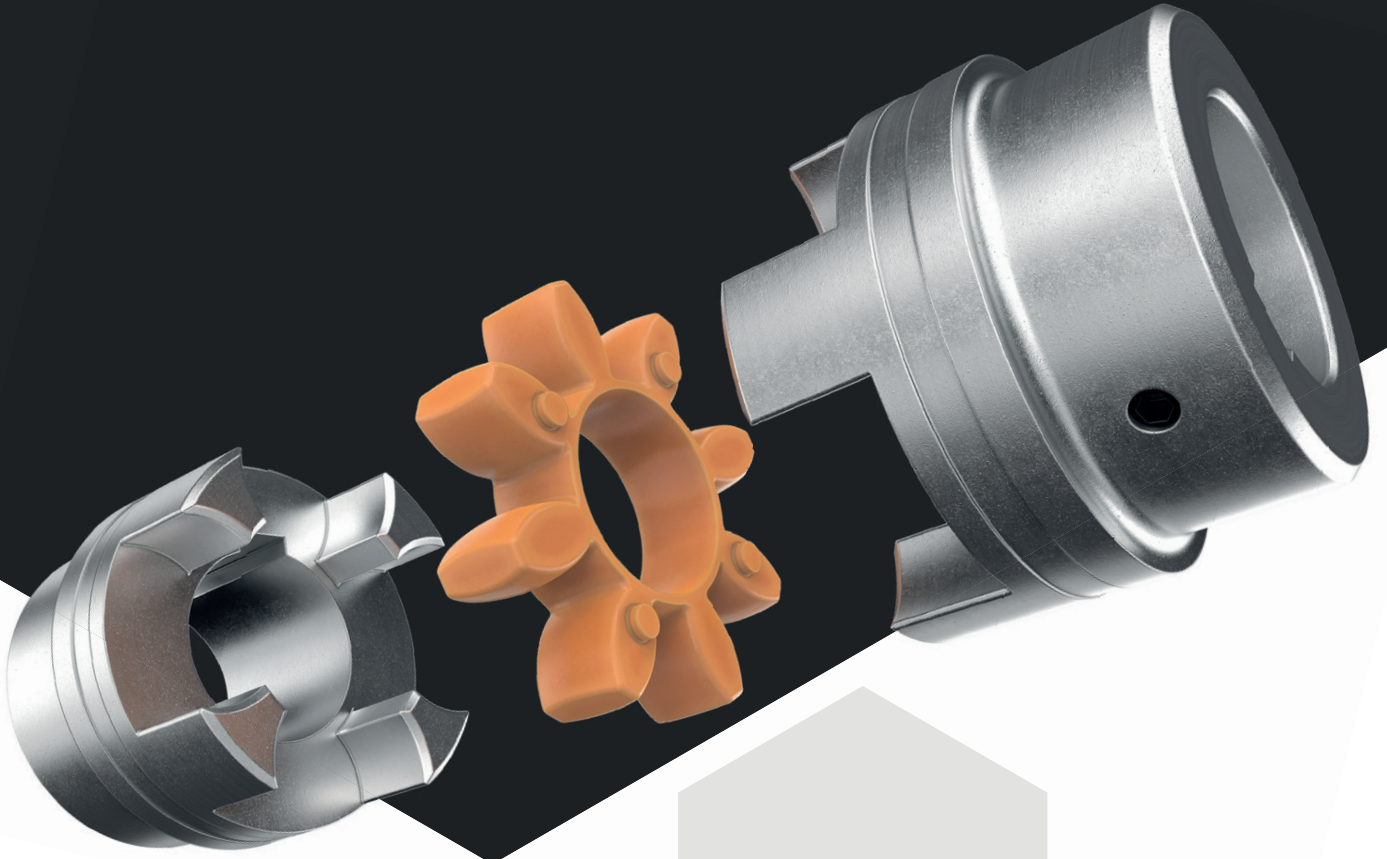


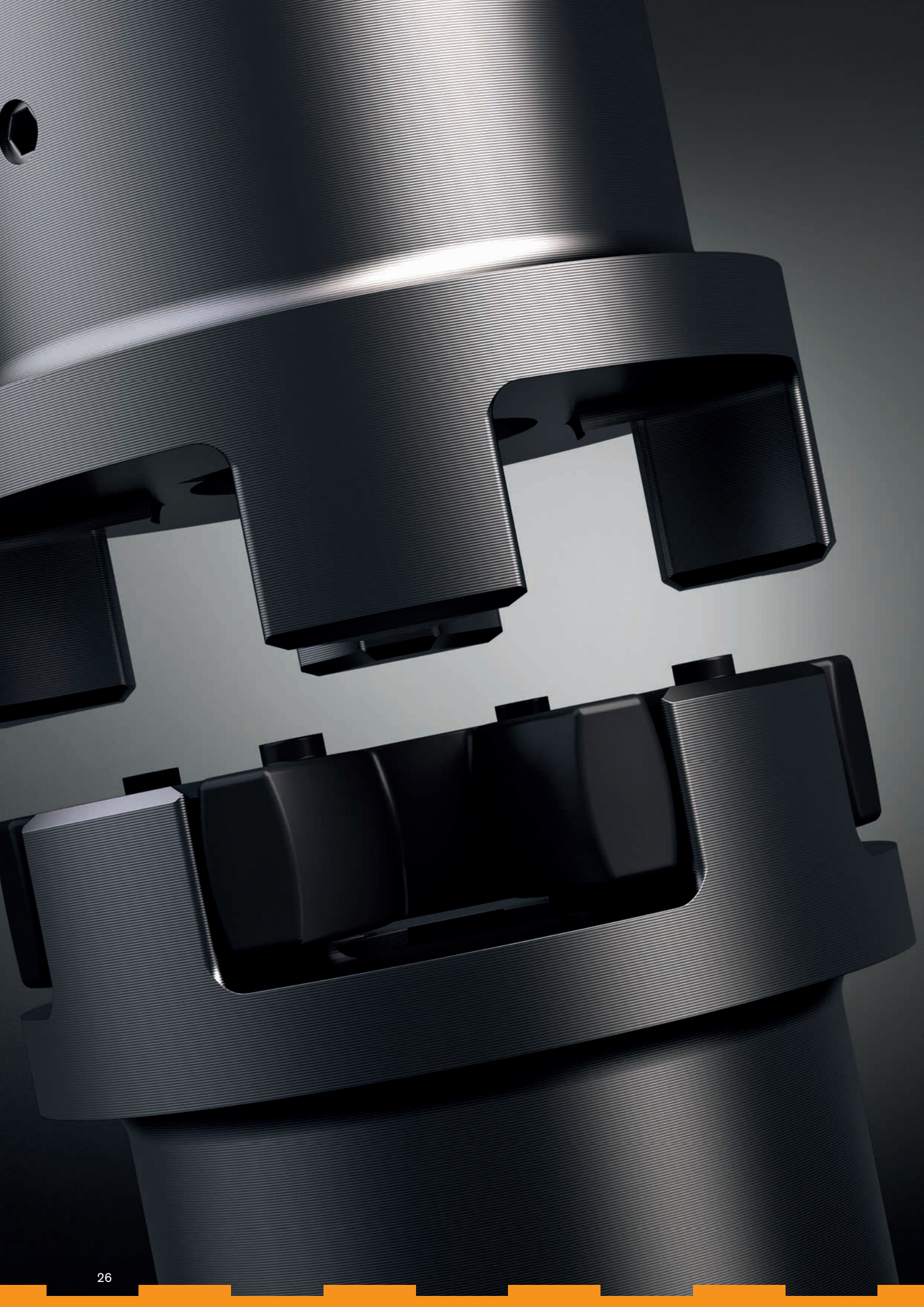
Made for Motion



Drive Technology

ROTEX[®]

2023/24
www.ktr.com



Flexible jaw and pin & bush couplings

Types and operating description

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ROTEX®

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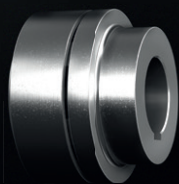
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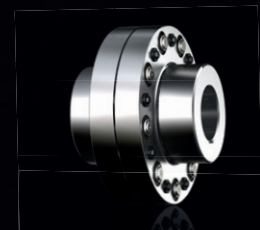
POLY-NORM®



POLY




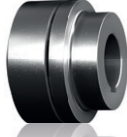

REVOLEX®



FLEXIBLE JAW AND PIN & BUSH COUPLINGS

TYPES AND OPERATING DESCRIPTION

Properties of flexible jaw and pin & bush couplings

| |  |  |  |  |  |
|---|---|---|--|---|--|
| Product | ROTEX® | ROFLEX® | POLY-NORM® | POLY | REVOLEX® |
| Type | Torsionally flexible jaw coupling | | | | Torsionally flexible pin & bush coupling |
| Properties | | | | | |
| Torsionally flexible | ● | ● | ● | ● | ● |
| Damping vibrations | ● | ● | ● | ● | ● |
| Maintenance-free | ● | ● | ● | ● | ● |
| Axial plug-in | ● | ● | ● | ● | ● |
| Shear type | | | | ● | |
| Fail-safe | ● | ● | ● | | ● |
| Compensating for misalignment | ● | ● | ● | ● | ● |
| Types | | | | | |
| Variant diversity | very high | average | average | average | 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 | 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 | chemical pumps, high-pressure pumps, ... | 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 | 42 | 4300 |
| Max. | 35,000 | 5,000 | 67,000 | 6,100 | 1,350,000 |
| Max. circumferential speed v [m/s] | | | | | |
| Cast EN-GJL (dynamic balancing) | 35 | 35 | 35 | 35 | 35 |
| Steel + cast EN-GJS (dynamic balancing) | 60 | | | | 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 | 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 steel

FLEXIBLE JAW AND PIN & BUSH COUPLINGS

TYPES AND OPERATING DESCRIPTION

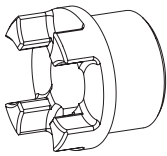
Product finder of jaw and pin & bush couplings

| |  |  |  |  |  |
|--|---|---|--|---|---|
| Product | ROTEX® | ROFLEX® | POLY-NORM® | POLY | REVOLEX® |
| Type | Torsionally flexible jaw coupling | | | | Torsionally flexible pin & bush coupling |
| Geometries | | | | | |
| Design | compact | short | short | short | short |
| Mass moment of inertia | low | average | average | high | average |
| 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 | PKD | Standard |
| Intermediate shaft types » bridging larger shaft distances | ZR, ZWN | - | - | - | customised |
| Standard spacers 100 mm to 250 mm | ZS-DKM-SH | - | AZR | PKA | customised |
| shaft-to-shaft connection | Standard | N | Standard | Standard | Standard |
| flange-to-shaft connection | CF, CFN | - | - | - | 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  | ● | | | | |
| GOST R / GOST TR  | ● | ● | ● | ● | ● |
| DNV/GL  | ● | | | | ● |
| ABS  | ● | | | | ○ |
| Bureau Veritas  | ● | | | | ○ |
| LR  | ○ | | | | ○ |
| RS CLASS  | ○ | | | | ○ |
| CCS  | ○ | | | | ○ |
| ClassNK  | ○ | | | | |

● ≈ 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.



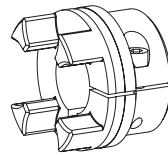
Type 1.0 hub with feather keyway and setscrew

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 2.3 clamping hub with spline bore

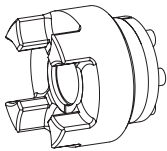
For splines see page 37. Positive-locking power transmission. The friction fit avoids resp. reduces reverse backlash.

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.

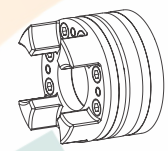


Type 4.2 hub for CLAMPEX® clamping set KTR 250

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.

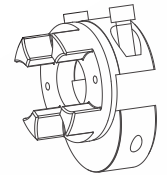


Type 6.0 clamping ring hub (see ROTEX® GS series)

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

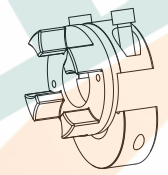


Type 7.6 clamping hub type DH with feather keyway for double-cardanic connection

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)

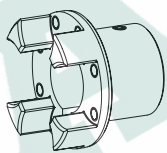


Type 7.9 clamping hub type H with feather keyway

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.

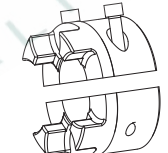
Type 7.8 clamping hub type H without feather keyway

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



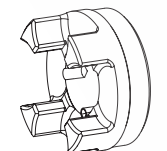
FNN hub

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



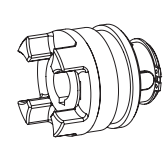
Type 7.1 SPLIT hub with feather keyway

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.



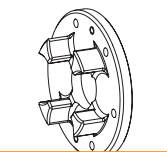
TB1 hub/TB2 hub

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



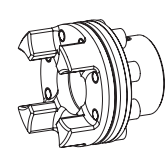
SD hub shifting hub

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.



