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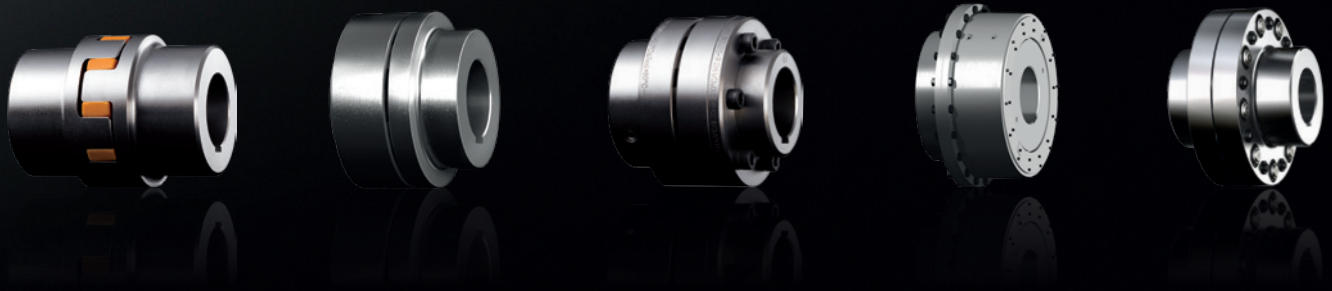
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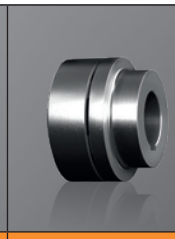
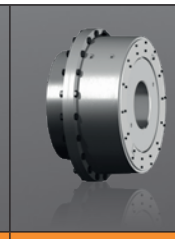
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ROTEX® **ROFLEX®** **POLY-NORM®** **POLY-NORM®-M** **REVOLEX®**



FLEXIBLE JAW AND PIN & BUSH COUPLINGS
TYPES AND OPERATING DESCRIPTION

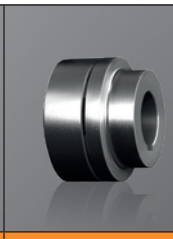
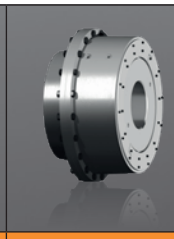
Properties of flexible jaw and pin & bush couplings

					
Product	**ROTEX®**	**ROFLEX®**	**POLY-NORM®**	**POLY-NORM®-M**	**REVOLEX®**
Type	Torsionally flexible jaw coupling				Torsionally flexible pin & bush coupling
Features					
Torsionally flexible	●	●	●	●	●
Damping vibrations	●	●	●	●	●
Maintenance-free	●	●	●	●	●
Axial plug-in	●	●	●		●
Shear type				●	
Fail-safe	●	●	●	●	●
Compensating for misalignment	●	●	●	●	●
Types					
Variant diversity	very high	medium	medium	medium	high
Special features	extensive basic programme available from stock while customised solutions can be realized	basic programme available from stock	basic programme available from stock	Basic programme available from stock, ideal for customised solutions, for applications with high performances	extensive programme, ideal for customised solutions, for applications with high performance ranges
Applications / core industries	manifold applications, applicable in all industries	pump industry, industrial gearboxes	pump industry, industrial gearboxes	heavy mechanical engineering, mills, conveyors, crushers, industrial gearboxes	industrial gearboxes, conveyor systems, industrial fans, cableways, agitators, generators, ...
surface	allover machining, very good dynamic properties	shell surface machined	shell surface machined	shell surface machined	allover machining, good dynamic properties
Torque range T_{KN} [Nm]					
Min.	1	65	40	100,000	4300
Max.	35,000	5,000	67,000	5,500,000	1,350,000
Max. circumferential speed v [m/s]					
Cast EN-GJL (dynamic balancing)	35	35	35		35
Steel + cast EN-GJS (dynamic balancing)	60			35	60
Hub materials available					
Steel (semi-finished product) » customised solutions available	●			●	●
Cast iron (GJL) » subject to mould	●	●[1)]	●		●
Nodular iron (GJS) » subject to mould	●		○	●	○
Aluminium wrought products (Al-H) » customised solutions available	●				
Aluminium diecast (Al-D)	●				
Stainless steel	●				
Corrosion-protected types	●		○	●	●
Spiders / elastomers					
Material	T-PUR®, PA, PEEK, Hytrel, ...	T-PUR® (size 68) NBR (from size 80)	NBR (up to size 180) T-PUR® (from size 200)	NBR, NBR electrically insulating	NR, NBR, NBR electrically insulating
Degree of hardness	flexible to torsionally stiff	flexible	flexible	flexible	flexible
Temperature range in °C, min. / max. (standard)	-40 / +120	-30 / +80	-30 / +80	-30 / +80	-30 / +80
Temperature range in °C, min. / max. (special)	-40 / +250	-30 / +80	-30 / +80	-30 / +80	-50 / +80

● ≈ Standard
○ ≈ On request
[1)] Size 68 made of sintered steed

FLEXIBLE JAW AND PIN & BUSH COUPLINGS
TYPES AND OPERATING DESCRIPTION

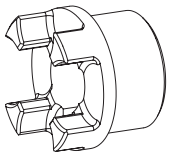
Product finder of jaw and pin & bush couplings

					
Product	**ROTEX®**	**ROFLEX®**	**POLY-NORM®**	**POLY-NORM®-M**	**REVOLEX®**
Type	Torsionally flexible jaw coupling				Torsionally flexible pin & bush coupling
Geometries					
Design	compact	short	short	short	short
Mass moment of inertia	low	medium	medium	high	medium
Shaft distance dimension	low / average	low	low	low	low
Types (extract)					
Elastomers can be radially disassembled » without displacing driving/driven side	AFN, AH, SH, ZR, DF, DFN, CF-H	SH	ADR, ADR-SB	AFN, A	Standard
Intermediate shaft types » bridging larger shaft distances	ZR, ZWN	–	–	–	customised
Standard spacers 100 mm to 250 mm	ZS-DKM-SH	–	AZR	–	customised
shaft-to-shaft connection	Standard	N	Standard	Standard	Standard
flange-to-shaft connection	CF, CFN	–	–	A	customised
Flange-to-flange connection » particularly short mounting length	DF, DNF	–	–	–	customised
Double-cardanic » compensating for big displacements, lower restoring forces	ZS-DKM-H, ZR, ZWN	–	–	–	–
Certifications / type examinations					
ATEX	●	●	●	○	●
UL-listed	●				
DNV/GL	●			○	●
ABS	●			○	○
Bureau Veritas	●			○	○
LR	●				○
RS CLASS	○				○
CCS	○				○
ClassNK	●				○
Korean Register	●				○

● ≈ Standard
○ ≈ On request

Types of hubs

Since ROTEX® is used on many different applications and mounting conditions, this coupling system is available with various hub types. These types mainly differ in that they provide either positive or frictionally engaged (backlash-free) connections, but mounting situations like, for example, gear shafts with integrated transmission cams or similar applications are covered, too. Applications are considered.



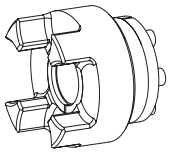
Type 1.0 hub
with feather keyway and setscrew

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 crimping connections and adhesive bonds. (No ATEX approval)

Type 1.3 hub
with spline bore (see page 37)

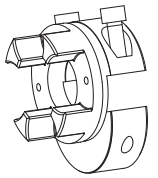


Type 4.2 hub
for CLAMPEX® clamping set KTR 250

Frictionally engaged, backlash-free shaft-hub-connection for transmitting 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.

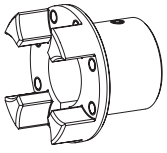


Type 7.6 clamping hub type DH
with feather keyway for double-cardanic connection

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

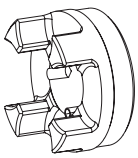
Type 7.5 clamping hub type DH
without feather keyway for double-cardanic connection

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



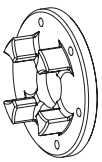
FNN hub

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



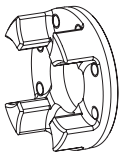
TB1 hub/TB2 hub

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



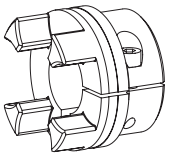
Driving flange type 3b

Driving flange to connect to customer's component.
For dimensions see page 48.



Driving flange type 3Na

Driving flange to connect to customer's component.
For dimensions see page 48.



Type 2.3 clamping hub
with spline bore

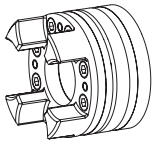
For splines see page 37. Positive-locking power transmission. The friction fit avoids resp. reduces reverse backlash.

Type 2.0 clamping hub
single slot without feather keyway

Frictionally engaged, backlash-free shaft-hub-connection. Transmittable torques depending on bore diameter (see page 44). (For ATEX category 3 only)

Type 2.1 clamping hub
single slot with feather keyway

Positive-locking power transmission with additional friction fit. The friction fit avoids resp. reduces reverse backlash. Surface pressure of the keyway connection is reduced.

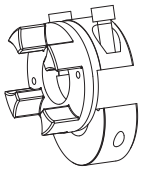


Type 6.0 clamping ring hub
(see ROTEX® GS series)

Integrated frictionally engaged shaft-hub-connection for the transmission of higher torques. Screw connection on elastomer side. For details about torque and dimensions see page 43. Suitable for high speeds.

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

Design like 6.0, except for clamping screws externally. For instance for radial disassembly of intermediate pipe (special design).

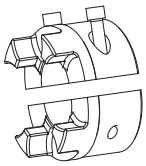


Type 7.9 clamping hub type H
with feather keyway

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

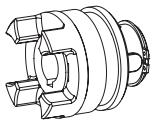
Type 7.8 clamping hub type H
without feather keyway

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



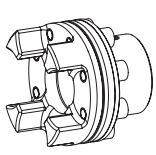
Type 7.1 SPLIT hub
with feather keyway

Split hub made of cast iron. Positive-locking power transmission with additional friction fit. The friction fit avoids resp. reduces reverse backlash. Surface pressure of the keyway connection is reduced.



SD hub shifting hub

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



Type 3Na and 4N
Driving flange with flange type K

For type AFN and BFN.
With type AFN the spider can be replaced when installed without having to disassemble the driving and driven side.

Speeds

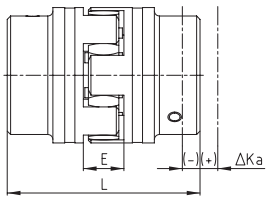
Maximum speeds of hub versions/types

ROTEX® size	Maximum speed [rpm]													Maximum speed [rpm] depending on outside Ø of brake drum/disk			
	1.0 / 1.1 / 1.3			2.0 / 2.1 / 2.3 / 7.5 / 7.6 / 7.8 / 7.9	6.0	7.1	TB1 / TB2	FNN 1)	FNN with fan	SD (with shiftable linkage)	3b / 3Na / 4N	DKM / ZS-DKM	ZR	ZRS	Brake drum (steel)		Brake disk (steel)	
	Steel, GJS, Al-H	GJL, sinter metal	Al-D												Outside Ø [mm]	[rpm]	Outside Ø [mm]	[rpm]
14	10000	10000	3600	-	see ROTEX® GS	-	-	-	The permissible speed depends on the fan. Please consult with KTR for any other applications.	-	-	-	Depending on the application (observe critical bending speed on page 51).	Depending on the application (observe critical bending speed on page 50).	160	6000	200	8600
19	10000	10000	3600	3600		-	-	-		-	-	3600			200	4800	250	6850
24	10000	10000	3600	3600		3600	10000	-		-	10000	3600			250	3800	315	5500
28	10000	10000	3600	3600		3600	10000	10000		-	10000	3600			315	3000	355	4850
38	9500	8300	3600	3600		3600	8300	9500		3200	9500	3600			400	2400	400	4300
42	8000	7000	3600	3600		3600	7000	8000		3200	8000	3600			500	1900	450	3800
48	7200	6300	3600	3600		3600	6300	7200		2500	7200	3600			630	1500	500	3500
55	6300	5500	-	3600		3600	5500	6300		2100	6300	3600			630	1500	560	3050
65	5600	4900	-	3600		3600	4900	5600		2100	5600	3600			710	1350	630	2700
75	4700	4200	-	3000		3600	4200	4700		1700	4700	3600			710	1350	710	2400
90	3800	3600	-	2400		3000	3600	3800		1300	3800	3000			800	1200	800	2150
100	3600	-	-	2100		2550	2900	3600		1300	3600	-					900	1900
110	3000	-	-	1900		2250	2600	-		1300	3000	-					1000	1700
125	2600	-	-	1800		-	2300	-		1200	2600	-						
140	2400	-	-	1500		-	2000	-		-	2400	-						
160	2000	-	-	1300		-	-	-		-	2000	-						
180	1800	-	-	1150		-	-	-		-	1800	-						
Balancing necessary from a circumferential speed of	v = 30 m/s	v = 30 m/s	On request	v = 20 m/s		v = 30 m/s	v = 30 m/s	v = 30 m/s	v = 30 m/s	v = 30 m/s	v = 30 m/s	On request	On request	On request	v = 30 m/s		v = 30 m/s	

Depending on the application, balancing may also be required with lower circumferential speeds.
Higher speeds possible on request.
1) Please note that the attachments may have a lower permissible maximum speed.

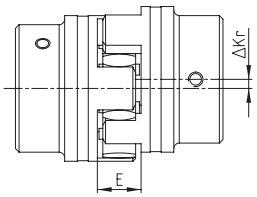
Displacements

Axial displacement ΔK_a

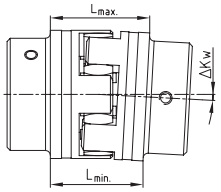


$L_{max.} = L + \Delta K_a$

Radial displacement ΔK_r



Angular displacement ΔK_W [degree]



ΔK_W [mm] = $L_{max} - L_{min}$

Displacements for spider 92 and 98 Shore A

ROTEX® size	14	19	24	28	38	42	48	55	65	75	90	100	110	125	140	160	180
Max. axial displacement ΔK_a [mm]	-0.5 +1.0	-0.5 +1.2	-0.5 +1.4	-0.7 +1.5	-0.7 +1.8	-1.0 +2.0	-1.0 +2.1	-1.0 +2.2	-1.0 +2.6	-1.5 +3.0	-1.5 3.4	-1.5 +3.8	-2.0 +4.2	-2.0 +4.6	-2.0 +5.0	-2.5 +5.7	-3.0 +6.4
Max. radial displacement with n=1500 rpm ΔK_r [mm]	0.17	0.20	0.22	0.25	0.28	0.32	0.36	0.38	0.42	0.48	0.50	0.52	0.55	0.60	0.62	0.64	0.68
Max. angular displacement with n=1500 rpm ΔK_W [degree]	1.2	1.2	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.2	1.2
ΔK_W [mm]	0.67	0.82	0.85	1.05	1.35	1.70	2.00	2.30	2.70	3.30	4.30	4.80	5.60	6.50	6.60	7.60	9.00

Displacements for spider 64 Shore D

ROTEX® size	14	19	24	28	38	42	48	55	65	75	90	100	110	125	140	160	180
Max. axial displacement ΔK_a [mm]	-0.5 +1.0	-0.5 +1.2	-0.5 +1.4	-0.7 +1.5	-0.7 +1.8	-1.0 +2.0	-1.0 +2.1	-1.0 +2.2	-1.0 +2.6	-1.5 +3.0	-1.5 +3.4	-1.5 +3.8	-2.0 +4.2	-2.0 +4.6	-2.0 +5.0	-2.5 +5.7	-3.0 +6.4
Max. radial displacement with n=1500 rpm ΔK_r [mm]	0.11	0.13	0.15	0.18	0.21	0.23	0.25	0.27	0.30	0.34	0.36	0.37	0.40	0.43	0.45	0.46	0.49
Max. angular displacement with n=1500 rpm ΔK_W [degree]	1.1	1.1	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1
ΔK_W [mm]	0.57	0.76	0.76	0.90	1.25	1.40	1.80	2.00	2.50	3.00	3.80	4.30	5.30	6.00	6.10	7.10	8.00

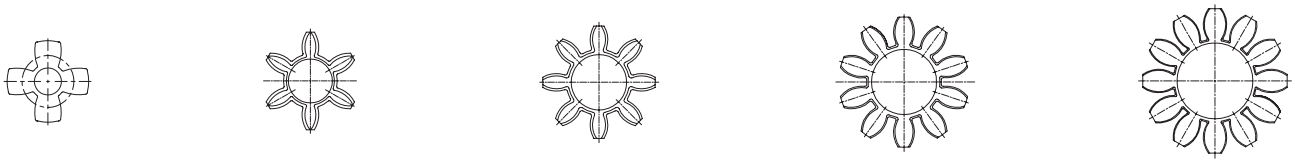
Displacements for spider PA, PEEK

ROTEX® size	14	19	24	28	38	42	48	55	65	75	90	100	110	125	140
Max. axial displacement ΔK_a [mm]	-0.5 +1.0	-0.5 +1.2	-0.5 +1.4	-0.7 +1.5	-0.7 +1.8	-1.0 +2.0	-1.0 +2.1	-1.0 +2.2	-1.0 +2.6	-1.5 +3.0	-1.5 +3.4	-1.5 +3.8	-2.0 +4.2	-2.0 +4.6	-2.0 +5.0
Max. radial displacement with n=1500 rpm ΔK_r [mm]	0.08	0.10	0.11	0.12	0.14	0.16	0.18	0.19	0.21	0.24	0.25	0.26	0.27	0.30	0.31
Max. angular displacement with n=1500 rpm ΔK_W [degree]	0.60	0.45	0.45	0.50	0.50	0.55	0.55	0.55	0.60	0.60	0.60	0.60	0.65	0.65	0.60
ΔK_W [mm]	0.33	0.41	0.42	0.52	0.67	0.85	1.00	1.15	1.35	1.65	2.15	2.40	2.80	3.25	3.30

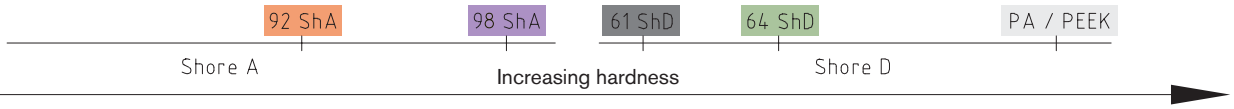
The specified permissible displacement figures of the flexible ROTEX® couplings are standard values taking into account the load of the coupling up to the rated torque T_{KN} and an operating speed n = 1500 rpm along with an ambient temperature of +30 °C.
The displacement figures may only be used one by one, if they appear simultaneously, they must be limited in proportion. Care should be taken to maintain the distance dimension E accurately in order to allow for axial clearance of the coupling while in operation. Detailed mounting instructions are shown on our homepage www.ktr.com.

