

Bearings for Material Handling System

The material handling system bearings consist of roller bearings for forklift portal, chain-guided roller bearings for forklift and standard combined bearings. With thick outer race, these bearings could afford heavy contact load. The contact working area of forklift portal bearings and standard combined bearings have been optimized to ensure a more reasonable load distribution when there is contact stress. Chain-guided forklift bearings have a flange to guide the chain.

There are two internal designs available, full complement roller/needle and ball design.



Track roller bearings can withdraw heavy load rating and shock load rating by their thick outer race. They are ready-to-fit units and are intended for all types of cam drives, tracks, conveyors, material handling systems and so on.

According to customer's application, the OD surface can be designed to be flat, crowned and other special ones. Cam rollers with crowned runner surfaces should always be used where angular misalignments with respect to the track expected and edge stresses kept to a minimum.

Track roller bearings are based on ball bearings, needle roller bearings as well as cylindrical roller bearings. Because of the wide variety of designs they are suitable for the most diverse operating conditions.

C&R track roller bearings consist of:

- Combined bearings
- Cam followers
- Mast rollers and chain pulleys
- Cam roller bearings
- Supporting rollers
- Other non-standard rollers

Material

| Material | China | USA | Japan | Germany | Main used for |
|--------------------------|----------|-------|-------|------------|-------------------------------------------|
| | GB | AISI | JIS | DIN, DINEN | |
| Bearing steel | GCr15 | 52100 | SUJ2 | 100Cr6 | All bearing types in this part |
| carburizing steel | 20CrMoTi | | | 20CrMonTi | Radial part out ring of combined bearings |

Remarks:
Exact material selected is due to primary equipment and condition where the equipment being used.
Any question, pls check and discuss with our technicians.

| Combined bearings | Material | Hardness |
|----------------------|------------------------|----------|
| radial part out ring | 20CrMoTi | 58-62HRC |
| Axial part | GCr15/100Cr6/AISI52100 | 58-62HRC |
| Roller | GCr15/100Cr6/AISI52100 | |
| Seal | NBR | |
| Cover | 20CrMoTi | 58-62HRC |

Clearance:

C2,C0,C3,C4,C5 radial internal clearance are available and also special radial internal clearance is available as customer's application providing the clearance limits are as specified in ISO 5753.

Load rating:

Dynamic load rating conforms to ISO281/1 and static load rating conforms to ISO76.

Lubrication:

The track roller bearings, filled with lithium grease, have a good anti-rust capability and can work among the temperature range from -30°C to +120°C. Generally speaking, they are greased for life and are maintenance-free under normal working condition. However, if they are subjected to moisture or solid contaminants, or if they keep running for a long periods under temperatures above 70°C, they should be relubricated with same grease by the oil hole in the inner race or other lubrication method.

High and low temperature grease are also available according to customer's request.

Product Introduction

1. Combined bearings

Combined bearings are particularly suitable for truck lift columns and all other shifting and conveying systems requiring profiles.

They can accommodate both axial load and radial load at the same time. With the optimized structure, the mount space can be saved, and the usage is much simple that just to weld the pivot in the mount plate, but not necessary to dismantle the whole set.

The radial bearings are particularly suitable for automation and shift systems, which do not require heavy axial loads, and they come from the combined bearings and maintain the same features of construction.

2. Cam followers

Cam followers are essentially needle or cylindrical roller or ball bearings with a thick-walled outer race. The outside surface of the outer ring is crowned which serves to preventing edge stresses if the cam follower runs in a tilted or inclined position. Cam followers are ready-to-mount units which are filled with grease. They are suitable for all types of cam drives, tracks, conveyor systems and so on. Instead of an inner race, cam followers have a solid stud which is threaded, so they can be quickly and easily attached to appropriate machine components by means of a hexagonal nut. Axial guidance for the outer race is provided by an integral flange at the head of the stud and a side washer pressed on to the stud, or by the roller complement.

The cam followers are available in different designs which have the same dimensions and differ only in their internal designs. Generally, cam followers have a concentric seating on the stud, but some are also available with an eccentric collar which is shrunk on the stud. Cam followers with eccentric collar enable an optimum interaction with the cam to be obtained and also allow less stringent manufacturing tolerances to be used for the associated components.

3. Mast rollers and chain pulleys

Mast rollers and chain pulleys are essentially ball or cylindrical roller and needle bearings with a thick-walled outer race. The rollers are available with a flat runner surface or a crowned one, which can be designed according to customer's application. They can roll directly on the tray under heavy load and shock load. They are greased for life. Under normal operating conditions, they are maintenance-free, which they should be relubricated under the severe working condition to prolong the working lifespan.

4. Cam roller bearings

Cam rollers bearings are ball bearings which have a particularly thick-walled outer race. They are ready-to-fit pregreased units and are used for all types of cam drives, conveyor systems and etc.

Either single row or double row design is available and the outer race surface and be designed to crowned or flat to suit for customer's application. Cam rollers with crowned runner surfaces should always be used in where angular misalignments with respect to the track expected and edge stresses kept to a minimum.

5. Supporting rollers

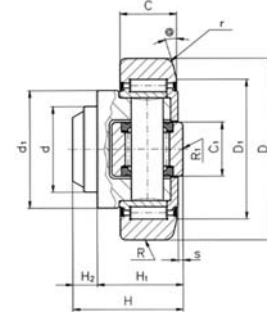
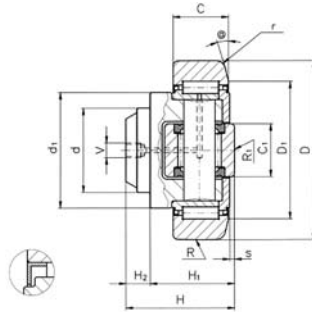
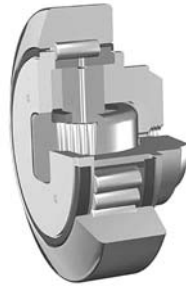
Supporting rollers are basically needle or cylindrical roller bearings with a thick-walled outer race. The rollers are available either with a flat runner surface or crowned runner surface, which can be designed according to customer's application.

With this outer race, supporting rollers are able to roll directly in the raceway and bear a heavy load rating. The crowned runner surface should always be used where angular misalignments with respect to the track expected and edge stresses kept to a minimum. They are ready-to-fit units, filled with grease and are suitable for all types of cam drives, tracks, conveyor systems and ect.

The support rollers can be divided into ones with axial guidance and without axial guidance. And from sealing structure, they can be divided into open type and sealed type.

Bearings for Material Handling System

Combined Bearings

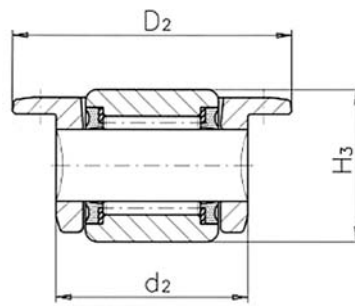


Standard Combined Bearings:

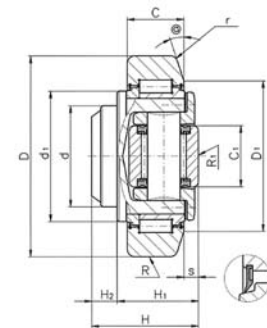
ZZ(Relubricable)

2RS(Sealed)

| Bearing Code | | Dimensions | | | | | | | | | | | | | | |
|--------------|--------|------------|-------|----|------|----------------|----------------|----------------|----------------|----------------|-----|---------|-----|------|----------------|--------|
| | | d | D | C | H | H ₁ | H ₂ | D ₁ | C ₁ | d ₁ | s | @ | r | R | R ₁ | V |
| ZZ | 2RS | mm | | | | | | | | | | degrees | mm | | | |
| MR.706 | | 30 | 52.5 | 19 | 33 | 27 | 6 | 43 | 16 | 40 | 2.5 | 10° | 3 | 500 | 500 | |
| MR.001 | MR.021 | 30 | 62 | 20 | 37.5 | 30.5 | 7 | 50 | 20 | 42 | 2.5 | 20° | 3 | 500 | 500 | |
| MR.002 | MR.022 | 35 | 70.1 | 23 | 44 | 36 | 8 | 57 | 22 | 48 | 2.5 | 20° | 4.5 | 500 | 500 | M6X1 |
| MR.003 | MR.023 | 40 | 77.7 | 23 | 48 | 36.5 | 11.5 | 61 | 26 | 53 | 3 | 20° | 4.5 | 500 | 500 | M6X1 |
| MR.005 | MR.025 | 45 | 88.4 | 30 | 57 | 44 | 13 | 68 | 26 | 59 | 3.5 | 20° | 4.5 | 700 | 700 | M6X1 |
| MR.007 | MR.027 | 60 | 107.7 | 31 | 69 | 55 | 14 | 82 | 34 | 71 | 4 | 20° | 5 | 1000 | 700 | M6X1 |
| MR.009 | MR.029 | 60 | 123 | 37 | 72.3 | 56 | 16.3 | 92 | 40 | 80 | 5 | 20° | 5 | 1000 | 1000 | M6X1 |
| MR.010 | MR.030 | 60 | 149 | 45 | 78.5 | 58.5 | 20 | 116 | 50 | 108 | 5.5 | 15° | 4 | 1500 | 1000 | M6X1 |
| MR.191 | | 60 | 149 | 45 | 86 | 67 | 19 | 120 | 50 | 108 | 5.5 | 15° | □3 | 1500 | 1000 | 1/8GAS |



Axial support series
MR...G2(sealed)



2RS(Sealed)

Adjustable Combined Bearings:

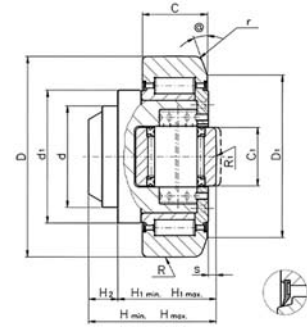
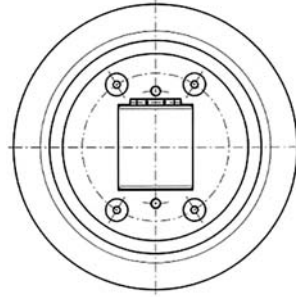
| Bearing Code | | Dimensions | | | | | | | | | | | | | | | | | |
|--------------|----------|------------|-------|----|------|----------------|----------------|----------------|----------------|----------------|-----|---------|-----|------|----------------|----------------|----------------|----------------|--|
| | | d | D | C | H | H ₁ | H ₂ | D ₁ | C ₁ | d ₁ | s | @ | r | R | R ₁ | D ₂ | d ₂ | H ₃ | |
| ZZ | 2RS | mm | | | | | | | | | | degrees | mm | | | | | | |
| MR.146 | MR.146G2 | 30 | 62 | 20 | 43 | 33 | 10 | 50 | 16 | 42 | 5.5 | 20° | 3 | 500 | 500 | 40 | 25 | 22 | |
| MR.147 | MR.146G2 | 35 | 70.1 | 23 | 48 | 40 | 8 | 57 | 16 | 48 | 6.5 | 20° | 4.5 | 500 | 500 | 40 | 25 | 22 | |
| MR.148 | MR.148G2 | 40 | 77.7 | 23 | 51 | 39.5 | 11 | 61 | 21 | 54 | 7 | 20° | 4.5 | 700 | 700 | 52 | 33 | 28 | |
| MR.150 | MR.148G2 | 45 | 88.9 | 30 | 61 | 48 | 13 | 69.5 | 21 | 59 | 7 | 20° | 4.5 | 850 | 700 | 52 | 33 | 28 | |
| MR.142 | MR.142G2 | 60 | 107.7 | 31 | 73 | 55 | 14 | 82 | 33 | 71 | 8 | 20° | 5 | 1000 | 700 | 74 | 48 | 38 | |
| MR.153 | MR.142G2 | 60 | 123 | 37 | 75.8 | 59.5 | 16.3 | 92 | 33 | 78 | 8 | 20° | 5 | 1000 | 1000 | 74 | 48 | 38 | |
| MR.154 | MR.154G2 | 60 | 149 | 45 | 89 | 69 | 20 | 116 | 50 | 103 | 15 | 15° | 5 | 1000 | 1000 | 105 | 72 | 55 | |

| Basic Load rating | | | | Limiting speed | Mass | Reference Index | |
|-------------------|----------------|----------------|-----------------|----------------|------|-----------------|------------|
| C | C _o | C _a | C _{oa} | grease | kg | Germany | Italy |
| KN | | | | Rev./min | | | |
| 26.5 | 46 | 6 | 6 | 800 | 0.39 | | |
| 31 | 35.5 | 11.1 | 11.5 | 900 | 0.52 | 4.054 | 4.0054-62 |
| 45.5 | 51 | 14 | 13 | 900 | 0.78 | 4.055 | 4.0055-70 |
| 48 | 56.8 | 18 | 18 | 800 | 1.02 | 4.056 | 4.0056-78 |
| 68 | 72 | 23 | 23 | 700 | 1.61 | 4.058 | 4.0058-88 |
| 81 | 95 | 31 | 36 | 650 | 2.69 | 4.061 | 4.0061-108 |
| 110 | 132 | 43 | 50 | 500 | 3.88 | 4.062 | 4.0062-123 |
| 151 | 192 | 68 | 71 | 400 | 6.65 | 4.063 | 4.0063-149 |
| 151 | 192 | 68 | 71 | 400 | 7.15 | | 4.0011-149 |

| Basic Load rating | | | | Limiting speed | Mass | Reference Index | |
|-------------------|----------------|----------------|-----------------|----------------|------|-----------------|------------|
| C | C _o | C _a | C _{oa} | grease | kg | Germany | Italy |
| KN | | | | Rev./min | | | |
| 31 | 35.5 | 8 | 8 | 900 | 0.60 | 4.072 | 4.0072-62 |
| 45.5 | 51 | 14 | 14 | 900 | 0.90 | 4.073 | 4.0073-70 |
| 48 | 56.8 | 14 | 14 | 800 | 1.05 | 4.074 | 4.0074-78 |
| 68 | 72 | 15 | 15 | 700 | 1.70 | 4.076 | 4.0076-88 |
| 81 | 95 | 31 | 36 | 650 | 2.40 | 4.078 | 4.0078/L |
| 110 | 132 | 31 | 36 | 500 | 4.10 | 4.079 | 4.0079-123 |
| 151 | 192 | 68 | 71 | 400 | 6.80 | 4.080 | 4.0080-149 |

Bearings for Material Handling System

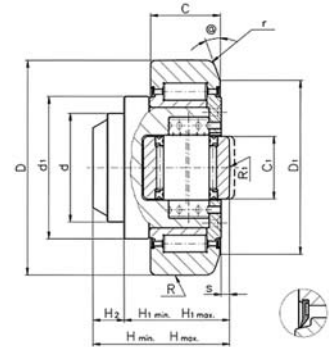
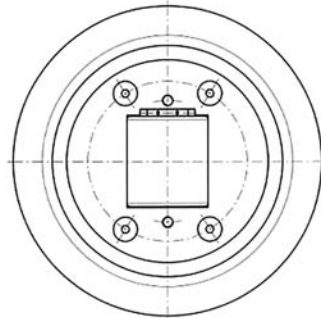
Combined Bearings



2RS(Sealed)

JUMBO Combined Bearings:

| Bearing Code | Dimensions | | | | | | | | | | | | | | |
|--------------|------------|-----|----|------------------|------------------|-------------------|-------------------|----------------|----------------|----------------|-----|---------|----|------|----------------|
| | d | D | C | H _{min} | H _{max} | H _{1min} | H _{1max} | D ₁ | C ₁ | d ₁ | s | @ | r | R | R ₁ |
| 2RS | mm | | | | | | | | | | | degrees | mm | | |
| MR.038A | 80 | 165 | 40 | 69 | 72 | 53 | 56 | 130 | 50 | 113 | 5 | 15° | 3 | 1000 | 1000 |
| MR.012A | 100 | 190 | 48 | 84.5 | 87.5 | 64.5 | 67.5 | 160 | 60 | 124 | 6.5 | 15° | 4 | 1000 | 1500 |
| MR.013A | 110 | 220 | 58 | 94.5 | 97.5 | 74.5 | 77.5 | 190 | 75 | 145 | 6.5 | 15° | 5 | 1500 | 2000 |
| MR.014A | 120 | 250 | 60 | 102 | 105 | 77 | 80 | 220 | 75 | 168 | 7 | 15° | 5 | 1500 | 2000 |
| MR.015A | 150 | 280 | 72 | 119.5 | 123.5 | 89.5 | 93.5 | 250 | 90 | 188 | 7.5 | 15° | 5 | 2000 | 3000 |



ZZ

Adjustable Combined Bearings with Eccentric Pin:

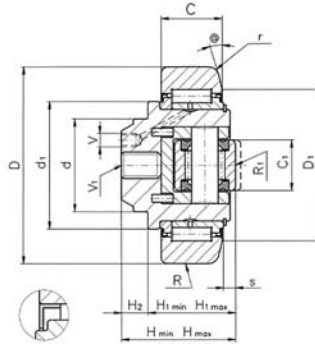
| Bearing Code | Dimensions | | | | | | | | | | | | | | |
|--------------|------------|-------|----|------------------|------------------|-------------------|-------------------|----------------|----------------|----------------|-----|---------|----|------|----------------|
| | d | D | C | H _{min} | H _{max} | H _{1min} | H _{1max} | D ₁ | C ₁ | d ₁ | s | @ | r | R | R ₁ |
| ZZ | mm | | | | | | | | | | | degrees | mm | | |
| KRES.062 | 30 | 62 | 20 | 37.5 | 39 | 30.5 | 32 | 50 | 20 | 42 | 4 | 20° | 3 | 500 | 500 |
| KRES.070 | 35 | 70.1 | 23 | 44 | 45.5 | 36 | 37.5 | 57 | 20 | 48 | 4 | 20° | 4 | 500 | 500 |
| KRES.078 | 40 | 77.7 | 23 | 48 | 50 | 36.5 | 38.5 | 61 | 24 | 53 | 3.5 | 20° | 4 | 700 | 700 |
| KRES.089 | 45 | 88.9 | 30 | 57 | 59 | 44 | 46 | 68 | 26 | 59 | 4 | 20° | 4 | 700 | 700 |
| KRES.101 | 50 | 101.9 | 28 | 46 | 48.5 | 33 | 35.5 | 77 | 26 | 67 | 4 | 20° | 4 | 850 | 700 |
| KRES.108 | 60 | 107.7 | 31 | 69 | 71.5 | 55 | 57.5 | 82 | 34 | 71 | 4 | 20° | 4 | 1000 | 700 |
| KRES.123 | 60 | 123 | 37 | 72.3 | 75.3 | 56 | 59 | 92 | 40 | 80 | 4.5 | 20° | 4 | 1000 | 700 |
| KRES.149 | 60 | 149 | 43 | 78.5 | 81.5 | 58.5 | 61.5 | 116 | 50 | 103 | 6 | 15° | 4 | 1000 | 700 |

| Basic Load rating | | | | Limiting speed | Mass | Reference Index | |
|-------------------|----------------|----------------|-----------------|----------------|------|-----------------|--------|
| C | C _o | C _a | C _{oa} | grease | kg | Germany | Italy |
| KN | | | | Rev./min | | | |
| 213 | 388 | 85 | 133 | 120 | 9.2 | 4.089 | 4.0089 |
| 266 | 500 | 100 | 180 | 100 | 10.6 | 4.090 | 4.0090 |
| 326 | 681 | 138 | 257 | 90 | 17.3 | 4.091 | 4.0091 |
| 369 | 748 | 138 | 257 | 70 | 23.9 | 4.092 | 4.0092 |
| 489 | 1066 | 182 | 488 | 55 | 36.0 | 4.093 | 4.0093 |

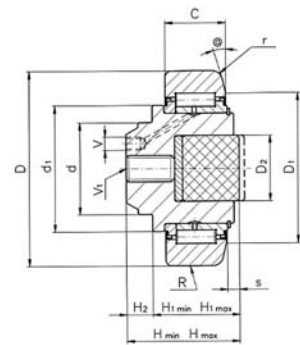
| Basic Load rating | | | | Limiting speed | Mass | Reference Index | |
|-------------------|----------------|----------------|-----------------|----------------|------|-----------------|--------|
| C | C _o | C _a | C _{oa} | grease | kg | Germany | Italy |
| KN | | | | Rev./min | | | |
| 39 | 65 | 16 | 25 | 900 | 0.52 | 4.454 | 4.0454 |
| 56 | 93 | 16 | 25 | 900 | 0.78 | 4.455 | 4.0455 |
| 59 | 102 | 23 | 36 | 800 | 1.02 | 4.456 | 4.0456 |
| 84 | 133 | 28 | 43 | 700 | 1.61 | 4.458 | 4.0458 |
| 91 | 153 | 30 | 35 | 700 | 1.75 | | |
| 94 | 162 | 33 | 47 | 650 | 2.69 | 4.461 | 4.0461 |
| 132 | 242 | 53 | 94 | 500 | 3.88 | 4.462 | 4.0462 |
| 179 | 353 | 68 | 71 | 400 | 6.65 | 4.463 | 4.0463 |

Bearings for Material Handling System

Combined Bearings



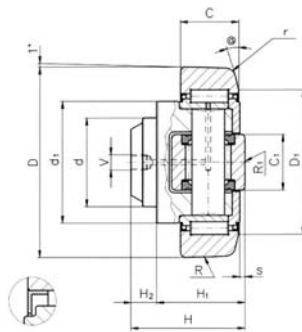
ZZ(Relubricable)



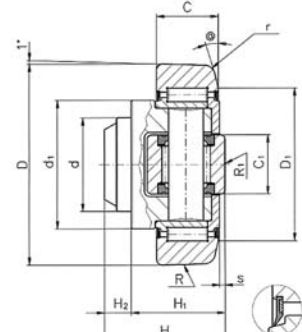
Combined bearing with plastic axial support

Adjustable Combined Bearings with Screw

| Bearing Code | Dimensions | | | | | | | | | | | | | | | | | | |
|--------------------------|------------|-------|----|------------------|------------------|-------------------|-------------------|----------------|----------------|----------------|----------------|----------------|---------|----|------|----------------|------------------|------|----------------|
| | d | D | C | H _{min} | H _{max} | H _{1min} | H _{1max} | H ₂ | D ₁ | C ₁ | D ₂ | d ₁ | @ | r | R | R ₁ | S ⁽⁴⁾ | V | V ₁ |
| ZZ | mm | | | | | | | | | | | | degrees | mm | | | | | |
| MR.961 ⁽¹⁾⁽²⁾ | 30 | 62 | 20 | 37.5 | 39.5 | 30.5 | 32.5 | 7 | 50 | — | φ 26 | 42 | 20° | 3 | 500 | 500 | 2.5 | — | M10 |
| MR.962 ⁽²⁾ | 35 | 70.1 | 23 | 38.5 | 40.5 | 31.5 | 33.5 | 7 | 57 | — | φ 30 | 48 | 20° | 3 | 500 | 500 | 3 | M6X1 | M10 |
| MR.963 ⁽²⁾ | 40 | 77.7 | 23 | 40.7 | 42.7 | 31.7 | 33.7 | 9 | 61 | — | φ 30 | 54 | 20° | 3 | 700 | 700 | 4 | M6X1 | M10 |
| MR.964 | 45 | 88.9 | 30 | 48.5 | 51 | 36.5 | 39 | 12 | 68 | 21 | φ 33 | 59 | 20° | 4 | 700 | 700 | 4 | M6X1 | M10 |
| MR.965 ⁽³⁾ | 50 | 101.9 | 28 | 46 | 48.5 | 33 | 35.5 | 13 | 77 | 21 | φ 33 | 67 | 20° | 4 | 850 | 700 | 2.5 | M6X1 | M10 |
| MR.966 | 55 | 107.7 | 31 | 53.5 | 56.5 | 41.5 | 44.5 | 12 | 82 | 30 | φ 42 | 71 | 20° | 4 | 1000 | 700 | 6 | M6X1 | M16 |
| MR.967 | 60 | 123 | 33 | 61.5 | 64.5 | 49.5 | 52.5 | 12 | 92 | 30 | φ 42 | 80 | 15° | 4 | 1000 | 1000 | 6.5 | M6X1 | M16 |
| MR.968 | 60 | 149 | 43 | 75.5 | 79 | 58.5 | 62 | 17 | 116 | 45 | φ 63 | 103 | 15° | 4 | 1000 | 1000 | 6.8 | M6X1 | M16 |



ZZ(Relubricable)



2RS(Sealed)

Adjustable Combined Bearings for Inclined Steel Industry

| Bearing Code | Dimensions | | | | | | | | | | | | | | | |
|-----------------------|------------|----|--------|----|----------------|----------------|----------------|----------------|----------------|-----|-----|---------|----|----------------|------|------|
| | d | D | C | H | H ₁ | H ₂ | D ₁ | C ₁ | d ₁ | s | @ | r | R | R ₁ | V | |
| ZZ | 2RS | mm | | | | | | | | | | degrees | mm | | | |
| MR.031 ⁽¹⁾ | MR.032 | 35 | 70.35 | 23 | 40.5 | 30.5 | 10 | 57 | 22 | 48 | 2.5 | 20° | 4 | 650 | 500 | |
| MR.004 | MR.024 | 40 | 78.3 | 23 | 40.7 | 29 | 11.7 | 61 | 24 | 54 | 2.5 | 20° | 4 | 700 | 700 | M6X1 |
| MR.034 | MR.035 | 45 | 89.25 | 30 | 50 | 37.5 | 12.5 | 68 | 26 | 59 | 3 | 20° | 4 | 850 | 700 | M6X1 |
| MR.006 | MR.026 | 50 | 101.8 | 28 | 46 | 33 | 13 | 77 | 30 | 67 | 2.5 | 20° | 4 | 850 | 700 | M6X1 |
| MR.008 | MR.028 | 55 | 108.55 | 31 | 53 | 38.5 | 14.5 | 82 | 34 | 71 | 3.5 | 20° | 4 | 1000 | 700 | M6X1 |
| MR.040 | MR.041 | 60 | 123.5 | 33 | 57 | 42 | 15 | 94 | 40 | 78 | 2.5 | 15° | 4 | 1000 | 750 | M6X1 |
| MR.016 ⁽²⁾ | | 60 | 129.4 | 33 | 56.5 | 42.5 | 14 | 94 | 40 | 78 | 2.5 | 10° | 4 | 1000 | 750 | M6X1 |
| MR.011 ⁽²⁾ | | 80 | 165 | 36 | 61 | 46 | 15 | 130 | 60 | 113 | 3 | 10° | 4 | 1000 | 1000 | M6X1 |

| Basic Load rating | | | | Limiting speed | Mass |
|-------------------|----------------|----------------|-----------------|----------------|------|
| C | C ₀ | C _a | C _{0a} | grease | kg |
| KN | | | | Rev./min | |
| 31 | 35.5 | — | — | 900 | 0.52 |
| 45.5 | 51 | — | — | 900 | 0.60 |
| 48 | 56.8 | — | — | 800 | 0.82 |
| 68 | 72 | 15 | 15 | 700 | 1.43 |
| 73 | 82 | 18 | 19 | 700 | 1.70 |
| 81 | 95 | 31 | 36 | 650 | 2.45 |
| 110 | 132 | 31 | 36 | 500 | 3.50 |
| 151 | 192 | 68 | 71 | 400 | 6.50 |

Remarks:

1. Non relubricable
2. With plastic axial support only
3. Taper outer "D" profile
4. Dimension "S" adjustable by means of screw UNI 5929 – DIN 916

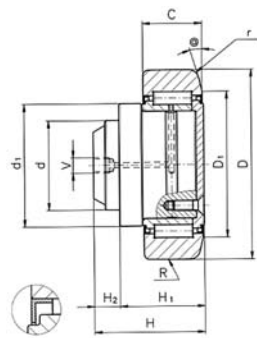
| Basic Load rating | | | | Limiting speed | Mass |
|-------------------|----------------|----------------|-----------------|----------------|------|
| C | C ₀ | C _a | C _{0a} | grease | kg |
| KN | | | | Rev./min | |
| 45.5 | 51 | 14 | 13 | 900 | 0.47 |
| 48 | 56.8 | 18 | 18 | 800 | 0.88 |
| 68 | 72 | 23 | 23 | 800 | 1.58 |
| 73 | 82 | 25 | 27 | 700 | 1.72 |
| 81 | 95 | 31 | 36 | 700 | 2.22 |
| 105 | 108 | 32 | 39 | 500 | 3.20 |
| 105 | 108 | 32 | 39 | 500 | 3.40 |
| 125 | 181 | 46 | 61 | 400 | 6.30 |

Remarks:

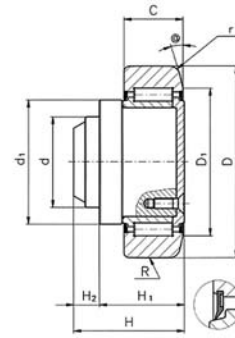
1. Non relubricable
2. Non taper outer Profile (D)

Bearings for Material Handling System

Combined Bearings



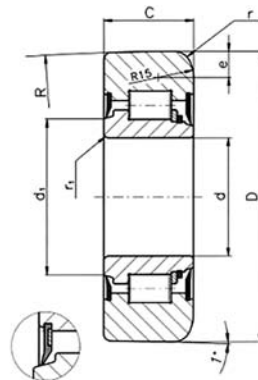
ZZ(Relubricable)



2RS(Sealed)

Standard Radial Bearings

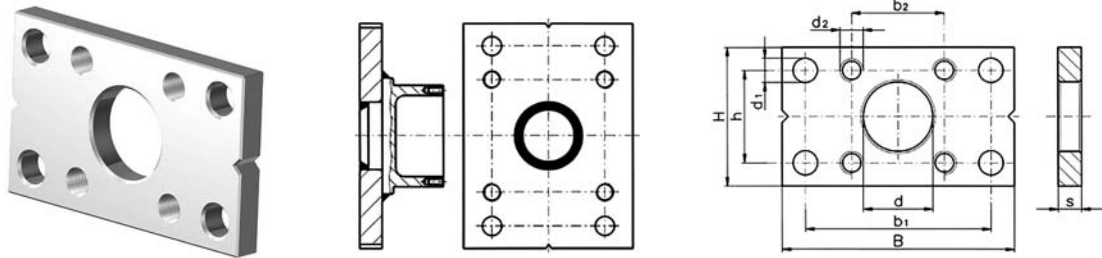
| Bearing Code | | Dimensions | | | | | | | | | | | Basic Load rating | | Limiting speed | Mass kg | Reference Index Germany | | |
|--------------|-------|------------|-------|----|------|----------------|----------------|----------------|----------------|-----|---|------|-------------------|-----|----------------|------------|----------------------------|--------|--|
| | | d | D | C | H | H ₁ | H ₂ | D ₁ | d ₁ | @ | r | R | V | C | C ₀ | | | grease | |
| ZZ | 2RS | mm | | | | | | | | | | | degrees | mm | | KN | Rev./min | | |
| MR111 | MR121 | 30 | 62 | 20 | 36.5 | 29.5 | 7 | 50 | 42 | 20° | 3 | 500 | M6X1 | 39 | 65 | 900 | 0.6 | 2.054 | |
| MR112 | MR122 | 35 | 70.1 | 23 | 42 | 34 | 8 | 57 | 48 | 20° | 3 | 500 | M6X1 | 56 | 93 | 900 | 0.8 | 2.055 | |
| MR113 | MR123 | 40 | 77.7 | 23 | 44.5 | 33.5 | 11.5 | 61 | 53 | 20° | 3 | 700 | M6X1 | 58 | 101.5 | 800 | 1.1 | 2.056 | |
| MR115 | MR125 | 45 | 88.9 | 30 | 54 | 41 | 13 | 68 | 59 | 20° | 4 | 700 | M6X1 | 84 | 133 | 700 | 1.7 | 2.058 | |
| MR117 | MR127 | 60 | 107.7 | 31 | 65.5 | 51.5 | 14 | 82 | 71 | 20° | 4 | 1000 | M6X1 | 94 | 162 | 650 | 2.7 | 2.061 | |
| MR119 | MR129 | 60 | 123 | 37 | 67.8 | 51.5 | 16.3 | 92 | 80 | 20° | 4 | 1000 | M6X1 | 132 | 242 | 500 | 3.9 | 2.062 | |
| MR120 | MR130 | 60 | 149 | 43 | 74 | 54 | 20 | 116 | 103 | 15° | 4 | 1000 | M6X1 | 179 | 353 | 400 | 6.5 | 2.063 | |



2RS (sealed)

Radial Bearings for Inclined Mounting

| Bearing Code | Dimensions | | | | | | | | | Basic Load Rating | | Limiting speed |
|--------------|------------|-------|----|-----|----------------|---|----------------|------|-----|-------------------|--------|----------------|
| | d | D | C | e | d ₁ | r | r ₁ | R | C | C ₀ | grease | |
| 2RS | mm | | | | | | | | | KN | | Rev./min |
| MR.1624 | 30 | 70 | 22 | 8.5 | 41 | 6 | 1 | 250 | 41 | 51 | 900 | |
| MR.1625 | 35 | 78 | 22 | 8.5 | 47 | 6 | 1 | 250 | 44 | 60 | 800 | |
| MR.1626 | 40 | 88.5 | 28 | 11 | 51 | 7 | 2 | 500 | 63 | 90 | 700 | |
| MR.1627 | 50 | 101.8 | 24 | 11 | 66 | 7 | 2 | 500 | 70 | 100 | 700 | |
| MR.1628 | 50 | 107.8 | 28 | 11 | 66 | 7 | 2 | 1000 | 87 | 120 | 650 | |
| MR.1629 | 50 | 123 | 38 | 11 | 66 | 7 | 2 | 1000 | 145 | 265 | 600 | |