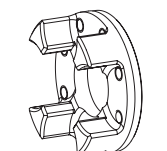
Driving flange type 3b

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



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.



Driving flange type 3Na

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

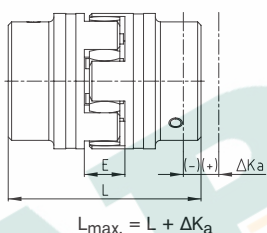
Speeds

| 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 | 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 | - | | | | | | | | | | | 160 | 6000 | 200 | 8600 |
| 19 | 10000 | 10000 | 3600 | 10000 | | | | | | | | | | | 200 | 4800 | 250 | 6850 |
| 24 | 10000 | 10000 | 3600 | 8600 | | | | | | | | | | | 250 | 3800 | 315 | 5500 |
| 28 | 10000 | 10000 | 3600 | 7300 | | | | | | | | | | | 315 | 3000 | 355 | 4850 |
| 38 | 9500 | 8300 | 3600 | 6000 | | | | | | | | | | | 400 | 2400 | 400 | 4300 |
| 42 | 8000 | 7000 | 3600 | 5000 | | | | | | | | | | | 500 | 1900 | 450 | 3800 |
| 48 | 7200 | 6300 | 3600 | 4500 | | | | | | | | | | | 630 | 1500 | 500 | 3500 |
| 55 | 6300 | 5500 | - | 4000 | | | | | | | | | | | 630 | 1500 | 560 | 3050 |
| 65 | 5600 | 4900 | - | 3600 | | | | | | | | | | | 710 | 1350 | 630 | 2700 |
| 75 | 4700 | 4200 | - | 3000 | | | | | | | | | | | 710 | 1350 | 710 | 2400 |
| 90 | 3800 | 3600 | - | 2400 | | | | | | | | | | | 800 | 1200 | 800 | 2150 |
| 100 | 3600 | - | - | 2100 | | | | | | | | | | | | | 900 | 1900 |
| 110 | 3000 | - | - | 1900 | | | | | | | | | | | | | 1000 | 1700 |
| 125 | 2600 | - | - | 1800 | | | | | | | | | | | | | | |
| 140 | 2400 | - | - | 1500 | | | | | | | | | | | | | | |
| 160 | 2000 | - | - | 1300 | | | | | | | | | | | | | | |
| 180 | 1800 | - | - | 1150 | | | | | | | | | | | | | | |
| We recommend balancing 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 |

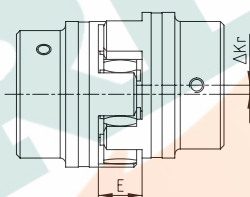
Depending on the application, balancing may also be required with lower circumferential speeds. Higher speeds possible on request.

Displacements

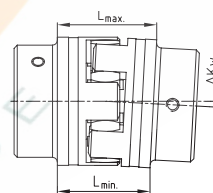
Axial displacement ΔK_a



Radial displacement ΔK_r



Angular displacement ΔK_w [degree]



| 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 | -1.0 +3.0 | -1.5 +3.4 | -1.5 +3.8 | -1.5 +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.

ROTEX®

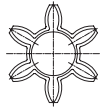
Flexible jaw couplings

Properties of standard spiders

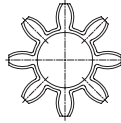
ROTEX® 14



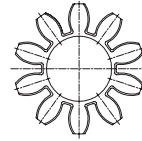
ROTEX® 19



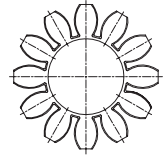
ROTEX® 24 - 65



ROTEX® 75 - 160







ROTEX® 180




Degree of hardness



| Spider type (Shore hardness) | 92 Shore A (T-PUR®) | 92 Shore A |
|-------------------------------|--|--|
| |  T-PUR® |  |
| Size | 14 to 180 | 14 to 90 |
| Material | T-PUR® | Polyurethane (PUR) |
| Permissible temperature range | -40 °C to +120 °C | -40 °C to +90 °C |
| Permanent temperature | -40 °C to +150 °C | -40 °C to +120 °C |
| Short-term temperature | | |
| Properties | <ul style="list-style-type: none"> – significantly higher service life expectancy – very good temperature resistance – improved damping of vibrations – good damping, medium flexibility – suitable for all hub materials | <ul style="list-style-type: none"> – good damping, medium flexibility – suitable for all hub materials |



| Spider type (Shore hardness) | 98 Shore A (T-PUR®) | 98 Shore A |
|-------------------------------|---|---|
| |  T-PUR® |  |
| Size | 14 to 180 | 14 to 90 |
| Material | T-PUR® | Polyurethane (PUR) |
| Permissible temperature range | -40 °C to +120 °C | -30 °C to +90 °C |
| Permanent temperature | -40 °C to +150 °C | -40 °C to +120 °C |
| Short-term temperature | | |
| Properties | <ul style="list-style-type: none"> – significantly higher service life expectancy – very good temperature resistance – improved damping of vibrations – transmission of high torques with average damping – recommended hub material: steel, GJL and GJS | <ul style="list-style-type: none"> – transmission of high torques with average damping – recommended hub material: steel, GJL and GJS |

| Spider type (Shore hardness) | 64 Shore D (T-PUR®) |
|-------------------------------|---|
| |  T-PUR® |
| Size | 14 to 180 |
| Material | T-PUR® |
| Permissible temperature range | -40 °C to +120 °C |
| Permanent temperature | -40 °C to +150 °C |
| Short-term temperature | |
| Properties | <ul style="list-style-type: none"> – 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 |

ROTEX®

Flexible jaw couplings

Technical data and properties of special spiders

| | | |
|-------------------------------|--|---|
| |  |  |
| Description | PA | PEEK |
| Material | Polyamide | Polyetheretherketone |
| Permissible temperature range | | |
| Permanent temperature | -40 °C to +100 °C ¹⁾ | up to +180 °C |
| Short-term temperature | -40 °C to +120 °C ¹⁾ | up to +250 °C |
| Properties | <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> - 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 |

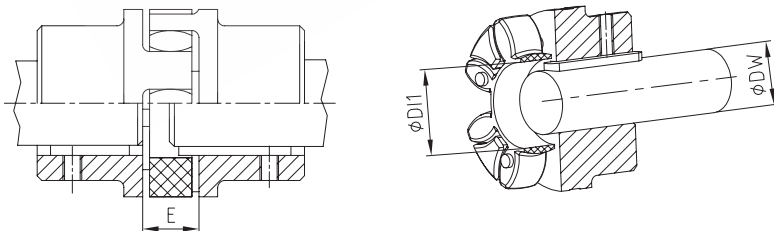
¹⁾ different properties depending on compound

| Torques | | | |
|-------------|----------------------|-------------------------|----------------------|
| ROTEX® size | PA, PEEK | | |
| | T _{KN} [Nm] | T _{K max} [Nm] | T _{KW} [Nm] |
| 14 | 22 | 44 | 5.5 |
| 19 | 30 | 60 | 8.0 |
| 24 | 105 | 210 | 27.5 |
| 28 | 280 | 560 | 73 |
| 38 | 565 | 1130 | 147 |
| 42 | 785 | 1570 | 204 |
| 48 | 915 | 1830 | 238 |
| 55 | 1200 | 2400 | 312 |
| 65 | 1645 | 3290 | 427 |
| 75 | 2560 | 5130 | 667 |
| 90 | 6300 | 12600 | 1640 |
| 100 | 8650 | 17300 | 2250 |
| 110 | 10500 | 21000 | 2730 |
| 125 | 13000 | 26000 | 3380 |

| 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 |
| PA | 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 |

With temperatures below -40 °C please consult with KTR.

Installation of spider

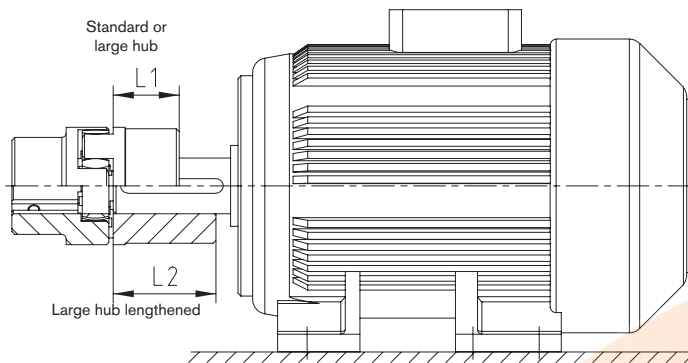


Shaft ØDW with feather key (acc. to DIN 6885 sheet 1) protruding into the spider ØD11

| Mounting dimensions | | | | | | | | | | | | | | | | | |
|----------------------------|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| ROTEX® size | 14 | 19 | 24 | 28 | 38 | 42 | 48 | 55 | 65 | 75 | 90 | 100 | 110 | 125 | 140 | 160 | 180 |
| Distance dimension E | 13 | 16 | 18 | 20 | 24 | 26 | 28 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 75 | 85 |
| Dimension D11 | 10 | 18 | 27 | 30 | 38 | 46 | 51 | 60 | 68 | 80 | 100 | 113 | 127 | 147 | 165 | 190 | 220 |
| Dimension DW ²⁾ | 7 | 12 | 20 | 22 | 28 | 36 | 40 | 48 | 55 | 65 | 80 | 95 | 100 | 120 | 135 | 160 | 185 |

²⁾ If the shaft diameter is smaller than or equal to dimension D11, 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 92 Shore A) | | | | | | | | | | | | | | |
|--|----------------------|---------------|--------------------------------|---------------|----------------------|--------------------------------|---------------|----------------------|--------------------------------|---------------|----------------------|-------------------------------|---------------|----------------------|
| Size | A. C. motor 50 Hz | | Motor power n=3000 rpm 2 poles | | ROTEX® coupling size | Motor power n=1500 rpm 4 poles | | ROTEX® coupling size | Motor power n=1000 rpm 6 poles | | ROTEX® coupling size | Motor power n=750 rpm 8 poles | | ROTEX® coupling size |
| | Shaft end DWxLW [mm] | | Power P [kW] | Torque T [Nm] | | Power P [kW] | Torque T [Nm] | | Power P [kW] | Torque T [Nm] | | Power P [kW] | Torque T [Nm] | |
| | 2 poles | 4, 6, 8 poles | | | | | | | | | | | | |
| 56 | 9 x 20 | | 0.09 | 0.32 | g ¹⁾ | 0.06 | 0.43 | g ¹⁾ | 0.037 | 0.43 | g ¹⁾ | | | |
| | | | 0.12 | 0.41 | | 0.09 | 0.64 | | 0.045 | 0.52 | | | | |
| 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 | | | |
| 71 | 14 x 30 | | 0.37 | 1.3 | | 0.25 | 1.8 | | 0.18 | 2 | | 0.09 | 1.4 | |
| | | | 0.55 | 1.9 | | 0.37 | 2.5 | | 0.25 | 2.8 | | 0.12 | 1.8 | 14 |
| 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 | 24 x 50 | | 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 | |
| | | | 4 | 13 | 24 | 3 | 20 | 24 | 2.2 | 22 | 24 | 1.1 | 16 | 24 |
| 112M | 28 x 60 | | 5.5 | 18 | | 4 | 27 | | 3 | 30 | | 1.5 | 21 | |
| | | | 7.5 | 25 | | 5.5 | 36 | | 4 | 40 | | 2.2 | 30 | |
| 132S | 38 x 80 | | | | 28 | 7.5 | 49 | 28 | 5.5 | 55 | 28 | 3 | 40 | 28 |
| 132M | 38 x 80 | | | | | | | | | | | | | |
| 160M | 42 x 110 | | 11 | 36 | | 11 | 72 | | 7.5 | 75 | | 4 | 54 | |
| | | | 15 | 49 | 38 | 15 | 98 | 38 | 11 | 109 | 38 | 5.5 | 74 | 38 |
| 160L | 42 x 110 | | 18.5 | 60 | | 18.5 | 121 | | 15 | 148 | | 7.5 | 100 | |
| 180M | 48 x 110 | | 22 | 71 | | 22 | 144 | | 18.5 | 181 | | 11 | 145 | |
| 180L | 48 x 110 | | 30 | 97 | | 30 | 196 | 42 | 22 | 215 | 42 | 15 | 198 | 42 |
| 200L | 55 x 110 | | 37 | 120 | | 37 | 240 | 48 | | | | 18.5 | 244 | 48 |
| 225S | 55 x 110 | 60 x 140 | 45 | 145 | | 45 | 292 | | 30 | 293 | 55 | 22 | 290 | 55 |
| 225M | 55 x 110 | 60 x 140 | 55 | 177 | 48 | 55 | 356 | 55 | 37 | 361 | 65 ²⁾ | 30 | 392 | 65 |
| 250M | 60 x 140 | 65 x 140 | 75 | 241 | | 75 | 484 | 65 ²⁾ | 45 | 438 | 65 ²⁾ | 37 | 483 | 65 ²⁾ |
| 280S | 75 x 140 | | 90 | 289 | 55 | 90 | 581 | | 55 | 535 | | 45 | 587 | 75 |
| 280M | 75 x 140 | | 110 | 353 | | 110 | 707 | 75 | 75 | 727 | 75 | 55 | 712 | 75 |
| 315S | 80 x 170 | | 132 | 423 | 65 | 132 | 849 | | 90 | 873 | | 75 | 971 | |
| 315M | 80 x 170 | | 160 | 513 | | 160 | 1030 | | 110 | 1070 | | 90 | 1170 | 90 |
| 315L | 80 x 170 | | 200 | 641 | | 200 | 1290 | 90 | 132 | 1280 | 90 | 110 | 1420 | 90 |
| 315 | 85 x 170 | | 250 | 802 | 75 | 250 | 1600 | | 160 | 1550 | | 132 | 1710 | |
| | | | 315 | 1010 | | 315 | 2020 | | 200 | 1930 | | 160 | 2070 | |
| | | | 355 | 1140 | | 355 | 2280 | 100 | 250 | 2410 | 100 | 200 | 2580 | 100 |
| 355 | 75 x 140 | 95 x 170 | 400 | 1280 | 90 | 400 | 2570 | | 315 | 3040 | 110 | 250 | 3220 | 110 |
| | | | 500 | 1600 | | 500 | 3210 | 110 | 400 | 3850 | | 315 | 4060 | 125 |
| | | | 560 | 1790 | | 560 | 3580 | | 450 | 4330 | 125 | 355 | 4570 | |
| 400 | 80 x 170 | 110 x 210 | 630 | 2020 | | 630 | 4030 | 125 | 500 | 4810 | | 400 | 5150 | 140 |
| | | | 710 | 2270 | 100 | 710 | 4540 | | 560 | 5390 | 140 | 450 | 5790 | |
| | | | 800 | 2560 | | 800 | 5120 | 140 | 630 | 6060 | | 500 | 6420 | |
| 450 | 90 x 170 | 120 x 210 | 900 | 2880 | | 900 | 5760 | | 710 | 6830 | | 560 | 7190 | 160 |
| | | | 1000 | 3200 | 110 | 1000 | 6400 | 160 | 800 | 7690 | 160 | 630 | 8090 | 160 |

