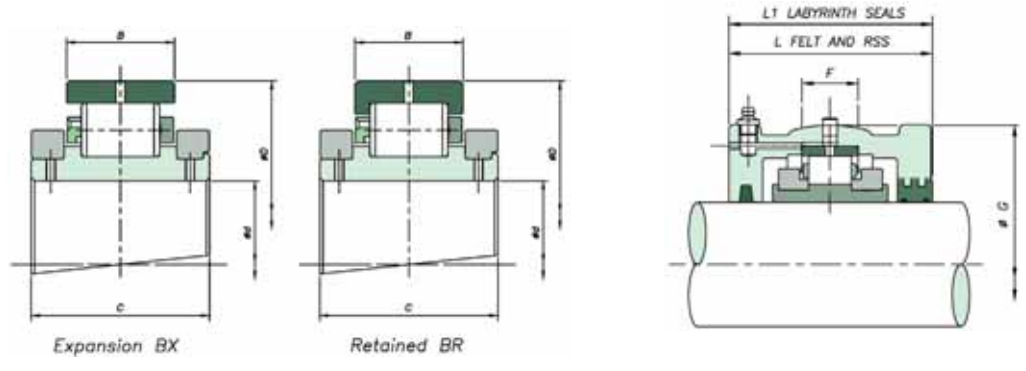


#### S01 - S10

Shaft (d)		Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
mm	inch							
35	1 <sup>3</sup> / <sub>16</sub>	S01	60	22	138	180	228 x 60	2 x M12
40	1 <sup>1</sup> / <sub>4</sub>		2.362	0.9	5.4	7.1	9 x 2.4	
	1 <sup>7</sup> / <sub>16</sub>							
	1 <sup>1</sup> / <sub>2</sub>							
45	1 <sup>11</sup> / <sub>16</sub>	S02	70	25	158	214	270 x 60	2 x M16
50	1 <sup>3</sup> / <sub>4</sub>		2.756	1.0	6.2	8.4	10.6 x 2.4	
	1 <sup>15</sup> / <sub>16</sub>							
	2							
55	2 <sup>1</sup> / <sub>16</sub>	S03	80	32	180	234	280 x 70	2 x M16
60	2 <sup>1</sup> / <sub>4</sub>		3.150	1.3	7.1	9.2	11 x 2.8	
65	2 <sup>1</sup> / <sub>2</sub>							
	2 <sup>11</sup> / <sub>16</sub>							
70	2 <sup>3</sup> / <sub>4</sub>	S04	95	38	208	270	330 x 76	2 x M20
75	2 <sup>15</sup> / <sub>16</sub>		3.740	1.5	8.2	10.6	13 x 3	
	3							
80	3 <sup>1</sup> / <sub>16</sub>	S05	112	44	252	320	380 x 90	2 x M24
85	3 <sup>1</sup> / <sub>4</sub>		4.409	1.7	9.9	12.6	15 x 3.5	
90	3 <sup>7</sup> / <sub>16</sub>							
	3 <sup>1</sup> / <sub>2</sub>							
100	3 <sup>11</sup> / <sub>16</sub>	S06	125	52	272	354	420 x 102	2 x M24
105	3 <sup>3</sup> / <sub>4</sub>		4.921	2.0	10.7	13.9	16.5 x 4	
	3 <sup>15</sup> / <sub>16</sub>							
	4							
110	4 <sup>3</sup> / <sub>16</sub>	S07	143	60	314	392	466 x 120	2 x M24
115	4 <sup>1</sup> / <sub>4</sub>		5.630	2.4	12.4	15.4	18.3 x 4.7	
	4 <sup>7</sup> / <sub>16</sub>							
	4 <sup>1</sup> / <sub>2</sub>							
120	4 <sup>11</sup> / <sub>16</sub>	S08	162	38	372	450 x 120	508 x 178	4 x M24
125	4 <sup>3</sup> / <sub>4</sub>		6.378	1.5	14.6	17.7 x 4.7	20 x 7	
130	4 <sup>15</sup> / <sub>16</sub>							
	5							
135	5 <sup>1</sup> / <sub>16</sub>	S09	181	40	405	482 x 120	558 x 178	4 x M24
140	5 <sup>1</sup> / <sub>4</sub>		7.126	1.6	15.9	19 x 4.7	22 x 7	
	5 <sup>7</sup> / <sub>16</sub>							
	5 <sup>1</sup> / <sub>2</sub>							
150	5 <sup>11</sup> / <sub>16</sub>	S10	181	40	415	496 x 120	558 x 178	4 x M24
155	5 <sup>3</sup> / <sub>4</sub>		7.126	1.6	16.3	19.5 x 4.7	22 x 7	
160A	5 <sup>15</sup> / <sub>16</sub>							
	6							

# Light Series Bearing & Housing

## 160mm to 340mm



Shaft (d)		Reference	Bearings Ratings			
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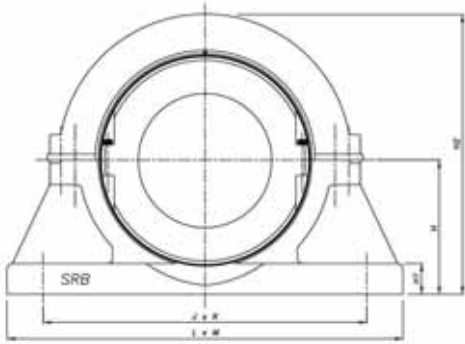
mm	inch	Add BR for retained Add BX for expansion e.g. LSM35BR	Dynamic C <sub>d</sub> (kN/lb)	Static C <sub>s</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C
160	6 <sup>7</sup> / <sub>16</sub>	LSM160 LSE607	583	792	33.00	1320	273.05	60.30	109.00
170A	6 <sup>1</sup> / <sub>2</sub>	LSM170A LSE608	131064	178049	7419		10.750	2.374	4.291
170	6 <sup>11</sup> / <sub>16</sub>	LSM170 LSE611	524	828	36.40	1220	285.75	55.50	109.00
175	6 <sup>3</sup> / <sub>4</sub>	LSM175 LSE612							
180	6 <sup>15</sup> / <sub>16</sub>	LSM180 LSE615	117800	186142	8183	1070	11.250	2.185	4.291
	7	LSE700							
	7 <sup>1</sup> / <sub>4</sub>	LSE704							
190	7 <sup>1</sup> / <sub>2</sub>	LSM190 LSE708	614	990	41.00	1070	311.15	60.30	109.00
200	7 <sup>15</sup> / <sub>16</sub>	LSM200 LSE715	138033	222561	9217				
	8	LSE800	708	1168	49.00	930	342.90	63.50	115.00
220	8 <sup>1</sup> / <sub>2</sub>	LSM220 LSE808							
230	8 <sup>7</sup> / <sub>8</sub>	LSM230 LSE814							
	9	LSE900	159165	262577	11016	820	14.750	2.626	4.803
240	9 <sup>1</sup> / <sub>2</sub>	LSM240 LSE908							
250	9 <sup>3</sup> / <sub>4</sub>	LSM250 LSE912	167258	289779	12994	730	406.40	69.00	128.00
	10	LSE1000							
260	10 <sup>1</sup> / <sub>2</sub>	LSM260 LSE1008	848	1502	66.80	650	17.250	2.937	5.630
270	10 <sup>3</sup> / <sub>4</sub>	LSM270 LSE1012	190638	337663	15017				
280	11	LSM280 LSE1100	929	1665	78.20	590	463.55	74.60	136.00
300	11 <sup>1</sup> / <sub>2</sub>	LSM300 LSE1108							
305	12	LSM305 LSE1200	208848	374307	17580	540	488.95	74.60	136.00
320	12 <sup>1</sup> / <sub>2</sub>	LSM320 LSE1208	920	1674	89.00				
330	13	LSM330 LSE1300	206824	376330	20008	540	19.250	2.937	5.354
340	14	LSM340 LSE1400	1022	1965	99.60				
350		LSM350	229755	441745	22391				

Housing Reference					
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Add HR for retained Add HX for expansion e.g. LSM35HR		G	F	L	L <sub>1</sub>
LSM160	LSE607	311.15	76	172	192
LSM170A	LSE608	12.250	3.0	6.8	7.6
LSM170	LSE611	323.85	70	172	200
LSM175	LSE612				
LSM180	LSE615	12.750	2.8	6.8	7.9
	LSE700	358.78	86	172	200
	LSE704				
LSM190	LSE708				
LSM200	LSE715	14.125	3.4	6.8	7.9
	LSE800	387.35	82	178	216
LSM220	LSE808				
LSM230	LSE814	15.250	3.2	7.0	8.5
	LSE900	419.10	90	188	222
LSM240	LSE908				
LSM250	LSE912	16.500	3.5	7.4	8.7
	LSE1000	454.00	95	204	232
LSM260	LSE1008				
LSM270	LSE1012	17.874	3.7	8.0	9.1
LSM280	LSE1100	489.00	98	216	248
LSM300	LSE1108				
LSM305	LSE1200	19.252	3.9	8.5	9.8
LSM320	LSE1208	520.70	95	260	-
LSM330	LSE1300	20.500	3.7	10.2	-
LSM340	LSE1400	546.10	98	260	-
LSM350		21.500	3.9	10.2	-

## Light Series Support

### S11 - S19



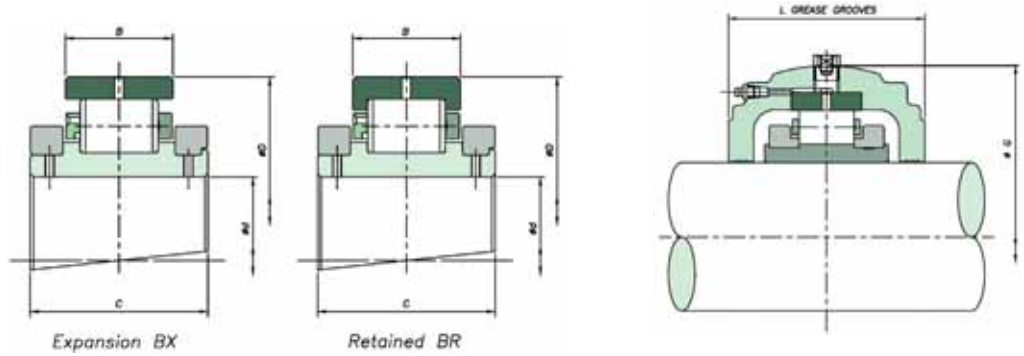
#### S11 - S19

Shaft (d) mm	inch	Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
160	6 <sup>7</sup> / <sub>16</sub>	S11	213	32	430	368 x 114	508 x 178	4 x M24
170A	6 <sup>1</sup> / <sub>2</sub>		8.386	1.3	16.9	14.5 x 4.5	20 x 7	
170	6 <sup>11</sup> / <sub>16</sub>	S12	235	35	470	388 x 128	534 x 190	4 x M24
175	6 <sup>3</sup> / <sub>4</sub>		9.252	1.4	18.5	15.3 x 5	21 x 7.5	
180	7							
190	7 <sup>1</sup> / <sub>4</sub>	S13	248	38	495	422 x 140	572 x 204	4 x M24
200	7 <sup>15</sup> / <sub>16</sub>		9.764	1.5	19.5	16.6 x 5.5	22.5 x 8	
220	8 <sup>1</sup> / <sub>2</sub>	S14	270	40	540	460 x 140	636 x 216	4 x M30
230	8 <sup>7</sup> / <sub>8</sub>		10.630	1.6	21.3	18.1 x 5.5	25 x 8.5	
240	9 <sup>1</sup> / <sub>2</sub>	S15	292	44	585	502 x 140	686 x 228	4 x M30
250	9 <sup>3</sup> / <sub>4</sub>		11.496	1.7	23.0	19.8 x 5.5	27 x 9	
260	10 <sup>1</sup> / <sub>2</sub>	S16	311	48	620	534 x 140	724 x 228	4 x M30
270	10 <sup>3</sup> / <sub>4</sub>		12.244	1.9	24.4	21 x 5.5	28.5 x 9	
280	11							
300	11 <sup>1</sup> / <sub>2</sub>	S17	343	50	685	584 x 178	762 x 254	4 x M30
305	12		13.504	2.0	27.0	23 x 7	32 x 10	
320	12 <sup>1</sup> / <sub>2</sub>	S18	368	54	735	622 x 178	812 x 254	4 x M36
330	13		14.488	2.1	28.9	24.5 x 7	32 x 10	
340	14	S19	387	57	775	654 x 166	850 x 254	4 x M36
350			15.236	2.2	30.5	25.7 x 6.5	33.5 x 10	



# Light Series Bearing & Housing

## 360mm to 600mm

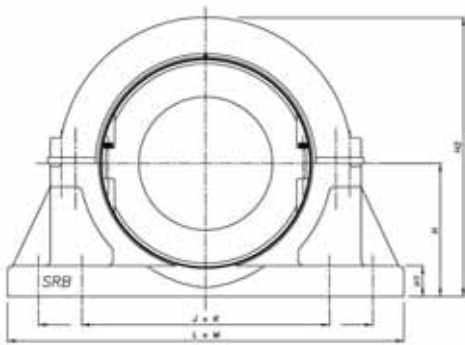


Shaft (d)		Reference	Bearings Ratings				Housing Reference							
mm	inch	Add BR for retained Add BX for expansion e.g. LSM35BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>or</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C	Add HR for retained Add HX for expansion e.g. LSM35HR	G	F	L	L <sub>1</sub>
360	15	LSM360	1224	2431	110.40	500	520.70	76.20	140.00	LSM360	571.50	98	260	-
380		LSM380	275166	546511	24819		20.500	3.000	5.512	LSM380	22.500	3.9	10.2	-
400	16	LSM400	1107	2266	115.60	460	546.10	76.20	140.00	LSM400	603.30	102	280	-
		LSM400	248864	509417	25988		21.500	3.000	5.512	LSM400	23.752	4.0	11.0	-
420	17	LSM420	1146	2418	121.00	430	571.50	76.20	140.00	LSM420	628.70	102	292	-
		LSM420	257631	543588	27202		22.500	3.000	5.512	LSM420	24.752	4.0	11.5	-
440	18	LSM440	1185	2469	127.20	410	596.90	76.20	140.00	LSM440	650.90	108	304	-
460		LSM460	266399	555053	28596		23.500	3.000	5.512	LSM460	25.626	4.3	12.0	-
480	19	LSM480	1348	2965	132.60	380	628.65	81.00	144.00	LSM480	682.60	108	304	-
		LSM480	303042	666559	29810		24.750	3.189	5.669	LSM480	26.874	4.3	12.0	-
500	20	LSM500	1392	3139	137.80	360	654.05	80.20	168.00	LSM500	717.60	114	304	-
		LSM500	312934	705675	30979		25.750	3.157	6.614	LSM500	28.252	4.5	12.0	-
530	21	LSM530	1431	3316	140.60	340	692.15	81.00	168.00	LSM530	755.70	114	330	-
		LSM530	321702	745466	31608		27.250	3.189	6.614	LSM530	29.752	4.5	13.0	-
560	22	LSM560	1472	3490	142.40	330	717.55	81.00	168.00	LSM560	781.10	114	336	-
		LSM560	330919	784583	32013		28.250	3.189	6.614	LSM560	30.752	4.5	13.2	-
580	23	LSM580	1616	3841	144.00	310	749.00	84.10	172.00	LSM580	816.00	120	342	-
		LSM580	363291	863491	32372		29.488	3.311	6.772	LSM580	32.126	4.7	13.5	-
600	24	LSM600	1660	4033	146.80	300	774.70	84.10	172.00	LSM600	841.40	120	342	-
		LSM600	373183	906654	33002		30.500	3.311	6.772	LSM600	33.126	4.7	13.5	-

Shaft (d)		Reference	Bearings Ratings				Housing Reference							
mm	inch	Add BR for retained Add BX for expansion e.g. LSM35BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>or</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C	Add HR for retained Add HX for expansion e.g. LSM35HR	G	F	L	L <sub>1</sub>
360	15	LSM360	1224	2431	110.40	500	520.70	76.20	140.00	LSM360	571.50	98	260	-
380		LSM380	275166	546511	24819		20.500	3.000	5.512	LSM380	22.500	3.9	10.2	-
400	16	LSM400	1107	2266	115.60	460	546.10	76.20	140.00	LSM400	603.30	102	280	-
		LSM400	248864	509417	25988		21.500	3.000	5.512	LSM400	23.752	4.0	11.0	-
420	17	LSM420	1146	2418	121.00	430	571.50	76.20	140.00	LSM420	628.70	102	292	-
		LSM420	257631	543588	27202		22.500	3.000	5.512	LSM420	24.752	4.0	11.5	-
440	18	LSM440	1185	2469	127.20	410	596.90	76.20	140.00	LSM440	650.90	108	304	-
460		LSM460	266399	555053	28596		23.500	3.000	5.512	LSM460	25.626	4.3	12.0	-
480	19	LSM480	1348	2965	132.60	380	628.65	81.00	144.00	LSM480	682.60	108	304	-
		LSM480	303042	666559	29810		24.750	3.189	5.669	LSM480	26.874	4.3	12.0	-
500	20	LSM500	1392	3139	137.80	360	654.05	80.20	168.00	LSM500	717.60	114	304	-
		LSM500	312934	705675	30979		25.750	3.157	6.614	LSM500	28.252	4.5	12.0	-
530	21	LSM530	1431	3316	140.60	340	692.15	81.00	168.00	LSM530	755.70	114	330	-
		LSM530	321702	745466	31608		27.250	3.189	6.614	LSM530	29.752	4.5	13.0	-
560	22	LSM560	1472	3490	142.40	330	717.55	81.00	168.00	LSM560	781.10	114	336	-
		LSM560	330919	784583	32013		28.250	3.189	6.614	LSM560	30.752	4.5	13.2	-
580	23	LSM580	1616	3841	144.00	310	749.00	84.10	172.00	LSM580	816.00	120	342	-
		LSM580	363291	863491	32372		29.488	3.311	6.772	LSM580	32.126	4.7	13.5	-
600	24	LSM600	1660	4033	146.80	300	774.70	84.10	172.00	LSM600	841.40	120	342	-
		LSM600	373183	906654	33002		30.500	3.311	6.772	LSM600	33.126	4.7	13.5	-

## Light Series Support

### S20 - S29



#### S20 - S29

Shaft (d)		Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
mm	inch							
360	15	S20	397	60	795	676 x 166	902 x 254	4 x M36
380			15.630	2.4	31.3	26.6 x 6.5	35.5 x 10	
400	16	S21	432	67	865	724 x 166	940 x 254	4 x M36
420			17.008	2.6	34.1	28.5 x 6.5	37 x 10	
440	17	S22	445	67	890	756 x 166	966 x 254	4 x M36
460			17.520	2.6	35.0	29.8 x 6.5	38 x 10	
480	18	S23	464	70	925	788 x 190	1042 x 280	4 x M42
500			18.268	2.8	36.4	31 x 7.5	41 x 11	
530	19	S24	483	73	965	816 x 188	1092 x 304	4 x M42
560			19.016	2.9	38.0	32.1 x 7.4	43 x 12	
580	20	S25	489	76	980	844 x 216	1092 x 304	4 x M42
600			19.252	3.0	38.6	33.2 x 8.5	43 x 12	
530	21	S26	533	80	1065	904 x 206	1194 x 304	4 x M42
560			20.984	3.1	41.9	35.6 x 8.1	47 x 12	
580	22	S27	552	83	1110	936 x 206	1220 x 304	4 x M42
600			21.732	3.3	43.7	36.9 x 8.1	48 x 12	
580	23	S28	578	83	1156	1080 & 877 x 220	1372 x 304	8 x M36
600			22.756	3.3	45.5	42.5 & 34.5 x 8.7	54 x 12	
580	24	S29	597	90	1200	1118 & 908 x 200	1372 x 304	8 x M36
600			23.504	3.5	47.2	44 & 35.7 x 7.9	54 x 12	

## Flange Units

When faced with flat horizontal or vertical faces, flange units offer a simple mounting solution.

As with Pillow block supports, Flange units are produced with spherical location to accommodate standard bearing housings and provide easy initial alignment of shaft and equipment.

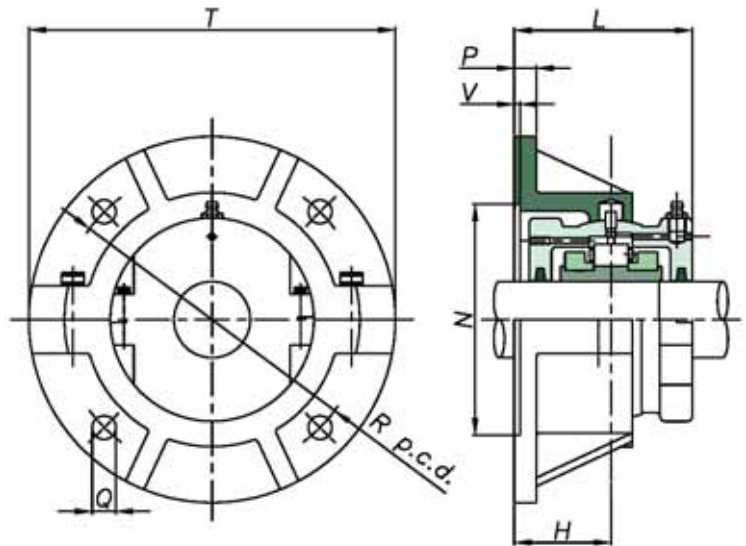
To facilitate positive location of the flange to the surface, the rear face is recessed (dimensions N & V).

This allows for a spigot (Tolerance f8) to be located into the flange.

Bearing inspection is simply a matter of removing the top half of the flange and housing. Bearing replacement may also be achieved in the same manner if required.

When integrating flange units into new applications, it should be noted that a maximum radial load equivalent to  $0.26C_{0r}$  is permissible. A maximum axial load of  $0.25C_a$  must also be taken into account for applications with thrust loading. Units for vertically oriented shafts may also need special consideration given to sealing arrangements.

As always, SRB Technical Services will be happy to advise on any application issues.





## Light Series Support

### 40mm - 300mm Flanges

#### Light Series 40mm - 300mm Flanges

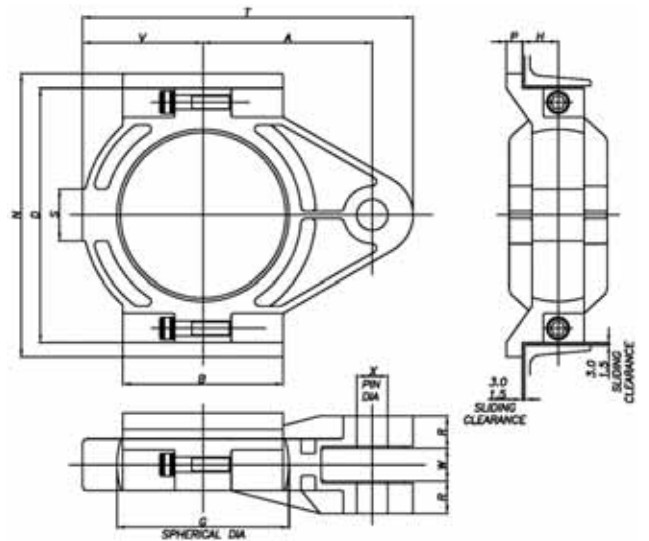
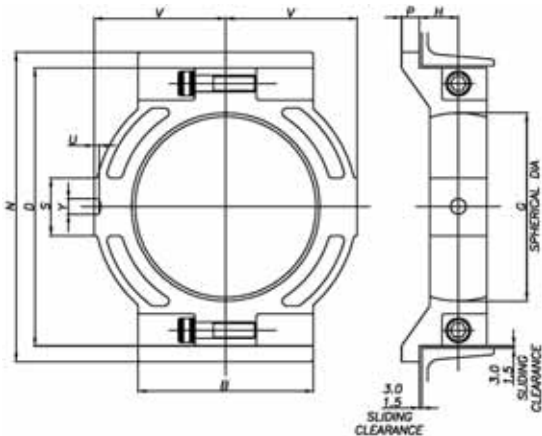
Shaft (d)		Flange Reference	T	Bolts	R	P	H	N	V	L
mm	inch									
35	1 <sup>3</sup> / <sub>16</sub>	F01	204	4 x M12	164	13	51	119.06	3	94
40	1 <sup>1</sup> / <sub>4</sub>		8.0		6.5	0.5	2.0	4.687	0.1	3.7
	1 <sup>1</sup> / <sub>2</sub>									
45	1 <sup>11</sup> / <sub>16</sub>	F02	216	4 x M12	180	13	57	136.52	3	106
50	1 <sup>3</sup> / <sub>4</sub>		8.5		7.1	0.5	2.2	5.375	0.1	4.2
	2									
55	2 <sup>3</sup> / <sub>16</sub>	F03	260	4 x M12	218	16	67	166.96	3	120
60	2 <sup>1</sup> / <sub>4</sub>		10.2		8.6	0.6	2.6	5.71	0.1	4.7
65	2 <sup>7</sup> / <sub>16</sub>									
	2 <sup>1</sup> / <sub>2</sub>									
70	2 <sup>11</sup> / <sub>16</sub>	F04	286	4 x M12	242	16	73	192.09	3	130
75	2 <sup>3</sup> / <sub>4</sub>		11.3		9.5	0.6	2.9	7.563	0.1	5.1
	2 <sup>15</sup> / <sub>16</sub>									
	3									
80	3 <sup>3</sup> / <sub>16</sub>	F05	330	4 x M16	274	19	79	215.98	3	148
85	3 <sup>1</sup> / <sub>4</sub>		13.0		10.8	0.7	3.1	5.00	0.1	5.8
90	3 <sup>7</sup> / <sub>16</sub>									
	3 <sup>1</sup> / <sub>2</sub>									
100	3 <sup>11</sup> / <sub>16</sub>	F06	356	4 x M16	302	19	86	244.47	3	154
105	3 <sup>3</sup> / <sub>4</sub>		14.0		11.9	0.7	3.4	9.625	0.1	6.1
	3 <sup>15</sup> / <sub>16</sub>									
	4									
110	4 <sup>3</sup> / <sub>16</sub>	F07	382	4 x M16	334	22	92	276.22	3	164
115	4 <sup>1</sup> / <sub>4</sub>		15.0		13.1	0.9	3.6	10.875	0.1	6.5
	4 <sup>7</sup> / <sub>16</sub>									
	4 <sup>1</sup> / <sub>2</sub>									
120	4 <sup>11</sup> / <sub>16</sub>	F08	432	4 x M24	374	22	98	314.32	3	176
125	4 <sup>3</sup> / <sub>4</sub>		17.0		14.7	0.9	3.9	12.375	0.1	6.9
130	4 <sup>15</sup> / <sub>16</sub>									
	5									
135	5 <sup>3</sup> / <sub>16</sub>	F09	444	4 x M24	384	25	98	317.51	3	182
140	5 <sup>1</sup> / <sub>4</sub>		17.5		15.1	1.0	3.9	2.500	0.1	7.2
	5 <sup>7</sup> / <sub>16</sub>									
	5 <sup>1</sup> / <sub>2</sub>									
150	5 <sup>11</sup> / <sub>16</sub>	F10	470	4 x M24	412	25	114	346.07	3	202
155	5 <sup>3</sup> / <sub>4</sub>		18.5		16.2	1.0	4.5	13.625	0.1	8.0
160A	5 <sup>15</sup> / <sub>16</sub>									
	6									
160	6 <sup>3</sup> / <sub>16</sub>	F11	496	4 x M24	426	25	105	352.42	3	202
170A	6 <sup>1</sup> / <sub>2</sub>		19.5		16.8	1.0	4.1	13.875	0.1	8.0
170	6 <sup>11</sup> / <sub>16</sub>	F12	508	4 x M24	438	29	108	365.12	3	208
175	6 <sup>3</sup> / <sub>4</sub>		20.0		17.2	1.1	4.3	14.375	0.1	8.2
180	6 <sup>15</sup> / <sub>16</sub>									
	7									
190	7 <sup>1</sup> / <sub>4</sub>	F13	534	4 x M24	474	32	108	400.05	3	208
200	7 <sup>1</sup> / <sub>2</sub>		21.0		18.7	1.3	4.3	15.750	0.1	8.2
	7 <sup>15</sup> / <sub>16</sub>									
	8									
220	8 <sup>1</sup> / <sub>2</sub>	F14	584	4 x M30	512	35	117	431.81	3	226
230	8 <sup>7</sup> / <sub>8</sub>		23.0		20.2	1.4	4.6	7.000	0.1	8.9
	9									
240	9 <sup>1</sup> / <sub>2</sub>	F15	610	4 x M30	542	35	117	463.55	3	228
250	9 <sup>3</sup> / <sub>4</sub>		24.0		21.3	1.4	4.6	18.250	0.1	9.0
	10									
260	10 <sup>1</sup> / <sub>2</sub>	F16	660	4 x M30	584	38	124	504.82	3	240
270	10 <sup>3</sup> / <sub>4</sub>		26.0		23.0	1.5	4.9	19.875	0.1	9.4
280	11									
300	11 <sup>1</sup> / <sub>2</sub>	F17	712	4 x M30	626	38	133	539.75	3	258
305	12		28.0		24.6	1.5	5.2	21.250	0.1	10.2

For Bearings and Housings see pages 23 – 28

# Tensioning Units

This type of split unit can be found in use on materials handling equipment in many industries. Take up units provide an efficient and readily accessible means of tensioning conveyor systems and large scale drives.

