

FAG Rolling Bearing Cages

Designation · Design · Material



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Cage types and Cage designs

This publication provides an overview of the rolling bearing cages that can be produced by FAG (several of these cages are not included in our catalogue). It also shows an allocation of the various standard cages to the individual bearing types, series and sizes.

The cage is an important component of a rolling bearing:

- it keeps the rolling elements apart to prevent mutual contact
- it keeps the rolling elements evenly spaced to ensure a more even load distribution
- it guides the rolling elements in the unloaded bearing zones
- it prevents the rolling elements from falling out of separable and slewable bearings, thereby facilitating bearing mounting.

There are pressed cages as well as solid cages:

Pressed cages are usually made from sheet steel, but sometimes also from brass sheet. They offer the advantages of a light weight and low material cost. If manufactured in large numbers, they are economic in spite of the expensive manufacturing tools.

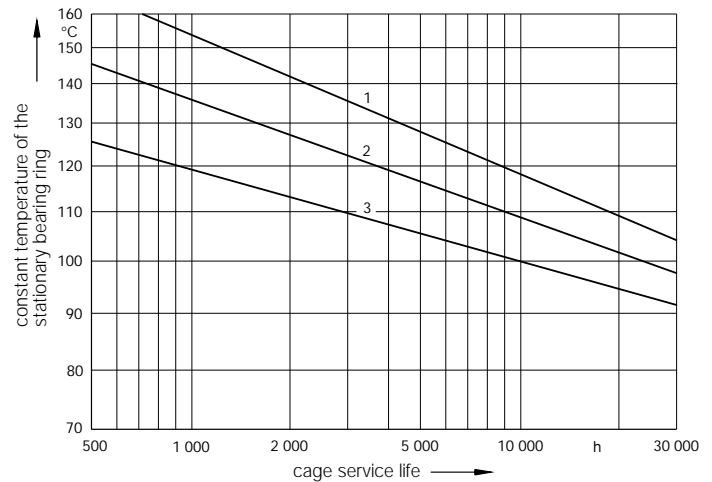
Solid cages are made from brass, steel, light metal or textile-laminated phenolic resin. They are manufactured either by machining, by injection moulding of plastic materials or by sintering metals.

Solid cages, especially those made from brass or steel, are suitable for small series and – for strength reasons – for large bearings subjected to high loads.

Solid cages made from light metal or textile-laminated phenolic resin have relatively low body forces; outer-ring riding solid cages are often used in high-speed bearings.

Cages made from glass-fibre reinforced polyamide PA66-GF25 are now used in numerous large-series bearings. A high degree of elasticity, a low weight as well as good sliding and dry-running properties have a positive effect on the bearing service life.

Glass-fibre reinforced polyamide cages are suitable for extended use at operating temperatures of up to 120 °C. In oil-lubricated bearings, however, additives contained in the oil may lead to a reduction of the cage service life, see diagram.



Curve 1 - Rolling bearing lubricating grease K in accordance with DIN 51825, motor- or machine lubrication oil

Curve 2 - gear oil

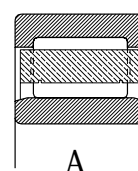
Curve 3 - hypoid oil

The curves relate to constant temperatures. If the bearings are not subjected to such high temperatures all the time, the cage service life will be longer.

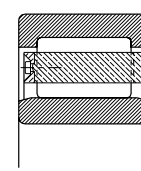
At increased temperatures aged oil can also have an impact on the cage service life; it is, therefore, important that the oil change intervals are observed.

The cost-effective standard cages are, as a rule, suitable for normal operating conditions. Special operating conditions require a specifically selected special cage. This explains the diversity of cage designs shown in this Technical Information.

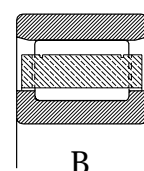
Another distinctive feature of a cage is the type of guidance. Most cages are guided by the rolling elements. This type of cage guidance is not specified in the code. By contrast, cage guidance by the outer ring (outer ring riding) and by the inner ring (inner ring riding) is indicated by the suffixes A and B, respectively.



guidance by the outer ring



guidance by the rolling elements



guidance by the inner ring

Cage suffixes for ball and roller bearings

Pressed steel cages

| | |
|-----|--|
| J | rolling element riding |
| JH | snap-type cage; rolling element riding |
| JN | rivet-type cage; rolling element riding |
| JP | window-type cage; rolling element riding |
| JP1 | window-type cage; rolling element riding |
| JPA | window-type cage; guidance by the inner ring (supporting ring) |
| JPB | window-type cage; guidance by the inner ring |

Pressed brass cages

| | |
|-----|--|
| YPB | window-type cage; guidance by the inner ring |
|-----|--|

Machined steel cages

| | |
|----|--|
| F | rolling element riding |
| FA | guidance by the outer ring (housing washer, housing) |
| FB | guidance by the inner ring (shaft washer, shaft) |
| FP | window-type cage; rolling element riding |

Machined light metal cages

| | |
|-----|--|
| LA | guidance by the outer ring (housing) |
| LB | guidance by the inner ring (shaft) |
| LPA | window-type cage; guidance by the outer ring (housing) |
| LPB | window-type cage; guidance by the inner ring (shaft) |

Machined brass cages

| | |
|-------------------|---|
| M | rolling element riding |
| M1 | rolling element riding (crosspiece riveted) |
| M1A | guidance by the outer ring (crosspiece riveted) |
| M1B | guidance by the inner ring (crosspiece riveted) |
| M3 ¹⁾ | modified design; rolling element riding |
| M3A ¹⁾ | modified design; guidance by the outer ring |
| M3B ¹⁾ | modified design; guidance by the inner ring |

| | |
|-----|--|
| MA | guidance by the outer ring (housing washer, housing) |
| MAS | guidance by the outer ring; with lubricating grooves |
| MB | guidance by the inner ring (shaft washer, shaft) |
| MBS | guidance by the inner ring; with lubricating grooves |
| MP | window-type cage; rolling element riding |
| MP1 | window-type cage; rolling element riding |
| MPA | window-type cage; guidance by the outer ring (housing) |
| MPB | window-type cage; guidance by the outer ring (Welle) |