Properties of standard spiders

ROTEX® 14 | ROTEX® 19 | ROTEX® 24 - 65 | ROTEX® 75 - 160 | ROTEX® 180



Degree of hardness



Spider type (Shore hardness)	T-PUR® (92 Shore A)	T-PUR® (98 Shore A)
		
Size	14 to 180	14 to 180
Material	Polyurethane	Polyurethane
Permissible temperature range Permanent temperature Short-term temperature	 -40 °C to +120 °C -40 °C to +150 °C	 -40 °C to +120 °C -40 °C to +150 °C
Features	– significantly higher service life expectancy – very good temperature resistance – improved damping of vibrations – good damping, medium flexibility – suitable for all hub materials	– significantly higher service life expectancy – very good temperature resistance – improved damping of vibrations – transmission of high torques with medium damping – recommended hub material: steel, GJL and GJS

Spider type (Shore hardness)	T-PUR® (64 Shore D)	PUR (61 Shore D-E-GS)
		
Size	14 to 180	19 to 90
Material	Polyurethane	Polyurethane (PUR)
Permissible temperature range Permanent temperature Short-term temperature	 -40 °C to +120 °C -40 °C to +150 °C	 -30 °C to +90 °C -40 °C to +120 °C
Features	– significantly higher service life expectancy – very good temperature resistance – improved damping of vibrations – transmission of very high torques with low damping – recommended hub material: steel and GJS	– electroconductive – for double-cardanic connections in ATEX connections – improved damping of vibrations – transmission of high torques with medium damping – recommended hub material: steel, Al-H, Sint, GJL and GJS

Spider type (Shore hardness)	PA	PEEK
		
Size	14 to 125	14 to 125
Material	Polyamide	Polyetheretherketone
Permissible temperature range Permanent temperature Short-term temperature	 -40 °C to +100 °C [1] -40 °C to +120 °C [1]	 up to +180 °C up to +250 °C
Features	– small twisting angle and high torsion spring stiffness – transmission of very high torques with very low damping – good resistance to chemicals [1] – recommended hub material: steel – high restoring forces with displacements	– small twisting angle and high torsion spring stiffness – transmission of very high torques with very low damping – highly temperature-resistant, resistant to hydrolysis – good resistance to chemicals – recommended hub material: steel – high restoring forces with displacements

[1] different properties depending on compound

Technical data of standard spiders

92 Shore A spider made of T-PUR®

ROTEX® size	Torsion angle φ with		Torque [Nm]				Damping power P_{KW} [W] 3)	Relative damping ψ	Resonance factor V_R	Torsion spring stiffness C dyn. [Nm/rad]			
			DIN 740 1)			$T_{K\,max}$ 2)							
	T_{KN}	$T_{K\,max}$	Rated T_{KN}	Max. $T_{K\,max}$	Vibratory T_{KW}					1.0 T_{KN}	0.75 T_{KN}	0.5 T_{KN}	0.25 T_{KN}
14	6.4°	10°	7.5	15	2.0	22.5	–			$0.38x10^3$	$0.31x10^3$	$0.24x10^3$	$0.14x10^30.14x10^3$
19			10	20	2.6	30	4.8			$1.28x10^3$	$1.05x10^3$	$0.8x10^3$	$0.47x10^3$
24			35	70	9.1	105	6.6			$4.86x10^3$	$3.98x10^3$	$3.01x10^3$	$1.79x10^3$
28			95	190	25	285	8.4			$10.9x10^3$	$8.94x10^3$	$6.76x10^3$	$4.01x10^3$
38			190	380	49	570	10.2			$21.05x10^3$	$17.26x10^3$	$13.05x10^3$	$7.74x10^3$
42			265	530	69	795	12.0			$23.74x10^3$	$19.47x10^3$	$14.72x10^3$	$8.73x10^3$
48			310	620	81	930	13.8			$36.7x10^3$	$30.09x10^3$	$22.75x10^3$	$13.49x10^3$
55			410	820	107	1230	15.6			$50.7x10^3$	$41.59x10^3$	$31.45x10^3$	$18.64x10^3$
65	3.2°	5°	625	1250	163	1875	18.0	0.80	7.90	$97.1x10^3$	$79.65x10^3$	$60.2x10^3$	$35.7x10^3$
75			1280	2560	333	3840	21.6			$113.3x10^3$	$92.9x10^3$	$70.3x10^3$	$41.65x10^3$
90			2400	4800	624	7200	30.0			$190.1x10^3$	$155.9x10^3$	$117.9x10^3$	$69.9x10^3$
100			3300	6600	858	9900	36.0			$253.1x10^3$	$207.5x10^3$	$156.9x10^3$	$93x10^3$
110			4800	9600	1248	14400	42.0			$415.5x10^3$	$336.9x10^3$	$257.6x10^3$	$177.4x10^3$
125			6650	13300	1729	19950	48.0			$647.7x10^3$	$537.3x10^3$	$412.2x10^3$	$277.5x10^3$
140			8550	17100	2223	25650	54.6			$813.4x10^3$	$670.2x10^3$	$519.7x10^3$	$351.7x10^3$
160			12800	25600	3328	38400	75.0			$1298x10^3$	$1104x10^3$	$901.9x10^3$	$655.7x10^3$
180			18650	37300	4849	55950	78.0			$2327x10^3$	$1981x10^3$	$1618x10^3$	$1176x10^3$

98 Shore A spider made of T-PUR®

ROTEX® size	Torsion angle φ with		Torque [Nm]				Damping power P_{KW} [W] 3)	Relative damping ψ	Resonance factor V_R	Torsion spring stiffness C dyn. [Nm/rad]			
			DIN 740 1)			$T_{K\,max}$ 2)							
	T_{KN}	$T_{K\,max}$	Rated T_{KN}	Max. $T_{K\,max}$	Vibratory T_{KW}					1.0 T_{KN}	0.75 T_{KN}	0.5 T_{KN}	0.25 T_{KN}
14	6.4°	10°	12.5	25	3.3	37.5	–			$0.56x10^3$	$0.46x10^3$	$0.35x10^3$	$0.21x10^3$
19			17	34	4.4	51	4.8			$2.92x10^3$	$2.39x10^3$	$1.81x10^3$	$1.07x10^3$
24			60	120	16	180	6.6			$9.93x10^3$	$8.14x10^3$	$6.16x10^3$	$3.65x10^3$
28			160	320	42	480	8.4			$26.77x10^3$	$21.95x10^3$	$16.6x10^3$	$9.84x10^3$
38			325	650	85	975	10.2			$48.57x10^3$	$39.83x10^3$	$30.11x10^3$	$17.85x10^3$
42			450	900	117	1350	12.0			$54.5x10^3$	$44.69x10^3$	$33.79x10^3$	$20.03x10^3$
48			525	1050	137	1575	13.8			$65.3x10^3$	$53.54x10^3$	$40.48x10^3$	$24x10^3$
55			685	1370	178	2055	15.6			$95x10^3$	$77.9x10^3$	$58.88x10^3$	$34.9x10^3$
65	3.2°	5°	940	1880	244	2820	18.0	0.80	7.90	$129.5x10^3$	$106.2x10^3$	$80.3x10^3$	$47.6x10^3$
75			1920	3840	499	5760	21.6			$197.5x10^3$	$162x10^3$	$122.5x10^3$	$72.6x10^3$
90			3600	7200	936	10800	30.0			$312.2x10^3$	$256x10^3$	$193.6x10^3$	$114.7x10^3$
100			4950	9900	1287	14850	36.0			$383.3x10^3$	$314.3x10^3$	$237.6x10^3$	$140.9x10^3$
110			7200	14400	1872	21600	42.0			$805.9x10^3$	$663.1x10^3$	$515.3x10^3$	$360.5x10^3$
125			10000	20000	2600	30000	48.0			$1207x10^3$	$1003x10^3$	$787.6x10^3$	$552.5x10^3$
140			12800	25600	3328	38400	54.6			$1549x10^3$	$1283x10^3$	$979.8x10^3$	$674.1x10^3$
160			19200	38400	4992	57600	75.0			$2481x10^3$	$2137x10^3$	$1781x10^3$	$1275x10^3$
180			28000	56000	7280	84000	78.0			$4220x10^3$	$3635x10^3$	$3031x10^3$	$2170x10^3$

64 Shore D spider made of T-PUR®

ROTEX® size	Torsion angle φ with		Torque [Nm]				Damping power P_{KW} [W] 3)	Relative damping ψ	Resonance factor V_R	Torsion spring stiffness C dyn. [Nm/rad]			
			DIN 740 1)			$T_{K\,max}$ 2)							
	T_{KN}	$T_{K\,max}$	Rated T_{KN}	Max. $T_{K\,max}$	Vibratory T_{KW}					1.0 T_{KN}	0.75 T_{KN}	0.5 T_{KN}	0.25 T_{KN}
14	4.5°	7.0°	16	32	4.2	48	9.0			$0.76x10^3$	$0.62x10^3$	$0.47x10^3$	$0.28x10^3$
19			21	42	5.5	63	7.2			$5.35x10^3$	$4.39x10^3$	$3.32x10^3$	$1.97x10^3$
24			75	150	19.5	225	9.9			$15.11x10^3$	$12.39x10^3$	$9.37x10^3$	$5.55x10^3$
28			200	400	52	600	12.6			$27.52x10^3$	$22.57x10^3$	$17.06x10^3$	$10.12x10^3$
38			405	810	105	1215	15.3			$70.15x10^3$	$57.52x10^3$	$43.49x10^3$	$25.78x10^3$
42			560	1120	146	1680	18.0			$79.9x10^3$	$65.5x10^3$	$49.52x10^3$	$29.35x10^3$
48			655	1310	170	1965	20.7			$95.5x10^3$	$78.3x10^3$	$59.22x10^3$	$35.1x10^3$
55			825	1650	215	2475	23.4			$107.9x10^3$	$88.5x10^3$	$66.9x10^3$	$39.66x10^3$
65	2.5°	3.6°	1175	2350	306	3525	27.0	0.75	8.50	$151.1x10^3$	$123.9x10^3$	$93.7x10^3$	$55.53x10^3$
75			2400	4800	624	7200	32.4			$248.2x10^3$	$203.5x10^3$	$153.9x10^3$	$91.2x10^3$
90			4500	9000	1170	13500	45.0			$674.5x10^3$	$553.1x10^3$	$418.2x10^3$	$247.9x10^3$
100			6185	12370	1608	18555	54.0			$861.2x10^3$	$706.2x10^3$	$533.9x10^3$	$316.5x10^3$
110			9000	18000	2340	27000	63.0			$1230x10^3$	$1001x10^3$	$773.1x10^3$	$531.4x10^3$
125			12500	25000	3250	37500	72.0			$1749x10^3$	$1436x10^3$	$1149x10^3$	$832.1x10^3$
140			16000	32000	4160	48000	81.9			$2312x10^3$	$1929x10^3$	$1521x10^3$	$1082x10^3$
160			24000	48000	6240	72000	112.5			$3415x10^3$	$2961x10^3$	$2471x10^3$	$1830x10^3$
180			35000	70000	9100	105000	117.0			$5670x10^3$	$4917x10^3$	$4103x10^3$	$3038x10^3$

1) see catalogue page 15
2) ≤ 1000 load cycles
3) with +30 °C

Temperature factor S_t

	-40 °C +30 °C	+40 °C	+50 °C	+60 °C	+70 °C	+80 °C	+90 °C	+100 °C	+110 °C	+120 °C
T-PUR®	1.0	1.0	1.2	1.3	1.45	1.6	1.8	2.1	2.5	3.0
PUR	1.0	1.0	1.3	1.4	1.55	1.8	2.2	–	–	–

With temperatures below -40 °C consult with KTR.
For circumferential speeds exceeding v = 30 m/s dynamic balancing is required. For circumferential speeds exceeding v = 35 m/s only steel or nodular iron.

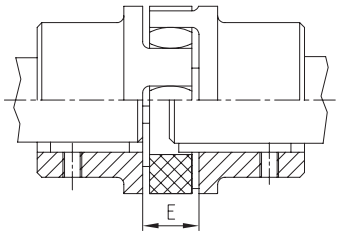
Technical data and properties of special spiders

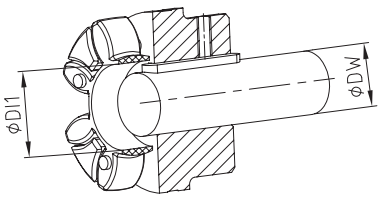
Torques				
ROTEX® size	Material	T_{KN} [Nm]	$T_{K\ max}$ [Nm]	T_{KW} [Nm]
14	PA	22	44	5.5
	PEEK			
19	PA	30	60	8.0
	PEEK			
	PUR (61 ShD-E-GS)	17	34	4.4
24	PA	105	210	27.5
	PEEK			
	PUR (61 ShD-E-GS)	60	120	16
28	PA	280	560	73
	PEEK			
	PUR (61 ShD-E-GS)	160	320	42
38	PA	565	1130	147
	PEEK			
	PUR (61 ShD-E-GS)	325	650	85
42	PA	785	1570	204
	PEEK			
	PUR (61 ShD-E-GS)	450	900	117
48	PA	915	1830	238
	PEEK			
	PUR (61 ShD-E-GS)	525	1050	137
55	PA	1200	2400	312
	PEEK			
	PUR (61 ShD-E-GS)	685	1370	178
65	PA	1645	3290	427
	PEEK			
	PUR (61 ShD-E-GS)	940	1880	244
75	PA	2560	5130	667
	PEEK			
	PUR (61 ShD-E-GS)	1920	3840	499
90	PA	6300	12600	1640
	PEEK			
	PUR (61 ShD-E-GS)	3600	7200	936
100	PA	8650	17300	2250
	PEEK			
110	PA	10500	21000	2730
	PEEK			
125	PA	13000	26000	3380
	PEEK			

Temperature factor S_t											
	-40 °C	-30 °C +30 °C	+40 °C	+50 °C	+60 °C	+70 °C	+80 °C	+90 °C	+100 °C	+110 °C	+120 °C
PA	1.0	1.0	1.0	1.0	1.0	1.2	1.4	1.6	–	–	–
PEEK	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PUR (61 ShD-E-GS)	–	1.0	1.0	1.3	1.4	1.55	1.8	2.2	–	–	–

With temperatures below -40 °C consult with KTR.

Installation of spider



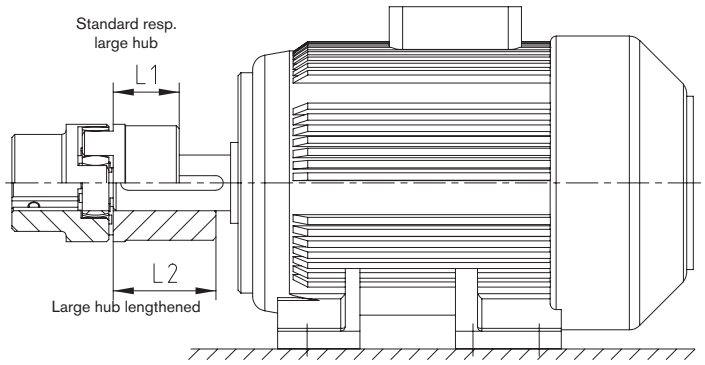


Shaft ØDW with feather key (acc. to DIN 6885 sheet 1) protruding into the spider ØDI1

Mounting dimensions																
ROTEX® size	14	19	24	28	38	42	48	55	65	75	90	100	110	125	140	160	180
Distance dimension E [mm]	13	16	18	20	24	26	28	30	35	40	45	50	55	60	65	75	85
Dimension DI1 [mm] [1]	10	18	27	30	38	46	51	60	68	80	100	113	127	147	165	190	220
Dimension DW [mm] [2]	7	12	20	22	28	36	40	48	55	65	80	95	100	120	135	160	185

[1] Spider 61 ShD-E-GS DI1=0
[2] If the shaft diameter is smaller than or equal to dimension DI1, one shaft end or both shaft ends may protrude with the feather keyway into the spider.

Selection of standard IEC motors



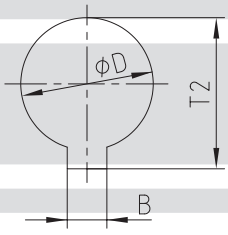
ROTEX® couplings for standard IEC motors, protection class IP 54/IP 55 (spider 98 Shore A)

A. C. motor 50 Hz			Motor 2 poles n= 3000 rpm		ROTEX® coupling size	Motor 4 poles n= 1500 rpm		ROTEX® coupling size	Motor 6 poles n= 1000 rpm		ROTEX® coupling size	Motor 8 poles n= 750 rpm		ROTEX® coupling size
Size	Shaft end DxL [mm]		Power P [kW]	Torque T_{AN} [Nm]T_{AN} [Nm]		Power P [kW]	Torque T_{AN} [Nm]T_{AN} [Nm]		Power P [kW]	Torque T_{AN} [Nm]T_{AN} [Nm]		Power P [kW]	Torque T_{AN} [Nm]T_{AN} [Nm]	
	2 poles	4, 6, 8 poles												
63	11 x 23		0.18	0.62		0.12	0.88		0.06	0.7				
			0.25	0.86	14	0.18	1.3	14	0.09	1.1	14	0.04	0.6	
71	14 x 30		0.37	1.3		0.25	1.8		0.18	2		0.09	1.4	14
			0.55	1.9		0.37	2.5		0.25	2.8		0.12	1.8	
80	19 x 40		0.75	2.5		0.55	3.7		0.37	3.9		0.18	2.5	
			1.1	3.7	19	0.75	5.1	19	0.55	5.8	19	0.25	3.5	19
90S	24 x 50		1.5	5		1.1	7.5		0.75	8		0.37	5.3	
90L			2.2	7.4		1.5	10		1.1	12		0.55	7.9	
100L	28 x 60		3	9.8		2.2	15		1.5	15		0.75	11	
					24	3	20	24			24	1.1	16	24
112M			4	13		4	27		2.2	22		1.5	21	
132S	38 x 80		5.5	18		5.5	36		3	30		2.2	30	
			7.5	25	28			28			28			28
132M						7.5	49		4	40		3	40	
									5.5	55				
160M	42 x 110		11	36		11	72		7.5	75		4	54	
			15	49								5.5	74	
160L			18.5	60	38	15	98	38	11	109	38	7.5	100	38
180M	48 x 110		22	71		18.5	121							
180L						22	144		15	148		11	145	
200L	55 x 110		30	97		30	196		18.5	181		15	198	
			37	120	42			42	22	215	42			42
225S	55 x 110	60 x 140				37	240					18.5	244	
225M			45	145		45	292	48	30	293	48	22	290	48
250M	60 x 140	65 x 140	55	177	48	55	356	55	37	361		30	392	55
280S	65 x 140	75 x 140	75	241		75	484		45	438	55	37	483	
280M			90	289	55	90	581	65	55	535	65	45	587	65
315S			110	353		110	707		75	727		55	712	
315M		80 x 170	132	423	65	132	849	75	90	873	75	75	971	75
			160	513		160	1030		110	1070		90	1170	
315L			200	641		200	1290		132	1280		110	1420	
									160	1550	90	132	1710	90
315		85 x 170	250	802	75	250	1600	90	200	1930		160	2070	
			315	1010		315	2020		250	2410		200	2580	
			355	1140		355	2280				100			100
355	75 x 140	95 x 170	400	1280		400	2570	100	315	3040		250	3220	
			500	1600		500	3210		400	3850	110	315	4060	110
			560	1790	90	560	3580		450	4330		355	4570	
400	80 x 170	110 x 210	630	2020		630	4030	110	500	4810		400	5150	
			710	2270		710	4540		560	5390	125	450	5790	125
			800	2560		800	5120		630	6060		500	6420	
450	90 x 170	120 x 210	900	2880	100	900	5760	125	710	6830	140	560	7190	140
			1000	3200		1000	6400		800	7690		630	8090	

The coupling selection is based on an ambient temperature of up to +40 °C. The selection is based on a minimum safety factor of 2 to the max. coupling torque ($T_{K\ max}$). A detailed selection is possible according to catalogue page 14 et seqq. Drives with periodical torque curves must be selected according to DIN 740 part 2. If requested, KTR will perform the selection. Torque T = rated torque according to Siemens-catalogue D81.1 04/2024