The units consist of either push type or pull type sliding supports into which standard housings and bearings may be mounted. When integrating tensioning units into new applications, it should be noted that a maximum radial load equivalent to  $0.3C_{or}$  is permissible. As with all SRB Units, a wide variety of sealing solutions may be applied dependant on the environment and application. Please contact SRB Technical Services for assistance.



## Tensioning Units TT/TP

### Light Series 40mm to 150mm

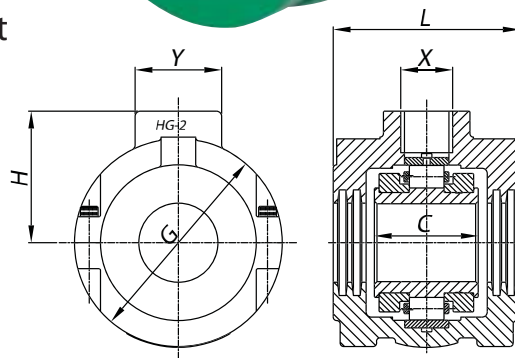
Shaft (d)		Support Reference		B	N	D	V	P	H	L	S	A	T	X	W	R
mm	inch	Tension Type	Push Type													
35	1 <sup>3</sup> / <sub>16</sub>	TT01	TP01	102	172	153	76	14	29	86	25	114	216	20	25	24
40	1 <sup>1</sup> / <sub>4</sub>			4.0	6.8	6.0	3.0	0.6	1.1	3.4	1.0	4.5	8.5	0.8	1.0	0.9
	1 <sup>1</sup> / <sub>2</sub>															
45	1 <sup>11</sup> / <sub>16</sub>	TT02	TP02	114	204	178	88	16	29	98	29	128	242	24	25	25
50	1 <sup>3</sup> / <sub>4</sub>			4.5	8.0	7.0	3.5	0.6	1.1	3.9	1.1	5.0	9.5	0.9	1.0	1.0
	1 <sup>5</sup> / <sub>16</sub>															
55	2 <sup>1</sup> / <sub>16</sub>	TT03	TP03	128	235	203	102	20	32	104	38	146	280	24	30	29
60	2 <sup>1</sup> / <sub>4</sub>			5.0	9.3	8.0	4.0	0.8	1.3	4.1	1.5	5.7	11.0	0.9	1.2	1.1
65	2 <sup>7</sup> / <sub>16</sub>															
70	2 <sup>11</sup> / <sub>16</sub>	TT04	TP04	152	266	229	114	22	40	114	41	158	305	24	30	114
75	2 <sup>3</sup> / <sub>4</sub>			6.0	10.5	9.0	4.5	0.9	1.6	4.5	1.6	6.2	12.0	0.9	1.2	4.5
	2 <sup>5</sup> / <sub>16</sub>															
80	3 <sup>1</sup> / <sub>16</sub>	TT05	TP05	190	318	280	140	22	40	136	51	190	368	30	38	35
85	3 <sup>1</sup> / <sub>4</sub>			7.5	12.5	11.0	5.5	0.9	1.6	5.4	2.0	7.5	14.5	1.2	1.5	1.4
90	3 <sup>3</sup> / <sub>16</sub>															
100	3 <sup>11</sup> / <sub>16</sub>	TT06	TP06	204	342	305	152	22	43	134	51	210	414	36	44	35
105	3 <sup>3</sup> / <sub>4</sub>			8.0	13.5	12.0	6.0	0.9	1.7	5.3	2.0	8.3	16.3	1.4	1.7	1.4
	3 <sup>5</sup> / <sub>16</sub>															
110	4 <sup>1</sup> / <sub>16</sub>	TT07	TP07	216	382	343	162	22	48	142	70	228	445	42	44	41
115	4 <sup>1</sup> / <sub>4</sub>			8.5	15.0	13.5	6.4	0.9	1.9	5.6	2.8	9.0	17.5	1.7	1.7	1.6
	4 <sup>7</sup> / <sub>16</sub>															
120	4 <sup>11</sup> / <sub>16</sub>	TT08	TP08	254	420	381	190	25	51	156	76	260	508	42	44	44
125	4 <sup>3</sup> / <sub>4</sub>			10.0	16.5	15.0	7.5	1.0	2.0	6.1	3.0	10.2	20.0	1.7	1.7	1.7
130	4 <sup>15</sup> / <sub>16</sub>															
135	5 <sup>1</sup> / <sub>16</sub>	TT09	TP09	266	438	400	196	25	54	168	76	266	514	42	44	48
140	5 <sup>1</sup> / <sub>4</sub>			10.5	17.2	15.7	7.7	1.0	2.1	6.6	3.0	10.5	20.2	1.7	1.7	1.9
	5 <sup>7</sup> / <sub>16</sub>															
150	5 <sup>11</sup> / <sub>16</sub>	TT10	TP10	266	464	426	204	25	57	174	86	280	546	48	50	51
155	5 <sup>3</sup> / <sub>4</sub>			10.5	18.3	16.8	8.0	1.0	2.2	6.9	3.4	11.0	21.5	1.9	2.0	2.0
160A	5 <sup>15</sup> / <sub>16</sub>															
	6															



## Hanger Units

SRB Hanger Units are the optimum solution for the support of screw conveyor shafts. The unit comprises of a cast iron split housing into which standard SRB bearings are fitted. Provision of a drilled and tapped boss in one half of the housing allows for the unit to be mounted from the conveyor cross bracing or any other suitable surface. It is recommended that some form of swivel fixing be incorporated into the mounting arrangement to allow for static alignment.

Due to the arduous conditions often found in screw conveyor applications, correct seal selection is critical. SRB Hanger units are available with many sealing variants, all of which can also be tailored to suit specific applications. When integrating hanging units into new applications, it should be noted that a maximum radial load equivalent to  $0.3C_{gr}$  is permissible. Please contact SRB Technical Services for further information.



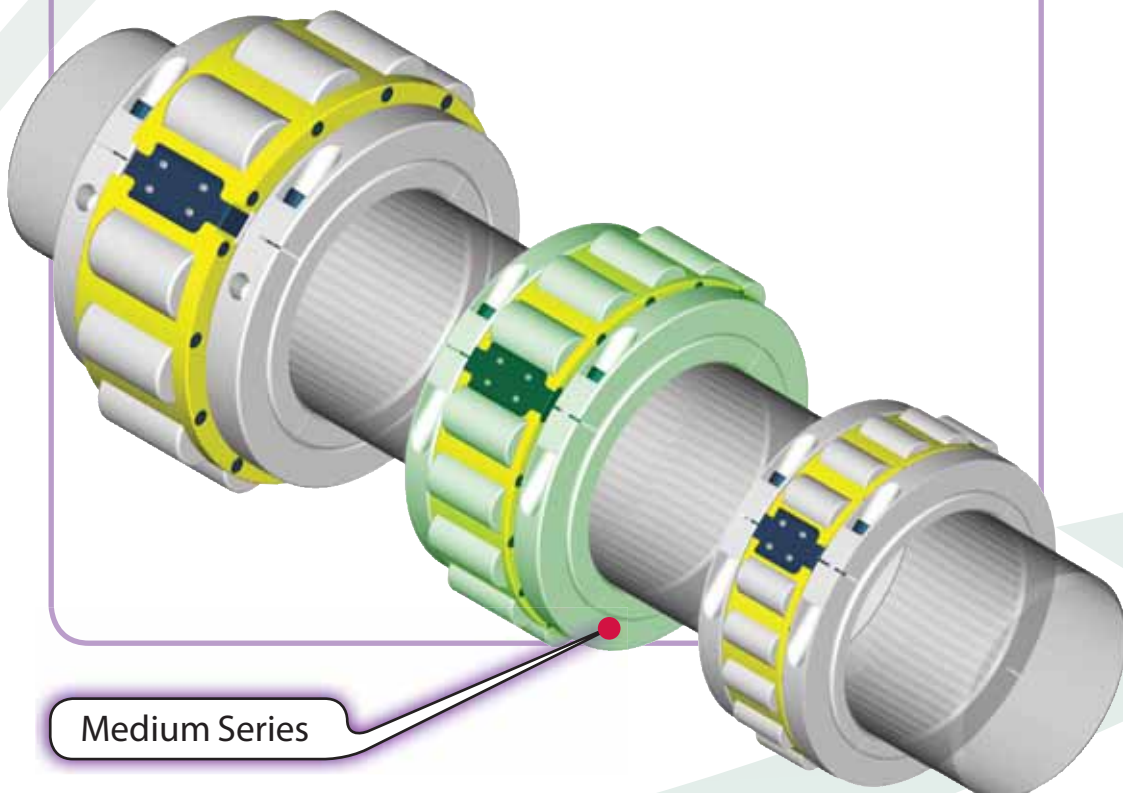
### Light Series Hanger Units

Shaft (d)		Reference	C	G	L	H	X	Y	
mm	inch								
35	1 <sup>3</sup> / <sub>16</sub>	LSM35HG	LSE103HG	55.0	100	108	66	M30	50
40	1 <sup>1</sup> / <sub>4</sub>								
45	1 <sup>7</sup> / <sub>16</sub>	LSM45HG	LSE107HG	60.0	117	108	76	M30	50
	1 <sup>1</sup> / <sub>2</sub>								
50	1 <sup>11</sup> / <sub>16</sub>	LSM50HG	LSE111HG	60.0	135	108	82	M30	50
	2								
55	2 <sup>3</sup> / <sub>16</sub>	LSM55HG	LSE115HG	60.0	157	130	92	M30	50
	2 <sup>1</sup> / <sub>4</sub>								
60	2 <sup>7</sup> / <sub>16</sub>	LSM60HG	LSE203HG	75.0	178	146	114	M36	76
	2 <sup>1</sup> / <sub>2</sub>								
65	2 <sup>1</sup> / <sub>2</sub>	LSM65HG	LSE207HG	75.0	203	152	128	M36	76
	3								
70	2 <sup>11</sup> / <sub>16</sub>	LSM70HG	LSE211HG	90.0	232	156	140	M36	76
	2 <sup>3</sup> / <sub>4</sub>								
75	2 <sup>15</sup> / <sub>16</sub>	LSM75HG	LSE215HG	90.0	232	156	140	M36	76
	3								
80	3 <sup>1</sup> / <sub>16</sub>	LSM80HG	LSE303HG	90.0	232	156	140	M36	76
	3 <sup>3</sup> / <sub>4</sub>								
85	3 <sup>1</sup> / <sub>16</sub>	LSM85HG	LSE307HG	90.0	232	156	140	M36	76
	3 <sup>1</sup> / <sub>2</sub>								
90	3 <sup>1</sup> / <sub>2</sub>	LSM90HG	LSE311HG	90.0	232	156	140	M36	76
	4								
100	3 <sup>11</sup> / <sub>16</sub>	LSM100HG	LSE315HG	90.0	232	156	140	M36	76
	3 <sup>3</sup> / <sub>4</sub>								
105	3 <sup>15</sup> / <sub>16</sub>	LSM105HG	LSE403HG	90.0	232	156	140	M36	76
	4								
110	4 <sup>1</sup> / <sub>16</sub>	LSM110HG	LSE407HG	90.0	232	156	140	M36	76
	4 <sup>1</sup> / <sub>4</sub>								
115	4 <sup>1</sup> / <sub>4</sub>	LSM115HG	LSE407HG	90.0	232	156	140	M36	76
	4 <sup>1</sup> / <sub>2</sub>								

# Medium Series

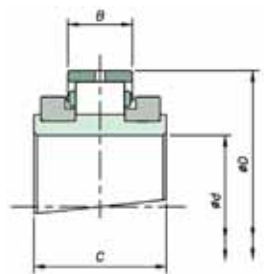
Medium Series bearing products can be utilised in applications requiring higher load carrying capacity. Under nominal conditions, Medium Series may also be selected to provide an extended bearing life when compared to Light Series. Medium Series offers the same range of mounting and sealing solutions as Light Series, with the exception of Hanger units. If a standard catalogue product does not meet your requirements, SRB Technical Services will be happy to provide help and advice on your application.

Bearings, Housings & Supports	50mm to 150mm	Page	35 – 36
	160mm to 340mm	Page	37 – 38
	380mm to 600mm	Page	39 – 40
Flange Units		Page	41 – 42
Tensioning Units		Page	43 – 44

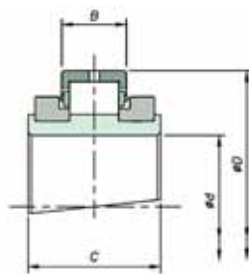


Medium Series

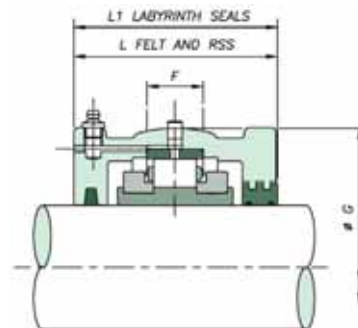
### Medium Series Bearing & Housing 50mm to 150mm



Expansion BX



Retained BR



Shaft (d)		Reference	Bearings Ratings						
mm	inch	Add BR for retained Add BX for expansion e.g. MSM55BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>0r</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C

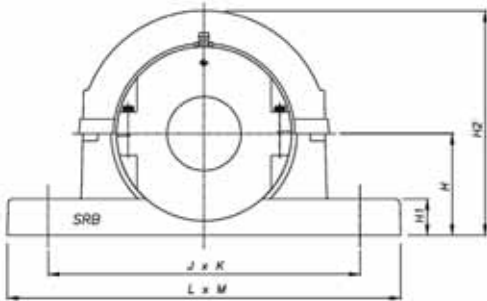
45	1 <sup>11</sup> / <sub>16</sub>	MSM45	MSE111	121	127	6.20	4350	107.95	35.00	67.50
	1 <sup>3</sup> / <sub>4</sub>									
50	1 <sup>15</sup> / <sub>16</sub>	MSM50	MSE112	27202	28551	1394		4.250	1.378	2.657
	2									
			MSE203							
55	2 <sup>3</sup> / <sub>16</sub>	MSM55	MSE204	168	190	8.80	3680	127.00	38.90	72.30
60	2 <sup>1</sup> / <sub>4</sub>									
65	2 <sup>7</sup> / <sub>16</sub>	MSM60	MSE207	37768	42714	1978		5.000	1.531	2.846
	2 <sup>1</sup> / <sub>2</sub>									
			MSE208							
			MSE211							
70	2 <sup>11</sup> / <sub>16</sub>	MSM70	MSE212	258	300	10.60	3080	149.22	46.10	82.60
	2 <sup>3</sup> / <sub>4</sub>									
75	2 <sup>5</sup> / <sub>16</sub>	MSM75	MSE215	58001	67443	2383		5.875	1.815	3.252
	3									
			MSE303							
80	3 <sup>3</sup> / <sub>16</sub>	MSM80	MSE304	297	353	17.80	2520	169.86	48.40	89.70
85	3 <sup>1</sup> / <sub>4</sub>									
90	3 <sup>7</sup> / <sub>16</sub>	MSM85	MSE307	66768	79358	4002		6.687	1.906	3.531
	3 <sup>1</sup> / <sub>2</sub>									
			MSE308							
			MSE311							
100	3 <sup>11</sup> / <sub>16</sub>	MSM100	MSE312	388	491	25.00	2130	193.68	51.60	92.10
	3 <sup>3</sup> / <sub>4</sub>									
105	3 <sup>15</sup> / <sub>16</sub>	MSM105	MSE315	87226	110381	5620		7.625	2.031	3.626
	4									
			MSE403							
110	4 <sup>3</sup> / <sub>16</sub>	MSM110	MSE404	454	592	31.20	1820	228.60	57.20	100.00
	4 <sup>1</sup> / <sub>4</sub>									
115	4 <sup>7</sup> / <sub>16</sub>	MSM115	MSE407	102063	133087	7014		9.000	2.252	3.937
	4 <sup>1</sup> / <sub>2</sub>									
			MSE408							
			MSE411							
120	4 <sup>11</sup> / <sub>16</sub>	MSM120	MSE412	525	700	38.20	1600	254.00	63.50	114.30
	4 <sup>3</sup> / <sub>4</sub>									
125	4 <sup>15</sup> / <sub>16</sub>	MSM125	MSE415	118025	157366	8588		10.000	2.500	4.500
130	5									
			MSE500							
			MSE503							
135	5 <sup>1</sup> / <sub>16</sub>	MSM135	MSE504	600	817	45.40	1450	273.05	66.70	117.50
	5 <sup>1</sup> / <sub>4</sub>									
140	5 <sup>7</sup> / <sub>16</sub>	MSM140	MSE507	134885	183669	10206		10.750	2.626	4.626
	5 <sup>1</sup> / <sub>2</sub>									
			MSE508							
			MSE511							
150	5 <sup>11</sup> / <sub>16</sub>	MSM150	MSE512	730	1034	52.40	1320	292.10	68.30	123.80
	5 <sup>3</sup> / <sub>4</sub>									
155	5 <sup>15</sup> / <sub>16</sub>	MSM155	MSE515	164111	232453	11780		11.500	2.689	4.874
160A	6									
			MSE600							

Housing Reference				
Add HR for retained Add HX for expansion e.g. MSM55HR	G	F	L	L <sub>1</sub>

	MSE111				
MSM45	MSE112	134.94	32	112	114
MSM50	MSE115	5.313	1.3	4.4	4.5
	MSE200				
	MSE203				
MSM55	MSE204	157.16	38	124	126
MSM60	MSE207	6.187	1.5	4.9	5.0
MSM65	MSE208				
	MSE211				
MSM70	MSE212	177.80	50	138	140
MSM75	MSE215	7.000	2.0	5.4	5.5
	MSE300				
	MSE303				
MSM80	MSE304	203.20	50	152	154
MSM85	MSE307	8.000	2.0	6.0	6.1
MSM90	MSE308				
	MSE311				
MSM100	MSE312	231.78	64	144	146
MSM105	MSE315	9.125	2.5	5.7	5.7
	MSE400				
	MSE403				
MSM110	MSE404	266.70	76	160	162
MSM115	MSE407	10.500	3.0	6.3	6.4
	MSE408				
	MSE411				
MSM120	MSE412	295.28	82	182	184
MSM125	MSE415	11.625	3.2	7.2	7.2
MSM130	MSE500				
	MSE503				
MSM135	MSE504	323.85	90	186	188
MSM140	MSE507	12.750	3.5	7.3	7.4
	MSE508				
	MSE511				
MSM150	MSE512	336.55	95	202	204
MSM155	MSE515	13.250	3.7	8.0	8.0
MSM160A	MSE600				

## Medium Series Support

### S03 - S31



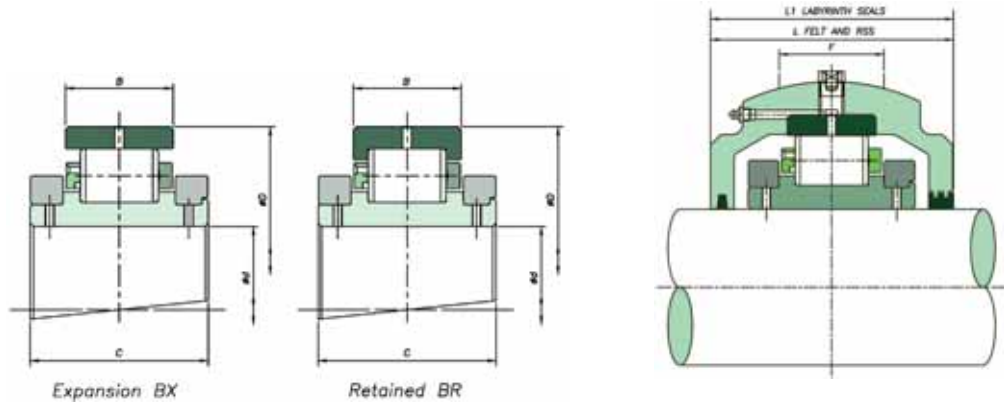
#### S03 - S31

Shaft (d)		Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
mm	inch							
45	1 <sup>11</sup> / <sub>16</sub>	S03	80	32	180	234	280 x 70	2 x M16
50	1 <sup>3</sup> / <sub>4</sub>		3.150	1.3	7.1	9.2	11 x 2.8	
	2							
55	2 <sup>3</sup> / <sub>16</sub>	S04	95	38	208	270	330 x 76	2 x M20
60	2 <sup>1</sup> / <sub>4</sub>		3.740	1.5	8.2	10.6	13 x 3	
65	2 <sup>7</sup> / <sub>16</sub>							
70	2 <sup>11</sup> / <sub>16</sub>	S05	112	44	252	320	380 x 90	2 x M24
75	2 <sup>3</sup> / <sub>4</sub>		4.409	1.7	9.9	12.6	15 x 3.5	
	3							
80	3 <sup>3</sup> / <sub>16</sub>	S06	125	52	272	354	420 x 102	2 x M24
85	3 <sup>1</sup> / <sub>4</sub>		4.921	2.0	10.7	13.9	16.5 x 4	
90	3 <sup>7</sup> / <sub>16</sub>							
	3 <sup>1</sup> / <sub>2</sub>							
100	3 <sup>11</sup> / <sub>16</sub>	S07	143	60	314	392	466 x 120	2 x M24
105	3 <sup>3</sup> / <sub>4</sub>		5.630	2.4	12.4	15.4	18.3 x 4.7	
	4							
110	4 <sup>3</sup> / <sub>16</sub>	S08	162	38	372	450 x 120	508 x 178	4 x M24
115	4 <sup>1</sup> / <sub>4</sub>		6.378	1.5	14.6	17.7 x 4.7	20 x 7	
	4 <sup>7</sup> / <sub>16</sub>							
	4 <sup>1</sup> / <sub>2</sub>							
120	4 <sup>11</sup> / <sub>16</sub>	S10	181	40	415	496 x 120	558 x 178	4 x M24
125	4 <sup>3</sup> / <sub>4</sub>		7.126	1.6	16.3	19.5 x 4.7	22 x 7	
130	4 <sup>15</sup> / <sub>16</sub>							
	5							
135	5 <sup>3</sup> / <sub>16</sub>	S30	203	50	460	546 x 120	610 x 178	4 x M24
140	5 <sup>1</sup> / <sub>4</sub>		7.992	2.0	18.1	21.5 x 4.7	24 x 7	
	5 <sup>7</sup> / <sub>16</sub>							
	5 <sup>1</sup> / <sub>2</sub>							
150	5 <sup>11</sup> / <sub>16</sub>	S31	210	50	470	558 x 128	636 x 204	4 x M24
155	5 <sup>3</sup> / <sub>4</sub>		8.268	2.0	18.5	22 x 5	25 x 8	
160A	5 <sup>15</sup> / <sub>16</sub>							
	6							



# Medium Series Bearing & Housing

## 160mm to 340mm

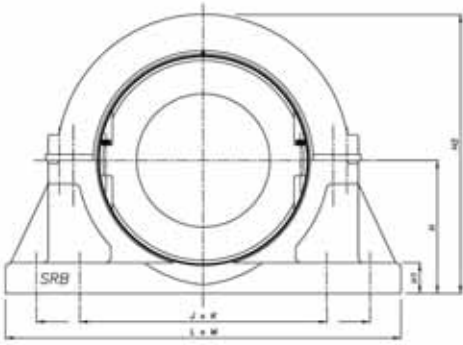


Shaft (d)		Reference		Bearings Ratings						
mm	inch	Add BR for retained Add BX for expansion e.g. MSM160BR		Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>0r</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C
160	6 <sup>1</sup> / <sub>16</sub>	MSM160	MSE607	842	1175	61.40	1200	317.50	83.30	140.00
170	6 <sup>1</sup> / <sub>2</sub>	MSM170	MSE608	189289	264151	13803				
	6 <sup>11</sup> / <sub>16</sub>		MSE611				1120	330.20	83.30	140.00
175	6 <sup>3</sup> / <sub>4</sub>	MSM175	MSE612	927	1357	71.20				
180	6 <sup>15</sup> / <sub>16</sub>	MSM180	MSE615	208398	305066	16006	960	14.500	3.563	6.142
	7		MSE700							
	7 <sup>1</sup> / <sub>4</sub>		MSE704							
190	7 <sup>1</sup> / <sub>2</sub>	MSM190	MSE708	1013	1516	80.00	960	368.30	90.50	156.00
200	7 <sup>15</sup> / <sub>16</sub>	MSM200	MSE715	227732	340810	17985				
	8		MSE800				850	15.500	3.563	6.417
220	8 <sup>1</sup> / <sub>2</sub>	MSM220	MSE808	1138	1668	89.80				
230	8 <sup>7</sup> / <sub>8</sub>	MSM230	MSE814	255833	374981	20188				
	9		MSE900				750	17.000	3.811	6.693
240	9 <sup>1</sup> / <sub>2</sub>	MSM240	MSE908	1354	2117	98.80				
250	9 <sup>3</sup> / <sub>4</sub>	MSM250	MSE912	304391	475921	22211				
260	10	MSM260	MSE1000				670	18.250	4.000	7.323
	10 <sup>1</sup> / <sub>2</sub>		MSE1008	1476	2357	113.80				
270	10 <sup>3</sup> / <sub>4</sub>	MSM270	MSE1012	331818	529875	25583	610	19.500	4.063	7.598
280	11	MSM280	MSE1100							
300	11 <sup>1</sup> / <sub>2</sub>	MSM300	MSE1108	1587	2644	129.00	610	19.500	4.063	7.598
305	12	MSM305	MSE1200	356772	594395	29000				
320	12 <sup>1</sup> / <sub>2</sub>	MSM320	MSE1208	1723	2922	144.20	550	20.750	4.189	7.559
330	13	MSM330	MSE1300	387346	656892	32417				
340	14	MSM340	MSE1400	1989	3403	159.20	500	22.250	4.563	7.874
360		MSM360		447145	765025	35790				