Machined textile laminated phenolic cagees

| | |
|-------------------|--|
| TA | guidance by the outer ring |
| TB | guidance by the inner ring |
| THB | snap-type cage; guidance by the inner ring |
| TPA ²⁾ | window-type cage; guidance by the outer ring |
| TPB | window-type cage; guidance by the inner ring |

Moulded polyamide cages (PA66)

| | |
|-----|--|
| TNP | window-type cage; rolling element riding |
|-----|--|

Moulded polyamide cages (PA66-GF25)

| | |
|--------------------|--|
| TV | rolling element riding |
| TVA | guidance by the outer ring |
| TVB | guidance by the inner ring |
| TVH | snap-type cage; rolling element riding |
| TVHB ²⁾ | snap-type cage; guidance by the inner ring |
| TVP | window-type cage; rolling element riding |
| TVP2 | window-type cage; rolling element riding |
| TVP3 ³⁾ | window-type cage; rolling element riding |
| TVPB | window-type cage; guidance by the inner ring |
| TVPB1 | window-type cage; guidance by the inner ring |

¹⁾ In the order designation the cage suffix is M1.

²⁾ In the order designation the cage suffix is T.

³⁾ In the order designation the cage suffix is TVP2.

Allocation of the standard cage designs

FAG rolling bearings can be fitted with various types of cages. However, for every bearing only one cage type is specified as the standard design. The following tables list the standard design cages; they can be pressed cages as well as solid cages of brass, steel, light metal or synthetic materials.

Specification of the cage in the bearing codes

Generally, standard pressed cages are not specifically specified in the bearing codes.

The cage code is always included in the bearing codes in the following cases:

- bearings with pressed cages that are not specified as the standard design;
- all solid cages, whether or not specified as the standard cage.

Example: The standard cage of a deep groove ball bearing FAG 6205 is a J-design cage. If, however, the bearing is to be equipped with a JN-cage, the code for this cage has to be included in the bearing code (6205JN).

Cages of glass-fibre reinforced polyamide:

Cages of polyamide PA66-GF25 are suffixed T in the product numbers of deep groove ball bearings and barrel roller bearings.

Example: The standard cage design for deep groove ball bearings is a TVHB-design cage but the product number is 61815T.

| Bearing size / range | Cage | Bearing size / range | Cage | Bearing size / range | Cage |
|--|---------|--|------|--|------------------|
| FAG Deep groove ball bearings, single row | | - sealed | | FAG Deep groove ball bearings, single row, stainless steel, design open or sealed (.2RSR) | |
| 60864 - 608/1400 | M | 623.2Z - 627.2Z | J | S6000.W203B - S6004.W203B | J ¹⁾ |
| - sealed | | 623.2RS - 627.2RSJ | | S6005.W203B - S6012.W203B | JN ¹⁾ |
| 608.2RS, .2Z | J | 629.2RSR - 6216.2RSR | JN | S6200.W203B - S6206.W203B | J ¹⁾ |
| 618/6 | J | 629.2ZR - 6216.2ZR | JN | S6207.W203B - S6212.W203B | JN ¹⁾ |
| 61800 - 61828 | TVHB *) | 62200 - 62206 | J | S6300.W203B - S6311.W203B | JN ¹⁾ |
| 61830 - 61856 | JN | 62207 - 62215 | JN | | |
| 61860 - 618/850 | M | - sealed | | FAG Deep groove ball bearings, double row | |
| 60952 - 609/670 | M | 62200.2RSR - 62210.2RSR | JN | 4200B - 4216B | TVH |
| 61900 - 61903 | J | 634, 635 | J | 4302B - 4312B | TVH |
| 61904 - 61948 | JN | 6300 - 6324 | JN | | |
| 61952 | M | 6326 - 63/500 | M | FAG Angular contact ball bearings, single row | |
| 61956 | JN | - sealed | | 7200B - 7220B | TVP |
| 61960 - 619/1900 | M | 634.2RS, 635.2RS | J | 7221B | MP |
| 16002 - 16008 | J | 634.2Z, 635.2Z | J | 7222B - 7226B | TVP |
| 16009 - 16052 | JN | 6300.2RSR - 6314.2RSR | JN | 7228B - 7276B | MP |
| 16056 - 16076 | M | 6300.2ZR - 6322.2ZR | JN | 7280B - 72/500B | MPB |
| 16100, 16101 | J | 62302.2RSR - 62310.2RSR | JN | 7300B - 7320B | TVP |
| 607 - 6004 | J | 6403 - 6414 | JN | 7321B | MP |
| 6005 - 6030 | JN | 6415 - 6418 | M | 7322B - 7326B | TVP |
| 6032 | M | FAG Deep groove ball bearings, single row, E-design | | 7328B - 7364B | MP |
| 6034 | JN | 6000E - 6020E | TVH | 7368B - 73/500B | MPB |
| 6036 - 6072 | M | 6200E - 6220E | TVH | FAG Angular contact ball bearings, double row | |
| - sealed | | 6300E - 6320E | TVH | 3200B - 32216B | TVH |
| 609.2RSR - 6015.2RSR | J | 6403E - 6408E | TVH | 3302B - 3313B | TVH |
| 609.2ZR - 6016.2ZR | J | | | | |
| 623 - 6206 | J | | | | |
| 6207 - 6230 | JN | | | | |
| 6232 - 6256 | M | | | | |

