# DIN 808 G-NI

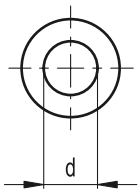
INOX Stainless Steel

## *Universal joints with friction bearing*

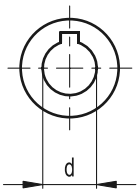
- **Material**
  AISI 304 stainless steel.
- **Standard executions available**
  - Execution **EG**: single body with friction bearing.
  - Execution **DG**: double body with friction bearing.
- **Assembly**
  - Execution **B**: plain holes.
  - Execution **K**: holes with DIN 6885 keyway.

***Special executions on request*** *(For sufficient quantities)*
- Execution **V**: square holes.

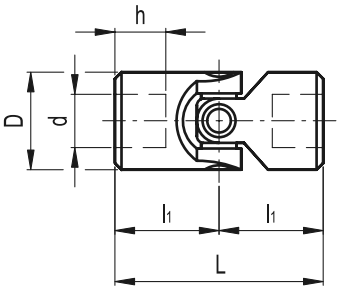
DIN 808-B



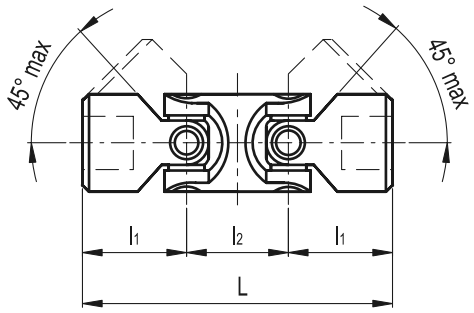

DIN 808-K




DIN 808-EG



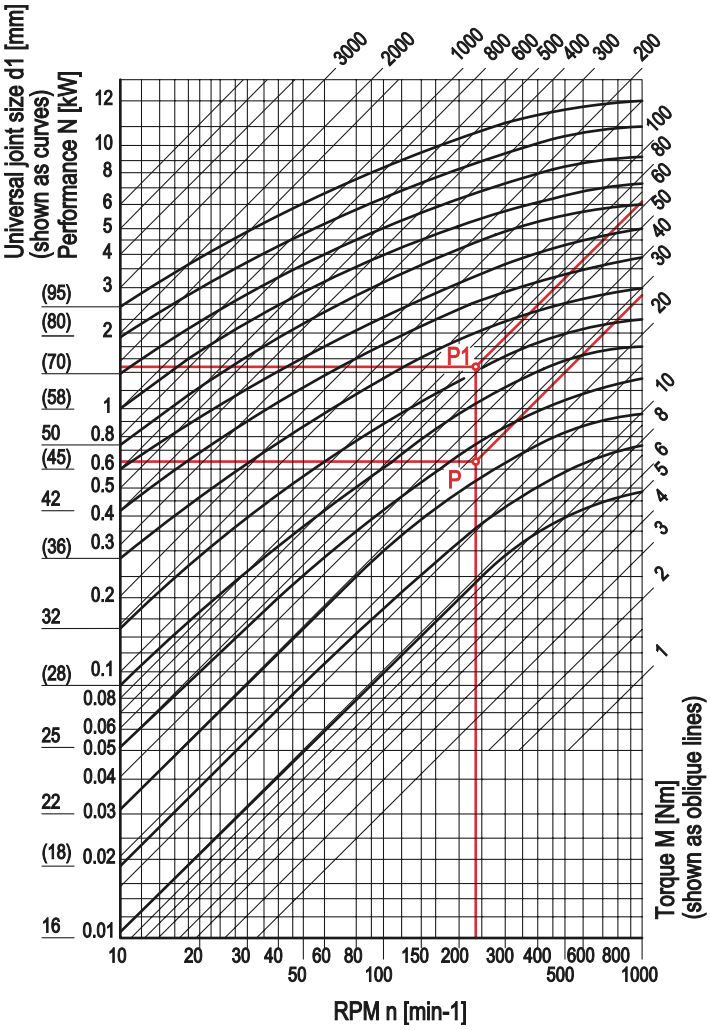

DIN 808-DG

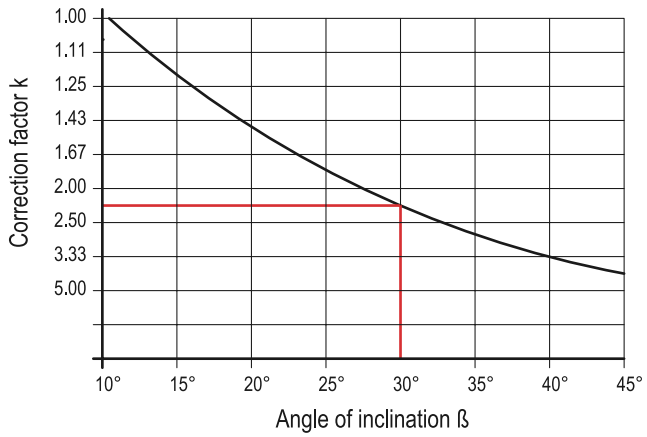



| Standard Elements | Main dimensions | | | | Mounting hole | | ⚖ |
|---|---|---|---|---|---|---|---|
| Description | D | L | $l_1$ | $l_2$ | d H7 | h | g |
| DIN 808-16-B6-34-EG-NI | 16 | 34 | 17 | - | 6 | 8 | 40 |
| DIN 808-16-B6-56-DG-NI | 16 | 56 | 17 | 22 | 6 | 8 | 60 |
| DIN 808-16-B8-40-EG-NI | 16 | 40 | 20 | - | 8 | 11 | 40 |
| DIN 808-16-B8-62-DG-NI | 16 | 62 | 20 | 22 | 8 | 11 | 65 |
| DIN 808-22-B10-48-EG-NI | 22 | 48 | 24 | - | 10 | 12 | 95 |
| DIN 808-22-B10-74-DG-NI | 22 | 74 | 24 | 26 | 10 | 12 | 145 |
| DIN 808-25-B12-56-EG-NI | 25 | 56 | 28 | - | 12 | 13 | 147 |
| DIN 808-25-B12-86-DG-NI | 25 | 86 | 28 | 30 | 12 | 13 | 220 |
| DIN 808-32-B16-68-EG-NI | 32 | 68 | 34 | - | 16 | 16 | 286 |
| DIN 808-32-B16-104-DG-NI | 32 | 104 | 34 | 36 | 16 | 16 | 429 |
| DIN 808-42-B20-82-EG-NI | 42 | 82 | 41 | - | 20 | 18 | 599 |
| DIN 808-42-B20-128-DG-NI | 42 | 128 | 41 | 46 | 20 | 18 | 895 |
| DIN 808-50-B25-108-EG-NI | 50 | 108 | 54 | - | 25 | 26 | 1107 |
| DIN 808-50-B25-163-DG-NI | 50 | 163 | 54 | 55 | 25 | 26 | 1620 |
| DIN 808-22-K10-48-EG-NI | 22 | 48 | 24 | - | 10 | 12 | 96 |
| DIN 808-22-K10-74-DG-NI | 22 | 74 | 24 | 26 | 10 | 12 | 144 |
| DIN 808-25-K12-56-EG-NI | 25 | 56 | 28 | - | 12 | 13 | 150 |
| DIN 808-25-K12-86-DG-NI | 25 | 86 | 28 | 30 | 12 | 13 | 222 |
| DIN 808-32-K16-68-EG-NI | 32 | 68 | 34 | - | 16 | 16 | 283 |
| DIN 808-32-K16-104-DG-NI | 32 | 104 | 34 | 36 | 16 | 16 | 426 |
| DIN 808-42-K20-82-EG-NI | 42 | 82 | 41 | - | 20 | 18 | 595 |
| DIN 808-42-K20-128-DG-NI | 42 | 128 | 41 | 46 | 20 | 18 | 889 |
| DIN 808-50-K25-108-EG-NI | 50 | 108 | 54 | - | 25 | 26 | 1098 |
| DIN 808-50-K25-163-DG-NI | 50 | 163 | 54 | 55 | 25 | 26 | 1606 |