Housing Reference					
Add HR for retained Add HX for expansion e.g. MSM160HR		G	F	L	L <sub>1</sub>
MSM160	MSE607	368.30	95	206	232
MSM170	MSE608	14.500	3.7	8.1	9.1
	MSE611				
MSM175	MSE612	381.00	95	222	242
MSM180	MSE615	15.000	3.7	8.7	9.5
	MSE700				
	MSE704				
MSM190	MSE708	425.50	105	235	258
MSM200	MSE715	16.752	4.1	9.3	10.2
	MSE800				
	MSE808				
MSM220	MSE814	457.20	110	242	274
MSM230	MSE900	18.000	4.3	9.5	10.8
	MSE908				
MSM240	MSE912	495.30	118	248	280
MSM250	MSE1000	19.500	4.6	9.8	11.0
	MSE1008				
MSM270	MSE1012	527.10	130	264	300
MSM280	MSE1100	20.752	5.1	10.4	11.8
	MSE1108				
MSM300	MSE1200	552.50	128	268	306
MSM305	MSE1208	21.752	5.0	10.6	12.0
	MSE1300				
MSM320	MSE1400	587.40	146	305	-
MSM330		23.126	5.0	11.7	-
MSM340		628.70	146	305	-
MSM360		24.752	5.7	12.0	-

## Medium Series Support

### S32 - S40

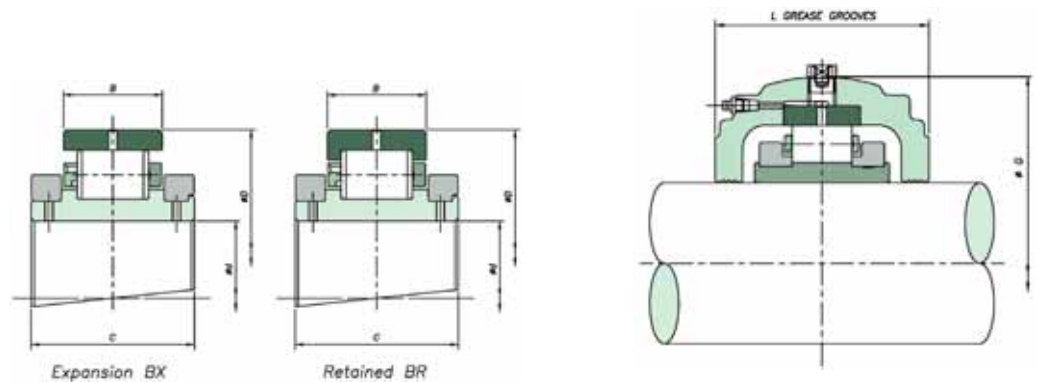


#### S32 - S40

Shaft (d)		Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
mm	inch							
160	6 <sup>7</sup> / <sub>16</sub>	S32	267	44	535	448 x 172	596 x 242	4 x M30
170	6 <sup>1</sup> / <sub>2</sub>		10.512	1.7	21.1	17.6 x 6.8	23.5 x 9.5	
175	6 <sup>11</sup> / <sub>16</sub>	S33	273	44	545	458 x 166	636 x 242	4 x M30
180	6 <sup>15</sup> / <sub>16</sub>		10.748	1.7	21.5	18 x 6.5	25 x 9.5	
190	7 <sup>1</sup> / <sub>4</sub>	S34	305	50	610	508 x 190	686 x 266	4 x M30
200	7 <sup>15</sup> / <sub>16</sub>		12.008	2.0	24.0	20 x 7.5	27 x 10.5	
220	8 <sup>1</sup> / <sub>2</sub>	S35	324	50	650	550 x 190	750 x 280	4 x M30
230	8 <sup>7</sup> / <sub>8</sub>		12.756	2.0	25.6	21.7 x 7.5	29.5 x 11	
240	9 <sup>1</sup> / <sub>2</sub>	S36	356	54	710	596 x 204	812 x 292	4 x M36
250	9 <sup>3</sup> / <sub>4</sub>		14.016	2.1	28.0	23.5 x 8	32 x 11.5	
260	10	S37	378	60	760	736 & 534 x 254	914 x 330	8 x M30
270	10 <sup>1</sup> / <sub>2</sub>		14.882	2.4	29.9	29 & 21 x 10	36 x 13	
280	10 <sup>3</sup> / <sub>4</sub>	S38	394	60	790	768 & 566 x 254	958 x 330	8 x M30
305	12		15.512	2.4	31.1	30.2 & 22.3 x 10	37.7 x 13	
320	12 <sup>1</sup> / <sub>2</sub>	S39	419	64	840	812 & 610 x 210	1016 x 292	8 x M30
330	13		16.496	2.5	33.1	32 & 24 x 8.3	40 x 11.5	
340	14	S40	451	67	900	864 & 660 x 280	1092 x 368	8 x M36
360			17.756	2.6	35.4	34 & 26 x 11	43 x 14.5	

# Medium Series Bearing & Housing

## 380mm to 600mm



Shaft (d)		Reference	Bearings Ratings						
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mm	inch	Add BR for retained Add BX for expansion e.g. MSM380BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>0r</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C
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380	15	MSM380 MSE1500	1931	3522	174.40	460	584.20	111.10	200.00
			434106	791777	39207		23.000	4.374	7.874
400	16	MSM400 MSE1600	2105	3793	188.40	430	615.95	115.90	200.00
			473223	852701	42354		24.250	4.563	7.874
420	17	MSM420 MSE1700	2324	4164	202.00	400	647.70	119.10	200.00
			522456	936105	45411		25.500	4.689	7.874
440	18	MSM440 MSE1800	2215	4183	216.00	380	666.75	115.90	200.00
			497952	940376	48559		26.250	4.563	7.874
480	19	MSM480 MSE1900	2445	4594	230.00	360	698.50	119.10	223.00
			549658	1032773	51706		27.500	4.689	8.780
500	20	MSM500 MSE2000	2453	4923	244.00	340	717.55	115.90	226.00
			551456	1106734	54853		28.250	4.563	8.898
530	21	MSM530 MSE2100	2702	5415	258.00	330	762.00	119.10	229.00
			607434	1217340	58001		30.000	4.689	9.016
560	22	MSM560 MSE2200	2851	5740	272.00	310	793.75	122.20	233.00
			640930	1290403	61148		31.250	4.811	9.173
580	23	MSM580 MSE2300	2982	6137	286.00	300	812.80	119.10	232.00
			670380	1387740	64295		32.000	4.689	9.134
600	24	MSM600 MSE2400	2972	6185	300.00	290	838.20	119.10	214.00
			668132	1390443	67443		33.000	4.689	8.425

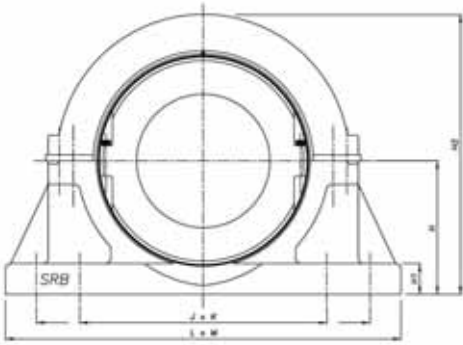
Housing Reference					
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Add HR for retained Add HX for expansion e.g. MSM380HR	G	F	L	L <sub>1</sub>
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MSM380 MSE1500	647.70	146	305	-
	25.500	5.7	12.0	-
MSM400 MSE1600	685.80	146	324	-
	27.000	5.7	12.8	-
MSM420 MSE1700	717.60	146	350	-
	28.252	5.7	13.8	-
MSM440 MSE1800	733.40	146	350	-
	28.874	5.7	13.8	-
MSM480 MSE1900	762.00	146	368	-
	30.000	5.7	14.5	-
MSM500 MSE2000	787.40	146	368	-
	31.000	5.7	14.5	-
MSM530 MSE2100	831.90	150	368	-
	32.752	5.9	14.5	-
MSM560 MSE2200	866.80	152	374	-
	34.126	6.0	14.7	-
MSM580 MSE2300	883.00	152	374	-
	34.764	6.0	14.7	-
MSM600 MSE2400	914.40	152	388	-
	36.000	6.0	15.3	-

## Medium Series Support

### S41 - S50



#### S41 - S50

Shaft (d) mm	inch	Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
380	15	S41	464 18.268	67 2.6	925 36.4	886 & 682 x 280 34.9 & 26.9 x 11	1092 x 368 43 x 14.5	8 x M36
400	16	S42	495 19.488	70 2.8	990 39.0	934 & 730 x 280 36.8 & 28.7 x 11	1168 x 368 46 x 14.5	8 x M36
420	17	S43	514 20.236	70 2.8	1030 40.6	972 & 768 x 280 38.3 & 30.2 x 11	1194 x 368 47 x 14.5	8 x M36
440	18	S44	533 20.984	73 2.9	1070 42.1	996 & 788 x 280 39.2 & 31 x 11	1244 x 368 49 x 14.5	8 x M36
480	19	S45	552 21.732	76 3.0	1110 43.7	1042 & 812 x 280 41 & 32 x 11	1270 x 368 50 x 14.5	8 x M36
500	20	S46	572 22.520	80 3.1	1145 45.1	1074 & 844 x 280 42.3 & 33.2 x 11	1296 x 368 51 x 14.5	8 x M36
530	21	S47	594 23.386	83 3.3	1180 46.5	1118 & 890 x 280 44 & 35 x 11	1398 x 368 55 x 14.5	8 x M36
560	22	S48	616 24.252	86 3.4	1230 48.4	1158 & 930 x 280 45.6 & 36.6 x 11	1422 x 382 56 x 15	8 x M42
580	23	S49	635 25.000	89 3.5	1270 50.0	1187 & 959 x 280 46.7 & 37.8 x 11	1448 x 382 57 x 15	8 x M42
600	24	S50	673 26.496	92 3.6	1345 53.0	1238 & 1010 x 280 48.7 & 39.8 x 11	1524 x 382 60 x 15	8 x M42



## Flange Units

When faced with flat horizontal or vertical faces, flange units offer a simple mounting solution.

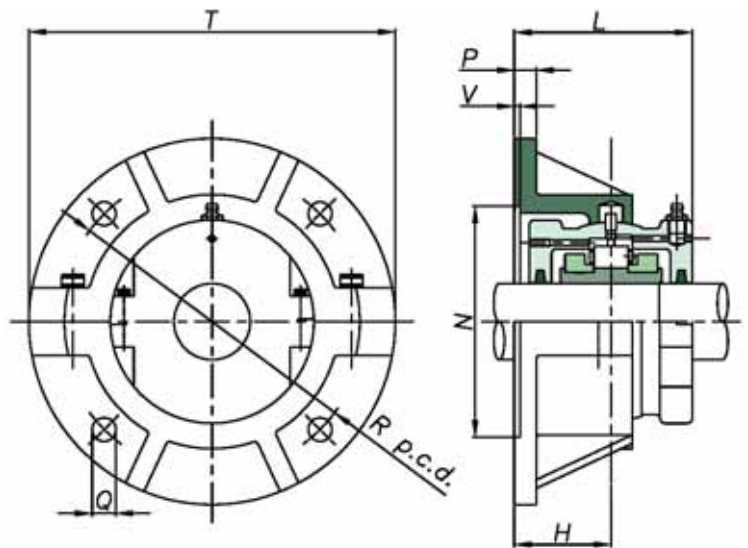
As with Pillow block supports, Flange units are produced with spherical location to accommodate standard bearing housings and provide easy initial alignment of shaft and equipment.

To facilitate positive location of the flange to the surface, the rear face is recessed (dimensions N & V). This allows for a spigot (Tolerance f8) to be located into the flange.

Bearing inspection is simply a matter of removing the top half of the flange and housing. Bearing replacement may also be achieved in the same manner if required.

When integrating flange units into new applications, it should be noted that a maximum radial load equivalent to  $0.26C_{or}$  is permissible. A maximum axial load of  $0.25C_s$  must also be taken into account for applications with thrust loading. Units for vertically oriented shafts may also need special consideration given to sealing arrangements.

As always, SRB Technical Services will be happy to advise on any application issues.



## Medium Series Support

### 50mm to 300mm Flanges

Medium Series 50mm to 300mm Flanges

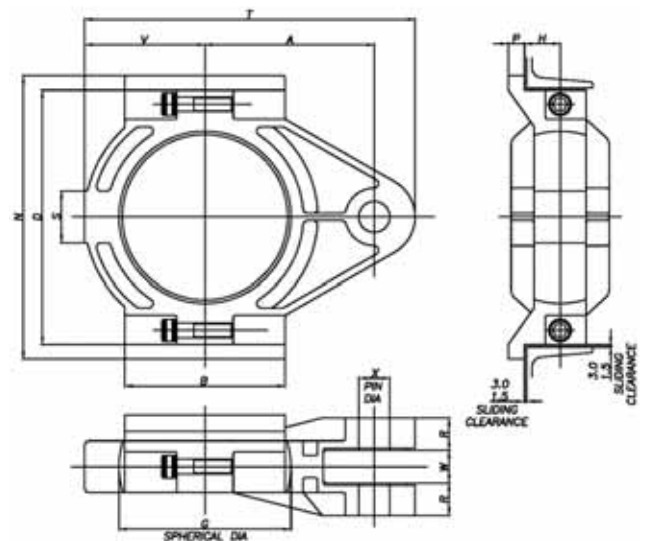
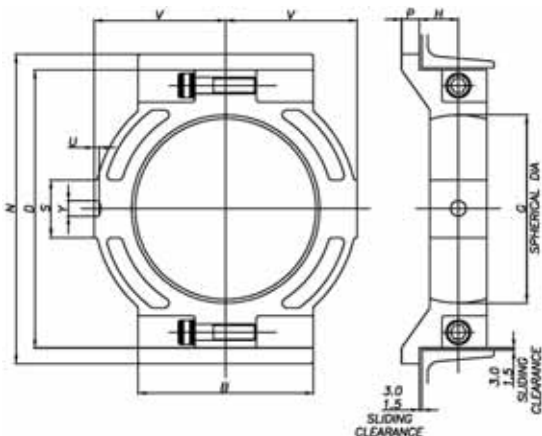
Shaft (d)		Flange Reference	T	Bolts	R	P	H	N	V	L
mm	inch									
45	1 <sup>11</sup> / <sub>16</sub>	F03	260	4 x M12	218	16	67	166.9	3	124
50	1 <sup>3</sup> / <sub>4</sub>		10.2		8.6	0.6	2.6	6.571	0.1	4.9
	2									
55	2 <sup>3</sup> / <sub>16</sub>	F04	286	4 x M12	242	16	73	192.09	3	136
60	2 <sup>1</sup> / <sub>4</sub>		11.3		9.5	0.6	2.9	7.563	0.1	5.4
65	2 <sup>7</sup> / <sub>16</sub>									
	2 <sup>1</sup> / <sub>2</sub>									
70	2 <sup>11</sup> / <sub>16</sub>	F05	330	4 x M16	274	19	79	215.9	3	150
75	2 <sup>3</sup> / <sub>4</sub>		13.0		10.8	0.7	3.1	8.500	0.1	5.9
	2 <sup>15</sup> / <sub>16</sub>									
	3									
80	3 <sup>3</sup> / <sub>16</sub>	F06	356	4 x M16	302	19	86	244.47	3	164
85	3 <sup>1</sup> / <sub>4</sub>		14.0		11.9	0.7	3.4	9.625	0.1	6.5
90	3 <sup>7</sup> / <sub>16</sub>									
	3 <sup>1</sup> / <sub>2</sub>									
100	3 <sup>11</sup> / <sub>16</sub>	F07	382	4 x M16	334	22	92	276.22	3	166
105	3 <sup>3</sup> / <sub>4</sub>		15.0		13.1	0.9	3.6	10.875	0.1	6.5
	3 <sup>15</sup> / <sub>16</sub>									
	4									
110	4 <sup>3</sup> / <sub>16</sub>	F08	432	4 x M24	374	22	98	314.32	3	180
115	4 <sup>1</sup> / <sub>4</sub>		17.0		14.7	0.9	3.9	12.375	0.1	7.1
	4 <sup>7</sup> / <sub>16</sub>									
	4 <sup>1</sup> / <sub>2</sub>									
120	4 <sup>11</sup> / <sub>16</sub>	F10	470	4 x M24	412	25	114	346.07	3	206
125	4 <sup>3</sup> / <sub>4</sub>		18.5		16.2	1.0	4.5	13.625	0.1	8.1
130	4 <sup>15</sup> / <sub>16</sub>									
	5									
135	5 <sup>3</sup> / <sub>16</sub>	F30	508	4 x M24	444	25	114	377.82	3	208
140	5 <sup>1</sup> / <sub>4</sub>		20.0		17.5	1.0	4.5	14.875	0.1	8.2
	5 <sup>7</sup> / <sub>16</sub>									
	5 <sup>1</sup> / <sub>2</sub>									
150	5 <sup>11</sup> / <sub>16</sub>	F31	534	4 x M24	466	25	124	393.70	3	226
155	5 <sup>3</sup> / <sub>4</sub>		21.0		18.3	1.0	4.9	15.500	0.1	8.9
160A	5 <sup>15</sup> / <sub>16</sub>									
	6									
160	6 <sup>7</sup> / <sub>16</sub>	F32	584	4 x M30	508	29	124	428.62	5	240
170	6 <sup>1</sup> / <sub>2</sub>		23.0		20.0	1.1	4.9	16.875	0.2	9.4
175	6 <sup>11</sup> / <sub>16</sub>	F33	596	4 x M30	524	32	130	444.50	5	252
180	6 <sup>3</sup> / <sub>4</sub>		23.5		20.6	1.3	5.1	17.500	0.2	9.9
	6 <sup>15</sup> / <sub>16</sub>									
	7									
190	7 <sup>1</sup> / <sub>4</sub>	F34	648	4 x M30	572	32	137	492.12	5	266
200	7 <sup>1</sup> / <sub>2</sub>		25.5		22.5	1.3	5.4	19.375	0.2	10.5
	7 <sup>15</sup> / <sub>16</sub>									
	8									
220	8 <sup>1</sup> / <sub>2</sub>	F35	712	4 x M36	620	35	146	527.05	5	284
230	8 <sup>7</sup> / <sub>8</sub>		28.0		24.4	1.4	5.7	20.750	0.2	11.2
	9									
240	9 <sup>1</sup> / <sub>2</sub>	F36	736	4 x M36	660	38	149	568.32	5	290
250	9 <sup>3</sup> / <sub>4</sub>		29.0		26.0	1.5	5.9	22.375	0.2	11.4
260	10									
270	10 <sup>1</sup> / <sub>2</sub>	F37	762	8 x M30	682	38	159	603.25	5	310
280	10 <sup>3</sup> / <sub>4</sub>		30.0		26.9	1.5	6.3	23.750	0.2	12.2
	11									
300	11 <sup>1</sup> / <sub>2</sub>	F38	788	8 x M30	708	41	162	628.65	5	316
305	12		31.0		27.9	1.6	6.4	24.750	0.2	12.4

For Bearings and Housings see pages 35 – 40

# Tensioning Units

This type of split unit can be found in use on materials handling equipment in many industries. Take up units provide an efficient and readily accessible means of tensioning conveyor systems and large scale drives.

The units consist of either push type or pull type sliding supports into which standard housings and bearings may be mounted. When integrating tensioning units into new applications, it should be noted that a maximum radial load equivalent to  $0.3C_r$  is permissible. As with all SRB Units, a wide variety of sealing solutions may be applied dependant on the environment and application. Please contact SRB Technical Services for assistance.



## Tensioning Units TT/TP

### Medium Series 50mm to 150mm Support

Shaft (d)		Support Reference														
mm	inch	Tension Type	Push Type	B	N	D	V	P	H	L	S	A	T	X	W	R
45	1 <sup>11</sup> / <sub>16</sub>	TT03	TP03	128	235	203	102	20	32	108	38	146	280	24	30	29
50	1 <sup>3</sup> / <sub>4</sub>			5.0	9.3	8.0	4.0	0.8	1.3	4.3	1.5	5.7	11.0	0.9	1.2	1.1
55	2 <sup>1</sup> / <sub>16</sub>	TT04	TP04	152	266	229	114	22	40	124	41	158	305	24	30	114
60	2 <sup>3</sup> / <sub>16</sub>			6.0	10.5	9.0	4.5	0.9	1.6	4.9	1.6	6.2	12.0	0.9	1.2	4.5
65	2 <sup>1</sup> / <sub>2</sub>															
70	2 <sup>11</sup> / <sub>16</sub>	TT05	TP05	190	318	280	140	22	40	131	51	190	368	30	38	35
75	2 <sup>3</sup> / <sub>4</sub>			7.5	12.5	11.0	5.5	0.9	1.6	5.2	2.0	7.5	14.5	1.2	1.5	1.4
80	3 <sup>1</sup> / <sub>16</sub>	TT06	TP06	204	342	305	152	22	43	141	51	210	414	36	44	35
85	3 <sup>3</sup> / <sub>16</sub>			8.0	13.5	12.0	6.0	0.9	1.7	5.6	2.0	8.3	16.3	1.4	1.7	1.4
90	3 <sup>1</sup> / <sub>2</sub>															
100	3 <sup>11</sup> / <sub>16</sub>	TT07	TP07	216	382	343	162	22	48	142	70	228	445	42	44	41
105	3 <sup>3</sup> / <sub>4</sub>			8.5	15.0	13.5	6.4	0.9	1.9	5.6	2.8	9.0	17.5	1.7	1.7	1.6
110	4 <sup>1</sup> / <sub>16</sub>	TT08	TP08	254	420	381	190	25	51	156	76	260	508	42	44	44
115	4 <sup>3</sup> / <sub>16</sub>			10.0	16.5	15.0	7.5	1.0	2.0	6.1	3.0	10.2	20.0	1.7	1.7	1.7
	4 <sup>1</sup> / <sub>2</sub>															
120	4 <sup>11</sup> / <sub>16</sub>	TT10	TP10	266	464	426	204	25	57	173	86	280	546	48	50	51
125	4 <sup>3</sup> / <sub>4</sub>			10.5	18.3	16.8	8.0	1.0	2.2	6.8	3.4	11.0	21.5	1.9	2.0	2.0
130	4 <sup>15</sup> / <sub>16</sub>															
135	5 <sup>1</sup> / <sub>16</sub>	TT30	TP30	280	502	464	222	25	60	178	92	298	584	48	50	54
140	5 <sup>1</sup> / <sub>4</sub>			11.0	19.8	18.3	8.7	1.0	2.4	7.0	3.6	11.7	23.0	1.9	2.0	2.1
	5 <sup>1</sup> / <sub>2</sub>															
150	5 <sup>11</sup> / <sub>16</sub>	TT31	TP31	305	528	489	235	25	64	190	92	312	616	48	50	57
155	5 <sup>3</sup> / <sub>4</sub>			12.0	20.8	19.3	9.3	1.0	2.5	7.5	3.6	12.3	24.3	1.9	2.0	2.2
160A	5 <sup>15</sup> / <sub>16</sub>															
	6															

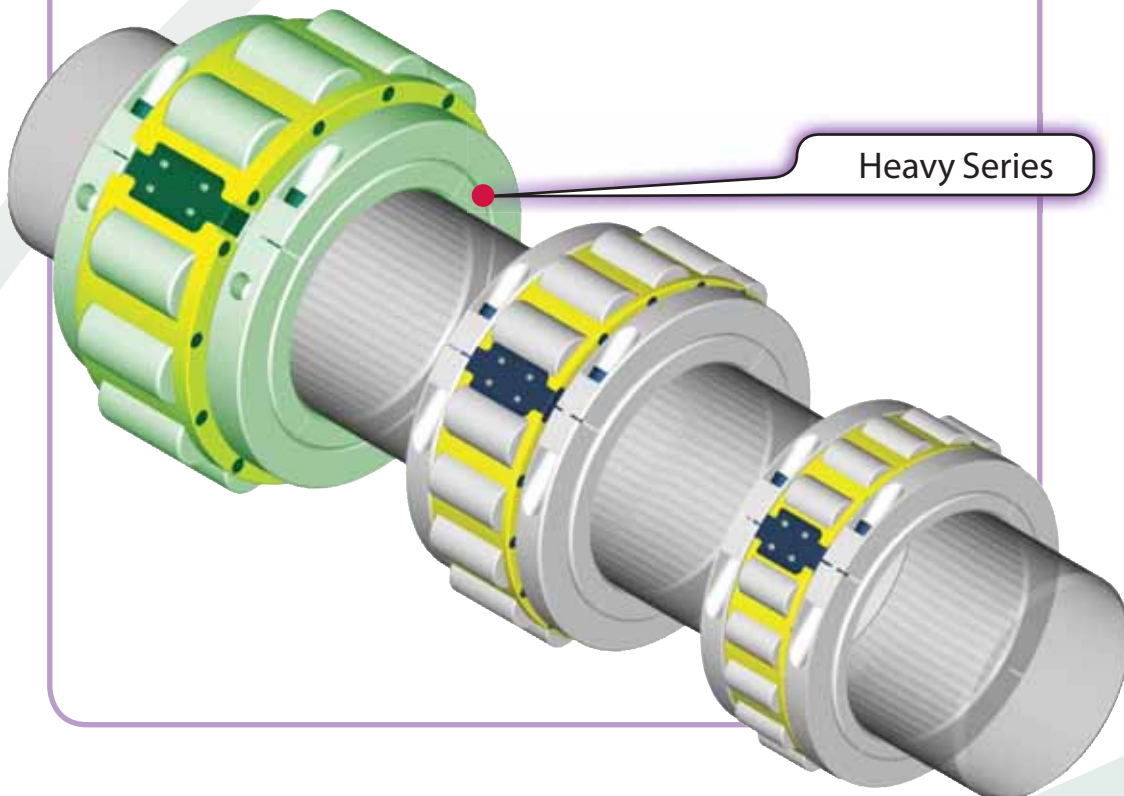




# Heavy Series

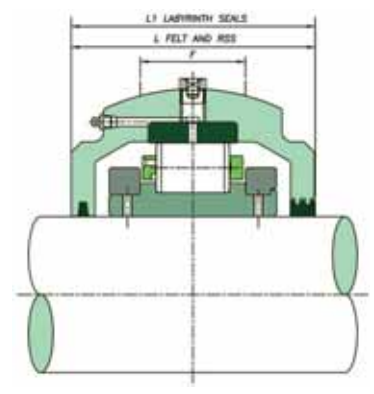
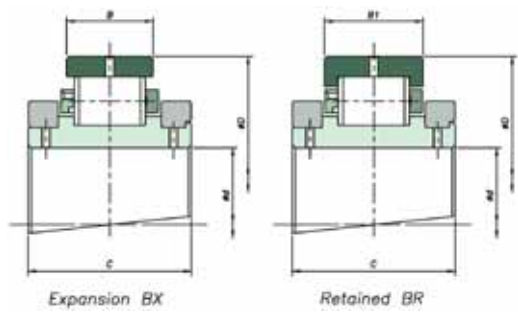
Heavy Series bearing products offer solutions to the most demanding of load conditions. Bearings are supported by robust and durable mountings and can be equipped with a variety of sealing solutions. If a standard catalogue product does not meet your requirements, SRB Technical Services will be happy to provide help and advice on your application.