*) In the order designation: suffix T

¹⁾ Cage material is stainless steel X 45 Cr Ni 18 9 (mat.-no. 1.4301)

| Bearing size / range | Cage | Bearing size / range | Cage | Bearing size / range | Cage |
|--|--------|--|--------|--|--------|
| FAG Angular contact ball bearings, single row | | - sealed | | FAG Cylindrical roller bearings, single row | |
| - with split inner ring | | HCS71900C - HCS71926C | TPA *) | HCS71900E - HCS71926E | TPA *) |
| 3305DA | TVH | HCS7000C - HCS7026C | TPA *) | HCS7000E - HCS7026E | TPA *) |
| 3306DA, 3307DA | JP | FAG Self-aligning ball bearings | | N1860 - N18/950 | M1 |
| 3308DA | MA | 108 | TV | NJ1860 - NJ18/950 | M1 |
| 3309DA | JP | 126 - 1218 | TV | NU1860 - NU18/950 | M1 |
| 3310DA, 3311DA | MA | 1219 - 1230 | M | NUP1860 - NUP18/950 | M1 |
| 3312DA - 3314DA | JP | 2200 - 2213 | TV | N2840 - N28/850 | M1 |
| - with filling grooves | | 2214 | M | NJ2840 - NJ28/850 | M1 |
| 3217, 3218 | J | 2215, 2216 | TV | NU2840 - NU28/850 | M1 |
| 3219 | M | 2217 | M | NUP2840 - NUP28/850 | M1 |
| 3220 | J | 2218 | TV | N1909 - N19/670 | M1 |
| 3221 - 3222 | M | 2219 - 2222 | M | NJ1909 - NJ19/670 | M1 |
| 3300 - 3316 | J | 135 | TV | NU1909 - NU19/670 | M1 |
| 3317 | M | 1303 - 1313 | TV | NUP1909 - NUP19/670 | M1 |
| 3318 | J | 1314 - 1322 | M | N2926 - N29/1180 | M1 |
| 3319 - 3322 | M | 2300, 2301 | M | NJ2926 - NJ29/1180 | M1 |
| FAG Spindle bearings | | 2302 - 2313 | TV | NU2926 - NU29/1180 | M1 |
| B71900C - B71948C | TPA *) | 2314 - 2360 | M | NUP2926 - NUP29/1180 | M1 |
| B71900E - B71948E | TPA *) | 11204 - 11212 | TV | N1005 - N10/560 | M1 |
| B7000C - B7048C | TPA *) | 11305 - 11311 | TV | NJ1005 | M1 |
| B7000E - B7048E | TPA *) | - sealed | | NJ1006 | JP |
| B7200C - B7244C | TPA *) | 2200.2RS - 2214.2RS | TV | NJ1007 - NJ10/560 | M1 |
| B7200E - B7244E | TPA *) | 2303.2RS - 2311.2RS | TV | NU1005 | M1 |
| HS71900C - HS71926C | TPA *) | FAG Four-point bearings | | NU1006 | JP |
| HS71900E - HS71926E | TPA *) | QJ205 - QJ207 | MPA | NU1007 - NU10/560 | M1 |
| HS7000C - HS7026C | TPA *) | QJ208, QJ209 | TVP | NUP1005 | M1 |
| HS7000E - HS7026E | TPA *) | QJ2010 | MPA | NUP1006 | JP |
| - sealed | | QJ211, QJ212 | TVP | NUP1007 - NUP10/560 | M1 |
| HSS71900C - HSS71926C | TPA *) | QJ213 | MPA | N202E - N226E | TVP2 |
| HSS71900E - HSS71926E | TPA *) | QJ214, QJ215 | TVP | N228E - N268E | M1 |
| HSS7000C - HSS7026C | TPA *) | QJ216 - QJ2/500 | MPA | N272 - N2/900 | M1 |
| HSS7000E - HSS7026E | TPA *) | QJ304 | MPA | NJ202E - NJ226E | TVP2 |
| FAG Hybrid-Spindle bearings (steel rings, ceramic balls) | | QJ305 - QJ309 | TVP | NJ228E - NJ268E | M1 |
| HC71900C - HC71926C | TPA *) | QJ310 - QJ3/500 | MPA | NJ272 - NJ2/900 | M1 |
| HC71900E - HC71926E | TPA *) | FAG Four-point bearings | | NU202E - NU226E | TVP2 |
| HC7000C - HC7026C | TPA *) | QJ205 - QJ207 | MPA | NU228E - NU268E | M1 |
| HC7000E - HC7026E | TPA *) | QJ208, QJ209 | TVP | NU272 - NU2/900 | M1 |
| HCB71900C - HCB71926C | TPA *) | QJ2010 | MPA | NUP202E - NUP226E | TVP2 |
| HCB71900E - HCB71926E | TPA *) | QJ211, QJ212 | TVP | NUP228E - NUP268E | M1 |
| HCB7000C - HCB7026C | TPA *) | QJ213 | MPA | NUP272 - NUP2/900 | M1 |
| HCB7000E - HCB7026E | TPA *) | QJ214, QJ215 | TVP | N1244 - N1284 | M1 |
| HCB7200C - HCB7226C | TPA *) | QJ216 - QJ2/500 | MPA | N1288 | M |
| HCB7200E - HCB7226E | TPA *) | QJ304 | MPA | N1292 - N12/500 | M1 |