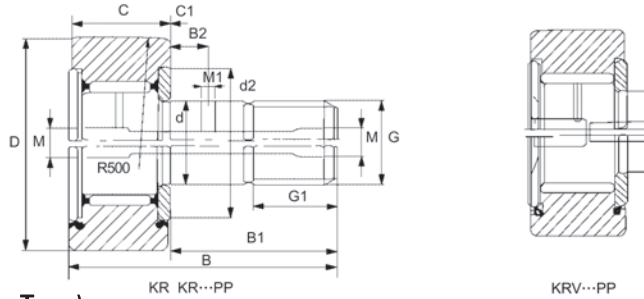


Mounting Plates

| Bearing Code | Dimension(mm) | | | | | | | | | | Suitable Bearing types |
|--------------|---------------|-----|-----|----|----------------|----------------|----------------|----------------|-----|--|--------------------------------------------------------------------------------------------------------------|
| | d | b | H | s | d ₁ | d ₂ | b ₁ | b ₂ | h | | |
| | mm | | | | | | | | | | |
| PMR.706 | 30 | 90 | 50 | 10 | 8.5 | M8 | 70 | 40 | 30 | | MR706 |
| PMR.001 | 30 | 100 | 60 | 10 | 10.5 | M10 | 80 | 40 | 40 | | MR001;MR021;MR146;MR111;MR121;MR430;MR961; KRES062 |
| PMR.002 | 35 | 120 | 80 | 15 | 12.5 | M12 | 90 | 50 | 50 | | MR002;MR022;MR031;MR032;MR147;MR112;MR962; KRES070 |
| PMR.003 | 40 | 120 | 80 | 15 | 12.5 | M12 | 90 | 50 | 50 | | MR003;MR023;MR004;MR024;MR148;MR149;MR149; MR113;MR123;MR963;KRES078 |
| PMR.005 | 45 | 120 | 120 | 20 | - | M16 | - | 90 | 90 | | MR005;MR025;MR034;MR035;MR150;MR115;MR125; MR964;KRES089 |
| PMR.006 | 50 | 120 | 120 | 20 | - | M16 | - | 90 | 90 | | MR006;MR026;MR151;MR965;KRES101 |
| PMR.007 | 60 | 180 | 120 | 20 | 17 | M16 | 140 | 80 | 80 | | MR007;MR027;MR009;MR029;MR040;MR041MR967;MR016;MR142; MR153; MR117; MR127; MR119; MR129; KRES108; KRES123 |
| PMR.008 | 55 | 180 | 120 | 20 | 17 | M16 | 140 | 80 | 80 | | MR008;MR028;MR152;MR966 |
| PMR.010 | 60 | 200 | 150 | 20 | 17 | M16 | 160 | 100 | 100 | | MR010;MR030;MR191;MR011;MR154;MR120;MR130; MR968;KRES149 |

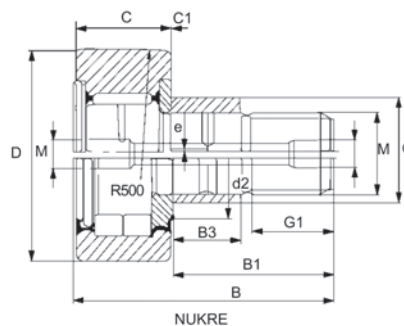
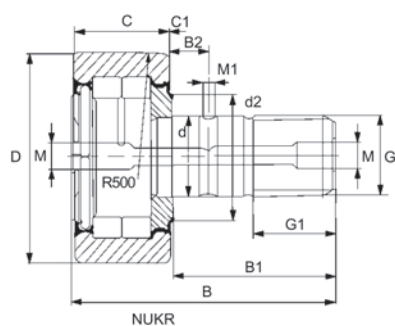
Bearings for Material Handling System

Cam Followers



Stud Type Track Roller (Roller Type)

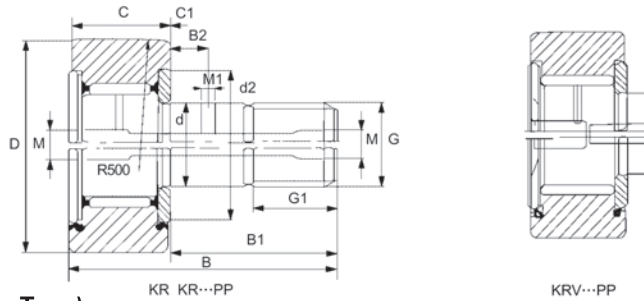
| Shaft Diameter mm | Bearing Code | | Boundary Dimensions | | | | | | | | |
|----------------------|--------------------------|-----------------------|---------------------|----|----|------|----|------|----|----------|----|
| | Without eccentric collar | With eccentric collar | D | d | C | ra | B | B1 | B2 | G | G1 |
| | mm | | | | | | | min | mm | min | |
| 16 | KR 16 | KRE 16 | 16 | 6 | 11 | 0.15 | 28 | 16 | | M6 | 8 |
| | KR 16 PP | KRE 16 PP | 16 | 6 | 11 | 0.15 | 28 | 16 | | M6 | 8 |
| | KRV 16 | KRVE 16 | 16 | 6 | 11 | 0.15 | 28 | 16 | | M6 | 8 |
| | KRV 16 PP | KRVE16 PP | 16 | 6 | 11 | 0.15 | 28 | 16 | | M6 | 8 |
| 19 | KR 19 | KRE 19 | 19 | 8 | 11 | 0.15 | 32 | 20 | | M8 | 10 |
| | KR 19 PP | KRE 19 PP | 19 | 8 | 11 | 0.15 | 32 | 20 | | M8 | 10 |
| | KRV 19 | KRVE19 | 19 | 8 | 11 | 0.15 | 32 | 20 | | M8 | 10 |
| | KRV 19 PP | KRVE19 PP | 19 | 8 | 11 | 0.15 | 32 | 20 | | M8 | 10 |
| 22 | KR 22 | KRE 22 | 22 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| | KR 22 PP | KRE 22 PP | 22 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| | KRV 22 | KRVE22 | 22 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| | KRV 22PP | KRVE 22PP | 22 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| 26 | KR 26 | KRE 26 | 26 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| | KR 26 PP | KRE 26 PP | 26 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| | KRV 26 | KRVE26 | 26 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| | KR V 26 PP | KRVE26 PP | 26 | 10 | 12 | 0.3 | 36 | 23 | | M 10x1 | 12 |
| 30 | KR 30 | KRE 30 | 30 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| | KR 30 PP | KRE 30 PP | 30 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| | KRV 30 | KRVE 30 | 30 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| | KRV 30 PP | KRVE30 PP | 30 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| 32 | KR 32 | KRE 32 | 32 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| | KR 32 PP | KRE 32 PP | 32 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| | KRV 32 | KRVE 32 | 32 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| | KRV 32 PP | KRVE32 PP | 32 | 12 | 14 | 0.6 | 40 | 25 | 6 | M 12x1.5 | 13 |
| 35 | KR 35 | KRE 35 | 35 | 16 | 18 | 0.6 | 52 | 32.5 | 8 | M 16x1.5 | 17 |
| | KR 35 PP | KRE 35 PP | 35 | 16 | 18 | 0.6 | 52 | 32.5 | 8 | M 16x1.5 | 17 |
| | KRV 35 | KRVE 35 | 35 | 16 | 18 | 0.6 | 52 | 32.5 | 8 | M 16x1.5 | 17 |
| | KRV 35 PP | KRVE35 PP | 35 | 16 | 18 | 0.6 | 52 | 32.5 | 8 | M 16x1.5 | 17 |
| | NUKR 35 | NUKRE 35 | 35 | 16 | 18 | 0.6 | 52 | 32.5 | 8 | M 16x1.5 | 17 |
| 40 | KR 40 | KRE 40 | 40 | 18 | 20 | 1 | 58 | 36.5 | 8 | M 18x1.5 | 19 |
| | KR 40 PP | KRE 40 PP | 40 | 18 | 20 | 1 | 58 | 36.5 | 8 | M 18x1.5 | 19 |
| | KRV 40 | KRVE 40 | 40 | 18 | 20 | 1 | 58 | 36.5 | 8 | M 18x1.5 | 19 |
| | KRV 40 PP | KRVE40 PP | 40 | 18 | 20 | 1 | 58 | 36.5 | 8 | M 18x1.5 | 19 |
| | NUKR 40 | NUKRE 40 | 40 | 18 | 20 | 1 | 58 | 36.5 | 8 | M 18x1.5 | 19 |
| 47 | KR 47 | KRE 47 | 47 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| | KR 47 PP | KRE 47 PP | 47 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| | KRV 47 | KRVE 47 | 47 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |



| Boundary Dimensions | | | | | | | Nut Tightening Torque M_A | Basic Load Rating | | | | Limiting speed |
|---------------------|-----|-----|----|----|-----|-----|-----------------------------|-------------------|----------|-------|----------|----------------|
| M | M1 | C1 | d2 | d1 | B3 | e | | C_r | C_{or} | C_w | C_{ow} | |
| mm | | | | | | | Nm | N | | | | |
| 4 | 0.6 | 12 | 9 | 7 | 0.5 | 3 | 3800 | 3750 | 3150 | 3300 | 22000 | |
| 4 | 0.6 | 12 | 9 | 7 | 0.5 | 3 | 3800 | 3750 | 3150 | 3300 | 16000 | |
| 4 | 0.6 | 12 | 9 | 7 | 0.5 | 3 | 6400 | 8500 | 4850 | 6500 | 8500 | |
| 4 | 0.6 | 12 | 9 | 7 | 0.5 | 3 | 6400 | 8500 | 4850 | 6500 | 8500 | |
| 4 | 0.6 | 14 | 11 | 9 | 0.5 | 8 | 4250 | 4600 | 3500 | 3900 | 20000 | |
| 4 | 0.6 | 14 | 11 | 9 | 0.5 | 8 | 4250 | 4600 | 3500 | 3900 | 14000 | |
| 4 | 0.6 | 14 | 11 | 9 | 0.5 | 8 | 7300 | 10800 | 5500 | 7900 | 7000 | |
| 4 | 0.6 | 14 | 11 | 9 | 0.5 | 8 | 7300 | 10800 | 5500 | 7900 | 7000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 5700 | 6500 | 4450 | 5200 | 16000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 5700 | 6500 | 4450 | 5200 | 11000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 8600 | 12900 | 6300 | 9100 | 6000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 8600 | 12900 | 6300 | 9100 | 6000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 5700 | 6500 | 5100 | 6200 | 16000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 5700 | 6500 | 5100 | 6200 | 11000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 8600 | 12900 | 7300 | 11300 | 6000 | |
| 4 | 0.6 | 17 | 13 | 10 | 0.5 | 15 | 8600 | 12900 | 7300 | 11300 | 6000 | |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 8100 | 9700 | 6800 | 8400 | 11000 |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 8100 | 9700 | 6800 | 8400 | 8300 |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 12200 | 19000 | 9500 | 14600 | 4500 |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 12200 | 19000 | 9500 | 14600 | 4500 |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 8100 | 9700 | 7100 | 9000 | 11000 |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 8100 | 9700 | 7100 | 9000 | 8300 |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 12200 | 19000 | 10000 | 15800 | 4500 |
| 3 | 6 | 0.6 | 23 | 15 | 11 | 0.5 | 22 | 12200 | 19000 | 10000 | 15800 | 4500 |
| 3 | 6 | 0.8 | 27 | 20 | 14 | 1 | 58 | 12900 | 19000 | 9700 | 14100 | 7000 |
| 3 | 6 | 0.8 | 27 | 20 | 14 | 1 | 58 | 12900 | 19000 | 9700 | 14100 | 7000 |
| 3 | 6 | 0.8 | 27 | 20 | 14 | 1 | 58 | 18300 | 35000 | 12800 | 23000 | 3400 |
| 3 | 6 | 0.8 | 27 | 20 | 14 | 1 | 58 | 18300 | 35000 | 12800 | 23000 | 3400 |
| 3 | 6 | 0.8 | 27 | 20 | 14 | 1 | 58 | 23000 | 27000 | 16000 | 18300 | 6500 |
| 3 | 6 | 0.8 | 32 | 22 | 16 | 1 | 87 | 14200 | 20400 | 10900 | 15500 | 6000 |
| 3 | 6 | 0.8 | 32 | 22 | 16 | 1 | 87 | 14200 | 20400 | 10900 | 15500 | 6000 |
| 3 | 6 | 0.8 | 32 | 22 | 16 | 1 | 87 | 21000 | 39500 | 14800 | 26500 | 2900 |
| 3 | 6 | 0.8 | 32 | 22 | 16 | 1 | 87 | 21000 | 39500 | 14800 | 26500 | 2900 |
| 3 | 6 | 0.8 | 32 | 24 | 18 | 1 | 87 | 24800 | 31000 | 18500 | 22800 | 5500 |
| 4 | 8 | 0.8 | 37 | 24 | 18 | 1 | 120 | 19500 | 32000 | 15500 | 25500 | 4900 |
| 4 | 8 | 0.8 | 37 | 24 | 18 | 1 | 120 | 19500 | 32000 | 15500 | 25500 | 4900 |
| 4 | 8 | 0.8 | 37 | 24 | 18 | 1 | 120 | 28000 | 59000 | 20600 | 42000 | 2600 |

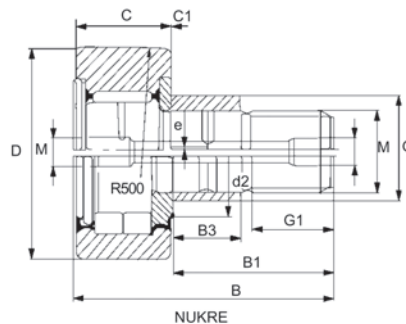
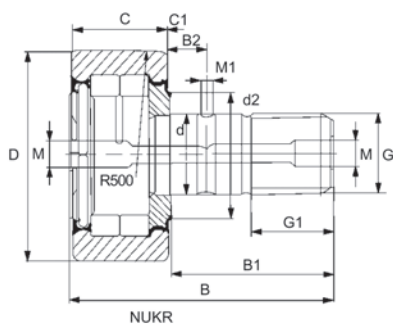
Bearings for Material Handling System

Cam Followers



Stud Type Track Roller (Roller Type)

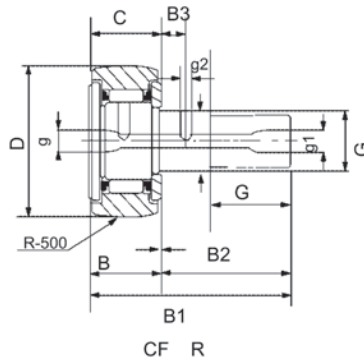
| Shaft Diameter mm | Bearing Code | | Boundary Dimensions | | | | | | | | |
|----------------------|--------------------------|-----------------------|---------------------|----|----|-----|-----|------|----|-----------|----------|
| | Without eccentric collar | With eccentric collar | D | d | C | ra | B | B1 | B2 | G | G1 |
| | mm | | | | | | | min | mm | min | |
| 52 | KRV 47 PP | KRVE47 PP | 47 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| | NUKR 47 | NUKRE 47 | 47 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20 x1.5 | 21 |
| | KR 52 | KRE 52 | 52 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| | KR 52 PP | KRE 52PP | 52 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| | KRV 52 | KRVE 52 | 52 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| | KRV 52 PP | KRVE 52PP | 52 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| 62 | NUKR 52 | NUKRE 52 | 52 | 20 | 24 | 1 | 66 | 40.5 | 9 | M 20x1.5 | 21 |
| | KR 62 | KRE 62 | 62 | 24 | 29 | 1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | KR 62 PP | KRE 62 PP | 62 | 24 | 29 | 1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | KRV 62 | KRVE 62 | 62 | 24 | 29 | 1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | KRV 62 PP | KRVE 62PP | 62 | 24 | 29 | 1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | NUKR 62 | NUKRE 62 | 62 | 24 | 29 | 1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| 72 | KR 72 | KRE 72 | 72 | 24 | 29 | 1.1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | KR 72 PP | KRE 72 PP | 72 | 24 | 29 | 1.1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | KRV 72 | KRVE 72 | 72 | 24 | 29 | 1.1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | KR V 72 PP | KRVE72 PP | 72 | 24 | 29 | 1.1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | NUKR 72 | NUKRE 72 | 72 | 24 | 29 | 1.1 | 80 | 49.5 | 11 | M 24x1.5 | 25 |
| | 80 | KRV 80 | KRE 80 | 80 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 |
| KR 80 PP | | KRE 80 PP | 80 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| KRV 80 | | KRVE 80 | 80 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| KRV 80 PP | | KRVE80 PP | 80 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| NUKR 80 | | NUKRE 80 | 80 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| 85 | | KR 85 | KRE 85 | 85 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 |
| | KR 85 PP | KRE 85 PP | 85 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| 90 | KR90 | KRE 90 | 90 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| | KR 90 PP | KRE 90 PP | 90 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| | KRV 90 | KRVE 90 | 90 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| | KRV 90 PP | KRVE90 PP | 90 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |
| | NUKR 90 | NUKRE 90 | 90 | 30 | 35 | 1.1 | 100 | 63 | 15 | M 30x1.5 | 32 |



| Boundary Dimensions | | | | | | | Nut Tightening Torque MA | Basic Load Rating | | | | Limiting speed |
|---------------------|----|-----|----|----|----|-----|--------------------------|-------------------|-----------------|----------------|-----------------|----------------|
| M | M1 | C1 | d2 | d1 | B3 | e | | C _r | C _{or} | C _w | C _{ow} | |
| mm | | | | | | | Nm | N | | | | |
| 4 | 8 | 0.8 | 37 | 24 | 18 | 1 | 120 | 28000 | 59000 | 20600 | 42000 | 2600 |
| 4 | 8 | 0.8 | 37 | 24 | 18 | 1 | 120 | 39000 | 50000 | 28000 | 34500 | 4200 |
| 8 | 4 | 0.8 | 37 | 24 | 18 | 1 | 120 | 19500 | 32000 | 16800 | 38500 | 4900 |
| 8 | 4 | 0.8 | 37 | 24 | 18 | 1 | 120 | 19500 | 32000 | 16800 | 28500 | 4900 |
| 8 | 4 | 0.8 | 37 | 24 | 18 | 1 | 120 | 28000 | 59000 | 22500 | 48000 | 2600 |
| 8 | 4 | 0.8 | 37 | 24 | 18 | 1 | 120 | 28000 | 59000 | 22500 | 48000 | 2600 |
| 8 | 4 | 0.8 | 31 | 24 | 18 | 1 | 120 | 43500 | 60000 | 29000 | 37500 | 3400 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 30500 | 53000 | 26500 | 47500 | 3800 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 30500 | 53000 | 26500 | 47500 | 3800 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 41500 | 91000 | 34000 | 76000 | 2200 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 41500 | 91000 | 34000 | 76000 | 2200 |
| 8 | 4 | 0.8 | 38 | 28 | 22 | 1 | 220 | 59000 | 79000 | 40500 | 51000 | 2600 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 30500 | 53000 | 28000 | 53000 | 3800 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 30500 | 53000 | 28000 | 53000 | 3800 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 41500 | 91000 | 37000 | 85000 | 2200 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 41500 | 91000 | 37000 | 85000 | 2200 |
| 8 | 4 | 0.8 | 44 | 28 | 22 | 1 | 220 | 65000 | 93000 | 45000 | 61000 | 2100 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 45000 | 85000 | 39500 | 77000 | 2600 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 45000 | 85000 | 39500 | 77000 | 2600 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 60000 | 142000 | 49500 | 120000 | 1700 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 60000 | 142000 | 49500 | 120000 | 1700 |
| 8 | 4 | 1 | 47 | 35 | 29 | 1.5 | 450 | 95000 | 133000 | 67000 | 93000 | 1800 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 45000 | 85000 | 40500 | 80000 | 2600 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 45000 | 85000 | 40500 | 80000 | 2600 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 45000 | 85000 | 41500 | 83000 | 2600 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 45000 | 85000 | 41500 | 83000 | 2600 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 60000 | 142000 | 53000 | 130000 | 1700 |
| 8 | 4 | 1 | 53 | 35 | 29 | 1.5 | 450 | 60000 | 142000 | 53000 | 130000 | 1700 |
| 8 | 4 | 1 | 47 | 35 | 29 | 1.5 | 450 | 95000 | 133000 | 77000 | 110000 | 1800 |