Cylindrical bores and inch bores

Bore ØD		Width of keyway B		Keyway depth T2	KTR code Inch bore	ROTEX® basic bores, available from stock Hub material aluminium●; hub material steel●; hub material EN-GJL●										
						ROTEX® sizes										
ØD [mm]	ØD [inch]	B [mm]	B [inch]	T2 [mm]		14	19	24	28	38	42	48	55	65	75	90
Ø6 H7 +0.012		2 JS9 ±0.0125		7 +0.1		●										
Ø8 H7 +0.015		2 JS9 ±0.0125		9 +0.1		●●	●									
Ø9 H7 +0.015		3 JS9 ±0.0125		10.4 +0.1		●●	●●									
Ø9.525 +0.0254	3/8	3.175 +0.051	1/8	10.972 +0.381	Tb											
Ø10 H7 +0.015		3 JS9 ±0.0125		11.4 +0.1		●●	●●	●	●							
Ø11 H7 +0.018		4 JS9 ±0.015		12.8 +0.1		●●	●●	●								
Ø11.112 +0.0254	7/16	2.382 +0.051	3/32	12.293 +0.381	DNB											
Ø12 H7 +0.018		4 JS9 ±0.015		13.8 +0.1		●●	●●	●●								
Ø12.7 +0.0254	1/2	3.175 +0.051	1/8	14.224 +0.381	Ta		●	●								
Ø12.7 +0.0254	1/2	4.762 +0.051	3/16	14.757 +0.381	T											
Ø13.495 +0.0254	17/32	3.175 +0.051	1/8	15.011 +0.381	DNC											
Ø14 H7 +0.018		5 JS9 ±0.015		16.3 +0.1		●●	●●	●●	●●							
Ø14.287 +0.0254	9/16	3.175 +0.051	1/8	15.824 +0.381	Do											
Ø15 H7 +0.018		5 JS9 ±0.015		17.3 +0.1		●	●●	●●	●	●						
Ø15.875 +0.0254	5/8	3.175 +0.051	1/8	17.424 +0.381	E											
Ø15.875 +0.0254	5/8	3.968 +0.051	5/32	17.729 +0.381	Es		●	●	●							
Ø15.875 +0.0254	5/8	4.762 +0.051	3/16	18.008 +0.381	Ed		●	●								
Ø16 H7 +0.018		5 JS9 ±0.015		18.3 +0.1		●●	●●	●●	●●	●						
Ø17 H7 +0.018		5 JS9 ±0.015		19.3 +0.1			●●	●●	●							
Ø17.462 +0.0254	11/16	4.762 +0.051	3/16	19.634 +0.381	DNH											
Ø18 H7 +0.018		6 JS9 ±0.015		20.8 +0.1			●●	●●	●	●●	●					
Ø19 H7 +0.021		6 JS9 ±0.015		21.8 +0.1			●●	●●	●●	●●	●					
Ø19.05 +0.0254	3/4	3.175 +0.051	1/8	20.624 +0.381	Ad											
Ø19.05 +0.0254	3/4	4.762 +0.051	3/16	21.259 +0.381	A		●	●	●	●	●					
Ø20 H7 +0.021		6 JS9 ±0.015		22.8 +0.1			●●	●●	●●	●●●	●					
Ø22 H7 +0.021		6 JS9 ±0.015		24.8 +0.1			●●	●●	●●	●●	●●					
Ø22.225 +0.0254	7/8	4.762 +0.051	3/16	24.485 +0.381	G		●	●	●	●	●	●				
Ø22.225 +0.0254	7/8	6.35 +0.051	1/4	25.069 +0.381	F			●	●	●	●	●				
Ø23.812 +0.0254	15/16	6.35 +0.051	1/4	26.695 +0.381	Gf											
Ø24 H7 +0.021		8 JS9 ±0.018		27.3 +0.2			●●	●●	●●	●●●	●●	●				
Ø25 H7 +0.021		8 JS9 ±0.018		28.3 +0.2			●●	●●	●●	●●●	●●	●●	●	●		
Ø25.4 +0.0254	1	4.762 +0.051	3/16	27.686 +0.381	H											
Ø25.4 +0.0254	1	6.35 +0.051	1/4	28.295 +0.381	Hs			●	●	●	●	●	●			
Ø26.987 +0.0254	1 1/16	4.762 +0.051	3/16	29.286 +0.381	R											
Ø28 H7 +0.021		8 JS9 ±0.018		31.3 +0.2				●●	●●	●●●	●●	●●	●			
Ø28.575 +0.0254	1 1/8	6.35 +0.051	1/4	31.521 +0.381	Sb			●	●	●						
Ø28.575 +0.0254	1 1/8	7.937 +0.051	5/16	32.105 +0.381	Sd							●				
Ø30 H7 +0.021		8 JS9 ±0.018		33.3 +0.2				●	●●	●●	●●	●●	●			
Ø31.75 +0.0254	1 1/4	6.35 +0.051	1/4	34.721 +0.381	Js					●						
Ø31.75 +0.0254	1 1/4	7.937 +0.051	5/16	35.331 +0.381	K					●	●●	●	●	●		
Ø32 H7 +0.025		10 JS9 ±0.018		35.3 +0.2				●	●●	●●●	●●	●●	●●	●		
Ø34.925 +0.0254	1 3/8	7.937 +0.051	5/16	38.557 +0.381	Ma				●	●	●					
Ø34.925 +0.0254	1 3/8	9.525 +0.0635	3/8	39.141 +0.381	RH1											
Ø35 H7 +0.025		10 JS9 ±0.018		38.3 +0.2				●	●●	●●●	●●	●●	●●	●	●	
Ø36.512 +0.0254	1 7/16	9.525 +0.0635	3/8	40.767 +0.381	Cb											
Ø38 H7 +0.025		10 JS9 ±0.018		41.3 +0.2					●●	●●●	●●	●●	●●	●	●●	
Ø38.1 +0.0254	1 1/2	7.937 +0.051	5/16	41.783 +0.381	Ca											
Ø38.1 +0.0254	1 1/2	9.525 +0.0635	3/8	42.392 +0.381	C				●	●	●	●	●	●	●	
Ø40 H7 +0.025		12 JS9 ±0.0215		43.3 +0.2					●	●●●	●●	●●	●●	●●	●●	●
Ø41.275 +0.0254	1 5/8	9.525 +0.0635	3/8	45.618 +0.381	Nb					●	●●	●				
Ø42 H7 +0.025		12 JS9 ±0.0215		45.3 +0.2						●●●	●●	●●	●	●●	●●	
Ø44.45 +0.0254	1 3/4	9.525 +0.0635	3/8	48.818 +0.381	Ls											
Ø44.45 +0.0254	1 3/4	11.112 +0.0635	7/16	49.428 +0.381	L							●	●	●	●	
Ø45 H7 +0.025		14 JS9 ±0.0215		48.8 +0.2						●●●	●●	●●	●●	●●	●●	
Ø47.625 +0.0254	1 7/8	12.7 +0.0635	1/2	53.238 +0.381	Lu						●	●	●	●	●	
Ø48 H7 +0.025		14 JS9 ±0.0215		51.8 +0.2						●	●●	●●	●●	●●	●●	●
Ø49.212 +0.0254	1 15/16	12.7 +0.0635	1/2	54.864 +0.381	Da											
Ø50 H7 +0.025		14 JS9 ±0.0215		53.8 +0.2							●●	●●	●●	●●	●●	●●
Ø50.8 +0.0254	2	12.7 +0.0635	1/2	56.464 +0.381	Ds									●		●
Ø53.975 +0.0381	2 1/8	12.7 +0.0635	1/2	59.69 +0.381	Pa						●●		●		●	
Ø55 H7 +0.03		16 JS9 ±0.0215		59.3 +0.2							●●	●●	●●	●●	●●	●●
Ø57.15 +0.0381	2 1/4	12.7 +0.0635	1/2	62.915 +0.381	U											
Ø60 H7 +0.03		18 JS9 ±0.0215		64.4 +0.2								●●	●●	●●	●●	●●
Ø60.325 +0.0381	2 3/8	15.875 +0.076	5/8	67.335 +0.381	Ub										●	●
Ø65 H7 +0.03		18 JS9 ±0.0215		69.4 +0.2									●●	●●	●●	●●
Ø70 H7 +0.03		20 JS9 ±0.026		74.9 +0.2									●●	●●	●●	●●
Ø75 H7 +0.03		20 JS9 ±0.026		79.9 +0.2									●	●●	●●	●●
Ø80 H7 +0.03		22 JS9 ±0.026		85.4 +0.2										●	●●	●●
Ø85 H7 +0.035		22 JS9 ±0.026		90.4 +0.2											●	●
Ø85.725 +0.0381	3 3/8	22.225 +0.076	7/8	95.504 +0.381	Wd											
Ø90 H7 +0.035		25 JS9 ±0.026		95.4 +0.2											●	●●
Ø92.075 +0.0381	3 5/8	22.225 +0.076	7/8	101.955 +0.381	Wf											
Ø100 H7 +0.035		28 JS9 ±0.026		106.4 +0.2												●



For manufacturing reasons KTR reserves the right to insert a recess on the cam side.

Spline bores

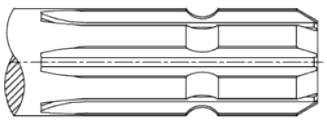
Basic range ANSI B92.1-involute spline											
Spline code	Size	Pitch circle	pitch	No. of teeth	Angle	Spline code	Size	Pitch circle	pitch	No. of teeth	Angle
PH-S	5/8"	14.28	16/32	9	30°	**PS-S**	1 1/2"	35.98	12/24	17	30°
PI-S	3/4"	17.46	16/32	11	30°	**PD-S**	1 1/2"	36.51	16/32	23	30°
PB-S	7/8"	20.63	16/32	13	30°	**PE-S**	1 3/4"	42.86	16/32	27	30°
PB-BS	1"	23.81	16/32	15	30°	**PK-S**	1 3/4"	41.275	8/16	13	30°
PJ	1 1/8"	26.98	16/32	17	30°	**PT-C** [1]	2"	47.625	8/16	15	30°
PC-S	1 1/4"	29.63	12/24	14	30°	**PQ-C** [1]	2 1/4"	53.975	8/16	17	30°
PA-S	1 3/8"	33.33	16/32	21	30°						

Basic programme of spline bores acc. to DIN 5482									
Size	Pitch circle	Module	No. of teeth	Profile correction	Size	Pitch circle	Module	No. of teeth	Profile correction
A 17 x 14	14.40	1.6	9	+0.600 [2]	**A 35 x 31**	31.50	1.75	18	+0.676
A 20 x 17	19.20	1.6	12	-0.200	**A 40 x 36**	38.00	1.9	20	+0.049
A 25 x 22	22.40	1.6	14	+0.550	**A 45 x 41**	44.00	2	22	+0.181
A 28 x 25	26.25	1.75	15	+0.302	**A 50 x 45**	48.00	2	24	+0.181
A 30 x 27	28.00	1.75	16	+0.327					

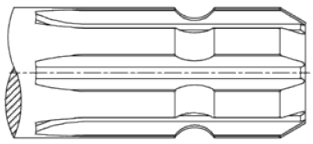
Basic programme of spline bores acc. to DIN 5480							
Spline code	Pitch circle	Module	No. of teeth	Spline code	Pitch circle	Module	No. of teeth
20 x 1 x 18 x 8H	18.0	1	18	**40 x 2 x 18 x 8H**	36.0	2	18
20 x 1.25 x 14 x 8H	17.5	1.25	14	**45 x 2 x 21 x 8H**	41.0	2	21
25 x 1.25 x 18 x 8H	22.5	1.25	18	**48 x 2 x 22 x 9H**	44.0	2	22
28 x 1.25 x 21 x 8H	26.25	1.25	21	**50 x 2 x 24 x 8H**	48.0	2	24
30 x 2 x 14 x 8H	26.0	2	14	**60 x 2 x 28 x 8H**	56.0	2	28
32 x 2 x 14 x 8H	28.0	2	14	**75 x 3 x 24 x 8H**	72.0	3	24
35 x 2 x 16 x 8H	32.0	2	16	**80 x 3 x 25 x 8H**	75.0	3	25

Basic programme of spline bores acc. to DIN 9611 - ISO 500 (p.t.o. shaft connection)				
Size	Width of keyway	No. of teeth	Tip circle	Root circle
1 3/8"	8.69	6	34.93	29.65
1 3/8"	–	21	34.95	34.80 [3]
1 3/4"	11.07	6	44.45	37.74
1 3/4"	–	20	45.20	40.20

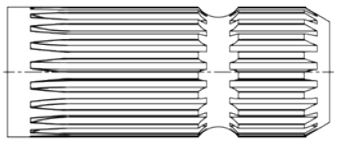
1 3⁄8“, 6 teeth



1 3⁄4“, 6 teeth



1 3⁄4 “, 20 teeth



Spline clamping hubs are often adapted to the shafts of hydraulic pump/hydraulic motor shafts. Please contact us for the respective hub length of the spline code!
[1] For clamping hubs only, with plug-in hubs use code PT or PQ.
[2] Profile correction different from DIN
[3] Similar to code PA-S

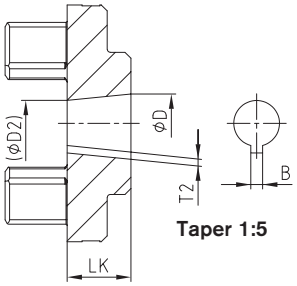
Taper bores

Basic programme taper 1:8					
Code	$D^{+0.05}$	(D2)	B^{JS9}	$T2^{+0.1}$	LK
N/1	9.7	7.575	$2.4^{+0.05}$	10.85	17.0
N/1c	11.6	9.5375	3^{JS9}	12.90	16.5
N/1e	13.0	10.375	$2.4^{+0.05}$	13.80	21.0
N/1d	14.0	11.813	3^{JS9}	15.50	17.5
N/1b	14.3	11.8625	$3.2^{+0.05}$	15.65	19.5
N/2	17.287	14.287	$3.2^{+0.05}$	18.24	24.0
N/2a	17.287	14.287	4^{JS9}	18.94	24.0
N/2b	17.287	14.287	3^{JS9}	18.34	24.0
N/3	22.002	18.502	4^{JS9}	23.40	28.0
N/4	25.463	20.963	$4.78^{+0.05}$	27.83	36.0
N/4b	25.463	20.963	5^{JS9}	28.23	36.0
N/4a	27.0	22.9375	$4.78^{+0.05}$	28.80	32.5
N/4g	28.45	23.6375	6^{JS9}	29.32	38.5
N/5	33.176	27.676	$6.38^{+0.05}$	35.39	44.0
N/5a	33.176	27.676	7^{JS9}	35.39	44.0

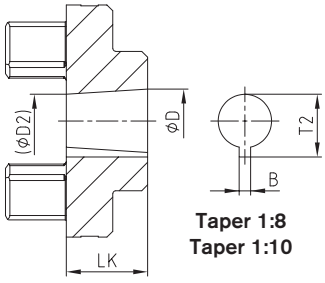
With code N/6 and N/6a keyway in parallel with taper.

Basic programme of taper 1:10					
Code	$D^{+0.05}$	(D2)	B^{JS9}	$T2^{+0.1}$	LK
CX	19.95	16.75	5^{JS9}	22.08	32
DX	24.95	20.45	6^{JS9}	26.68	45
EX	29.75	24.75	8^{JS9}	31.88	50

Basic programme taper 1:5					
Code	$D^{+0.05}$	(D2)	B^{JS9}	$T2^{+0.1}$	LK
A-10	9.85	7.55	2^{JS9}	1.0	11.5
B-17	16.85	13.15	3^{JS9}	1.8	18.5
C-20	19.85	15.55	4^{JS9}	2.2	21.5
Cs-22	21.95	17.65	3^{JS9}	1.8	21.5
D-25	24.85	19.55	5^{JS9}	2.9	26.5
E-30	29.85	23.55	6^{JS9}	2.6	31.5
F-35	34.85	27.55	6^{JS9}	2.6	36.5
G-40	39.85	32.85	6^{JS9}	2.6	35.0

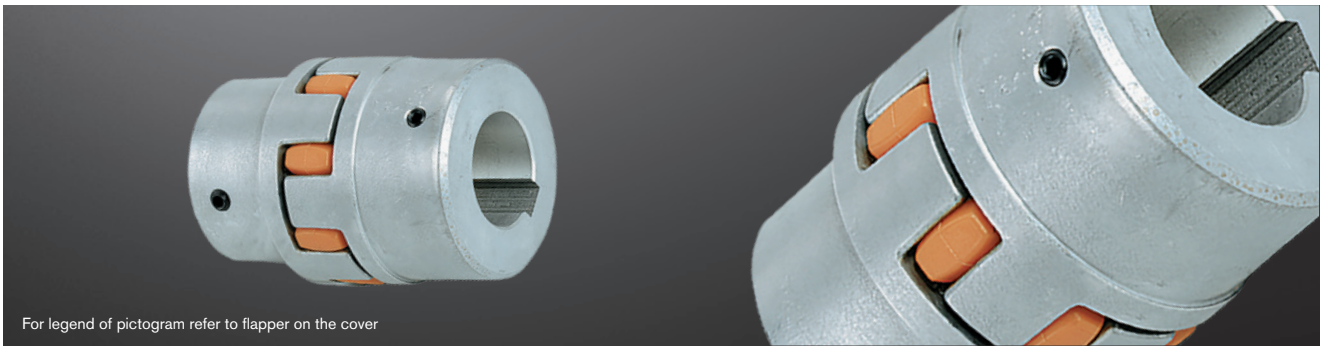


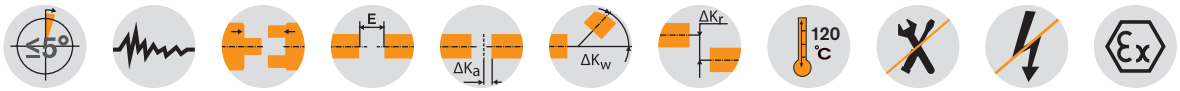
Taper 1:5



Taper 1:8
Taper 1:10

Materials: aluminium + cast + sinter material





Size	Compo-nent	Spider [1] (component 2) Rated torque T_{KN} [Nm]			Finish bore D (min. - max.)	Dimensions [mm]											
						General									Setscrew		
		92 ShA	98 ShA	64 ShD		DH	L	L1, L2	E	S	B1	DI1	DN	N	G	T	TA [Nm]
ROTEX® Sintered steel (Sint)																	
14	1a	7.5	12.5	—	0-16	30	35	11	13	1.5	10	10	30	–	M 4	5	1.5
19	1a	10	17	—	0-25	40	66	25	16	2.0	12	18	40	–	M 5	10	2
24	1a	35	60	—	0-35	56	78	30	18	2.0	14	27	56	–	M 5	10	2
ROTEX® Aluminium diecast (Al-D)																	
19	1	10	17	—	0-19	41	66	25	16	2	12	18	32	20	M 5	10	2
	1a				19-24								41				
24	1	35	60	—	0-24	56	78	30	18	2	14	27	40	24	M 5	10	2
	1a				22-28								56				
28	1	95	160	—	0-24	66	90	35	20	2.5	15	30	48	28	M 8	15	10
	1a				24-38								66				
38	1	190	325	—	0-38	114	45	24	18	3.0	80	38	66	36	M 8	15	10
	1a				25-45								77				
ROTEX® Aluminium (Al-H)																	
14	1a	7.5	12.5	—	0-16	30	35	11	13	1.5	10	10.5	-	-	M 4	5	1.5
19	1a	10	17	—	0-24	40	66	25	16	2.0	12	18	-	-	M 5	10	2
24	1a	35	60	—	0-28	55	78	30	18	2.0	14	27	-	-	M 5	10	2
28	1a	95	160	—	0-38	65	90	35	20	2.5	15	30	-	-	M 8	15	10
38	1a	190	325	—	0-45	80	114	45	24	3.0	18	38	-	-	M 8	15	10
42	1a	265	450	—	0-55	95	126	50	26	3.0	20	46	-	-	M 8	20	10
48	1a	310	525	—	0-62	105	140	56	28	3.5	21	51	-	-	M 8	20	10
ROTEX® Cast iron (GJL)																	
38	1	190	325	405	12-40	80	114	45	24	3	18	38	66	37	M 8	15	10
	1a				38-48								78				
	1b				12-48		164	70						62			
42	1	265	450	560	14-45	95	126	50	26	3	20	46	75	40	M 8	20	10
	1a				42-55								94				
	1b				14-55		176	75						65			
48	1	310	525	655	15-52	105	140	56	28	3.5	21	51	85	45	M 8	20	10
	1a				48-62								104				
	1b				15-62		188	80						69			
55	1	410	685	825	20-60	120	160	65	30	4	22	60	98	52	M 10	20	17
	1a				55-74								118				
65	1	625	940	1175	22-70	135	185	75	35	4.5	26	68	115	61	M 10	20	17
75	1	1280	1920	2400	30-80	160	210	85	40	5	30	80	135	69	M 10	25	17
90	1	2400	3600	4500	40-100	200	245	100	45	5.5	34	100	160	81	M 12	30	40
ROTEX® Nodular iron (GJS)																	
100	1	3300	4950	6185	50-115	225	270	110	50	6	38	113	180	89	M 12	30	40
110	1	4800	7200	9000	60-125	255	295	120	55	6.5	42	127	200	96	M 16	35	80
125	1	6650	10000	12500	60-145	290	340	140	60	7	46	147	230	112	M 16	40	80
140	1	8550	12800	16000	60-160	320	375	155	65	7.5	50	165	255	124	M 20	45	140
160	1	12800	19200	24000	80-185	370	425	175	75	9	57	190	290	140	M 20	50	140
180	1	18650	28000	35000	85-200	420	475	195	85	10.5	64	220	325	156	M 20	50	140

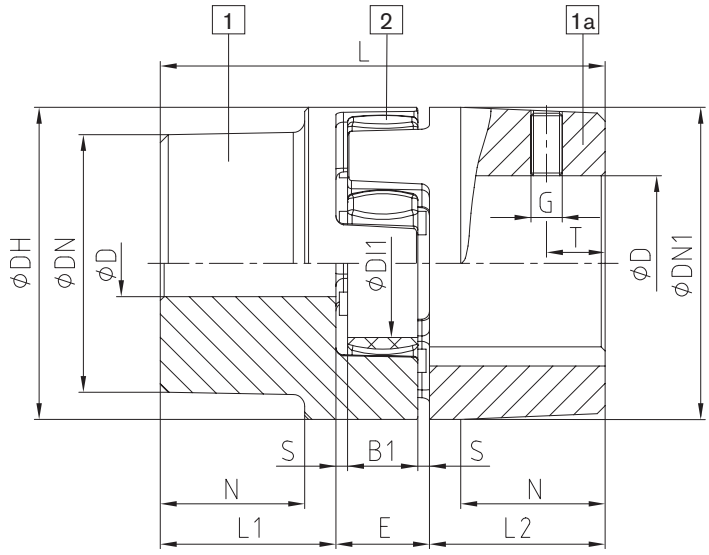
■ =Unless any material is specified in the order, it is defined with the calculation/order.

