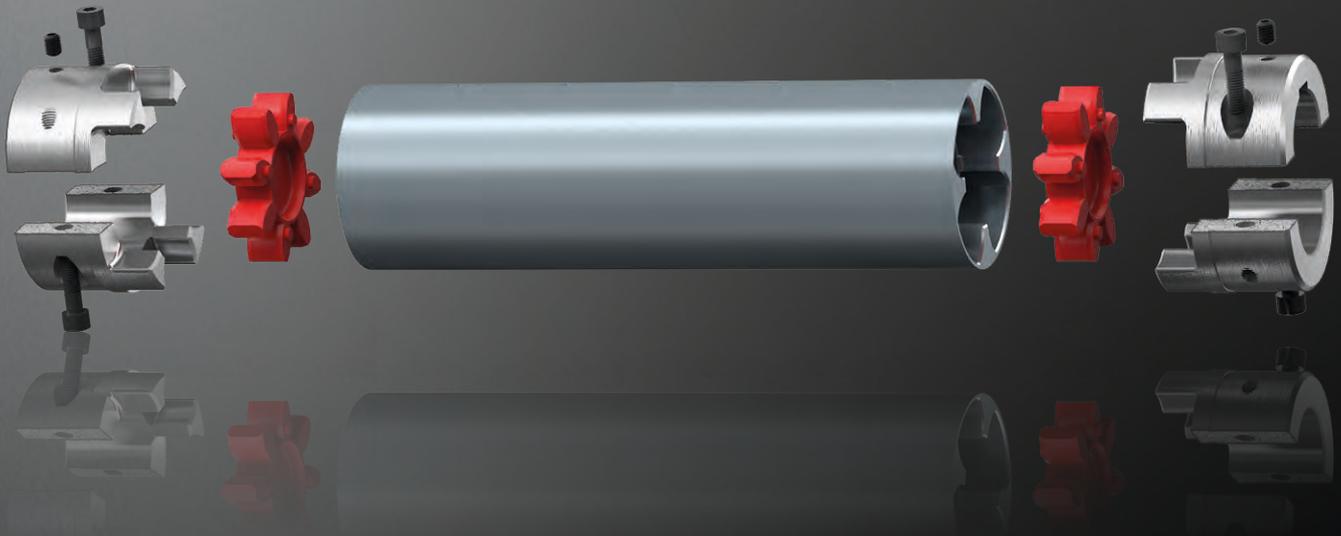


Made for Motion



ROTEX[®] ZRS

Flexible / backlash-free intermediate shaft coupling

Fast, easy and reliable - with the product finder and our online tools

The product finder allows you to get to the suitable product in just a few steps. For this purpose either make use of the search function if you already know the product or use the full-text search which guides you to the requested result via various product-specific filters. Our selection

tools speed up the detailed product selection. Few technical data suffice to rapidly find the right product for your application in the configurators - without having to browse catalogues lengthily.



Online tools

Tailor-made to your specifications - make use of our online tools



Product finder

The suitable product for your application - fast and simple with our product finder.