*) In the order designation: suffix T

| Bearing size / range | Cage | Bearing size / range | Cage | Bearing size / range | Cage |
|----------------------|------|---|------|---|--------|
| NJ1244 - NJ1284 | M1 | NJ2304E - NJ2356E | M1 | FAG Tapered roller bearings | |
| NJ1288 | M | NJ2324E - NJ2356E | M1 | 32919 - 32960 | JP |
| NJ1292 - NJ12/500 | M1 | NJ2360 - NJ2364 | M1 | 32004X - 32064X | JP |
| NU1244 - NU1284 | M1 | NJ2368 - NJ2376 | M | 33009 - 33022 | JP |
| NU1288 | M | NJ2380 - NJ2396 | M1 | 33111 - 33122 | JP |
| NU1292 - NU12/500 | M1 | NJ23/500 | M | 30202 - 30244A | JP |
| NUP1244 - NUP1284 | M1 | NU2304E - NU2356E | M1 | 32203A - 32252 | JP |
| NUP1288 | M | NU2324E - NU2356E | M1 | 33205 - 33217 | JP |
| NUP1292 - NUP12/500 | M1 | NU2360 - NU2364 | M1 | 30302A - 30332A | JP |
| N2203E, N2204E | M1A | NU2368 - NU2376 | M | 31304 - 31330X | JP |
| N2205E - N2268E | M1 | NU2380 - NU2396 | M1 | 32303A - 32252 | JP |
| N2272 - N22/500 | M1 | NU23/500 | M | FAG Tapered roller bearings, single and double row, inch dimensions | |
| N22/530 | M | NUP2304E - NUP2356E | M1 | alle Lagerausführungen | JP |
| NJ2203E - NJ2226E | TVP2 | NUP2324E - NUP2356E | M1 | FAG Barrel roller bearings | |
| NJ2228E - NJ2268E | M1 | NUP2360 - NUP2364 | M1 | 20204 - 20216 | TVP *) |
| NJ2272 - NJ22/500 | M1 | NUP2368 - NUP2376 | M | 20217 - 20264 | MB |
| NJ22/530 | M | NUP2380 - NUP2396 | M1 | 20304 - 20312 | TVP *) |
| NJ22/560 - NJ22/630 | M1 | NUP23/500 | M | 20313 - 20356 | MB |
| NU2203E - NU2226E | TVP2 | N404 - N409 | M1 | 20404 - 20406 | TVP *) |
| NU2228E - NU2268E | M1 | N410 | JP | 20407 - 20448 | MB |
| NU2272 - NU22/500 | M1 | N411 | M1 | FAG Spherical roller bearings | |
| NU22/530 | M | N412, N413 | JP | 23936S - 23944S | MB |
| NU22/560 - NU22/630 | M1 | N414 - N448 | M1 | 23948 - 239/1000 | MB |
| NUP2203E - NUP2226E | TVP2 | NJ404 - NJ06 | M1 | 23022ES - 23040ES | TVPB |
| NUP2228E - NUP2268E | M1 | NJ407 - NJ411 | JP | 23022EAS - 23040EAS | M |
| NUP2272 - NUP22/500 | M1 | NJ412 | M1 | 23044 - 230/1000 | MB |
| NU22/530 | M | NJ413 - NJ415 | JP | 24024ES - 24032ES | TVPB |
| NU22/560 - NU22/630 | M1 | NJ416 - NJ421 | M1 | 24024S - 24040BS | MB |
| N305E - N316E | TVP2 | NJ422 | JP | 24044B - 240/850 | MB |
| N317E - N356E | M1 | NJ424 - NJ448 | M1 | 23120ES - 23136ES | TVPB |
| N360 - N3/670 | M1 | NU404 - NU406 | M1 | 23138E | TVPB |
| NJ303E - NJ320E | TVP2 | NU407 - NU411 | JP | 23120EAS - 23136EAS | M |
| NJ321 | M1 | NU412 | M1 | 23138EA | M |
| NJ322E - NJ328E | TVP2 | NU413 - NU415 | JP | 23140B - 231/1000 | MB |
| NJ330E - NJ356E | M1 | NU416 - NU421 | M1 | 24122ES - 24128ES | TVPB |
| NJ360 - NJ3/670 | M1 | NU422 | JP | 24120BS - 24136BS | YPB |
| NU303E - NU320E | TVP2 | NU424 - NU448 | M1 | 24138B - 24188B | YPB |
| NU321E | M1 | NUP404 - NUP406 | M1 | 24192B - 241/710B | MB |
| NU322E - NU328E | TVP2 | NUP407 - NUP411 | JP | 22205E - 22236E | JPA |
| NU330E - NU356E | M1 | NUP412 | M1 | 22238B - 22264 | MB |
| NU360 - NU3/670 | M1 | NUP413 - NUP415 | JP | FAG Cylindrical roller bearings, single and double row for machine tools | |
| NUP303E - NUP320E | TVP2 | NUP416 - NUP421 | M1 | N1006K - N10/500K | M1 |
| NUP321E | M1 | NUP422 | JP | NNU4920SK - NNU49/500SK | M |
| NUP322E - NUP328E | TVP2 | NUP424 - NUP448 | M1 | NN3006ASK - NN30/500ASK | M |
| NUP330E - NUP356E | M1 | FAG Tapered roller bearings, single and double row, inch dimensions | | 22205E - 22236E | JPA |
| NUP360 - NUP3/670 | M1 | FAG Barrel roller bearings | | 22238B - 22264 | MB |
| N2304E - N2356E | M1 | FAG Spherical roller bearings | | 24120BS - 24136BS | YPB |
| N2324E - N2356E | M1 | FAG Cylindrical roller bearings, single and double row for machine tools | | 24138B - 24188B | YPB |
| N2360 - N2364 | M1 | FAG Tapered roller bearings | | 24192B - 241/710B | MB |
| N2368 - N2376 | M | FAG Barrel roller bearings | | 22205E - 22236E | JPA |
| N2380 - N2396 | M1 | FAG Spherical roller bearings | | 22238B - 22264 | MB |
| N23/500 | M | FAG Cylindrical roller bearings, single and double row for machine tools | | | |