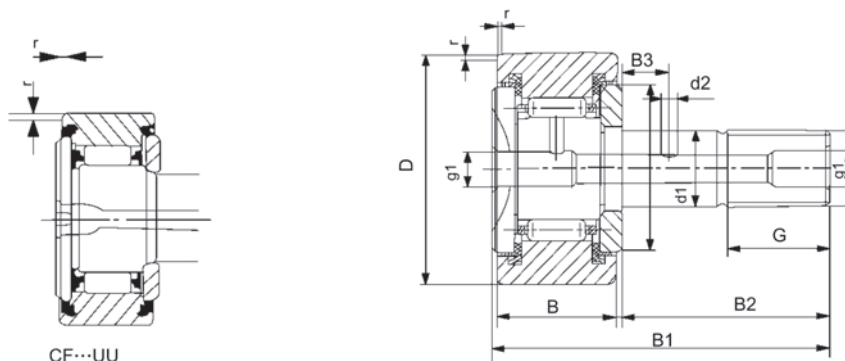
Bearings for Material Handling System

Cam Followers



Stud Type Track Roller (Roller Type)

| Stud dia mm | Bearing Code | | | | Mass g | Boundary Dimensions mm | | | | | |
|----------------|--------------------------|-----------------------------|--------------------------|-----------------------------|-----------|---------------------------|----|----|----------|--------|---------------|
| | Without eccentric collar | With cylindrical outer ring | Without eccentric collar | With cylindrical outer ring | | D | C | d1 | G | G1 | B |
| | 6 | CF 6 R | CF 6 | CF 6 UUR | CF 6 UU | 18.5 | 16 | 11 | 6 | M6x1 | 8(9) |
| 8 | CF 8 R | CF 8 | CF 8 UUR | CF 8 UU | 28.5 | 19 | 11 | 8 | M8x1.25 | 10(11) | 12.2max(12) |
| 10 | CF 10 R | CF 10 | CF 10 UUR | CF 10 UU | 45 | 22 | 12 | 10 | M10x1.25 | 12(13) | 13.2max(13) |
| | CF 10-1 R | CF 10-1 | CF 10-1 UUR | CF 10-1 UU | 60 | 26 | 12 | 10 | M10x1.25 | 12(13) | 13.2max(13) |
| 12 | CF 12 R | CF 12 | CF 12 UUR | CF 12 UU | 95 | 30 | 14 | 12 | M12x1.5 | 13(14) | 15.2max(15) |
| | CF 12-1 R | CF 12-1 | CF 12-1 UUR | CF 12-1 UU | 105 | 32 | 14 | 12 | M12x1.5 | 13(14) | 15.2max(15) |
| 16 | CF 16 R | CF 16 | CF 16 UUR | CF 16 UU | 170 | 35 | 18 | 16 | M16x1.5 | 17(18) | 19.6max(19.5) |
| 18 | CF 18 R | CF 18 | CF 18 UUR | CF 18 UU | 250 | 40 | 20 | 18 | M18x1.5 | 19(20) | 21.6max(21.5) |
| 20 | CF 20 R | CF 20 | CF 20 UUR | CF 20 UU | 460 | 52 | 24 | 20 | M20x1.5 | 21(22) | 25.6max(25.5) |
| | CF 20-1 R | CF 20-1 | CF 20-1 UUR | CF 20-1 UU | 385 | 47 | 24 | 20 | M20x1.5 | 21(22) | 25.6max(25.5) |
| 24 | CF 24 R | CF 24 | CF 24 UUR | CF 24 UU | 815 | 62 | 29 | 24 | M24x1.5 | 25 | 30.6max(30.5) |
| | CF 24-1 R | CF 24-1 | CF 24-1 UUR | CF 24-1 UU | 1140 | 72 | 29 | 24 | M24x1.5 | 25 | 30.6max(30.5) |
| 30 | CF 30 R | CF 30 | CF 30 UUR | CF 30 UU | 1870 | 80 | 35 | 30 | M30x1.5 | 32 | 37max(37) |
| | CF 30-1 R | CF 30-1 | CF 30-1 UUR | CF 30-1 UU | 2030 | 85 | 35 | 30 | M30x1.5 | 32 | 37max(37) |
| | CF 30-2 R | CF 30-2 | CF 30-2 UUR | CF 30-2 UU | 2220 | 90 | 35 | 30 | M30x1.5 | 32 | 37max(37) |

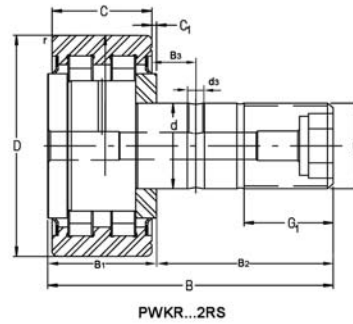


CR...UU

| Boundary Dimensions | | | | | | | Mounting dimension | Maximum tightening | Basic Load Rating | | Maximum |
|---------------------|------|--------|----------|----|----|------------------|--------------------|--------------------|-------------------|------|----------------|
| B1 | B2 | B3 | C1 | g1 | g2 | r _{min} | f Min. | torque | C | Co | allowable load |
| mm | | | | | | | mm | Kgf.m | kgf | | kgf |
| 28.2max(28) | 16 | | 0.6(0.5) | 4 | | 0.3 | 11 | 0.3 | 370 | 370 | 200 |
| 32.2max(32) | 20 | | 0.6(0.5) | 4 | | 0.3 | 13 | 0.8 | 430 | 480 | 470 |
| 36.2max(36) | 23 | | 0.6(0.5) | 4 | | 0.3(0.6) | 16(15) | 1.2 | 550 | 700 | 700 |
| 36.2max(36) | 23 | | 0.6(0.5) | 4 | | 0.3(0.6) | 16(15) | 1.2 | 550 | 700 | 700 |
| 40.2max(42) | 25 | 6 | 0.6(0.5) | 6 | 3 | 0.6(1) | 21 | 2.2 | 810 | 1000 | 1000 |
| 40.2max(42) | 25 | 6 | 0.6(0.5) | 6 | 3 | 0.6(1) | 21 | 2.2 | 810 | 1000 | 1000 |
| 52.1max(52) | 32.5 | 8 | 0.8 | 6 | 3 | 0.6(1) | 26(25) | 5.8 | 1230 | 1870 | 1870 |
| 58.1max(58) | 36.5 | 8 | 0.8 | 6 | 3 | 1 | 29 | 8.5 | 1500 | 2570 | 2570 |
| 66.1max(66) | 40.5 | (10)9 | 0.8 | 8 | 4 | 1 | 34(37) | 12 | 2110 | 3530 | 3280 |
| 66.1max(66) | 40.5 | (12)9 | 0.8 | 8 | 4 | 1 | 34(37) | 12 | 2110 | 3530 | 3280 |
| 80.1max(80) | 49.5 | (12)11 | 0.8 | 8 | 4 | 1 | 40 | 22 | 3110 | 5370 | 4550 |
| 80.1max(80) | 49.5 | (12) | 0.8 | 8 | 4 | 1 | 40 | 22 | 3110 | 5370 | 4550 |
| 100max(100) | 63 | 15 | 1 | 8 | 4 | 1(1.5) | 49(47) | 46 | 4630 | 8680 | 7510 |
| 100max(100) | 63 | 15 | 1 | 8 | 4 | 1(1.5) | 49(47) | 46 | 4630 | 8680 | 7510 |
| 100max(100) | 63 | 15 | 1 | 8 | 4 | 1(1.5) | 49(47) | 46 | 4630 | 8680 | 7510 |

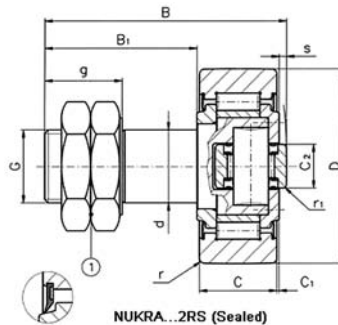
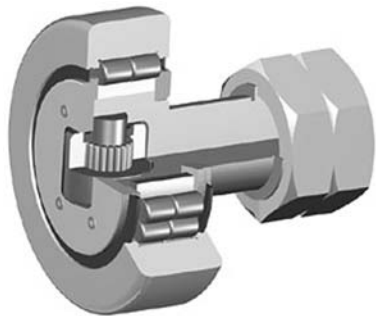
Bearings for Material Handling System

Cam Followers



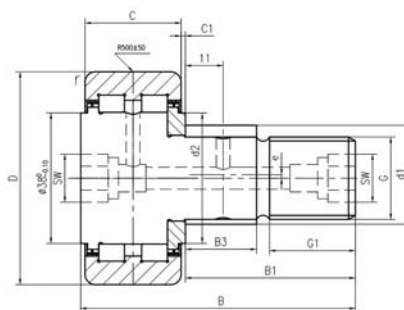
Stud Type Track Roller (Roller Type)

| Bearing Code | | Boundary Dimensions | | | | | | | |
|--------------------------|-----------------------|---------------------|----|-----|-------------------|----------------|----------------|----|----------------|
| Without eccentric collar | With eccentric collar | d ₁ | D | B | B _{1max} | B ₂ | B ₃ | C | C ₁ |
| mm | | | | | | | | | |
| PWKR35-2RS | PWKRE35-2RS | 16 | 35 | 52 | 19,6 | 32,5 | 7,8 | 18 | 0,8 |
| PWKR40-2RS | PWKRE40-2RS | 18 | 40 | 58 | 21,6 | 36,5 | 8 | 20 | 0,8 |
| PWKR47-2RS | PWKRE47-2RS | 20 | 47 | 66 | 25,6 | 40,5 | 9 | 24 | 0,8 |
| PWKR52-2RS | PWKRE52-2RS | 20 | 52 | 66 | 25,6 | 40,5 | 9 | 24 | 0,8 |
| PWKR62-2RS | PWKRE62-2RS | 24 | 62 | 80 | 30,6 | 49,5 | 11 | 28 | 1,3 |
| PWKR72-2RS | PWKRE72-2RS | 24 | 72 | 80 | 30,6 | 49,5 | 11 | 28 | 1,3 |
| PWKR80-2RS | PWKRE80-2RS | 30 | 80 | 100 | 37 | 63 | 15 | 35 | 1 |
| PWKR90-2RS | PWKRE90-2RS | 30 | 90 | 100 | 37 | 63 | 15 | 35 | 1 |



"NUKRA" Combined Stud Type Track Rollers

| Bearing Code | Boundary Dimensions | | | | | | | |
|--------------|---------------------|----|----|-----|----------------|----------------|----------------|-----|
| | d | D | C | B | B ₁ | C ₂ | C ₁ | s |
| mm | | | | | | | | |
| NUKRA52-2RS | 20 | 52 | 22 | 66 | 40,5 | 13 | 0,8 | 2 |
| NUKRA62-2RS | 24 | 62 | 26 | 80 | 49,5 | 15 | 1 | 2,5 |
| NUKRA72-2RS | 24 | 72 | 26 | 80 | 49,5 | 15 | 1 | 2,5 |
| NUKRA80-2RS | 30 | 80 | 32 | 100 | 63 | 18 | 1 | 3 |
| NUKRA90-2RS | 30 | 90 | 32 | 100 | 63 | 18 | 1 | 2 |



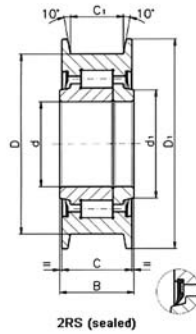
PWKRE...2RS

| Boundary Dimensions | | | | | | | | Basic Load Rating | | Limiting speed |
|---------------------|----------------|---------|----------------|----|----------------|----------------|-----|-------------------|------------------|----------------|
| d ₂ | d ₃ | G | G ₁ | W | d _e | B _e | e | C _{rw} | C _{orw} | |
| mm | | | | | | | | N | | rpm |
| 20 | 3 | M16X1.5 | 17 | 8 | 20 | 12 | 1 | 11900 | 14600 | 6000 |
| 22 | 3 | M18X1.5 | 19 | 8 | 22 | 14 | 1 | 13600 | 17200 | 5000 |
| 27 | 4 | M20X1.5 | 21 | 10 | 24 | 18 | 1 | 23800 | 30500 | 3800 |
| 31 | 4 | M20X1.5 | 21 | 10 | 24 | 18 | 1 | 24600 | 33000 | 3800 |
| 38 | 4 | M24X1.5 | 25 | 14 | 28 | 22 | 1 | 34000 | 45500 | 2200 |
| 44 | 4 | M24X1.5 | 25 | 14 | 28 | 22 | 1 | 38000 | 54000 | 2200 |
| 47 | 4 | M30X1.5 | 32 | 14 | 35 | 29 | 1.5 | 55000 | 79000 | 1800 |
| 47 | 4 | M30X1.5 | 32 | 14 | 35 | 29 | 1.5 | 62000 | 90000 | 1800 |

| Boundary Dimensions | | | | Basic Load Rating | | | | Mass | Reference Index |
|---------------------|----------------|---------|----|-------------------|----------------|----------------|-----------------|------|-----------------|
| r | r ₁ | G | g | C | C _o | C _a | C _{oa} | | |
| mm | | | | KN | | | | kg | Italy |
| 1,5 | 1 | M20X1.5 | 21 | 28 | 36 | 2.9 | 2.7 | 0.55 | CFA52-2RS |
| 1,5 | 1 | M24X1.5 | 25 | 39 | 50 | 6.4 | 8.5 | 0.95 | CFA62-2RS |
| 2 | 1 | M24X1.5 | 25 | 44 | 61 | 6.4 | 8.5 | 1.15 | CFA72-2RS |
| 2 | 1,5 | M30X1.5 | 32 | 65 | 61 | 10 | 9.9 | 1.6 | CFA80-2RS |
| 2 | 1,5 | M30X1.5 | 32 | 74 | 105 | 10.5 | 10.6 | 1.9 | CFA90-2RS |

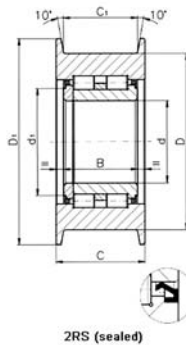
Bearings for Material Handling System

Mast Roller and Chain Pulleys



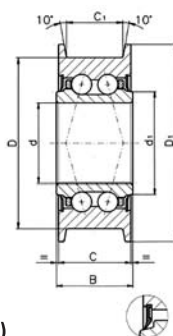
Chain Pulleys (Cylindrical roller) for Light Application

| Bearing Code | Dimensions | | | | | | | Basic Load Rating | | Mass |
|--------------|------------|-----|------|----|----------------|----------------|----------------|-------------------|----------------|------|
| | d | D | B | C | C ₁ | D ₁ | d ₁ | C | C ₀ | |
| 2RS | mm | | | | | | | KN | | kg |
| MR.051 | 40 | 70 | 26,5 | 25 | 19 | 78 | 46.5 | 51 | 74 | 0.50 |
| MR.052 | 40 | 80 | 28 | 26 | 19 | 90 | 46.5 | 62 | 88 | 0.75 |
| MR.053 | 40 | 85 | 38 | 36 | 28 | 99 | 51 | 86 | 125 | 1.20 |
| MR.054 | 40 | 80 | 43 | 41 | 33 | 98 | 50 | 96 | 139.5 | 1.20 |
| MR.055 | 50 | 100 | 42 | 40 | 33 | 115 | 60 | 117 | 192 | 1.70 |
| MR.056 | 55 | 110 | 58 | 56 | 45 | 135 | 70 | 146 | 241 | 1.70 |
| MR.057 | 55 | 130 | 67 | 65 | 55 | 158 | 73.5 | 253.5 | 397.5 | 3.50 |