Bearings, Housings & Supports	100mm to 260mm	Page	47 – 48
	280mm to 600mm	Page	49 – 50
Flange Units		Page	51



# Heavy Series Bearing & Housing

## 100mm to 260mm



Shaft (d)		Reference	Bearings Ratings						
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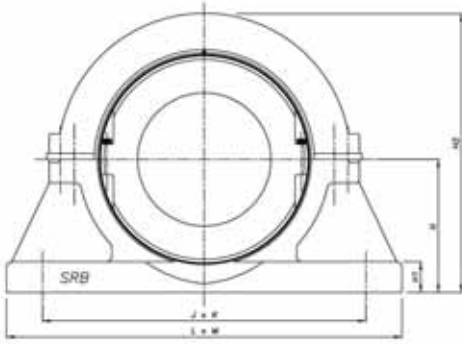
mm	inch	Add BR for retained Add BX for expansion e.g. HSM100BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>0r</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B B <sub>1</sub>	C	
100	3 <sup>11</sup> / <sub>16</sub>	HSM100	HSE311	653	783	31.20	1820	254.00	84.20	136.00
105	3 <sup>3</sup> / <sub>4</sub>	HSM105	HSE312	146800	176025	7014	1820	10.000	3.315	5.354
	4		HSE315							
			HSE400							
110	4 <sup>1</sup> / <sub>16</sub>	HSM110	HSE403	656	801	39.10	1640	266.70	87.30	147.00
115	4 <sup>1</sup> / <sub>4</sub>	HSM115	HSE404	147475	180072	8790	1640	10.500	3.437	5.787
120	4 <sup>1</sup> / <sub>2</sub>	HSM120	HSE407							
			HSE408							
125	4 <sup>15</sup> / <sub>16</sub>	HSM125	HSE415	753	974	49.00	1500	279.40	73.10 2.878	140.00
130	5	HSM130	HSE500	169281	218964	11016	1500	11.000	84.20 5.512	3.315
135	5 <sup>1</sup> / <sub>16</sub>	HSM135	HSE503	928	1265	58.80	1340	304.80	79.40 3.126	147.00
140	5 <sup>1</sup> / <sub>4</sub>	HSM140	HSE504	208623	284383	13219	1340	12.000	90.50 5.787	5.787
	5 <sup>1</sup> / <sub>2</sub>		HSE508						3.563	
150	5 <sup>11</sup> / <sub>16</sub>	HSM150	HSE511	1037	1325	69.40	1220	330.20	81.00 3.189	160.00
155	5 <sup>3</sup> / <sub>4</sub>	HSM155	HSE512	233127	297872	15602	1220	13.000	96.90 6.299	6.299
	6		HSE600						3.815	
160	6 <sup>1</sup> / <sub>16</sub>	HSM160	HSE607	1196	1576	79.20	1110	355.60	103.20 4.063	171.00
170	6 <sup>1</sup> / <sub>2</sub>	HSM170	HSE608	268871	354299	17805	1110	14.000	6.732	6.732
	6 <sup>11</sup> / <sub>16</sub>		HSE611							
175	6 <sup>3</sup> / <sub>4</sub>	HSM175	HSE612	1330	1867	89.00	1030	374.65	92.10 3.626	178.00
180	6 <sup>5</sup> / <sub>16</sub>	HSM180	HSE615	298996	419718	20008	1030	14.750	108.80 7.008	7.008
	7		HSE700						4.283	
190	7 <sup>1</sup> / <sub>4</sub>	HSM190	HSE704	1597	2285	99.60	880	419.10	97.70 3.846	191.00
200	7 <sup>1</sup> / <sub>2</sub>	HSM200	HSE708	359020	513688	22391	880	16.500	118.30 7.520	7.520
	8		HSE800						4.657	
220	8 <sup>1</sup> / <sub>2</sub>	HSM220	HSE808	1665	2455	109.40	760	469.90	109.60 4.315	212.00
230	8 <sup>5</sup> / <sub>8</sub>	HSM230	HSE814	374307	551906	24594	760	18.500	131.80 8.346	8.346
	9		HSE900						5.189	
240	9 <sup>1</sup> / <sub>2</sub>	HSM240	HSE908	1896	2789	130.80	700	482.60	105.60 4.157	211.00
260	9 <sup>3</sup> / <sub>4</sub>	HSM260	HSE912	426238	626992	29405	700	19.000	124.60 8.307	8.307
	10		HSE1000						4.906	

Housing Reference				
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Add HR for retained Add HX for expansion e.g. HSM100HR	G	F	L	L <sub>1</sub>	
HSE311					
HSM100	HSE312	308.00	95	200	206
HSM105	HSE315	12.126	3.7	7.9	8.1
	HSE400				
HSM110	HSE403				
HSM115	HSE404	323.85	102	210	222
HSM120	HSE407	12.750	4.0	8.3	8.7
	HSE408				
HSM125	HSE415	323.85	102	214	222
HSM130	HSE500	12.750	4.0	8.4	8.7
HSM135	HSE503				
HSM140	HSE504	355.60	108	216	230
	HSE507	14.000	4.3	8.5	9.1
	HSE508				
HSM150	HSE511				
HSM155	HSE512	393.70	114	232	254
	HSE515	15.500	4.5	9.1	10.0
	HSE600				
HSM160	HSE607	422.30	120	244	268
HSM170	HSE608	16.626	4.7	9.6	10.6
	HSE611				
HSM175	HSE612	431.80	132	254	284
HSM180	HSE615	17.000	5.2	10.0	11.2
	HSE700				
HSM190	HSE704				
HSM200	HSE708	489.00	146	270	300
	HSE715	19.252	5.7	10.6	11.8
	HSE800				
HSM220	HSE808	546.10	165	298	334
HSM230	HSE814	21.500	6.5	11.7	13.1
	HSE900				
HSM240	HSE908	558.80	165	298	334
HSM260	HSE912	22.000	6.5	11.7	13.1
	HSE1000				

# Heavy Series Support

## S54 - S63



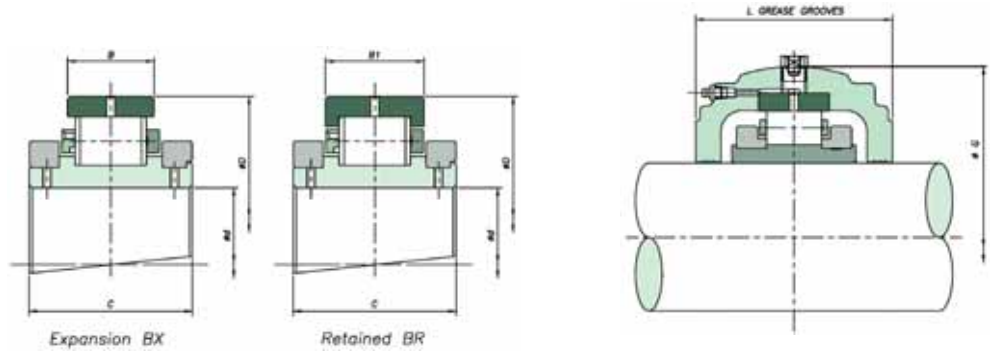
### S54 - S63

mm	Shaft (d) inch	Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
100	3 <sup>11</sup> / <sub>16</sub>	S54	191	38	405	438 x 82	514 x 152	4 x M24
105	3 <sup>3</sup> / <sub>4</sub>		7.520	1.5	15.9	17.2 x 3.2	20.2 x 6	
	4							
110	4 <sup>3</sup> / <sub>16</sub>	S55	197	38	425	458 x 88	534 x 166	4 x M24
115	4 <sup>1</sup> / <sub>4</sub>		7.756	1.5	16.7	18 x 3.5	21 x 6.5	
120	4 <sup>7</sup> / <sub>16</sub>							
125	4 <sup>1</sup> / <sub>2</sub>	S56	203	48	435	470 x 96	546 x 166	4 x M24
130	5		7.992	1.9	17.1	18.5 x 3.8	21.5 x 6.5	
135	5 <sup>3</sup> / <sub>16</sub>	S57	229	54	485	514 x 102	622 x 178	4 x M30
140	5 <sup>1</sup> / <sub>4</sub>		9.016	2.1	19.1	20.2 x 4	24.5 x 7	
	5 <sup>7</sup> / <sub>16</sub>							
150	5 <sup>1</sup> / <sub>2</sub>	S58	254	57	535	558 x 120	666 x 204	4 x M30
155	5 <sup>11</sup> / <sub>16</sub>		10.000	2.2	21.1	22 x 4.7	26.2 x 8	
	6							
160	6 <sup>1</sup> / <sub>16</sub>	S59	267	60	570	628 x 140	736 x 228	4 x M30
170	6 <sup>1</sup> / <sub>2</sub>		10.512	2.4	22.4	24.7 x 5.5	29 x 9	
	6 <sup>11</sup> / <sub>16</sub>							
175	6 <sup>3</sup> / <sub>4</sub>	S60	279	64	580	636 x 152	762 x 254	4 x M30
180	6 <sup>15</sup> / <sub>16</sub>		10.984	2.5	22.8	25 x 6	30 x 10	
	7							
190	7 <sup>1</sup> / <sub>4</sub>	S61	311	67	655	636 x 172	838 x 266	4 x M36
200	7 <sup>1</sup> / <sub>2</sub>		12.244	2.6	25.8	25 x 6.8	33 x 10.5	
	7 <sup>15</sup> / <sub>16</sub>							
220	8	S62	349	76	730	736 x 178	952 x 280	4 x M42
230	8 <sup>1</sup> / <sub>2</sub>		13.740	3.0	28.7	29 x 7	37.5 x 11	
	8 <sup>7</sup> / <sub>8</sub>							
240	9	S63	394	76	790	670 x 304	914 x 406	4 x M42
260	9 <sup>1</sup> / <sub>2</sub>		15.512	3.0	31.1	26.4 x 12	36 x 16	
	9 <sup>3</sup> / <sub>4</sub>							
	10							



# Heavy Series Bearing & Housing

280mm to 600mm



**Shaft (d) Reference Bearings Ratings**

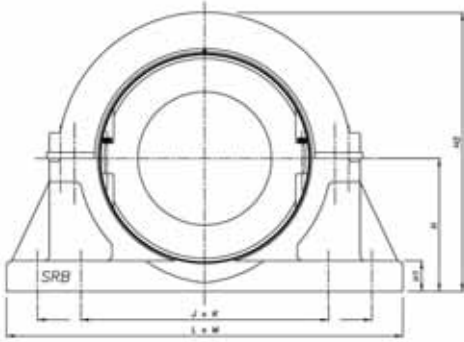
mm	inch	Add BR for retained Add BX for expansion e.g. HSM280BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>0r</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C
280	11	HSM280 HSE1100	2202 495029	3507 788405	153.00 34396	620	495.30 19.500	139.70 5.500	244.00 9.606
300	12	HSM300 HSE1200	2337 525379	3650 820553	174.40 39207	560	558.80 22.000	139.70 5.500	244.00 9.606
320	13	HSM320 HSE1300	2718 611031	4093 920143	198.80 44692	500	622.30 24.500	160.40 6.315	272.00 10.709
340	14	HSM340 HSE1400	2935	4973	213.60	460	615.95	158.00	279.00
360		HSM360	659814	1117975	48019		24.250	6.220	10.984
380	15	HSM380 HSE1500	3195	5238	250.80	420	685.80	166.70	292.00
400	16	HSM400 HSE1600	718265	1177550	56382		27.000	6.563	11.496
420	17	HSM420 HSE1700	3582	6377	275.80	360	700.00	160.00	284.00
440		HSM440	805266	1433607	62002		27.559	6.299	11.181
460	18	HSM460 HSE1800	3807	6611	302.40	340	740.00	170.00	294.00
				855848	1486212		67982	29.134	6.693
500	20	HSM500 HSE2000	4660	8183	347.00	310	850.90	187.40	300.00
530	21	HSM530 HSE2100	1047610	1839612	78009		33.500	7.378	11.811
560	22	HSM560 HSE2200	4795	9412	382.60	280	863.60	196.90	310.00
				1077959	2115902		86012	34.000	7.752
580	23	HSM580 HSE2300	4951	9451	400	270	890.00	184.00	310.00
600	24	HSM600 HSE2400	1113029	2124669	89924		35.039	7.244	12.205

**Housing Reference**

Add HR for retained Add HX for expansion e.g. HSM280HR	G	F	L	L <sub>1</sub>
HSM280 HSE1100	571.50 22.500	165 6.5	356 14.0	356 14.0
HSM300 HSE1108	641.40	165	346	370
HSM305 HSE1200	25.252	6.5	13.6	14.6
HSM320 HSE1208	717.60	170	368	-
HSM330 HSE1300	28.252	6.7	14.5	-
HSM340 HSE1400	704.90	196	432	-
HSM350 HSE1400	27.752	7.7	17.0	-
HSM380 HSE1500	774.70	202	400	-
HSM400 HSE1600	30.500	8.0	15.7	-
HSM420 HSE1700	788.00	200	440	-
	31.024	7.9	17.3	-
HSM440 HSE1800	840.00	200	450	-
HSM460 HSE1800	33.071	7.9	17.7	-
HSM500 HSE2000	958.90	204	495	-
HSM530 HSE2100	37.752	8.0	19.5	-
HSM560 HSE2200	958.90	204	490	-
	37.752	8.0	19.3	-
HSM580 HSE2300	990.00	204	490	-
HSM600 HSE2400	38.976	8.0	19.3	-

## Heavy Series Support

### S83 - S95



#### S83 - S95

Shaft (d)		Support Reference	H	H <sub>1</sub>	H <sub>2</sub>	J x K	L x M	Bolts
mm	inch							
280	11	S83	368 14.488	70 2.8	785 30.9	742 & 502 x 178 29.2 & 19.8 x 7	940 x 280 37 x 11	8 x M36
300	12	S65	457 17.992	76 3.0	915 36.0	876 & 674 x 330 34.5 & 26.5 x 13	1092 x 420 43 x 16.5	8 x M36
320	13	S66	518 20.394	80 3.1	1035 40.7	978 & 762 x 266 38.5 & 30 x 10.5	1194 x 356 47 x 14	8 x M36
340	14	S86	470	82	1000	928 & 660 x 190	1220 x 318	8 x M42
360			18.504	3.2	39.4	36.5 & 26 x 7.5	48 x 12.5	
380	15	S68	559	92	1120	1036 & 806 x 292	1270 x 394	8 x M42
400	16		22.008	3.6	44.1	40.8 & 31.7 x 11.5	50 x 15.5	
420	17	S89	508	90	1075	990 & 690 x 210	1270 x 360	8 x M48
440			20.000	3.5	42.3	39 & 27.2 x 8.3	50 x 14.2	
460	18	S90	550 21.654	95 3.7	1165 45.9	1080 & 780 x 220 42.5 & 30.7 x 8.7	1370 x 380 53.9 x 15	8 x M48
500	20	S94	622	102	1340	1270 & 940 x 242	1600 x 406	8 x M56
530	21		24.488	4.0	52.8	50 & 37 x 9.5	63 x 16	
560	22	S94	622 24.488	102 4.0	1340 52.8	1270 & 940 x 242 50 & 37 x 9.5	1600 x 406 63 x 16	8 x M56
580	23	S95	622	102	1340	1270 & 940 x 242	1600 x 406	8 x M56
600	24		24.488	4.0	52.8	50 & 37 x 9.5	63 x 16	

## Flange Units

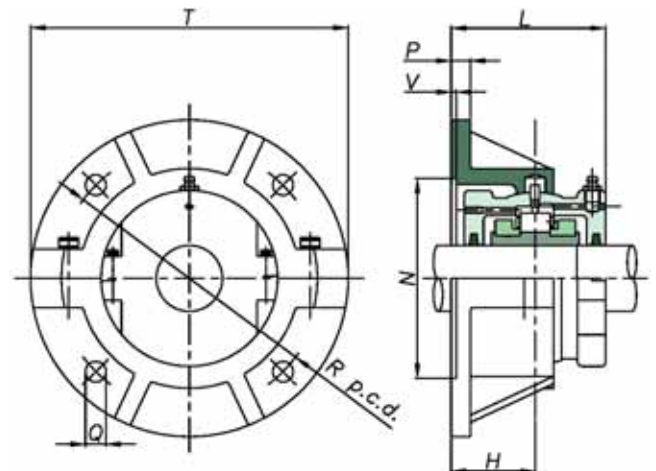
When faced with flat horizontal or vertical faces, flange units offer a simple mounting solution. As with Pillow block supports, Flange units are produced with spherical location to accommodate standard bearing housings and provide easy initial alignment of shaft and equipment.

To facilitate positive location of the flange to the surface, the rear face is recessed (dimensions N & V). This allows for a spigot (Tolerance f8) to be located into the flange.

Bearing inspection is simply a matter of removing the top half of the flange and housing. Bearing replacement may also be achieved in the same manner if required.

When integrating flange units into new applications, it should be noted that a maximum radial load equivalent to  $0.26C_{or}$  is permissible. A maximum axial load of  $0.25C_a$  must also be taken into account for applications with thrust loading. Units for vertically oriented shafts may also need special consideration given to sealing arrangements.

As always, SRB Technical Services will be happy to advise on any application issues.



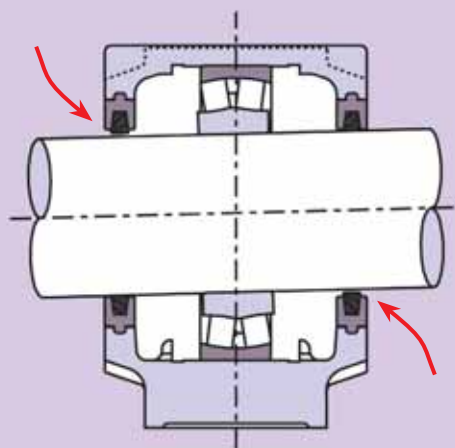
Flange Units																
Shaft (d) mm	inch	Flange Reference	T	Bolts	R	P	H	N	V	L						
125	4 <sup>15</sup> / <sub>16</sub>	F56	530	4 x M24	460	34	122	390.45	7	233						
130	5		20.9								18.1	1.3	4.8	15.372	0.3	9.2
150	5 <sup>11</sup> / <sub>16</sub>	F58	648	4 x M24	574	44	137	495.35	7	264						
155	5 <sup>15</sup> / <sub>16</sub>		25.5								22.6	1.7	5.4	19.502	0.3	10.4
175	6 <sup>3</sup> / <sub>4</sub>	F60	724	4 x M24	638	44	156	546.15	8	298						
180	6 <sup>15</sup> / <sub>16</sub>		28.5								25.1	1.7	6.1	21.502	0.3	11.7
240	9 <sup>1</sup> / <sub>2</sub>	F63	890	4 x M24	796	48	181	692.20	8	348						
250	9 <sup>3</sup> / <sub>4</sub>		35.0								31.3	1.9	7.1	27.252	0.3	13.7
260	10															

For Bearings and Housings see pages 47 – 50

## Sealing Arrangements

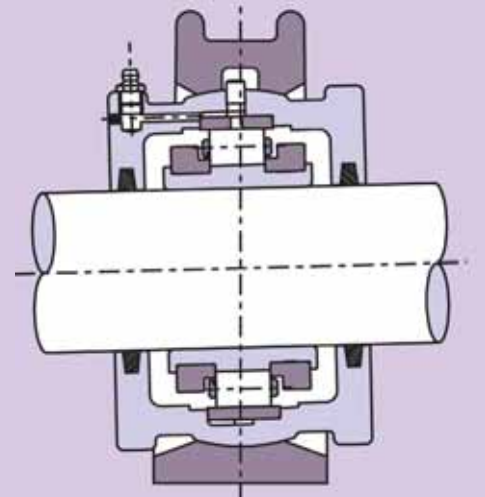
Any bearing, housing and support unit that is not suitably sealed against its surrounding environment is unlikely to achieve its full potential, either in terms of performance or life span. The prevention of ingress of foreign materials and contaminants is of paramount importance and should be considered as early in the selection process as possible.

A wide variety of sealing solutions are available to users of SRB products as "off the shelf" arrangements. This range will cover the vast majority of operating environments found throughout all industries. To cover those situations where a proprietary arrangement is not suitable, SRB Technical Services are able to work closely with designers and end users to develop and manufacture bespoke solutions tailored to specific applications.



Seal ineffective

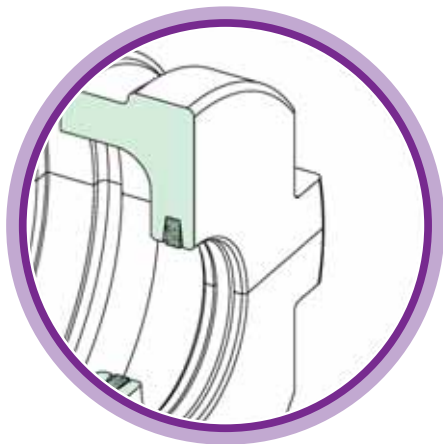
SRB units have inherent advantages over traditional solid bearing arrangements when considering sealing. The spherical location between housing and support ensures that whichever type of seal is used, it will always remain concentric to the shaft.



Seal remains concentric



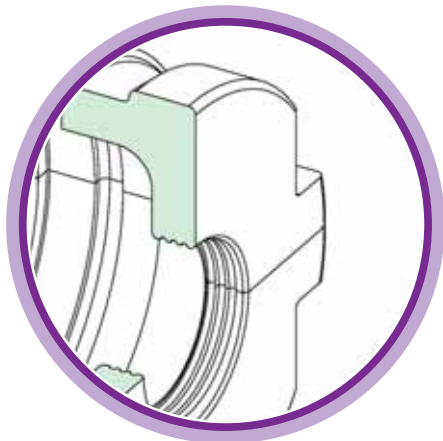
## Sealing Arrangements



### Felt Seal

This type of seal is supplied as standard with all SRB housings up to a bore size of 300mm. Consisting of felt strips made from blended fibres. Seals are supplied dry and need to be soaked in oil prior to fitting.

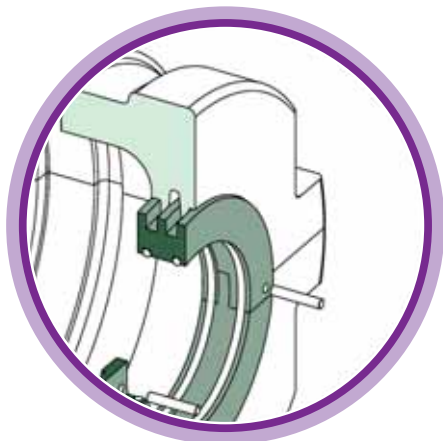
Max Speed	$dN(\text{mm}) \leq 150000$
Temp Range	$-60^{\circ}\text{C}$ to $+100^{\circ}\text{C}$
Shaft Finish	$1.6\mu\text{m Ra}$



### Labyrinth Grease Groove

For shaft sizes over 300mm, housings are supplied with a close fitting labyrinth groove machined into the housing. No additional seal is added. For harsh environments, alternative sealing arrangements are available.

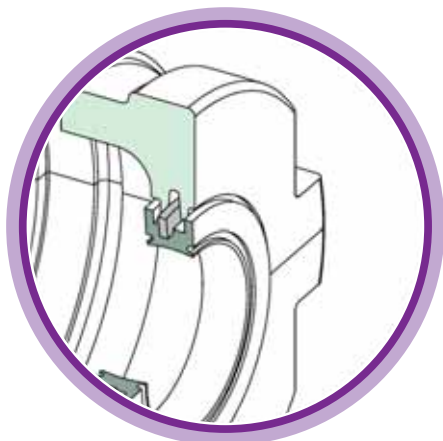
Max Speed	As Bearing
Temp Range	As Bearing
Shaft Finish	$3.2\mu\text{m Ra}$



### Aluminium Triple Labyrinth

A precision machined, non-contacting seal suitable for both high speed and general applications. Once fitted the seal revolves with the shaft. The seal grips the shaft via two split O-rings fitted to the bore of the seal. SRB Triple Labyrinth seals are fitted with high temperature Viton cord as standard.

Max Speed	As Bearing
Temp Range	$-20^{\circ}\text{C}$ to $+175^{\circ}\text{C}$
Shaft Finish	$3.2\mu\text{m Ra}$
Suffix Letters	<b>ATL</b>

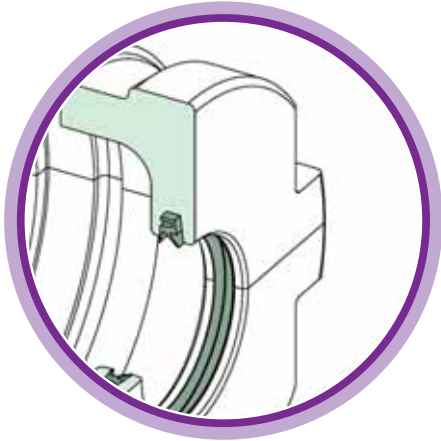


### Neoprene Triple Labyrinth

The seal is moulded from Neoprene rubber and incorporates a steel centre band. This steel pressing has ends which form an interlocking arrangement and hence secure the seal to the shaft. The seal can be used where restrictions prevent the use of Aluminium (e.g. Mining).

Max Speed	$dN(\text{mm}) \leq 150000$
Temp Range	$-20^{\circ}\text{C}$ to $+100^{\circ}\text{C}$
Shaft Finish	$3.2\mu\text{m Ra}$
Suffix Letters	<b>NTL</b>





## Nitrile Single Lip

For environments involving moderate liquid splashing but not submersion. Should be avoided where abrasive particles are also present as this can lead to shaft wear in the seal area. High temperature versions are also available.

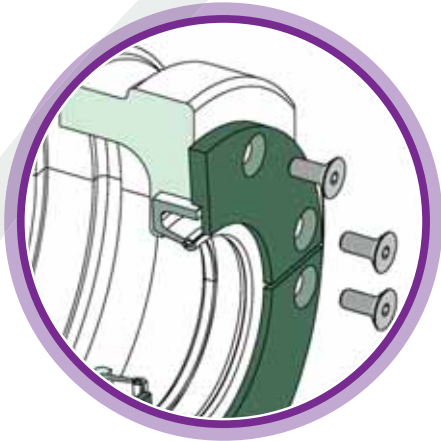
Max Speed	dN(mm) $\leq$ 150000
Temp Range	-20°C to +100°C
Shaft Finish	3.2µm Ra
Suffix Letters	<b>RSS (RSSHT for high temperature)</b>



## High Temperature Packing

A self-lubricating seal based around PTFE and graphite. In order to utilise the highest quality materials available, SRB housings for high temperature applications are machined to suit the High Temperature Packing used.

Max Speed	dN(mm) $\leq$ 150000
Temp Range	-60°C to +300°C
Shaft Finish	1.2µm Ra
Suffix Letters	<b>HTPS</b>



## Single Lip with Garter Spring and Retaining Plate

A more specialised seal for very wet environments with heavy splash. This type of seal is NOT suitable for continuous submersion without due consideration being given to sealing of the housing joint and any other possible points of liquid entry. Please consult SRB Technical Services for more information.

Max Speed	dN(mm) $\leq$ 150000
Temp Range	-20°C to +100°C
Shaft Finish	0.8µm Ra
Suffix Letters	<b>WSRP</b>



## Kevlar Packing Seal

This recent addition to the sealing range has proved highly effective in areas having the potential for fine particle contaminants such as cement or ash. Please consult SRB technical services for more information.