ROTEX® ZRS

Flexible / backlash-free intermediate shaft coupling

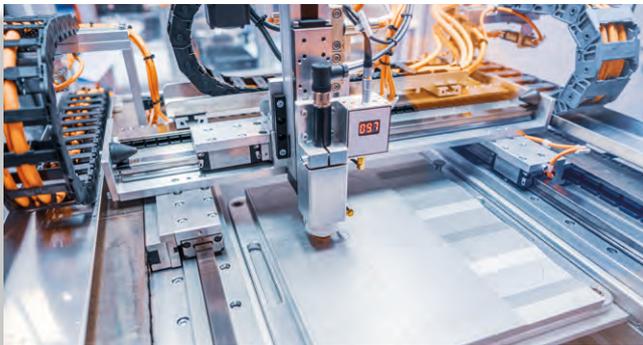
Examples of application



Pumps



Indoor material handling



Linear Motion Technology



Gantry robots

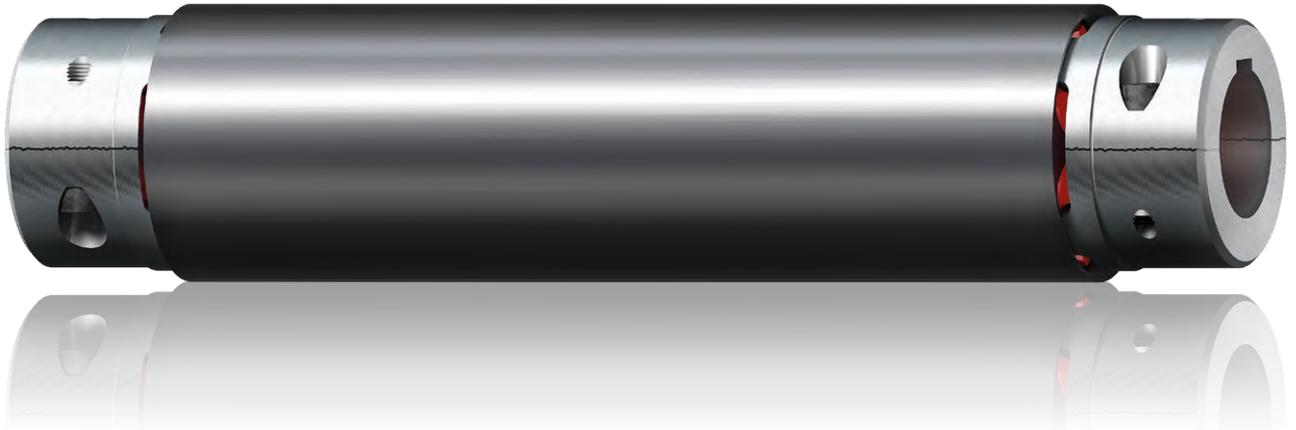


Agricultural technology

Description of product and application

"ROTEX ZRS jaw coupling for bridging smaller and larger shaft distances. The light-weight type ZRS made of high-strength aluminium impresses by very high overall stiffness. The high stiffness of the aluminium pipe results from the design; here two pipes combined via webs - the ROTEX cams - are concerned. There is a positive impact on the critical bending speed of the coupling; shaft distances up to 4,000 mm can be bridged subject to the very low bending. Apart from that the speed may be significantly higher with reference to the shaft distance dimension, as with the renowned intermediate pipe coupling with a steel pipe. The high stiffness of the pipe allows for torque transmission from the soft 92 Sh-A spider to the torsionally stiff 64 Sh-D spider. Applications of the torsionally flexible ROTEX-ZRS intermediate pipe coupling:

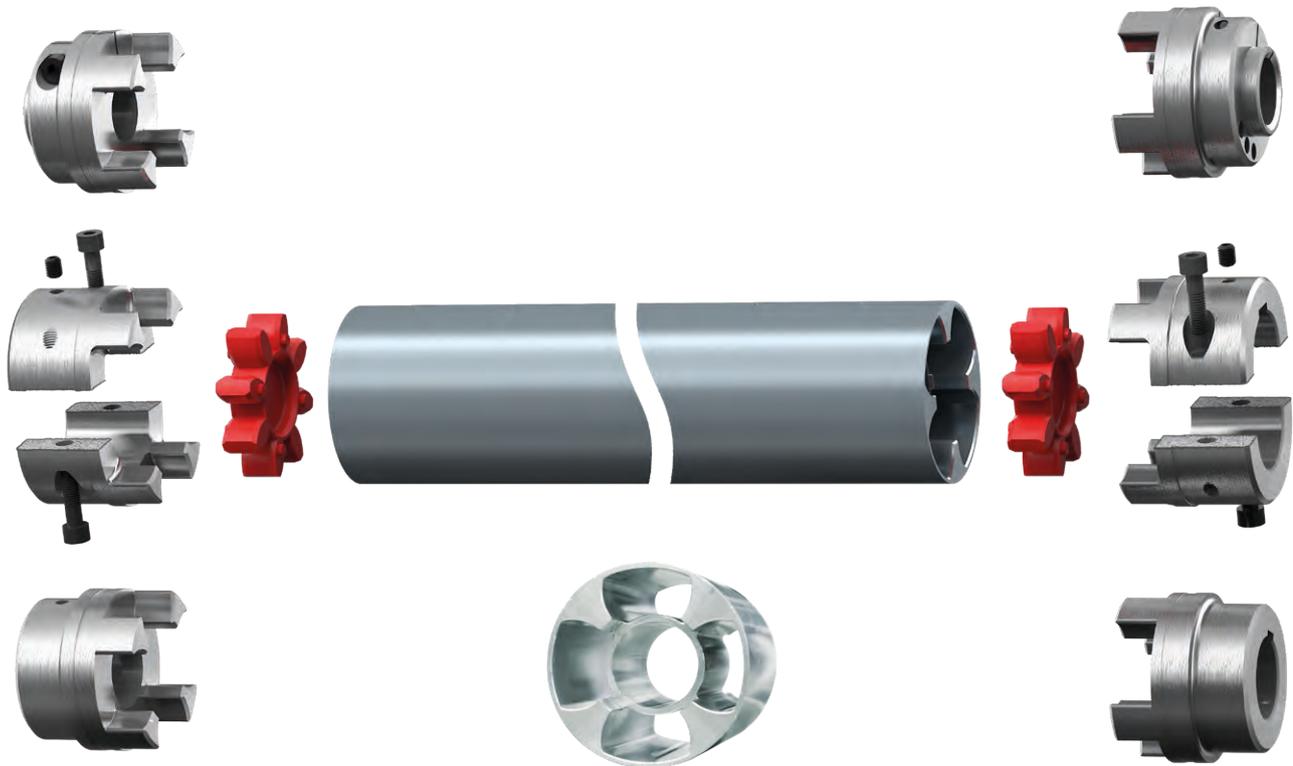
The intermediate pipe coupling type ZRS is used wherever large shaft distances must be bridged, e. g. on scissors lifts and conveyors in the lower torque range. The wide range of ROTEX hubs can be combined with the ZRS pipe and by the combination with, for example, the split ROTEX-SH-SPLIT hubs allows for radial assembly and disassembly without shifting driving and driven side. Please note: This type is not permissible for crane and hoist drives."



Produktmerkmale

- Intermediate tube made of aluminium extruded section
- ROTEX size 19 to 42
- For bridging small to large shaft distances up to 4000 mm
- Improved torsional spring stiffness and higher operating speed
- Very short delivery time
- Compatible with all ROTEX and ROTEX GS hubs
- Compatible with all ROTEX GS spiders
- Utility model protection by the German Patent and Trade Mark Office

Various hub designs



Insight into ROTEX ZRS intermediate shaft

Intermediate shaft coupling can be combined with all ROTEX hub variants

The two backlash-free ROTEX-GS spiders of the double-cardanic jaw coupling centre and support the intermediate tube. Both spiders are positioned in the tube and thus protected from external influences such as falling dirt.

The ZRS intermediate tube can be combined with all **hub versions** of the KTR coupling series ROTEX standard and **ROTEX GS**, thus allowing for a wide range of applications. Depending on the hub version, the coupling is mounted and dismantled either radially or axially. It is manufactured at KTR's headquarters in Rheine and can be delivered within a few working days after order confirmation.

