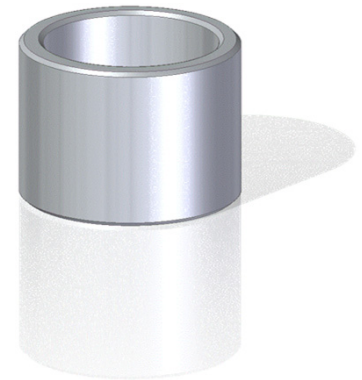


Fasen: $C = (0,1 - 0,2) \times E$
 minimal 0,2 mm

Konzentrität: $t1$ für $Di \leq 20 \text{ mm} = 50 \mu\text{m}$
 $t1$ für $20 \text{ mm} < Di \leq 35 \text{ mm} = 70 \mu\text{m}$
 $t1$ für $Di > 35 \text{ mm} = 100 \mu\text{m}$

Einbautoleranz: $Di < 50 \text{ mm}$ Gehäuse H7
 Welle f7
 $Di > 50 \text{ mm}$ Gehäuse H8
 Welle f7



| Artikel-Nr. | Artikel-Bezeichnung | Ø Innen | Ø Außen | Länge |
|-----------------|---------------------|---------|---------|--------|
| | | Di [mm] | Da [mm] | L [mm] |
| 12Z003000600040 | 3 / 6 x 4 mm | 3 | 6 | 4 |
| 12Z003000600100 | 3 / 6 x 10 mm | 3 | 6 | 10 |
| 12Z004000800080 | 4 / 8 x 8 mm | 4 | 8 | 8 |
| 12Z006000900060 | 6 / 9 x 6 mm | 6 | 9 | 6 |
| 12Z006000900100 | 6 / 9 x 10 mm | 6 | 9 | 10 |
| 12Z006000900120 | 6 / 9 x 12 mm | 6 | 9 | 12 |
| 12Z006000900160 | 6 / 9 x 16 mm | 6 | 9 | 16 |
| 12Z006001000060 | 6 / 10 x 6 mm | 6 | 10 | 6 |
| 12Z006001000100 | 6 / 10 x 10 mm | 6 | 10 | 10 |
| 12Z006001000160 | 6 / 10 x 16 mm | 6 | 10 | 16 |
| 12Z006001200060 | 6 / 12 x 6 mm | 6 | 12 | 6 |
| 12Z008001100080 | 8 / 11 x 8 mm | 8 | 11 | 8 |
| 12Z008001100120 | 8 / 11 x 12 mm | 8 | 11 | 12 |
| 12Z008001100160 | 8 / 11 x 16 mm | 8 | 11 | 16 |
| 12Z008001200080 | 8 / 12 x 8 mm | 8 | 12 | 8 |
| 12Z008001200120 | 8 / 12 x 12 mm | 8 | 12 | 12 |
| 12Z008001200160 | 8 / 12 x 16 mm | 8 | 12 | 16 |
| 12Z008001200200 | 8 / 12 x 20 mm | 8 | 12 | 20 |
| 12Z010001300100 | 10 / 13 x 10 mm | 10 | 13 | 10 |
| 12Z010001300200 | 10 / 13 x 20 mm | 10 | 13 | 20 |
| 12Z010001300250 | 10 / 13 x 25 mm | 10 | 13 | 25 |
| 12Z010001400100 | 10 / 14 x 10 mm | 10 | 14 | 10 |
| 12Z010001400160 | 10 / 14 x 16 mm | 10 | 14 | 16 |
| 12Z010001400200 | 10 / 14 x 20 mm | 10 | 14 | 20 |
| 12Z010001500100 | 10 / 15 x 10 mm | 10 | 15 | 10 |
| 12Z012001500120 | 12 / 15 x 12 mm | 12 | 15 | 12 |
| 12Z012001500160 | 12 / 15 x 16 mm | 12 | 15 | 16 |
| 12Z012001500200 | 12 / 15 x 20 mm | 12 | 15 | 20 |
| 12Z012001600120 | 12 / 16 x 12 mm | 12 | 16 | 12 |
| 12Z012001600160 | 12 / 16 x 16 mm | 12 | 16 | 16 |
| 12Z012001600200 | 12 / 16 x 20 mm | 12 | 16 | 20 |
| 12Z012001600250 | 12 / 16 x 25 mm | 12 | 16 | 25 |
| 12Z012001700120 | 12 / 17 x 12 mm | 12 | 17 | 12 |
| 12Z014001800140 | 14 / 18 x 14 mm | 14 | 18 | 14 |
| 12Z014001800220 | 14 / 18 x 22 mm | 14 | 18 | 22 |
| 12Z014002000140 | 14 / 20 x 14 mm | 14 | 20 | 14 |
| 12Z014002000280 | 14 / 20 x 28 mm | 14 | 20 | 28 |
| 12Z015001900160 | 15 / 19 x 16 mm | 15 | 19 | 16 |
| 12Z015001900200 | 15 / 19 x 20 mm | 15 | 19 | 20 |

