

**FULLY BONDED BUSHES****Type FBNA**

The FBNA range of bushes are designed to eliminate high frequencies whilst supporting high loads during operation.

This is achieved through elastic deformation of the rubber under the effect of the external forces being applied to the metal tubes.

The bushes are manufactured with the rubber bonded both to the inner and the outer tubes, and pre-loaded using a special process that assures a high resistance to the stresses involved during the operation.

**STANDARD PRODUCTION**

Fe 360 Steel (ISO 3305/3306)

Natural rubber NR

Zinc plated in accordance with CE standards CHROME VI free, white

Stiffness tolerance +/- 20%

**APPLICATIONS**

- Flexible Joints • Motor vehicles
- Earth moving machinery • General machinery & equipment

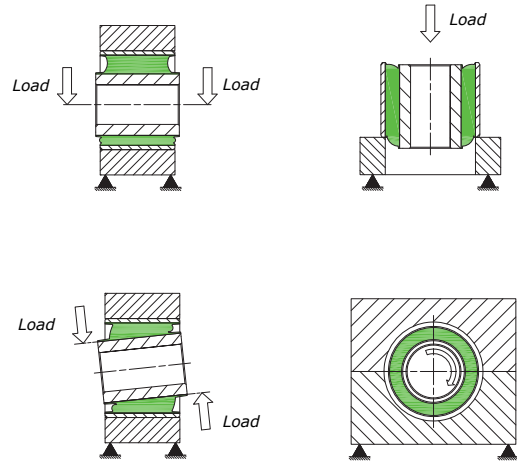
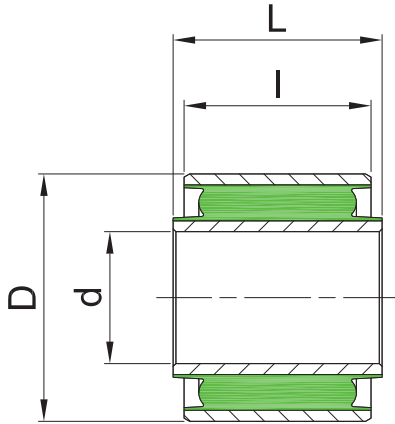
OPTIONS & ADDITIONAL PARTS

Alternative elastomeric hardness and compounds available



FULLY BONDED BUSHES

Type FBNA



| INSIDE DIAMETER (d) TOLERANCES | | | | OUTSIDE DIAMETER (D) TOLERANCES | | | |
|--------------------------------|-------|---------------|------------|---------------------------------|--------|---------------|------------|
| from | 8 mm | to 15mm | -0 / +0,15 | from | 16 mm | to 30 mm | -0 / +0,10 |
| from | 16 mm | to 25mm | -0 / +0,30 | from | 31 mm | to 70mm | -0 / +0,15 |
| from | 26 mm | to 50mm | -0 / +0,40 | from | 71 mm | to 100 mm | -0 / +0,20 |
| over | 51 mm | to be defined | | over | 101 mm | to be defined | |

Approximate schemes for forces and constraints

N.B. The Driving Seat must assure a minimum interference of 0.02mm, with a tolerance of -0.05mm
 i.e. A Bush with an Outside Diameter of 30mm must be fitted into a hole with a dimension of 30mm -0.02/-0.05mm (i.e. 29.98 - 29.93mm)

Subject to agreement, we are able to supply products to closer tolerances where required.

*** STANDARD HARDNESS 55 IRHD • STANDARD HARDNESS 65 IRHD**

(N.B. 1 daN = 1.0197 kgf)

| Item | d | D | l | L | RADIAL | | AXIAL | | TORSIONAL | | CONICAL | | Average Weight g. |
|------------------|------|------|----|------|----------------------------|------------------|----------------------------|------------------|--------------------------|-----------------------|--------------------------|-----------------------|-------------------|
| | | | | | Average Stiffness (daN/mm) | Max Deflec. (mm) | Average Stiffness (daN/mm) | Max Deflec. (mm) | Average Stiffness (Nm/°) | Max Angle (+/-°gradi) | Average Stiffness (Nm/°) | Max Angle (+/-°gradi) | |
| * FBNA0832.1823 | 8,2 | 32 | 18 | 23 | 29 | 1,4 | 8 | 1,0 | 0,19 | 35° | 0,08 | 6° | 35 |
| * FBNA0921.1922 | 9,5 | 20,6 | 19 | 22,2 | 207 | 0,5 | 23 | 0,7 | 0,27 | 25° | 0,53 | 6° | 25 |
| * FBNA1022.1517 | 10 | 22 | 15 | 17 | 207 | 0,5 | 22 | 0,5 | 0,32 | 25° | 0,31 | 6° | 25 |
| • FBNA1025.3541 | 10 | 25 | 35 | 41 | 1483 | 0,5 | 104 | 1,4 | 1,75 | 20° | 13,76 | 3° | 75 |
| * FBNA1032.1520 | 10 | 32 | 15 | 20 | 32 | 1,1 | 9 | 1,0 | 0,24 | 30° | 0,05 | 7° | 35 |
| • FBNA1032.2430 | 10 | 32 | 24 | 30 | 350 | 1,1 | 35 | 1,0 | 0,70 | 20° | 3,50 | 3° | 105 |
| • FBNA1225.2528 | 12 | 25 | 25 | 28 | 764 | 0,5 | 67 | 0,7 | 1,22 | 20° | 3,52 | 3° | 45 |
| • FBNA1230.3434 | 12 | 30 | 34 | 34 | 425 | 0,8 | 55 | 0,1 | 1,36 | 30° | 3,98 | 7° | 75 |
| • FBNA1230.3444 | 12 | 30 | 34 | 44 | 425 | 0,8 | 55 | 2,1 | 1,36 | 30° | 3,98 | 3° | 80 |
| • FBNA1230.3640 | 12 | 30 | 36 | 40 | 414 | 0,9 | 55 | 0,8 | 1,42 | 30° | 4,40 | 3° | 75 |
| • FBNA1234.3541 | 12 | 34 | 35 | 41 | 249 | 1,1 | 43 | 1,4 | 1,32 | 20° | 2,61 | 3° | 100 |
| * FBNA1250.5062M | 12 | 50 | 50 | 62 | 102 | 2,3 | 24 | 2,7 | 1,45 | 30° | 2,44 | 7° | 235 |
| • FBNA1274.4566 | 12,5 | 74,5 | 45 | 66 | 126 | 3,4 | 35 | 4,4 | 2,83 | 30° | 1,52 | 7° | 600 |