| Bearing size / range | Cage | Bearing size / range | Cage | Bearing size / range | Cage |
|---|----------------|---|--|--|--------------|
| 23218ES - 23234ES 23236E | TVPB TVPB | FAG Thrust ball bearings, double direction | | FAG S-type bearings, metrical and inch dimensions | |
| 23218EAS - 23234EAS 23236EA | M M | 52202 - 52228 | JP | 16203/12 - 16212 | JN |
| 23238B - 232/750 | MB | 52230 - 52244 | MP | 16203.008 - 16212.207 | JN |
| 24220BS - 24226S 24228S - 24234S | YPB MB | 54205 - 54220 54230 - 54244 | JP MP | 36204 - 36218 36204.012 - 36218.308 | JN JN |
| 24236B - 242/710 | MB | 52305 - 52320 52322 - 52330 52332 - 52340 | JP MP M | 56204 - 56218 56204.012 - 56218.308 | JN JN |
| 21304E - 21322E | TVPB | 54305 - 54320 54322, 54324 | JP MP | 76203.2RSR - 76212.2RSR | JN |
| 22308E - 22328E 22330E | JPA JPA | 52405 - 52411 52412 - 52430 52432 - 52436 | J FP M | FAG Cylindrical roller bearings for wheelset bearings | |
| 22332B - 223/560B | MB | 54405 - 54411 54412 - 54430 | J FP | WJ80x140 WJP80x140P | TVP TVP |
| FAG Spherical roller bearings for vibrating machines | | | | WJ90x160 WJP90x160P | TVP TVP |
| 22308E.T41A - 22330E.T41A | JPA | FAG Angular contact thrust ball bearings for machine tools -single direction | | WJ100x180 WJP100x180P | TVP TVP |
| 22332A.T41A - 22344A.T41A | MA | 7602080 - 7602100 | TVP | WJ100x200 WJP100x200P | M M |
| 23320AS.T41A - 22328AS.T41A | MA | 7603080 - 7603100 | TVP | WJ110x215 WJP110x215P | M1 M1 |
| 23330A.T41A - 23340A.T41A | MA | BSB020047 - BSB100150 | TVP *) | WJ120x215 WJP120x215P | TVP TVP |
| FAG Thrust ball bearings, single direction | | -double direction, preloaded | | WJ120x240 WJP120x240P | TVP TVP |
| 51000 - 510/600 | MP | 234406 - 234480 | M | WJ130x240 WJP130x240P | TVP TVP |
| 51100 - 51128 51130 - 51168 51172 - 511/560 | JP FP MP | 234706 - 234780 | M | 581171 (130x250x80) 581172 (130x250x80) | M1 M1 |
| 51200 - 51228 51230 - 51256 51260 - 512/500 | JP MP M | FAG Cylindrical roller thrust bearings, single direction | | WJ130x260 WJP130x260P | M1 M1 |
| 53200 - 53228 53230 - 53256 53260 - 532/500 | JP MP M | 81102, 81103 81104, 81105 81106 81107 - 81114 81115 - 81122 81124 - 81156 81160 - 811/500 | LPB TVPB TVPB1 TVPB LPB MPB MB | 514115 (180x320x75) 514116 (180x320x75) | M1 M1 |
| 53305 - 53320 53322 - 53330 53332 - 53340 | JP MP M | 81206 - 81211 81212 - 81220 81222 - 81244 81248 - 81276 | TVPB LPB MPB MB | NF2220E - NF2222E NF2224E | TVP M1 |
| 51405 - 51411 51412 - 51430 51432 - 514/500 | J FP M | FAG Spherical roller thrust bearings | | NJ2230E NU2230E + angle ring HJ | M1 M1 |
| 53405 - 53411 53412 - 53430 53432 - 53436 | J FP M | 29240E - 292/800E 29317E - 29364E 29368E - 293/850E 29412E - 29468E 29472E - 294/800E | MB JP MB JP MB | NJ2316E - NJ2318E NJP2316ED - NJP2318ED | TVP2 TVP2 |
| | | | | NJ2320E NJP2320ED | M1 M1 |
| | | | | NJ2326E NJP2326ED | M1 M1 |
| | | | | NU2326E + angle ring HJ | M1 |

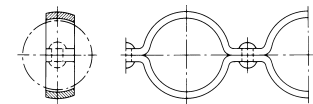
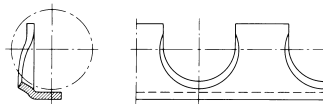
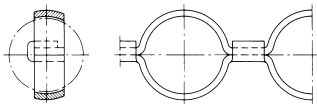
*) Im Bestellkurzzeichen wird T
angeschrieben.

FAG Cage designs for rolling bearings

FAG Deep groove ball bearings, single row

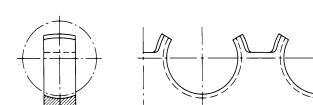
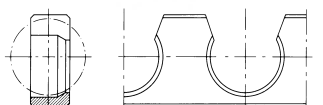
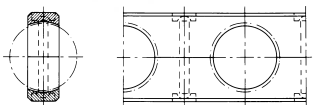
Pressed cage

| | | | | | |
|----------|-------|-----------|-------|-----------|-------|
| J | Steel | JH | Steel | JN | Steel |
|----------|-------|-----------|-------|-----------|-------|



Machined or moulded cage

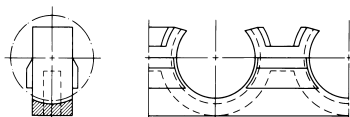
| | | | | | |
|-----------------------|----------------------------|------------|---------------------------|-------------|------------------------|
| F · FA · FB | Steel | THB | Textil laminated phenolic | TVH | Polyamide PA66-GF25 |
| M · MA · MB | Brass | | | TVHB | |
| TA · TB | Textile laminated phenolic | | | | |
| TV · TVA · TVB | Polyamide PA66-GF25 | | | | |



FAG Deep groove ball bearings, double row

Moulded cage

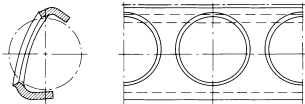
| | |
|------------|------------------------|
| TVH | Polyamide PA66-GF25 |
|------------|------------------------|



FAG Angular contact ball bearings, single row

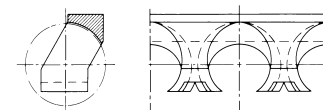
Pressed cage

| | |
|-----------|-------|
| JP | Steel |
|-----------|-------|



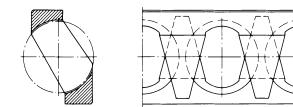
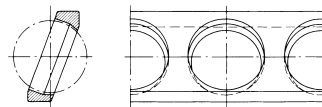
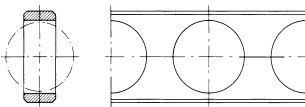
Moulded cage

| | |
|------------|------------------------|
| TVH | Polyamide PA66-GF25 |
|------------|------------------------|



