

# DIN 808 G

## Universal joints with friction bearing

### • Material

Hardened steel.

### • Standard executions available

- Execution **EG**: steel 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.

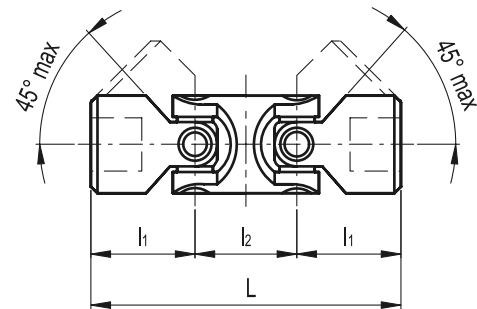
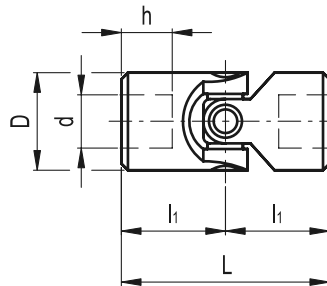
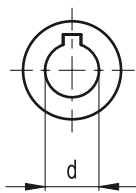
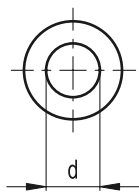


DIN 808-EG

DIN 808-DG

DIN 808-B

DIN 808-K



Standard Elements	Main dimensions				Mounting hole		$\Delta$
	Description	D	L	l <sub>1</sub>	l <sub>2</sub>	d H7	
DIN 808-16-B6-34-EG	16	34	17	-	6	8	40
DIN 808-16-B6-56-DG	16	56	17	22	6	8	60
DIN 808-16-B8-40-EG	16	40	20	-	8	11	40
DIN 808-16-B8-62-DG	16	62	20	22	8	11	65
DIN 808-16-B10-52-EG	16	52	26	-	10	14	49
DIN 808-16-B10-74-DG	16	74	26	22	10	14	70
DIN 808-22-B10-48-EG	22	48	24	-	10	12	95
DIN 808-22-B10-74-DG	22	74	24	26	10	12	145
DIN 808-22-B12-62-EG	22	62	31	-	12	18	119
DIN 808-22-B12-88-DG	22	88	31	26	12	18	167
DIN 808-25-B12-56-EG	25	56	28	-	12	13	147
DIN 808-25-B12-86-DG	25	86	28	30	12	13	220
DIN 808-25-B16-74-EG	25	74	37	-	16	21	167
DIN 808-25-B16-104-DG	25	104	37	30	16	21	240
DIN 808-28-B14-60-EG	28	60	30	-	14	13	185
DIN 808-28-B14-96-DG	28	96	30	36	14	13	286
DIN 808-32-B16-68-EG	32	68	34	-	16	16	286
DIN 808-32-B16-104-DG	32	104	34	36	16	16	429
DIN 808-32-B20-86-EG	32	86	43	-	20	24	324
DIN 808-32-B20-124-DG	32	124	43	38	20	24	461
DIN 808-36-B18-74-EG	36	74	37	-	18	17	382
DIN 808-36-B18-114-DG	36	114	37	40	18	17	565
DIN 808-42-B20-82-EG	42	82	41	-	20	18	599
DIN 808-42-B20-128-DG	42	128	41	46	20	18	895
DIN 808-42-B25-108-EG	42	108	54	-	25	31	725
DIN 808-42-B25-156-DG	42	156	54	48	25	31	1035
DIN 808-45-B22-95-EG	45	95	47.5	-	22	22	781
DIN 808-45-B22-145-DG	45	145	47.5	50	22	22	1137
DIN 808-50-B25-108-EG	50	108	54	-	25	26	1107
DIN 808-50-B25-163-DG	50	163	54	55	25	26	1620
DIN 808-50-B30-132-EG	50	132	66	-	30	38	1248
DIN 808-50-B30-188-DG	50	188	66	56	30	38	1764
DIN 808-58-B30-122-EG	58	122	61	-	30	29	1660
DIN 808-58-B30-190-DG	58	190	61	68	30	29	2528
DIN 808-58-B32-130-EG	58	130	65	-	32	33	1724
DIN 808-58-B32-198-DG	58	198	65	68	32	33	2619