[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.

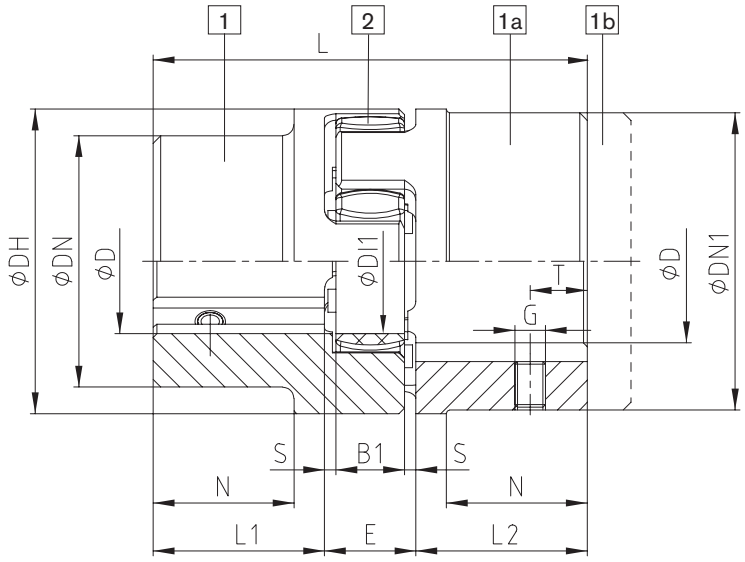
Ordering example:

ROTEX® 38	GJL	92 ShA	1a	Ø45	1	Ø25
Coupling size	Material	Spider hardness	Component	Finish bore	Component	Finish bore

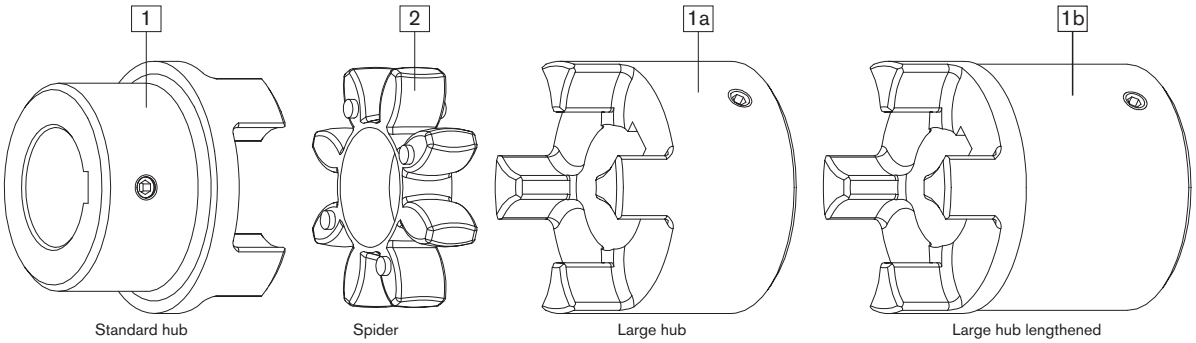
Components



Al-D (thread opposite the keyway)

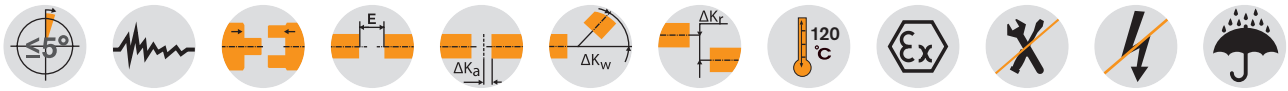


Sint / Al-H / GJL / GJS (thread on the keyway)



Material steel/stainless steel





ROTEX® Steel (St)

Size	Compo-nent	Spider [1] (component 2) Rated torque T_{KN} [Nm]			Finish bore D (min. - max.)	Dimensions [mm]											
						General									Setscrew		
		92 ShA	98 ShA	64 ShD		DH	L	L1, L2	E	S	B1	Dl1	DN	N	G	T	TA [Nm]
14	1a	7.5	12.5	16	0-16	30	35	11	13	1.5	10	10	30	—	M 4	5	1.5
	1b						50	18.5									
19	1a	10	17	21	0-25	40	66	25	16	2	12	18	40	—	M 5	10	2
	1b						90	37									
24	1a	35	60	75	0-35	55	78	30	18	2	14	27	55	—	M 5	10	2
	1b						118	50									
28	1a	95	160	200	0-40	65	90	35	20	2.5	15	30	65	—	M 8	15	10
	1b						140	60									
38	1	190	325	405	0-48	80	114	45	24	3	18	38	70	27	M 8	15	10
	1b						164	70					80	—			
42	1	265	450	560	0-55	95	126	50	26	3	20	46	85	28	M 8	20	10
	1b						176	75					95	—			
48	1	310	525	655	0-62	105	140	56	28	3.5	21	51	95	32	M 8	20	10
	1b						188	80					105	—			
55	1	410	685	825	0-75	120	160	65	30	4	22	60	110	37	M 10	20	17
	1b						210	90					120	—			
65	1	625	940	1175	0-80	135	185	75	35	4.5	26	68	115	47	M 10	20	17
	1b						235	100					135	—			
75	1	1280	1920	2400	0-95	160	210	85	40	5	30	80	135	53	M 10	25	17
	1b						260	110					160	—			
90	1	2400	3600	4500	0-110	200	245	100	45	5.5	34	100	160	62	M 12	30	40
	1b						295	125					200	—			
100	1	3300	4950	6185	0-115	225	270	110	50	6	38	113	180	89	M 12	30	40
110	1	4800	7200	9000	0-130	255	295	120	55	6.5	42	127	200	96	M 16	35	80
125	1	6650	10000	12500	60-145	290	340	140	60	7	46	147	230	112	M 16	40	80
140	1	8550	12800	16000	60-160	320	375	155	65	7.5	50	165	255	124	M 20	45	140
160	1	12800	19200	24000	80-185	370	425	175	75	9	57	190	290	140	M 20	50	140
180	1	18650	28000	35000	85-200	420	475	195	85	10.5	64	220	325	156	M 20	50	140

=Unless any material is specified in the order, it is defined with the calculation/order.
[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.

ROTEX® stainless steel (1.4305[1])

Size	Compo-nent	Spider (component 2) Rated torque T_{KN} [Nm]			Finish bore D (min. - max.)	Dimensions [mm]											
						General									Setscrew		
		92 ShA	98 ShA	64 ShD		DH	L	L1, L2	E	S	B1	Dl1	DN	N	G	T	T_A [Nm]
19	1a	10	17	21	0-25	40	66	25	16	2	12	18	40	-	M 5	10	2
24	1a	35	60	75	0-35	55	78	30	18	2	14	27	55	-	M 5	10	2
28	1a	95	160	200	0-40	65	90	35	20	2.5	15	30	65	-	M 8	15	10
38	1	190	325	405	0-48	80	114	45	24	3	18	38	70	27	M 8	15	10
42	1	265	450	560	0-55	95	126	50	26	3	20	46	85	28	M 8	20	10
48	1	310	525	655	0-62	105	140	56	28	3.5	21	51	95	32	M 8	20	10

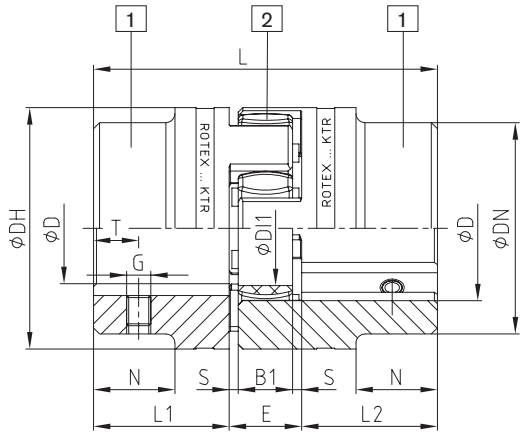
[1] Material 1.4571 on request.

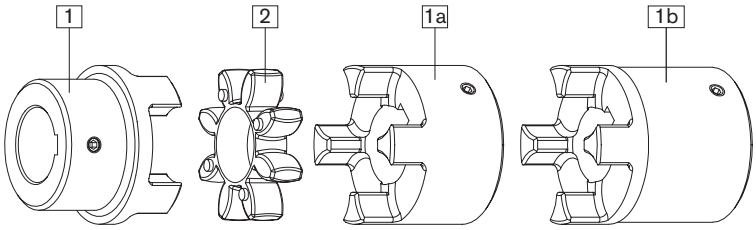
Ordering example:

ROTEX® 38	1.4305	92 ShA	1 - Ø45		1 - Ø25	
Coupling size	Material	Spider hardness	Component	Finish bore	Component	Finish bore

DIN EN 10204 - 3.1 and 3.2 material test certificate

Components





Steel (thread on the keyway)

ROTEX® Coupling hubs with test certificate [1]				
Size	Component	Material [2]	Inspection certificate acc. to DIN EN 10204	Notch impact strength
19	1a	S355 [2]	3.1	>=27 J
24	1a	S355 [2]	3.1	>=27 J
28	1a	S355 [2]	3.1	>=27 J
38	1a	S355 [2]	3.1	>=27 J
42	1	S355 [2]	3.1	>=27 J
48	1	S355 [2]	3.1	>=27 J
55	1	S355 [2]	3.1	>=27 J
65	1	S355 [2]	3.1	>=27 J
75	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		
90	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		
100	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		
110	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		
125	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		
140	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		
160	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		
180	1	S355 [2]	3.1/3.2	>=27 J
		42CrMoS4+QT [3]		

[1] S355 suitable for feather key connections, 42CrMoS4+QT for oil press-fits
[2] Notch impact strength with -40 °C
[3] Notch impact strength with -20 °C

Marine programme:
Hub materials S355J2+N and 42CrMo4+QT acc. to DIN EN 10204 - 3.1+3.2, size 75 - 180 available from stock.

UL

Use in fire pumps
ROTEX® couplings comply with the specifications of NFPA 20 standards for the installation of stationary pumps for fire protection and due to completion of the endurance tests required they also comply with the specifications of UL 448A, flexible couplings and connection shafts for stationary fire pumps.

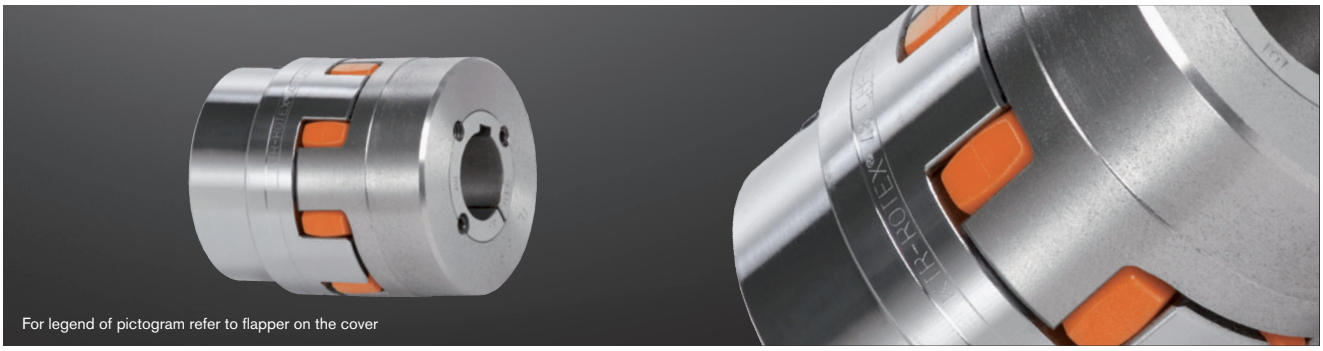
Sizes available:



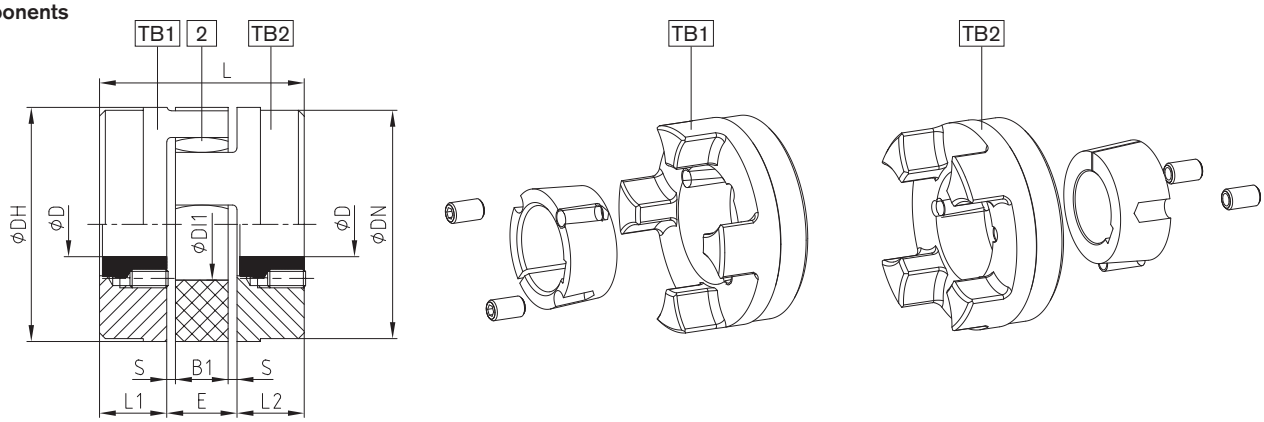
ROTEX® UL Listed								
Size	Compo-nent	Material	Spider (component 2) Rated torque T_{KN} [Nm] 92 ShA	Dimensions [mm] Finish bore D (min. - max.)	DH	L	L1; L2	E
42	1	St	265	18-55	95	126	50	26
55	1	St	410	24-74	120	160	65	30
65	1	St	625	24-80	135	185	75	35
75	1	St	1280	24-95	160	210	85	40
90	1	St	2400	30-110	200	245	100	45

* for complete dimensions see table on page 40

Taper clamping sleeve



Components



ROTEX® shaft coupling for taper clamping sleeve													
Size	Taper clamping sleeve	Spider [1] (component 2) Rated torque T_{KN} [Nm]			Dimensions [mm]					Fastening screws for taper clamping sleeve			
		92 ShA	98 ShA	64 ShD	DH	L	L1, L2	E	S	Size [inch][2]	Length [mm]	Number	T_A [Nm]
24	1008	35	60	75	55	62	22	18	2.0	1/4"	13	2	5.7
28	1108	95	160	200	65	66	23	20	2.5	1/4"	13	2	5.7
38	1108	190	325	405	80	70	23	24	3.0	1/4"	13	2	5.7
42	1610	265	450	560	95	78	26	26	3.0	3/8"	16	2	20
48	1615	310	525	655	105	106	39	28	3.5	3/8"	16	2	20
55	2012	410	685	825	120	96	33	30	4.0	7/16"	22	2	31
65	2012	625	940	1175	135	101	33	35	4.5	7/16"	22	2	31
75	2517	1280	1920	2400	160	144	52	40	5.0	1/2"	25	2	49
	• 3020									5/8"	32		92
90	3020	2400	3600	4500	200	149	52	45	5.5	5/8"	32	2	92
100	3535	3300	4950	6185	225	230	90	50	6.0	1/2"	49	3	113
125	4545	6650	10000	12500	290	288	114	60	7.0	3/4"	49	3	192

Taper clamping sleeve																			
Size	Summary of bore dimensions D [mm], H7 fit - feather keyway acc. to DIN 6885 sheet 1																		
1008	Ø10	Ø11	Ø12	Ø14	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25								
1108	Ø10	Ø11	Ø12	Ø14	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28 [3]							
1610	Ø14	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42 [3]				
1615	Ø14	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42 [3]				
2012	Ø14	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	
2517	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55	Ø60
3020	Ø25	Ø28	Ø30	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55	Ø60	Ø65	Ø70	Ø75				
3535	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55	Ø60	Ø65	Ø70	Ø75	Ø80	Ø85	Ø90				
4545	Ø55	Ø60	Ø65	Ø70	Ø75	Ø80	Ø85	Ø90	Ø95	Ø100	Ø105	Ø110							

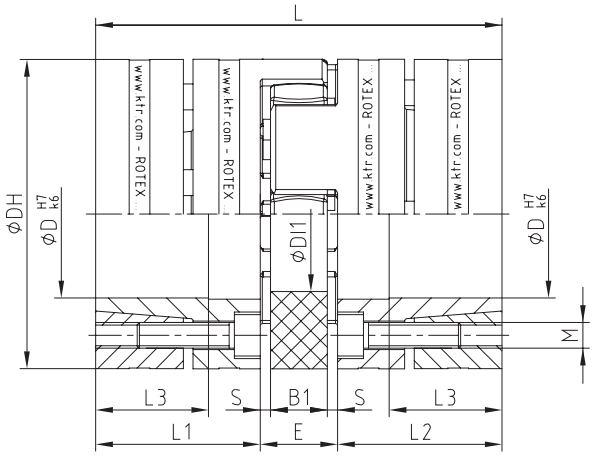
• Available for type TB2 only
[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.
[2] 1. BSW thread
Coupling type TB1/TB2, TB1/TB1 and TB2/TB2 possible.
Please order our separate dimension sheet (M373054).
[3] Bores with feather keyway (flat design) acc. to DIN 6885 sheet 3

Ordering example:

ROTEX® 38	92 ShA	1108	TB1 - Ø24		TB2 - Ø22	
Coupling size	Spider hardness	Taper clamping sleeve	Hub type	Finish bore	Hub type	Finish bore

Clamping ring hubs





Extraction thread M between clamping screws.