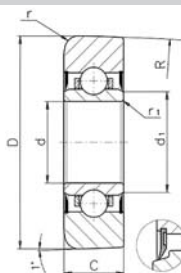
Chain Pulleys (Double-row cylindrical roller) for Heavy Application

| Bearing Code | Dimensions | | | | | | | Basic Load Rating | | Mass |
|--------------|------------|-----|-----|-----|----------------|----------------|----------------|-------------------|----------------|------|
| | d | D | B | C | C ₁ | D ₁ | d ₁ | C | C ₀ | |
| 2RS | mm | | | | | | | KN | | kg |
| MR.060 | 80 | 157 | 68 | 88 | 72 | 187 | 100 | 336 | 570 | 4.5 |
| MR.061 | 100 | 184 | 85 | 106 | 88 | 218 | 125 | 381 | 694 | 16.3 |
| MR.062 | 110 | 212 | 95 | 120 | 98 | 256 | 155 | 528 | 985.5 | 23.6 |
| MR.063 | 110 | 212 | 125 | 150 | 128 | 256 | 150 | 720 | 1636 | 29.0 |



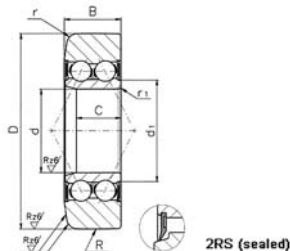
Chain Pulleys (Double-row Angular Contact ball bearings)

| Bearing Code | Dimensions | | | | | | | Basic Load Rating | | Mass |
|--------------|------------|-----|----|----|----------------|----------------|----------------|-------------------|----------------|------|
| | d | D | B | C | C ₁ | D ₁ | d ₁ | C | C ₀ | |
| | mm | | | | | | | KN | | kg |
| MRS.1240 | 40 | 75 | 26 | 28 | 19 | 85 | 50 | 25 | 32 | 0.45 |
| MRS.1239 | 40 | 80 | 28 | 26 | 19 | 90 | 50 | 25 | 32 | 0.7 |
| MRS.1238 | 40 | 85 | 38 | 36 | 28 | 98 | 50 | 37 | 45 | 1.1 |
| MRS.1237 | 40 | 80 | 43 | 41 | 33 | 98 | 50 | 37 | 45 | 1.1 |
| MRS.1236 | 50 | 100 | 42 | 40 | 33 | 115 | 60 | 52.8 | 58.5 | 1.5 |
| MRS.1235 | 55 | 110 | 58 | 56 | 45 | 135 | 70 | 57.2 | 67 | 1.5 |
| MRS.1234 | 55 | 130 | 67 | 65 | 55 | 158 | 75 | 72.1 | 85 | 3.1 |



Mast Rollers (Single-row ball bearings)

| Bearing Code | Dimensions | | | | | | | Basic Load Rating | | Limiting Speed |
|--------------|------------|------|----|----------------|---|----------------|-----|-------------------|----------------|----------------|
| | d | D | C | d ₁ | r | r ₁ | R | C | C ₀ | Grease |
| | mm | | | | | | | KN | | rpm |
| MR.0433 | 30 | 70 | 22 | 40 | 5 | 1 | 500 | 19.6 | 13.7 | 1850 |
| MR.0434 | 30 | 70,8 | 22 | 40 | 5 | 1 | 500 | 19.6 | 13.7 | 1850 |
| MR.0435 | 30 | 78 | 22 | 40 | 5 | 1 | 500 | 19.6 | 13.7 | 1850 |
| MR.0436 | 30 | 79 | 22 | 40 | 5 | 1 | 500 | 19.6 | 13.7 | 1850 |

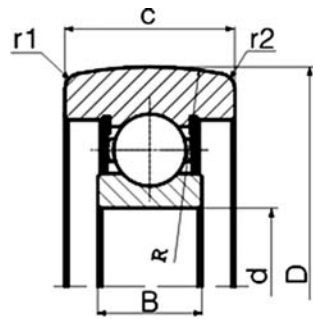


Mast Rollers (Double-row angular contact ball bearings)

| Bearing Code | Dimensions | | | | | | | | Basic Load Rating | | | | Limiting Speed |
|--------------|------------|------|----|------|----------------|---|----------------|-----|-------------------|----------------|----------------|-----------------|----------------|
| | d | D | B | C | d ₁ | r | r ₁ | R | C | C ₀ | C _w | C _{ow} | Grease |
| | mm | | | | | | | | KN | | | | rpm |
| MR.1202 | 30 | 70.2 | 23 | 19.2 | 38 | 5 | 1 | 500 | 30 | 21 | 25 | 18 | 7000 |
| MR.1204 | 30 | 77.7 | 23 | 19.2 | 38 | 5 | 1 | 500 | 30 | 21 | 25 | 18 | 7000 |
| MR.1219 | 40 | 88.8 | 29 | 23.2 | 50 | 6 | 1 | 500 | 48 | 36 | 35 | 25 | 5000 |

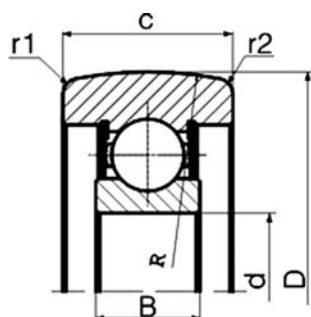
Bearings for Material Handling System

Mast Roller and Chain Pulleys



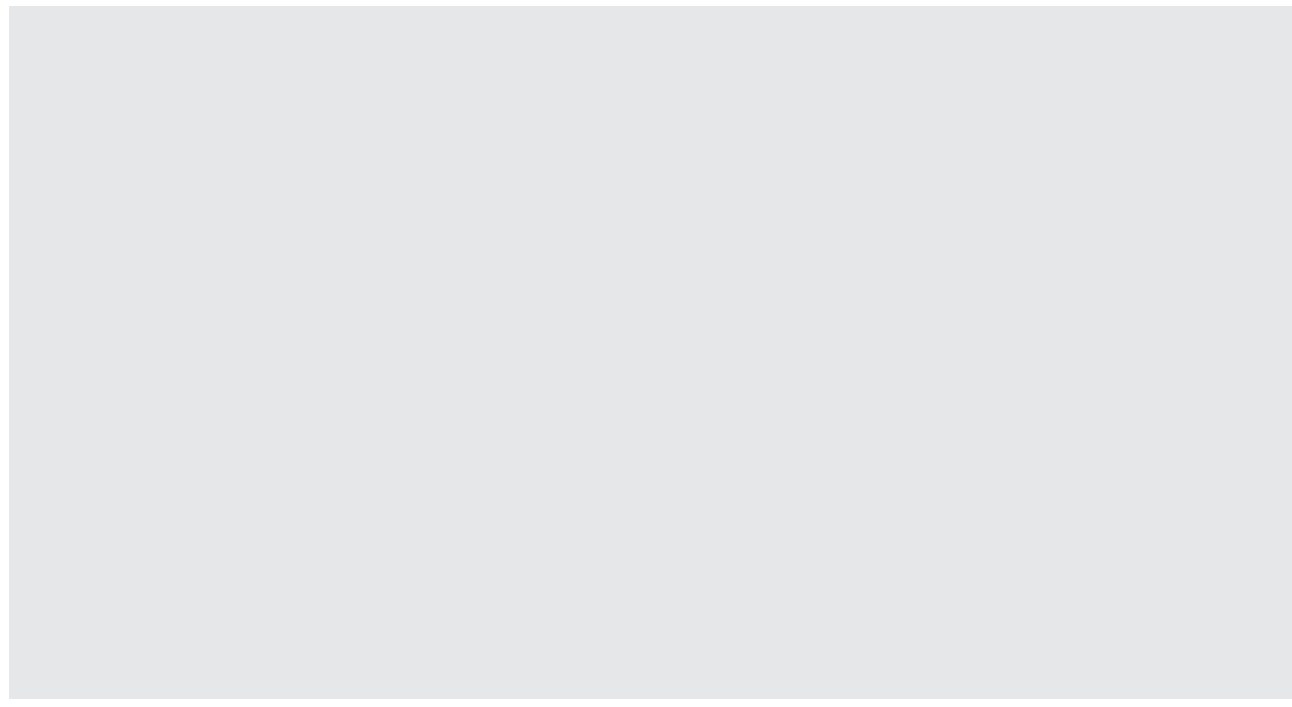
Mast Rollers (Single-row Deep Groove ball bearings) 2RS (sealed)

| Bearing Designation | Dimensions | | | | | |
|---------------------|------------|---------|--------|----|-----|-----|
| | d | D | C | B | r1 | r2 |
| mm | | | | | | |
| CR255718X-2RS | 25.4 | 57.15 | 18.115 | 14 | 2.5 | 2.5 |
| CR307629X-2RS | 30 | 76.2 | 28.575 | 16 | 3 | 3 |
| CR358227X-2RS | 35 | 81.864 | 27.1 | 17 | 3 | 3 |
| CR38932X-2RS | 35 | 88.392 | 31.877 | 17 | 3 | 3 |
| CR358932KX-2RS | 35 | 88.392 | 31.75 | 17 | 3 | 3 |
| CR3512028X-2RS | 35 | 120 | 28 | 17 | 3 | 3 |
| CR359528X-2RS | 35 | 95 | 28 | 17 | 3 | 3 |
| CR4510128X-2RS | 45 | 100.956 | 28.437 | 19 | 3 | 5 |
| CR5110333X-2RS | 50.8 | 103.27 | 32.542 | 19 | 5 | 5 |
| CR5110127X-2RS | 50.8 | 101.092 | 27 | 27 | 5 | 5 |
| CR310137X-2RS | 35 | 100.762 | 36.513 | 21 | 3 | 3 |
| CR3510032X-2RS | 35 | 100.092 | 31.75 | 21 | 3 | 3 |
| CR3512030X-2RS | 35 | 120 | 30.4 | 21 | 3 | 3 |
| CR3512028X-2RS | 35 | 120 | 28 | 21 | 3 | 3 |
| CR359530X-2RS | 35 | 95 | 30.4 | 21 | 3 | 3 |
| CR359528X-2RS | 35 | 95 | 28 | 21 | 3 | 3 |
| CR4011131X-2RS | 40 | 110.7 | 31 | 23 | 3 | 3 |
| CR4012134X-2RS | 40 | 120.5 | 34 | 23 | 3 | 3 |
| CR4512029X-2RS | 45 | 119.72 | 29 | 29 | 5 | 5 |
| CR5514945X-2RS | 55 | 149.43 | 45.3 | 29 | 5 | 5 |
| CR7518045X-2RS | 75 | 180 | 45 | 40 | 5 | 5 |
| CR9022055X-2RS | 90 | 220 | 55 | 43 | 7 | 7 |



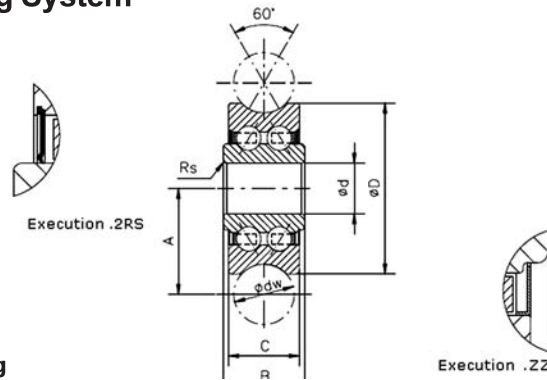
Mast Rollers (Single-row Deep Groove ball bearings) 2RS (sealed)

| Bearing Code | Dimensions | | | | | | |
|---------------|------------|---------|--------|----|----------------|----------------|-----|
| | d | D | C | B | r ₁ | r ₂ | R |
| | mm | | | | | | |
| CR3510130-2RS | 35 | 101.346 | 29.575 | 21 | 3 | 5 | 200 |
| CR3510128-2RS | 35 | 101.343 | 28 | 21 | 3 | 5 | 200 |
| CR359428-2RS | 35 | 94 | 28 | 21 | 3 | 5 | 200 |
| CR3510528-2RS | 35 | 105 | 28 | 21 | 3 | 5 | 200 |
| CR359728-2RS | 35 | 97 | 28 | 21 | 3 | 5 | 200 |
| CR3510228-2RS | 35 | 102 | 28 | 21 | 3 | 5 | 200 |
| CR359728K-2RS | 35 | 97.2 | 28 | 21 | 3 | 5 | 200 |
| CR359628-2RS | 35 | 96.5 | 28 | 21 | 3 | 5 | 200 |
| CR4010931-2RS | 40 | 108.6 | 31 | 23 | 5 | 8 | 200 |
| CR4010030-2RS | 40 | 100 | 30 | 23 | 5 | 8 | 200 |
| CR4011532-2RS | 40 | 115 | 32 | 23 | 5 | 8 | 200 |
| CR4010931-2RS | 40 | 108.6 | 31 | 23 | 5 | 8 | 200 |
| CR4011032-2RS | 40 | 109.5 | 32 | 23 | 5 | 8 | 200 |
| CR4010030-2RS | 40 | 100 | 30 | 23 | 5 | 8 | 200 |
| CR4512832-2RS | 45 | 128.219 | 31.75 | 25 | 5 | 8 | 200 |
| CR4511435-2RS | 45 | 114 | 35 | 25 | 5 | 8 | 200 |
| CR4511535-2RS | 45 | 115 | 35 | 25 | 5 | 8 | 200 |
| CR4512832-2RS | 45 | 128.11 | 31.75 | 25 | 5 | 8 | 200 |



Bearings for Material Handling System

Cam Rollers



Track Rollers with Profiled Outer Ring

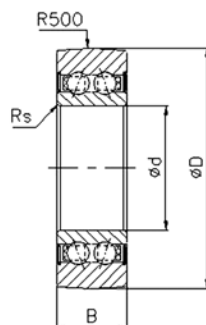
| Bearing Code | Boundary Dimensions | | | | | | | Basic Load Rating | | | | Mass |
|------------------|---------------------|------|------|------|-------|----|-----|-------------------|------|---------|----------|--------|
| | d | D | C | B | A | dw | rs | Cw | Cow | Fr perm | For perm | |
| | mm | | | | | | | KN | | | | kg |
| LFR 50/4 2RS | 4 | 13 | 6 | 7 | 8,04 | 5 | 0,2 | 1,05 | 0,85 | 1,15 | 1,6 | 0,0035 |
| LFR 50/5-4 ZZ | 5 | 16 | 7 | 8 | 9 | 4 | 0,2 | 1,2 | 0,86 | 1,3 | 1,78 | 0,0075 |
| LFR 50/5 2RS | 5 | 16 | 7 | 8 | 9 | 4 | 0,2 | 1,2 | 0,86 | 1,3 | 1,78 | 0,0075 |
| LFR 50/5 ZZ | 5 | 17 | 7 | 8 | 10,5 | 6 | 0,2 | 1,27 | 0,82 | 1,3 | 1,78 | 0,008 |
| LFR 50/5 2RS | 5 | 17 | 7 | 8 | 10,5 | 6 | 0,2 | 1,27 | 0,82 | 1,3 | 1,78 | 0,008 |
| LFR 50/8 ZZ | 8 | 24 | 11 | 11 | 14 | 6 | 0,3 | 3,67 | 2,28 | 1,3 | 4,56 | 0,024 |
| LFR 50/8 2RS | 8 | 24 | 11 | 11 | 14 | 6 | 0,3 | 3,67 | 2,28 | 1,3 | 4,56 | 0,024 |
| LFR 5201 ZZ | 12 | 35 | 15,9 | 15,9 | 20,65 | 10 | 0,3 | 8,5 | 5,1 | 5,1 | 10,2 | 0,068 |
| LFR 5201 2RS | 12 | 35 | 15,9 | 15,9 | 20,65 | 10 | 0,3 | 8,5 | 5,1 | 5,1 | 10,2 | 0,068 |
| LFR 5301 ZZ | 12 | 42 | 19 | 19 | 24 | 10 | 0,6 | 13 | 7,7 | 7,5 | 14,2 | 0,13 |
| LFR 5301 2RS | 12 | 42 | 19 | 19 | 24 | 10 | 0,6 | 13 | 7,7 | 7,5 | 14,2 | 0,13 |
| LFR 5302 ZZ | 15 | 47 | 19 | 19 | 26,65 | 10 | 1 | 16,2 | 9,2 | 6,2 | 18,4 | 0,163 |
| LFR 5302 2RS | 15 | 47 | 19 | 19 | 26,65 | 10 | 1 | 16,2 | 9,2 | 6,2 | 18,4 | 0,163 |
| LFR 5201-12 ZZ | 12 | 35 | 15,9 | 15,9 | 21,75 | 12 | 0,3 | 8,4 | 5 | 5,1 | 10 | 0,068 |
| LFR 5201-12 2RS | 12 | 35 | 15,9 | 15,9 | 21,75 | 12 | 0,3 | 8,4 | 5 | 5,1 | 10 | 0,068 |
| LFR 5201-14 ZZ | 12 | 39,9 | 18 | 20 | 24 | 14 | 0,3 | 8,9 | 5 | 6,7 | 12,1 | 0,107 |
| LFR 5201-14 2RS | 12 | 39,9 | 18 | 20 | 24 | 14 | 0,3 | 8,9 | 5 | 6,7 | 12,1 | 0,107 |
| LFR 5204-16 ZZ* | 20 | 52 | 20,6 | 22,6 | 31,5 | 16 | 0,6 | 16,8 | 9,5 | 12,1 | 16,6 | 0,195 |
| LFR 5204-16 2RS* | 20 | 52 | 20,6 | 22,6 | 31,5 | 16 | 0,6 | 16,8 | 9,5 | 12,1 | 16,6 | 0,195 |
| LFR 5206-20 ZZ* | 25 | 72 | 23,8 | 25,8 | 41 | 20 | 0,6 | 29,5 | 16,6 | 20,7 | 33,2 | 0,435 |
| LFR 5206-20 2RS* | 25 | 72 | 23,8 | 25,8 | 41 | 20 | 0,6 | 29,5 | 16,6 | 20,7 | 33,2 | 0,435 |
| LFR 5206-25 ZZ* | 25 | 72 | 23,8 | 25,8 | 43,5 | 25 | 0,6 | 29,2 | 16,4 | 23,1 | 32,8 | 0,425 |
| LFR 5206-25 2RS* | 25 | 72 | 23,8 | 25,8 | 43,5 | 25 | 0,6 | 29,2 | 16,4 | 23,1 | 32,8 | 0,425 |
| LFR 5207-30 ZZ* | 30 | 80 | 27 | 29 | 51 | 30 | 1 | 38 | 20,8 | 21,4 | 36,2 | 0,66 |
| LFR 5207-30 2RS* | 30 | 80 | 27 | 29 | 51 | 30 | 1 | 38 | 20,8 | 21,4 | 26,2 | 0,66 |
| LFR 5208-40 ZZ* | 40 | 98 | 36 | 38 | 62,5 | 40 | 1 | 54,8 | 29 | 55 | 58 | 1,36 |
| LFR 5208-40 2RS* | 40 | 98 | 36 | 38 | 62,5 | 40 | 1 | 54,8 | 29 | 55 | 58 | 1,36 |
| LFR 5308-50 ZZ* | 40 | 110 | 44 | 46 | 72,5 | 50 | 1,1 | 53 | 39,5 | 69 | 79 | 1,40 |
| LFR 5308-50 2RS* | 40 | 110 | 44 | 46 | 72,5 | 50 | 1,1 | 53 | 39,5 | 69 | 79 | 1,40 |

Remarks:

LFR...Z = Non-contact steel seals on both sides.