Examples of combinations with ROTEX hub variants:



ROTEX GS, Clamping hub

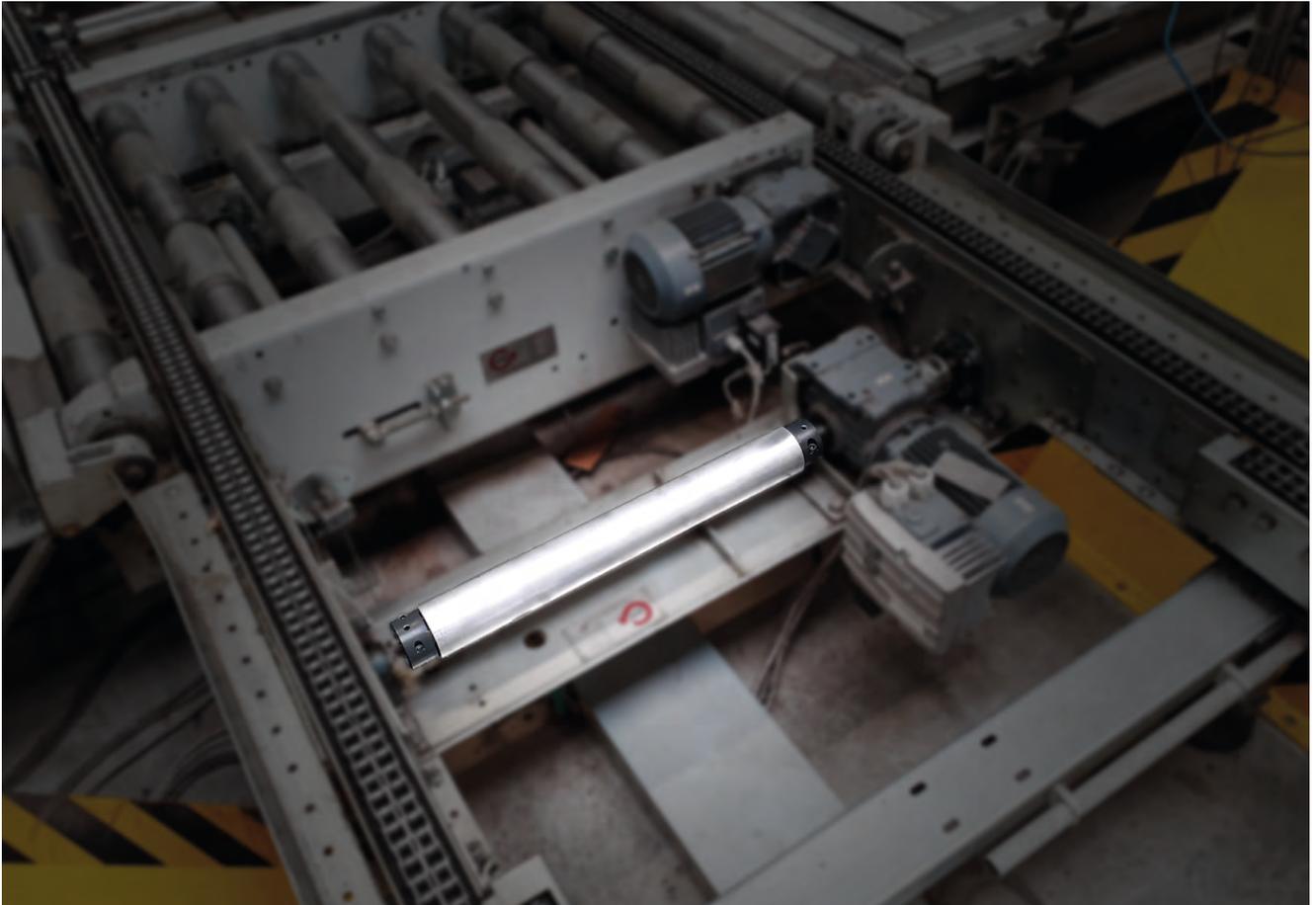


ROTEX GS, Clamping ring hub

ROTEX® ZRS

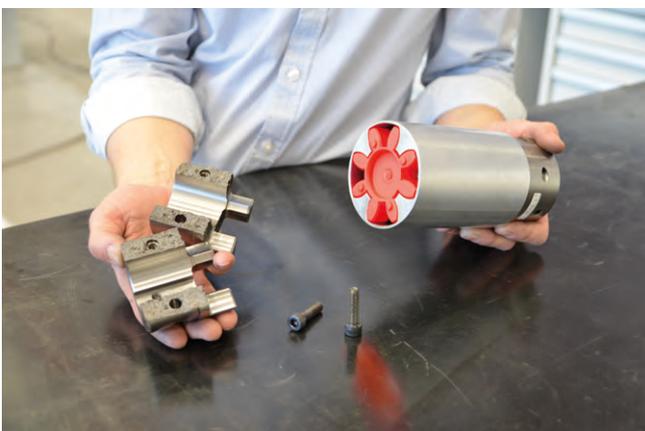
Flexible / backlash-free intermediate shaft coupling