Clamping ring hubs steel

Size	Spider [1] Rated torque T_{KN} [Nm] 92 ShA	98 ShA	64 ShD	Dimensions [mm]							Clamping screws			Weight per hub with max. bore [kg]	Mass moment of inertia per hub with max. bore [kgm²]
	T_{KN}	$T_{K\,max}$	T_{KN}	D (max.)	DH [2]	L	L1, L2	L3	E	S	M	Z = number	T_A [Nm]		
19	10.0	17	21	20	40	66	25	18	16	2.0	M 4	6	4.1	0.179	0.44×10^{-4}
24	35.0	60	75	28	55	78	30	22	18	2.0	M 5	4	8.5	0.399	1.91×10^{-4}
28	95.0	160	200	38	65	90	35	27	20	2.5	M 5	8	8.5	0.592	4.18×10^{-4}
38	190.0	325	405	48	80	114	45	35	24	3.0	M 6	8	14	1.225	12.9×10^{-4}
42	265	450	560	51	95	126	50	35	26	3.0	M 8	4	41	2.30	31.7×10^{-4}
48	310	525	655	55	105	140	56	41	28	3.5	M 10	4	69	3.08	52.0×10^{-4}
55	375	685	825	70	120	160	65	45	30	4.0	M 10	4	69	4.67	103.0×10^{-4}
65	—	940	1175	70	135	185	75	55	35	4.5	M 12	4	120	6.70	191.0×10^{-4}
75	—	1920	2400	80	160	210	85	63	40	5.0	M 12	5	120	9.90	396.8×10^{-4}
90	—	3600	4500	105	200	245	100	75	45	5.5	M 16	5	295	17.70	1136×10^{-4}

Bore D and the respective transmittable friction torques T_R of clamping ring hub in [Nm] [1]

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*
19	27	32	69	84	57	94	110																					
24			70	87	56	97	114	116	133	192																		
28				108	131	207	148	253	285	315	382	330	433	503														
38							208	353	395	439	531	463	603	593	689	793	776											
42									445	495	595	526	678	671	775	718	872	1043	1061									
48											616	704	899	896	1030	962	1160	1379	1222	1543								
55													863	856	991	918	1119	1110	1247	1277	1665	1605	2008					
65															1446	1355	1637	1635	1827	1887	2429	2368	2930					
75																1710	2053	2059	2294	2384	3040	2983	3664	4293				
90																			3845	4249	4794	5858	5900	7036	8047	9247	9575	10845

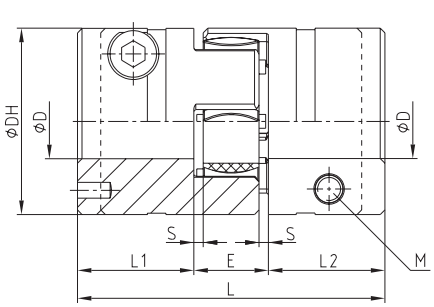
[1] For selection see page 14 et seqq.
[2] ØDH + 2 mm with high speeds for expansion of spider
*) The transmittable torques of the clamping connection consider the max. clearance with shaft clearance k6/bore H7, from Ø55 G7/m6. The torque is reduced with bigger clearance. For the strength calculation of shaft/hollow shaft see KTR standard 45510 on our homepage www.ktr.com.

Ordering example:

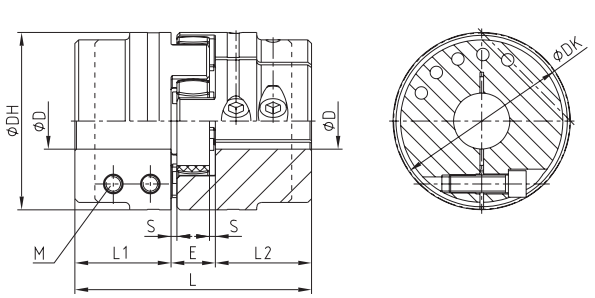
ROTEX® GS 24	98 ShA	6.0 steel	Ø24	6.0 steel	Ø20
Coupling size	Spider hardness	Hub type	Finish bore	Hub type	Finish bore

Clamping hubs





ROTEX® 19 - 28



ROTEX® 38 - 90

ROTEX® as clamping hubs												
Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions [mm]							Clamping screw DIN EN ISO 4762	
	92 ShA	98 ShA	64 ShD	Max. finish bore D	DH	DK	L	L1; L2	E	S	M	T_A [Nm]
19	10	17	21	20 [2]	40	46.0	66	25	16	2.0	M 6	14
24	35	60	75	28	55	57.5	78	30	18	2.0	M 6	14
28	95	160	200	38	65	73.0	90	35	20	2.5	M 8	35
38	190	325	405	42	80	77.5	114	45	24	3.0	M 8	35
42	265	450	560	50	95	93.5	126	50	26	3.0	M 10	69
48	310	525	655	55	105	105.0	140	56	28	3.5	M 12	120
55	410	685	825	68	120	119.5	160	65	30	4.0	M 12	120
65	625	940	1175	70	135	132.5	185	75	35	4.5	M 12	120
75	1280	1920	2400	80	160	158.0	210	85	40	5.0	M 16	295
90	2400	3600	4500	90	200	197.0	245	100	45	5.5	M 20	580

Bore D and the respective transmittable friction torques T_R [Nm] of ROTEX® clamping hubs type 2.0																													
Size	Ø8	Ø10	Ø11	Ø14	Ø15	Ø16	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55	Ø60	Ø65	Ø70	Ø75	Ø80	Ø85	Ø90
19	24	30	33	42	45	49	54	57	59																					
24		30	33	42	45	48	53	56	59	65	71	74	83																	
28				79	84	90	101	107	112	124	142	147	162	171	181	195	209													
38					82	87	98	104	109	120	131	137	153	172	182	196	210	219	228											
42									172	189	206	215	241	258	275	301	327	344	361	395	417	431								
48									252	278	303	315	353	379	404	442	480	505	530	568	606	631	699							
55															805	880	955	1006	1056	1131	1207	1257	1383	1534	1639					
65																907	985	1037	1089	1166	1244	1296	1426	1555	1685	1814				
75																			1992	2338	2474	2563	2783	2998	3209	3416	3618	3818		
90																			3153	3379	3604	3754	4129	4505	4880	5256	5631	6006	6382	6831

[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.
[2] With type 2.1 $D_{max.}$ Ø17 mm



Type 2.0
Clamping hub single slot without feather keyway



Type 2.1
Clamping hub single slot with feather keyway

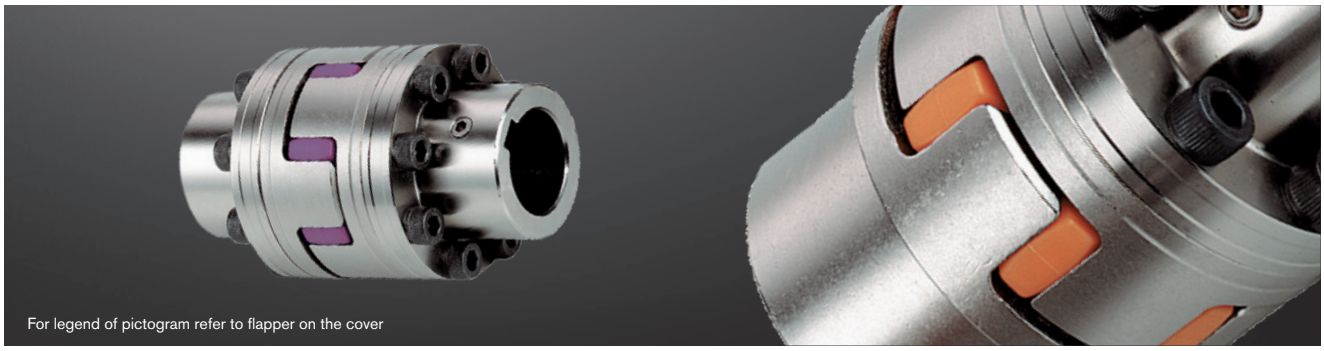


Type 2.3
Clamping hub with spline bore (For a selection of our programme of spline bores see page 37)

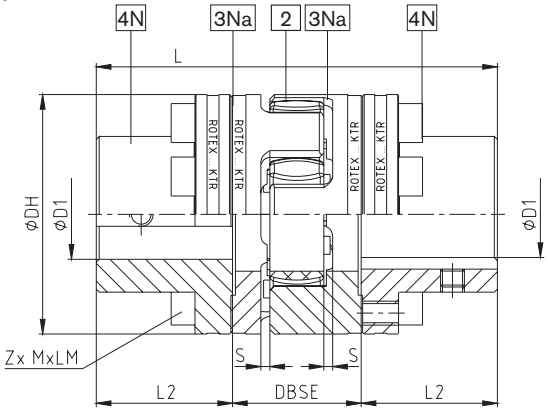
Ordering example:

ROTEX® 24	98 ShA	2.1	Ø24	2.0	Ø20
Coupling size	Spider hardness	Hub type	Finish bore	Hub type	Finish bore

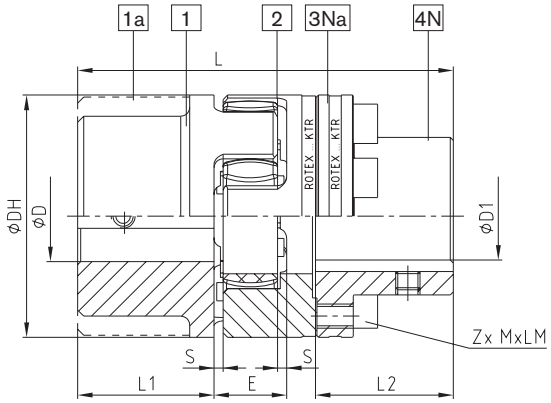
Flange programme



Components



Type AFN



Type BFN

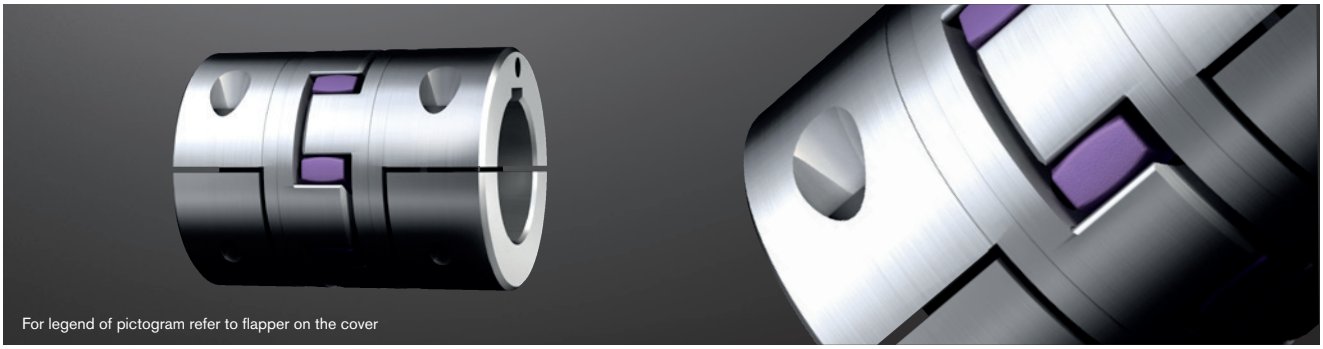
ROTEX® Type AFN and BFN															
Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions in mm									Cap screws [3] DIN EN ISO 4762 - 12.9		
				Finish bore							L				
	92 ShA	98 ShA	64 ShD	D (max.)	D1 (max.)	DH	DBSE	L1, L2	E	S	AFN	BFN	MxLM	Z	T_A [2] [Nm]
24	35.0	60	75	35	24	55	33	30.5	18	2.0	94	86	M5x16	8	10
28	95.0	160	200	40	30	65	39	35.5	20	2.5	110	100	M6x20	8	17
38	190.0	325	405	48	38	80	43	45.5	24	3.0	134	124	M8x22	8	41
42	265	450	560	55	45	95	48	51.0	26	3.0	150	138	M8x25	12	41
48	310	525	655	62	50	105	50	57.0	28	3.5	164	152	M8x25	12	41
55	410	685	825	75	60	120	60	66.0	30	4.0	192	176	M10x30	8	83
65	625	940	1175	80	70	135	65	76.0	35	4.5	217	201	M10x30	12	83
75	1280	1920	2400	95	80	160	75	86.5	40	5.0	248	229	M12x40	15	120
90	2400	3600	4500	110	105	200	82	101.5	45	5.5	285	265	M16x40	15	295
100	3300	3600	4500	115	115	225	97	111.5	50	6.0	320	295	M16x50	15	295
110	4800	4950	6185	125	130	255	103	122.0	55	6.5	347	321	M20x50	15	580
125	6650	10000	12500	145	150	290	116	142.0	60	7.0	400	370	M20x60	15	580
140	8550	12800	16000	160	170	320	128	157.5	65	7.5	443	409	M20x60	15	580
160	12800	19200	24000	185	200	370	146	177.5	75	9.0	501	463	M24x70	15	1000
180	18650	28000	35000	200	230	420	159	198.0	85	10.5	555	515	M24x80	18	1000

[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.
[2] Screw tightening torque T_A [Nm].
[3] Coupling is delivered not assembled.

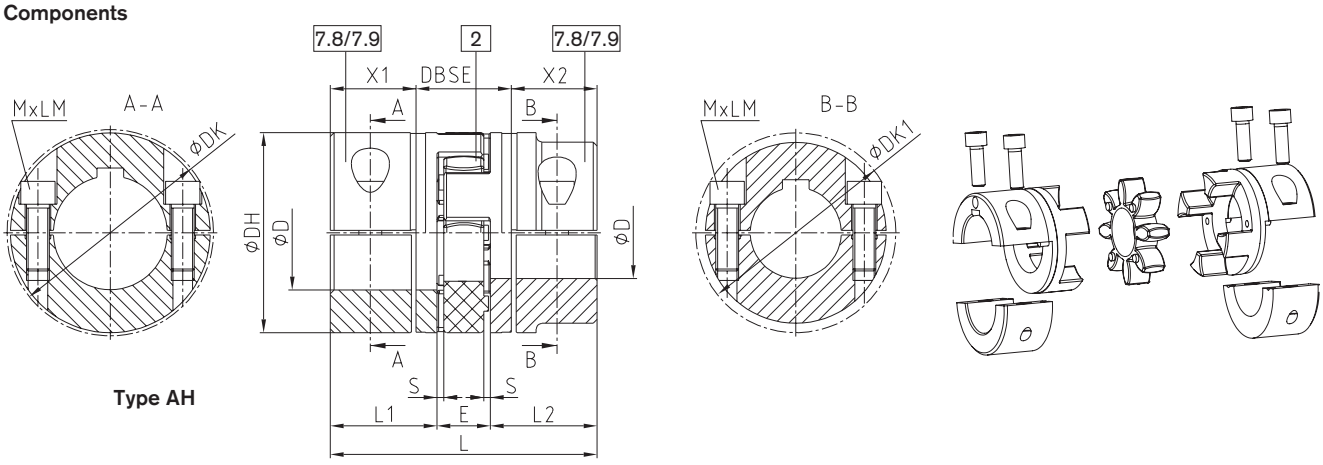
Ordering example:

ROTEX® 24	AFN	92 ShA	4N	Ø38	4N	Ø35
Coupling size	Type	Spider hardness	Component	Finish bore	Component	Finish bore

Drop-out center design coupling



Components



Type AH

ROTEX® Type AH															
Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions [mm]										Cap screws DIN EN ISO 4762	
	92 ShA	98 ShA	64 ShD	Finish bore D (max.)	DH	L	L1, L2	E	S	DK	DK1	X1, X2	DBSE	MxLM	Tightening torque T_A [Nm]
19	10	17	21	20	40	66	25	16	2.0	46.0	—	17.5	31	M6x16	14
24	35	60	75	28	55	78	30	18	2.0	57.5	—	22.5	33	M6x20	14
28	95	160	200	38	65	90	35	20	2.5	73.0	—	25.5	39	M8x25	35
38	190	325	405	45	80	114	45	24	3.0	83.5	—	35.5	43	M8x30	35
42	265	450	560	50	95	126	50	26	3.0	—	93.5	39.0	48	M10x30	69
				55						97.0	—			M10x35	
48	310	525	655	55	105	140	56	28	3.5	—	105.0	45.0	50	M12x35	120
				60						108.5	—			M12x40	
55	410	685	825	65	120	160	65	30	4.0	—	119.5	50.0	60	M12x40	120
				70						122.0	—			M12x45	
65	625	940	1175	70	135	185	75	35	4.5	—	123.5	60.0	65	M12x40	120
				80						132.5	—			M12x45	
75	1280	1920	2400	80	160	210	85	40	5.0	—	147.5	67.5	75	M16x50	295
				90						158.0	—				
90	2400	3600	4500	90	200	245	100	45	5.5	—	176.0	81.5	82	M20x60	580
				110						197.0	—				
100 [2]	3300	4950	6185	110	225	270	110	50	6.0	—	185.5	84.0	102	M16x50	295
110 [2]	4800	7200	9000	120	255	295	120	55	6.5	—	208.0	90.0	115	M20x60	580
125 [2]	6650	10000	12500	140	290	340	140	60	7.0	—	242.5	105.0	130	M24x70	1000

CAUTION:
With maximum bore the feather keyways are offset to each other by approx. 5°!
Hub material up to size 90: steel, from size 100: GJS

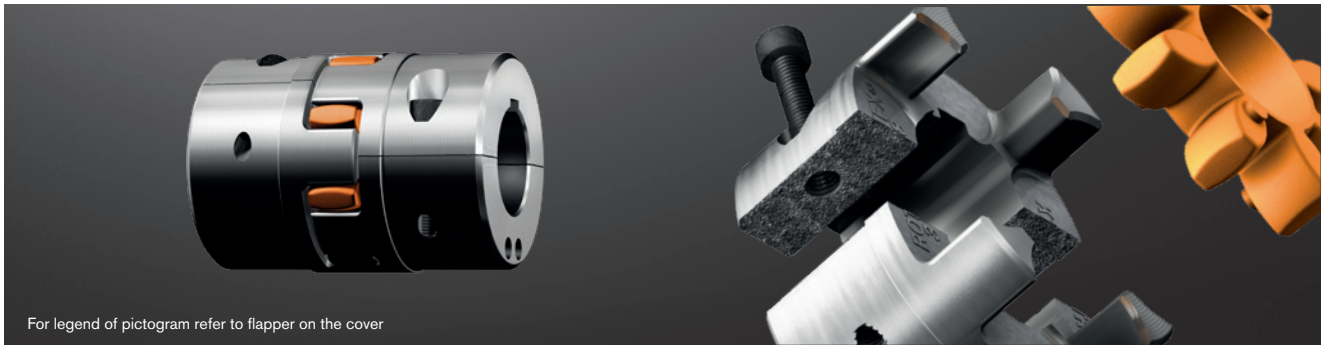
7.8 = Half shell clamping hub without feather keyway max. circumferential speed of v = 35 m/s.
From a circumferential speed of v = 25 m/s dynamic balancing is necessary; from a circumferential speed of v = 25 m/s the frictional torque of shaft/hub has to be reviewed. Please consult with KTR.
7.9 = Half shell clamping hub with feather keyway max. circumferential speed of v = 35 m/s. From a circumferential speed of v = 25 m/s dynamic balancing is required.

