

# **DIN503**



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#### **LUBRICATION**

Lubricant is introduced into the bearing by means of a grease nipple, a manual grease gun, a buffer sleeve, an automatic lubricator or a central lubrication unit. This is pressed into the unloaded area of the bearing gap via a lubrication groove, which is usually located in the upper half of the bushing or bearing shells. If the load direction deviates by more than 40° from the vertical axis of the bearing foot, this must be expressly stated in the order.

#### Basically we recommend:

- for operating temperatures up to approx. 100°: lubricating greases
- for operating temperatures up to approx. 180°: high temperature greases
- for operating temperatures up to approx. 440°: solid lubricants

The guideline value for lubricant consumption is approx. 20g/m2h, whereby the entire bearing running surface is meant here.

### **BEARING LOAD CAPACITY**

In principle, the permissible load on the bearing depends on a variety of factors, such as:

- Type and frequency of lubrication
- Surface quality of the shaft (roughness and hardness)
- material pairing (shaft and bearing material)
- Fitting combination (bearing and shaft)
- Direction of the applied force
- bearing temperature
- Alignment of bearing and shaft

The following table shows the maximum permissible surface pressure values of the bearing material (pzul.) under static load and the permissible surface pressure taking into account the maximum sliding velocity (Pzul.,v) of vGleit,max = 1.5m/s .

The guideline value for lubricant consumption is approx. 20g/m2h, whereby the entire bearing running surface is meant here.

- Load perpendicular to the bearing foot

|          |               | Red cast<br>G-CuSn 7 ZnPb         |               | et bronze<br>CuSn 12              | Plastic<br>Polyamid 6.6 |                                   |  |  |  |
|----------|---------------|-----------------------------------|---------------|-----------------------------------|-------------------------|-----------------------------------|--|--|--|
|          | pzul. (N/mm²) | at Vmax = 1,5m/s<br>pzul. (N/mm²) | pzul. (N/mm²) | at Vmax = 1,5m/s<br>pzul. (N/mm²) | pzul. (N/mm²)           | at Vmax = 1,5m/s<br>pzul. (N/mm²) |  |  |  |
| DIN 502  | 350           | 180                               | 450           | 260                               | 350                     | 1,8                               |  |  |  |
| DIN 503  | 350           | 180                               | 450           | 260                               | 350                     | 1,8                               |  |  |  |
| DIN 504  | 350           | 180                               | 450           | 260                               | 350                     | 1,8                               |  |  |  |
| DIN 505L | 450           | 250                               | -             | -                                 | 450                     | 2,0                               |  |  |  |
| DIN 506  | 250           | 120                               | 350           | 210                               | -                       | -                                 |  |  |  |

The information in this brochure has been prepared with great care. Nevertheless, no liability for damages/losses can be assumed

# **DIN Plain bearing**











**DIN506** 

Plain bearings according to DIN 502 to 506 are used in various applications, including the wood industry, steel industry, chemical plants, and food processing industry. Depending on the operating conditions, they can be employed for sliding speeds of up to approximately 1.5 m/s. The bushings and shells are made from red brass material (Rg7), ensuring reliable performance and a long service life.