Application example of horizontal installation in the KTR logistics centre



- ROTEX 28 ZRS with SPLIT hubs
- Connection electric gear motor with chain drive
- More than 10,000 operating hours in use

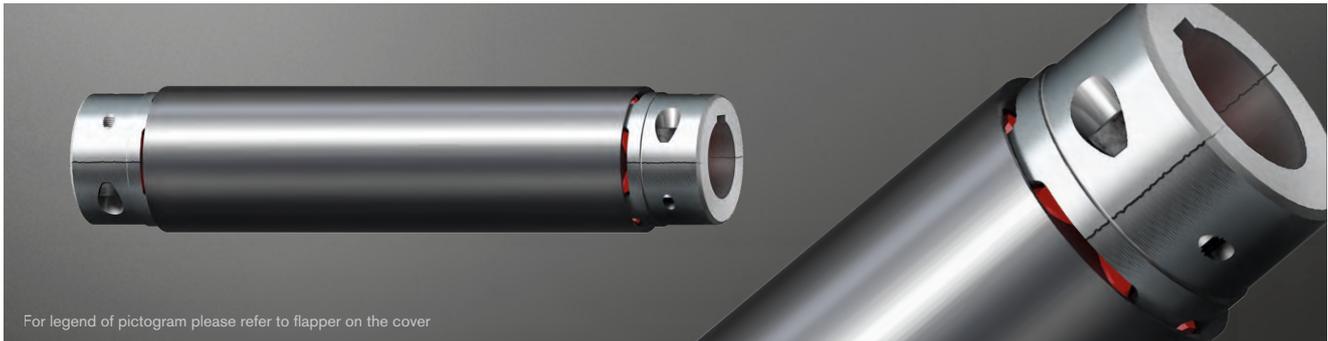
Various designs



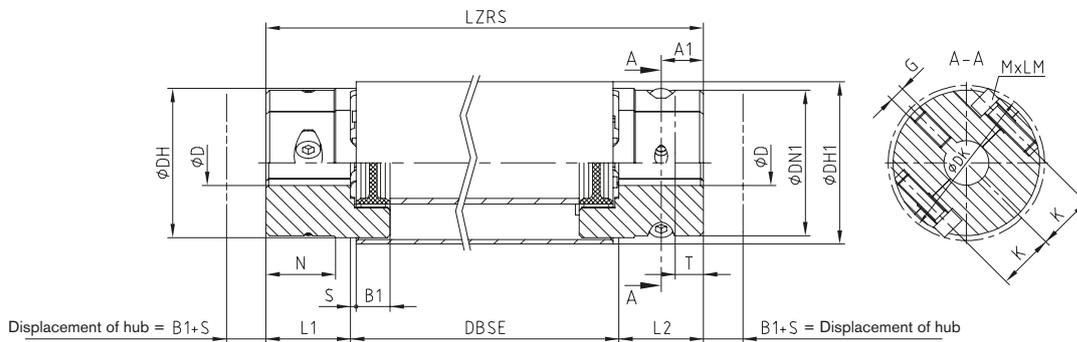
ROTEX® ZRS

Flexible /backlash-free intermediate shaft coupling

Intermediate shaft programme



For legend of pictogram please refer to flapper on the cover



ROTEX® type ZRS																			
Size	Dimensions ⁵⁾ [mm]														Intermediate pipe Torsion spring stiffness C ²⁾ [Nm/rad]	Clamping screw DIN EN ISO 4762		LZRS ¹⁾	Min. DBSE
	Finish bore D (min. - max.)	DH	DN1	L1, L2	N	B1	S	G	T	A1	K	DK	DH1	MxLM		Tightening torque T _A [Nm]			
19 ³⁾	0-20	40	-	25	-	12	2.0	-	-	8.0	14.5	46.0	45	3800	M6x16	14	⁴⁾	33	
24	0-24	55	-	30	-	14	2.0	M5	10	15.0	20.0	57.5	60	11100	M6x20	14		37	
28	0-38	65	-	35	-	15	2.5	M8	15	17.5	25.0	73.0	72	23600	M8x25	34	LZRS =	40	