| Artikel-Nr. | Artikel-Bezeichnung | Ø Innen | Ø Außen | Länge |
|-----------------|---------------------|---------|---------|--------|
| | | Di [mm] | Da [mm] | L [mm] |
| 12Z016002000160 | 16 / 20 x 16 mm | 16 | 20 | 16 |
| 12Z016002000200 | 16 / 20 x 20 mm | 16 | 20 | 20 |
| 12Z016002000250 | 16 / 20 x 25 mm | 16 | 20 | 25 |
| 12Z016002000320 | 16 / 20 x 32 mm | 16 | 20 | 32 |
| 12Z016002200160 | 16 / 22 x 16 mm | 16 | 22 | 16 |
| 12Z016002200200 | 16 / 22 x 20 mm | 16 | 22 | 20 |
| 12Z016002200250 | 16 / 22 x 25 mm | 16 | 22 | 25 |
| 12Z018002200180 | 18 / 22 x 18 mm | 18 | 22 | 18 |
| 12Z018002200220 | 18 / 22 x 22 mm | 18 | 22 | 22 |
| 12Z018002400220 | 18 / 24 x 22 mm | 18 | 24 | 22 |
| 12Z020002400160 | 20 / 24 x 16 mm | 20 | 24 | 16 |
| 12Z020002400200 | 20 / 24 x 20 mm | 20 | 24 | 20 |
| 12Z020002400250 | 20 / 24 x 25 mm | 20 | 24 | 25 |
| 12Z020002400320 | 20 / 24 x 32 mm | 20 | 24 | 32 |
| 12Z020002600160 | 20 / 26 x 16 mm | 20 | 26 | 16 |
| 12Z020002600200 | 20 / 26 x 20 mm | 20 | 26 | 20 |
| 12Z020002600250 | 20 / 26 x 25 mm | 20 | 26 | 25 |
| 12Z020002600320 | 20 / 26 x 32 mm | 20 | 26 | 32 |
| 12Z022002700180 | 22 / 27 x 18 mm | 22 | 27 | 18 |
| 12Z022002700220 | 22 / 27 x 22 mm | 22 | 27 | 22 |
| 12Z025003000200 | 25 / 30 x 20 mm | 25 | 30 | 20 |
| 12Z025003000250 | 25 / 30 x 25 mm | 25 | 30 | 25 |
| 12Z025003000320 | 25 / 30 x 32 mm | 25 | 30 | 32 |
| 12Z025003200200 | 25 / 32 x 20 mm | 25 | 32 | 20 |
| 12Z025003200250 | 25 / 32 x 25 mm | 25 | 32 | 25 |
| 12Z025003200320 | 25 / 32 x 32 mm | 25 | 32 | 32 |
| 12Z030003800240 | 30 / 38 x 24 mm | 30 | 38 | 24 |
| 12Z030003800300 | 30 / 38 x 30 mm | 30 | 38 | 30 |
| 12Z030003800380 | 30 / 38 x 38 mm | 30 | 38 | 38 |
| 12Z032003800320 | 32 / 38 x 32 mm | 32 | 38 | 32 |
| 12Z035004400220 | 35 / 44 x 22 mm | 35 | 44 | 22 |
| 12Z035004400280 | 35 / 44 x 28 mm | 35 | 44 | 28 |
| 12Z035004400350 | 35 / 44 x 35 mm | 35 | 44 | 35 |
| 12Z036004200220 | 36 / 42 x 22 mm | 36 | 42 | 22 |
| 12Z040004600250 | 40 / 46 x 25 mm | 40 | 46 | 25 |
| 12Z040004600320 | 40 / 46 x 32 mm | 40 | 46 | 32 |
| 12Z040004600400 | 40 / 46 x 40 mm | 40 | 46 | 40 |
| 12Z040005000250 | 40 / 50 x 25 mm | 40 | 50 | 25 |
| 12Z040005000320 | 40 / 50 x 32 mm | 40 | 50 | 32 |
| 12Z040005000400 | 40 / 50 x 40 mm | 40 | 50 | 40 |
| 12Z040005000500 | 40 / 50 x 50 mm | 40 | 50 | 50 |
| 12Z045005100280 | 45 / 51 x 28 mm | 45 | 51 | 28 |
| 12Z045005100450 | 45 / 51 x 45 mm | 45 | 51 | 45 |
| 12Z045005500350 | 45 / 55 x 35 mm | 45 | 55 | 35 |
| 12Z045005600360 | 45 / 56 x 36 mm | 45 | 56 | 36 |
| 12Z050005600320 | 50 / 56 x 32 mm | 50 | 56 | 32 |
| 12Z050006000320 | 50 / 60 x 32 mm | 50 | 60 | 32 |
| 12Z050006000500 | 50 / 60 x 50 mm | 50 | 60 | 50 |
| 12Z060007000600 | 60 / 70 x 60 mm | 60 | 70 | 60 |
| 12Z060007000900 | 60 / 70 x 90 mm | 60 | 70 | 90 |
| 12Z070008001200 | 70 / 80 x 120 mm | 70 | 80 | 120 |

