

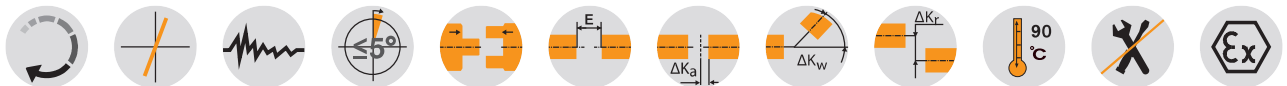
# ROTEX® GS P

## Backlash-free jaw couplings

Highly accurate type P according to DIN 69002



For legend of pictogram please refer to flapper on the cover



### ROTEX® GS P - hubs/clamping ring material steel

Size	Spider GS <sup>1)</sup> torque T <sub>KN</sub> [Nm]		Dimensions [mm]											Tightening torque of clamping screws T <sub>A</sub> [Nm]	Weight per hub with bore d standard [kg]	Mass moment of inertia with bore d standard [kgm <sup>2</sup> ]
	98 ShA	64 ShD	d <sub>max.</sub>	D <sub>H</sub> <sup>2)</sup>	d <sub>H</sub>	L	I <sub>1</sub> , I <sub>2</sub>	I	E	b	s	a	d <sub>3</sub>			
14 P	12.5	16	15	32	10.5	50	18.5	15.5	13	10	1.5	2	—	1.89	0.08	0.011 x 10 <sup>-3</sup>
19 P	21	26	20	40	18	66	25	21	16	12	2	3	—	3.05	0.19	0.046 x 10 <sup>-3</sup>
24 P	60	75	28	55	27	78	30	25	18	14	2	3	—	8.5	0.44	0.201 x 10 <sup>-3</sup>
28 P	160	200	38	65	30	90	35	30	20	15	2.5	4	—	8.5	0.64	0.438 x 10 <sup>-3</sup>
38 P	325	405	48	80	38	114	45	40	24	18	3	4	—	14	1.32	1.325 x 10 <sup>-3</sup>
42 P	450	560	51	95	46	126	50	45	26	20	3	4	18.5	35	2.23	3.003 x 10 <sup>-3</sup>
48 P	525	655	55	105	51	140	56	50	28	21	3.5	4	20.5	69	3.09	5.043 x 10 <sup>-3</sup>
55 P	685	825	70	120	60	160	65	58	30	22	4	4.5	22.5	69	4.74	10.02 x 10 <sup>-3</sup>
65 P	940	1175	70	135	68	185	75	55	35	26	4.5	4.5	30	120	6.70	191.0 x 10 <sup>-4</sup>
75 P	1920	2400	80	160	80	210	85	63	40	30	5.0	5.0	40	120	9.90	396.8 x 10 <sup>-4</sup>
90 P	3600	4500	105	200	104	245	100	75	45	34	5.5	6.5	50	295	17.7	1136 x 10 <sup>-4</sup>

<sup>1)</sup> For selections see page 22 et seqq/other spiders see page 123 and following

<sup>2)</sup> Ø D<sub>H</sub> + 2 mm with high speeds for expansion of spider

For the strength calculation of shaft/hollow shaft see KTR standard 45610 on our homepage www.ktr.com.

### Review of shaft-hub-connection: Friction torques T<sub>R</sub> [Nm] for hub design 6.0 steel

Size		Ø10	Ø11	Ø14	Ø15	Ø16	Ø19	Ø20	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55*	Ø60*	Ø65*	Ø70*	Ø80*	Ø90*	Ø95*	Ø100*	Ø105*	
14	H6/k6	11	13	29																										
19	H6/k6	34	41	75	90	68	104	119																						
24	H6/k6			79	95	70	110	126	134	149	201																			
28	H6/k6				128	150	225	177	278	307	341	403	366	461	528															
38	H6/k6							247	386	426	475	560	511	641	644	733	828	825												
42	H6/k6									389	433	512	464	585	586	669	631	753	888	906										
48	H6/k6											672	762	945	957	1082	1033	1219	1423	1296	1606									
55	H6/k6												920	929	1055	1002	1190	1198	1325	1388	1743	1722	2088							
65	H6/k6															1532	1465	1731	1750	1931	2034	2534	2521	3038						
75	H6/k6																1835	2161	2190	2413	2551	3161	3158	3789	4421					
90	H6/k6																				4046	4503	5057	6079	6181	7324	8398	9530	9892	11084

\* From Ø55 G6/m6.

