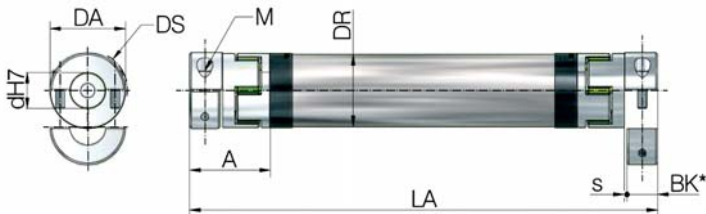


Connecting shaft VWZ



Standard bores "d" [mm]

| | |
|---------|--|
| VWZ-30 | 8, 9, 10, 11, 12, 14, 15, 16 |
| VWZ-40 | 9, 10, 11, 12, 14, 15, 16, 18, 19, 20, 22 |
| VWZ-60 | 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 24, 25, 28, 30, 32 |
| VWZ-60V | 12, 15, 16, 18, 20, 22, 24, 25, 28, 30, 32, 35 |
| VWZ-80 | 16, 19, 20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42, 45 |
| VWZ-100 | 25, 28, 32, 38, 40, 42, 45, 48, 50, 55 |

Dimensions, technical data

| Size | Dimensions | | | | | | | | Clamping screw | | Moment of inertia | | Torsional stiffness | | Weight | |
|---------|------------|---------|---------|----------|--------|--------|-------------|--------|------------------------|---|-----------------------------------|------------------------------------|--------------------------------------|---------------------|-------------|--|
| | DA [mm] | DS [mm] | DR [mm] | BK* [mm] | s [mm] | A [mm] | LA min [mm] | M 10.9 | Tightening torque [Nm] | per coupling [10^{-3}kgm^2] | tube/m [10^{-3}kgm^2] | per star C_{dyn} [Nm/rad] | per tube/m C_{dyn} [Nm/rad] | both couplings [kg] | tube/m [kg] | |
| VWZ-30 | 32 | 32 | 30 | 15 | 1.5 | 34 | 99 | M4 | 4 | 0.01 | 0.11 | 1375 | 1104 | 0.14 | 0.58 | |
| VWZ-40 | 42 | 44.5 | 40 | 17 | 1.5 | 46 | 133 | M5 | 8 | 0.08 | 0.2 | 3700 | 2332 | 0.36 | 0.76 | |
| VWZ-60 | 56 | 57 | 60 | 30 | 2 | 63 | 177 | M6 | 15 | 0.24 | 0.8 | 9917 | 8292 | 0.94 | 0.97 | |
| VWZ-60V | 67 | 68 | 60 | 35 | 2 | 73 | 205 | M8 | 35 | 0.46 | 0.8 | 24417 | 8292 | 1.42 | 0.97 | |
| VWZ-80 | 82 | 85 | 80 | 40 | 2 | 84 | 249 | M10 | 70 | 2.4 | 3 | 33667 | 29102 | 2.98 | 2.00 | |
| VWZ-100 | 102 | 105 | 100 | 50 | 2 | 97 | 283 | M12 | 120 | 6 | 5.8 | 67667 | 58178 | 4.62 | 2.47 | |

*BK = shaft extension clamping length

Torques

| Size | Elastomer star | | Maximum transmittable torque by clamp hub depending on the bore diameter (clamp force) | | | | | | | | | | | | | | | | Coupling type | | |
|---------|-------------------|------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|----------|-----------|
| | Rated torque [Nm] | Max. torque [Nm] | Ø9 [Nm] | Ø11 [Nm] | Ø14 [Nm] | Ø16 [Nm] | Ø19 [Nm] | Ø20 [Nm] | Ø22 [Nm] | Ø24 [Nm] | Ø25 [Nm] | Ø28 [Nm] | Ø30 [Nm] | Ø32 [Nm] | Ø38 [Nm] | Ø40 [Nm] | Ø42 [Nm] | Ø45 [Nm] | | Ø48 [Nm] | Ø55 [Nm] |
| VWZ-30 | 12 | 25 | 21 | 26 | 33 | 37 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | KUZ-KK-16 |
| VWZ-40 | 17 | 34 | - | 41 | 52 | 60 | 70 | 74 | 81 | - | - | - | - | - | - | - | - | - | - | - | KUZ-KK-24 |
| VWZ-60 | 60 | 120 | - | 60 | 76 | 87 | 104 | 109 | 120 | 131 | 136 | 153 | 164 | 175 | - | - | - | - | - | - | KUZ-KK-32 |
| VWZ-60V | 160 | 320 | - | - | - | 120 | - | 188 | 206 | - | 235 | - | - | 301 | - | - | - | - | - | - | KUZ-KK-35 |
| VWZ-80 | 325 | 650 | - | - | - | 325 | 386 | 406 | 447 | 488 | 508 | 568 | 610 | 650 | 772 | - | 854 | 915 | - | - | KUZ-KK-45 |
| VWZ-100 | 530 | 1060 | - | - | - | - | - | - | - | - | 570 | 638 | - | 730 | 866 | 914 | 960 | 1029 | 1097 | 1250 | KUZ-KK-60 |

