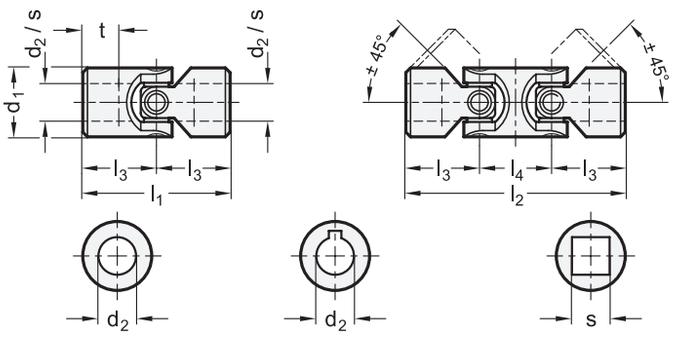
# DIN 808 | Universal Joints with Needle Bearing

Steel, Single or Double Jointed

JW WINCO® A Ganter Company




Metric

**2 Bore code**

| | |
|---|---|
| **B** | Without keyway |
| **K** | With keyway |
| **V*** | With square |

**5 Type**

| | |
|---|---|
| **EW** | Single jointed, needle bearing |
| **DW** | Double jointed, needle bearing |

## Specification

- Body
  Steel, plain finish
- Joint bearing surfaces / pins
  Case-hardened
- *Keyways JS9 DIN 6885 Page 1 → page 2040*
- *Cross Holes GN 110.1 → page 2043*
- *ISO Fundamental Tolerances → page 2129*
- RoHS compliant

### On request

- Inch size bores
- Other or unequal bores

## Information

DIN 808 universal joints with needle bearing are known for their precision. They have minimal play and are long lasting.

The permissible RPM of these joints is higher than for those with friction bearing, but is still dependent on load, duration and the inclination angle. Ideal applications allow up to 4000 RPM → *page 1725*.

Needle bearings give the universal joints at an inclination angle from 3° to 5° a considerably higher degree of efficiency than those fitted with friction bearings. The needle bearings have permanent lubrication and thus do not require servicing.

The “How to order” example refers to universal joints with equal bores $d_2$ or s at both ends.

see also...

- *Mounting Information → page 1723*
- *Permissible RPM and Torques / Determining the Size → page 1725*
- *Universal Joints with Friction Bearing DIN 808 (Steel, Plain Finish) → page 1726*
- *Universal Joint Shafts with Needle Bearing GN 808.3 → page 1732*
- *Cover Boots for Universal Joints GN 808.1 → page 1735*

How to order

1 2 3 4 5

**DIN 808-50-B25-163-DW**

| | |
|---|---|
| 1 | Outside diameter $d_1$ |
| 2 | Bore code |
| 3 | Bore $d_2$ (s) |
| 4 | Length $l_2$ ($l_1$) |
| 5 | Type |

## Metric table

Dimensions in: millimeters - *inches*

| [1] $d_1$ | [3] $d_2$ H7 Bore | [3] s H10 Square | [4] $l_1$ Type EW | [4] $l_2$ Type DW | $l_3$ | $l_4$ | t +1 Max. assembly length of the shaft |
|---|---|---|---|---|---|---|---|
| 22 *0.87* | 10 | V 10* | 48 *1.89* | 74 *2.91* | 24 *0.94* | 26 *1.02* | 12 *0.47* |
| 22 *0.87* | 12 | V 10* | 62 *2.44* | 88 *3.46* | 31 *1.22* | 26 *1.02* | 18 *0.71* |
| 25 *0.98* | 12 | V 12* | 56 *2.20* | 86 *3.39* | 28 *1.10* | 30 *1.18* | 13 *0.51* |
| 25 *0.98* | 16 | V 12* | 74 *2.91* | 104 *4.09* | 37 *1.46* | 30 *1.18* | 21 *0.83* |
| 28 *1.10* | 14 | V 14* | 60 *2.36* | 96 *3.78* | 30 *1.18* | 36 *1.42* | 13 *0.51* |
| 32 *1.26* | 16 | V 16* | 68 *2.68* | 105 *4.13* | 34 *1.34* | 37 *1.46* | 16 *0.63* |
| 32 *1.26* | 20 | V 16* | 86 *3.39* | 124 *4.88* | 43 *1.69* | 38 *1.50* | 24 *0.94* |
| 36 *1.42* | 18 | V 18* | 74 *2.91* | 114 *4.49* | 37 *1.46* | 40 *1.57* | 17 *0.67* |
| 42 *1.65* | 20 | V 20* | 82 *3.23* | 128 *5.04* | 41 *1.61* | 46 *1.81* | 18 *0.71* |
| 42 *1.65* | 25 | V 20* | 108 *4.25* | 156 *6.14* | 54 *2.13* | 48 *1.89* | 31 *1.22* |
| 45 *1.77* | 22 | V 22* | 95 *3.74* | 145 *5.71* | 47.5 *1.87* | 50 *1.97* | 22 *0.87* |
| 50 *1.97* | 25 | V 25* | 108 *4.25* | 163 *6.42* | 54 *2.13* | 55 *2.17* | 26 *1.02* |
| 50 *1.97* | 30 | V 25* | 132 *5.20* | 188 *7.40* | 66 *2.60* | 56 *2.20* | 38 *1.50* |
| 58 *2.28* | 30 | V 30* | 122 *4.80* | 190 *7.48* | 61 *2.40* | 68 *2.68* | 29 *1.14* |
| 58 *2.28* | 32 | V 30* | 130 *5.12* | 198 *7.80* | 65 *2.56* | 68 *2.68* | 33 *1.30* |
| 70* *2.76* | 35 | V 35 | 140 *5.51* | 212 *8.35* | 70 *2.76* | 72 *2.83* | 35 *1.38* |

* Not available from stock, requires a minimum order quantity