The coupling selection is based on an ambient temperature of up to +30 °C. The selection is based on a minimum safety factor of 2 to the max. coupling torque (TK 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 M 11 · 1994/95.

¹⁾ For dimensions see ROTEX® GS series
²⁾ For motor hub made of steel see page 40

Spline bores

Basic programme of SAE involute splines

| 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 | | | | | |

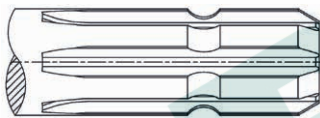
Basic programme of spline bores acc. to DIN 5480

| 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 |

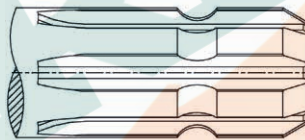
Basic programme of spline bores acc. to DIN 9611 - ISO 500 (p.t.o. shaft connection)

| 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 |

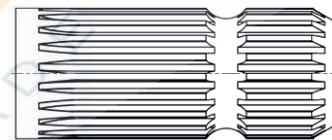
1 3/8", 6 teeth



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 |

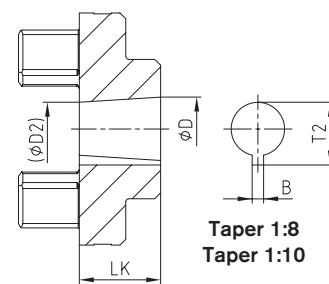
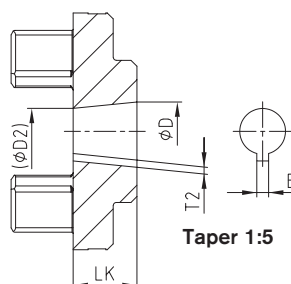
With code N/6 and N/6a keyway in parallel with taper.

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 |

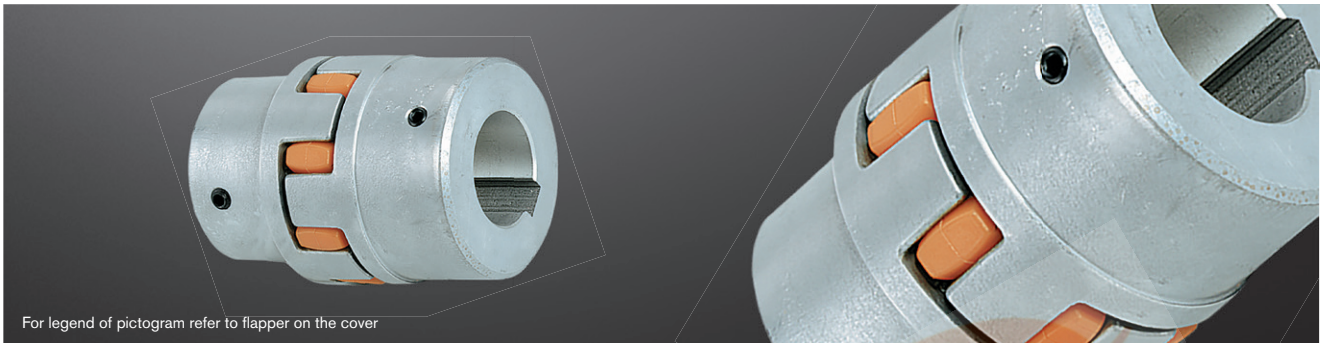
Basic programme taper 1:5

| 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 |

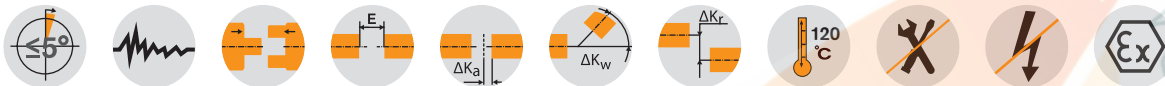


ROTEX® Standard Flexible jaw couplings

Materials: aluminium + cast + sinter material



For legend of pictogram refer to flapper on the cover



| ROTEX® Sintered steel (Sint) | | | | | | | | | | | | | | | | | | |
|------------------------------|-----------|---|--------|--------|-----------------------------|-----------------|----|----|----|-----|-----|----|----|---|----|----------|-----|---------------------|
| Size | Component | Spider ¹⁾ (component 2) Rated torque [Nm] | | | Finish bore D (min. - max.) | Dimensions [mm] | | | | | | | | | | Setscrew | | |
| | | 92 ShA | 98 ShA | 64 ShD | | General | | | | | | | | | | G | T | T _A [Nm] |
| | | | | | L | L1, L2 | E | B1 | S | DH | DI1 | DN | N | | | | | |
| 14 | 1a | 7.5 | 12.5 | — | 0-16 | 35 | 11 | 13 | 10 | 1.5 | 30 | 10 | 30 | — | M4 | 5 | 1.5 | |
| 19 | 1a | 10 | 17 | — | 0-25 | 66 | 25 | 16 | 12 | 2.0 | 40 | 18 | 40 | — | M5 | 10 | 2 | |
| 24 | 1a | 35 | 60 | — | 0-35 | 78 | 30 | 18 | 14 | 2.0 | 56 | 27 | 56 | — | M5 | 10 | 2 | |

| ROTEX® Aluminium diecast (Al-D) | | | | | | | | | | | | | | | | | | |
|---------------------------------|-----------|---|--------|--------|-----------------------------|-----------------|----|----|----|-----|-----|----|----|----|----|----------|----|---------------------|
| Size | Component | Spider ¹⁾ (component 2) Rated torque [Nm] | | | Finish bore D (min. - max.) | Dimensions [mm] | | | | | | | | | | Setscrew | | |
| | | 92 ShA | 98 ShA | 64 ShD | | General | | | | | | | | | | G | T | T _A [Nm] |
| | | | | | L | L1, L2 | E | B1 | S | DH | DI1 | DN | N | | | | | |
| 19 | 1 | 10 | 17 | — | 0-19 | 66 | 25 | 16 | 12 | 2 | 41 | 18 | 32 | 20 | M5 | 10 | 2 | |
| | 19-24 | | | | 41 | | | | | | | | | | | | | |
| 24 | 1 | 35 | 60 | — | 0-24 | 78 | 30 | 18 | 14 | 2 | 56 | 27 | 40 | 24 | M5 | 10 | 2 | |
| | 22-28 | | | | 56 | | | | | | | | | | | | | |
| 28 | 1 | 95 | 160 | — | 0-28 | 90 | 35 | 20 | 15 | 2.5 | 66 | 30 | 48 | 28 | M8 | 15 | 10 | |
| | 28-38 | | | | 66 | | | | | | | | | | | | | |

| ROTEX® Aluminium (Al-H) | | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|---|--------|--------|-----------------------------|-----------------|----|----|----|-----|-----|------|---|---|----|----------|-----|---------------------|
| Size | Component | Spider ¹⁾ (component 2) Rated torque [Nm] | | | Finish bore D (min. - max.) | Dimensions [mm] | | | | | | | | | | Setscrew | | |
| | | 92 ShA | 98 ShA | 64 ShD | | General | | | | | | | | | | G | T | T _A [Nm] |
| | | | | | L | L1, L2 | E | B1 | S | DH | DI1 | DN | N | | | | | |
| 14 | 1a | 7.5 | 12.5 | 16 | 0-16 | 35 | 11 | 13 | 10 | 1.5 | 30 | 10.5 | - | - | M4 | 5 | 1.5 | |
| 19 | 1a | 10 | 17 | 26 | 0-24 | 66 | 25 | 16 | 12 | 2.0 | 40 | 18 | - | - | M5 | 10 | 2 | |
| 24 | 1a | 35 | 60 | 75 | 0-28 | 78 | 30 | 18 | 14 | 2.0 | 55 | 27 | - | - | M5 | 10 | 2 | |
| 28 | 1a | 95 | 160 | 200 | 0-38 | 90 | 35 | 20 | 15 | 2.5 | 65 | 30 | - | - | M8 | 15 | 10 | |
| 38 | 1a | 190 | 325 | 405 | 0-45 | 114 | 45 | 24 | 18 | 3.0 | 80 | 38 | - | - | M8 | 15 | 10 | |
| 42 | 1a | 265 | 450 | 560 | 0-55 | 126 | 50 | 26 | 20 | 3.0 | 95 | 46 | - | - | M8 | 20 | 10 | |
| 48 | 1a | 310 | 525 | 655 | 0-62 | 140 | 56 | 28 | 21 | 3.5 | 105 | 51 | - | - | M8 | 20 | 10 | |

The coupling is provided with a ROTEX® GS spider as a standard (ROTEX® standard spider available, if requested).

| ROTEX® Cast iron (GJL) | | | | | | | | | | | | | | | | | | |
|------------------------|-----------|---|--------|--------|-----------------------------|-----------------|-----|----|----|-----|-----|-----|-----|----|-----|----------|----|---------------------|
| Size | Component | Spider ¹⁾ (component 2) Rated torque [Nm] | | | Finish bore D (min. - max.) | Dimensions [mm] | | | | | | | | | | Setscrew | | |
| | | 92 ShA | 98 ShA | 64 ShD | | General | | | | | | | | | | G | T | T _A [Nm] |
| | | | | | L | L1, L2 | E | B1 | S | DH | DI1 | DN | N | | | | | |
| 38 | 1 | 190 | 325 | 405 | 12-40 | 114 | 45 | 24 | 18 | 3 | 80 | 38 | 66 | 37 | M8 | 15 | 10 | |
| | 38-48 | | | | 78 | | | | | | | | | | | | | |
| | 12-48 | | | | 164 | | | | | | | | 70 | | | | | |
| 42 | 1 | 265 | 450 | 560 | 14-45 | 126 | 50 | 26 | 20 | 3 | 95 | 46 | 75 | 40 | M8 | 20 | 10 | |
| | 42-55 | | | | 94 | | | | | | | | | | | | | |
| | 14-55 | | | | 176 | | | | | | | | 75 | | | | | |
| 48 | 1 | 310 | 525 | 655 | 15-52 | 140 | 56 | 28 | 21 | 3.5 | 105 | 51 | 85 | 45 | M8 | 20 | 10 | |
| | 48-62 | | | | 104 | | | | | | | | | | | | | |
| | 15-62 | | | | 188 | | | | | | | | 80 | | | | | |
| 55 | 1 | 410 | 685 | 825 | 20-60 | 160 | 65 | 30 | 22 | 4 | 120 | 60 | 98 | 52 | M10 | 20 | 17 | |
| | 55-74 | | | | 118 | | | | | | | | | | | | | |
| 65 | 1 | 625 | 940 | 1175 | 22-70 | 185 | 75 | 35 | 26 | 4.5 | 135 | 68 | 115 | 61 | M10 | 20 | 17 | |
| 75 | 1 | 1280 | 1920 | 2400 | 30-80 | 210 | 85 | 40 | 30 | 5 | 160 | 80 | 135 | 69 | M10 | 25 | 17 | |
| 90 | 1 | 2400 | 3600 | 4500 | 40-100 | 245 | 100 | 45 | 34 | 5.5 | 200 | 100 | 160 | 81 | M12 | 30 | 40 | |