38	24-45	80	78	45	37.0	18	3.0	M8	15	22.5	30.0	83.5	87	43800	M8x30	34	DBSE + L1 + L2	49	
42	24-55	95	94	50	40.0	20	3.0	M8	20	25.0	30.0	97.0	103	82600	M10x35	67		53	

¹⁾ For inquiries and orders please specify the shaft distance dimension DBSE along with the maximum speed to review the critical bending speed.

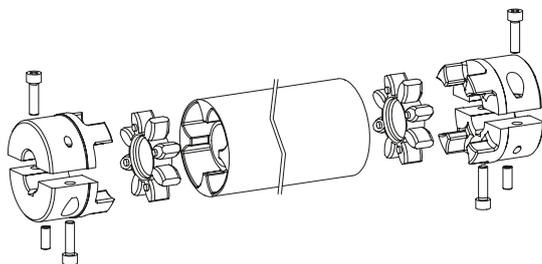
Maximum DBSE = 4000 mm (different lengths on request).

²⁾ Torsion spring stiffness with an intermediate pipe length of 1 m

³⁾ Available as a clamping hub type DH (7.5/7.6)

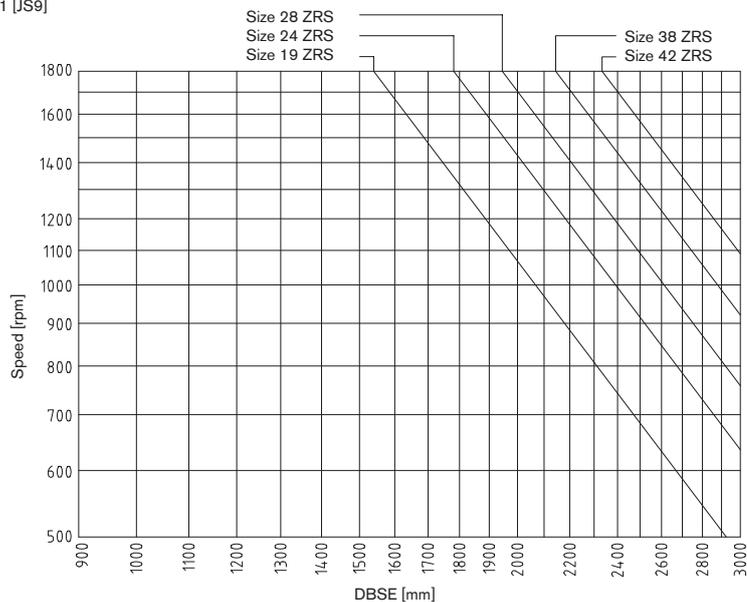
⁴⁾ LZRS = DBSE + L1 + L2 - 15

⁵⁾ Finish bore according to ISO fit H7, feather keyway according to DIN 6885, sheet 1 [JS9]



7.1 = SPLIT hub with feather keyway

Displacements			
Size	Axial displacement [mm]	Radial displacement [mm] per 1m of pipe length	Angular displacement [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