Max Speed	As bearing
Temp Range	-100°C to +280°C
Shaft Finish	1.6µm Ra
Suffix Letters	<b>KPS</b>

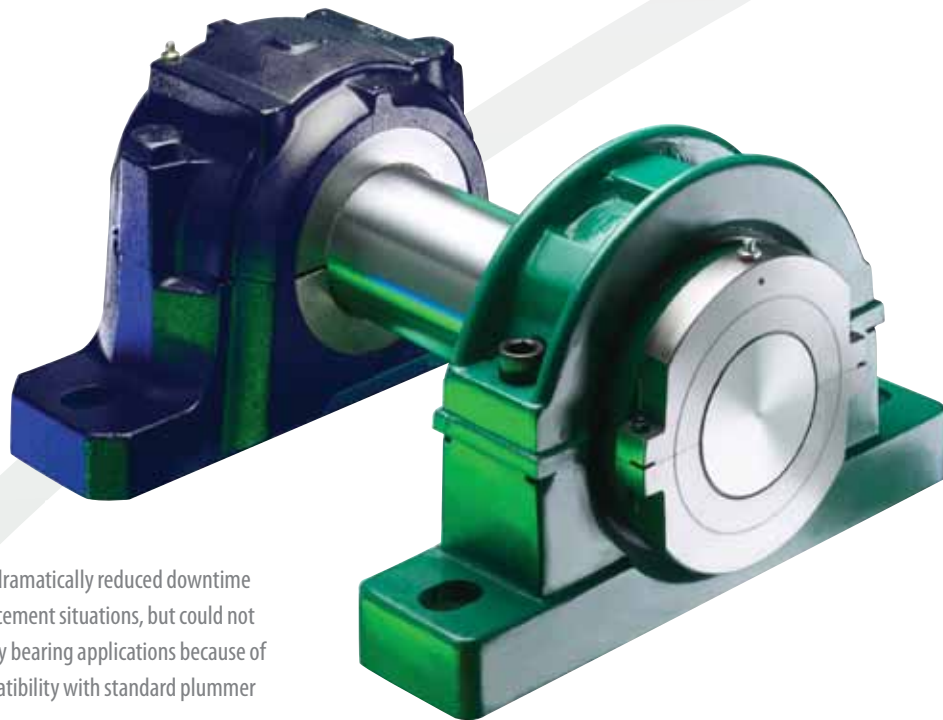
## Triple Labyrinth Housing and Seal References

Light Series					Medium Series					Heavy Series				
Shaft (d)		Triple Labyrinth Seal Reference		Housing Reference	Shaft (d)		Triple Labyrinth Seal Reference		Housing Reference	Shaft (d)		Triple Labyrinth Seal Reference		Housing Reference
mm	inch	mm	inch	Retained Expansion	mm	inch	mm	inch	Retained Expansion	mm	inch	mm	inch	Retained Expansion
35	1 <sup>3</sup> / <sub>16</sub>	35MMATL	103ATL	LS1HRTL										
40	1 <sup>1</sup> / <sub>4</sub>	40MMATL	104ATL	LS1HXTL										
	1 <sup>7</sup> / <sub>16</sub>		107ATL											
	1 <sup>1</sup> / <sub>2</sub>		108ATL											
45	1 <sup>11</sup> / <sub>16</sub>	45MMATL	111ATL	LS2HRTL										
50	1 <sup>3</sup> / <sub>4</sub>	50MMATL	112ATL	LS2HXTL										
	1 <sup>15</sup> / <sub>16</sub>		115ATL											
	2		200ATL											
55	2 <sup>3</sup> / <sub>16</sub>	55MMATL	203ATL	LS3HRTL										
60	2 <sup>1</sup> / <sub>4</sub>	60MMATL	204ATL	LS3HXTL										
65	2 <sup>7</sup> / <sub>16</sub>	65MMATL	207ATL											
	2 <sup>1</sup> / <sub>2</sub>		208ATL											
70	2 <sup>11</sup> / <sub>16</sub>	70MMATL	211ATL	LS4HRTL										
75	2 <sup>3</sup> / <sub>4</sub>	75MMATL	212ATL	LS4HXTL										
	2 <sup>15</sup> / <sub>16</sub>		215ATL											
	3		300ATL											
80	3 <sup>3</sup> / <sub>16</sub>	80MMATL	303ATL	LS5HRTL										
85	3 <sup>1</sup> / <sub>4</sub>	85MMATL	304ATL	LS5HXTL										
90	3 <sup>7</sup> / <sub>16</sub>	90MMATL	307ATL											
	3 <sup>1</sup> / <sub>2</sub>		308ATL											
100	3 <sup>11</sup> / <sub>16</sub>	100MMATL	311ATL	LS6HRTL										
105	3 <sup>3</sup> / <sub>4</sub>	105MMATL	312ATL	LS6HXTL										
	3 <sup>15</sup> / <sub>16</sub>		315ATL											
	4		400ATL											
110	4 <sup>3</sup> / <sub>16</sub>	110MMATL	403ATL	LS7HRTL										
115	4 <sup>1</sup> / <sub>4</sub>	115MMATL	404ATL	LS7HXTL										
	4 <sup>7</sup> / <sub>16</sub>		407ATL											
	4 <sup>1</sup> / <sub>2</sub>		408ATL											
120	4 <sup>11</sup> / <sub>16</sub>	120MMATL	411ATL	LS8HRTL										
125	4 <sup>3</sup> / <sub>4</sub>	125MMATL	412ATL	LS8HXTL										
130	4 <sup>15</sup> / <sub>16</sub>	130MMATL	415ATL											
	5		500ATL											
135	5 <sup>3</sup> / <sub>16</sub>	135MMATL	503ATL	LS9HRTL										
140	5 <sup>1</sup> / <sub>4</sub>	140MMATL	504ATL	LS9HXTL										
	5 <sup>7</sup> / <sub>16</sub>		507ATL											
	5 <sup>1</sup> / <sub>2</sub>		508ATL											
150	5 <sup>11</sup> / <sub>16</sub>	150MMATL	511ATL	LS10HRTL										
155	5 <sup>3</sup> / <sub>4</sub>	155MMATL	512ATL	LS10HXTL										
	5 <sup>15</sup> / <sub>16</sub>		515ATL											
	6		600ATL											
160	6 <sup>1</sup> / <sub>16</sub>	160MMATL	607ATL	LS11HRTL										
	6 <sup>1</sup> / <sub>2</sub>		608ATL	LS11HXTL										
170	6 <sup>11</sup> / <sub>16</sub>	170MMATL	611ATL	LS12HRTL										
175	6 <sup>3</sup> / <sub>4</sub>	175MMATL	612ATL	LS12HXTL										
180	6 <sup>15</sup> / <sub>16</sub>	180MMATL	615ATL											
	7		700ATL											
190	7 <sup>1</sup> / <sub>4</sub>	190MMATL	704ATL	LS13HRTL										
200	7 <sup>1</sup> / <sub>2</sub>	200MMATL	708ATL	LS13HXTL										
	7 <sup>15</sup> / <sub>16</sub>		715ATL											
	8		800ATL											
220	8 <sup>1</sup> / <sub>2</sub>	220MMATL	808ATL	LS14HRTL										
230	8 <sup>7</sup> / <sub>8</sub>	230MMATL	814ATL	LS14HXTL										
	9		900ATL											
240	9 <sup>1</sup> / <sub>2</sub>	240MMATL	908ATL	LS15HRTL										
250	9 <sup>3</sup> / <sub>4</sub>	250MMATL	912ATL	LS15HXTL										
	10		1000ATL											
260	10 <sup>1</sup> / <sub>2</sub>	260MMATL	1008ATL	LS16HRTL										
270	10 <sup>3</sup> / <sub>4</sub>	270MMATL	1012ATL	LS16HXTL										
280	11	280MMATL	1100ATL											
300	11 <sup>1</sup> / <sub>2</sub>	300MMATL	1108ATL	LS17HRTL										
305	12	305MMATL	1200ATL	LS17HXTL										

The most popular sealing solution for split roller bearings after the standard felt seal is the Triple Labyrinth. This non-contacting seal offers resistance to contaminant ingress at speeds greater than can be accommodated by other seal types (see page 53).

## SN/SD Bearings

The New compact Split Plummer Block Bearing from SRB is the first split cylindrical roller bearing assembly to be interchangeable with standard SN and SD series plummer blocks, bringing the benefits of a split design to a much wider audience.



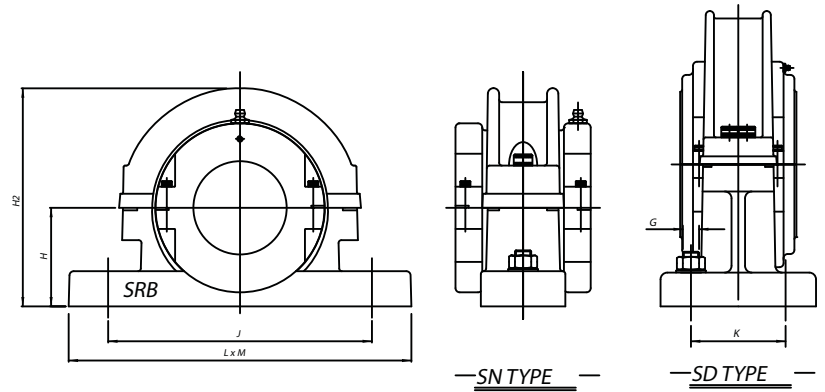
Split roller bearings offer dramatically reduced downtime in maintenance and replacement situations, but could not previously be used in many bearing applications because of their dimensional incompatibility with standard plummer block sizes.

Cast iron plummer blocks accommodating adaptor sleeve mounted spherical roller bearings are amongst the most common types in use, supporting rotating shafts in everything from conveyors and fans to line shafts. Yet their replacement is often time consuming and difficult due to the removal of adjacent equipment. Replacing a typical bearing mounted in a cast iron plummer block can take anything from 6 hours to several days, in contrast, it can take as little as 1–2 hours to replace an SRB bearing unit.

### Key benefits of the Split Plummer Block are:

- | SRB SN & SD Series supports dimensionally interchangeable with the SN5.. and SD31.. range of plummer blocks.
- | Significant reductions in the time required to change trapped bearings.
- | Savings in downtime, improved machine availability.
- | Simplified mounting procedures, no feeler gauges.
- | Improved sealing efficiency, seals remain concentric to the shaft, unlike spherical roller bearings.
- | Efficient use of Maintenance Engineering resources.
- | Improved reliability, able to accommodate thermal expansion of the shaft within the bearing envelope.

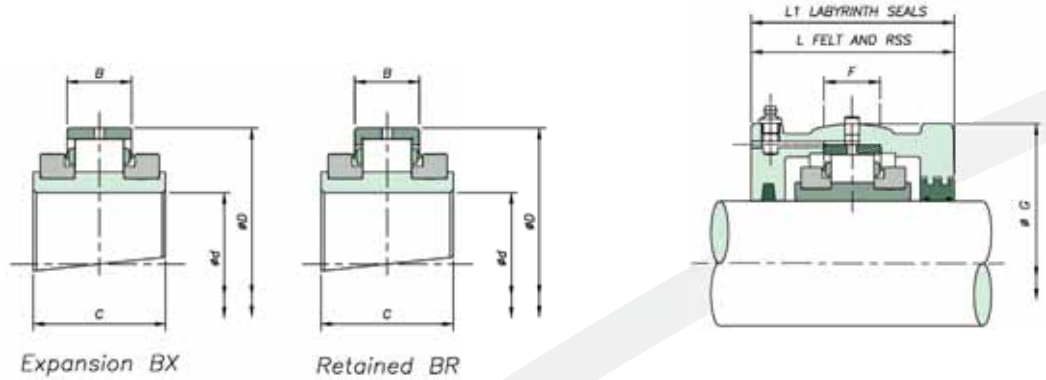
## Light SN/SD Range



### SN SD

Shaft (d) mm	SRB Reference	SN/SD Reference	H	H <sub>2</sub>	J x K	L x M	G
35	SN01	SN 508	60	135	170	205 x 60	12
40		SN 509					
50	SN02	SN 511	70	155	210	255 x 70	16
60	SN03	SN 513	80	180	234	275 x 70	16
65	SN03A	SN 515	80	180	234	280 x 70	16
70	SN04	SN 516	95	208	260	315 x 90	20
75		SN 517					
80	SN05	SN 518	100	230	290	345 x 100	20
85	SN05A	SN 519	112	242	290	345 x 100	20
90	SN05B	SN 520	112	242	320	380 x 110	24
100	SN06	SN 522	125	265	350	410 x 120	24
110	SN07	SN 524	140	300	350	410 x 120	24
115	SN07A	SN 526	150	310	380	445 x 130	24
125	SN08	SN 528	150	354	420	500 x 150	30
135	SN09	SN 530	160	369	450	530 x 160	30
140	SN09A	SN 532	170	379	470	550 x 160	30
150	SD10	SD 3134	170	379	430 x 100	510 x 180	24
160	SD11	SD 3136	180	396	450 x 110	530 x 190	24
170	SD12	SD 3138	190	417	480 x 120	560 x 210	24
180	SD12A	SD 3140	210	437	510 x 130	610 x 230	30
200	SD13	SD 3144	220	457	540 x 140	640 x 240	30
220	SD14	SD 3148	240	510	600 x 150	700 x 260	30
240	SD15	SD 3152	260	545	650 x 160	770 x 280	36
260	SD16	SD 3156	280	589	670 x 160	790 x 280	36
280	SD16A	SD 3160	300	609	710 x 190	830 x 310	36
300	SD17	SD3164	320	662	750 x 200	880 x 330	36

# Bearing & Housings

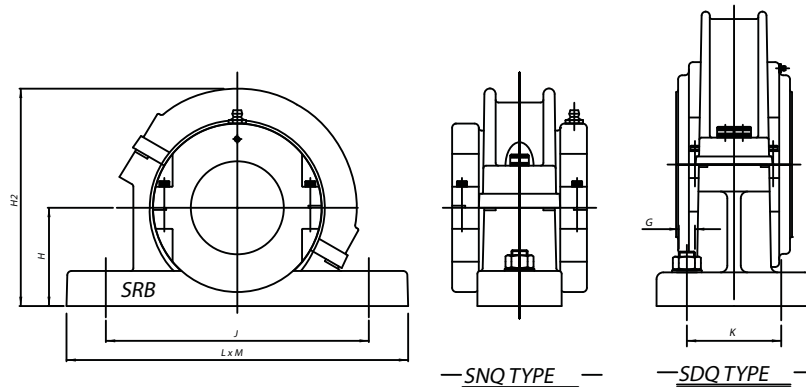


Shaft (d)		Reference	Bearings Ratings				Housing Reference						
mm	Add BR for retained Add BX for expansion e.g. LSM35BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>r</sub> (kN/lb)	Axial C <sub>r</sub> (kN/lb)	Max RPM	D	B	C	Add HR for retained Add HX for expansion e.g. LSM35HR	G	F	L	L <sub>1</sub>
35	LSM35	65	68	3.20	5400	84.14	23.80	55.00	LSM35	100.00	25	84	86
40	LSM40	14613	15287	719.38		3.313	0.937	2.165	LSM40	3.937	1.0	3.3	3.4
50	LSM50	83	87	3.60	4630	98.42	25.40	60.00	LSM50	117.48	25	96	98
		18659	19558	809.30		3.875	1.000	2.362		4.625	1.0	3.8	3.9
60	LSM60	103	115	5.40	3940	114.30	27.00	60.00	LSM60	134.94	32	102	104
65	LSM65	23155	25853	1213.95		4.500	1.063	2.362	LSM65	5.313	1.3	4.0	4.1
70	LSM70	138	161	7.60	3310	133.35	31.80	65.00	LSM70	157.16	38	112	114
75	LSM75	31024	36194	1708.53		5.250	1.252	2.559	LSM75	6.187	1.5	4.4	4.5
80	LSM80	187	231	12.40	2790	152.40	38.90	75.00	LSM80	177.80	50	134	136
85	LSM85	42039	51931	2787.59		6.000	1.531	2.953	LSM85	7.000	2.0	5.3	5.4
90	LSM90								LSM90				
100	LSM100	288	366	16.00	2340	174.62	45.30	85.00	LSM100	203.20	50	132	134
		64745	82280	3596.90		6.875	1.783	3.346		8.000	2.0	5.2	5.3
110	LSM110	316	427	18.60	1970	203.20	46.90	90.00	LSM110	231.78	64	140	142
115	LSM115	71040	95993	4181.39		8.000	1.846	3.543	LSM115	9.125	2.5	5.5	5.6
125	LSM125	363	496	22.20	1740	222.25	54.00	95.00	LSM125	266.70	76	154	156
		81606	111505	4990.69		8.750	2.126	3.740		10.500	3.0	6.1	6.1
135	LSM135	422	585	25.80	1570	241.30	55.60	98.40	LSM135	279.40	76	166	168
140	LSM140	94869	131513	5799.99		9.500	2.189	3.874	LSM140	11.000	3.0	6.5	6.6
150	LSM150	459	664	29.40	1450	254.00	55.60	98.40	LSM150	295.28	82	172	174
		103187	149273	6609.30		10.000	2.189	3.874		11.625	3.2	6.8	6.9
160	LSM160	583	792	33.00	1320	273.05	60.30	109.00	LSM160	311.15	76	172	192
		131064	178049	7419		10.750	2.374	4.291		12.250	3.0	6.8	7.6
170	LSM170	524	828	36.40	1220	285.75	55.50	109.00	LSM170	323.85	70	172	200
180	LSM180	117800	186142	8183		11.250	2.185	4.291	LSM180	12.750	2.8	6.8	7.9
200	LSM200	614	990	41.00	1070	311.15	60.30	106.00	LSM200	358.78	86	172	200
		138033	222561	9217		12.250	2.374	4.173		14.125	3.4	6.8	7.9
220	LSM220	708	1168	49.00	930	342.90	63.50	115.00	LSM220	387.35	82	178	216
		159165	262577	11016		13.500	2.500	4.528		15.250	3.2	7.0	8.5
240	LSM240	744	1289	57.80	820	374.65	66.70	122.00	LSM240	419.10	90	188	222
		167258	289779	12994		14.750	2.626	4.803		16.500	3.5	7.4	8.7
260	LSM260	848	1502	66.80	730	406.40	69.00	128.00	LSM260	454.00	95	204	232
280	LSM280	190638	337663	15017		16.000	2.717	5.039	LSM280	17.874	3.7	8.0	9.1
300	LSM300	929	1665	78.20	650	438.15	74.60	143.00	LSM300	489.00	98	216	248
		208848	374307	17580		17.250	2.937	5.630		19.252	3.9	8.5	9.8

Product Range - Light SN/SD Range / Bearing & Housings



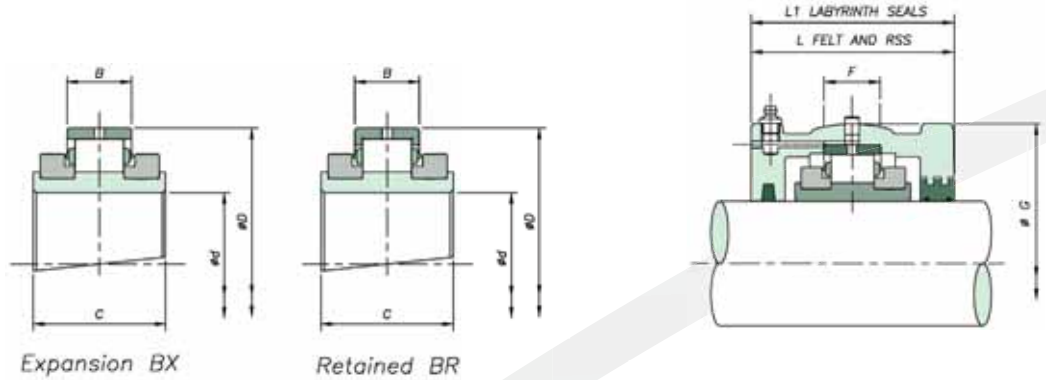
## Light SNQ/SDQ Range



### SN SD

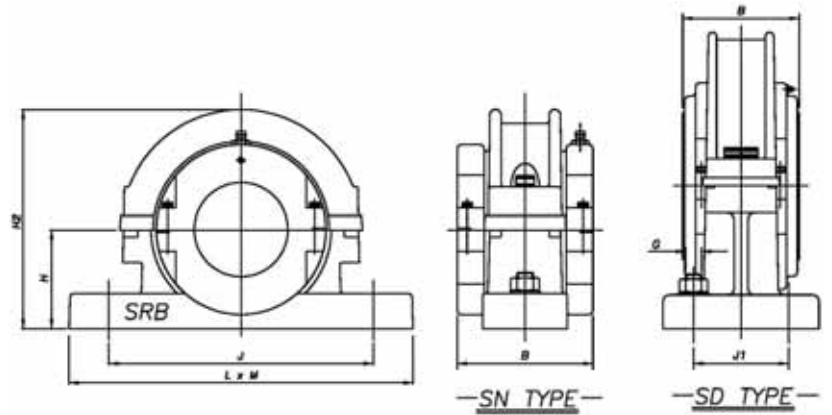
Shaft (d) mm	SRB Reference	SN/SD Reference	H	H <sub>2</sub>	J x K	L x M	G
35	SNQ01	SN 508	60	135	170	205 x 60	12
40		SN 509					
50	SNQ02	SN 511	70	155	210	255 x 70	16
60	SNQ03	SN 513	80	180	234	275 x 70	16
65	SNQ03A	SN 515	80	180	234	280 x 70	16
70	SNQ04	SN 516	95	208	260	315 x 90	20
75		SN 517					
80	SNQ05	SN 518	100	230	290	345 x 100	20
85	SNQ05A	SN 519	112	242	290	345 x 100	20
90	SNQ05B	SN 520	112	242	320	380 x 110	24
100	SNQ06	SN 522	125	265	350	410 x 120	24
110	SNQ07	SN 524	140	300	350	410 x 120	24
115	SNQ07A	SN 526	150	310	380	445 x 130	24
125	SNQ08	SN 528	150	354	420	500 x 150	30
135	SNQ09	SN 530	160	369	450	530 x 160	30
140	SNQ09A	SN 532	170	379	470	550 x 160	30
150	SDQ10	SD 3134	170	379	430 x 100	510 x 180	24
160	SDQ11	SD 3136	180	396	450 x 110	530 x 190	24
170	SDQ12	SD 3138	190	417	480 x 120	560 x 210	24
180	SDQ12A	SD 3140	210	437	510 x 130	610 x 230	30
200	SDQ13	SD 3144	220	457	540 x 140	640 x 240	30
220	SDQ14	SD 3148	240	510	600 x 150	700 x 260	30
240	SDQ15	SD 3152	260	545	650 x 160	770 x 280	36
260	SDQ16	SD 3156	280	589	670 x 160	790 x 280	36
280	SDQ16A	SD 3160	300	609	710 x 190	830 x 310	36
300	SDQ17	SD3164	320	662	750 x 200	880 x 330	36

# Bearing & Housings



Shaft (d)		Reference	Bearings Ratings				Housing Reference						
mm	Add BR for retained Add BX for expansion e.g. LSM35BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>r</sub> (kN/lb)	Axial C <sub>r</sub> (kN/lb)	Max RPM	D	B	C	Add HR for retained Add HX for expansion e.g. LSM35HR	G	F	L	L <sub>1</sub>
35	LSM35	65	68	3.20	5400	84.14	23.80	55.00	LSM35	100.00	25	84	86
40	LSM40	14613	15287	719.38		3.313	0.937	2.165	LSM40	3.937	1.0	3.3	3.4
50	LSM50	83 18659	87 19558	3.60 809.30	4630	98.42 3.875	25.40 1.000	60.00 2.362	LSM50	117.48 4.625	25 1.0	96 3.8	98 3.9
60	LSM60	103	115	5.40	3940	114.30	27.00	60.00	LSM60	134.94	32	102	104
65	LSM65	23155	25853	1213.95		4.500	1.063	2.362	LSM65	5.313	1.3	4.0	4.1
70	LSM70	138	161	7.60	3310	133.35	31.80	65.00	LSM70	157.16	38	112	114
75	LSM75	31024	36194	1708.53		5.250	1.252	2.559	LSM75	6.187	1.5	4.4	4.5
80	LSM80	187	231	12.40	2790	152.40	38.90	75.00	LSM80	177.80	50	134	136
85	LSM85	42039	51931	2787.59		6.000	1.531	2.953	LSM85	7.000	2.0	5.3	5.4
90	LSM90								LSM90				
100	LSM100	288 64745	366 82280	16.00 3596.90	2340	174.62 6.875	45.30 1.783	85.00 3.346	LSM100	203.20 8.000	50 2.0	132 5.2	134 5.3
110	LSM110	316	427	18.60	1970	203.20	46.90	90.00	LSM110	231.78	64	140	142
115	LSM115	71040	95993	4181.39		8.000	1.846	3.543	LSM115	9.125	2.5	5.5	5.6
125	LSM125	363 81606	496 111505	22.20 4990.69	1740	222.25 8.750	54.00 2.126	95.00 3.740	LSM125	266.70 10.500	76 3.0	154 6.1	156 6.1
135	LSM135	422	585	25.80	1570	241.30	55.60	98.40	LSM135	279.40	76	166	168
140	LSM140	94869	131513	5799.99		9.500	2.189	3.874	LSM140	11.000	3.0	6.5	6.6
150	LSM150	459 103187	664 149273	29.40 6609.30	1450	254.00 10.000	55.60 2.189	98.40 3.874	LSM150	295.28 11.625	82 3.2	172 6.8	174 6.9
160	LSM160	583 131064	792 178049	33.00 7419	1320	273.05 10.750	60.30 2.374	109.00 4.291	LSM160	311.15 12.250	76 3.0	172 6.8	192 7.6
170	LSM170	524	828	36.40	1220	285.75	55.50	109.00	LSM170	323.85	70	172	200
180	LSM180	117800	186142	8183		11.250	2.185	4.291	LSM180	12.750	2.8	6.8	7.9
200	LSM200	614 138033	990 222561	41.00 9217	1070	311.15 12.250	60.30 2.374	106.00 4.173	LSM200	358.78 14.125	86 3.4	172 6.8	200 7.9
220	LSM220	708 159165	1168 262577	49.00 11016	930	342.90 13.500	63.50 2.500	115.00 4.528	LSM220	387.35 15.250	82 3.2	178 7.0	216 8.5
240	LSM240	744 167258	1289 289779	57.80 12994	820	374.65 14.750	66.70 2.626	122.00 4.803	LSM240	419.10 16.500	90 3.5	188 7.4	222 8.7
260	LSM260	848	1502	66.80	730	406.40	69.00	128.00	LSM260	454.00	95	204	232
280	LSM280	190638	337663	15017		16.000	2.717	5.039	LSM280	17.874	3.7	8.0	9.1
300	LSM300	929 208848	1665 374307	78.20 17580	650	438.15 17.250	74.60 2.937	143.00 5.630	LSM300	489.00 19.252	98 3.9	216 8.5	248 9.8