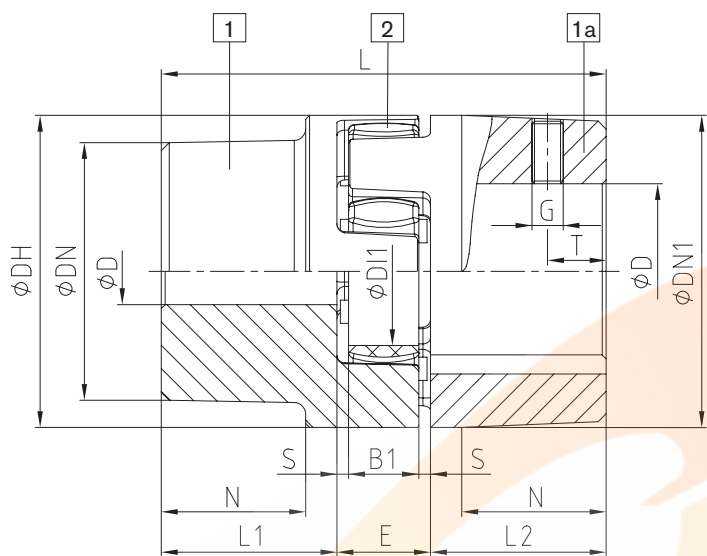
| ROTEX® Nodular iron (GJS) | | | | | | | | | | | | | | | | | | |
|---------------------------|-----------|---|--------|--------|-----------------------------|-----------------|-----|----|----|------|-----|-----|-----|-----|-----|----------|-----|---------------------|
| Size | Component | Spider ¹⁾ (component 2) Rated torque [Nm] | | | Finish bore D (min. - max.) | Dimensions [mm] | | | | | | | | | | Setscrew | | |
| | | 92 ShA | 98 ShA | 64 ShD | | General | | | | | | | | | | G | T | T _A [Nm] |
| | | | | | L | L1, L2 | E | B1 | S | DH | DI1 | DN | N | | | | | |
| 100 | 1 | 3300 | 4950 | 6185 | 50-115 | 270 | 110 | 50 | 38 | 6 | 225 | 113 | 180 | 89 | M12 | 30 | 40 | |
| 110 | 1 | 4800 | 7200 | 9000 | 60-125 | 295 | 120 | 55 | 42 | 6.5 | 255 | 127 | 200 | 96 | M16 | 35 | 80 | |
| 125 | 1 | 6650 | 10000 | 12500 | 60-145 | 340 | 140 | 60 | 46 | 7 | 290 | 147 | 230 | 112 | M16 | 40 | 80 | |
| 140 | 1 | 8550 | 12800 | 16000 | 60-160 | 375 | 155 | 65 | 50 | 7.5 | 320 | 165 | 255 | 124 | M20 | 45 | 140 | |
| 160 | 1 | 12800 | 19200 | 24000 | 80-185 | 425 | 175 | 75 | 57 | 9 | 370 | 190 | 290 | 140 | M20 | 50 | 140 | |
| 180 | 1 | 18650 | 28000 | 35000 | 85-200 | 475 | 195 | 85 | 64 | 10.5 | 420 | 220 | 325 | 156 | M20 | 50 | 140 | |

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

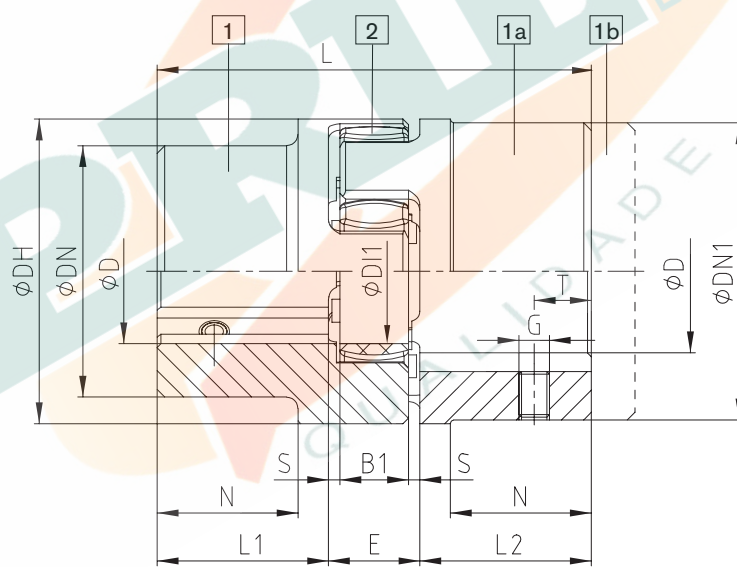
¹⁾ Maximum torque of the coupling T_{K max} = rated torque of the coupling T_{KN} x 2. For selection see page 14 et seqq.

| | | | | | | | |
|-------------------|---------------|----------|-----------------|-----------|-------------|-----------|-------------|
| Ordering example: | ROTEX® 38 | GJL | 92 ShA | 1a | Ø45 | 1 | Ø25 |
| | Coupling size | Material | Spider hardness | Component | Finish bore | Component | Finish bore |

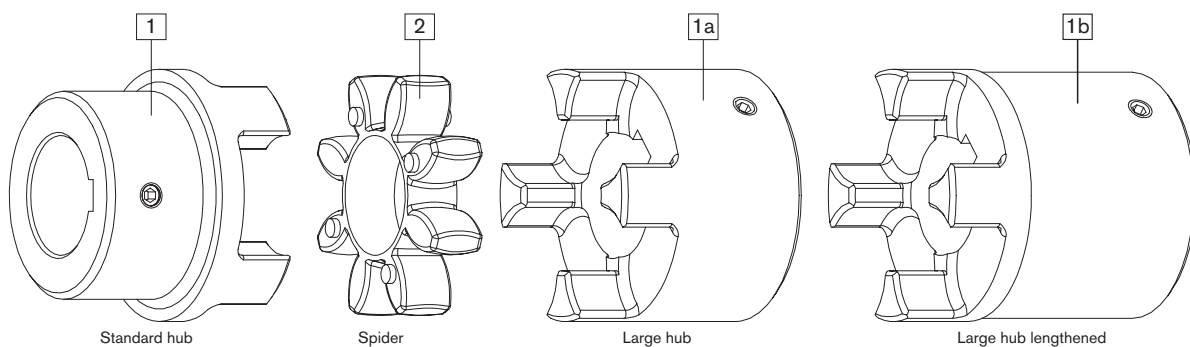
Components



AI-D (thread opposite the keyway)

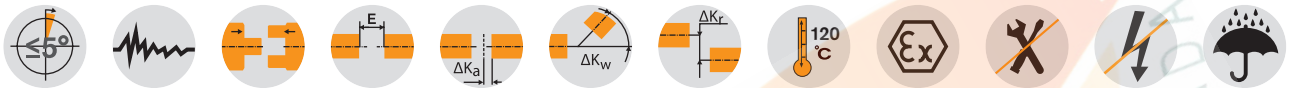
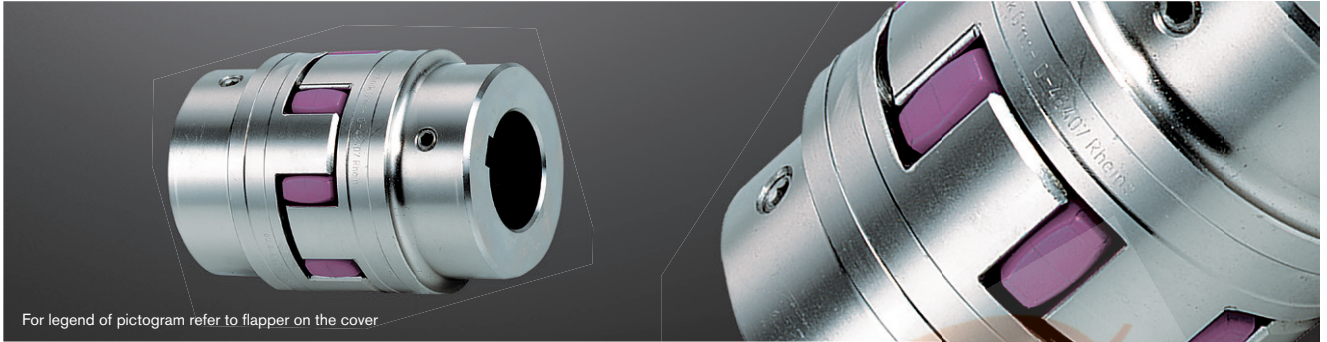


GJL / GJS (thread on the keyway)



ROTEX® Standard Flexible jaw couplings

Material steel/stainless steel



| ROTEX® Steel (St) | | | | | | | | | | | | | | | | | | |
|-------------------|-----------|---|--------|--------|--------------------------------|-----------------|--------|----|----|------|-----|-----|-----|-----|-----|----------|-----|---------------------|
| Size | Component | Spider ¹⁾ (component 2) Rated torque [Nm] | | | Finish bore D (min. - max.) | Dimensions [mm] | | | | | | | | | | Setscrew | | |
| | | 92 ShA | 98 ShA | 64 ShD | | General | | | | | | | | | | G | T | T _A [Nm] |
| | | | | | | L | L1, L2 | E | B1 | S | DH | DI1 | DN | N | | | | |
| 14 | 1a | 7.5 | 12.5 | 16 | 0-16 | 35 | 11 | 13 | 10 | 1.5 | 30 | 10 | 30 | - | M4 | 5 | 1.5 | |
| | 50 | | | | | 18.5 | | | | | | | | | | | | |
| 19 | 1a | 10 | 17 | 21 | 0-25 | 66 | 25 | 16 | 12 | 2 | 40 | 18 | 40 | - | M5 | 10 | 2 | |
| | 90 | | | | | 37 | | | | | | | | | | | | |
| 24 | 1a | 35 | 60 | 75 | 0-35 | 78 | 30 | 18 | 14 | 2 | 55 | 27 | 55 | - | M5 | 10 | 2 | |
| | 118 | | | | | 50 | | | | | | | | | | | | |
| 28 | 1a | 95 | 160 | 200 | 0-40 | 90 | 35 | 20 | 15 | 2.5 | 65 | 30 | 65 | - | M8 | 15 | 10 | |
| | 140 | | | | | 60 | | | | | | | | | | | | |
| 38 | 1 | 190 | 325 | 405 | 0-48 | 114 | 45 | 24 | 18 | 3 | 80 | 38 | 70 | 27 | M8 | 15 | 10 | |
| | 164 | | | | | 70 | 80 | | | | | | - | | | | | |
| 42 | 1 | 265 | 450 | 560 | 0-55 | 126 | 50 | 26 | 20 | 3 | 95 | 46 | 85 | 28 | M8 | 20 | 10 | |
| | 176 | | | | | 75 | 95 | | | | | | - | | | | | |
| 48 | 1 | 310 | 525 | 655 | 0-62 | 140 | 56 | 28 | 21 | 3.5 | 105 | 51 | 95 | 32 | M8 | 20 | 10 | |
| | 188 | | | | | 80 | 105 | | | | | | - | | | | | |
| 55 | 1 | 410 | 685 | 825 | 0-75 | 160 | 65 | 30 | 22 | 4 | 120 | 60 | 110 | 37 | M10 | 20 | 17 | |
| | 210 | | | | | 90 | 120 | | | | | | - | | | | | |
| 65 | 1 | 625 | 940 | 1175 | 0-80 | 185 | 75 | 35 | 26 | 4.5 | 135 | 68 | 115 | 47 | M10 | 20 | 17 | |
| | 235 | | | | | 100 | 135 | | | | | | - | | | | | |
| 75 | 1 | 1280 | 1920 | 2400 | 0-95 | 210 | 85 | 40 | 30 | 5 | 160 | 80 | 135 | 53 | M10 | 25 | 17 | |
| | 260 | | | | | 110 | 160 | | | | | | - | | | | | |
| 90 | 1 | 2400 | 3600 | 4500 | 0-110 | 245 | 100 | 45 | 34 | 5.5 | 200 | 100 | 160 | 62 | M12 | 30 | 40 | |
| | 295 | | | | | 125 | 200 | | | | | | - | | | | | |
| 100 | 1 | 3300 | 4950 | 6185 | 0-115 | 270 | 110 | 50 | 38 | 6 | 225 | 113 | 180 | 89 | M12 | 30 | 40 | |
| 110 | 1 | 4800 | 7200 | 9000 | 0-125 | 295 | 120 | 55 | 42 | 6.5 | 255 | 127 | 200 | 96 | M16 | 35 | 80 | |
| 125 | 1 | 6650 | 10000 | 12500 | 60-145 | 340 | 140 | 60 | 46 | 7 | 290 | 147 | 230 | 112 | M16 | 40 | 80 | |
| 140 | 1 | 8550 | 12800 | 16000 | 60-160 | 375 | 155 | 65 | 50 | 7.5 | 320 | 165 | 255 | 124 | M20 | 45 | 140 | |
| 160 | 1 | 12800 | 19200 | 24000 | 80-185 | 425 | 175 | 75 | 57 | 9 | 370 | 190 | 290 | 140 | M20 | 50 | 140 | |
| 180 | 1 | 18650 | 28000 | 35000 | 85-200 | 475 | 195 | 85 | 64 | 10.5 | 420 | 220 | 325 | 156 | M20 | 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 | | | | | | | | | | | | | | | | | | |
|------------------------|----------|---|--------|--------|--------------------------------|-----------------|--------|----|----|-----|-----|-----|----|----|----|----------|----|---------------------|
| Size | Material | Spider (component 2) Rated torque [Nm] | | | Finish bore D (min. - max.) | Dimensions [mm] | | | | | | | | | | Setscrew | | |
| | | 92 ShA | 98 ShA | 64 ShD | | General | | | | | | | | | | G | T | T _A [Nm] |
| | | | | | | L | L1, L2 | E | B1 | S | DH | DI1 | DN | N | | | | |
| 19 | 1.4305 | 10 | 17 | 21 | 0-25 | 66 | 25 | 16 | 12 | 2 | 40 | 18 | 40 | - | M5 | 10 | 2 | |
| 24 | 1.4305 | 35 | 60 | 75 | 0-35 | 78 | 30 | 18 | 14 | 2 | 55 | 27 | 55 | - | M5 | 10 | 2 | |
| 28 | 1.4305 | 95 | 160 | 200 | 0-40 | 90 | 35 | 20 | 15 | 2.5 | 65 | 30 | 65 | - | M8 | 15 | 10 | |
| 38 | 1.4305 | 190 | 325 | 405 | 0-48 | 114 | 45 | 24 | 18 | 3 | 80 | 38 | 70 | 27 | M8 | 15 | 10 | |
| 42 | 1.4305 | 265 | 450 | 560 | 0-55 | 126 | 50 | 26 | 20 | 3 | 95 | 46 | 85 | 28 | M8 | 20 | 10 | |
| 48 | 1.4305 | 310 | 525 | 655 | 0-62 | 140 | 56 | 28 | 21 | 3.5 | 105 | 51 | 95 | 32 | M8 | 20 | 10 | |