Speed: max. circumferential speed of 25 m/s on the outside diameter DH of the coupling
[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.
[2] from size 100: 4-off clamping screws per clamping hub

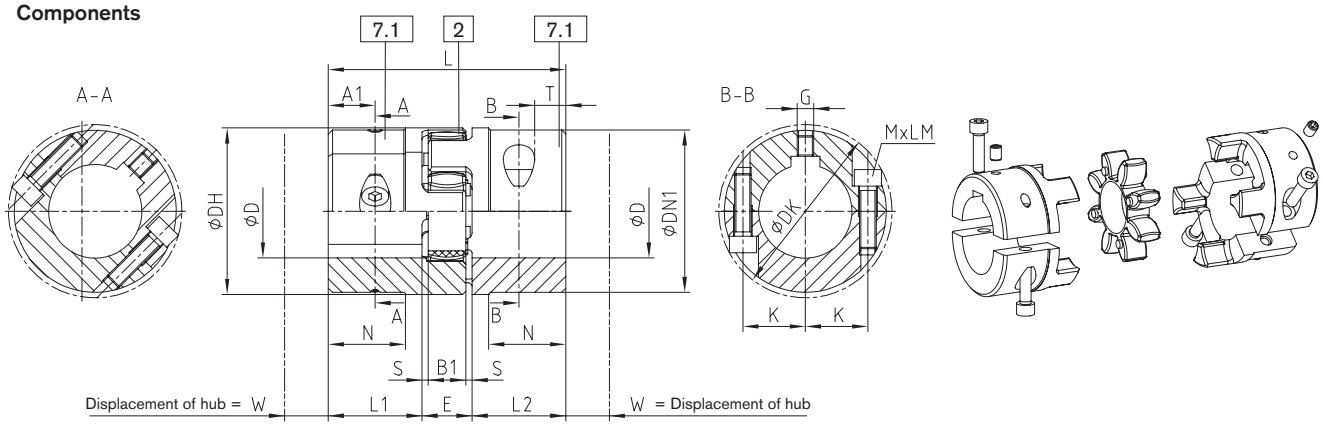
Ordering example:

ROTEX® 38	AH	98 ShA	7.9	Ø38	7.9	Ø30
Coupling size	Type	Spider hardness	Hub type	Finish bore	Hub type	Finish bore

Drop-out center design coupling with SPLIT hubs



Components



Type SH

ROTEX® Type SH Sintered steel (Sinter)													
Size	Spider [1] Rated torque T_{KN} [Nm]		Dimensions [mm]								Cap screws DIN EN ISO 4762	
	92 ShA	98 ShA	Finish bore D (min. - max.)	DH	L	L1, L2	E	S	DK	W	MxLM	Tightening torque T_A [Nm]
19	10	17	0-24	40	66	25	16	2.0	44	-	M4x14	4.1
24	35	60	0-28	55	78	30	18	2.0	57.5	12	M6x20	14
28	95	160	0-38	65	90	35	20	2.5	73	12	M8x25	34

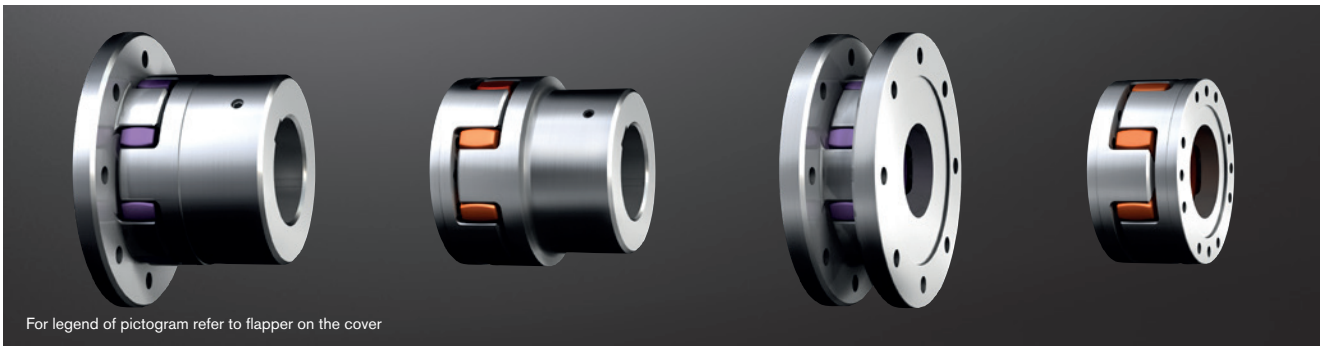
ROTEX® Type SH Cast iron (GJL)													
Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions [mm]								Cap screws DIN EN ISO 4762	
	92 ShA	98 ShA	64 ShD	Finish bore D (min. - max.)	DH	L	L1, L2	E	S	DK	W	MxLM	Tightening torque T_A [Nm]
38	190	325	405	24-48	80	114	45	24	3.0	83.5	15	M8x30	34
42	265	450	560	24-55	95	126	50	26	3.0	97	15	M10x35	67
48	310	525	655	24-60	105	140	56	28	3.5	108.5	15	M12x40	115
55	410	685	714	24-70	120	160	65	30	4.0	122	15	M12x45	115
65	625	940	1175	28-70	135	185	75	35	4.5	123.5	15	M12x40	115
				70-80						132.5		M12x45	
75	1280	1920	2400	40-80	160	210	85	40	5.0	147	20	M16x50	290
				80-90						158			
90	2400	3800	4500	40-90	200	245	100	45	5.5	176	30	M20x60	560
				90-110						197			
100	3300	4950	6185	50 - 100	225	270	110	50	6	199.5	44	M20x70	560
110	4800	7200	9000	50 - 120	255	295	120	55	6.5	224	48.5	M24x80	1000

7.1 = SPLIT hub with feather keyway
[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see catalogue Drive Technology.
Available from stock

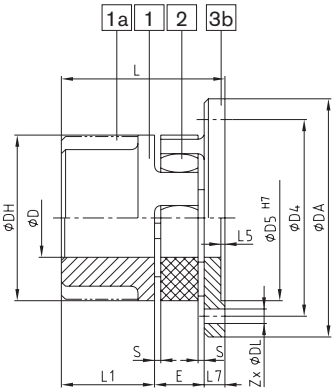
Ordering example:	ROTEX® 38	SH	98 ShA	7.1	Ø38	7.1	Ø30
	Coupling size	Type	Spider hardness	Hub type	Finish bore	Hub type	Finish bore

ROTEX® CF, CFN, DF and DFN
Flexible jaw couplings

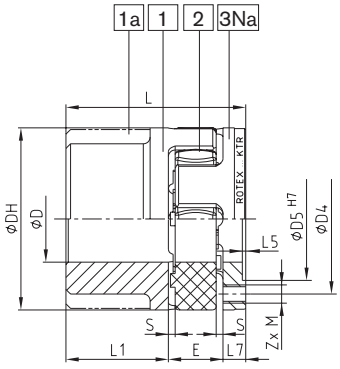
Flange programme



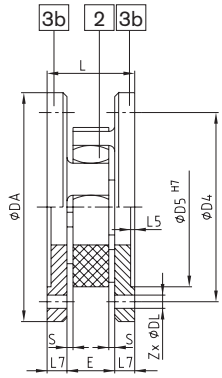
Components



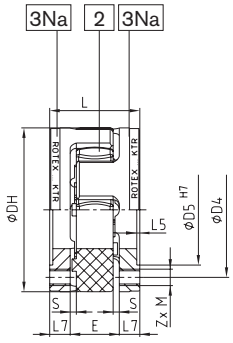
Type CF



Type CFN



Type DF



Type DFN

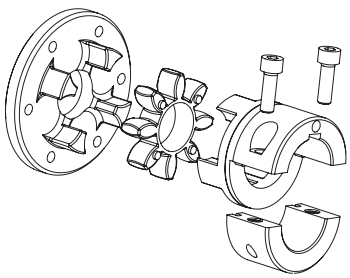
ROTEX® Type CF, CFN and DF, DFN

Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions [mm]																				
										CF and DF							CFN and DFN						
	92 ShA	98 ShA	64 ShD	DH	L1	E	S	L5	L7	DA	D4	D5	Z	DL	L CF	L DF	D4	D5	M	Z	pitch	LCFN	L DFN
24	35	60	75	55	30	18	2.0	1.5	8	80	65	55	5	4.5	56	34	45	36	M 5	8		56	34
28	95	160	200	65	35	20	2.5	1.5	10	100	80	65	6	6.6	65	40	54	44	M 6	8	8x45°	65	40
38	190	325	405	80	45	24	3.0	1.5	10	115	95	80	6	6.6	79	44	66	54	M 8	8		79	44
42	265	450	560	95	50	26	3.0	2.0	12	140	115	95	6	9.0	88	50	80	65	M 8	12	16x22.5°	88	50
48	310	525	655	105	56	28	3.5	2.0	12	150	125	105	8	9.0	96	52	90	75	M 8	12		96	52
55	410	685	825	120	65	30	4.0	2.0	16	175	145	120	8	11.0	111	62	102	84	M 10	8	8x45°	111	62
65	625	940	1175	135	75	35	4.5	2.0	16	190	160	135	10	11.0	126	67	116	96	M 10	12	16x22.5°	126	67
75	1280	1920	2400	160	85	40	5.0	2.5	19	215	185	160	10	13.5	144	78	136	112	M 12	15		144	78
90	2400	3600	4500	200	100	45	5.5	3.0	20	260	225	200	12	13.5	165	85	172	145	M 16	15		165	85
100	3300	4950	6185	225	110	50	6.0	4.0	25	285	250	225	12	13.5	185	100	195	165	M 16	15		185	100
110	4800	7200	9000	255	120	55	6.5	4.0	26	330	290	255	12	17.5	201	107	218	180	M 20	15	20x18°	201	107
125	6650	10000	12500	290	140	60	7.0	5.0	30	370	325	290	16	17.5	230	120	252	215	M 20	15		230	120
140	8550	12800	16000	320	155	65	7.5	5.0	34	410	360	320	16	22.0	254	133	282	245	M 20	15		254	133
160	12800	19200	24000	370	175	75	9.0	5.0	38	460	410	370	16	22.0	288	151	325	280	M 24	15		288	151
180	18650	28000	35000	420	195	85	10.5	5.5	40	520	465	420	16	26.0	320	165	375	330	M 24	18	24x15°	320	165

[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.
For other flange programmes see page 45.

Other types: ROTEX® CF-H
Flange drop-out center design coupling
Please order our separate dimension sheet (M412069).



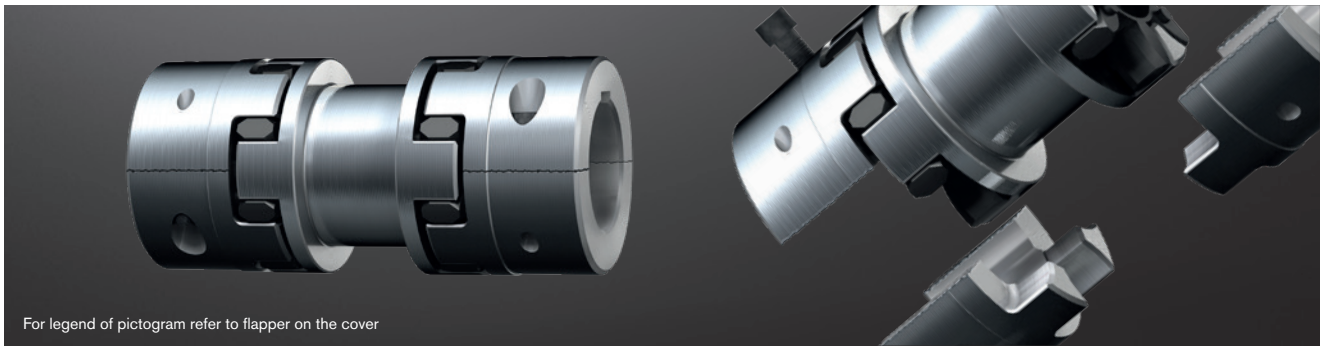


Ordering example:	ROTEX® 38	CF	92 ShA	1	GJL	Ø20
	Coupling size	Type	Spider hardness	Hub side, component	Material	Finish bore

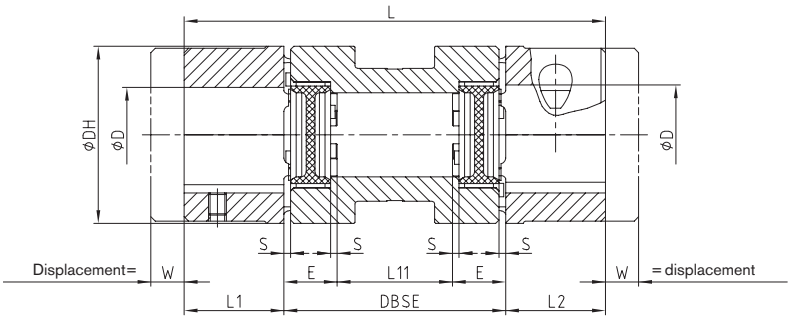
ROTEX® ZS-DKM-SH
Flexible jaw couplings

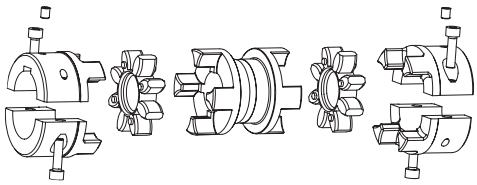
Discover our assembly videos

Double-cardanic shaft coupling with SPLIT hubs









ROTEX® type ZS-DKM-SH

Size [3]	Spider ROTEX GS T_{KN} [Nm] [1] [2]	Dimensions [mm]											Screws DIN EN ISO 4762		Max. displacements				
		Drop-out center design length DBSE	Finish bore D min.	Finish bore D max.	DH	L1, L2	L11	E	S	L	W	DK	M	T_A [Nm]	Axial [mm]	with n = 1500 rpm Radial [mm]	with n = 1500 rpm Angular [°]	with n = 3000 rpm Radial [mm]	with n = 3000 rpm Angular [°]
19	12	42 [5]	0	24	40	25	10	16	2.0	92	-	-	-	-	1.2	0.45		-	
		52 [5]					16			112						0.59		-	
24	35	100	0	28	55	30	64	18	2.0	160	12	57.5	M 6	14	1.4	1.43		1.07	
		140					104			200						2.13		1.60	
		58 [5]					18			128						0.66		-	
28	95	100	0	38	65	35	60	20	2.5	170	12	73	M 8	34	1.5	1.40		1.05	
		140					100			210						2.10		1.57	
		68 [5]					20			158						0.77		-	
38	190	100	24	45	80	45	52	24	3.0	190	15	83.5	M 8	34	1.8	1.33		0.99	
		140					92			230						2.02		1.52	
		74 [5]					22			174						0.84		-	
42	265	100	24	55	95	50	48	26	3.0	200	15	97	M 10	67	2.0	1.29		0.97	
		140					88			240						2.00		1.49	
		80 [5]					24			192						0.91		-	
48	310	100	24	60	105	56	44	28	3.5	212	15	108.5	M 12	115	2.1	1.26		0.94	
		140					84			252						1.95	1	1.47	0.75
		88 [5]					28			218						1.01		-	
		100					40			230						1.22		0.92	
55	410	140	24	70	120	65	80	30	4.0	270	15	122	M 12	115	2.2	1.92		1.44	
		180					120			310						2.62		1.96	
		200					140			330						2.97		2.22	
		102 [5]					32			252						1.17		-	
65	625	140	24	80	135	75	70	35	4.5	290	15	132.5 [6]	M 12	115	2.6	1.83		1.37	
		180					110			330						2.53		1.90	
		116 [5]					36			286						1.33		-	
		140					60			310						1.75		1.31	
75	1280	180	40	90	160	85	100	40	5.0	350	20	158 [6]	M 16	290	3.0	2.44		1.83	
		200					120			370						2.79		2.09	
		250					170			420						3.67		2.75	
		130 [5]					40			330						1.48		-	
90	2400	180	40	110	200	100	90	45	5.5	380	30	197 [6]	M 20	560	3.4	2.36		1.76	
		250					160			450						3.58		2.68	

[1] Maximum torque of coupling $T_{K\,max}$ = rated torque of coupling T_{KN} x 2
[2] Mathematically transmittable torque with double-cartdanic types acc. to 92 ShA-GS using the higher quality spiders 61 ShD-E-GS
[3] ROTEX®-SPLIT hub material sizes 24 and 28 = sintered steel; hub material sizes 38 to 90 = EN-GJL
[4] Hub type 7.1 = SPLIT hub with feather keyway and thread for setscrews
[5] Material of spacer Al-H
[6] ØDN and ØDK depending on finish bore ØD, see page 36/37

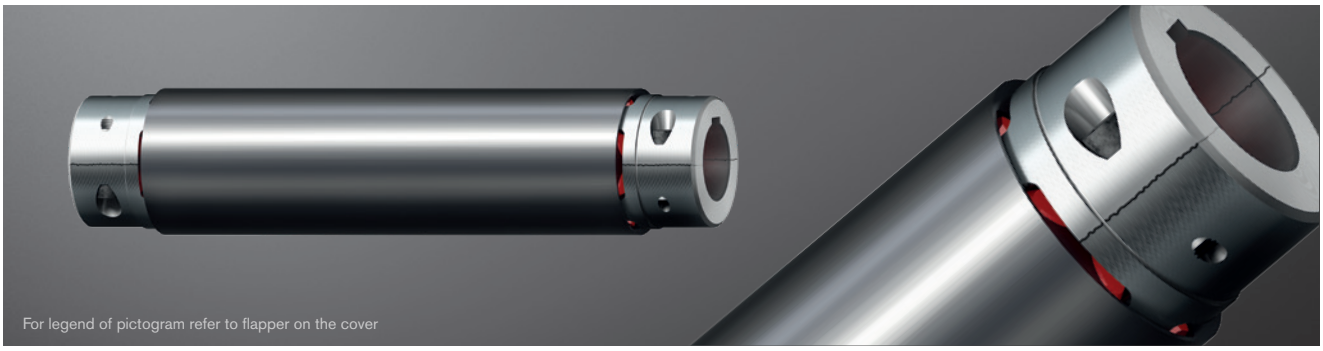
The max. permissible circumferential speed for double-cardanic ROTEX® DKM and ZS-DKM-SH couplings is 20m/s, with higher speeds please consult with KTR.
Spiders ROTEX® 98 ShA-GS and 64 ShD-GS applicable, while the transmittable torque [T_{KN}; T_{Kmax}] of the 92 ShA-GS spider must not be exceeded.

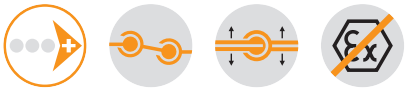
Ordering example:

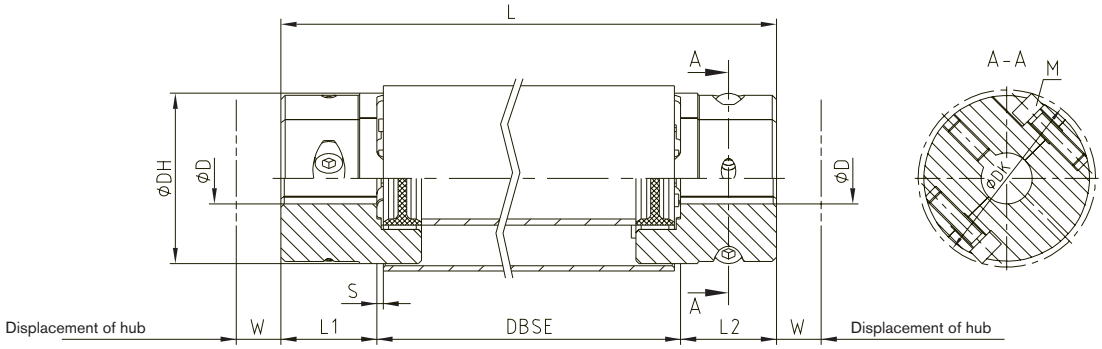
ROTEX® 38	ZS-DKM-SH	140	98 ShA-GS	7.1 [4]	Ø 38	7.1 [4]	Ø30
Coupling size	Type	Shaft distance dimension DBSE	Spider hardness	Hub type	Finish bore	Hub type	Finish bore

ROTEX® ZRS
Flexible / backlash-free intermediate shaft coupling

Intermediate shaft programme



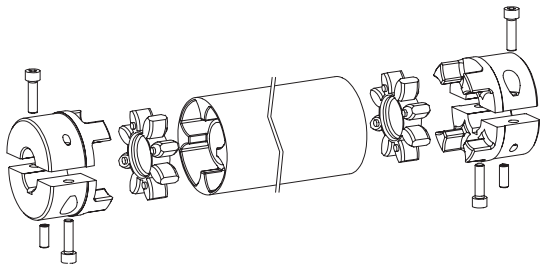




ROTEX® type ZRS

Size	Spider ROTEX GS T_{KN} [Nm] 1) 2)	Dimensions [mm]												Clamping screw DIN EN ISO 4762		Intermediate pipe Torsion spring stiffness C 5) [Nm/rad]
		Finish bore D3)		DH	L 1)	L1, L2	E	S	DK	DH1	min. DBSE 4)	W	DK	M	Tightening torque T_A [Nm]	
		min.	max.													
19	12	0	20	40	L = DBSE + L1 + L2	25	16	2.0	46.0	45	33	14.0	46.0	M 4	4.1	3800
24	35	0	24	55		30	18	2.0	57.5	60	37	16.0	57.5	M 6	14	11100
28	95	0	38	65		35	20	2.5	73.0	72	40	17.5	73.0	M 8	34	23600
38	190	24	45	80		45	24	3.0	83.5	87	49	21.0	83.5	M 8	34	43800
42	265	24	55	95		50	26	3.0	97.0	103	53	23.0	97.0	M 10	67	82600

