ROTEX[®] Flexible jaw couplings

Hub types

Due to the numerous applications of ROTEX® for many different applications and mounting situations, this coupling system is available with various hub types. These types mainly differ in that they offer either positive or frictionally engaged connections, but mounting situations like, for example, gear shafts with integrated transmission cams or similar applications are covered, too.



Type 1.0 hub with feather keyway and setscrew

Positive locking power transmission, permissible torque depending on the permissible surface pressure. Not suitable for backlash-free power transmission with heavily reversing operation. Type 1.1 hub

without feather keyway with setscrew Non-positive torque transmission for crimp and glued connections. (No ATEX-release)

Type 1.3 hub with spline bore (see page 20)

Type 4.2 hub

with CLAMPEX® clamping set KTR 250 Frictionally engaged, backlash-free shaft-hub-connection for the transmission of average torques.

Type 4.1 for CLAMPEX® clamping set KTR 200 type 4.3 for CLAMPEX® clamping set KTR 400

Frictionally engaged, backlash-free shaft-hub-connection for the transmission of high torques.



Type 7.5 clamping hub type DH without feather keyway for double-cardanic connection

Frictionally engaged, backlash-free shaft-hub-connection for radial assembly of coupling. Transmittable torques depend-ing on bore diameter (For ATEX category 3 only)

Type 7.6 clamping hub type DH with feather keyway for double-cardanic connection

Positive locking power transmission with additional friction fit for radial assembly of coupling. The frictional engagement avoids or reduces the reverse backlash. Surface pressure of the keyway connection is reduced.

Split hub made of cast iron. Frictionally engaged, backlash-

free shaft-hub-connection-. Transmittable torques depending on bore diameter (For ATEX category 3 only)



FNN hub

Type 7.0 SPLIT hub

without feather keyway

Coupling hub to be connected to an attachment such as brake drum, brake disk and fan



TB1 hub/TB2 hub

Coupling hub for taper clamping bushes. TB1 screwed on cam side. TB2 screwed externally.







Frictionally engaged, backlash-free shaft-hub-connection-. Transmittable torques depending on bore diameter (see page 34). (For ATEX category 3 only)

single slotted without feather keyway

Type 2.0 clamping hub

Type 2.1 clamping hub single slotted with feather keyway

Positive locking power transmission with additional frictionally engaged condition. The frictional engagement avoids or reduces the reverse backlash. Surface pressure of the keyway connection is reduced.

Type 2.3 clamping hub

with spline bore (see page 29/30)

Type 6.0 clamping ring hub (see ROTEX® GS series)

Integrated frictionally engaged shaft-hub-connection for the transmission of higher torques. Screwing on elastomer side. For details about torque and dimensions see page 29. Suitable for high speeds.

Type 6.5 clamping ring hub (see ROTEX® GS series)

Design like 6.0, except for clamping screws externally. As an example for radial disassembly of intermediate pipe (special design).

Type 7.8 clamping hub type H without feather keyway

Frictionally engaged, backlash-free shaft-hub-connection for radial assembly of coupling. Transmittable torques depending on bore diameter (For ATEX category 3 only)

Type 7.9 clamping hub type H with feather keyway

Positive locking power transmission with additional friction fit for radial assembly of coupling. The frictional engagement avoids or reduces the reverse backlash. Surface pressure of the keyway connection is reduced.



Type 7.1 SPLIT hub with feather keyway

Split hub made of cast iron. Positive locking power transmission with additional frictionally engaged condition. The fric-tional engagement avoids or reduces the reverse backlash. Surface pressure of the keyway connection is reduced.