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 |

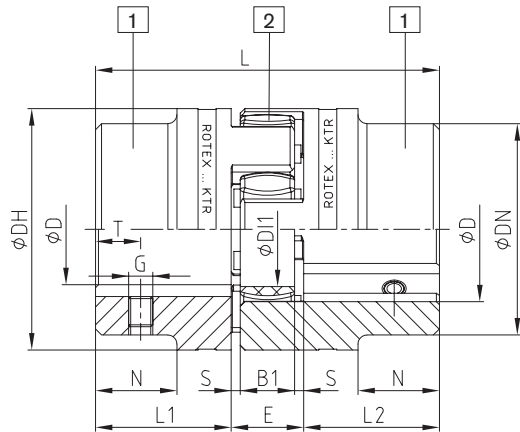
ROTEX® Flexible jaw couplings

Flexible jaw and pin & bush couplings

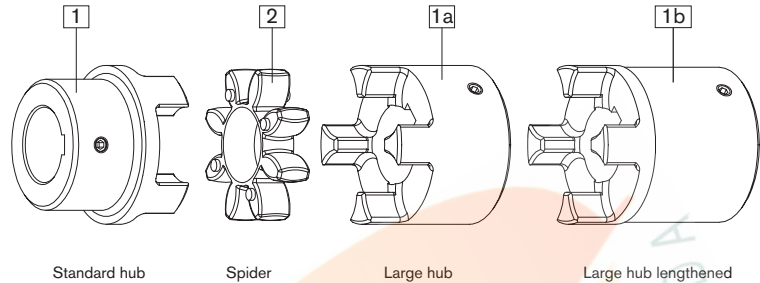
ROTEX®

DIN EN 10204 - 3.1 and 3.2 material test certificate

Components



Steel (thread on the keyway)



ROFLEX®

| 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⁾ | | | |
| 120 | 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

POLY-NORM®

Marine programme:

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



POLY

UL



Use in fire pumps

ROTEX® couplings comply with the specifications of NFPA 20 standard 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:



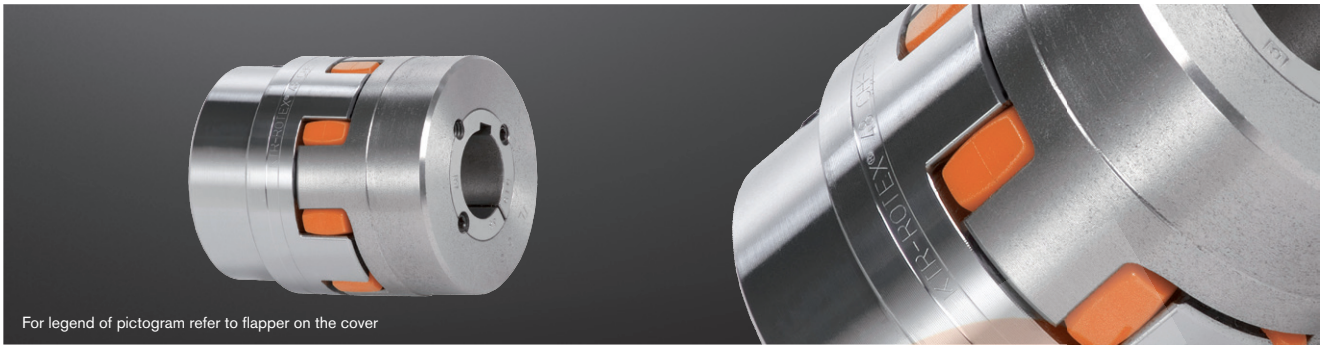
| ROTEX® UL Listed | | | | | | | | | |
|------------------|-----------|----------|---|-----------------------------|-----|--------|----|-----|--|
| Size | Component | Material | Spider (component 2) Rated torque [Nm] | Dimensions [mm] | | | | | |
| | | | | Finish bore D (min. - max.) | L | L1, L2 | E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

* for complete dimensions see table on page 40

REVOLEX®

ROTEX® Flexible jaw couplings

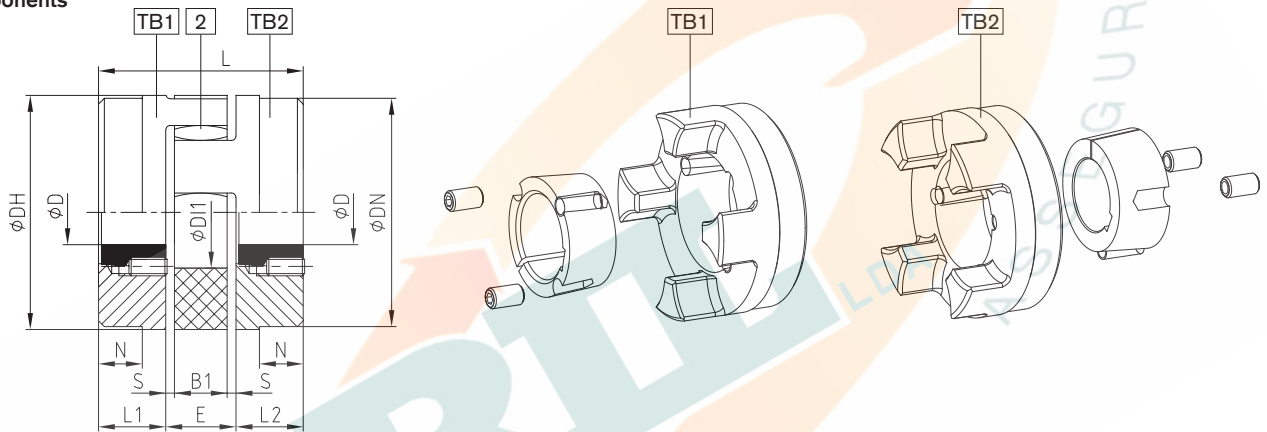
Taper clamping sleeve



For legend of pictogram refer to flapper on the cover



Components



ROTEX® Shaft coupling for taper clamping sleeve

| Size | Taper clamping sleeve | Dimensions [mm] | | | | | | | | | Fastening screws for taper clamping sleeves | | | |
|------|-----------------------|-----------------|----|----|-----|-----|----|-----|-----|-----|---|-------------|--------|---------------------|
| | | L1, L2 | E | B1 | S | L | N | DH | DN | DI1 | Size [Inch] ¹⁾ | Length [mm] | Number | T _A [Nm] |
| 24 | 1008 | 22 | 18 | 14 | 2.0 | 62 | – | 55 | 55 | 27 | 1/4" | 13 | 2 | 5.7 |
| 28 | 1108 | 23 | 20 | 15 | 2.5 | 66 | – | 65 | 65 | 30 | 1/4" | 13 | 2 | 5.7 |
| 38 | 1108 | 23 | 24 | 18 | 3.0 | 70 | 15 | 80 | 78 | 38 | 1/4" | 13 | 2 | 5.7 |
| 42 | 1610 | 26 | 26 | 20 | 3.0 | 78 | 16 | 95 | 94 | 46 | 3/8" | 16 | 2 | 20 |
| 48 | 1615 | 39 | 28 | 21 | 3.5 | 106 | 28 | 105 | 104 | 51 | 3/8" | 16 | 2 | 20 |
| 55 | 2012 | 33 | 30 | 22 | 4.0 | 96 | 20 | 120 | 118 | 60 | 7/16" | 22 | 2 | 31 |
| 65 | 2012 | 33 | 35 | 26 | 4.5 | 101 | 19 | 135 | 115 | 68 | 7/16" | 22 | 2 | 31 |
| 75 | 2517 | 52 | 40 | 30 | 5.0 | 144 | 36 | 160 | 158 | 80 | 1/2" | 25 | 2 | 49 |
| | 5/8" | | | | | | | | | | 32 | 92 | | |
| 90 | 3020 | 52 | 45 | 34 | 5.5 | 149 | 33 | 200 | 160 | 100 | 3/8" | 32 | 2 | 92 |
| 100 | 3535 | 90 | 50 | 38 | 6.0 | 230 | 69 | 225 | 180 | 113 | 1/2" | 49 | 3 | 113 |
| 125 | 4545 | 114 | 60 | 46 | 7.0 | 288 | 86 | 290 | 230 | 147 | 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 ²⁾ | | | | | | | |
| 1610 | Ø14 | Ø16 | Ø18 | Ø19 | Ø20 | Ø22 | Ø24 | Ø25 | Ø28 | Ø30 | Ø32 | Ø35 | Ø38 | Ø40 | Ø42 ²⁾ | | | | |
| 1615 | Ø14 | Ø16 | Ø18 | Ø19 | Ø20 | Ø22 | Ø24 | Ø25 | Ø28 | Ø30 | Ø32 | Ø35 | Ø38 | Ø40 | Ø42 ²⁾ | | | | |
| 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⁾ 1. BSW thread

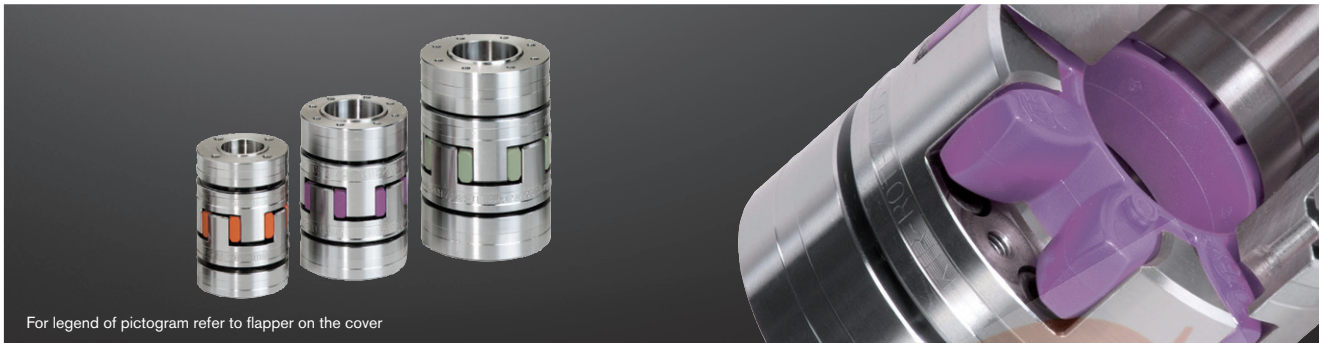
Coupling type TB1/TB2, TB1/TB1 and TB2/TB2 possible.

Please order our separate dimension sheet (M373054).