1) Maximum torque of coupling $T_{K\,max}$ = rated torque of coupling T_{KN} x 2
2) Mathematically transmittable torque with double-cardanic types acc. to 92 ShA-GS using the higher quality spiders 98 ShA-GS
3) Finish bore according to ISO fit H7, feather keyway according to DIN 6885, sheet 1 [JS9]
4) With inquiries and orders please specify the shaft distance dimension DBSE along with the maximum speed to review the critical bending speed. Maximum DBSE = 4000 mm (different lengths on request).
5) Torsion spring stiffness with an intermediate pipe length of 1 m

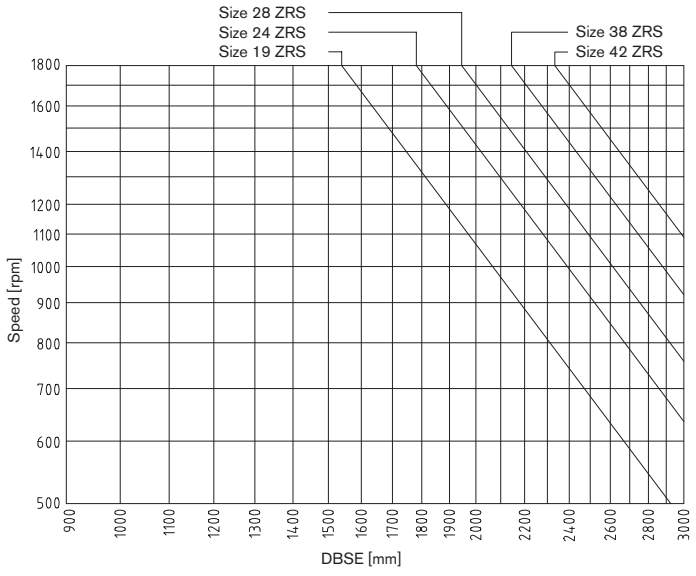


7.1 = SPLIT hub with feather keyway

Displacements

Size	Axial displacement in mm	Radial displacement [mm] per 1m of pipe length	Angular displacement in degree
19	1.2	15.7	0.9
24	1.4	15.7	0.9
28	1.5	15.7	0.9
38	1.8	17.5	1.0
42	2.0	17.5	1.0

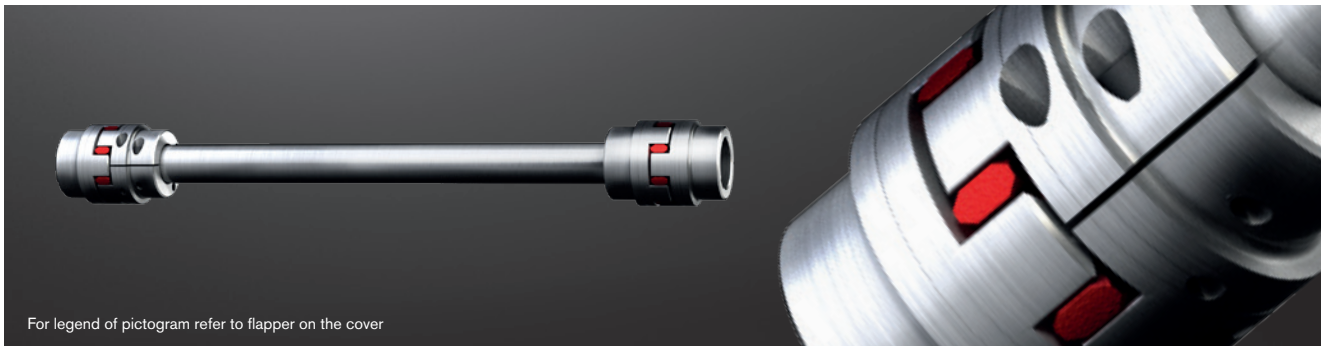
Diagramme for coupling selection:



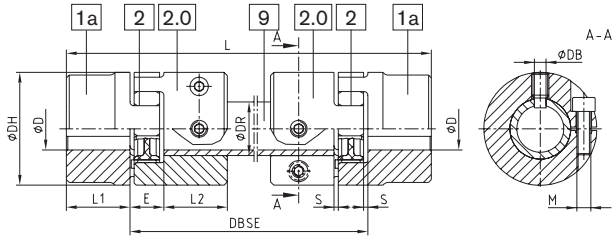
Ordering example:

ROTEX® 38	ZRS	1200	98 ShA-GS	7.1	Ø30	7.1	Ø30
Coupling size	Type	Shaft distance dimension DBSE	Spider hardness	Hub type	Finish bore	Hub type	Finish bore

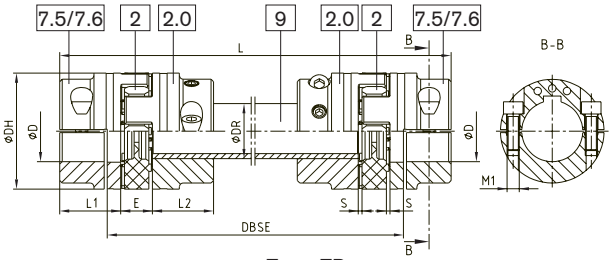
Intermediate shaft programme



Components



Type ZR
(with GS spider) [3]



Type ZR
(with GS spider and clamping hubs type DH for a double-cardanic connection 7.5 or 7.6) [3]

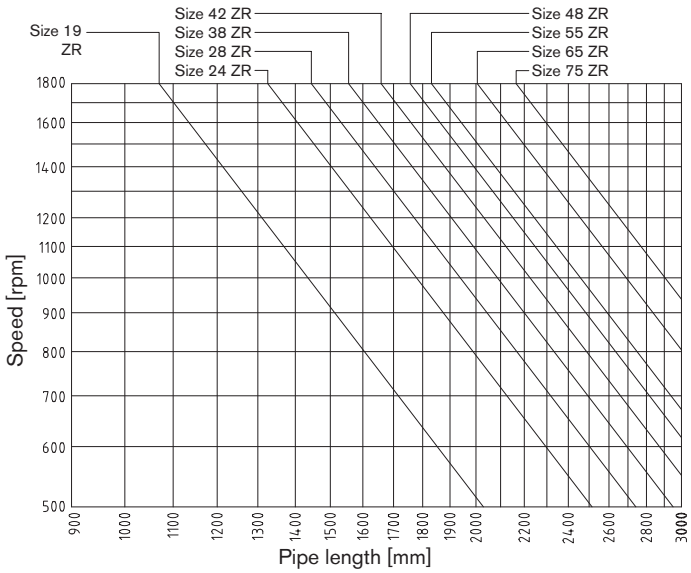
ROTEX® Type ZR

Size	Spider ROTEX GS T_{KN} [Nm] [1) 2)]	Dimensions [mm]									Screw DIN EN ISO 4762						Fastening screw G	Pin hole DB in mm	Intermediate tube	
		Finish bore D (min. - max.)		DH	L		L1, L2	E	S	Min. DBSE [3]		Component 2.0			Component 7.5/7.6					DR [mm]	Torsional stiffness C [4] [Nm²/rad]
		Component 1a	Component 7.5/7.6		Component 1/1a	Component 7.5/7.6				Component 1a	Component 7.5/7.6	DK1	M	T_A [Nm]	DK	M 1	T_A [Nm]				
19	12	0-25	0-20	40	L = DBSE + L1 + L2	35+DBSE	25	16	2.0	82	97	46.0	M 6	14	46.0	M 6	10	M 6	4.0	Ø20x3	954.9
24	35	0-35	0-28	55		45+DBSE	30	18	2.0	96	111	59.5	M 6	14	57.5	M 6	14	M 8	5.5	Ø30x4	4522
28	95	0-40	0-38	65		51+DBSE	35	20	2.5	110	128	73.0	M 8	35	73.0	M 8	35	M 10	7.0	Ø35x4	7611
38	190	0-48	24-45	80		71+DBSE	45	24	3.0	138	157	81.6	M 8	25	83.5	M 8	35	M 12	8.5	Ø40x4	11870
42	265	0-55	24-55	95		78+DBSE	50	26	3.0	152	174	95.0	M 10	49	97.0	M 10	69	M 12	8.5	Ø45x4	17487
48	310	0-62	24-60	105		90+DBSE	56	28	3.5	168	190	105.0	M 12	86	108.5	M 12	120	M 16	12	Ø50x4	24648
55	410	0-74	24-70	120		100+DBSE	65	30	4.0	190	220	120.0	M 12	120	120.0	M 12	120	M 16	12	Ø55x4	33544
65	625	0-80	24-80	135		120+DBSE	75	35	4.5	220	250	135.0	M 12	120	135.0	M 12	120	M 16	12	Ø65x5	68329
75	1280	0-95	40-90	160		135+DBSE	85	40	4.0	250	285	160.0	M 16	295	160.0	M 16	295	M 16	12	Ø75x5	108000

[1)] Maximum torque of coupling $T_{K\,max}$ = rated torque of coupling T_{KN} x 2
[2)] Mathematically transmittable torque with double-cardanic types acc. to 92 ShA-GS using the higher quality spiders 98 ShA-GS
[3)] With inquiries and orders please specify the shaft distance dimension DBSE along with the maximum speed to review the critical bending speed.
[4)] Torsion spring stiffness with 1 m length of intermediate pipe
finish bore acc. to ISO fit H7, feather keyway acc. to DIN 6885 sheet 1 [JS9].
Friction torques of clamping hubs must be considered.
Please order dimension sheet M583613.

Not permissible for crane and hoist drives

Diagramme for coupling selection:



Displacements

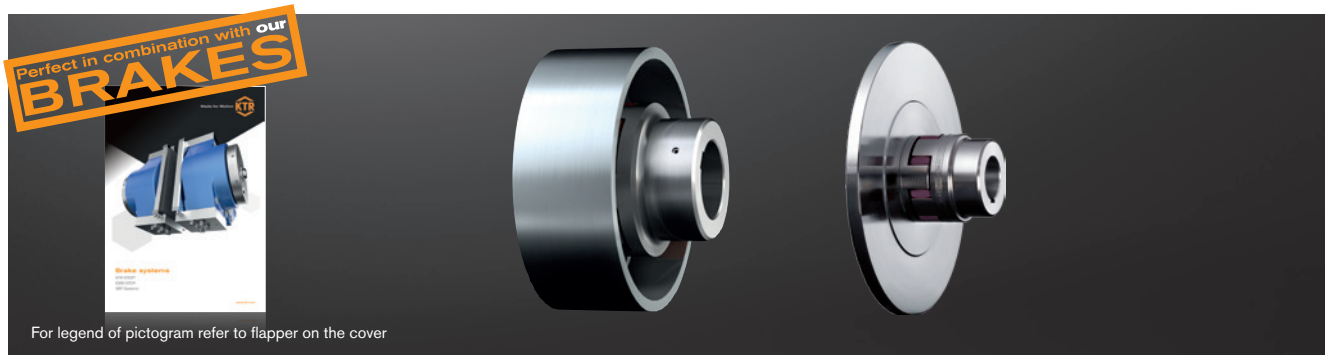
Size	Axial displacement in mm	Radial displacement in [mm] per 1m of pipe length	Angular displacement in degree
19	1.2	15.9	0.9
24	1.4	15.9	0.9
28	1.5	15.9	0.9
38	1.8	17.9	1.0
42	2.0	17.9	1.0
48	2.1	19.7	1.1
55	2.2	19.7	1.1
65	2.6	21.7	1.2
75	3.0	21.7	1.2

Ordering example:

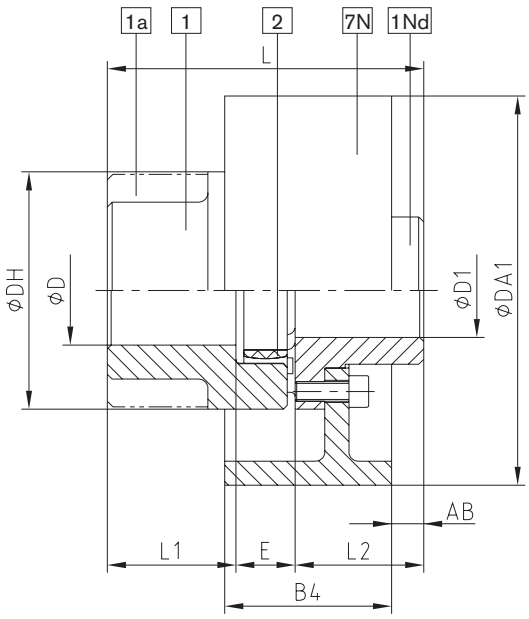
ROTEX® 38	ZR	1200	98 ShA-GS	7.5	Ø38	7.5	Ø30
Coupling size	Type	Shaft distance dimension DBSE	Spider hardness	Hub type	Finish bore	Hub type	Finish bore

ROTEX® BTAN and SBAN
Flexible jaw couplings

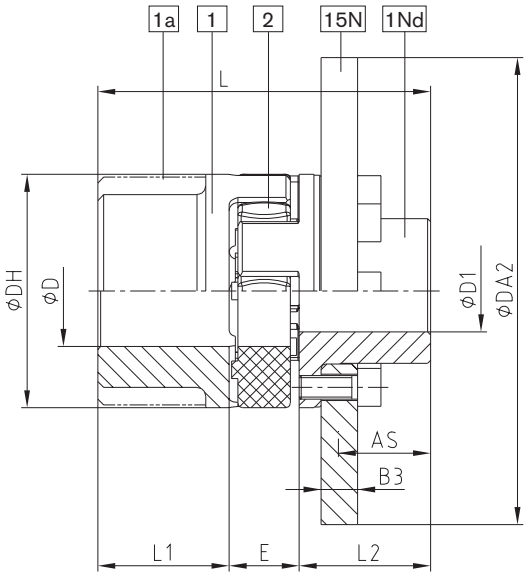
With brake drum/with brake disk



Components



Brake drum
Type BTAN



Brake disk
Type SBAN

ROTEX® Type BTAN and SBAN										
Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions [mm]						
				Max. finish bore (min. - max.)[2]		DH	L	L1, L2	E	S
	92 ShA	98 ShA	64 ShD	D, component 1/1a	D1, component 1Nd					
38	190	325	405	0 - 48	0 - 35	80	114	45	24	3.0
42	265	450	560	0 - 55	0 - 42	95	126	50	26	3.0
48	310	525	655	0 - 63	0 - 48	105	140	56	28	3.5
55	410	685	825	0 - 75	0 - 55	120	160	65	30	4.0
65	625	940	1175	0 - 80	0 - 68	135	185	75	35	4.5
75	1280	1920	2400	0 - 95	0 - 78	160	210	85	40	5.0
90	2400	3600	4500	0 - 110	0 - 104	200	245	100	45	5.5
100	3300	4950	6185	0 - 115	48 - 100	225	270	110	50	6.0
110	4800	7200	9000	0 - 130	60 - 110	255	295	120	55	6.5
125	6650	10000	12500	0 - 145	60 - 130	290	340	140	60	7.0

[1] Maximum torque of the coupling $T_{K\,max}$ = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.
[2] Finish bore according to ISO fit H7, feather keyway according to DIN 6885, sheet 1 [JS9].

Ordering example:

ROTEX® 38	BTAN	Ø200x75	98 ShA	1Nd	Ø34	1	Ø30
Coupling size	Type	Brake drum Ø x width	Spider hard-ness	Component	Finish bore	Component	Finish bore

Type BTAN brake drum

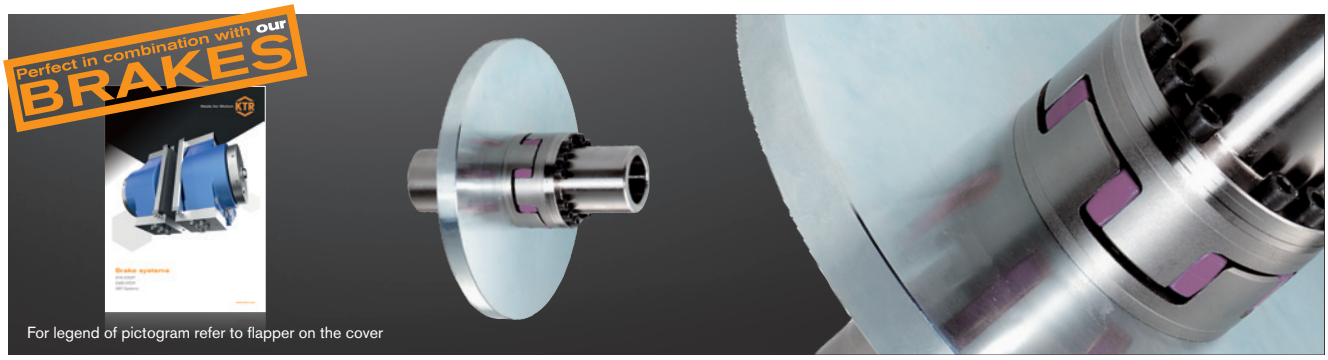
ROTEX® size	Dimensions [mm]			Max. speed [rpm]	Weight [kg]	Mass moment of inertia [kgm²]
	DA1	B4	AB			
	160	60	14	3550	2.9	0.01
38	200	75	9	2800	5.4	0.04
	250	95	1	2240	10.4	0.12
	200	75	12	2800	5.3	0.04
42	250	95	4	2240	10.3	0.01
	315	118	-5	1800	19.3	0.36
	400	150	-18	1400	40.6	1.21
	200	75	17	2800	5.3	0.04
48	250	95	9	2240	9.4	0.11
	315	118	0	1800	17.8	0.33
	400	150	-13	1400	37.4	1.11
	200	75	24	2800	4.8	0.04
55	250	95	16	2240	9.3	0.11
	315	118	7	1800	17.7	0.33
	400	150	-6	1400	37.2	1.12
	250	95	25	2240	9.2	0.11
65	315	118	16	1800	17.5	0.33
	400	150	3	1400	36.9	1.12
	500	190	-12	1120	77.7	3.64
	250	95	33	2240	9.1	0.13
	315	118	24	1800	17.1	0.33
75	400	150	11	1400	31.4	0.94
	500	190	-4	1120	76.8	3.62
	630	236	-22	900	143.6	10.65
	315	118	36	1800	16.3	0.33
90	400	150	23	1400	38.4	1.20
	500	190	8	1120	62.9	3.07
	630	236	-10	900	142.8	10.74
	400	150	31	1400	37.9	1.20
100	500	190	16	1120	75.2	3.63
	630	236	-2	900	141.2	10.64
	710	265	-13	800	210.2	20.01
	400	150	38	1400	34.0	1.09
110	500	190	23	1120	73.9	3.62
	630	236	5	900	141.1	10.77
	710	265	-6	800	192.5	18.46
	500	190	39	1120	72.4	3.60
125	630	236	21	900	127.7	9.82
	710	265	10	800	190.7	18.44
	800	300	-4	710	274.5	33.34