LFR...RS = Steel and rubber protection shields on both sides.

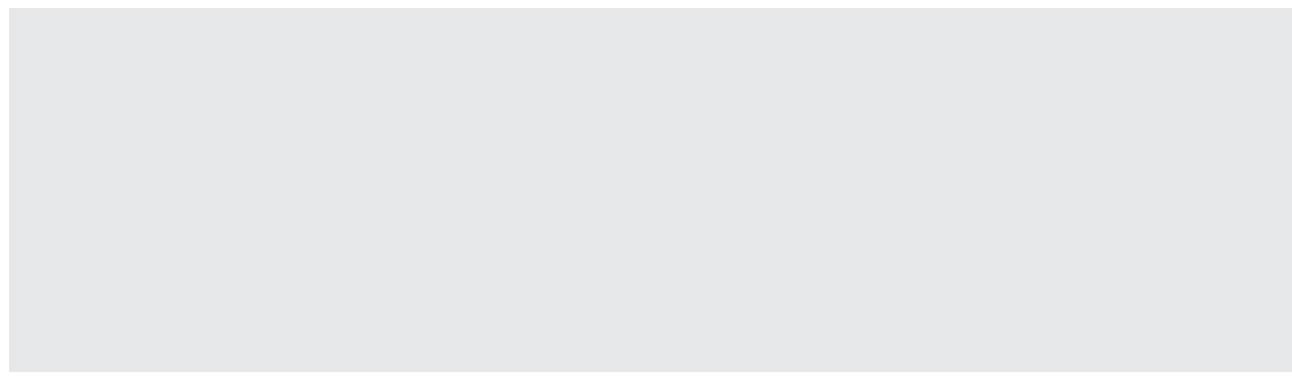
*It can be re-lubricated by a hole in the inner ring.



LR...2RS

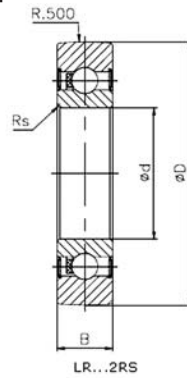
Track Rollers

| Bearing Code | Boundary Dimensions | | | | Basic Load Rating | | Fatigue limit load | Limiting Speed | Mass |
|--------------|---------------------|-----|------|-----|-------------------|-----------------|--------------------|----------------|------|
| | d | D | B | Rs | C _w | C _{ow} | P _{uw} | | |
| | mm | | | | KN | | KN | rpm | kg |
| LR50/5-2RS | 5 | 17 | 7 | 0.2 | 1.65 | 0.95 | 0.039 | 12000 | 0.01 |
| LR50/6-2RS | 6 | 19 | 9 | 0.3 | 2.65 | 1.31 | 0.054 | 11000 | 0.02 |
| LR50/7-2RS | 7 | 22 | 10 | 0.3 | 3.3 | 1.69 | 0.069 | 10000 | 0.02 |
| LR50/8-2RS | 8 | 24 | 11 | 0.3 | 4.2 | 2.36 | 0.12 | 10000 | 0.03 |
| LR5000-2RS | 10 | 28 | 12 | 0.3 | 4.75 | 2.85 | 0.118 | 9000 | 0.03 |
| LR5001-2RS | 12 | 30 | 12 | 0.3 | 4.95 | 3.1 | 0.128 | 8500 | 0.03 |
| LR5002-2RS | 15 | 35 | 13 | 0.3 | 6.5 | 4.1 | 0.17 | 7000 | 0.05 |
| LR5003-2RS | 17 | 40 | 14 | 0.3 | 7.7 | 5.2 | 0.214 | 6000 | 0.07 |
| LR5004-2RS | 20 | 47 | 16 | 0.6 | 11.5 | 7.7 | 0.317 | 5500 | 0.12 |
| LR5005-2RS | 25 | 52 | 16 | 0.6 | 11.6 | 8.1 | 0.332 | 4700 | 0.15 |
| LR5006-2RS | 30 | 62 | 19 | 1 | 17.2 | 11.1 | 0.462 | 4000 | 0.25 |
| LR5007-2RS | 35 | 68 | 20 | 1 | 17.6 | 13.1 | 0.49 | 4000 | 0.3 |
| LR5200-2RS | 10 | 32 | 14 | 0.6 | 6.8 | 4.05 | 0.168 | 8000 | 0.07 |
| LR5201-2RS | 12 | 35 | 15.9 | 0.6 | 8.6 | 5.1 | 0.211 | 7500 | 0.08 |
| LR5202-2RS | 15 | 40 | 15.9 | 0.6 | 9.8 | 6.2 | 0.258 | 7000 | 0.11 |
| LR5203-2RS | 17 | 47 | 17.5 | 0.6 | 12.6 | 8.2 | 0.342 | 5500 | 0.17 |
| LR5204-2RS | 20 | 52 | 20.6 | 1 | 15.8 | 10.5 | 0.433 | 5000 | 0.23 |
| LR5205-2RS | 25 | 62 | 20.6 | 1 | 18.5 | 13.0 | 0.532 | 4500 | 0.34 |
| LR5206-2RS | 30 | 72 | 23.8 | 1 | 24.6 | 21.4 | 0.88 | 3500 | 0.51 |
| LR5207-2RS | 35 | 80 | 27 | 1.1 | 30.5 | 22.4 | 0.927 | 2800 | 0.66 |
| LR5208-2RS | 40 | 85 | 30.2 | 1.1 | 34.5 | 25.5 | 1.06 | 2500 | 0.75 |
| LR 5302-2RS | 15 | 47 | 19 | 1 | 14.6 | 9.2 | 0.38 | 6500 | 0.16 |
| LR5303-2RS | 17 | 52 | 22.2 | 1 | 17.2 | 11.1 | 0.462 | 4700 | 0.21 |
| LR5304-2RS | 20 | 62 | 22.2 | 1.1 | 21.1 | 14.5 | 0.606 | 4500 | 0.34 |
| LR5305-2RS | 25 | 72 | 25.4 | 1.1 | 27.5 | 19.5 | 0.813 | 3900 | 0.5 |
| LR5306-2RS | 30 | 80 | 30.2 | 1.1 | 36.5 | 26.5 | 1.1 | 3100 | 0.67 |
| LR5307-2RS | 35 | 90 | 34.9 | 1.5 | 44.5 | 33 | 1.37 | 2500 | 0.97 |
| LR5308-2RS | 40 | 100 | 36.5 | 1.5 | 56 | 42 | 1.75 | 2300 | 1.2 |



Bearings for Material Handling System

Cam Rollers

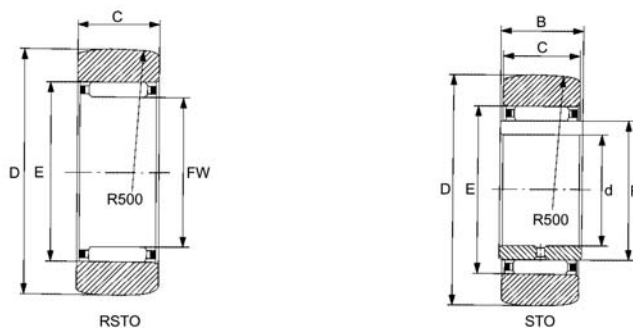


Track Rollers

| Bearing Code | Boundary Dimensions | | | | Basic Load Rating | | Fatigue limit load | Limiting Speed | Mass |
|--------------|---------------------|----|----|-----|-------------------|------|--------------------|----------------|------|
| | D | d | B | Rs | Cw | Cow | Puw | V | |
| | mm | | | | KN | | KN | rpm | kg |
| LR 604 2RS | 13 | 4 | 4 | 0.2 | 0.86 | 0.35 | 0.007 | 24000 | 0.01 |
| LR 605 2RS | 16 | 5 | 5 | 0.2 | 1.19 | 0.49 | 0.01 | 23000 | 0.01 |
| LR 606 2RS | 19 | 6 | 6 | 0.3 | 1.74 | 0.7 | 0.04 | 22000 | 0.01 |
| LR 607 2RS | 22 | 7 | 6 | 0.3 | 2.1 | 0.87 | 0.046 | 20000 | 0.01 |
| LR 608 2RS | 24 | 8 | 7 | 0.3 | 2.75 | 1.25 | 0.058 | 19000 | 0.02 |
| LR 6000 2RS | 28 | 10 | 8 | 0.3 | 3.65 | 1.7 | 0.052 | 17000 | 0.02 |
| LR 6001 2RS | 30 | 12 | 8 | 0.3 | 4.3 | 2.1 | 0.077 | 16000 | 0.03 |
| LR 200 2RS | 32 | 10 | 9 | 0.6 | 4.35 | 2.13 | 0.088 | 13000 | 0.05 |
| LR 201 2RS | 35 | 12 | 10 | 0.6 | 5.6 | 2.7 | 0.112 | 12000 | 0.05 |
| LR 202 2RS | 40 | 15 | 11 | 0.6 | 6.5 | 3.3 | 0.136 | 11000 | 0.07 |
| LR 203 2RS | 47 | 17 | 12 | 0.6 | 8.4 | 4.4 | 0.183 | 9000 | 0.11 |
| LR 204 2RS | 52 | 20 | 14 | 1 | 10.5 | 5.6 | 0.233 | 8000 | 0.15 |
| LR 205 2RS | 62 | 25 | 15 | 1 | 12.5 | 7.1 | 0.291 | 7000 | 0.23 |
| LR 206 2RS | 72 | 30 | 16 | 1 | 16.6 | 9.6 | 0.391 | 5500 | 0.33 |
| LR 207 2RS | 80 | 35 | 17 | 1.1 | 20.2 | 11.9 | 0.49 | 4500 | 0.40 |
| LR 208 2RS | 85 | 40 | 18 | 1.1 | 22.8 | 13.6 | 0.53 | 4000 | 0.45 |
| LR 209 2RS | 90 | 45 | 19 | 1.1 | 22.5 | 13.7 | 0.564 | 3600 | 0.50 |

Bearings for Material Handling System

Support Rollers

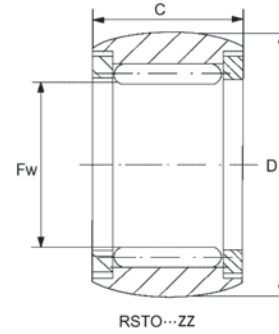
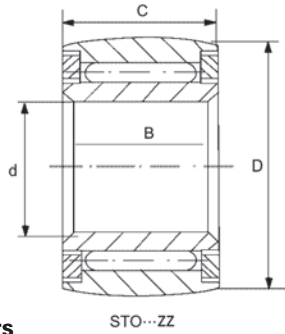


Yoke Type Track Rollers

| Shaft Diameter mm | Bearing Code | Boundary Dimensions | | | Basic Load Rating | | Limiting Speed | Mass |
|----------------------|--------------|---------------------|----|------|-------------------|--------|----------------|------|
| | | Fw | D | C | Dynamic | Static | Oil rpm | g |
| | | mm | | | N | | | |
| 16 | RSTO5X | 7 | 16 | 7.8 | 2800 | 2600 | 23000 | 8,5 |
| | RSTO5TN | 7 | 16 | 7.8 | 2800 | 2600 | 23000 | 8,5 |
| | RSTO5XTN | 7 | 16 | 7.8 | 2800 | 2600 | 23000 | 8,5 |
| 19 | RSTO6 | 10 | 19 | 9.8 | 5200 | 6550 | 18000 | 12,5 |
| | RSTO6TN | 10 | 19 | 10 | 5200 | 6550 | 18000 | 12,5 |
| | RSTO6XTN | 10 | 19 | 10 | 5200 | 6550 | 18000 | 12,5 |
| 24 | RSTO8 | 12 | 24 | 9.8 | 5600 | 7650 | 16000 | 21 |
| | RSTO8X | 12 | 24 | 9.8 | 5600 | 7650 | 16000 | 21 |
| | RSTO8TN | 12 | 24 | 10 | 5600 | 7650 | 16000 | 21 |
| 30 | RSTO10 | 14 | 30 | 11.8 | 10000 | 10800 | 12000 | 44 |
| | RSTO10X | 14 | 30 | 11.8 | 10000 | 10800 | 12000 | 44 |
| 32 | RSTO12 | 16 | 32 | 11.8 | 10600 | 12000 | 10000 | 49 |
| | RSTO12X | 16 | 32 | 11.8 | 10600 | 12000 | 10000 | 49 |
| 35 | RSTO15 | 20 | 35 | 11.8 | 12500 | 15600 | 7000 | 52 |
| | RSTO15X | 20 | 35 | 11.8 | 12500 | 15600 | 7000 | 52 |
| 40 | RSTO17 | 22 | 40 | 15.8 | 18300 | 23600 | 6300 | 95 |
| | RSTO17X | 22 | 40 | 15.8 | 18300 | 23600 | 6300 | 95 |
| 47 | RSTO20 | 25 | 47 | 15.8 | 19000 | 26000 | 5300 | 134 |
| | RSTO20X | 25 | 47 | 15.8 | 19000 | 26000 | 5300 | 134 |
| | RSTO25 | 25 | 47 | 15.8 | 19000 | 26000 | 5300 | 155 |
| | RSTO25X | 25 | 47 | 15.8 | 19000 | 26000 | 5300 | 155 |
| 62 | RSTO30 | 38 | 62 | 19.8 | 31500 | 52000 | 3000 | 258 |
| | RSTO30X | 38 | 62 | 19.8 | 31500 | 52000 | 3000 | 258 |
| | RSTO35 | 38 | 62 | 19.8 | 31500 | 52000 | 3000 | 370 |
| | RSTO35X | 38 | 62 | 19.8 | 31500 | 52000 | 3000 | 370 |
| 80 | RSTO40 | 50 | 80 | 19.8 | 36500 | 68000 | 1800 | 430 |
| | RSTO40X | 50 | 80 | 19.8 | 36500 | 68000 | 1800 | 430 |
| 85 | RSTO45 | 55 | 85 | 19.8 | 38000 | 75000 | 1600 | 447 |
| | RSTO45X | 55 | 85 | 19.8 | 38000 | 75000 | 1600 | 447 |
| 90 | RSTO50 | 60 | 90 | 19.8 | 40000 | 80000 | 1500 | 495 |
| | RSTO50X | 60 | 90 | 19.8 | 40000 | 80000 | 1500 | 495 |