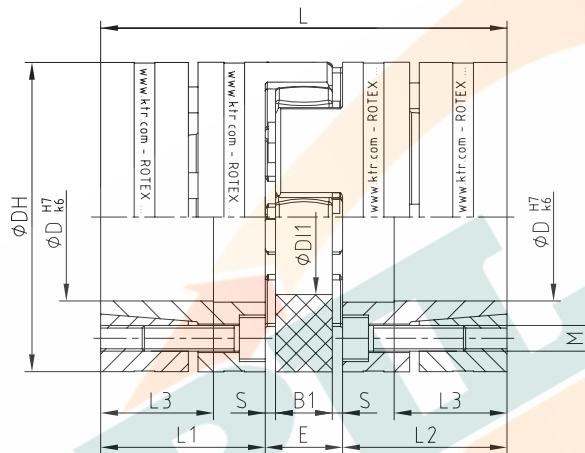
²⁾ Bores with feather keyway (flat design) acc. to DIN 6885 sheet 3

| 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



For legend of pictogram refer to flapper on the cover



Extraction thread M1 between clamping screws.

Clamping ring hubs steel

| Size | Torques [Nm] ¹⁾ | | | | Dimensions [mm] | | | | | | | | | Clamping screws | | | Weight per hub with max. bore [kg] | Mass moment of inertia per hub with max. bore [kgm ²] |
|------|----------------------------|--------|--------|--------|------------------|-----|-----|--------|----|----|----|-----|-----|-----------------|---------------------|-----|------------------------------------|---|
| | 92 ShA | | 98 ShA | | DH ²⁾ | DI1 | L | L1, L2 | L3 | E | B1 | S | M | Z = number | T _A [Nm] | M1 | | |
| | TKN | TK max | TKN | TK max | | | | | | | | | | | | | | |
| 19 | 10.0 | 20 | 17 | 34 | 40 | 18 | 66 | 25 | 18 | 16 | 12 | 2.0 | M4 | 6 | 4.1 | M4 | 0.179 | 0.44 x 10 ⁻⁴ |
| 24 | 35.0 | 70 | 60 | 120 | 55 | 27 | 78 | 30 | 22 | 18 | 14 | 2.0 | M5 | 4 | 8.5 | M5 | 0.399 | 1.91 x 10 ⁻⁴ |
| 28 | 95.0 | 190 | 160 | 320 | 65 | 30 | 90 | 35 | 27 | 20 | 15 | 2.5 | M5 | 8 | 8.5 | M5 | 0.592 | 4.18 x 10 ⁻⁴ |
| 38 | 190.0 | 380 | 325 | 650 | 80 | 38 | 114 | 45 | 35 | 24 | 18 | 3.0 | M6 | 8 | 14 | M6 | 1.225 | 12.9 x 10 ⁻⁴ |
| 42 | 265 | 530 | 450 | 900 | 95 | 46 | 126 | 50 | 35 | 26 | 20 | 3.0 | M8 | 4 | 35 | M8 | 2.30 | 31.7 x 10 ⁻⁴ |
| 48 | 310 | 620 | 525 | 1050 | 105 | 51 | 140 | 56 | 41 | 28 | 21 | 3.5 | M10 | 4 | 69 | M10 | 3.08 | 52.0 x 10 ⁻⁴ |
| 55 | 375 | 750 | 685 | 1370 | 120 | 60 | 160 | 65 | 45 | 30 | 22 | 4.0 | M10 | 4 | 69 | M10 | 4.67 | 103.0 x 10 ⁻⁴ |
| 65 | — | — | 940 | 1880 | 135 | 68 | 185 | 75 | 55 | 35 | 26 | 4.5 | M12 | 4 | 120 | M12 | 6.70 | 191.0 x 10 ⁻⁴ |
| 75 | — | — | 1920 | 3840 | 160 | 80 | 210 | 85 | 63 | 40 | 30 | 5.0 | M12 | 5 | 120 | M12 | 9.90 | 396.8 x 10 ⁻⁴ |
| 90 | — | — | 3600 | 4500 | 200 | 104 | 245 | 100 | 75 | 45 | 34 | 5.5 | M16 | 5 | 295 | M16 | 17.70 | 1136 x 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.

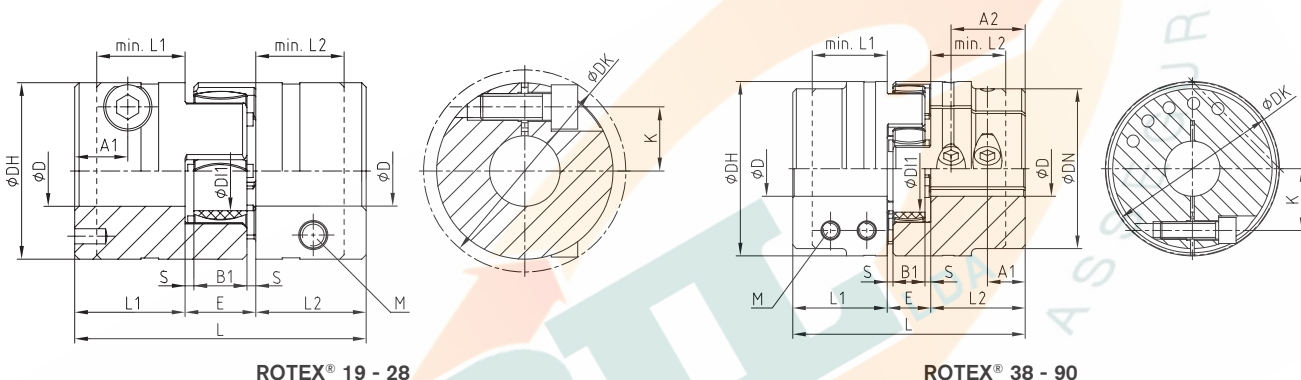
| | | | | | | |
|-------------------|---------------|-----------------|-----------|-------------|-----------|-------------|
| Ordering example: | ROTEX® GS 24 | 98 ShA | 6.0 steel | Ø24 | 6.0 steel | Ø20 |
| | Coupling size | Spider hardness | Hub type | Finish bore | Hub type | Finish bore |

ROTEX® Flexible jaw couplings

Clamping hubs



For legend of pictogram refer to flapper on the cover



ROTEX® 19 - 28

ROTEX® 38 - 90

ROTEX® as clamping hubs

| Size | Dimensions [mm] | | | | | | | | | | | | | | Screw DIN EN ISO 4762 | |
|------|--------------------|-----|--------|------------------|----|----|-----|-----|-----|-----|-------|------------------|------------------|--------------------|-----------------------|---------------------|
| | Max. finish bore D | L | L1, L2 | min. L1, min. L2 | E | B1 | S | DH | DN | DI1 | DK | A1 | A2 | K | M | T _A [Nm] |
| 19 | 20 ¹⁾ | 66 | 25 | 20 | 16 | 12 | 2.0 | 40 | - | 18 | 46.0 | 12 | - | 14.5 | M6 | 14 |
| 24 | 28 | 78 | 30 | 25 | 18 | 14 | 2.0 | 55 | - | 27 | 57.5 | 12 | - | 20.0 | M6 | 14 |
| 28 | 38 | 90 | 35 | 30 | 20 | 15 | 2.5 | 65 | - | 30 | 73.0 | 14 ²⁾ | - | 25.0 | M8 | 35 |
| 38 | 42 | 114 | 45 | 35 | 24 | 18 | 3.0 | 80 | 70 | 38 | 77.5 | 19 | - | 26.5 | M8 | 35 |
| 42 | 50 | 126 | 50 | 42 | 26 | 20 | 3.0 | 95 | 85 | 46 | 93.5 | 18 ²⁾ | - | 32.0 | M10 | 69 |
| 48 | 55 | 140 | 56 | 46 | 28 | 21 | 3.5 | 105 | 95 | 51 | 105.0 | 21 ²⁾ | - | 36.0 | M12 | 120 |
| 55 | 68 | 160 | 65 | 50 | 30 | 22 | 4.0 | 120 | 110 | 60 | 119.5 | 26 | 51 ²⁾ | 42.5 ³⁾ | M12 | 120 |
| 65 | 70 | 185 | 75 | 55 | 35 | 26 | 4.5 | 135 | 115 | 68 | 132.5 | 33 | 61 ²⁾ | 50.0 ³⁾ | M12 | 120 |
| 75 | 80 | 210 | 85 | 65 | 40 | 30 | 5.0 | 160 | 135 | 80 | 158.0 | 36 | 68 ²⁾ | 57.0 ³⁾ | M16 | 295 |
| 90 | 90 | 245 | 100 | 80 | 45 | 34 | 5.5 | 200 | 160 | 100 | 197.0 | 40 | 80 ²⁾ | 72.0 ³⁾ | M20 | 580 |

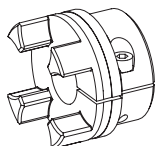
Bore D and the respective transmittable friction torques T_R [Nm] of ROTEX® clamping hubs type 2.0

| 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 | 44 | 46 | 47 | 51 | 52 | 53 | 55 | 57 | 58 | | | | | | | | | | | | | | | | | | | | | |
| 24 | | 59 | 60 | 64 | 65 | 66 | 68 | 70 | 71 | 73 | 76 | 77 | 80 | | | | | | | | | | | | | | | | | |
| 28 | | | | 139 | 141 | 144 | 148 | 150 | 152 | 157 | 161 | 163 | 170 | 174 | 178 | 185 | 191 | | | | | | | | | | | | | |
| 38 | | | | | 163 | 165 | 170 | 172 | 174 | 178 | 183 | 185 | 192 | 196 | 200 | 207 | 213 | 217 | 222 | | | | | | | | | | | |
| 42 | | | | | | | | | 291 | 297 | 304 | 308 | 318 | 325 | 332 | 342 | 353 | 360 | 367 | 377 | 387 | 394 | | | | | | | | |
| 48 | | | | | | | | | 466 | 476 | 486 | 491 | 506 | 516 | 526 | 542 | 557 | 567 | 577 | 592 | 607 | 618 | 643 | | | | | | | |
| 55 | | | | | | | | | | | | | | 1185 | 1215 | 1245 | 1266 | 1286 | 1316 | 1347 | 1367 | 1417 | 1468 | 1519 | | | | | | |
| 65 | | | | | | | | | | | | | | | 1316 | 1347 | 1367 | 1387 | 1417 | 1448 | 1468 | 1519 | 1569 | 1620 | 1671 | | | | | |
| 75 | | | | | | | | | | | | | | | | | 2869 | 2926 | 2983 | 3022 | 3117 | 3213 | 3309 | 3404 | 3500 | 3595 | | | | |
| 90 | | | | | | | | | | | | | | | | | | | 5220 | 5310 | 5400 | 5460 | 5610 | 5760 | 5910 | 6060 | 6210 | 6360 | 6510 | 6660 |

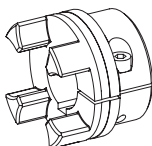
¹⁾ With type 2.1 D_{max.} Ø17 mm

²⁾ With reduced hubs dimension A1 varies resp. the number of screws changes from 2-off to 1-off

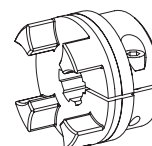
³⁾ A1 and A2 have a different dimension K



Type 2.0
Clamping hub single slot without feather keyway



Type 2.1
Clamping hub single slot with feather keyway



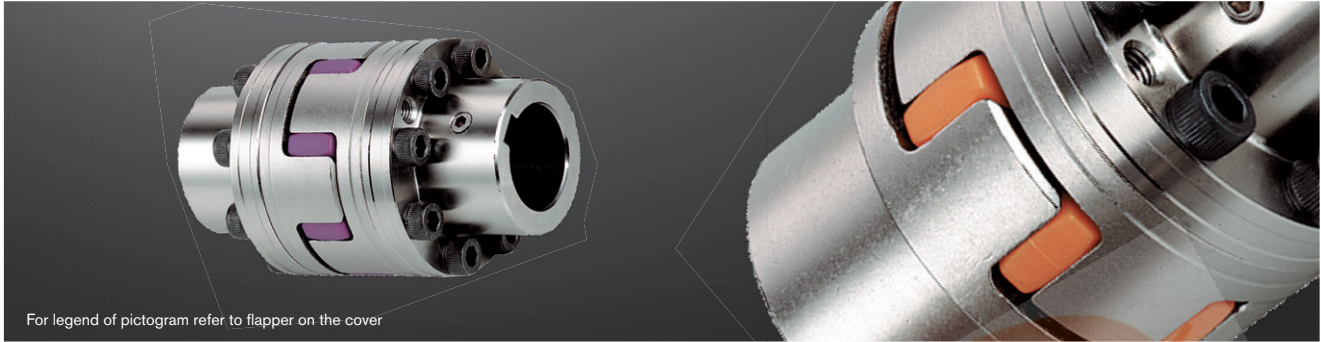
Type 2.3
Clamping hub with spline bore (For a selection of our programme of spline bores see page 37)