The torque is reduced with bigger fitting tolerances. For the strength calculation of shaft/hollow shaft see KTR standard 45610 on our homepage www.ktr.com.

### Assignment for stub spindles according to DIN 69002

Spindle drive	ROTEX® GS P size	Dimensions according to DIN 69002										Transmittable torque T <sub>R</sub> with d [Nm] <sup>3)</sup>	Weight per hub with bore d standard <sup>3)</sup> [kg]	Mass moment of inertia with bore d standard <sup>3)</sup> [kgm <sup>2</sup> ]
		Standard spindle shaft diameter d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	D <sub>H</sub>	I <sub>1</sub> , I <sub>2</sub>	L	E					
25 x 20	14 P	14	17	17	8.5	32	18.5	50	13	25	0.08	0.011 x 10 <sup>-3</sup>		
32k x 25	19 P37.5	16	20	19	9.5	37.5	25	66	16	60	0.16	0.037 x 10 <sup>-3</sup>		
32g x 30	19 P	19	23	22	9.5	40	25	66	16	71	0.19	0.046 x 10 <sup>-3</sup>		
40 x 35	24 P50	24	28	29	12.5	50	30	78	18	108	0.331	0.136 x 10 <sup>-3</sup>		
50 x 45	24 P	25	30	30	12.5	55	30	78	18	170	0.44	0.201 x 10 <sup>-3</sup>		
63 x 55	28 P	35	40	40	14.5	65	35	90	20	506	0.64	0.438 x 10 <sup>-3</sup>		
80 x 75	38 P	40	46	46	16.5	80	45	114	24	821	1.32	1.325 x 10 <sup>-3</sup>		

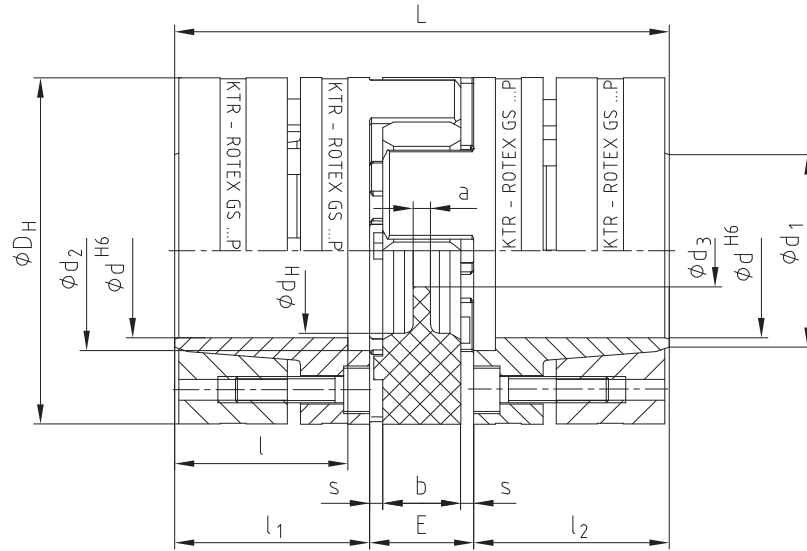
<sup>3)</sup> Standard spindle shaft diameter

Ordering example:

ROTEX® GS P 24	98 ShA-GS	6.0 - Ø25			6.0 - Ø25	
Coupling size	Spider hardness	Hub design	Finish bore	Hub design	Finish bore	

Components

Tack thread  $M_1$  between clamping screws



ROTEX® GS P with central coolant supply for stub spindles and multiple spindle heads