Type SBAN brake disk

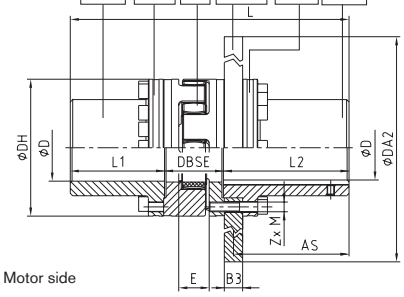
ROTEX® size	Dimensions [mm]			Max. speed [rpm]	Weight [kg]	Mass moment of inertia [kgm²]
	DA2	B3	AS			
38	200	12.5	31.25	2800	2.9	0.01
	250	12.5	31.25	2240	4.6	0.04
42	250	12.5	34.25	2240	4.5	0.04
	315	16	32.5	1800	9.3	0.12
	250	12.5	39.25	2240	4.4	0.04
48	315	16	37.5	1800	9.2	0.12
	400	16	37.5	1400	15.2	0.32
	315	16	44.5	1800	9.1	0.12
55	400	16	44.5	1400	13.9	0.29
	500	16	44.5	1120	23.9	0.77
	315	16	53.5	1800	8.8	0.12
	400	16	53.5	1400	14.8	0.31
65	500	16	53.5	1120	23.7	0.77
	630	20	51.5	900	47.7	2.43
	710	20	51.5	800	60.9	3.92
	315	16	61.5	1800	8.4	0.12
	400	16	61.5	1400	14.4	0.31
75	500	16	61.5	1120	23.3	0.77
	630	20	59.5	900	47.2	2.42
	710	20	59.5	800	60.4	3.91
	400	16	73.5	1400	13.4	0.31
	500	16	73.5	1120	22.2	0.76
90	630	20	71.5	900	45.9	2.42
	710	20	71.5	800	59.1	3.91
	800	25	69.0	710	94.9	7.88
	400	16	81.5	1400	12.9	0.31
	500	16	81.5	1120	21.8	0.76
100	630	20	79.5	900	45.3	2.41
	710	20	79.5	800	58.5	3.90
	800	25	77.0	710	94.1	7.87
	400	16	88.5	1400	11.9	0.29
	500	16	88.5	1120	20.8	0.75
110	630	20	86.5	900	44.1	2.40
	710	20	86.5	800	57.3	3.89
	800	25	84.0	710	92.7	7.86
	900	25	84.0	630	118.9	12.61
	500	16	104.5	1120	19.7	0.74
	630	20	102.5	900	42.8	2.39
125	710	20	102.5	800	56.0	3.87
	800	25	100.0	710	91.0	7.84
	900	25	100.0	630	117.2	12.59

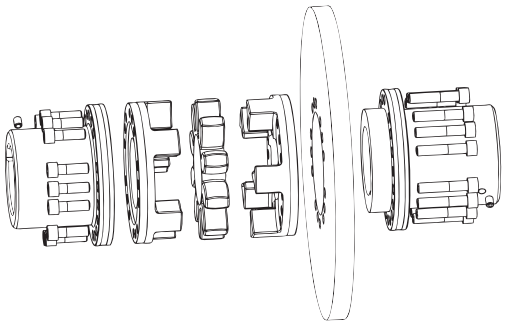
ROTEX® AFN-SB special
Flexible jaw couplings

Drop-out center design coupling with brake disk



Components 4Nv | 3Na | 2 | 15Nx | 3Na | 4Nx





ROTEX® Type AFN-SB special

Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions [mm]								
	92 ShA	98 ShA	64 ShD	Finish bore D (min. - max.)	DH	L	L1	L2	E	S	DBSE	DI1
65	625	940	1175	22 - 70	135	344.5	113.5	166.0	35	4.5	65	68
75	1280	1920	2400	30 - 80	160	374.5	133.0	166.5	40	5.0	75	80
90	2400	3600	4500	40 - 105	200	454.0	165.5	206.5	45	5.5	82	100
100	3300	4950	6185	46 - 115	225	458.5	155.0	206.5	50	6.0	97	113
110	4800	7200	9000	60 - 130	255	518.5	203.5	212.0	55	6.5	103	127
125	6650	10000	12500	60 - 150	290	528.5	200.5	212.0	60	7.0	116	147
140	8550	12800	16000	60 - 170	320	627.5	247.0	252.5	65	7.5	128	165
160	12800	19200	24000	80 - 200	370	627.5	229.0	252.5	75	9.0	146	190
180	18650	28000	35000	85 - 230	420	609.5	198.0	252.5	85	10.5	159	220

Brake disk

ROTEX® size	Brake disk Dimensions [mm] DA2	B3	AS	Max. speed [rpm] [3]	Weight [kg]	Mass moment of inertia [kgm²]
	355	30	150	4850	19.7	0.34
65	400	30	150	4300	25.5	0.54
	450	30	150	3800	32.7	0.87
	400	30	150	4300	26.8	0.58
75	450	30	150	3800	34.6	0.94
	500	30	150	3500	43.4	1.44
	450	30	190	3800	32.7	0.93
90	500	30	190	3500	41.5	1.43
	560	30	190	3050	53.3	2.26
	630	30	190	2700	68.7	3.63
	500	30	10	3500	40.4	1.42
100	560	30	190	3050	52.1	2.25
	630	30	190	2700	67.5	3.62
	500	30	195	3000	38.9	1.40
110	560	30	195	3000	50.7	2.23
	630	30	195	2700	66.1	3.60
	710	30	195	2400	85.9	5.83

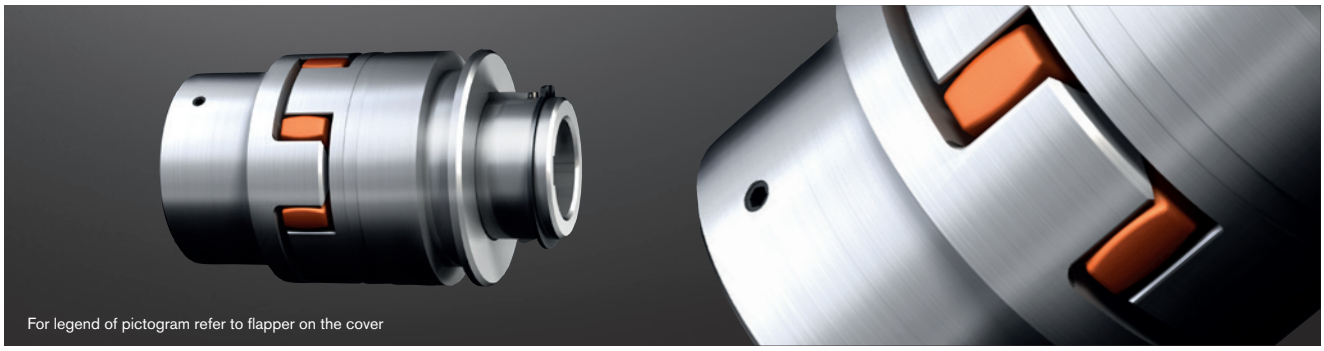
ROTEX® size	Brake disk Dimensions [mm] DA2	B3	AS	Max. speed [rpm] [3]	Weight [kg]	Mass moment of inertia [kgm²]
	630	30	195	2600	63.5	3.57
125	710	30	195	2400	83.3	5.80
	800	30	195	2150	108.5	9.40
	710	30	235	2400	80.8	5.76
	800	30	235	2150	105.9	9.36
140	900	30	235	1900	137.3	15.06
	900	40	230	1900	183.1	20.08
	1000	40	230	1700	229.9	30.68
	710	30	235	2000	76.9	5.68
	800	30	235	2000	101.9	9.28
160	900	30	235	1900	133.4	14.98
	900	40	230	1900	177.9	19.97
	1000	40	230	1700	224.8	30.57
	710	30	235	1800	70.8	5.52
	800	30	235	1800	95.9	9.12
180	900	30	235	1800	127.4	14.82
	900	40	235	1800	169.9	19.75
	1000	40	235	1700	216.7	30.36

[1] For selection see page 14 et seqq.
[2] The maximum braking torque must not exceed the maximum torque of the coupling.
[3] For circumferential speeds exceeding v = 30 m/s dynamic balancing is required.

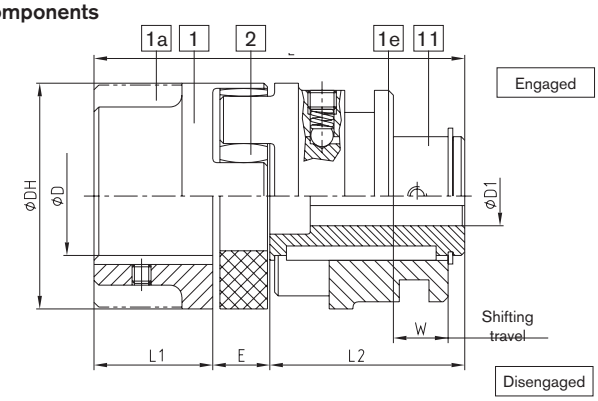
Ordering example:

ROTEX® 90	AFN-SB special	Ø450x30	98 ShA	4Nv	Ø90	4Nx	Ø90
Coupling size	Type	Brake disk Ø x width	Spider hard-ness	Component	Finish bore	Component	Finish bore

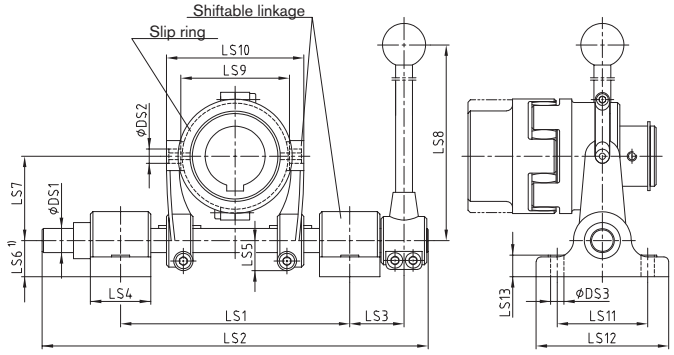
Shiftable coupling shiftable at standstill



Components



Type SD



Type SD with slip ring and shiftable linkage

Upon request: Shiftable linkage available with locking pin, locking device and retrieval of shift position.

ROTEX® Type SD

Size	Spider 1) Rated torque T_{KN} [Nm]			Dimensions [mm]								Set Shifting force [N]	Slip ring size	Shiftable linkage size
				Finish bore (min. - max.)		DH	L	L1	L2	E	S			
	92 ShA	98 ShA	64 ShD	D, component 1/1a	D1, component 11									
24	35	60	75	0-35	8-20	55	98	30	51.5	16.5	2.0	110	-	-
28	95	160	200	0-40	10-24	65	113	35	60.0	18.0	2.5	130	-	-
38	190	325	405	0-48	12-30	80	140	45	73.0	22.0	3.0	150	1.1	1
42	265	450	560	0-55	14-35	95	156	50	82.0	24.0	3.0	180	1.1	1
48	310	525	655	0-62	15-42	105	172	56	90.5	25.5	3.5	200	2.2	2
55	410	685	825	0-75	18-50	120	195	65	103.0	27.0	4.0	250	3.3	3
65	625	940	1175	0-80	20-55	135	227	75	120.0	32.0	4.5	280	3.3	3
75	1280	1920	2400	0-95	25-65	160	257	85	135.0	37.0	5.0	350	4.4	3
90	2400	3600	4500	0-110	28-75	200	293	100	152.0	41.0	5.5	350	5.5	4
100	3300	4950	6185	0-115	30-80	225	325	110	169.0	46.0	6.0	380	5.5	4
110	4800	7200	9000	0-130	35-85	255	355	120	184.0	51.5	6.5	450	5.5	4
125	6650	10000	12500	60-145	40-100	210.5	404	290	147	145	7.0	500	6.6	5

Slip ring and shiftable linkage

ROTEX® size	Shiftable linkage size	Dimensions [mm]						Max. speed [rpm] of slip ring
		DS3	LS1		LS2	LS11	LS12	
			min.	max.				
38	1	11	180	190	320	75	110	3200
42	1							
48	2	13.5	240	270	430	100	140	2500
55	3		280	310	490			2100
65	3							
75	3							1700
90	4		321	365	565	120	160	1300
100	4							
110	4							
125	5		365	410	630			1200

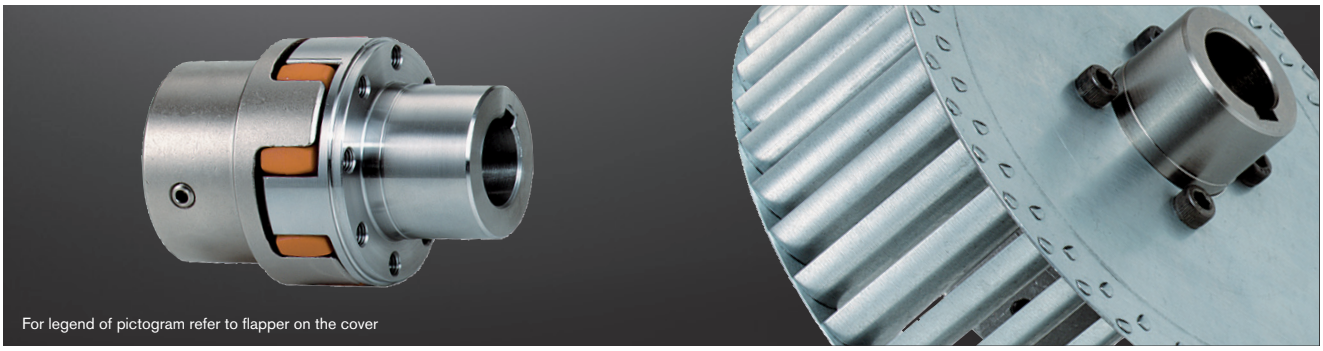
Finish bore according to ISO fit H7, feather keyway according to DIN 6885, sheet 1 [JS9].

Ordering example:

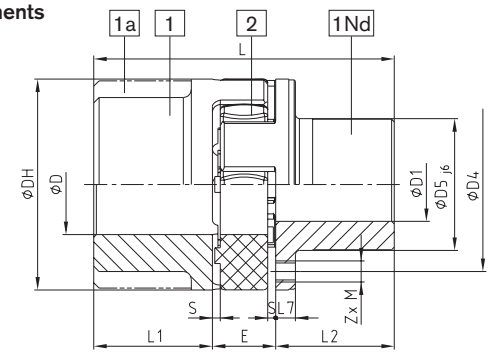
ROTEX® 38	SD	With 1.1 and 1	98 ShA	1	Ø38	1e+11	Ø28
Coupling size	Type	With slip ring 1.1 and shiftable linkage 1	Spider hard-ness	Component	Finish bore	Component	Finish bore

ROTEX® FNN
Flexible jaw couplings

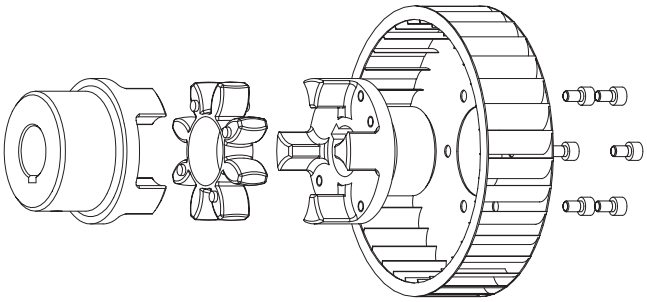
For mounting of fan



Components



Type FNN



Type FNN with fan (type 1)

ROTEX® Type FNN																
Size	Spider [1] Rated torque T_{KN} [Nm]			Dimensions [mm]												
	92 ShA	98 ShA	64 ShD	Finish bore (max.) D, component 1/1a	Finish bore (max.) D1, component 1Nd	DH	L	L1, L2	E	S	D5	D4	L7	M	Z	pitch
28	95	160	200	40	28	65	90	35	20	2.5	40	54	6.5	M 6	8	8x45°
38	190	325	405	48	35	80	114	45	24	3.0	50	66	7.5	M 8	8	
42	265	450	560	55	42	95	126	50	26	3.0	60	80	9.5	M 8	12	16x22.5°
48	310	525	655	62	48	105	140	56	28	3.5	68	90	10.5	M 8	12	
55	410	685	825	75	55	120	160	65	30	4.0	78	102	12.5	M 10	8	8x45°
65	625	940	1175	80	68	135	185	75	35	4.5	92	116	13.5	M 10	12	16x22.5°
75	1280	1920	2400	95	78	160	210	85	40	5.0	106	136	15.5	M 12	15	20x18°
90	2400	3600	4500	110	104	200	245	100	45	5.5	140	172	18.5	M 16	15	

Other sizes on request.

Dimensioning of fans is customer-specific and depends on the coupling selection. Please advise all necessary details for dimensioning of your fan. For that purpose you may use the KTR questionnaire acc. to KTR-N 20008 sheet 1.

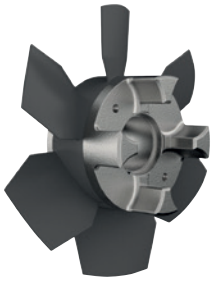
Type 1: Fan screwed on

The ROTEX® hub can be supplied with the fan screwed on. Customised connection dimensions such as pitch circle of threads, size of threads and number or centering of fans must be specified in your inquiry.

Type 2: Fan injection-moulded

Low prices due to optimisation of production with bigger volumes.



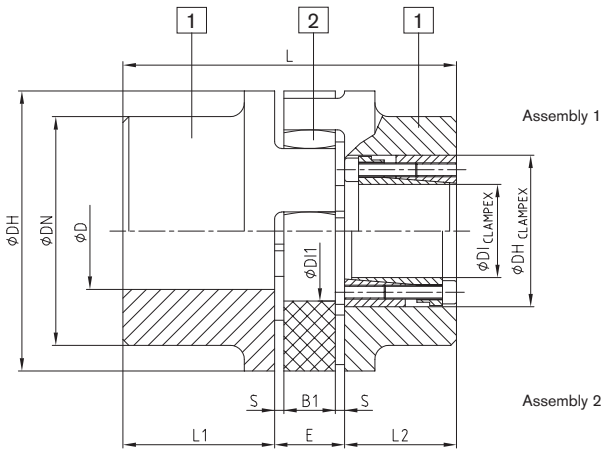




Ordering example:	ROTEX® 38	FNN	92 ShA	1	Ø38	1Nd	Ø30
	Coupling size	Type	Spider hardness	Component	Finish bore	Component	Finish bore

Other types with clamping sets

Components

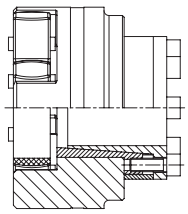


ROTEX® with clamping set CLAMPEX® KTR 200

ROTEX® size	Hub material	CLAMPEX® KTR 200			Dimensions [mm]								
		Max. size of KTR clamping set DlxDH	Transmittable torque and axial force										
			T [Nm]	F_{AX} [kN]	L1	L2	E	B1	S	DH	DN	Dl1	L
42		30x55	790	53	50	48	26	20	3.0	95	95	46	
48		35x60	1300	74	56	48	28	21	3.5	105	105	51	
55	Steel Component 1	45x75	2200	98	65	59	30	22	4.0	120	—	60	
65		45x75	2200	98	75	59	35	26	4.5	135	115	68	
75		50x80	3330	132	85	59	40	30	5.0	160	135	80	
90		65x95	4300	132	100	59	45	34	5.5	200	160	100	
100		65x95	4300	132	110	59	50	38	6.0	225	180	113	
110		70x110	7500	214	120	70	55	42	6.5	255	200	127	
125	GJS Component 1	80x120	8500	213	140	70	60	46	7.0	290	230	147	
140		95x135	12600	265	155	70	65	50	7.5	320	255	165	
160		110x155	16500	300	175	80	75	57	9.0	370	290	190	
180		120x165	22500	375	195	80	85	64	10.5	420	325	220	

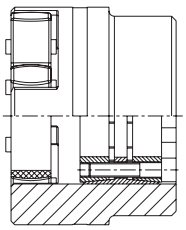
Length = L1 + E + L2 (clamping set)

ROTEX® hub type 4.2 combined with CLAMPEX® KTR 250



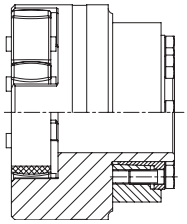
Frictionally engaged and backlash-free transmission of medium torques. CLAMPEX® KTR 250 is particularly suitable for thin-walled hubs and/or those made of aluminium or cast material. Please contact the KTR engineering department for any further details.

ROTEX® hub type 4.3 combined with CLAMPEX® KTR 400



Frictionally engaged and backlash-free transmission of high torques. Compared to all other CLAMPEX® internal clamping sets, CLAMPEX® KTR 400 transmits the highest torques. Please contact the KTR engineering department for any further details.

ROTEX® hub type 4.9 combined with CLAMPEX® KTR 250



Frictionally engaged and backlash-free transmission of torques immediately between shaft and hub. Since CLAMPEX® KTR 620 is positioned outside on the hub, the hub is in direct contact with the shaft. This results in significantly higher concentricity compared to the combinations with CLAMPEX® KTR 250 or CLAMPEX® KTR 400. Please contact the KTR engineering department for any further details.

For CLAMPEX® programme see pages 280 to 315.