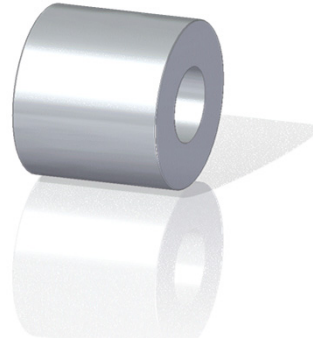
Sinter-Zylinderbuchsen EISEN

helgerit

| Artikel-Nr. | Artikel-Bezeichnung | Ø Innen | Ø Außen | Länge |
|-----------------|---------------------|---------|---------|--------|
| | | Di [mm] | Da [mm] | L [mm] |
| 12Z080010001200 | 80 / 100 x 120 mm | 80 | 100 | 120 |
| 12Z100012001200 | 100 / 120 x 120 mm | 100 | 120 | 120 |

Sinter-Rohr Buchse & Sinter-Rohlinge EISEN

helgerit



| Artikel-Nr. | Artikel-Bezeichnung | Ø Innen | Ø Außen | Länge |
|-----------------|---------------------|---------|---------|--------|
| | | Di [mm] | Da [mm] | L [mm] |
| 15R038006600650 | R 38 / 66 x 65 mm | 38 | 66 | 65 |
| 15R038006601200 | R 38 / 66 x 120 mm | 38 | 66 | 120 |
| 15R038007001200 | R 38 / 70 x 120 mm | 38 | 70 | 120 |
| 15R045010501200 | R 45 / 105 x 120 mm | 45 | 105 | 120 |
| 15R053008500650 | R 53 / 85 x 65 mm | 53 | 85 | 65 |
| 15R053008501200 | R 53 / 85 x 120 mm | 53 | 85 | 120 |
| 15R080014501200 | R 80 / 145 x 120 mm | 80 | 145 | 120 |
| 15R080017501200 | R 80 / 175 x 120 mm | 80 | 175 | 120 |
| 15R085010501200 | R 85 / 105 x 120 mm | 85 | 105 | 120 |
| 15R000001500300 | R 15 x 30 mm | | 15 | 30 |
| 15R000002000250 | R 20 x 25 mm | | 20 | 23 |
| 15R000002000400 | R 20 x 40 mm | | 20 | 40 |
| 15R000002000500 | R 20 x 50 mm | | 20 | 50 |
| 15R000002500250 | R 25 x 25 mm | | 25 | 25 |
| 15R000002500500 | R 25 x 50 mm | | 25 | 50 |
| 15R000003000500 | R 30 x 50 mm | | 30 | 50 |
| 15R000003200400 | R 32 x 40 mm | | 32 | 40 |
| 15R000003200800 | R 32 x 80 mm | | 32 | 80 |
| 15R000004200500 | R 42 x 50 mm | | 42 | 50 |
| 15R000004201000 | R 42 x 100 mm | | 42 | 100 |
| 15R000004500900 | R 45 x 90 mm | | 45 | 90 |
| 15R000005200600 | R 52 x 60 mm | | 52 | 60 |
| 15R000005201200 | R 52 x 120 mm | | 52 | 120 |
| 15R000005401100 | R 54 x 110 mm | | 54 | 110 |
| 15R000006201200 | R 62 x 120 mm | | 62 | 120 |
| 15R000007001200 | R 70 x 120 mm | | 70 | 120 |
| 15R000008001200 | R 80 x 120 mm | | 80 | 120 |
| 15R000010501200 | R 105 x 120 mm | | 105 | 120 |
| 15R000014501200 | R 145 x 120 mm | | 145 | 120 |