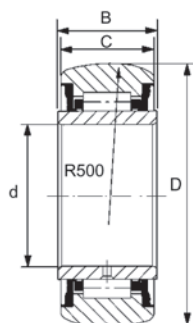
Bearings for Material Handling System

Support Rollers

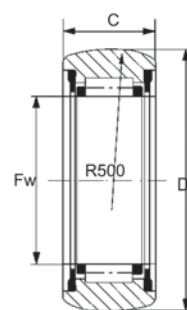


Yoke Type Track Rollers

| Shaft Diameter mm | Bearing Code | Boundary Dimensions | | | | Basic Load Rating | | Limiting Speed | Mass |
|----------------------|--------------|---------------------|----|----|------|-------------------|--------|----------------|------|
| | | d | D | B | C | Dynamic | Static | Oil rpm | g |
| | | mm | | | | N | | | |
| 19 | STO6 | 6 | 19 | 10 | 9.8 | 5200 | 6550 | 18000 | 18 |
| | STO6X | 6 | 19 | 10 | 9.8 | 5200 | 6550 | 18000 | 18 |
| 24 | STO8 | 8 | 24 | 10 | 9.8 | 5600 | 7650 | 16000 | 28 |
| | STO8X | 8 | 24 | 10 | 9.8 | 5600 | 7650 | 16000 | 28 |
| 30 | STO10 | 10 | 30 | 12 | 11.8 | 10000 | 10800 | 12000 | 51 |
| | STO10X | 10 | 30 | 12 | 11.8 | 10000 | 10800 | 12000 | 51 |
| 32 | STO12 | 12 | 32 | 12 | 11.8 | 10600 | 12000 | 10000 | 57 |
| | STO12X | 12 | 32 | 12 | 11.8 | 10600 | 12000 | 10000 | 57 |
| 35 | STO15 | 15 | 35 | 12 | 11.8 | 12500 | 15600 | 7000 | 64 |
| | STO15X | 15 | 35 | 12 | 11.8 | 12500 | 15600 | 7000 | 64 |
| 40 | STO17 | 17 | 40 | 16 | 15.8 | 18300 | 23600 | 6300 | 114 |
| | STO17X | 17 | 40 | 16 | 15.8 | 18300 | 23600 | 6300 | 114 |
| 47 | STO20 | 20 | 47 | 16 | 15.8 | 19000 | 26000 | 5300 | 156 |
| | STO20X | 20 | 47 | 16 | 15.8 | 19000 | 26000 | 5300 | 156 |
| | STO20ZZ | 20 | 47 | 20 | 19.8 | 19000 | 26000 | 5300 | 156 |
| | STO25 | 25 | 47 | 16 | 15.8 | 19000 | 26000 | 5300 | 182 |
| | STO25X | 25 | 47 | 16 | 15.8 | 19000 | 26000 | 5300 | 182 |
| 62 | STO30 | 30 | 62 | 20 | 19.8 | 31500 | 26000 | 5300 | 325 |
| | STO30X | 30 | 62 | 20 | 19.8 | 31500 | 52000 | 3000 | 325 |
| | STO30ZZ | 30 | 62 | 20 | 19.8 | 31500 | 52000 | 3000 | 325 |
| 72 | STO35 | 35 | 72 | 20 | 19.8 | 31500 | 52000 | 3000 | 435 |
| | STO35X | 35 | 72 | 20 | 19.8 | 31500 | 52000 | 3000 | 435 |
| | STO35ZZ | 35 | 72 | 20 | 19.8 | 31500 | 52000 | 3000 | 435 |
| 80 | STO40 | 40 | 80 | 20 | 19.8 | 36500 | 68000 | 1800 | 540 |
| | STO40X | 40 | 80 | 20 | 19.8 | 36500 | 68000 | 1800 | 540 |
| | STO40ZZ | 40 | 80 | 20 | 28.5 | 36500 | 68000 | 1800 | 540 |
| 85 | STO45 | 45 | 85 | 20 | 19.8 | 38000 | 75000 | 1600 | 580 |
| | STO45X | 45 | 85 | 20 | 19.8 | 38000 | 75000 | 1600 | 580 |
| 90 | STO50 | 50 | 90 | 20 | 19.8 | 40000 | 80000 | 1500 | 650 |
| | STO50X | 50 | 90 | 20 | 19.8 | 40000 | 80000 | 1500 | 650 |



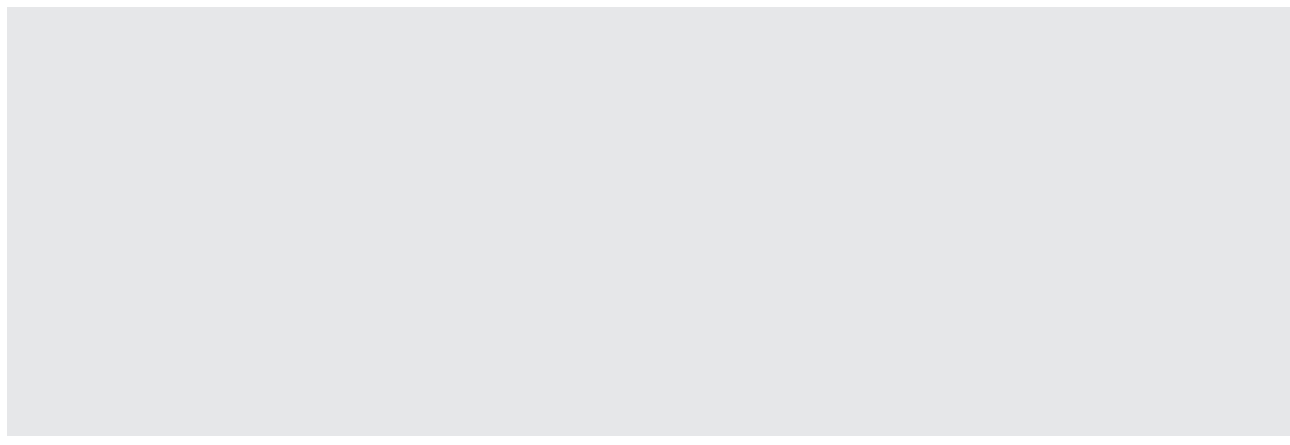
NA22...2RS



RNA22...2RS

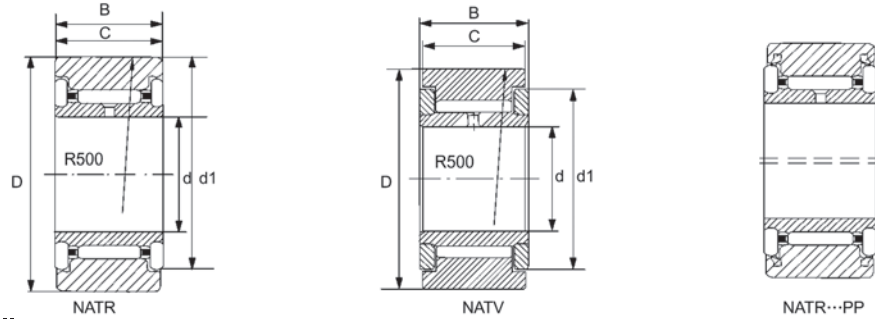
Yoke Type Track Rollers

| Shaft Diameter mm | Bearing Code | | | | Boundary Dimensions | | | | | Basic Load Rating | | Limiting Speed |
|----------------------|---------------|------|--------------|------|---------------------|----|----|----|------|-------------------|--------|----------------|
| | Without IR | Mass | With IR | Mass | d | FW | D | B | C | Dynamic | Static | Oil |
| | | g | | g | mm | | | | | N | | rpm |
| 19 | RNA22/6 2RS | 18 | NA22/6 2RS | 22 | 6 | 10 | 19 | 12 | 11.8 | 5000 | 4350 | 18000 |
| | RNA22/6 2RSX | 18 | NA22/6 2RSX | 22 | 6 | 10 | 19 | 12 | 11.8 | 5000 | 4350 | 18000 |
| 24 | RNA22/8 2RS | 29 | NA22/8 2RS | 34 | 8 | 12 | 24 | 12 | 11.8 | 5500 | 5200 | 14000 |
| | RNA22/8 2RSX | 29 | NA22/8 2RSX | 34 | 8 | 12 | 24 | 12 | 11.8 | 5500 | 5200 | 14000 |
| 30 | RNA2200 2RS | 52 | NA2200 2RS | 60 | 10 | 14 | 30 | 14 | 13.8 | 7600 | 8100 | 11000 |
| | RNA2200 2RSX | 52 | NA2200 2RSX | 60 | 10 | 14 | 30 | 14 | 13.8 | 7600 | 8100 | 11000 |
| 32 | RNA2201 2RS | 57 | NA2201 2RS | 67 | 12 | 16 | 32 | 14 | 13.8 | 8500 | 9700 | 9500 |
| | RNA2201 2RSX | 57 | NA2201 2RSX | 67 | 12 | 16 | 32 | 14 | 13.8 | 8500 | 9700 | 9500 |
| 35 | RNA2202 2RS | 60 | NA2202 2RS | 75 | 15 | 20 | 35 | 14 | 13.8 | 9600 | 12000 | 7000 |
| | RNA2202 2RSX | 60 | NA2202 2RSX | 75 | 15 | 20 | 35 | 14 | 13.8 | 9600 | 12000 | 7000 |
| 40 | RNA2203 2RS | 94 | NA2203 2RS | 112 | 17 | 22 | 40 | 16 | 15.8 | 12000 | 16500 | 6000 |
| | RNA2203 2RSX | 94 | NA2203 2RSX | 112 | 17 | 22 | 40 | 16 | 15.8 | 12000 | 16500 | 6000 |
| 47 | RNA2204 2RS | 152 | NA2204 2RS | 177 | 20 | 25 | 47 | 18 | 17.8 | 18500 | 21900 | 4600 |
| | RNA2204 2RSX | 152 | NA2204 2RSX | 177 | 20 | 25 | 47 | 18 | 17.8 | 18500 | 21900 | 4600 |
| 52 | RNA2205 2RS | 179 | NA2205 2RS | 209 | 25 | 30 | 52 | 18 | 17.8 | 20100 | 26000 | 3500 |
| | RNA2205 2RSX | 179 | NA2205 2RSX | 209 | 25 | 30 | 52 | 18 | 17.8 | 20100 | 26000 | 3500 |
| 62 | RNA2206 2RS | 284 | NA2206 2RS | 324 | 30 | 35 | 62 | 20 | 19.8 | 23000 | 28000 | 2800 |
| | RNA2206 2RSX | 284 | NA2206 2RSX | 324 | 30 | 35 | 62 | 20 | 19.8 | 23000 | 28000 | 2800 |
| 72 | RNA2207 2RS | 432 | NA2207 2RS | 505 | 35 | 42 | 72 | 23 | 22.7 | 29800 | 46300 | 2200 |
| | RNA2207 2RSX | 432 | NA2207 2RSX | 505 | 35 | 42 | 72 | 23 | 22.7 | 29800 | 46300 | 2200 |
| 80 | RNA2208 2RS | 530 | NA2208 2RS | 628 | 40 | 48 | 80 | 23 | 22.7 | 38200 | 57700 | 1700 |
| | RNA2208 2RSX | 530 | NA2208 2RSX | 628 | 40 | 48 | 80 | 23 | 22.7 | 38200 | 57700 | 1700 |
| 85 | RNA2209 2RS | 545 | NA2209 2RS | 655 | 45 | 52 | 85 | 23 | 22.7 | 40300 | 63800 | 1600 |
| | RNA2209 2RSX | 545 | NA2209 2RSX | 655 | 45 | 52 | 85 | 23 | 22.7 | 40300 | 63800 | 1600 |
| 90 | RNA22010 2RS | 563 | NA22010 2RS | 690 | 50 | 58 | 90 | 23 | 22.7 | 66000 | 86000 | 1300 |
| | RNA22010 2RSX | 563 | NA22010 2RSX | 690 | 50 | 58 | 90 | 23 | 22.7 | 66000 | 86000 | 1300 |



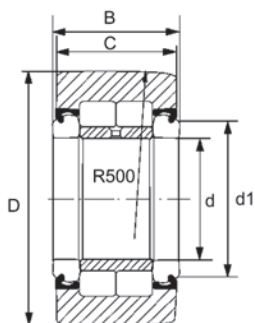
Bearings for Material Handling System

Support Rollers

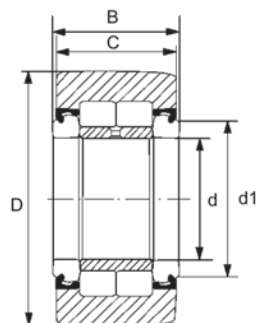


Yoke Type Track Rollers

| Shaft Diameter mm | Bearing Code | | Boundary Dimensions | | | | | | Basic Load Rating | | Limiting Speed |
|----------------------|--------------|------------|---------------------|----|----|----|----|------|-------------------|--------|----------------|
| | Without Seal | Sealed | d | D | B | C | d1 | rs | Dynamic | Static | Oil |
| | | | mm | | | | | | N | | rpm |
| 16 | NATR 5 | NATR 5 PP | 5 | 16 | 12 | 11 | 12 | 0.15 | 3150 | 3300 | 22000 |
| | NATV 5 | NATV 5 PP | 5 | 16 | 12 | 11 | 12 | 0.15 | 4850 | 6500 | 8500 |
| 19 | NATR 6 | NATR 6 PP | 6 | 19 | 12 | 11 | 14 | 0.15 | 3500 | 3900 | 20000 |
| | NATV 6 | NATV 6 PP | 6 | 19 | 12 | 11 | 14 | 0.15 | 5500 | 7900 | 7000 |
| 24 | NATR 8 | NATR 8 PP | 8 | 24 | 15 | 14 | 19 | 0.3 | 5500 | 6400 | 15000 |
| | NATV 8 | NATV 8 PP | 8 | 24 | 15 | 14 | 19 | 0.3 | 7800 | 11400 | 5500 |
| 30 | NATR 10 | NATR 10 PP | 10 | 30 | 15 | 14 | 23 | 0.6 | 6800 | 8400 | 11000 |
| | NATV 10 | NATV 10 PP | 10 | 30 | 15 | 14 | 23 | 0.6 | 9500 | 14600 | 4500 |
| 32 | NATR 12 | NATR 12 PP | 12 | 32 | 15 | 14 | 25 | 0.6 | 6900 | 8800 | 9000 |
| | NATV 12 | NATV 12 PP | 12 | 32 | 15 | 14 | 25 | 0.6 | 9700 | 15400 | 3900 |
| 35 | NATR 15 | NATR 15 PP | 15 | 35 | 19 | 18 | 27 | 0.6 | 9700 | 14100 | 7000 |
| | NATV 15 | NATV 15 PP | 15 | 35 | 19 | 18 | 27 | 0.6 | 12800 | 23000 | 3400 |
| 40 | NATR 17 | NATR 17 PP | 17 | 40 | 21 | 20 | 32 | 1 | 10900 | 15500 | 6000 |
| | NATV 17 | NATV 17 PP | 17 | 40 | 21 | 20 | 32 | 1 | 14800 | 26500 | 2900 |
| 47 | NATR 20 | NATR 20 PP | 20 | 47 | 25 | 24 | 37 | 1 | 15500 | 25500 | 4900 |
| | NATV 20 | NATV 20 PP | 20 | 47 | 25 | 24 | 37 | 1 | 20600 | 42000 | 2600 |
| 52 | NATR 25 | NATR 25 PP | 25 | 52 | 25 | 24 | 42 | 1 | 15400 | 26500 | 3600 |
| | NATV 25 | NATV 25 PP | 25 | 52 | 25 | 24 | 42 | 1 | 20500 | 44000 | 2100 |
| 62 | NATR 30 | NATR 30 PP | 30 | 62 | 29 | 28 | 51 | 1 | 23600 | 38500 | 2600 |
| | NATV 30 | NATV 30 PP | 30 | 62 | 29 | 28 | 51 | 1 | 30500 | 63000 | 1700 |
| 72 | NATR 35 | NATR 35 PP | 35 | 72 | 29 | 28 | 58 | 1.1 | 25500 | 44500 | 2000 |
| | NATV 35 | NATV 35 PP | 35 | 72 | 29 | 28 | 58 | 1.1 | 33000 | 73000 | 1400 |
| 80 | NATR 40 | NATR 40 PP | 40 | 80 | 32 | 30 | 66 | 1.1 | 33000 | 59000 | 1700 |
| | NATV 40 | NATV 40 PP | 40 | 80 | 32 | 30 | 66 | 1.1 | 41000 | 90000 | 1300 |
| 85 | NATR 45 | NATR 45 PP | 45 | 85 | 32 | 30 | 72 | 1.1 | 32500 | 59000 | 1500 |
| 90 | NATR 50 | NATR 50 PP | 50 | 90 | 32 | 30 | 76 | 1.1 | 32000 | 59000 | 1300 |
| | NATV 50 | NATV 50 PP | 50 | 90 | 32 | 30 | 76 | 1.1 | 40500 | 93000 | 1000 |