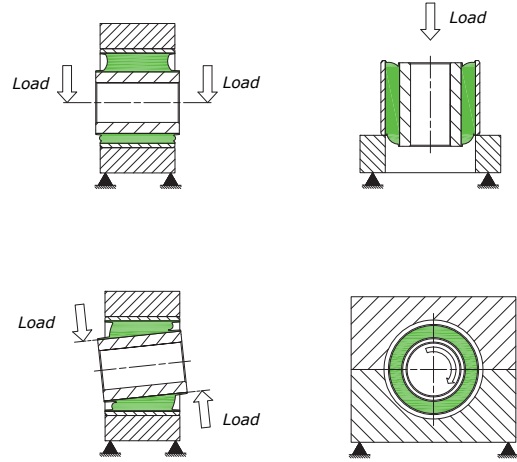
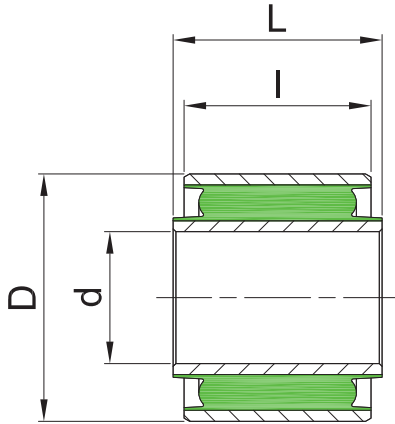
Items produced only on request. Supply quantities on request.

FIBET GROUP operates a policy of continuous improvement and development. We reserve the right to change design and specification of our products without prior notification or alteration of literature.



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| * FBNA1330.4040 | 13 | 30 | 40 | 40 | 396 | 0,8 | 44 | 0,0 | 1,13 | 30° | 5,12 | 3° | 85 |
| • FBNA1474.4566 | 14,5 | 74,5 | 45 | 66 | 126 | 3,4 | 35 | 4,2 | 4,69 | 30° | 2,51 | 7° | 580 |
| * FBNA1638.6472 | 16 | 38 | 64 | 72 | 2070 | 0,7 | 127 | 1,6 | 4,90 | 20° | 67,06 | 1° | 300 |
| • FBNA1650.6082 | 16,0 | 50,0 | 60,0 | 82,0 | 390 | 1,9 | 68 | 4,5 | 4,43 | 20° | 12,93 | 3° | 400 |
| * FBNA1651.3847 | 16 | 51 | 38 | 47,5 | 102 | 2,0 | 23 | 2,0 | 1,65 | 30° | 1,35 | 7° | 190 |
| * FBNA1651.4454 | 16 | 51 | 44,3 | 53,8 | 128 | 2,0 | 27 | 2,1 | 1,94 | 30° | 2,31 | 7° | 220 |
| • FBNA1738.3338 | 17 | 38 | 33 | 38 | 449 | 1,1 | 60 | 1,2 | 2,63 | 25° | 3,98 | 3° | 120 |
| * FBNA1857.6072 | 18 | 57 | 60 | 72 | 159 | 2,4 | 34 | 2,4 | 3,01 | 30° | 5,51 | 7° | 350 |
| • FBNA1857.7086M | 18 | 57 | 70 | 86 | 393 | 2,3 | 73 | 3,3 | 6,72 | 30° | 17,94 | 7° | 450 |
| * FBNA2866.5569 | 28 | 66 | 55 | 69 | 234 | 2,1 | 43 | 2,8 | 5,86 | 20° | 6,43 | 3° | 450 |
| * FBNA3882.7090 | 38 | 82 | 70 | 90 | 720 | 2,1 | 89 | 2,8 | 20,40 | 15° | 30,32 | 1° | 1.270 |
| * FBNA4082.7090 | 40 | 82 | 70 | 90 | 732 | 1,9 | 90 | 4,0 | 20,46 | 15° | 30,80 | 1° | 1.200 |

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