Machined or moulded cage

| | | | | | |
|------------------|----------------------------|-----------|-------|------------|------------------------|
| MPA · MPB | Brass | MP | Brass | TVP | Polyamide PA66-GF25 |
| TPA · TPB | Textile laminated phenolic | | | | |



FAG Angular contact ball bearings, double row

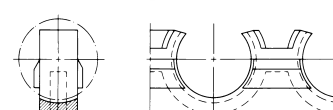
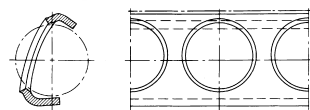
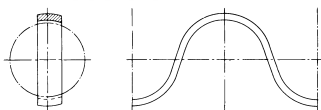
Pressed cage

| | |
|----------|-------|
| J | Steel |
|----------|-------|

| | |
|-----------|-------|
| JP | Steel |
|-----------|-------|

Moulded cage

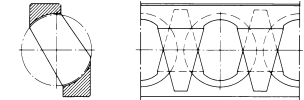
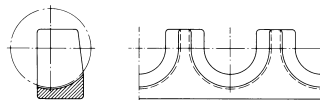
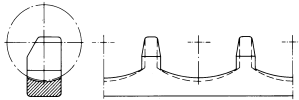
| | |
|------------|------------------------|
| TVH | Polyamide PA66-GF25 |
|------------|------------------------|



FAG Angular contact ball bearings, double row

Machined or moulded cage

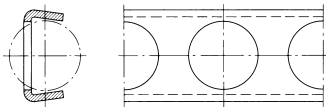
| | | | | | |
|----------|-------|-----------|-------|------------|----------------------------|
| F | Steel | MA | Brass | TVP | aus Polyamide PA66-GF25 |
| M | Brass | | | | |



FAG Four-point bearings

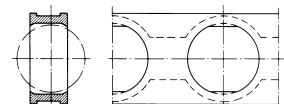
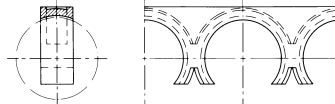
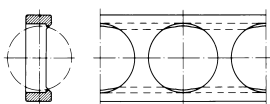
Pressed cage

| | |
|-----------|-------|
| JP | Steel |
|-----------|-------|



Machined or moulded cage

| | | | | | |
|------------------|----------------------------|------------|------------------------|------------|------------------------|
| MPA · MPB | Brass | TVH | Polyamide PA66-GF25 | TNP | Polyamide PA66 |
| TPA · TPB | Textile laminated phenolic | | | TVP | Polyamide PA66-GF25 |



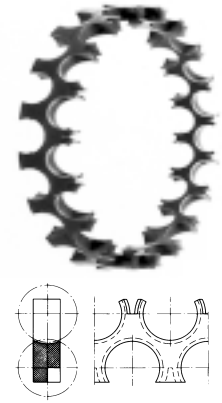
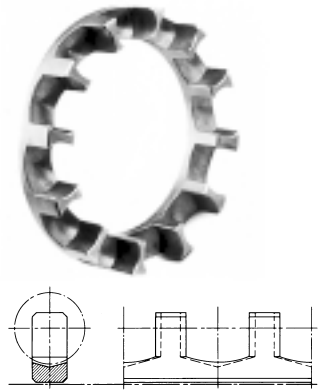
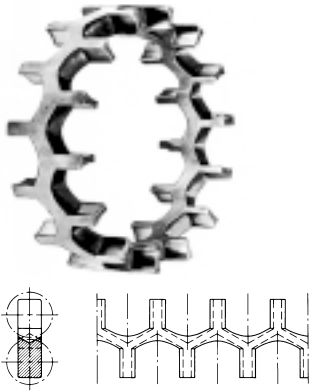
FAG Self-aligning ball bearings

Machined or moulded cage

| | | | | | |
|----------|-------|----------|-------|-----------|------------------------|
| F | Steel | F | Steel | TV | Polyamide PA66-GF25 |
| M | Brass | M | Brass | | |

Series 12 and 13

Series 22 and 23

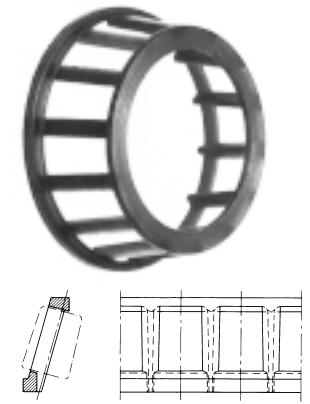
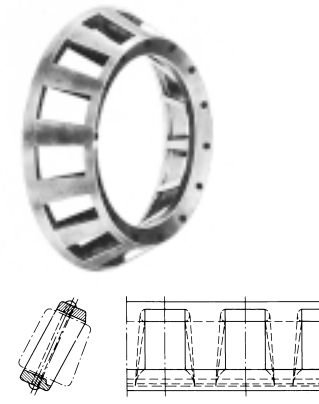
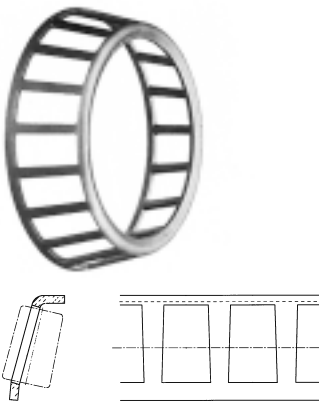


FAG Tapered roller bearings

Pressed cage




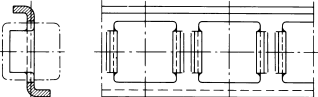
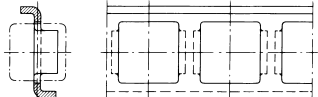
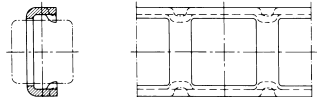
Machined or moulded cage

| | | | | | |
|-----------|-------|----------|-------|------------|------------------------|
| JP | Steel | M | Brass | TVP | Polyamide PA66-GF25 |
|-----------|-------|----------|-------|------------|------------------------|




