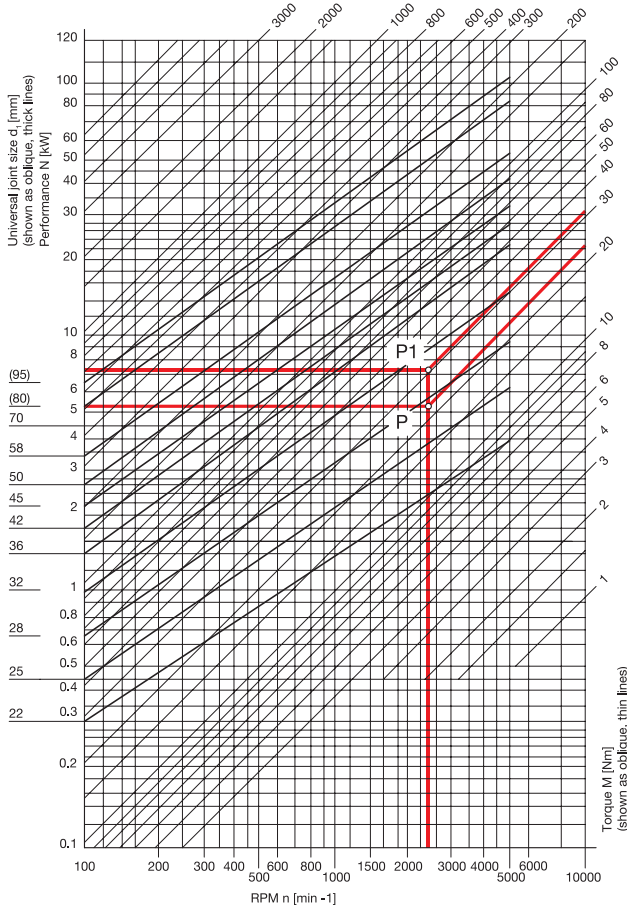


Universal joints with needle bearing, Type EW

Selection of the size



The table shows the transferable output N and/or torques M of universal joints Kreuzgelenken DIN 808, type EW (single needle 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° .

For larger inclination angles β 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:

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

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

1 kW = 1,36 PS

1 PS = 0,736 kW

Example 1

Torque to be transferred $N = 5,5$ kW
 R.p.m. $n = 2300$ min⁻¹
 Angle of inclination $\beta = 10^\circ$

Correction coefficient $k = 1$

Indicative output $N =$ Nominal output N

Intersection point P is arrived at from 5,5 kW and 2300 min⁻¹ (which corresponds to a torque of 23 Nm).

The next size up universal joint corresponding to point P is the model with a diameter $d_1 = 28$.

Example 2

Torque to be transferred $M = 23$ Nm
 R.p.m. $n = 2300$ min⁻¹
 Angle of inclination $\beta = 18^\circ$

Correction coefficient $k = 1,43$

Indicative torque = $1,43 \times 23$ Nm = 33 Nm

Intersection point P_1 is arrived at from 33 Nm and 2300 min⁻¹ (which is equivalent to an indicative output $N = 7,9$ kW).

The next size up universal joint corresponding to P_1 is the model with a diameter $d_1 = 32$.