SD hub shifting hub

Coupling hub for separating or switching on the driving/ driven machine with standstill of the machine. Can be combined with slip ring and shiftable linkage



Type 3Na + 4N Driving flange with flange type K For type AFN and BFN:

With type AFN the spider can be replaced while being assembled without having to disassemble the driving and driven side

Mitnehmerflansch Ausf. 3Na

Driving flange to connect to customer's component. Abmessungen siehe Seite 38



Driving flange to connect to customer's component. Abmessungen siehe Seite 38



ROTEX[®] Standard Flexible jaw couplings

Material steel/UL/marine





ROTEX® Steel (St)																
Spider (part 2)			Dimensions [mm]													
Size Compo-	rated torque [Nm]		Finish bore	General							Thread for setscrew					
nem	92 Sh-A	98 Sh-A	64 Sh-D	d (min-max)	L	l ₁ ;l ₂	E	b	s	DH	dН	D	N	G	t	T _A [Nm]
14 1a 7,5	7 6	10.5	16	0-16	35	11	13	10	1,5	30	10	30	_	M4	5	1,5
	7,5	12,5	10		50	18,5										
19 1a 10	10	0 17	21	0.05	66	25	16	12	2	40	18	40	_	M5	10	2
	10			0-23	90	37	10									
24 1a 35	35	60	75	0-35	78	30	18	14	2	55	27	55	_	M5	10	2
	35 0				118	50										
28 <u>1a</u> 95 1b 95	95	95 160	200	0-40	90	35	20	15	2,5	65	30	65	_	M8	15	10
					140	60										
29 1	190	190 325	405	0-48	114	45	24	18	3	80	38	70	27	M8	15	10
1b		020			164	70						80	-			
42 <u>1</u> 265	265	450	560	0-55	126	50	26	20	3	95	46	85	28	M8	20	10
	200 400	500	0.00	176	75	20	20		30	40	95	-	1110			
48 1 310	310	0 525	655	0-62	140	56	28	21	3,5	105	51	95	32	M8	20	10
	0.0				188	80						105	-			
55 <u>1</u> 410	410	685	825	25 0-74	160	65	30	22 4	4	4 120	60	110	37	M10	20	17
					210	90						120	-			
65 1 625	625	940	1175	0-80	185	75	35	26	4,5	135	68	115	47	M10	20	17
1b					235	100						135	-			
1	1280	1920	2400	0-95	210	85	40	40 30	30 5	160	80	135	53	M10	25	17
1b					260	110				_		160	-			
90 1 240	2400	2400 3600	4500	0-110	245	100	45	34	34 5,5	5 200	100	160	62	M12	30	40
1b					295	125						200	_			
1	3300	4950	6185	0-115	270	110	50	38	6	225	113	150	89	M12	30	40
1	4800	7200	9000	0-125	295	120	55	42	6,5	255	127	200	96	M16	35	80
1	6650	10000	12500	60-145	340	140	60	46	7	290	147	230	112	M16	40	80
1	8550	12800	16000	60-160	375	155	65	50	7,5	320	165	255	124	M20	45	140
1	12800	19200	24000	80-185	425	175	75	57	9	370	190	290	140	M20	50	140
1	18650	28000	35000	85-200	475	195	85	64	10,5	420	220	325	156	M20	50	140
	Compo- nent 1a 1b 1a 1b 1a 1b 1 1b 1 1b 1 1b 1 1b 1 1b 1 1b 1 1b 1 1b 1 1 1b 1 1 1b 1 1 1 1 1 1 1 1 1 1 1 1 1	Component Since 92 Sh-A 1a 1b 7,5 1a 10 1b 10 1a 35 1b 95 1a 95 1a 190 1a 10 1b 100 1a 95 1b 100 1b 265 1 310 1b 410 1b 1280 1 2400 1b 2400 1b 3300 1 4800 1 3650 1 12800 1 12800 1 12800	$\begin{array}{ c c c } & & & & & & & & & & & & & & & & & & &$	$\begin{array}{ c c c } & & & & & & & & & & & & & & & & & & &$	$\begin{array}{ c c c } & & & & & & & & & & & & & & & & & & &$	$ \begin{array}{ c c c c c c } \hline KOT & KOT \\ \hline Component & $\mathbf{Spider} (part 2) \\ \hline rated torque [Nm] & $\mathbf{Finish bore} \\ \hline d (min-max) & L \\ \hline 1a & $7, 5$ & $12, 5$ & 16 & 0^{-16} & 50 \\ \hline 1a & $7, 5$ & $12, 5$ & 16 & 0^{-16} & 50 \\ \hline 1a & 10 & 17 & 21 & 0^{-25} & 90 \\ \hline 1a & 35 & 60 & 75 & 0^{-35} & 118 \\ \hline 1b & 35 & 160 & 200 & 0^{-40} & 1140 \\ \hline 1b & 95 & 160 & 200 & 0^{-40} & 1140 \\ \hline 1b & 190 & 325 & 405 & 0^{-48} & 114 \\ \hline 1b & 190 & 325 & 405 & 0^{-62} & 126 \\ \hline 1b & 265 & 450 & 560 & 0^{-55} & 126 \\ \hline 1b & 265 & 450 & 560 & 0^{-62} & 140 \\ \hline 1b & 310 & 525 & 655 & 0^{-62} & 140 \\ \hline 1b & 310 & 525 & 655 & 0^{-62} & 140 \\ \hline 1b & 1280 & 1920 & 2400 & 0^{-95} & 210 \\ \hline 1b & 1280 & 1920 & 2400 & 0^{-95} & 210 \\ \hline 1b & 1280 & 1920 & 2400 & 0^{-95} & 225 \\ \hline 1 & 3300 & 4950 & 6185 & 0^{-110} & 270 \\ \hline 1 & 4800 & 7200 & $\mathbf{9000$ & 0^{-125} & 295 \\ \hline 1 & 6650 & 10000 & 12500 & $\mathbf{60^{-145}$ $ & 340 \\ \hline 1 & 8550 & 12800 & 16000 & $\mathbf{60^{-160}$ $ & 375 \\ \hline 1 & 12800 & 19200 & 24000 $ & $\mathbf{85^{-200}$ $ 475 \\ \hline 1 & 18650 & 2300 $ 35000 $ $\mathbf{85^{-200}$ $ 475 $ 425 \\ \hline 1 & 18650 & 12800 & 16000 $ $\mathbf{85^{-200}$ $ 475 $ 425 \\ \hline 1 & 18650 & 12800 & 16000 $ $\mathbf{85^{-200}$ $ 475 $ 425 \\ \hline 1 & 18650 & 28000 $ 35000 $ $\mathbf{85^{-200}$ $ 475 $ 105 $ 105 $ 1050 $ 1050 $ 1050 $ 1050 $ 1050 $ 1050 $ 1050 $ 1050 $ 1050 $ 1050	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$