FAG Cylindrical roller bearings, single row and in E-design




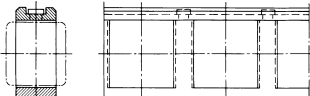
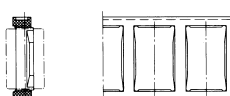
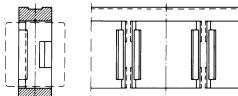
Pressed cage

| | | | | | |
|---|-------|---|-------|---|-------|
| JP | Steel | JP | Steel | JP1 | Steel |
| -for designs with two lip boards on inner ring | | -for designs with two lip boards on outer ring | | -for designs with two lip boards on outer ring | |
|  | |  | |  | |
|  | |  | |  | |

Machined cage

| | | | | | |
|---|-------|---|-------------|---|-------------|
| F · FA · FB | Steel | MPA | Bress | MPB | Bress |
| M · MA · MB | Bress | LPA | Light metal | LPB | Light metal |
| | | -for designs with two lip boards on outer ring | | -for designs with two lip boards on inner ring | |
|  | |  | |  | |
|  | |  | |  | |

Machined or moulded cage

| | | | | | |
|---|-------|---|------------------------|---|------------------------|
| M1 · M1A · M1B | Bress | TVP3 | Polyamide PA66-GF25 | TVP2 | Polyamide PA66-GF25 |
| M3 · M3A · M3B | | | | | |
| | | -for designs with two lip boards on outer ring | | -for designs with two lip boards on inner ring | |
|  | |  | |  | |
|  | |  | |  | |

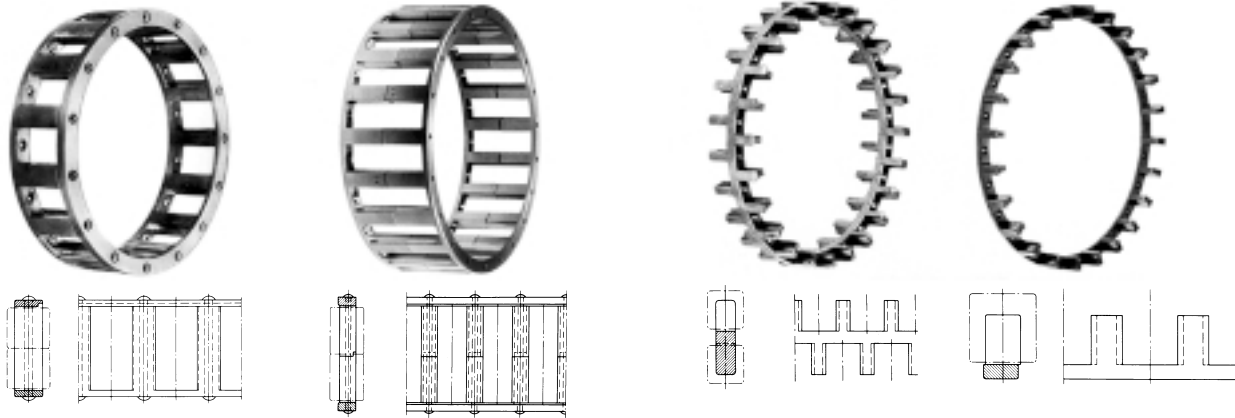
FAG Cylindrical roller bearings , double row

Machined cage

| | | | |
|---------------|-------|----------|-------|
| M · MA | Brass | F | Steel |
| MAS | | M | Brass |

-Series NU30
from bore 1060 mm

-Series NU60



FAG Barrel roller bearings

Pressed cage

| | |
|----------|-------|
| J | Steel |
|----------|-------|

Machined or moulded cage

| | |
|---------------|-------|
| M · MB | Brass |
|---------------|-------|

| | |
|------------|------------------------|
| TVP | Polyamide PA66-GF25 |
|------------|------------------------|



FAG Spherical roller bearings

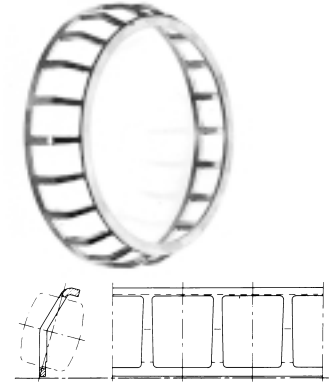
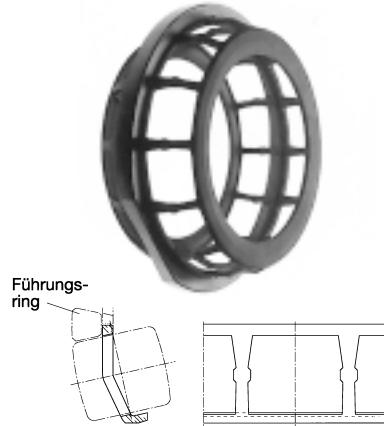
Pressed cage

| | | | | | |
|----------|-------|------------|-------|------------|-------|
| J | Steel | JPA | Steel | JPB | Steel |
| | | | | YPB | Brass |

-Series 213

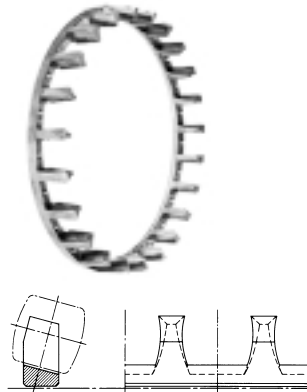
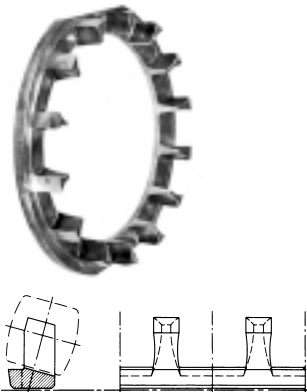