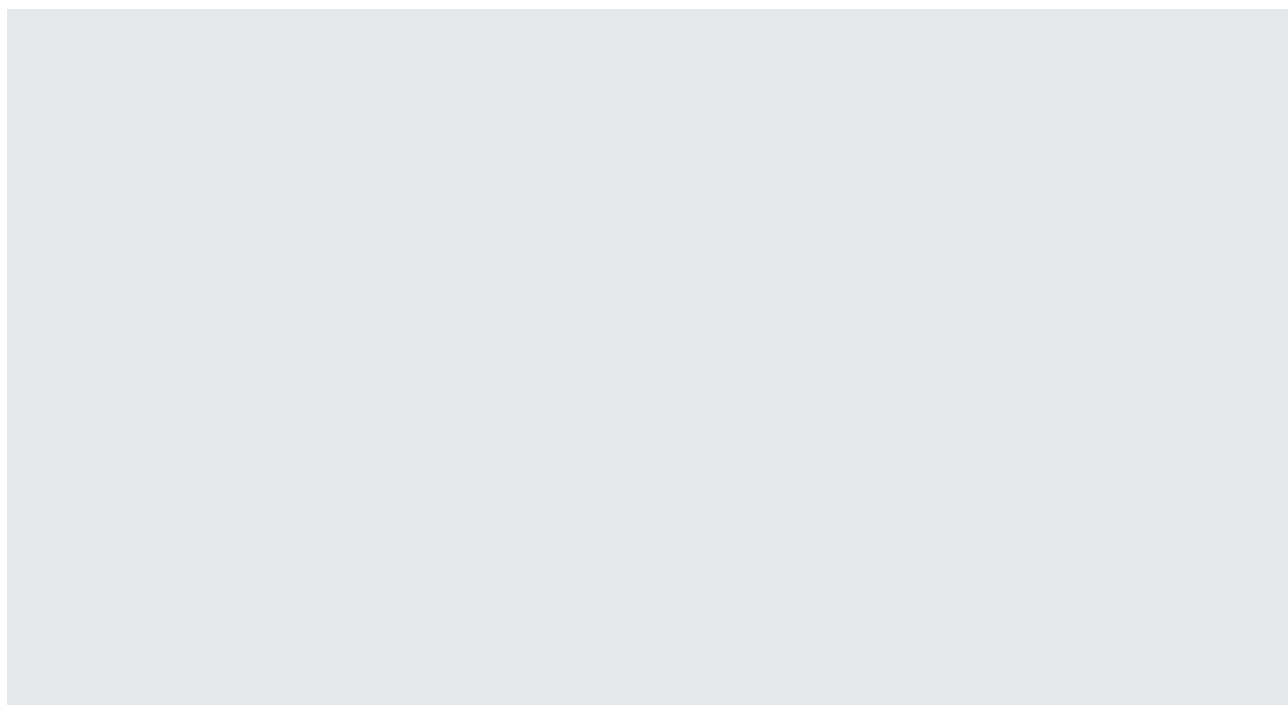
NUTR



NUTR...X

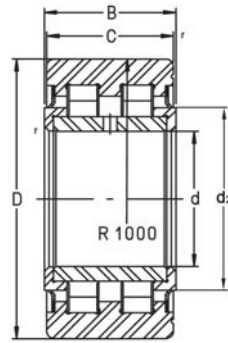
Yoke Type Track Rollers

| Shaft Diameter mm | Bearing Code | Boundary Dimensions | | | | | | | Basic Load Rating | | Limiting Speed |
|----------------------|--------------|---------------------|-----|----|----|----|-----|-----|-------------------|--------|----------------|
| | | d | D | B | C | d1 | rs | ris | Dynamic | Static | Oil |
| | | mm | | | | | min | | N | | rpm |
| 35 | NUTR 15 | 15 | 35 | 19 | 18 | 20 | 0,6 | 0,3 | 16000 | 18300 | 6500 |
| 40 | NUTR 17 | 17 | 40 | 21 | 20 | 22 | 1 | 0,3 | 18500 | 22800 | 5500 |
| 42 | NUTR 15 42 | 15 | 42 | 19 | 18 | 20 | 0,6 | 0,3 | 19400 | 23800 | 6500 |
| 47 | NUTR 17 47 | 17 | 47 | 21 | 20 | 22 | 1 | 0,3 | 21300 | 28000 | 5500 |
| | NUTR 20 | 20 | 47 | 25 | 24 | 27 | 1 | 0,3 | 28000 | 35000 | 4200 |
| 52 | NUTR 20 52 | 20 | 52 | 25 | 24 | 27 | 1 | 0,3 | 31500 | 41000 | 4200 |
| | NUTR 25 | 25 | 52 | 25 | 24 | 31 | 1 | 0,3 | 29000 | 37500 | 3400 |
| 62 | NUTR 25 62 | 25 | 62 | 25 | 24 | 31 | 1 | 0,3 | 35500 | 50000 | 3400 |
| | NUTR 30 | 30 | 62 | 29 | 28 | 38 | 1 | 0,3 | 40000 | 51000 | 2600 |
| 72 | NUTR 30 72 | 30 | 72 | 29 | 28 | 38 | 1 | 0,3 | 48000 | 65000 | 2600 |
| | NUTR 35 | 35 | 72 | 29 | 28 | 44 | 1,1 | 0,6 | 45000 | 61000 | 2100 |
| 80 | NUTR 35 80 | 35 | 80 | 29 | 28 | 44 | 1,1 | 0,6 | 51000 | 72000 | 2100 |
| | NUTR 40 | 40 | 80 | 32 | 30 | 51 | 1,1 | 0,6 | 56000 | 76000 | 1600 |
| 85 | NUTR 45 | 45 | 85 | 32 | 30 | 55 | 1,1 | 0,6 | 56000 | 79000 | 1400 |
| 90 | NUTR 40 90 | 40 | 90 | 32 | 30 | 51 | 1,1 | 0,6 | 66000 | 96000 | 1600 |
| | NUTR 50 | 50 | 90 | 32 | 30 | 60 | 1,1 | 0,6 | 57000 | 81000 | 1300 |
| 100 | NUTR 45 100 | 45 | 100 | 32 | 30 | 55 | 1,1 | 0,6 | 72000 | 108000 | 1400 |
| 110 | NUTR 50 110 | 50 | 110 | 32 | 30 | 60 | 1,1 | 0,6 | 76000 | 121000 | 1300 |



Bearings for Material Handling System

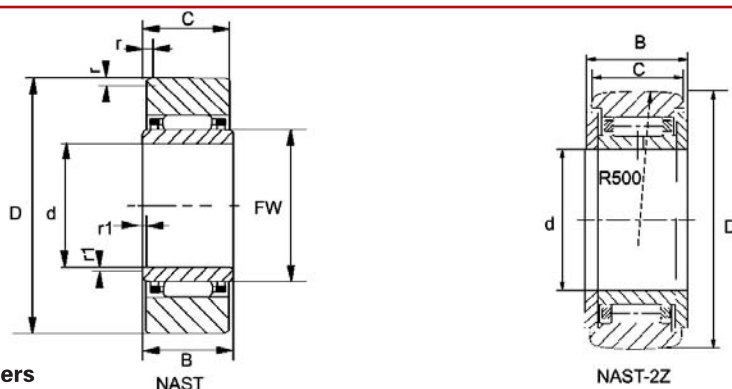
Support Rollers



PWTR...-2RS(sealed)

Yoke Type Track Rollers

| Bearing Code | Boundary Dimensions | | | | | Basic Load Rating | | Limiting Speed | Mass |
|---------------|---------------------|-----|----|----|----------------|-------------------|--------|----------------|-------|
| | d | D | B | C | d ₂ | Dynamic | Static | rpm | kg |
| | mm | | | | | N | | | |
| PWTR15-2RS | 15 | 35 | 19 | 18 | 20 | 11900 | 14600 | 6000 | 0.099 |
| PWTR1542-2RS | 15 | 42 | 19 | 18 | 20 | 13900 | 15200 | 6000 | 0.158 |
| PWTR17-2RS | 17 | 40 | 21 | 20 | 22 | 13600 | 17200 | 5000 | 0.147 |
| PWTR1747-2RS | 17 | 47 | 21 | 20 | 22 | 15100 | 17200 | 5000 | 0.220 |
| PWTR20-2RS | 20 | 47 | 25 | 24 | 27 | 23800 | 30500 | 3800 | 0.245 |
| PWTR2052-2RS | 20 | 52 | 25 | 24 | 27 | 26000 | 34000 | 3800 | 0.321 |
| PWTR25-2RS | 25 | 52 | 25 | 24 | 31 | 24600 | 33000 | 3800 | 0.281 |
| PWTR2562-2RS | 25 | 62 | 25 | 24 | 31 | 29000 | 40500 | 3800 | 0.450 |
| PWTR30-2RS | 30 | 62 | 29 | 28 | 38 | 34000 | 45500 | 2200 | 0.465 |
| PWTR3072-2RS | 30 | 72 | 29 | 28 | 38 | 40000 | 54000 | 2200 | 0.697 |
| PWTR35-2RS | 35 | 72 | 29 | 28 | 44 | 38000 | 54000 | 1800 | 0.630 |
| PWTR3580-2RS | 35 | 80 | 29 | 28 | 44 | 42500 | 64000 | 1800 | 0.836 |
| PWTR40-2RS | 40 | 80 | 32 | 30 | 50.5 | 43500 | 61000 | 1500 | 0.816 |
| PWTR4090-2RS | 40 | 90 | 32 | 30 | 50.5 | 51000 | 75000 | 1500 | 1.129 |
| PWTR45-2RS | 45 | 85 | 32 | 30 | 55.2 | 44500 | 63000 | 1300 | 0.883 |
| PWTR45100-2RS | 45 | 100 | 32 | 30 | 55.2 | 55000 | 85000 | 1300 | 1.396 |
| PWTR50-2RS | 50 | 90 | 32 | 30 | 59.8 | 44500 | 66000 | 1100 | 0.950 |
| PWTR50110-2RS | 50 | 110 | 32 | 30 | 59.8 | 58000 | 94000 | 1100 | 1.690 |

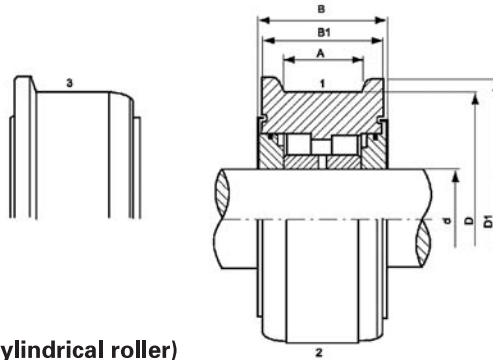


Yoke Type Track Rollers

| Shaft Diameter mm | Bearing Code | Boundary Dimensions | | | | Basic Load Rating | | Limiting Speed | Mass kg |
|----------------------|--------------|---------------------|----|----|------|-------------------|--------|----------------|------------|
| | | d | D | B | C | Dynamic | Static | Oil | |
| | | mm | | | | N | | rpm | |
| 6 | NAST6 | 6 | 19 | 10 | 9.8 | 5200 | 4900 | 18000 | 0.018 |
| | NAST6-ZZR | 6 | 19 | 14 | 13.8 | 5200 | 4900 | 18000 | 0.024 |
| | NAST6-2Z | 6 | 19 | 14 | 13.8 | 5200 | 4900 | 18000 | 0.024 |
| 8 | NAST8 | 8 | 24 | 10 | 9.8 | 5600 | 7650 | 16000 | 0.028 |
| | NAST8-ZZR | 8 | 24 | 14 | 13.8 | 5600 | 7650 | 16000 | 0.040 |
| | NAST8-2Z | 8 | 24 | 14 | 13.8 | 5600 | 7650 | 16000 | 0.040 |
| 10 | NAST10 | 10 | 30 | 16 | 15.8 | 10000 | 10800 | 12000 | 0.050 |
| | NAST10-ZZR | 10 | 30 | 16 | 15.8 | 10000 | 10800 | 12000 | 0.065 |
| | NAST10-2Z | 10 | 30 | 16 | 15.8 | 10000 | 10800 | 12000 | 0.065 |
| | NAST10X28X12 | 10 | 28 | 12 | 11.8 | 10000 | 10800 | 12000 | 0.065 |
| 12 | NAST12 | 12 | 32 | 12 | 11.8 | 10600 | 12000 | 10000 | 0.058 |
| | NAST12-ZZR | 12 | 32 | 16 | 15.8 | 10600 | 12000 | 10000 | 0.075 |
| | NAST12-2Z | 12 | 32 | 16 | 15.8 | 10600 | 12000 | 10000 | 0.075 |
| 15 | NAST15-ZZR | 15 | 35 | 16 | 15.8 | 12500 | 15600 | 7000 | 0.083 |
| | NAST15-2Z | 15 | 35 | 16 | 15.8 | 12500 | 15600 | 7000 | 0.083 |
| 17 | NAST17 | 17 | 40 | 20 | 19.8 | 18300 | 23600 | 6300 | 0.135 |
| | NAST17-2Z | 17 | 40 | 20 | 19.8 | 18300 | 23600 | 6300 | 0.135 |
| 20 | NAST20-ZZR | 20 | 47 | 20 | 19.8 | 19000 | 26000 | 5300 | 0.195 |
| | NAST20-2Z | 20 | 47 | 20 | 19.8 | 19000 | 26000 | 5300 | 0.195 |
| 25 | NAST25-2Z | 25 | 52 | 20 | 19.8 | 21200 | 31500 | 4300 | 0.225 |
| | NAST25-ZZR | 25 | 52 | 20 | 19.8 | 21200 | 31500 | 4300 | 0.225 |
| 30 | NAST30-ZZR | 30 | 62 | 25 | 24.8 | 31500 | 52000 | 3000 | 0.400 |
| | NAST30-2Z | 30 | 62 | 25 | 24.8 | 31500 | 52000 | 3000 | 0.400 |
| 35 | NAST 35-ZZR | 35 | 72 | 25 | 24.8 | 32000 | 54000 | 2400 | 0.550 |
| | NAST35-2Z | 35 | 72 | 25 | 24.8 | 32000 | 54000 | 2400 | 0.550 |
| 40 | NAST40-2Z | 40 | 80 | 26 | 25.8 | 36500 | 68000 | 1800 | 0.710 |
| 45 | NAST45-ZZR | 45 | 85 | 26 | 25.8 | 38000 | 75000 | 1600 | 0.760 |
| | NAST45-2Z | 45 | 85 | 26 | 25.8 | 38000 | 75000 | 1600 | 0.760 |
| 50 | NAST50-2Z | 50 | 90 | 26 | 25.8 | 39500 | 87000 | 1400 | 0.830 |

Bearings for Material Handling System

Conveyor Track Rollers

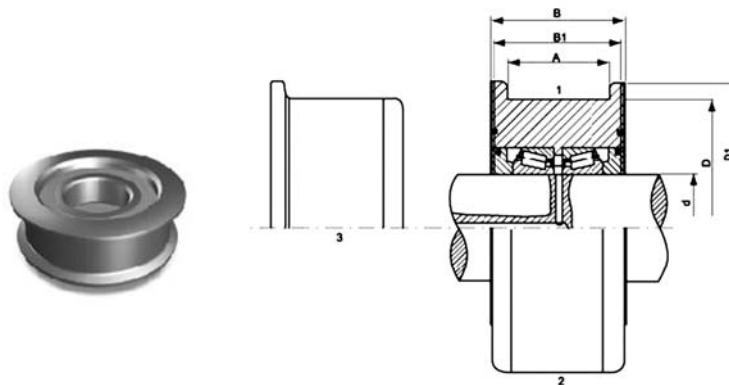


Conveyor Track Roller Bearings (Cylindrical roller)

| Bearing Code | | Boundary Dimensions | | | | | | Basic Load Rating | | Reference index |
|--------------|--------------|---------------------|-----|----------------|----|----------------|-----|-------------------|--------|-----------------|
| | | d | D | D ₁ | A | B ₁ | B | Dynamic | Static | |
| | | mm | | | | | | KN | | Italy |
| CR20125-2Z | CR20125-2RS | 50 | 125 | 140 | 40 | 60 | 65 | 128 | 133 | 9.1947/A |
| CR60150-2Z | CR60150-2RS | 60 | 150 | 170 | 50 | 70 | 75 | 195 | 214 | 9.1947/B |
| CR70165-2Z | CR70165-2RS | 70 | 165 | 190 | 55 | 75 | 80 | 228 | 246 | 9.1947/C |
| CR80185-2Z | CR80185-2RS | 80 | 185 | 210 | 60 | 80 | 85 | 283 | 319 | 9.1947/D |
| CR100215-2Z | CR100215-2RS | 100 | 215 | 250 | 65 | 85 | 90 | 356 | 411 | 9.1947/E |
| CR120255-2Z | CR120255-2RS | 120 | 255 | 290 | 70 | 95 | 100 | 472 | 581 | 9.1947/F |

Remarks:

Outer profile 1, 2, 3 are available on request.



Conveyor Track Roller Bearings (Taper roller)

| Bearing Code | | Boundary Dimensions | | | | | | Basic Load Rating | | Reference index |
|-------------------|--------------------|---------------------|-----|----------------|----|----------------|-----|-------------------|--------|-----------------|
| | | d | D | D ₁ | A | B ₁ | B | Dynamic | Static | |
| | | mm | | | | | | KN | | Italy |
| CR330/50125DS-2Z | CR330/50125DS-2RS | 50 | 125 | 140 | 45 | 70 | 75 | 98 | 177 | 9.1946/A |
| CR330/60150DS-2Z | CR330/60150DS-2RS | 60 | 150 | 170 | 55 | 80 | 85 | 131 | 246 | 9.1946/B |
| CR330/70165DS-2Z | CR330/70165DS-2RS | 70 | 165 | 190 | 60 | 85 | 90 | 163 | 306 | 9.1946/C |
| CR330/80185DS-2Z | CR330/80185DS-2RS | 80 | 185 | 210 | 65 | 95 | 100 | 219 | 426 | 9.1946/D |
| CR330/100215DS-2Z | CR330/100215DS-2RS | 100 | 215 | 250 | 75 | 105 | 115 | 275 | 552 | 9.1946/E |
| CR330/120255DS-2Z | CR330/120255DS-2RS | 120 | 255 | 290 | 85 | 120 | 130 | 390 | 824 | 9.1946/F |

Remarks:

Outer profile 1, 2, 3 are available on request.