Standard Elements	Main dimensions				Mounting hole		$\Delta$
	Description	D	L	l <sub>1</sub>	l <sub>2</sub>	d H7	
DIN 808-16-K10-52-EG	16	52	26	-	10	14	49
DIN 808-16-K10-74-DG	16	74	26	22	10	14	69
DIN 808-22-K10-48-EG	22	48	24	-	10	12	96
DIN 808-22-K10-74-DG	22	74	24	26	10	12	144
DIN 808-22-K12-62-EG	22	62	31	-	12	18	118
DIN 808-22-K12-88-DG	22	88	31	26	12	18	157
DIN 808-25-K12-56-EG	25	56	28	-	12	13	150
DIN 808-25-K12-86-DG	25	86	28	30	12	13	222
DIN 808-25-K16-74-EG	25	74	37	-	16	21	163
DIN 808-25-K16-104-DG	25	104	37	30	16	21	235
DIN 808-28-K14-60-EG	28	60	30	-	14	13	185
DIN 808-28-K14-96-DG	28	96	30	36	14	13	285
DIN 808-32-K16-68-EG	32	68	34	-	16	16	283
DIN 808-32-K16-104-DG	32	104	34	36	16	16	426
DIN 808-32-K20-86-EG	32	86	43	-	20	24	317
DIN 808-32-K20-124-DG	32	124	43	38	20	24	460
DIN 808-36-K18-74-EG	36	74	37	-	18	17	375
DIN 808-36-K18-114-DG	36	114	37	40	18	17	565
DIN 808-42-K20-82-EG	42	82	41	-	20	18	595
DIN 808-42-K20-128-DG	42	128	41	46	20	18	889
DIN 808-42-K25-108-EG	42	108	54	-	25	31	715
DIN 808-42-K25-156-DG	42	156	54	48	25	31	1026
DIN 808-45-K22-95-EG	45	95	47.5	-	22	22	773
DIN 808-45-K22-145-DG	45	145	47.5	50	22	22	1121
DIN 808-50-K25-108-EG	50	108	54	-	25	26	1098
DIN 808-50-K25-163-DG	50	163	54	55	25	26	1606
DIN 808-50-K30-132-EG	50	132	66	-	30	38	1241
DIN 808-50-K30-188-DG	50	188	66	56	30	38	1757
DIN 808-58-K30-122-EG	58	122	61	-	30	29	1646
DIN 808-58-K30-190-DG	58	190	61	68	30	29	2507
DIN 808-58-K32-130-EG	58	130	65	-	32	33	1703
DIN 808-58-K32-198-DG	58	198	65	68	32	33	2598

## Features and applications

DIN 808 G universal joints with friction bearing are known for their precision. They have minimal play and are long lasting. The r.p.m. of universal joints with friction bearing is to a large extent dependent on the type of application, load, duration, angular position and lubrication. For over 1000 r.p.m. see DIN 808 W (see page 678) universal joints with needle bearing. For continuous use, lubrication is essential.

## 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  $10^\circ$ . They are not applicable to stainless steel universal joints.