The max. torque is limited either by the star or by the clamping force

Shafts with split shells

- Split shells permit easy radial insertion
- High concentricity
- High clamping forces
- Low moment of inertia

- Stepless adjustment facility thanks to the clamp hub rather than a fitted drive key
- Drive keyway available on request
- Material: High-tensile aluminium (stainless steel on request)

Elastomer star

- Permanently free of play, dampens vibration
- Shore hardness 64D
- Colour: ZIMM green
- Temperature range: 0°C to +70°C reduced to -20°C, to +100°C (Mx0.55)



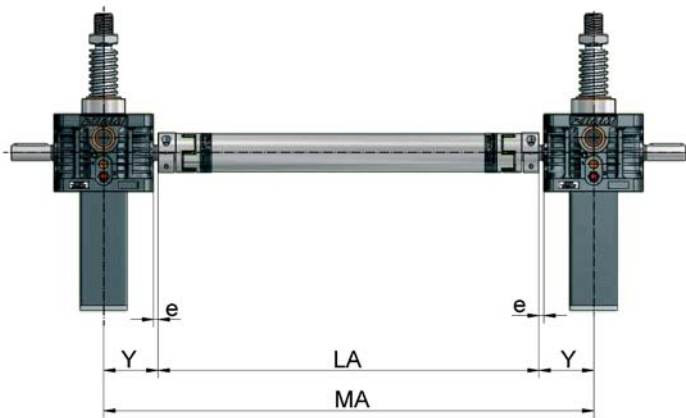
Ordering example:

VWZ-60-LA 1800-20/25

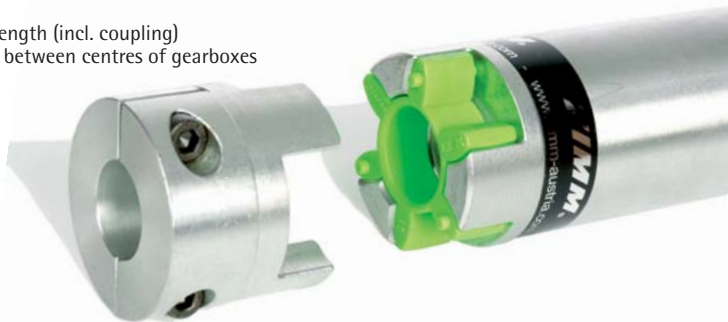
Size
Length
Bores for couplings

n=1500 rpm (specify the speed)

VWZ length calculation (identical for Z and GSZ)