### *Features and applications*

DIN 808 G-NI universal joints with friction bearing are known for their precision. They have minimal play and are long lasting. Since the moveable parts are not surface treated, i.e. not case hardened, the possibilities of application of these universal joints are much more limited compared to the ones made of standard steel. Therefore, the guide lines for the selection of universal joints with friction bearing according to the diagram may be applied at a limited extent only. Rotational speeds over 200 min may become critical. For continuous use of this universal joints, ample lubrication is very important. This achieved by fitting the joint with a grease filled gaiter GN 808.1.
AISI 431 stainless steel, thanks to its high resistance to corrosion, allows the application of these adjustable handles on machines and equipment in those sectors where laws or particular hygienic, climatic and environmental factors make it mandatory to use corrosion resistant materials.




### *Technical data*

The table shows the transferable output N and/or torques M of universal joints DIN 808, type EG (single friction bearing) in relation to the r.p.m. (n). The values are only applicable to a constant speed of rotation, constant load and an operating inclination angle of max 10°. They are not applicable to stainless steel universal joints.
For larger inclination angles ß a nominal output N' increased by the correction coefficient k and/or a nominal torque M' has to be selected (see example below).
Conversion formulae:

$$\text{Torque M [Nm]} = 9550 \frac{\text{N [kW]}}{\text{n [min}^{-1}\text{]}}$$

$$\text{Output N [kW]} = \frac{\text{M [Nm] x n [min}^{-1}\text{]}}{9550}$$

1 kW = 1.36 PS  1 PS = 0.736 kW

### *Example 1*

Output to be transferred N = 0.65 kW
R.p.m. n = 230 min-1
Angle of inclination ß = 10°

Correction coefficient k = 1
Indicative output N' = Nominal output N

Intersection point P is arrived at from 0.65 kW and 230 min-1 (which corresponds to a torque of 27 Nm).

The next size up universal joint corresponding to point P is in the model with a diameter d1 = 25.

### *Example 2*

Torque to be tranferred M = 27 Nm
R.p.m. n = 230 min-1
Angle of inclination ß = 30°

Correction coefficient k = 2.25
Indicative torque M' = 2.25 x 27 Nm = 61 Nm

Intersection point P1 is arrived at from 61 Nm and 230 min-1 (which is equivalent to an indicative output N' = 1.47 kW).

The next size up universal joint corresponding to P1 is the model with a diameter d1 = 36.