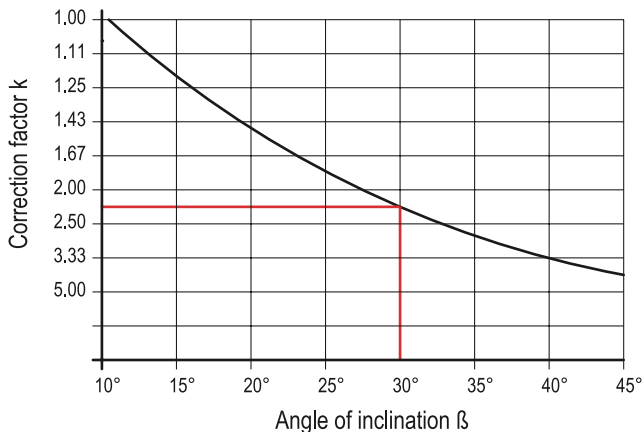
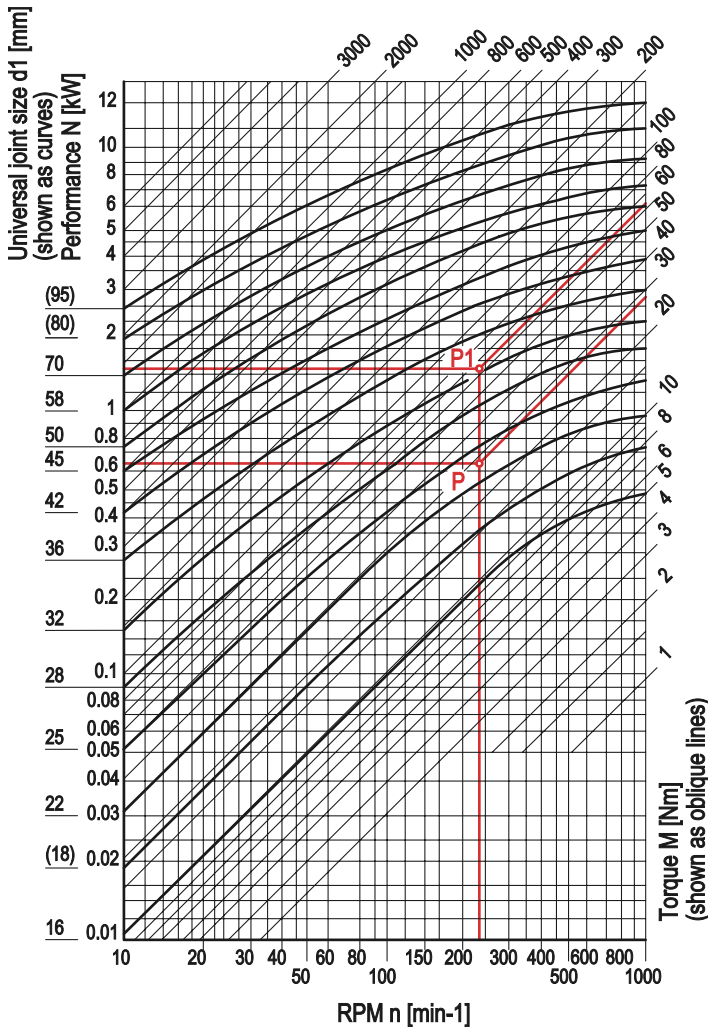
For larger inclination angles  $\beta$  a nominal output  $N'$  increased by the correction coefficient  $k$  and/or a nominal torque  $M'$  has to be selected (see example below).

Conversion formulae:

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

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

$$1 \text{ kW} = 1.36 \text{ PS} \quad 1 \text{ PS} = 0.736 \text{ kW}$$



### Example 1

Output to be transferred  $N = 0.65$  kW  
 R.p.m.  $n = 230$  min<sup>-1</sup>  
 Angle of inclination  $\beta = 10^\circ$

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

Intersection point  $P$  is arrived at from  $0.65$  kW and  $230$  min<sup>-1</sup> (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  $d_1 = 25$ .

### Example 2

Torque to be transferred  $M = 27$  Nm  
 R.p.m.  $n = 230$  min<sup>-1</sup>  
 Angle of inclination  $\beta = 30^\circ$

Correction coefficient  $k = 2.25$   
 Indicative torque  $M' = 2.25 \times 27$  Nm =  $61$  Nm

Intersection point  $P_1$  is arrived at from  $61$  Nm and  $230$  min<sup>-1</sup> (which is equivalent to an indicative output  $N' = 1.47$  kW).

The next size up universal joint corresponding to  $P_1$  is the model with a diameter  $d_1 = 36$ .