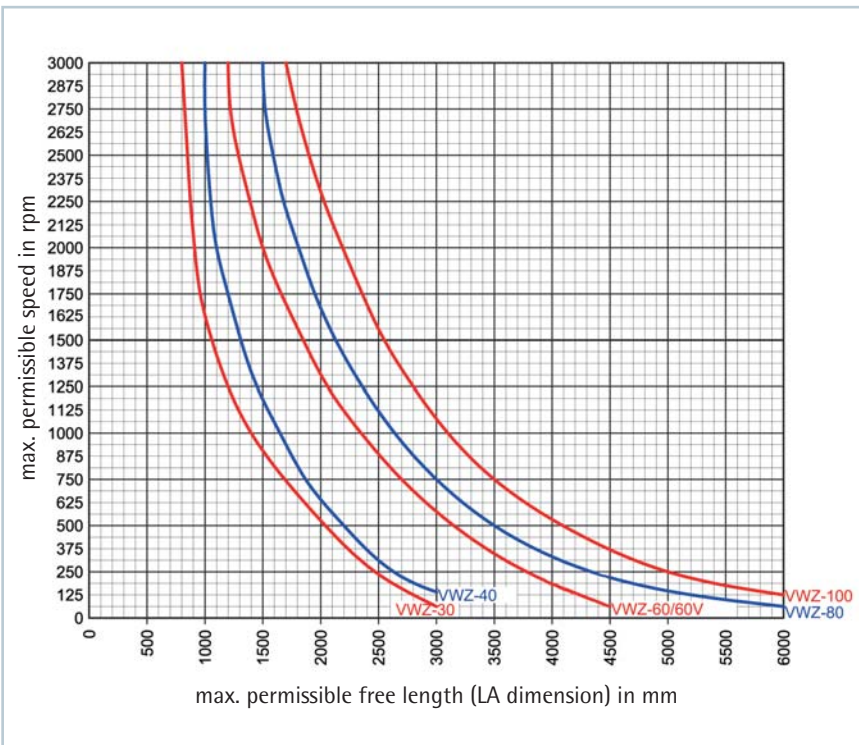
LA = External length (incl. coupling)
MA = Distance between centres of gearboxes



| Screw jack | Connecting shaft | e | Y | A |
|------------|------------------|------|------|----|
| GSZ-2 | VWZ-30 | 6 | 31 | 34 |
| Z-5 | VWZ-30 | 9 | 45 | 34 |
| Z-5 | VWZ-40 | 7 | 43 | 46 |
| Z-5 | VWZ-60 | 2 | 38 | 63 |
| Z-10 | VWZ-30 | 12.5 | 55 | 34 |
| Z-10 | VWZ-40 | 10.5 | 53 | 46 |
| Z-10 | VWZ-60 | 2.5 | 45 | 63 |
| Z-25 | VWZ-40 | 28 | 80.5 | 46 |
| Z-25 | VWZ-60 | 15 | 67.5 | 63 |
| Z-25 | VWZ-80 | 5 | 57.5 | 84 |
| Z-35 | VWZ-40 | 28 | 84 | 46 |
| Z-35 | VWZ-60 | 15 | 71 | 63 |
| Z-35 | VWZ-60V* | 10 | 66 | 73 |
| Z-35 | VWZ-80* | 5 | 61 | 84 |
| Z-50 | VWZ-60 | 17.5 | 90 | 63 |
| Z-50 | VWZ-60V | 12.5 | 85 | 73 |
| Z-50 | VWZ-80* | 7.5 | 80 | 84 |
| Z-100 | VWZ-60 | 30 | 124 | 63 |
| Z-100 | VWZ-60V | 25 | 119 | 73 |
| Z-100 | VWZ-80 | 20 | 114 | 84 |
| Z-150 | VWZ-60 | 30 | 130 | 63 |
| Z-150 | VWZ-60V | 25 | 125 | 73 |
| Z-150 | VWZ-80 | 20 | 120 | 84 |
| Z-250 | VWZ-80 | 24 | 144 | 84 |
| Z-250 | VWZ-100 | 14 | 134 | 97 |
| Z-350 | VWZ-80 | 35 | 175 | 84 |
| Z-350 | VWZ-100 | 25 | 165 | 97 |
| Z-500 | VWZ-80 | 75 | 240 | 84 |
| Z-500 | VWZ-100 | 65 | 230 | 97 |

*cannot be fitted with pivot mounts LB

Maximum length - dependent on speed



max. permissible offset

Lateral offset:



Kr max. 1.5 mm per 100 mm LI

Angular offset:

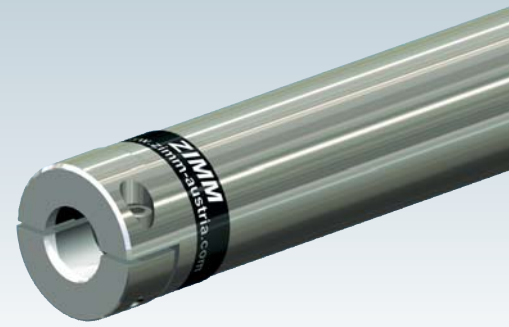


max. 2° (1° per coupling)