**DIN502 / DIN503 DIN504 / DIN505 DIN506** 



0,079kg - 540kg

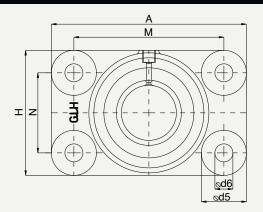


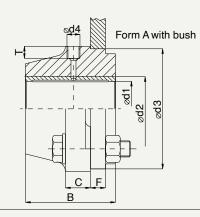
25mm - 300mm

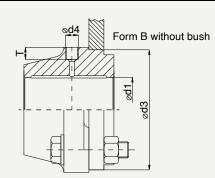
1,5m/s





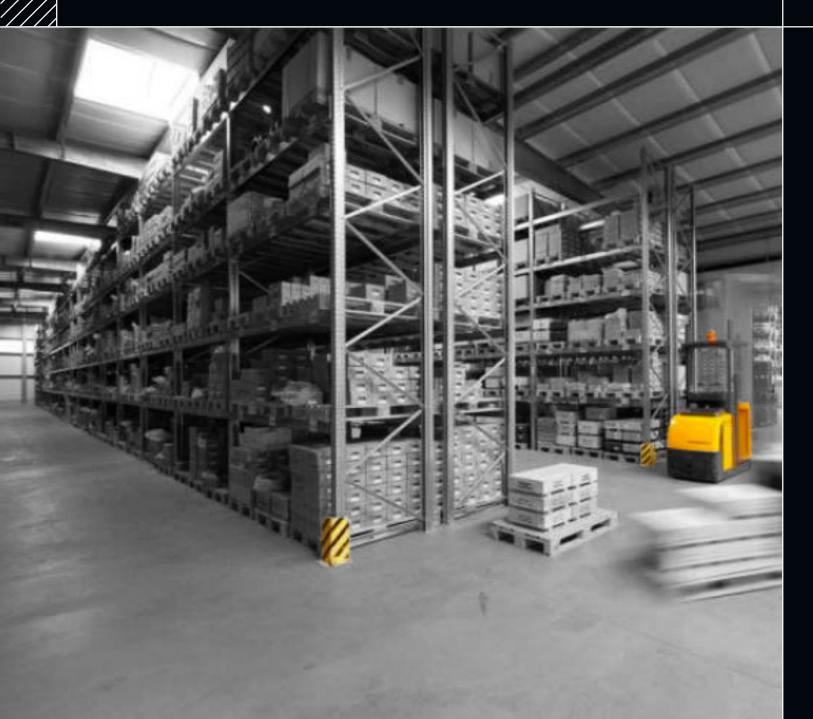








| Article Form A | d1 (D10) | Article Form B | d1 (D7) | d2  | d3  | d4    | d5 | d6 | Α   | В   | С  | F  | Н   | М   | N   | Т  | kg   |
|----------------|----------|----------------|---------|-----|-----|-------|----|----|-----|-----|----|----|-----|-----|-----|----|------|
| DIN503-A35     | 35       | DIN503-B45     | 45      | 45  | 80  | R1/4" | 35 | 14 | 145 | 70  | 20 | 20 | 85  | 110 | 50  | 12 | 2,9  |
| DIN503-A40     | 40       | DIN503-B50     | 50      | 50  | 80  | R1/4" | 35 | 14 | 145 | 70  | 20 | 20 | 85  | 110 | 50  | 12 | 3    |
| DIN503-A45     | 45       | DIN503-B55     | 55      | 55  | 100 | R1/4" | 45 | 18 | 175 | 80  | 25 | 20 | 105 | 130 | 60  | 12 | 5,5  |
| DIN503-A50     | 50       | DIN503-B60     | 60      | 60  | 100 | R1/4" | 45 | 18 | 175 | 80  | 25 | 20 | 105 | 130 | 60  | 12 | 5,3  |
| DIN503-A55     | 55       | -              | -       | 65  | 120 | R1/4" | 45 | 18 | 195 | 90  | 25 | 25 | 125 | 150 | 80  | 12 | 8,1  |
| DIN503-A60     | 60       | DIN503-B70     | 70      | 70  | 120 | R1/4" | 45 | 18 | 195 | 90  | 25 | 25 | 125 | 150 | 80  | 12 | 7,8  |
| DIN503-A70     | 70       | DIN503-B80     | 80      | 80  | 140 | R1/4" | 50 | 22 | 220 | 100 | 30 | 25 | 150 | 170 | 100 | 12 | 12   |
| DIN503-A80     | 80       | DIN503-B90     | 90      | 90  | 160 | R1/4" | 50 | 22 | 240 | 100 | 30 | 30 | 170 | 190 | 120 | 12 | 14,5 |
| DIN503-A90     | 90       | DIN503-B100    | 100     | 100 | 180 | R1/4" | 50 | 22 | 260 | 120 | 30 | 30 | 190 | 210 | 140 | 12 | 25   |
| DIN503-A90     | 90       | DIN503-B110    | 110     | 100 | 180 | R1/4" | 50 | 22 | 260 | 120 | 30 | 30 | 190 | 210 | 140 | 12 | 24   |
| DIN503-A100    | 100      | DIN503-B120    | 120     | 115 | 200 | R3/8" | 55 | 26 | 285 | 120 | 35 | 30 | 215 | 230 | 160 | 13 | 30   |
| DIN503-A110    | 110      | DIN503-B125    | 125     | 125 | 200 | R3/8" | 55 | 26 | 285 | 120 | 35 | 40 | 215 | 230 | 160 | 13 | 28   |
| DIN503-A125    | 125      | DIN503-B140    | 140     | 140 | 230 | R3/8" | 60 | 26 | 310 | 140 | 40 | 40 | 240 | 250 | 180 | 13 | 48   |
| DIN503-A140    | 140      | DIN503-B160    | 160     | 155 | 260 | R3/8" | 60 | 26 | 330 | 160 | 40 | 40 | 270 | 270 | 210 | 13 | 57   |
| DIN503-A160    | 160      | DIN503-B180    | 180     | 175 | 290 | R3/8" | 65 | 33 | 365 | 180 | 45 | 40 | 305 | 300 | 240 | 13 | 52   |
| DIN503-A180    | 180      | DIN503-B200    | 200     | 195 | 290 | R3/8" | 65 | 33 | 365 | 180 | 45 | 40 | 305 | 300 | 240 | 13 | 95   |



# THIS IS HOW YOU REACH US

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