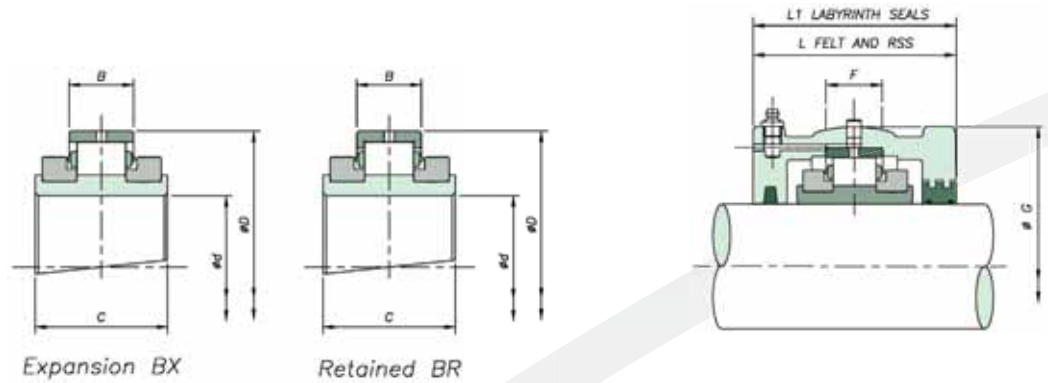
## Medium SN/SD Range



### SN SD

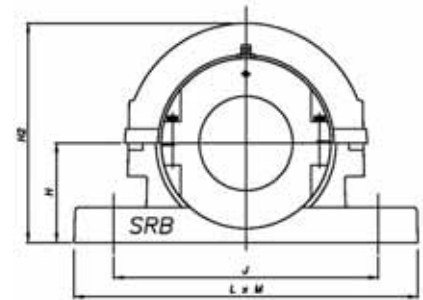
Shaft (d) mm	Description	Support Reference	SD Reference	H	J x K	L x M
140	MSM140B	SN09B	SNL532	170	470	550 x 160
150	MSM150B	SD30	SD3134 SNL3134	170	430 x 100	510 x 180
160	MSM160B	SD31	SD3136 SNL3136	180	450 x 110	530 x 190
170	MSM170B	SD32	SD3138 SNL3138	190	480 x 120	560 x 210
180	MSM180B	SD33	SD3140 SNL3140	210	510 x 130	610 x 230
200	MSM200B	SD34	SD3144 SNL3144	220	540 x 140	640 x 240
220	MSM220B	SD35	SD3148 SNL3148	250	600 x 150	700 x 260
240	MSM240B	SD36	SD3152 SNL3152	270	650 x 160	770 x 280
260	MSM260B	SD36A	SD3156 SNL3156	280	670 x 160	790 x 280
280	MSM280B	SD37	SD3160 SNL3160	300	710 x 190	830 x 310
300	MSM300B	SD38	SD3164 SNL3164	320	750 x 200	880 x 330
320	MSM320B	SD39	SNL3168L	340	810 x 220	950 x 360
340	MSM340B	SD40	SNL3172L	350	840 x 220	1000 x 360
360	MSM360B	SD40A	SNL3176L	360	870 x 220	1040 x 360
380	MSM380B	SD41	SNL3180L	380	950 x 240	1120 x 390
400	MSM400B	SD42	SNL3184L	410	1000 x 260	1170 x 420

## Bearing & Housings



Shaft (d)		Reference		Bearings Ratings					Housing Reference				
mm	Description	Dynamic $C_r$ (kN/lb)	Static $C_{or}$ (kN/lb)	Axial $C_a$ (kN/lb)	Max RPM	D	B	C	Housing	G	F	L	L <sub>1</sub>
140	MSM140	600 134885	817 183669	45.50 10229	1450	273.05 10.750	66.70 2.626	117.50 4.626	MSM140	323.95 12.754	90 3.5	186 7.3	188 7.4
150	MSM150A	600 134885	817 183669	45.40 10206	1450	273.05 10.750	66.70 2.626	117.50 4.626	MSM150A	336.55 13.250	95 3.7	202 8.0	204 8.0
160	MSM160A	730 164111	1034 232452	52.40 11780	1320	292.10 11.500	68.30 2.689	123.80 4.874	MSM160A	336.55 13.250	95 3.7	202 8.0	204 8.0
170	MSM170	842 189289	1175 264151	61.40 13803	1200	317.50 12.500	83.30 3.280	140.00 5.512	MSM170	368.30 14.500	95 3.7	206 8.1	232 9.1
180	MSM180	927 208398	1357 305066	71.20 16006	1120	330.20 13.000	83.30 3.280	140.00 5.512	MSM180	381.00 15.000	95 3.7	222 8.7	242 9.5
200	MSM200	1013 227731	1516 340810	80.00 17985	960	368.30 14.500	90.50 3.563	156.00 6.142	MSM200	425.00 16.732	105 4.1	235 9.3	253 10.0
220	MSM220	1138 255833	1668 374981	89.80 20188	850	393.70 15.500	90.50 3.563	163.00 6.147	MSM220	457.20 18.000	110 4.3	242 9.5	274 10.8
240	MSM240	1354 304391	2117 475921	98.80 22211	750	431.80 17.000	96.80 3.811	170.00 6.693	MSM240	495.30 19.500	118 4.6	248 9.8	280 11.0
260	MSM260	1354 304391	2117 475921	98.80 22211	750	431.80 17.000	96.80 3.811	170.00 6.693	MSM260	495.30 19.500	118 4.6	248 9.8	280 11.0
280	MSM280	1476 331818	2357 529875	113.80 25583	670	463.55 18.250	101.60 4.000	186.00 7.323	MSM280	527.10 20.752	130 5.1	264 10.4	300 11.8
300	MSM300	1587 356771	2644 594395	129.00 29000	610	495.30 19.500	103.20 4.063	193.00 7.598	MSM300	552.50 21.752	128 5.0	268 10.6	306 12.0
320	MSM320	1723 387346	2922 656892	144.20 32417	550	527.05 20.750	106.40 4.189	192.00 7.559	MSM320	587.40 23.126	128 5.0	298 11.7	
340	MSM340	1989 447145	3403 765025	159.20 35790	500	565.15 22.250	115.90 4.563	200.00 7.874	MSM340	628.70 24.752	146 5.7	305 12.0	
360	MSM360	1989 447145	3403 765025	159.20 35790	500	565.15 22.250	115.90 4.563	200.00 7.874	MSM360	628.70 24.752	146 5.7	305 12.0	
380	MSM380	1931 434106	3522 791777	174.40 39207	460	584.20 23.000	111.10 4.374	200.00 7.874	MSM380	628.70 24.752	146 5.7	305 12.0	
400	MSM400	2105 473223	3793 852700	188.40 42354	430	615.95 24.250	115.90 4.563	200.00 7.874	MSM400	685.80 27.000	146 5.7	324 12.8	

## SAFR 2 Bolt Pedestal/SAFR 4 Bolt Pedestal

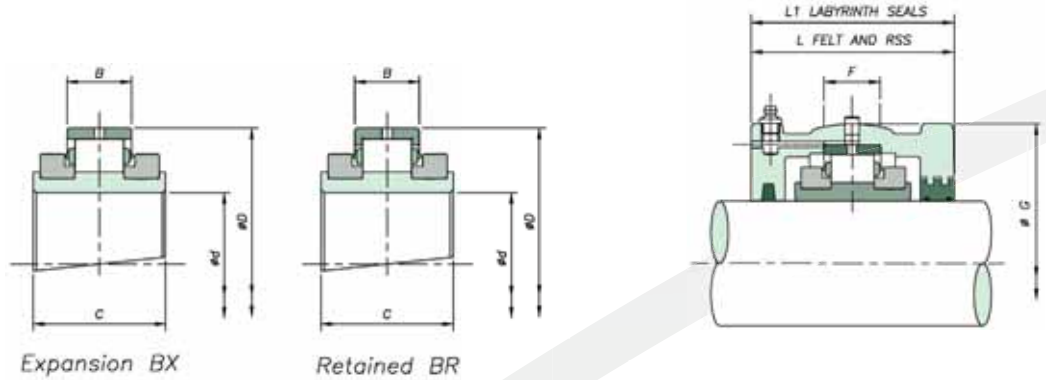


SAFR 2 Bolt Pedestal / SAFR 4 Bolt Pedestal

Shaft (d) mm	Complete Assembly	Additional Bearing Sizes	H	J	S	Bolt Sizes	B	L	M	H
1 15/16"	LSE115HSSAFR511AT	1 11/16", 1 3/4", 2" 45mm, 50mm	2 3/4"	7 5/8"	-	2 x 5/8"	3 13/16"	9 5/8"	2 3/4"	6 1/8"
2 3/16"	LSE203HSSAFR513AT	2 1/4", 2 7/16", 2 1/2" 60mm, 65mm	3"	9 13/16"	-	2 x 5/8"	4 1/16"	11"	3 1/8"	7"
2 7/16"	LSE207HSSAFR515AT	2 3/16", 2 1/4", 2 1/2" 60mm, 65mm	3 1/4"	9 1/8"	-	2 x 5/8"	4 1/16"	11 1/4"	3 1/8"	7 1/4"
2 11/16"	LSE211HSSAFR516AT	2 3/4", 2 15/16", 3" 70mm, 75mm	3 1/2"	10 5/16"	-	2 x 3/4"	4 1/2"	13"	3 1/2"	8"
2 15/16"	LSE215HSSAFR517AT	2 11/16", 2 3/4", 3" 70mm, 75mm	3 3/4"	10 7/16"	-	2 x 3/4"	4 1/2"	13"	3 1/2"	8 1/4"
2 15/16"	MSE215HSSAFR517AT	2 11/16", 2 3/4", 3" 70mm, 75mm	3 3/4"	10 7/16"	2 1/8"	4 x 5/8"	5 1/2"	13"	3 1/2"	8 1/2"
3 3/16"	LSE303HSSAFR518AT	3 1/4", 3 7/16", 3 7/16" 80mm, 85mm, 90mm	4"	11"	-	2 x 3/4"	5 5/16"	13 3/8"	3 7/8"	9 1/2"
3 7/16"	LSE307HSSAFR520AT	3 3/16", 3 1/4", 3 1/2" 80mm, 85mm, 90mm	4 1/2"	12 3/8"	-	2 x 7/8"	5 5/16"	15 1/4"	4 3/8"	10"
3 7/16"	MSE307HSSAFR520AT	3 3/16", 3 1/4", 3 1/2" 80mm, 85mm, 90mm	4 1/2"	12 3/8"	2 3/8"	4 x 3/4"	6 1/16"	15 1/4"	4 3/8"	10 1/4"
3 15/16"	MSE315HSSAFR522AT	3 11/16", 3 3/4", 3 1/2" 100mm, 105mm	4 15/16"	13 9/16"	2 3/4"	4 x 3/4"	5 3/4"	16 1/2"	4 3/4"	11 5/8"
4 7/16"	MSE407HSSAFR526AT	4 3/16", 4 1/2" 110mm, 115mm	6"	15 5/16"	3 1/4"	4 x 3/4"	6 3/8"	18 3/8"	5 1/8"	14 1/4"



# Bearing & Housings



Shaft (d)		Reference	Bearings Ratings				Housing Reference									
inch	mm	Add BR for retained Add BX for expansion e.g. LSM35BR	Dynamic C <sub>r</sub> (kN/lb)	Static C <sub>0r</sub> (kN/lb)	Axial C <sub>a</sub> (kN/lb)	Max RPM	D	B	C	Housing Retained	Reference Expansion	G	F	L	L <sub>1</sub>	
1 <sup>11</sup> / <sub>16</sub>																
1 <sup>3</sup> / <sub>4</sub>	45	LSM45	LSE111	83	87	3.60	4630	98.42	25.40	60.00	LS2HR	LS2HX	117.48	25	96	98
1 <sup>13</sup> / <sub>16</sub>	50	LSM50	LSE112	18659	19558	809.30		3.875	1.000	2.362			4.625	1.0	3.8	3.9
2			LSE115													
			LSE200													
2 <sup>2</sup> / <sub>16</sub>			LSE203													
2 <sup>1</sup> / <sub>4</sub>	55	LSM55	LSE204	103	115	5.40	3940	114.30	27.00	60.00	LS3HR	LS3HX	134.94	32	102	104
2 <sup>7</sup> / <sub>16</sub>	60	LSM60	LSE207	23155	25853	1213.95		4.500	1.063	2.362			5.313	1.3	4.0	4.1
2 <sup>1</sup> / <sub>2</sub>	65	LSM65	LSE208													
2 <sup>3</sup> / <sub>16</sub>			LSE203													
2 <sup>1</sup> / <sub>4</sub>	55	LSM55	LSE204	103	115	5.40	3940	114.30	27.00	60.00	LS3HR	LS3HX	134.94	32	102	104
2 <sup>7</sup> / <sub>16</sub>	60	LSM60	LSE207	23155	25853	1213.95		4.500	1.063	2.362			5.313	1.3	4.0	4.1
2 <sup>1</sup> / <sub>2</sub>	65	LSM65	LSE208													
2 <sup>11</sup> / <sub>16</sub>			LSE211													
2 <sup>3</sup> / <sub>4</sub>	70	LSM70	LSE212	138	161	7.60	3310	133.35	31.80	65.00	LS4HR	LS4HX	157.16	38	112	114
2 <sup>13</sup> / <sub>16</sub>	75	LSM75	LSE215	31024	36194	1708.53		5.259	1.252	2.559			6.187	1.5	4.4	4.5
3			LSE300													
2 <sup>11</sup> / <sub>16</sub>			LSE211													
2 <sup>3</sup> / <sub>4</sub>	70	LSM70	LSE212	138	161	7.60	3310	133.35	31.80	65.00	LS4HR	LS4HX	157.16	38	112	114
2 <sup>13</sup> / <sub>16</sub>	75	LSM75	LSE215	31024	36194	1708.53		5.250	1.252	2.559			6.187	1.5	4.4	4.5
3			LSE300													
2 <sup>11</sup> / <sub>16</sub>			LSE211													
2 <sup>3</sup> / <sub>4</sub>	70	MSM70	LSE212	258	300	10.60	3080	149.22	46.10	82.60	MS5HR	MS5HX	177.80	50	138	140
2 <sup>13</sup> / <sub>16</sub>	75	MSM75	LSE215	58001	67443	2383		5.875	1.815	3.252			7.000	2.0	5.4	5.5
3			LSE300													
3 <sup>1</sup> / <sub>16</sub>			LSE303													
3 <sup>1</sup> / <sub>4</sub>	80	LSM80	LSE304	187	231	12.40	2790	152.4	38.90	75.00	LS5HR	LS5HX	177.80	50	134	136
3 <sup>7</sup> / <sub>16</sub>	85	LSM85	LSE307	42039	51931	2787.59		6.000	1.531	2.953			7.000	2.0	5.3	5.4
3 <sup>1</sup> / <sub>2</sub>	90	LSM90	LSE308													
3 <sup>3</sup> / <sub>16</sub>			LSE303													
3 <sup>1</sup> / <sub>4</sub>	80	LSM80	LSE304	187	231	12.40	2790	152.4	38.90	75.00	LS5HR	LS5HX	177.80	50	134	136
3 <sup>7</sup> / <sub>16</sub>	85	LSM85	LSE307	42039	51931	2787.59		6.000	1.531	2.953			7.000	2.0	5.3	5.4
3 <sup>1</sup> / <sub>2</sub>	90	LSM90	LSE308													
3 <sup>3</sup> / <sub>16</sub>			LSE303													
3 <sup>1</sup> / <sub>4</sub>	80	MSM80	LSE304	297	353	17.80	2520	169.86	48.40	89.70	MS6HR	MS6HX	203.20	50	152	154
3 <sup>7</sup> / <sub>16</sub>	85	MSM85	LSE307	66768	79358	4002		6.687	1.906	3.531			8.000	2.0	6.0	6.1
3 <sup>1</sup> / <sub>2</sub>	90	MSM90	LSE308													
3 <sup>11</sup> / <sub>16</sub>			LSE311													
3 <sup>3</sup> / <sub>4</sub>	100	MSM100	LSE312	388	491	25.00	2130	193.68	51.60	92.10	MS7HR	MS7HX	231.78	64	144	146
3 <sup>13</sup> / <sub>16</sub>	105	MSM105	LSE315	87226	110381	5620		7.625	2.031	3.626			9.125	2.5	5.7	5.7
4			LSE400													
4 <sup>1</sup> / <sub>16</sub>			LSE403													
4 <sup>1</sup> / <sub>4</sub>	110	MSM110	LSE404	454	592	31.20	1820	228.60	57.20	100.00	MS8HR	MS8HX	266.70	76	160	162
4 <sup>1</sup> / <sub>2</sub>	115	MSM115	LSE407	102063	133087	7014		9.000	2.252	3.937			10.500	3.0	6.3	6.4
			LSE408													

## Bearing Selection

### Dynamic Loading

Selection of SRB split roller bearings must take into account the effects of both radial and axial loads. These loads must be considered independently of each other.

### Radial Load Considerations

The basic rating life of a bearing can be derived from the formulae laid down in ISO281:1990

$$L_{10} = (C/P)^{10/3} (10^6 \text{ Revolutions}) \quad - (i)$$

In the majority of cases where the speed remains constant then the life can be expressed in hours from the formula

$$L_{10}h = \frac{(10^6) \times L_{10}}{60 \times n} \quad - (ii)$$

### Substituting – (i)

$$L_{10}h = \frac{(10^6) \times}{60 \times n} \left( \frac{C}{P} \right)^{10/3} \quad - (ii)$$

$L_{10}$  = Basic Rating Life (90% reliability),  $10^6$  Revolutions

$L_{10}h$  = Basic Rating Life (90% Reliability), Hours

$C$  = Bearing Dynamic Capacity, kN

$n$  = Speed,  $\text{min}^{-1}$

$P$  = Equivalent Bearing Load

This calculation assumes for the load components considered for an individual bearing, that the shaft system is a beam resting on rigid, moment free supports. Elastic deformations in the bearing, housing or machine structure are not taken into account.

### Equivalent Load "P"

As previously stated radial and axial loads must be considered separately for split roller bearings. For the calculation of theoretical life only radial loads are considered.

### Fr = Radial Loads

The value of  $F_r$  is that calculated from standard mechanical formulae, the impact of additional forces resulting from external influences must also be considered.

### Fz = Factor

Load Condition	Factor Fz
Steady	1.0 to 1.3
Light Shock or Out of Balance	1.3 to 2.0
Heavy Shock or Vibration	2.0 to 3.0

Under the influence of the above conditions

$$P = F_r \times F_z$$

The required theoretical bearing life is based upon a number of factors, including reliability, accessibility and service considerations. Generally life values should be as follows:

Guide to Life Values	
Machine Used Intermittently	500 to 2,000 hours
Occasional Use	5,000 to 10,000 hours
Normal Operation	20,000 to 50,000 hours
Continuous Operation	75,000 to 100,000 hours
High Reliability	> 100,000 hours

## Adjusted Life Calculation

The L10 fatigue life calculation is based upon the rating life of a large number of identical bearings expressed as a number of revolutions operating at a constant speed. This rating life is reached or exceeded by 90% of these before the first evidence of fatigue appears.

The above definition applies to bearings operating under optimum conditions. Variations in operating conditions will lead to changes in the life of these bearings.

ISO281 allows for an adjusted life calculation:

$$L_{hna} = a_1 \times a_2 \times a_3 \times L_{10h}$$

Where

$L_{hna}$  = Adjusted Life

$L_{10h}$  = Rating Life in Hours

$a_1$  = Life adjustment factor, failure probability other than 10%

$a_2$  = Life adjustment factor, material properties

$a_3$  = Life adjustment factor, operating conditions

### $a_1$ Factor

In cases where a failure rate other than 10% is required, then an  $a_1$  factor as in the table below, should be applied.

Table A1

	Adjustment Factor					
Failure Probability %	10	5	4	3	2	1
Factor $a_1$	1.00	0.62	0.53	0.44	0.33	0.21

### $a_2$ Factor

This factor takes into account the material properties.

### $a_3$ Factor

The  $a_3$  factor considers all operational parameters that influence fatigue life. The most obvious of these is lubrication. The highest life values are achieved where a state of hydrodynamic lubrication exists, in this state no metal to metal contact occurs.

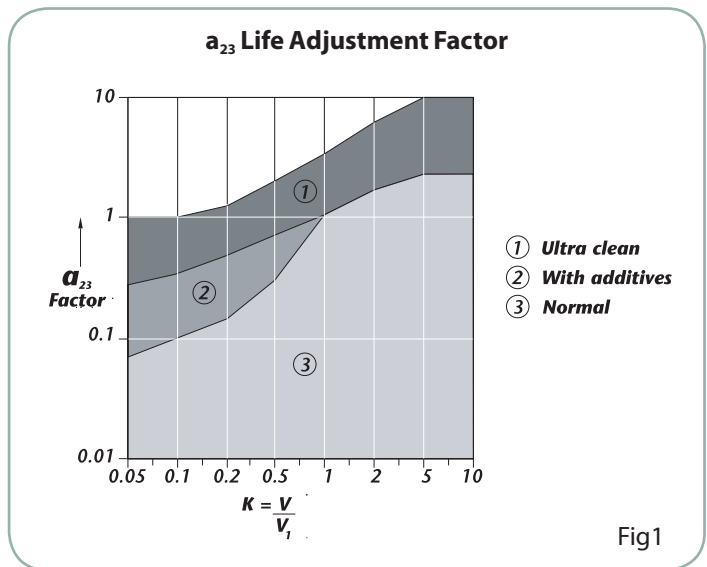
Decreasing effectiveness of lubricant due to decreasing film thickness or effects of contamination will reduce the  $a_3$  factor.

Due to the interrelationships between materials adjustment factor  $a_2$  and operating adjustment factor  $a_3$ , a common factor  $a_{23}$  is frequently used.

### $a_{23}$ Factor

$$a_{23} = a_2 + a_3$$

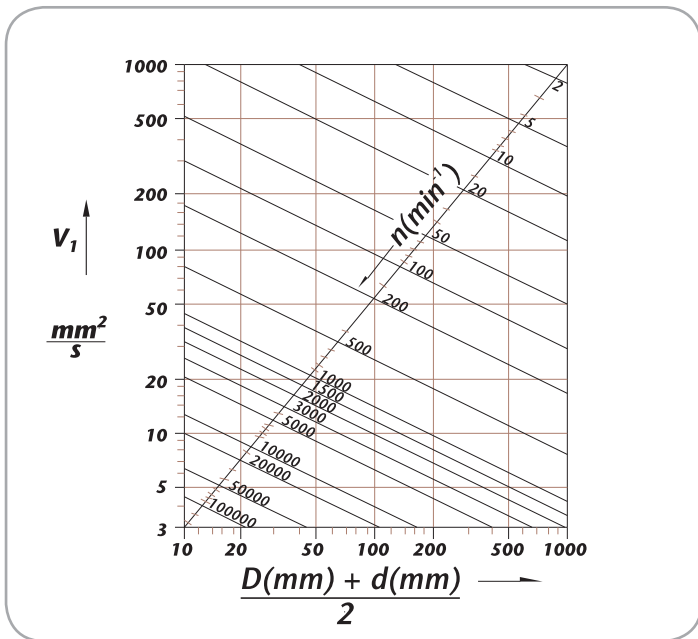
The  $a_{23}$  factor can be taken from fig 1:



$V_1$  = Rated Viscosity (Depends on bearing size and operating speed)

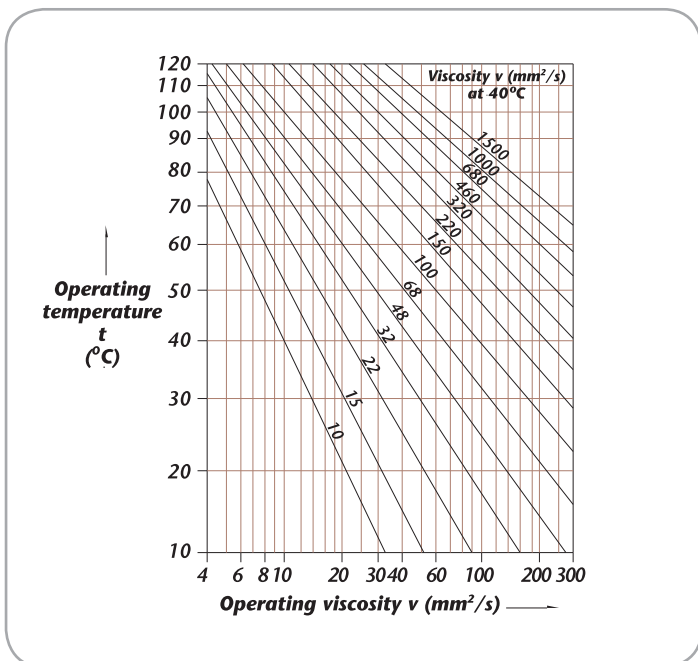
$V$  = Operating Viscosity (Depends on original viscosity and operating temperature)

Values for  $V$  and  $V_1$  are obtained from the following graphs:



Where  $D$  = Bearing outside diameter  
 $d$  = Bearing Bore  
 $n$  = Shaft speed (RPM)

$V_1$  is then read off the vertical axis.



Using the operating temperature and nominal lubricant viscosity, the value for operating viscosity,  $V$ , is read off the horizontal axis.

### Static Loading

In situations where bearings rotate slowly ( $<10$  rpm), oscillate slowly, are stationary for prolonged periods, or subject to high shock loads, it is important to check that no permanent deformations occur between rolling elements and raceways at peak load.

The basic static load rating is defined in ISO 76:1987 and refers to the contact stress at the centre of the most heavily loaded rolling element/raceway contact area. For roller bearings this value is 4000 Mpa. This will result in a permanent deformation of 0.0001 of the roller diameter.

The required static load rating can be determined from:

$$C_o = F_s \cdot P_o$$

$C_o$  = Basic Static Load Rating  
 $P_o$  = Equivalent Static Load  
 $F_s$  = Static Safety Factor

Guidelines for the Static Safety Factor  $F_s$  can be found in the table below:

Nature of Duty	Requirements for Duty		
	Low	Medium	High
Smooth no Vibration	1.0	1.5	3.0
Normal	1.0	1.5	3.5
Heavy	$>2.5$	$>3.0$	$>4.0$

## Axial Considerations

### Axial Load

Bearing selection, on an axial load basis, must be considered independently from the radial load.

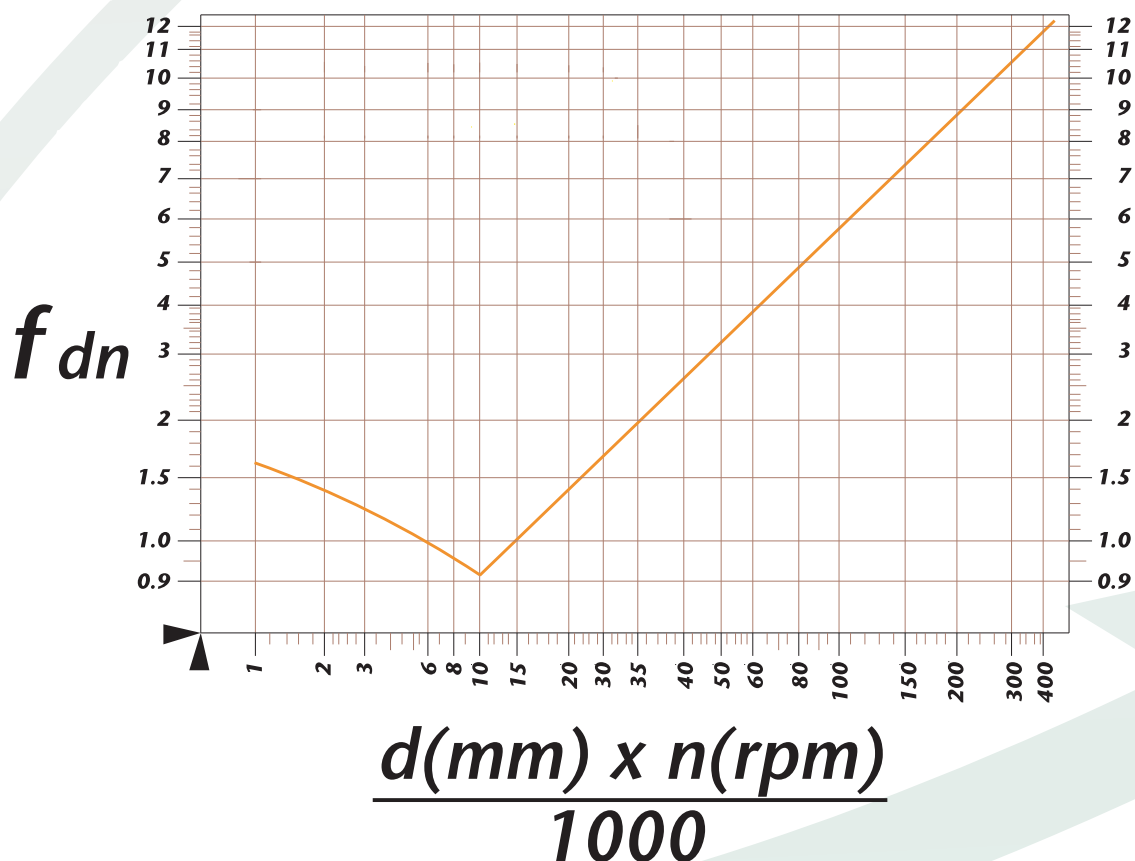
1. Calculate the axial loads acting on the bearing
2. Multiply each load by the appropriate dynamic factor  $f_z$
3. Combine these loads to determine the effective axial load  $P_a$
4. Select a bearing having a  $C_a$  value greater than the product of  $P_a \times f_{dn}$ ,  $d \cdot n$  is the product of the shaft size in mm and the speed in r.p.m. To determine  $f_{dn}$  use the velocity graph below.