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

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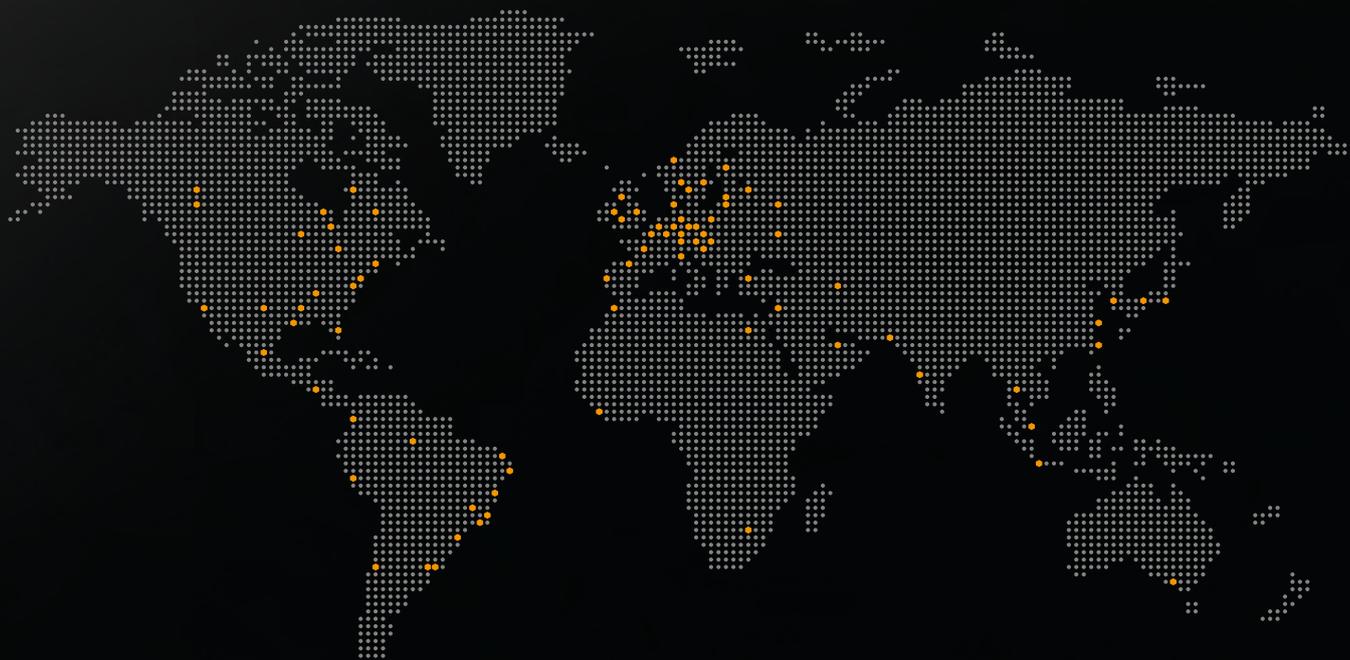
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Made for Motion



Certificates and Approvals

Being one of the first companies in the field of drive technology, KTR was certified in accordance with DIN EN ISO 9001 already in 1993, including the plants in Poland, China, India and USA.

Currently KTR products have been approved by numerous internationally renowned societies for standardization and classification. Individual approvals by other societies can be implemented on request without fail.



Lloyd's Register



Original approval date:

17.05.2011

Date of the audit:

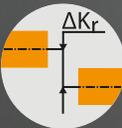
08.06.2011

Date of next recertification:

Valid until:



Legend of pictograms

	Torsionally stiff		Light-weight		Maintenance-free
	Torsionally flexible		Axial compensation		Protected against corrosion
	Highly flexible		Angular compensation		Electrically insulating
	Damping vibrations		Radial compensation		Maximum speed
	Axial plug-in		Shiftable at standstill		No eddy current losses
	Consider shaft distance		Double-cardanic		Torque limiter slipping
	Relatively short shaft distance		Radial disassembly, ease of service		Torque limiter with synchronous ratcheting
	Maximum operating temperature		Standard drop-out center lengths available		Torque limiter with idle rotation type
	High speeds		Available in accordance with API		Hardened surface
	Backlash-free		Complying with ATEX For details refer to our ATEX leaflet		Accuracy X %
	Shear type, separating, slipping		Certified in accordance with ABS		Consider axial displacement
					Additional features compared to standard version