Ordering example:

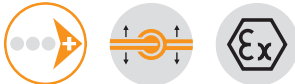
| | | | | | |
|---------------|-----------------|----------|-------------|----------|-------------|
| ROTEX® 24 | 98 ShA | 2.1 | Ø24 | 2.0 | Ø20 |
| Coupling size | Spider hardness | Hub type | Finish bore | Hub type | Finish bore |

ROTEX® AFN and BFN Flexible jaw couplings

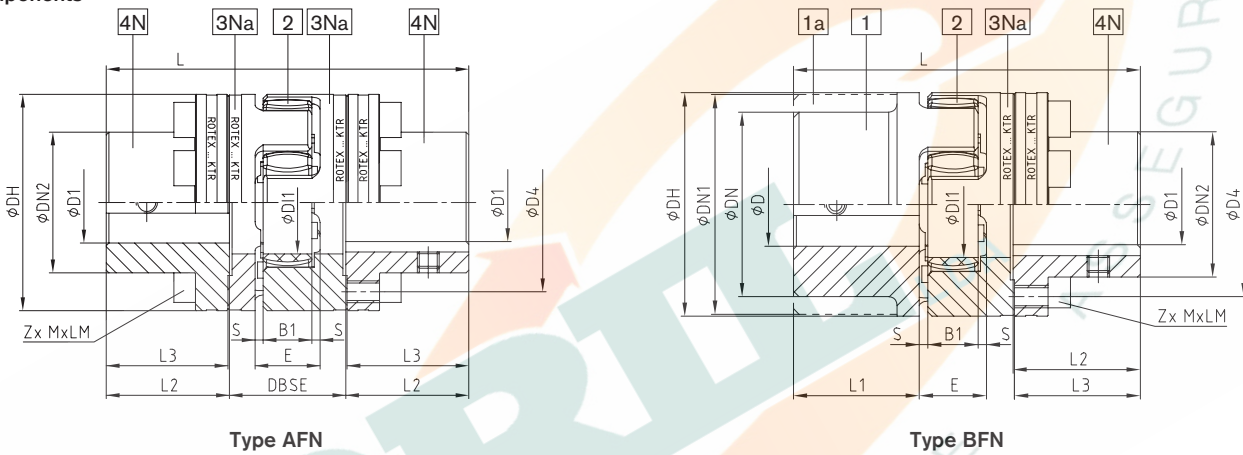
Flange programme



For legend of pictogram refer to flapper on the cover



Components



| ROTEX® Type AFN and BFN | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--------------|----------------------------------|-----------------|-----|-----|-----|------|--------|----|----|------|-------|---|-----|--------|----|---------------------|-----------------------|--|--|
| Size | Pilot bore D | Component 4N max. finish bore D1 | Dimensions [mm] | | | | | | | | | | Cap screws ³⁾ DIN EN ISO 4762 - 12.9 | | | | | | | |
| | | | DH | DN2 | D4 | DI1 | DBSE | L1, L2 | E | B1 | S | L3 | L | | MxLM | Z | pitch ²⁾ | TA ¹⁾ [Nm] | | |
| 24 | | 27 | 55 | 36 | 45 | 27 | 33 | 30 | 18 | 15 | 2.0 | 30.5 | 94 | 86 | M5x16 | 8 | | 10 | | |
| 28 | | 30 | 65 | 42 | 54 | 30 | 39 | 35 | 20 | 15 | 2.5 | 35.5 | 110 | 100 | M6x20 | 8 | 8x45° | 17 | | |
| 38 | | 38 | 80 | 52 | 66 | 38 | 43 | 45 | 24 | 18 | 3.0 | 45.5 | 134 | 124 | M8x22 | 8 | | 41 | | |
| 42 | | 45 | 95 | 62 | 80 | 46 | 48 | 50 | 26 | 20 | 3.0 | 51.0 | 150 | 138 | M8x25 | 12 | 16x22.5° | 41 | | |
| 48 | | 52 | 105 | 70 | 90 | 51 | 50 | 56 | 28 | 21 | 3.5 | 57.0 | 164 | 152 | M8x25 | 12 | | 41 | | |
| 55 | | 60 | 120 | 80 | 102 | 60 | 60 | 65 | 30 | 22 | 4.0 | 66.0 | 192 | 176 | M10x30 | 8 | 8x45° | 83 | | |
| 65 | | 70 | 135 | 94 | 116 | 68 | 65 | 75 | 35 | 26 | 4.5 | 76.0 | 217 | 201 | M10x30 | 12 | 16x22.5° | 83 | | |
| 75 | | 80 | 160 | 108 | 136 | 80 | 75 | 85 | 40 | 30 | 5.0 | 86.5 | 248 | 229 | M12x40 | 15 | | 120 | | |
| 90 | | 105 | 200 | 142 | 172 | 100 | 82 | 100 | 45 | 34 | 5.5 | 101.5 | 285 | 265 | M16x40 | 15 | | 295 | | |
| 100 | | 115 | 225 | 158 | 195 | 113 | 97 | 110 | 50 | 38 | 6.0 | 111.5 | 320 | 295 | M16x50 | 15 | | 295 | | |
| 110 | | 130 | 255 | 178 | 218 | 127 | 103 | 120 | 55 | 42 | 6.5 | 122.0 | 347 | 321 | M20x50 | 15 | 20x18° | 580 | | |
| 125 | | 150 | 290 | 206 | 252 | 147 | 116 | 140 | 60 | 46 | 7.0 | 142.0 | 400 | 370 | M20x60 | 15 | | 580 | | |
| 140 | | 170 | 320 | 235 | 282 | 165 | 128 | 155 | 65 | 50 | 7.5 | 157.5 | 443 | 409 | M20x60 | 15 | | 580 | | |
| 160 | | 200 | 370 | 270 | 325 | 190 | 146 | 175 | 75 | 57 | 9.0 | 177.5 | 501 | 463 | M24x70 | 15 | | 1000 | | |
| 180 | | 230 | 420 | 315 | 375 | 220 | 159 | 195 | 85 | 64 | 10.5 | 198.0 | 555 | 515 | M24x80 | 18 | 24x15° | 1000 | | |

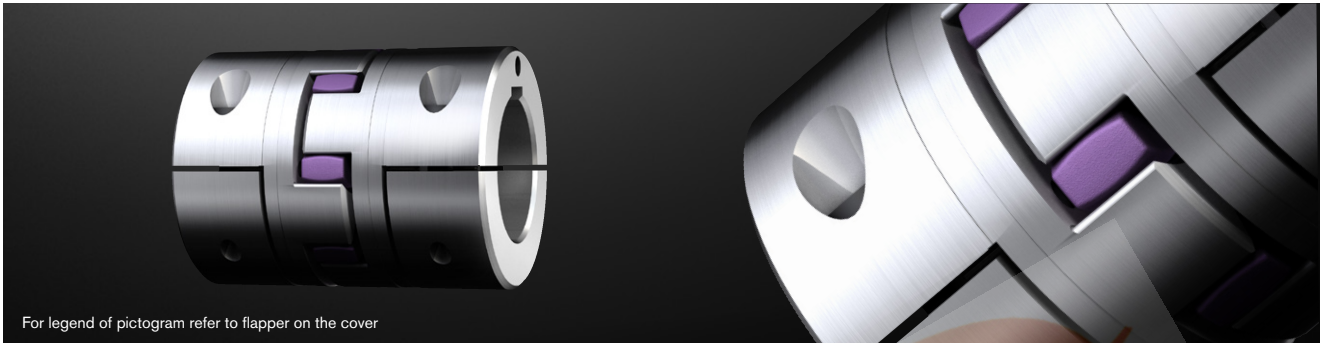
¹⁾ Screw tightening torque TA [Nm].
²⁾ Thread in the driving flange between the cams.
³⁾ Coupling is delivered not assembled.

| | | | | | | | |
|-------------------|---------------|------|-----------------|-----------|-------------|-----------|-------------|
| Ordering example: | ROTEX® 24 | AFN | 92 ShA | 4N | Ø38 | 4N | Ø35 |
| | Coupling size | Type | Spider hardness | Component | Finish bore | Component | Finish bore |

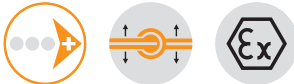
ROTEX® AH

Flexible jaw couplings

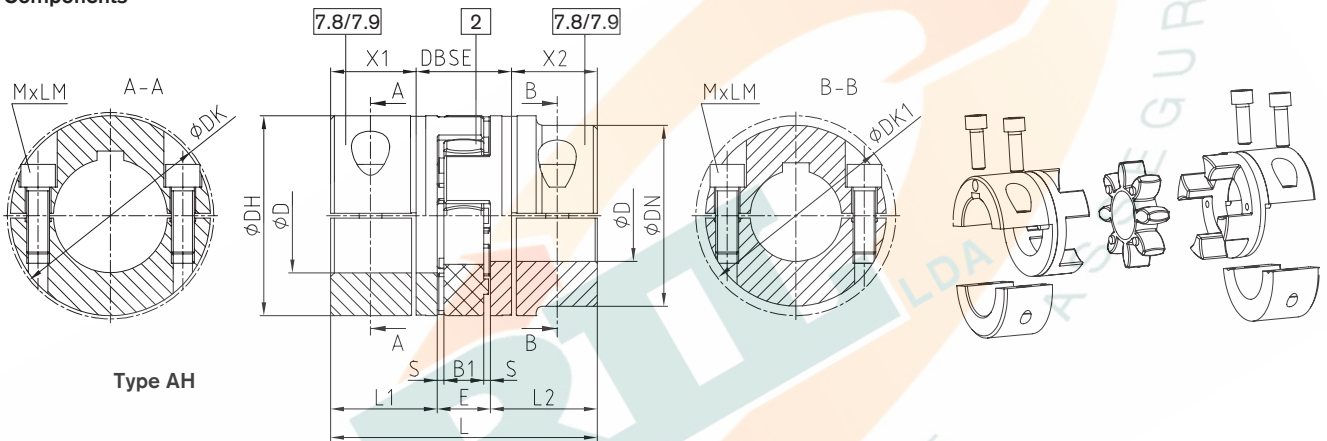
Drop-out center design coupling



For legend of pictogram refer to flapper on the cover



Components



| ROTEX® Type AH | | | | | | | | | | | | | | |
|-------------------|--------------------|-----|--------|----|----|-----|-----|-----|-------|-------|--------|----------------------------|--------|---------------------------------------|
| Size | Dimensions [mm] | | | | | | | | | | | Cap screws DIN EN ISO 4762 | | |
| | Max. finish bore D | L | L1, L2 | E | B1 | S | DH | DN | DK | DK1 | X1, X2 | DBSE | MxLM | Tightening torque T _A [Nm] |
| 19 | 20 | 66 | 25 | 16 | 12 | 2.0 | 40 | — | 46.0 | — | 17.5 | 31 | M6x16 | 14 |
| 24 | 28 | 78 | 30 | 18 | 14 | 2.0 | 55 | — | 57.5 | — | 22.5 | 33 | M6x20 | 14 |
| 28 | 38 | 90 | 35 | 20 | 15 | 2.5 | 65 | — | 73.0 | — | 25.5 | 39 | M8x25 | 35 |
| 38 | 45 | 114 | 45 | 24 | 18 | 3.0 | 80 | — | 83.5 | — | 35.5 | 43 | M8x30 | 35 |
| 42 | 50 | 126 | 50 | 26 | 20 | 3.0 | 95 | — | 85 | — | 93.5 | 48 | M10x30 | 69 |
| | 55 | | | | | | | — | 97.0 | — | M10x35 | | | |
| 48 | 55 | 140 | 56 | 28 | 21 | 3.5 | 105 | — | 95 | — | 105.0 | 50 | M12x35 | 120 |
| | 60 | | | | | | | — | 108.5 | — | M12x40 | | | |
| 55 | 65 | 160 | 65 | 30 | 22 | 4.0 | 120 | — | 110 | — | 119.5 | 60 | M12x40 | 120 |
| | 70 | | | | | | | — | 122.0 | — | M12x45 | | | |
| 65 | 70 | 185 | 75 | 35 | 26 | 4.5 | 135 | — | 115 | — | 123.5 | 65 | M12x40 | 120 |
| | 80 | | | | | | | — | 132.5 | — | M12x45 | | | |
| 75 | 80 | 210 | 85 | 40 | 30 | 5.0 | 160 | — | 135 | — | 147.5 | 75 | M16x50 | 295 |
| | 90 | | | | | | | — | 158.0 | — | — | | | |
| 90 | 90 | 245 | 100 | 45 | 34 | 5.5 | 200 | — | 160 | — | 176.0 | 82 | M20x60 | 580 |
| | 110 | | | | | | | — | 197.0 | — | — | | | |
| 100 ¹⁾ | 110 | 270 | 110 | 50 | 38 | 6.0 | 225 | 180 | — | 185.5 | 84.0 | 102 | M16x50 | 295 |
| 110 ¹⁾ | 120 | 295 | 120 | 55 | 42 | 6.5 | 255 | 200 | — | 208.0 | 90.0 | 115 | M20x60 | 580 |
| 125 ¹⁾ | 140 | 340 | 140 | 60 | 46 | 7.0 | 290 | 230 | — | 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 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.