### Axial Ratings $C_a$

These ratings are for constant loads with oil or extra pressure greases. If greases without extra pressure additives are applied then the catalogue rating must be decreased by 50%. In instances where bearings operate at over 50% of their catalogue speed rating and over 50% of their axial load ratings ( $C_a$ ) then recessed shafts should be considered. Please contact our Technical Services Department.

## VELOCITY

APPLIES ONLY TO AXIAL LOADS  
ON BR RETAINED BEARINGS.  
BEARING BORE =  $d$   
BEARING R.P.M. =  $n$







## Bearing Clearance and Temperature Considerations

SRB bearings are manufactured to give an ISO 'CN' clearance as standard. At specific customer request, bearings may be produced with any clearance to suit a particular application. When assessing the requirement for special clearances, it is particularly important to consider the differential temperature between shaft and housing. It should also be noted that an increase in bearing clearance will lead to a small reduction in bearing capacity. Typically a C3 clearance will reduce capacity by 5% and C5 clearance by 10%.

SRB bearings can also be produced as C2. This clearance is smaller than CN and is typically used in applications involving shock or reciprocating loads.

Cleanliness of component parts when fitting will have a direct impact on the running clearance of the bearing. This is of particular importance when fitting new bearings into existing cast iron or refitting bearings after maintenance. Special care must be taken to remove build-ups of aged grease and other contaminants in order to avoid reducing the bearing clearance when fitted.

When selecting bearings for use at elevated temperatures, consideration should also be given to the bearings dimensional stability. SRB bearings are tempered to give stability up to 140°C (284°F). In order to operate at higher temperatures, bearings must be specially heat-treated. This process will lead to a reduction in capacity as a result of the reduced hardness.

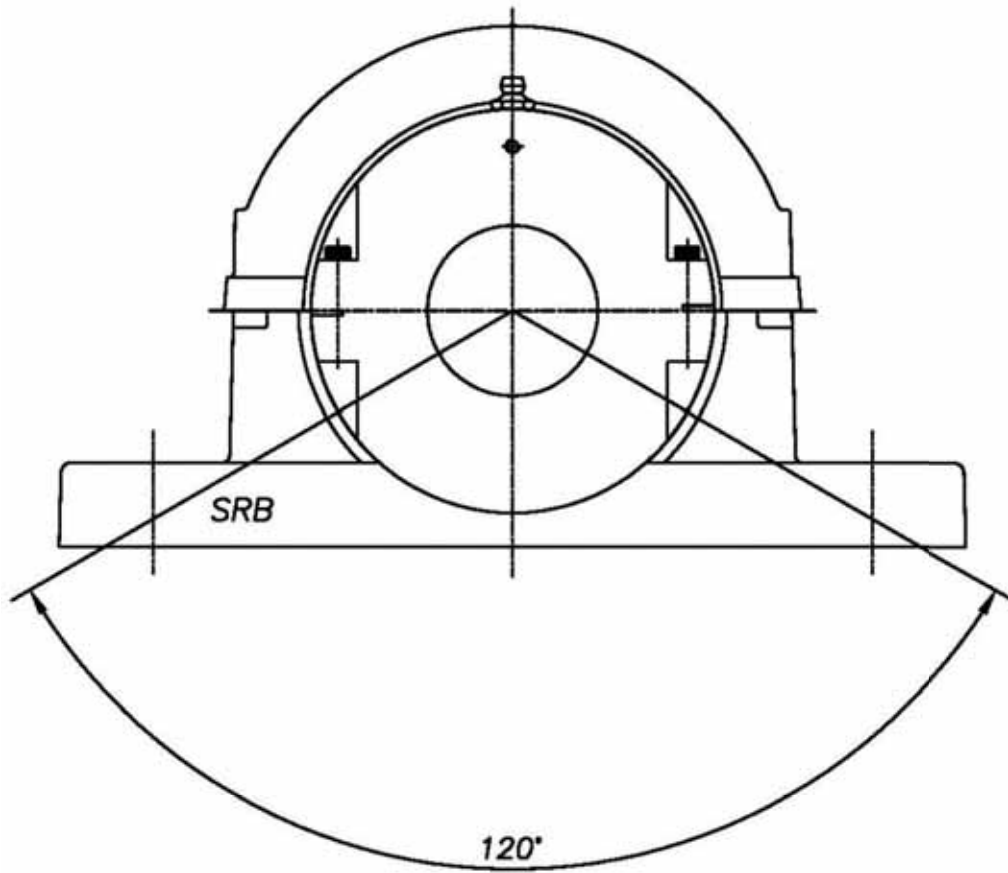
The designations for specially heat-treated bearings are in line with those quoted in ISO standards. The effects of temperature stabilisation are detailed in the table shown.

Operating Temperature	200°C 392°F	250°C 482°F	300°C 572°F
Designation	S1	S2	S3
Reduction in Capacity	10%	25%	40%

## Support Loads

Throughout the SRB range, the support units have been designed to provide a rigid and stable base to enable the associated bearing to operate to its full potential. With this in mind, all types of SRB support unit are manufactured from Grade 250 cast iron (BS EN1561:1997) and include strengthening webs and ribs to provide a highly robust unit. In order to compliment the inherent strength, we recommend that careful consideration be given to the siting and mounting of the support unit.

To determine a supports suitability, one should consider the resultant effective load derived in the bearing selection process and the direction of that load. The diagram shown indicates the area in which the full  $C_{or}$  rating of the bearing may be applied. Should the direction of the applied load be outside this area it may be necessary to consider alternative designs or materials. SRB Technical Services have a proven track record of innovative solutions and would be happy to provide assistance.



## *Bearing Frequencies*

Condition monitoring is the collection, storage, comparison and evaluation of data taken to establish the running condition of a machine. The data can be made up of several parameters, for example, electric current, pressure, brush wear, vibration and temperature, to name a few. Vibration Analysis is the area of condition monitoring concerned with evaluating and identifying the source of vibration within a system and assessing its severity and hence proposing the required maintenance action.



The individual components of any bearing will exhibit frequency characteristics which will identify it within a system subject to vibration analysis. For SRB bearings these characteristic frequencies are detailed in the tables opposite. The values given are for a nominal speed of 1 RPM. To obtain the correct frequency required for vibration analysis software, multiply by the speed of rotation in RPM.

For further information on Condition monitoring services please contact SRB Technical.

# Bearing Frequencies Table (Hz)

## Light Series

mm	inch	Inner Race	Outer Race	Roller	Cage
35	1 <sup>3</sup> / <sub>16</sub>	5.878	4.122	2.760	0.412
40	1 <sup>1</sup> / <sub>2</sub>				
45	1 <sup>11</sup> / <sub>16</sub>	5.852	4.148	2.847	0.415
50	2				
60	2 <sup>3</sup> / <sub>16</sub>	6.932	5.068	3.140	0.422
65	2 <sup>1</sup> / <sub>2</sub>				
70	2 <sup>11</sup> / <sub>16</sub>	6.902	5.098	3.252	0.425
75	3				
80	3 <sup>3</sup> / <sub>16</sub>	8.017	5.983	3.370	0.427
90	3 <sup>1</sup> / <sub>2</sub>				
100	3 <sup>11</sup> / <sub>16</sub>	8.089	5.911	3.137	0.422
105	4				
110	4 <sup>3</sup> / <sub>16</sub>	9.109	6.891	3.538	0.431
115	4 <sup>1</sup> / <sub>2</sub>				
120	4 <sup>11</sup> / <sub>16</sub>	9.100	6.900	3.569	0.431
130	5				
135	5 <sup>3</sup> / <sub>16</sub>	9.087	6.913	3.612	0.432
140	5 <sup>1</sup> / <sub>2</sub>				
150	5 <sup>11</sup> / <sub>16</sub>	10.159	7.841	3.819	0.436
155	6				
160	6 <sup>7</sup> / <sub>16</sub>	10.162	7.838	3.809	0.435
	6 <sup>1</sup> / <sub>2</sub>				
170	6 <sup>11</sup> / <sub>16</sub>	12.223	9.777	4.442	0.444
180	7				
190	7 <sup>1</sup> / <sub>4</sub>	12.204	9.796	4.515	0.445
200	8				
220	8 <sup>1</sup> / <sub>2</sub>	11.064	8.936	4.645	0.447
230	9				
240	9 <sup>1</sup> / <sub>2</sub>	12.058	9.942	5.152	0.452
250	10				
260	10 <sup>1</sup> / <sub>2</sub>	12.025	9.975	5.319	0.453
280	11				
300	11 <sup>1</sup> / <sub>2</sub>	13.087	10.913	5.472	0.455
305	12				
320	12 <sup>1</sup> / <sub>2</sub>	13.028	10.972	5.795	0.457
330	13				
340	14	14.045	11.955	6.180	0.460
350					
360	15	15.058	12.942	6.580	0.462
380					
400	16	16.076	13.924	6.935	0.464
420	17	17.088	14.912	7.319	0.466
440	18	18.094	15.906	7.739	0.468
460					
480	19	18.102	15.898	7.684	0.468
500	20	19.115	16.885	8.038	0.469
530	21	20.117	17.883	8.479	0.471
560	22	21.127	18.873	8.841	0.472
580	23	21.140	18.860	8.744	0.472
600	24	22.153	19.847	9.078	0.473

## Medium Series

mm	inch	Inner Race	Outer Race	Roller	Cage
45	1 <sup>11</sup> / <sub>16</sub>	5.988	4.012	2.432	0.401
50	2				
55	2 <sup>3</sup> / <sub>16</sub>	7.091	4.909	2.659	0.409
65	2 <sup>1</sup> / <sub>2</sub>				
70	2 <sup>11</sup> / <sub>16</sub>	7.153	4.847	2.506	0.404
75	3				
80	3 <sup>3</sup> / <sub>16</sub>	7.091	4.909	2.659	0.409
90	3 <sup>1</sup> / <sub>2</sub>				
100	3 <sup>11</sup> / <sub>16</sub>	8.205	5.795	2.818	0.414
105	4				
110	4 <sup>3</sup> / <sub>16</sub>	8.143	5.857	2.981	0.418
115	4 <sup>1</sup> / <sub>2</sub>				
120	4 <sup>11</sup> / <sub>16</sub>	8.105	5.895	3.088	0.421
130	5				
135	5 <sup>3</sup> / <sub>16</sub>	8.082	5.918	3.157	0.423
140	5 <sup>1</sup> / <sub>2</sub>				
150	5 <sup>11</sup> / <sub>16</sub>	9.225	6.775	3.188	0.423
155	6				
160	6 <sup>7</sup> / <sub>16</sub>	8.107	5.893	3.083	0.421
170	6 <sup>1</sup> / <sub>2</sub>				
180	6 <sup>11</sup> / <sub>16</sub>	9.192	6.808	3.281	0.425
	7				
190	7 <sup>1</sup> / <sub>4</sub>	9.119	6.881	3.505	0.430
200	8				
220	8 <sup>1</sup> / <sub>2</sub>	9.161	6.839	3.372	0.427
230	9				
240	9 <sup>1</sup> / <sub>2</sub>	9.082	6.918	3.628	0.432
260	10				
270	10 <sup>1</sup> / <sub>2</sub>	10.162	7.838	3.808	0.435
280	11				
300	11 <sup>1</sup> / <sub>2</sub>	11.207	8.793	4.082	0.440
305	12				
320	12 <sup>1</sup> / <sub>2</sub>	11.170	8.830	4.217	0.442
330	13				
340	14	11.180	8.820	4.178	0.441
360					
380	15	11.037	8.963	4.769	0.448
400	16	12.169	9.831	4.651	0.447
420	17	12.195	9.805	4.548	0.446
440	18	13.160	10.840	5.122	0.452
460					
480	19	13.181	10.819	5.031	0.451
500	20	14.153	11.847	5.593	0.456
530	21	14.160	11.840	5.559	0.455
560	22	15.200	12.800	5.793	0.457
580	23	15.203	12.797	5.778	0.457
600	24	15.168	12.832	5.951	0.458

## Heavy Series

mm	inch	Inner Race	Outer Race	Roller	Cage
100	3 <sup>11</sup> / <sub>16</sub>	6.073	3.927	2.446	0.402
105	4				
110	4 <sup>3</sup> / <sub>16</sub>	5.982	4.018	2.601	0.407
120	4 <sup>1</sup> / <sub>2</sub>				
125	4 <sup>15</sup> / <sub>16</sub>	7.114	4.886	2.690	0.410
130	5				
135	5 <sup>3</sup> / <sub>16</sub>	7.079	4.921	2.422	0.401
140	5 <sup>1</sup> / <sub>2</sub>				
150	5 <sup>11</sup> / <sub>16</sub>	7.190	4.810	2.570	0.406
155	6				
160	6 <sup>7</sup> / <sub>16</sub>	7.126	4.874	2.727	0.411
170	6 <sup>11</sup> / <sub>16</sub>				
175	6 <sup>3</sup> / <sub>4</sub>	8.243	5.757	2.779	0.413
180	7				
190	7 <sup>1</sup> / <sub>4</sub>	7.047	4.953	3.097	0.421
200	8				
220	8 <sup>1</sup> / <sub>2</sub>	8.102	5.898	3.240	0.425
230	9				
240	9 <sup>1</sup> / <sub>2</sub>	8.056	5.944	3.520	0.430
260	10				
280	11	9.114	6.886	3.280	0.425
300	12	8.043	5.957	3.088	0.421
320	13	8.105	5.895	3.591	0.432
340	14	9.093	6.907	3.530	0.431
360					
380	15	9.111	6.889		
400	16				
420	17	11.158	8.842	3.938	0.438
440					
460	18	10.125	7.875		
500	20	10.132	7.868		
530	21				
560	22	12.159	9.841	4.916	0.450
580	23	13.208	10.792		
600	24				



## Shaft Considerations

It is essential that the shaft on to which the bearing is to be mounted has been produced to the correct size and tolerance for the operating conditions. If replacing a bearing in an existing system, the shaft must be checked to establish if any wear or damage has taken place. The table below may be followed for both the manufacture of new shafts and the inspection of existing shafts.

**Tolerance units are 0.001 mm / 0.001 inches. All tolerances are +0.000**

Shaft Dia.	dn<50000 & C/P>10	50000<dn<150000 & C/P>10	50000<dn<150000 & C/P<10	dn>150000	Cylindricity of Shaft
	h9	h8	h7	h6	IT6
0 - 50 mm 0 - 2"	-62 -2.5	-39 -1.5	-25 -1	-16 -0.6	-16 -0.6
50 - 80 mm 2 - 3"	-74 -3	-46 -1.8	-30 -1.2	-19 -0.7	-19 -0.7
80 - 120 mm 3 - 5"	-87 -3.5	-54 -2.1	-35 -1.4	-22 -0.9	-22 -0.9
120 - 180 mm 5 - 7"	-100 -3.9	-63 -2.5	-40 -1.6	-25 -1	-25 -1
180 - 250 mm 7 - 10"	-115 -4.5	-72 -2.8	-46 -1.8	-29 -1.2	-29 -1.2
250 - 315 mm 10 - 12½"	-130 -5.1	-81 -3.2	-52 -2	-32 -1.3	-32 -1.3
315 - 400 mm 12½ - 15½"	-140 -5.5	-89 -3.5	-57 -2.2	-36 -1.4	-36 -1.4
400 - 500 mm 15½ - 19½"	-155 -6.1	-97 -3.8	-63 -2.5	-40 -1.6	-40 -1.6
500 - 600 mm 19½ - 24"	-175 -6.9	-110 -4.3	-70 -2.8	-44 -1.7	-44 -1.7

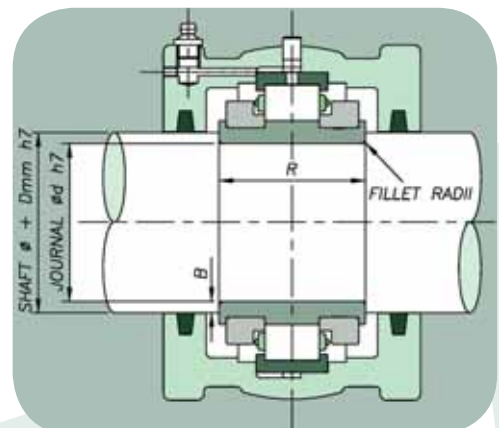
### Recess Mounting

In applications where the resultant axial load exceeds 50% of the Ca rating for the bearing, the shaft design should include either a recess for bearing seating or grooves to accommodate retaining rings. Such an arrangement should also be considered if the unit is subjected to shock loads, fluctuations in temperature over 100°C or the shaft is vertical.

The dimensions for producing an appropriate recess or for governing the position and size of the retaining rings if used are derived from the following table.

Journal Diameter d	Shoulder Diameter 'D' mm	Fillet Radii	Shoulder Height B	Recess Width R	Squareness of Abutment Faces
40 - 90mm 1½" - 3½"	d + 5mm	1.2mm	2.5mm	C + 0.1mm C + 0.3mm	0.1mm
Over 90 - 150mm Over 3½" - 6"	d + 10mm	2.0mm	5.0mm	C + 0.15mm C + 0.40mm	0.1mm
Over 155mm Over 6"	d + 10mm	2.3mm	5.0mm	C + 0.2mm C + 0.5mm	0.1mm

N.B. Width of recesses for standard bearings may be different from that used for existing products. Please consult SRB Technical Services department for bearings suitable for other recess sizes.



The above figures are unitary values. For the appropriate frequency, multiply by application RPM.

## Bearing Lubrication

The function of a lubricant in a rolling element bearing is to prevent metal to metal contact between components, prevent wear and protect against corrosion. Two methods of lubrication are normally employed grease and oil. In the case of SRB Split Bearings grease lubrication is most often employed.

### Grease Lubrication

Greases can be used to lubricate SRB split roller bearings under most normal conditions. Grease is the preferred method of lubrication because it can be more easily retained within the bearing enclosure and housing, the latter simplifying sealing arrangements. Greases are essentially oils thickened usually with a metal soap, other ingredients are additives such as rust inhibitors, or extra pressure additives. The oils employed may be mineral or synthetic depending upon the application.

SRB bearings are heat treated to retain dimensional stability up to 140°C. At temperatures up to 100°C, standard high quality greases may be used. We suggest good quality lithium soap or complex based greases having extra pressure additives and a penetration number of 3. It is important to note that all values given in this catalogue for axial capacity assume the use of a grease with extra pressure (EP) additives. If EP additives are not present then axial capacity is reduced by 50%

At temperatures exceeding 100°C care must be taken to ensure that the correct thickener and viscosity of base oil are selected. The performance of grease at such temperatures is dependent on a stable thickener and the temperature/viscosity ratio of the base oil. A stable base oil and soap thickener are important as is the ability of the oil to offer adequate viscosity at an elevated temperature.

In cases of water splash, calcium soap based greases may be used, these are particularly resistant to water wash out.

Care should be taken when mixing greases with different soap thickeners and base oil types. Please contact SRB Technical Services for further advice.

For initial lubrication the bearing should always be well filled with grease. The remaining housing space should be filled as follows.

At low speeds, not exceeding 25% of catalogue speed rating, we suggest that the remaining housing space be fully filled with grease.

At medium speeds, between 25 and 50% of catalogue speed rating, the remaining housing space may be 1/3 to 1/2 filled with grease.

At high speeds, exceeding 50% of catalogue speed rating, the remaining housing space should be left empty.

### Re-lubrication

The re-lubrication intervals will be dependent on the prevailing operating conditions.

Greases age and oxidise due to a number of considerations these include load, speed, temperature, cleanliness, presence of water and even airflow through the bearing.

For retained type bearings, initial re-lubrication intervals for guidance purposes would be 2 – 4 weeks with 3 – 6 mls added. For expansion type bearings, initial re-lubrication intervals would be 3 – 4 months with 3 – 6 mls added. More accurate intervals and quantities should be established from observations taken during bearing operation. If re-lubrication can be carried out whilst the bearing is in operation, this will allow for even distribution of the grease. This means of re-lubrication should only be undertaken if it is safe to do so.

## Oil Lubrication

SRB split roller bearings are rarely lubricated with oil. In cases where oil is selected as a means of lubrication, then special consideration must be given to the bearing housing design and sealing.

There are three principal methods of oil lubrication:

### Oil Sump:

The oil sits in the bearing housing at a level approximately halfway up the bottom dead centre rolling element. Oil circulation around the bearing is then provided via the bearing rotation agitating the oil sump. It is very important to provide a sufficiently dimensioned oil sump as too small a volume will result in increased frequency of oil change and elevated operating temperatures.

### Oil Mist:

An oil/air mist is injected into the bearing via nozzles, normally a total oil loss system, this provides extremely high speed capability at high cost.

For further advice on oil selection and oil lubrication systems please consult SRB Technical Services.

### Oil Circulation:

Oil is circulated into the bearing housing assembly from an external oil sump. This allows the oil to be cooled and filtered, additionally an external oil sump normally allows for a higher volume of oil. Whilst being a more optimum solution, specialist housing designs must be provided. There is also a cost and space requirement to this system.

## Assembly and Maintenance



### Shaft Check

When fitting bearings on both new and existing installations, the shaft need only be raised 1 to 2 millimetres. This should provide sufficient clearance to allow for easy fitting. Prior to the assembly of any bearing components the shaft must be checked for size, roundness and parallelism.

- | Check a minimum of three positions along the journal length.
- | Check a minimum of three positions around the shaft to establish roundness.
- | Shaft tolerances and shaft surface finish are given in the table on page 72.



### Fitting the Inner Ring

- | Carefully unpack and clean the bearing removing all preservatives.
- | Inner race locating clamping rings cannot be removed before the cage has been dismantled.
- | Care must be taken that no damage occurs when cage halves are separated.



### Please Note:

#### Spring Clips should always be retained on one cage half.

- | Clean the shaft and lightly oil the bore of the inner race.
- | Place the two inner race halves in approximately the correct position with the joints at the top and bottom. With the joints in that position it will allow easy access to the clamp ring screws later when they are tightened.
- | Ensure that the match marks (black band) in the clamp ring groove on one side of the race coincide.

There should be an equal gap at each joint. If there are no gaps do not proceed and contact the SRB Technical Services Department.



- | Fit the inner race locating clamping rings. Ensure that the correct clamp ring is fitted in the corresponding groove. To assist in this the clamping rings are intentionally manufactured to different widths on the more popular sizes. In addition, the match-marking groove found on the inner race is repeated on the corresponding clamping ring.
- | Make sure that the thrust faces are not damaged when the rings enter the grooves.
- | The joints should be at 90° to the inner race joints and the screws should be tightened in such a way that there are four equal gaps.
- | Screws should only be finger tight so that the race can be adjusted axially into its final position.



## Pre-Assembly of the Outer Race into the Seating Groove in the Housing

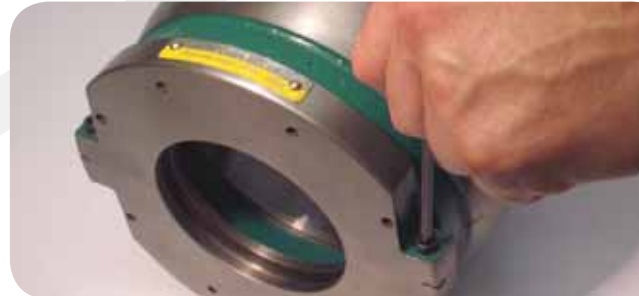
- | The housing must be cleaned thoroughly removing all preservatives. If reusing an existing housing it is essential that the outer race seating groove is clean and free of any hardened grease deposits or corrosion.
- | Lightly oil the seating groove and the outside diameter of the outer race halves.
- | Place the race halves of the expansion or retained type into the seating groove and ensure that:
  - | The match marking numbers on the edge of each race half coincide.
  - | The lubrication hole in the outer race is in the upper housing half.
  - | The outer race joints should protrude equally above the housing joint faces.

If a retained bearing is being fitted:

- | Pre-assemble the housing halves and fully tighten the joint socket head cap screws.
  - | Ensure that the joints are closed.
  - | Fit the pins and screws provided and tighten up evenly to ensure that the outer race is fixed square against the opposite shoulder of the seating groove.
- Larger bearings (both retained and expansion) may require outer race retaining screws. If these are required, please ensure that the flat washers are not omitted. Once fitted, ensure that the end of the screw does not protrude above the race track surface.
- | Separate the housing halves, these are now ready for final assembly.
  - | Fit the appropriate seals. The seal grooves in the standard housing are suitable for felt and synthetic rubber. If the bearing is inspected or replaced on an existing installation and the housing is re-used, we advise that new seals are fitted.

## Pre-Fitting the Lower Housing Half

On existing installations it is often unnecessary to change the support if a bearing, or bearing and housing has to be replaced. In such cases the support base bolts should not be touched to ensure that the replacement bearing and the old or new housing will be in the same position as previously. In new installations the support base should be positioned with the bolts finger tight. This will allow additional freedom of movement when aligning the inner and outer races.





### Retained Bearing

- I Slide the pre-assembled bottom half into the support base.
- I Line up the inner and outer race roller track by adjusting the inner ring sideways into the final position. The final position should be confirmed by passing one half of the cage and roller assembly between the inner and outer races. The cage half should pass freely round the lower half of the bearing without becoming jammed or trapped.
- I Remove the bottom housing half and tighten the clamp ring socket head cap screws and fit the cage as explained below.

Group	Maximum Expansion if cage and rollers are assembled central	
	1	2
40 mm 1½"	3 mm	7 mm
50 mm 2"	3 mm	8 mm
60 mm 2½"	3.5 mm	10 mm
70 mm 3"	4 mm	11 mm
80 mm 3½"	5 mm	16 mm
100 mm 4"	5.5 mm	17 mm
110 mm 4½"	8 mm	18 mm
120 mm 5"	8.5 mm	18 mm
140 mm 5½"	9 mm	
160 mm 6"	9 mm	

### Expansion Bearing

- I As in the case of the retained bearing, slide in the pre-assembled bottom housing half.
- I Line up the inner ring by adjusting it sideways until it is central with the outer race.
- I The clearance between the inner race end faces and inside housing walls should be equal. If cage and rollers are assembled in this position the shaft can expand either side of the centre line by the amount shown in column 1 in the table right.
- I When the position of the inner ring is satisfactory, remove the bottom half housing and tighten the clamp ring socket head cap screws and fit the cage as explained below.

