

**SX0118/500-VSP** [↗](#)

Crossed roller bearing

Crossed roller bearings dimension series 18 to  
DIN 616

## Technical information



## Your current product variant

|         |     |                          |
|---------|-----|--------------------------|
| Preload | VSP | Bearing preload Standard |
|---------|-----|--------------------------|

## Main Dimensions &amp; Performance Data

|                |           |                                  |
|----------------|-----------|----------------------------------|
| d <sub>1</sub> | 500 mm    | Bore Diameter                    |
|                | 0,008 mm  | Bore diameter upper tolerance    |
|                | -0,032 mm | Bore diameter lower tolerance    |
| D <sub>a</sub> | 620 mm    | Outside Diameter                 |
|                | 0 mm      | Outside diameter upper tolerance |
|                | -0,044 mm | Outside diameter lower tolerance |
| H              | 56 mm     | Height of the assembled bearing  |
| h <sub>i</sub> | 56 mm     | Height inner ring                |
|                | 0,16 mm   | Width upper tolerance            |
|                | -0,16 mm  | Width lower tolerance            |
| ≈m             | 42,98 kg  | Weight                           |



### Dimensions

|           |          |   |
|-----------|----------|---|
| $D_i$     | 561,2 mm | Inner diameter outer ring                 |
| $D_M$     | 560 mm   | Rolling element pitch circle diameter     |
| $d_a$     | 558,8 mm | Outer diameter inner ring                 |
| $h$       | 56 mm    | Height of individual ring                 |
|           | 0 mm     | Height of individual ring upper tolerance |
|           | -0,05 mm | Height of individual ring lower tolerance |
| $r_{min}$ | 3 mm     | Chamfer dimension                         |
| S         | 2,5 mm   | Diameter of lubrication hole              |

### Temperature range

|           |        |                            |
|-----------|--------|----------------------------|
| $T_{min}$ | -30 °C | Operating temperature min. |
| $T_{max}$ | 80 °C  | Operating temperature max. |

### Calculation factors

|                    |             |  |
|--------------------|-------------|--|
|                    | 0,04 mm     | Running accuracy, radial                                 |
|                    | 0,01 mm     | Running accuracy, axial                                  |
| VSP <sub>min</sub> | 0,005 mm    | Minimum bearing preload                                  |
| VSP <sub>max</sub> | 0,03 mm     | Maximum bearing preload                                  |
| $C_a$              | 550.000 N   | Basic dynamic load rating, axial                         |
| $C_{0a}$           | 2.470.000 N | Basic static load rating, axial                          |
| $C_r$              | 390.000 N   | Basic dynamic load rating, radial (for radial load only) |
| $C_{0r}$           | 1.210.000 N | Basic static load rating, radial (for radial load only)  |
| $N_{G\ oil}$       | 135 1/min   | Limiting speed for oil lubrication with preload          |
| $N_{G\ Grease}$    | 65 1/min    | Limiting speed for grease lubrication with preload       |
|                    | 618/500     | Dimensions identical to ISO dimension series 18          |



### Characteristics

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Radial load



Axial load in one direction



Axial load in two directions



Moments about all axes



Grease Lubrication



Oil Lubrication



Not sealed



Large bearing