I = If no material is specified in the order, it is stipulated in the calculation/order.
¹⁾ Maximum torque of coupling T_{Kmax}. = rated torque of coupling T_K rated x 2. For selection see page 10 et seqq.

	ROTEX [®] 38	St	92 Sh-A	1 – 0	ð 45	1 – Ø 25		
example:	Coupling size	Material	Spider hardness	Component	Finish bore	Component	Finish bore	

Components



Steel (thread on the keyway)



Marine programme:

Hub materials S355J2+N and 42CrMo4+QT acc. to DIN EN10204-3.1+3.2 size 75-180 available from stock.







Use in fire extinguisher pumps

ROTEX* couplings comply with the specifications of NFPA 20 standard for the installation of stationary pumps for fire protection and on completion of the necessary permanent tests they also comply with the specifications of UL 448A, flexible couplings and connection shafts for stationary fire extinguisher pumps.

Sizes available:

ROTEX® UL-Listed										
Size	Compo- nent	Material	Spider (part 2) Rated torque [Nm]	Dimensions [mm]						
				Finish have al (sein seco)	L	_{1;} ₂	Е	DH		
			92 Sh-A	Finish bore d (min-max)						
42	1	St	265	18-55	126	50	26	95		
55	1	St	410	24-74	160	65	30	120		
65	1	St	625	24-80	185	75	35	135		
75	1	St	1280	24-95	210	85	40	160		
90	1	St	2400	30-110	245	100	45	200		

* For complete dimensions see table on page 36