A greater degree of expansion allowance can be obtained, but only in one direction. This is achieved by offsetting the inner race with respect to the housing. In this case the total amount of linear movement in service is given in column 2 of the table.

### Tightening of the Locating Clamping Ring Screws

- I When the inner race is in its final position, tighten all four clamping ring screws equally.
- I Use the correct hexagon key and a torque wrench.
- I Tap down the locating thrust rings with a nylon mallet to ensure that they are seating down correctly within the grooves.
- I Re-tighten and repeat the tapping down until the screws are fully tight.
- I Torque values for the various screw sizes are given in the tables at the end of this section. If a screw is lost it must be replaced using a High Tensile Socket Head Cap Screw Grade, 12.9.



## Fitting the Cage

- I Grease the inner race roller track and cage.
- I Place the cage halves around the inner race ensuring that the match mark numbers on the edge of each cage half are the same and coincide at one joint.
- I Press the cage halves into the clip ensuring that the roll pins are fully located.
- I Check that the cage assembly runs freely on the inner race.
- I Fully pack the cage and roller assembly with the correct type of grease.



## Final Fitting of the Housing

- I Charge the bottom and upper housing halves with the correct amount of grease. Refer to page 73 for correct types and quantities of grease depending on the application and the speed.
- I Lightly oil the spherical diameter of both housing and support and slide the bottom housing half into the support base.
- I Lower the shaft with the assembled inner races and cages, until the rollers touch the tracks in the bottom half housing. Make sure that when the rollers in the retained bearing enter the outer race groove they do not damage the lips.
- I Revolve the shaft by hand, the rollers should move freely between the thrust shoulders of the inner race and the lips of the retained outer race.
- I Fit the upper housing half then tighten the housing joint screws. Check that there is no gap at the joints.

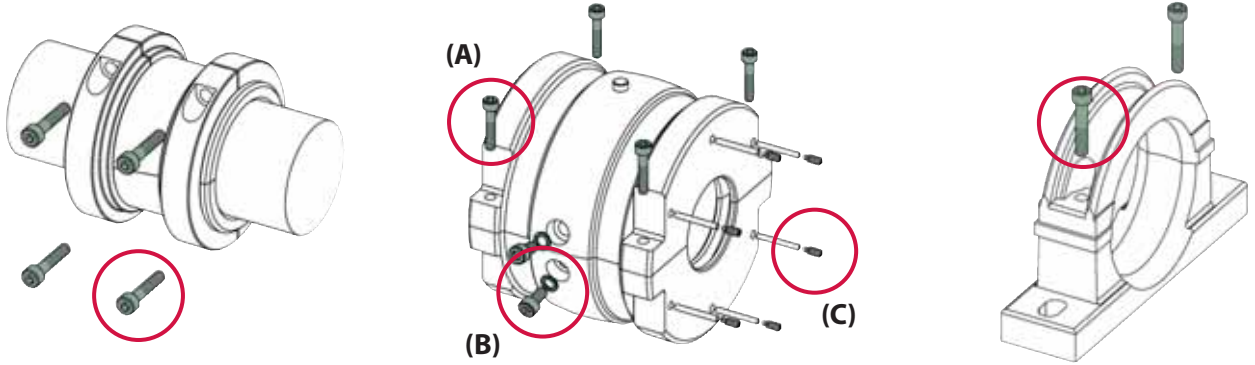
## Fitting the Support Cap

- I Place the support cap over the upper housing half and engage the locating dowels at the joint.
- I Using a nylon mallet, gently tap the support cap down to close the gap at the joints.
- I Fit the bolts and tighten just enough to hold the support joints closed.
- I At this point, and only if it is safe to do so, the shaft should be run at low speed and if possible, with low loading. This will allow the spherical locating surfaces to correctly align. If running the shaft under power is not an option, the shaft should be rotated by hand to achieve this goal.
- I Tighten the cap bolts fully using a torque wrench. At this point the support base bolts should also be checked and tightened as required. Torque values for housing and support screws are given in the table at the end of this section.



# Light Series

## Screw Sizes, Key Sizes & Torque Values

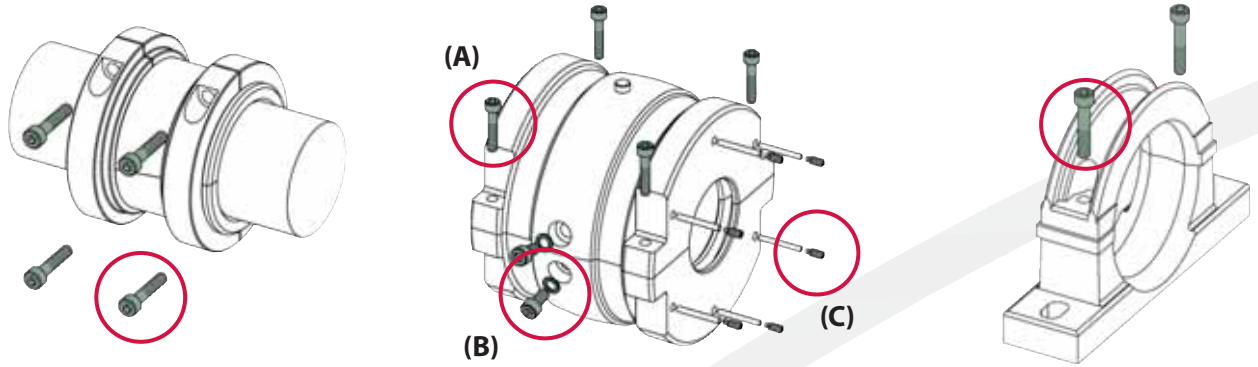


Shaft (d)		Clamping Ring*			Housing						Support					
					Joint (A)	Radial Retainer (B)			Axial Retainers (HR only) (C)							
mm	inch	Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)			
35-40	1 <sup>3</sup> / <sub>16</sub> -1 <sup>1</sup> / <sub>2</sub>	M4	3	5 (3.6)	M4	3	4 (2.6)			M4	2	4 (2.6)	M8	6	27 (20)	
45-50	1 <sup>11</sup> / <sub>16</sub> -2	M4	3	5 (3.6)	M4	3	4 (2.6)			M4	2	4 (2.6)	M8	6	27 (20)	
60-65	2 <sup>3</sup> / <sub>16</sub> -2 <sup>1</sup> / <sub>2</sub>	M4	3	5 (3.6)	M4	3	4 (2.6)			M4	2	4 (2.6)	M10	8	54 (40)	
70-75	2 <sup>11</sup> / <sub>16</sub> -3	M4	3	5 (3.6)	M4	3	4 (2.6)			M4	2	4 (2.6)	M12	10	94 (69)	
80-90	3 <sup>3</sup> / <sub>16</sub> -3 <sup>1</sup> / <sub>2</sub>	M5	4	9 (7)	M5	4	7 (5)			M4	2	4 (2.6)	M16	14	231 (170)	
100-105	3 <sup>11</sup> / <sub>16</sub> -4	M6	5	15 (11)	M6	5	11 (8)			M4	2	4 (2.6)	M16	14	231 (170)	
110-115	4 <sup>3</sup> / <sub>16</sub> -4 <sup>1</sup> / <sub>2</sub>	M6	5	15 (11)	M6	5	11 (8)			M6	3	11 (8)	M20	17	434 (320)	
120-130	4 <sup>11</sup> / <sub>16</sub> -5	M6	5	15 (11)	M6	5	11 (8)			M6	3	11 (8)	M20	17	434 (320)	
135-140	5 <sup>3</sup> / <sub>16</sub> -5 <sup>1</sup> / <sub>2</sub>	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (8)	M20	17	434 (320)	
150-155	5 <sup>11</sup> / <sub>16</sub> -6	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (8)	M20	17	434 (320)	
160	6 <sup>3</sup> / <sub>16</sub> -6 <sup>1</sup> / <sub>2</sub>	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (8)	M16	14	231 (170)	
170-180	6 <sup>11</sup> / <sub>16</sub> -7	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (8)	M16	14	231 (170)	
190-200	7 <sup>1</sup> / <sub>4</sub> -8	M8	6	35 (26)	M8	6	27 (20)	M10	8	54 (40)	M6	3	11 (8)	M16	14	231 (170)
220-230	8 <sup>3</sup> / <sub>2</sub> -9	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M6	3	11 (8)	M16	14	231 (170)
240-250	9 <sup>1</sup> / <sub>2</sub> -10	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M6	3	11 (8)	M20	17	434 (320)
260-280	10 <sup>1</sup> / <sub>2</sub> -11	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
300	11 <sup>1</sup> / <sub>2</sub> -12	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
320-330	12 <sup>1</sup> / <sub>2</sub> -13	M12	10	125 (92)	M12	10	94 (69)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
340-350	14	M12	10	125 (92)	M12	10	94 (69)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
360-380	15	M12	10	125 (92)	M12	10	94 (69)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
400	16	M12	10	125 (92)	M12	10	94 (69)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
420	17	M12	10	125 (92)	M12	10	94 (69)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
440-460	18	M12	10	125 (92)	M12	10	94 (69)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
480	19	M12	10	125 (92)	M12	10	94 (69)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
500	20	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
530	21	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
560	22	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
580	23	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
600	24	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)

\* May be increased by up to 20% for high axial load applications

## Medium Series

### Screw Sizes, Key Sizes & Torque Values

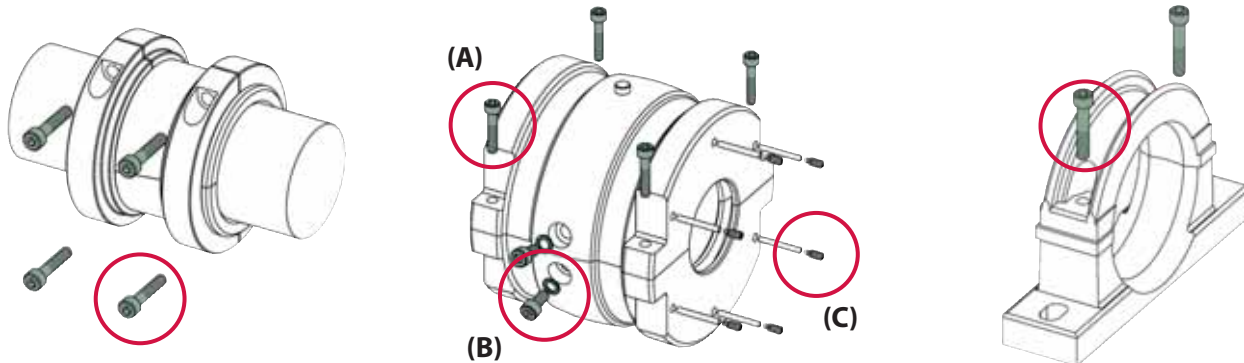


Shaft (d)		Clamping Ring*			Housing						Support					
					Joint (A)		Radial Retainer (B)		Axial Retainers (HR only) (C)							
mm	inch	Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)			
45 - 50	1 <sup>11</sup> / <sub>16</sub> - 2	M5	4	9 (7)	M5	4	7 (5)			M4	2	4 (2.6)	M10	8	54 (40)	
60 - 65	2 <sup>3</sup> / <sub>16</sub> - 2 <sup>1</sup> / <sub>2</sub>	M5	4	9 (7)	M5	4	7 (5)			M4	2	4 (2.6)	M12	10	94 (69)	
70 - 75	2 <sup>11</sup> / <sub>16</sub> - 3	M6	5	15 (11)	M6	5	11 (08)			M4	2	4 (2.6)	M16	14	231 (170)	
80 - 90	3 <sup>3</sup> / <sub>16</sub> - 3 <sup>1</sup> / <sub>2</sub>	M6	5	15 (11)	M6	5	11 (08)			M4	2	4 (2.6)	M16	14	231 (170)	
100 - 105	3 <sup>11</sup> / <sub>16</sub> - 4	M6	5	15 (11)	M6	5	11 (8)			M4	2	4 (2.6)	M20	17	434 (320)	
110 - 115	4 <sup>3</sup> / <sub>16</sub> - 4 <sup>1</sup> / <sub>2</sub>	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (8)	M20	17	434 (320)	
120 - 130	4 <sup>11</sup> / <sub>16</sub> - 5	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (08)	M20	17	434 (320)	
135 - 140	5 <sup>3</sup> / <sub>16</sub> - 5 <sup>1</sup> / <sub>2</sub>	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (08)	M20	17	434 (320)	
150 - 155	5 <sup>11</sup> / <sub>16</sub> - 6	M8	6	35 (26)	M8	6	27 (20)			M6	3	11 (08)	M20	17	434 (320)	
160 - 170	6 <sup>7</sup> / <sub>16</sub> - 6 <sup>1</sup> / <sub>2</sub>	M10	8	72 (53)	M10	8	54 (40)			M6	3	11 (08)	M20	17	434 (320)	
180	6 <sup>11</sup> / <sub>16</sub> - 7	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M6	3	11 (08)	M20	17	434 (320)
190 - 200	7 <sup>1</sup> / <sub>4</sub> - 8	M12	10	125 (92)	M12	10	94 (69)	M10	8	54 (40)	M6	3	11 (08)	M20	17	434 (320)
220 - 230	8 <sup>1</sup> / <sub>2</sub> - 9	M12	10	125 (92)	M12	10	94 (69)	M10	8	54 (40)	M6	3	11 (08)	M20	17	434 (320)
240 - 260	9 <sup>1</sup> / <sub>2</sub> - 10	M12	10	125 (92)	M12	10	94 (69)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
280	10 <sup>1</sup> / <sub>2</sub> - 11	M16	14	309 (228)	M16	14	231 (170)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
300	11 <sup>1</sup> / <sub>2</sub> - 12	M16	14	309 (228)	M16	14	231 (170)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
320 - 330	12 <sup>1</sup> / <sub>2</sub> - 13	M16	14	309 (228)	M16	14	231 (170)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
340 - 360	14	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
380	15	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
400	16	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
420	17	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
440 - 460	18	M16	14	309 (228)	M16	14	231 (170)	M12	10	54 (40)	M10	5	54 (40)	M20	17	434 (320)
480	19	M20	17	600 (442)	M20	17	434 (320)	M12	10	54 (40)	M10	5	54 (40)	M24	19	760 (560)
500	20	M20	17	600 (442)	M20	17	434 (320)	M12	10	54 (40)	M10	5	54 (40)	M24	19	760 (560)
530	21	M20	17	600 (442)	M20	17	434 (320)	M12	10	54 (40)	M10	5	54 (40)	M24	19	760 (560)
560	22	M20	17	600 (442)	M20	17	434 (320)	M12	10	54 (40)	M10	5	54 (40)	M24	19	760 (560)
580	23	M20	17	600 (442)	M20	17	434 (320)	M12	10	54 (40)	M10	5	54 (40)	M24	19	760 (560)
600	24	M20	17	600 (442)	M20	17	434 (320)	M12	10	54 (40)	M10	5	54 (40)	M24	19	760 (560)

\* May be increased by up to 20% for high axial load applications

# Heavy Series

## Screw Sizes, Key Sizes & Torque Values



Shaft (d)		Clamping Ring*			Housing									Support		
mm	inch	Screw	Key	Torque Nm (lb.ft)	Joint (A)			Radial Retainer (B)			Axial Retainers (HR only) (C)			Screw	Key	Torque Nm (lb.ft)
					Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)	Screw	Key	Torque Nm (lb.ft)			
100 - 105	3 <sup>11</sup> / <sub>16</sub> - 4	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M6	3	11 (08)	M16	14	231 (170)
110 - 120	4 <sup>3</sup> / <sub>16</sub> - 4 <sup>1</sup> / <sub>2</sub>	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M6	3	11 (08)	M16	14	231 (170)
125 - 130	4 <sup>15</sup> / <sub>16</sub> - 5	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M10	5	54 (40)	M16	14	231 (170)
135 - 140	5 <sup>3</sup> / <sub>16</sub> - 5 <sup>1</sup> / <sub>2</sub>	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
150 - 155	5 <sup>11</sup> / <sub>16</sub> - 6	M10	8	72 (53)	M10	8	54 (40)	M10	8	54 (40)	M10	5	54 (40)	M20	17	434 (320)
160 - 170	6 <sup>7</sup> / <sub>16</sub> - 6 <sup>11</sup> / <sub>16</sub>	M12	10	125 (92)	M12	10	94 (69)	M12	10	94 (69)	M10	5	54 (40)	M20	17	434 (320)
180	6 <sup>3</sup> / <sub>4</sub> - 7	M12	10	125 (92)	M12	10	94 (69)	M12	10	94 (69)	M10	5	54 (40)	M20	17	434 (320)
190 - 200	7 <sup>1</sup> / <sub>4</sub> - 8	M12	10	125 (92)	M12	10	94 (69)	M12	10	94 (69)	M10	5	54 (40)	M20	17	434 (320)
220 - 230	8 <sup>1</sup> / <sub>2</sub> - 9	M16	14	309 (228)	M16	14	231 (170)	M12	10	94 (69)	M10	5	54 (40)	M20	17	434 (320)
240 - 260	9 <sup>1</sup> / <sub>2</sub> - 10	M16	14	309 (228)	M16	14	231 (170)	M12	10	94 (69)	M10	5	54 (40)	M20	17	434 (320)
280	11	M20	17	600 (442)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M20	17	434 (320)
300	12	M20	17	600 (442)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M20	17	434 (320)
320 - 330	13	M20	17	600 (442)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M24	19	760 (560)
340 - 360	14	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M24	19	760 (560)
380 - 400	15 - 16	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M24	19	760 (560)
420 - 440	17	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M16	14	231 (170)	M24	19	760 (560)
460	18	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M16	14	231 (170)	M24	19	760 (560)
480	19	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M16	14	231 (170)	M24	19	760 (560)
500	20	M24	19	997 (735)	M20	17	434 (320)	M16	14	231 (170)	M10	5	54 (40)	M24	19	760 (560)
530	21	M24	19	997 (735)	M20	17	434 (320)	M16	14	231 (170)	M10	5	54 (40)	M24	19	760 (560)
560	22	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M24	19	760 (560)
580	23	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M24	19	760 (560)
600	24	M24	19	997 (735)	M20	17	434 (320)	M12	10	94 (69)	M10	5	54 (40)	M24	19	760 (560)

\* May be increased by up to 20% for high axial load applications



# Shipping Weights

## Light Series

mm	inch	Bearing Kg/lb	Housing Kg/lb	Support Kg/lb	Comp. Unit
35	1 <sup>1</sup> / <sub>16</sub>	1.3	2.5	3	6.8
40	1 <sup>1</sup> / <sub>2</sub>	3	6	7	16
45	1 <sup>11</sup> / <sub>16</sub>	1.8	3.5	5	10.3
50	2	4	8	11	23
60	2 <sup>3</sup> / <sub>16</sub>	2.3	4.4	5.9	12.6
65	2 <sup>1</sup> / <sub>2</sub>	5	10	13	28
70	2 <sup>11</sup> / <sub>16</sub>	3.3	6.5	9.5	19.3
75	3	7	14	21	42
80	3 <sup>3</sup> / <sub>16</sub>	5	9	15	29
90	3 <sup>1</sup> / <sub>2</sub>	11	20	33	64
100	3 <sup>11</sup> / <sub>16</sub>	7	11	16	34
105	4	15	24	35	74
110	4 <sup>3</sup> / <sub>16</sub>	10.5	16	24	50.5
115	4 <sup>1</sup> / <sub>2</sub>	23	35	53	111
120	4 <sup>11</sup> / <sub>16</sub>	14	24	41	79
130	5	31	53	90	174
135	5 <sup>3</sup> / <sub>16</sub>	17	27	49	93
140	5 <sup>1</sup> / <sub>2</sub>	37	59	108	204
150	5 <sup>11</sup> / <sub>16</sub>	18	31	49	98
155	6	40	68	108	216
160	6 <sup>3</sup> / <sub>16</sub>	19	35	65	119
	6 <sup>1</sup> / <sub>2</sub>	42	77	143	262
170	6 <sup>11</sup> / <sub>16</sub>	23	36	73	132
180	7	51	79	161	291
190	7 <sup>1</sup> / <sub>4</sub>	26	45	92	163
200	8	57	99	202	358
220	8 <sup>1</sup> / <sub>2</sub>	33	48	117	198
230	9	73	106	257	436
240	9 <sup>1</sup> / <sub>2</sub>	42	60	147	249
250	10	92	132	323	547
260	10 <sup>1</sup> / <sub>2</sub>	53	73	171	297
280	11	117	161	376	654
300	11 <sup>1</sup> / <sub>2</sub>	60	89	199	348
305	12	132	196	438	766
320	12 <sup>1</sup> / <sub>2</sub>	72	109	214	395
330	13	158	240	471	869
340		79	121	241	441
350	14	174	266	530	970
360		90	130	294	514
380	15	198	286	647	1131
400	16	96	145	315	556
		211	319	693	1223
420	17	105	155	323	583
		231	341	711	1283
440	18	119	156	377	652
460		262	343	829	1434
480	19	123	167	467	757
		271	367	1027	1665
500	20	139	198	449	786
		306	436	988	1730
530	21	180	220	502	902
		396	484	1104	1984
560	22	185	258	578	1021
		407	568	1272	2247
580	23	190	280	690	1160
		418	616	1518	2552
600	24	240	296	730	1266
		528	651	1606	2785

## Medium Series

mm	inch	Bearing Kg/lb	Housing Kg/lb	Support Kg/lb	Comp. Unit
45	1 <sup>11</sup> / <sub>16</sub>	2.5	5	5.9	13.4
50	2	6	11	13	30
60	2 <sup>3</sup> / <sub>16</sub>	3.7	8	9.5	21.2
65	2 <sup>1</sup> / <sub>2</sub>	8	18	21	47
70	2 <sup>11</sup> / <sub>16</sub>	5.6	10	15	30.6
75	3	12	22	33	67
80	3 <sup>3</sup> / <sub>16</sub>	7	12	16	35
90	3 <sup>1</sup> / <sub>2</sub>	15	26	35	76
100	3 <sup>11</sup> / <sub>16</sub>	11	13	24	48
105	4	24	29	53	106
110	4 <sup>3</sup> / <sub>16</sub>	15.5	20	41	76.5
115	4 <sup>1</sup> / <sub>2</sub>	34	44	90	168
120	4 <sup>11</sup> / <sub>16</sub>	21	28	49	98
130	5	46	62	108	216
135	5 <sup>3</sup> / <sub>16</sub>	25	36	72	133
140	5 <sup>1</sup> / <sub>2</sub>	55	79	158	292
150	5 <sup>11</sup> / <sub>16</sub>	31	42	80	153
155	6	68	92	176	336
160	6 <sup>3</sup> / <sub>16</sub>	40	58	118	216
170	6 <sup>1</sup> / <sub>2</sub>	88	128	260	476
180	6 <sup>11</sup> / <sub>16</sub>	47	68	138	253
	7	103	150	304	557
190	7 <sup>1</sup> / <sub>4</sub>	59	86	192	337
200	8	130	189	422	741
220	8 <sup>1</sup> / <sub>2</sub>	69	101	229	399
230	9	152	222	504	878
240	9 <sup>1</sup> / <sub>2</sub>	79	108	277	464
260	10	174	238	609	1021
270	10 <sup>1</sup> / <sub>2</sub>	87	134	320	541
280	11	191	295	704	1190
300	11 <sup>1</sup> / <sub>2</sub>	125	132	372	629
305	12	275	290	818	1383
320	12 <sup>1</sup> / <sub>2</sub>	150	176	385	711
330	13	330	387	847	1564
340		184	190	477	851
360	14	405	418	1049	1872
380	15	187	213	490	890
		411	469	1078	1958
400	16	210	258	540	1008
		462	568	1188	2218
420	17	245	269	586	1100
		539	592	1289	2420
440	18	255	270	623	1148
460		561	594	1371	2526
480	19	268	277	690	1235
		590	609	1518	2717
500	20	276	328	745	1349
		607	722	1639	2968
530	21	314	357	899	1570
		691	785	1978	3454
560	22	341	385	960	1686
		750	847	2112	3709
580	23	375	405	1001	1781
		825	891	2202	3918
600	24	390	460	1056	1906
		858	1012	2323	4193

## Heavy Series

mm	inch	Bearing Kg/lb	Housing Kg/lb	Support Kg/lb	Comp. Unit
100	3 <sup>11</sup> / <sub>16</sub>	35	40	121	196
105	4	77	88	266	431
110	4 <sup>3</sup> / <sub>16</sub>	41	45	141	227
120	4 <sup>1</sup> / <sub>2</sub>	90	99	310	499
125	4 <sup>15</sup> / <sub>16</sub>	42	46	156	244
130	5	92	101	343	536
135	5 <sup>3</sup> / <sub>16</sub>	50	51	197	298
140	5 <sup>1</sup> / <sub>2</sub>	110	112	433	655
150	5 <sup>11</sup> / <sub>16</sub>	59	75	261	395
155	6	130	165	574	869
160	6 <sup>3</sup> / <sub>16</sub>	74	87	291	452
170	6 <sup>1</sup> / <sub>2</sub>	163	191	640	994
175	6 <sup>3</sup> / <sub>4</sub>	83	91	338	512
180	7	183	200	744	1127
190	7 <sup>1</sup> / <sub>4</sub>	105	120	454	679
200	8	231	264	999	1494
220	8 <sup>1</sup> / <sub>2</sub>	151	164	408	949
230	9	332	361	1395	2088
240	9 <sup>1</sup> / <sub>2</sub>	153	174	540	1064
260	10	337	383	1621	2341
280	11	203	201	459	863
		447	442	1010	1899
300	12	242	249	1019	1510
		532	548	2242	3322
320	13	327	300	1116	1743
		719	660	2455	3834
340		375	361	1620	2356
360	14	825	794	3564	5183
380	15	436	433	1538	2407
400	16	959	953	3384	5296
420		400	443	1014	1857
440	17	880	975	2231	4086
460	18	636	274	1513	2423
		1399	603	3329	5331
500	20	700	880	1863	3443
530	21	1540	1936	4099	7575
560	22	675	694	1847	3216
		1485	1527	4063	7075
580	23	700	770	1794	3264
600	24	1540	1694	3947	7181



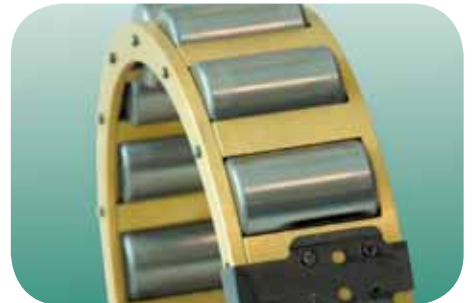
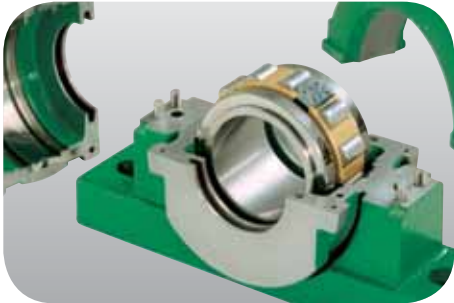


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