-Series 222E and 223E



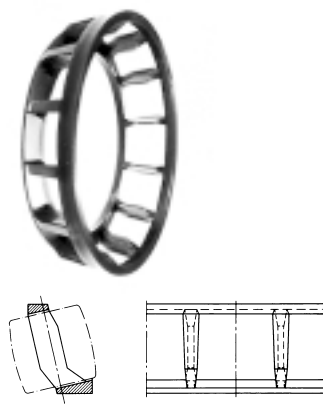
Machined cage

| | | | | | |
|-----------|-------------|-----------|-------------|----------|-------|
| FA | Steel | FB | Steel | M | Brass |
| MA | Brass | MB | Brass | | |
| LA | Light metal | LB | Light metal | | |



Machined or moulded cage

| | | | |
|-----------|-------|-------------|------------------------|
| MB | Brass | TVPB | Polyamide PA66-GF25 |
|-----------|-------|-------------|------------------------|

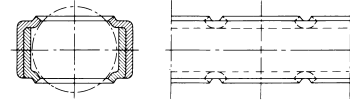
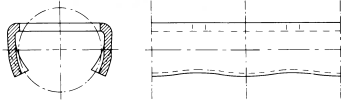
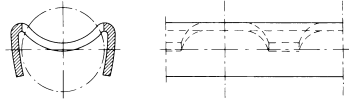


FAG Thrust ball bearings

Pressed cage

| | |
|----|-------|
| JP | Steel |
|----|-------|

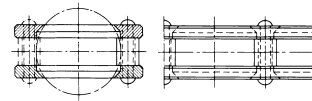
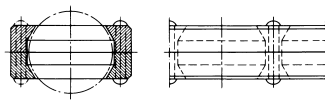
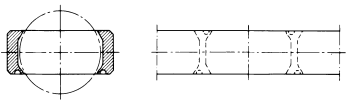
-Series 511 and 514



Machined cage

| | |
|----|-------|
| FP | Steel |
| MP | Brass |

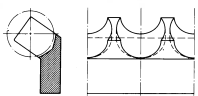
| | |
|---|-------|
| F | Steel |
| M | Brass |



FAG Angular contact thrust ball bearings

Machined cage

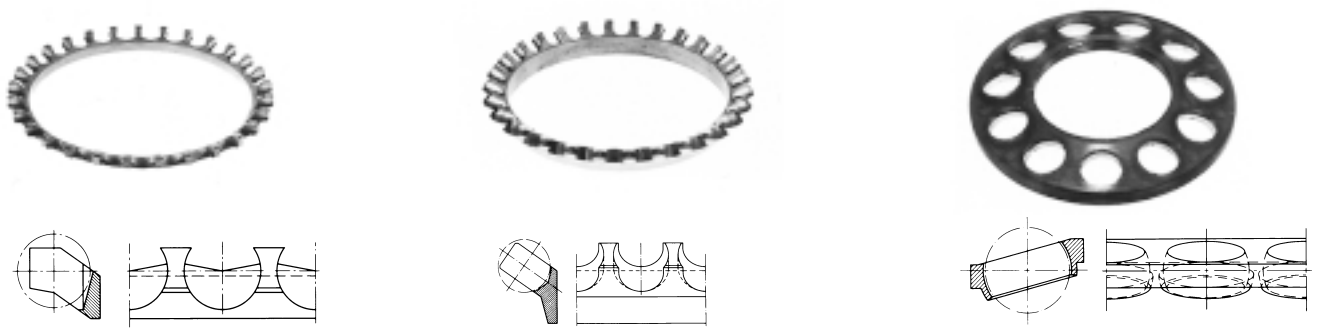
| | |
|----|-------|
| MA | Brass |
|----|-------|



FAG Angular contact thrust ball bearings

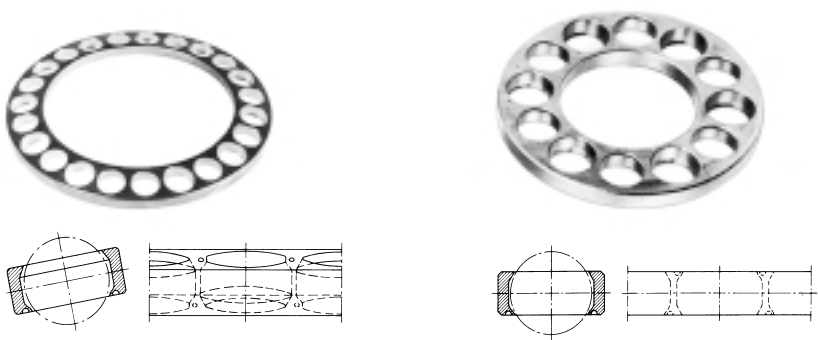
Machined or moulded cage

| | | | |
|---|-------|-----|------------------------|
| M | Brass | TVP | Polyamide PA66-GF25 |
|---|-------|-----|------------------------|



Machined cage

| | | | |
|----|-------|-----|-------|
| MP | Brass | MP1 | Brass |
|----|-------|-----|-------|



FAG Cylindrical roller thrust bearings

Pressed cage

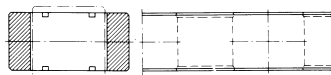
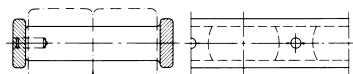
| | | | |
|---|-------|-------|------------------------|
| J | Steel | TVPB | Polyamide PA66-GF25 |
| | | TVPB1 | |



FAG Cylindrical roller bearings

Machined cage

| | | | |
|---------------|-------------|-----------|-------|
| MA · MB · MBS | Brass | MPA · MPB | Brass |
| FB | Steel | | |
| LA · LB | Light metal | | |



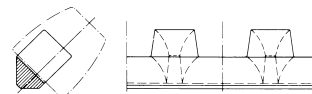
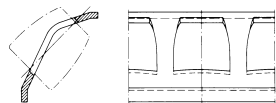
FAG Spherical roller thrust bearings

Pressed cage

JP | Steel

Machined cage

MB | Brass



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www.fag.de

FAG Rolling Bearing Cages

Designation · Design · Material

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