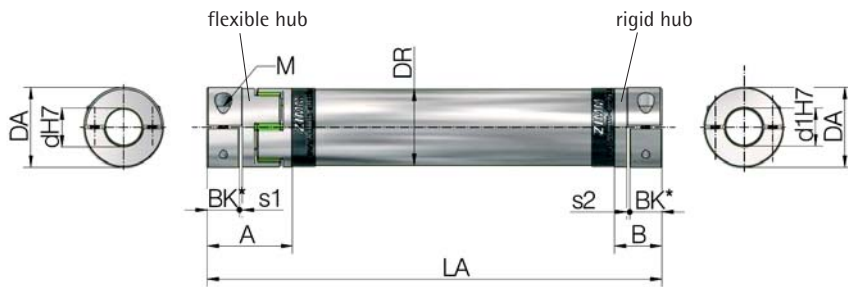
Axial offset:



ca. +/- 1 bis 2 mm

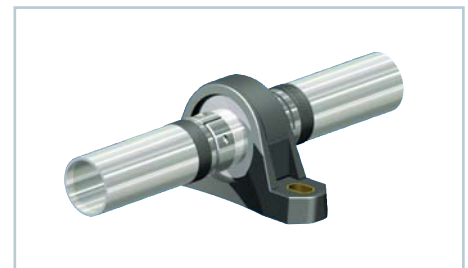


VWZ with rigid hub, for pedestal bearing use



| Size | A | B | s1 | s2 | Bk* | d1 | LA min |
|---------|----|----|----|-----|-----|----|--------|
| VWZ-30 | 34 | 20 | 2 | 1.2 | 15 | 15 | 85 |
| VWZ-40 | 46 | 25 | 2 | 1.6 | 17 | 20 | 112 |
| VWZ-60 | 63 | 40 | 2 | 2 | 30 | 20 | 154 |
| VWZ-60V | 73 | 42 | 2 | 2 | 35 | 30 | 175 |
| VWZ-80 | 84 | 55 | 2 | 2 | 40 | 30 | 220 |
| VWZ-100 | 97 | 65 | 2 | 2 | 50 | 50 | 251 |

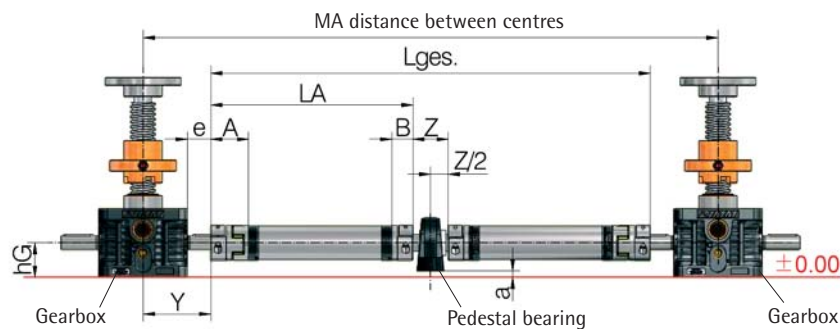
*BK=shaft extension clamping length



Pedestal bearing: YES/NO?

The installation situation is very important when selecting shaft dimensions. For example, the cost of a larger diameter connecting shaft not requiring additional pedestal bearing support can be considerably less than the cost of a smaller connecting shaft requiring costly sub-structures for the additional pedestal bearing.

For this version we use the rigid hub version so that no radial misalignment can occur in the pedestal bearing.



| Gearbox | Connecting shaft | e | Y | A | B | Z | L _{wz} | d1 | hG | hL | a |
|---------|------------------|------|------|----|----|----|-----------------|----|------|------|------|
| Z-5 | VWZ-30 | 9 | 45 | 34 | 20 | 44 | 74 | 15 | 31 | 30.2 | 0.8 |
| Z-5 | VWZ-40 | 7 | 43 | 46 | 25 | 42 | 76 | 20 | 31 | 33.3 | -2.3 |
| Z-5 | VWZ-60 | 2 | 38 | 63 | 40 | 42 | 102 | 20 | 31 | 33.3 | -2.3 |
| Z-10 | VWZ-30 | 12.5 | 55 | 34 | 20 | 44 | 74 | 15 | 37 | 30.2 | 6.8 |
| Z-10 | VWZ-40 | 10.5 | 53 | 46 | 25 | 42 | 76 | 20 | 37 | 33.2 | 3.8 |
| Z-10 | VWZ-60 | 2.5 | 45 | 63 | 40 | 42 | 102 | 20 | 37 | 33.2 | 3.8 |
| Z-25 | VWZ-40 | 28 | 80.5 | 46 | 25 | 42 | 76 | 20 | 41 | 33.2 | 7.8 |
| Z-25 | VWZ-60 | 15 | 67.5 | 63 | 40 | 42 | 102 | 20 | 41 | 33.2 | 7.8 |
| Z-25 | VWZ-80 | 5 | 57.5 | 84 | 55 | 50 | 130 | 30 | 41 | 42.9 | -1.9 |
| Z-35 | VWZ-40 | 28 | 84 | 46 | 25 | 42 | 76 | 20 | 50 | 33.2 | 16.8 |
| Z-35 | VWZ-60 | 15 | 71 | 63 | 40 | 42 | 102 | 20 | 50 | 33.2 | 16.8 |
| Z-35 | VWZ-60V* | 10 | 66 | 73 | 42 | 60 | 130 | 30 | 50 | 42.9 | 7.1 |
| Z-35 | VWZ-80* | 5 | 61 | 84 | 55 | 50 | 130 | 30 | 50 | 42.9 | 7.1 |
| Z-50 | VWZ-60 | 17.5 | 90 | 63 | 40 | 42 | 102 | 20 | 58 | 33.3 | 24.7 |
| Z-50 | VWZ-60V | 12.5 | 85 | 73 | 42 | 60 | 130 | 30 | 58 | 42.9 | 15.1 |
| Z-50 | VWZ-80* | 7.5 | 80 | 84 | 55 | 50 | 130 | 30 | 58 | 42.9 | 15.1 |
| Z-100 | VWZ-60 | 30 | 124 | 63 | 40 | 42 | 102 | 20 | 80 | 33.2 | 46.8 |
| Z-100 | VWZ-60V | 25 | 119 | 73 | 42 | 60 | 130 | 30 | 80 | 42.9 | 37.1 |
| Z-100 | VWZ-80 | 20 | 114 | 84 | 55 | 50 | 130 | 30 | 80 | 42.9 | 37.1 |
| Z-150 | VWZ-60 | 30 | 130 | 63 | 40 | 42 | 102 | 20 | 92.5 | 33.2 | 59.3 |
| Z-150 | VWZ-60V | 25 | 125 | 73 | 42 | 60 | 130 | 30 | 92.5 | 42.9 | 49.6 |
| Z-150 | VWZ-80 | 20 | 120 | 84 | 55 | 50 | 130 | 30 | 92.5 | 42.9 | 49.6 |
| Z-250 | VWZ-80 | 24 | 144 | 84 | 55 | 50 | 130 | 30 | 105 | 42.9 | 62.1 |
| Z-250 | VWZ-100 | 14 | 134 | 97 | 65 | 70 | 170 | 50 | 102 | 57.2 | 44.8 |
| Z-350 | VWZ-80 | 35 | 175 | 84 | 55 | 50 | 130 | 30 | 115 | 42.9 | 72.1 |
| Z-350 | VWZ-100 | 25 | 165 | 97 | 65 | 70 | 170 | 50 | 115 | 57.2 | 57.8 |
| Z-500 | VWZ-80 | 75 | 240 | 84 | 55 | 50 | 130 | 30 | 130 | 42.9 | 87.1 |
| Z-500 | VWZ-100 | 65 | 230 | 97 | 65 | 70 | 170 | 50 | 130 | 57.2 | 72.8 |

*cannot be fitted with pivot mounts LB



Ordering example:

VWZ-60-LA1800-25/20S

Size
Length
Bore 1st side
Bore 2nd side (S = rigid hub)

n=1500 rpm (specify the speed)