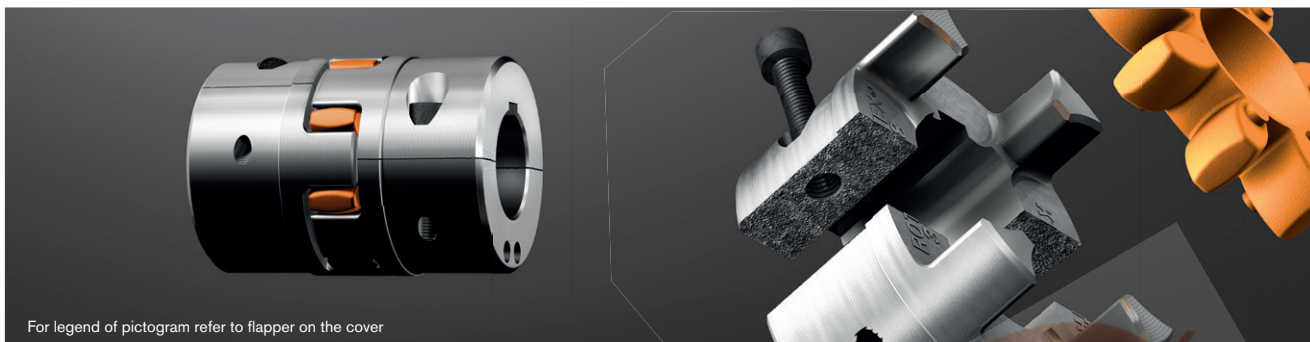
Speed: max. circumferential speed of 25 m/s on the outside diameter DH of the coupling

¹⁾ From size 100: 4 clamping screws for each clamping hub

| | | | | | | | |
|-------------------|---------------|------|-----------------|----------|-------------|----------|-------------|
| Ordering example: | ROTEX® 38 | AH | 98 ShA | 7.8 | Ø38 | 7.8 | Ø30 |
| | Coupling size | Type | Spider hardness | Hub type | Finish bore | Hub type | Finish bore |



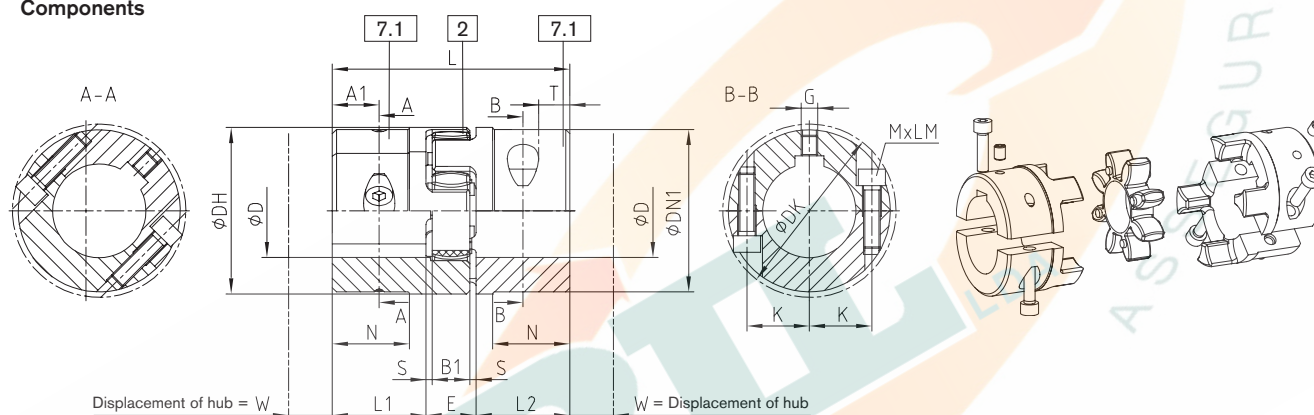
Drop-out center design coupling with SPLIT hubs



For legend of pictogram refer to flapper on the cover



Components



Type SH

| ROTEX® Type SH Sintered steel (Sinter) | | | | | | | | | | | | | | | | | | |
|--|---------------|------|-----------------|--------|----|----|-----|----|-----|------|---|----|------|----|----|----------------------------|-------|---------------------------------------|
| Size | Finish bore D | | Dimensions [mm] | | | | | | | | | | | | | Cap screws DIN EN ISO 4762 | | |
| | min. | Max. | L | L1, L2 | E | B1 | S | DH | DN1 | DK | N | K | A1 | T | G | W | MxLM | Tightening torque T _A [Nm] |
| 24 | 0 | 28 | 78 | 30 | 18 | 14 | 2.0 | 55 | - | 57.5 | - | 20 | 15 | 10 | M5 | 12 | M6x20 | 14 |
| 28 | 0 | 38 | 90 | 35 | 20 | 15 | 2.5 | 65 | - | 73 | - | 25 | 17.5 | 15 | M8 | 12 | M8x25 | 34 |

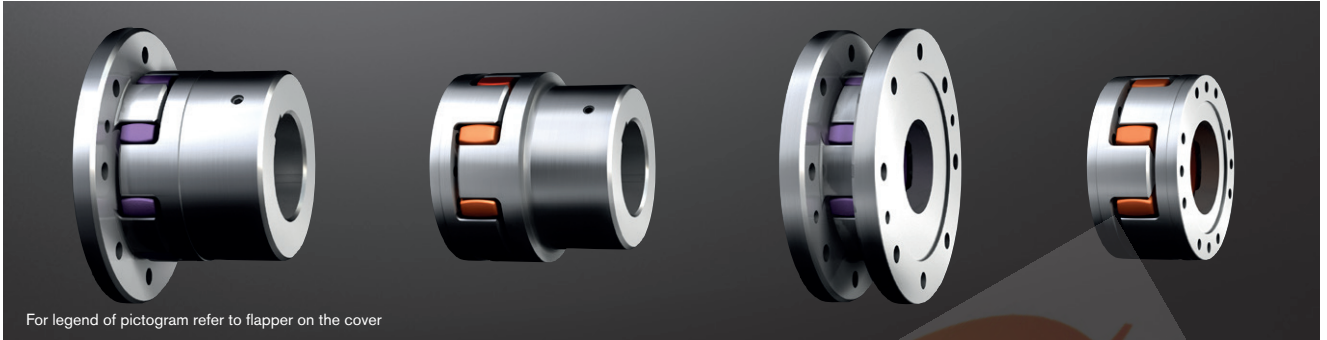
| ROTEX® Type SH Cast iron (GJL) | | | | | | | | | | | | | | | | | | |
|--------------------------------|---------------|------|-----------------|--------|----|----|-----|-----|-----|-------|----|----|------|----|-----|----------------------------|--------|---------------------------------------|
| Size | Finish bore D | | Dimensions [mm] | | | | | | | | | | | | | Cap screws DIN EN ISO 4762 | | |
| | min. | Max. | L | L1, L2 | E | B1 | S | DH | DN1 | DK | N | K | A1 | T | G | W | MxLM | Tightening torque T _A [Nm] |
| 38 | 24 | 48 | 114 | 45 | 24 | 18 | 3.0 | 80 | 78 | 83.5 | 37 | 30 | 22.5 | 15 | | 15 | M8x30 | 34 |
| 42 | 24 | 55 | 126 | 50 | 26 | 20 | 3.0 | 95 | 94 | 97 | 40 | 30 | 25 | | M8 | 15 | M10x35 | 67 |
| 48 | 24 | 60 | 140 | 56 | 28 | 21 | 3.5 | 105 | 104 | 108.5 | 45 | 35 | 28 | | | 15 | M12x40 | 115 |
| 55 | 24 | 70 | 160 | 65 | 30 | 22 | 4.0 | 120 | 118 | 122 | 52 | 40 | 32.5 | 20 | | 15 | M12x45 | 115 |
| 65 | 28 | 70 | 185 | 75 | 35 | 26 | 4.5 | 135 | 115 | 123.5 | 61 | 45 | 37.5 | | M10 | 15 | M12x40 | 115 |
| | 70 | 80 | | | | | | | 135 | 132.5 | | | | | | | | |
| 75 | 40 | 80 | 210 | 85 | 40 | 30 | 5.0 | 160 | 135 | 147 | 69 | 51 | 42.5 | 25 | | 20 | M16x50 | 290 |
| | 80 | 90 | | | | | | | 160 | 158 | | | | | | | | |
| 90 | 40 | 90 | 245 | 100 | 45 | 34 | 5.5 | 200 | 160 | 176 | 81 | 60 | 50 | 30 | M12 | 30 | M20x60 | 560 |
| | 90 | 110 | | | | | | | 200 | 197 | | | | | | | | |

7.1 = SPLIT hub with feather keyway

| | | | | | | | |
|-------------------|---------------|------|-----------------|----------|-------------|----------|-------------|
| 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

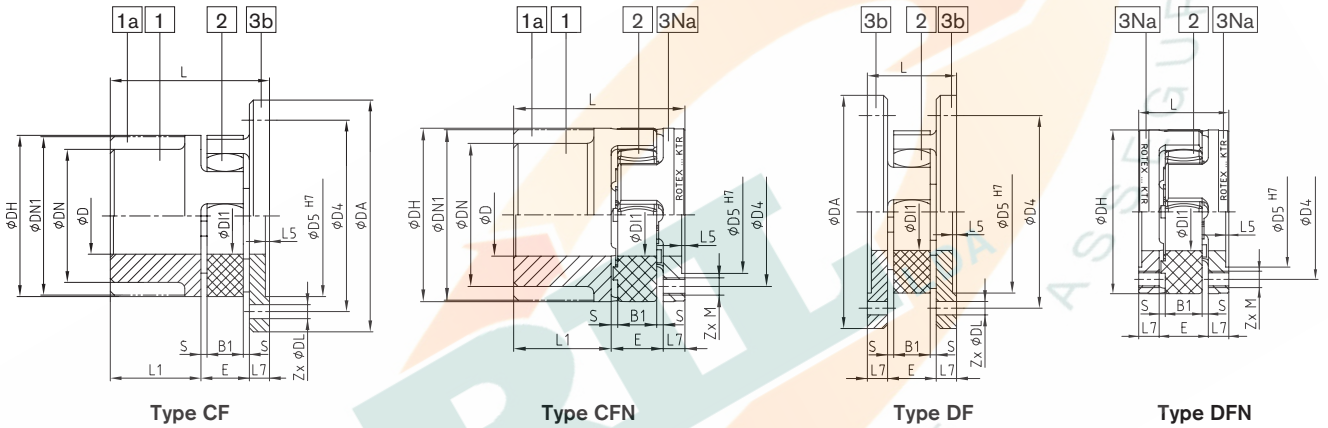
Flange programme



For legend of pictogram refer to flapper on the cover



Components



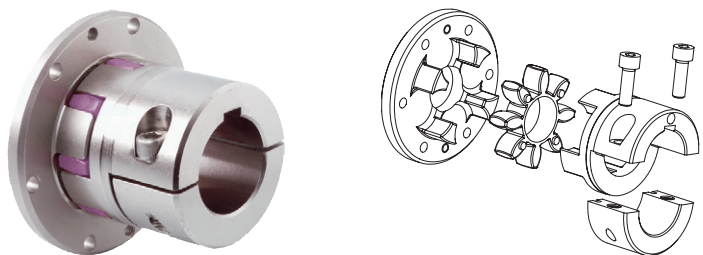
| ROTEX® Type CF, CFN and DF, DFN | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|------------|-------------------------|-----|-----|----|----|------|-----|----|---------------------------|-----|-----|----|------|-----|-----|-----------------------------|-----|-----|----|----------|-----|-----|
| Size | D, DN, DN1 | Dimensions general [mm] | | | | | | | | Dimensions CF and DF [mm] | | | | | | | Dimensions CFN and DFN [mm] | | | | | | |
| | | DH | DI1 | L1 | E | B1 | S | L5 | L7 | DA | D4 | D5 | Z | DL | L | | D4 | D5 | M | Z | pitch | L | |
| | | | | | | | | | | | | | | | CF | DF | | | | | | CFN | DFN |
| 24 | | 55 | 27 | 30 | 18 | 14 | 2.0 | 1.5 | 8 | 80 | 65 | 55 | 5 | 4.5 | 56 | 34 | 45 | 36 | M5 | 8 | | 56 | 34 |
| 28 | | 65 | 30 | 35 | 20 | 15 | 2.5 | 1.5 | 10 | 100 | 80 | 65 | 6 | 6.6 | 65 | 40 | 54 | 44 | M6 | 8 | 8x45° | 65 | 40 |
| 38 | | 80 | 38 | 45 | 24 | 18 | 3.0 | 1.5 | 10 | 115 | 95 | 80 | 6 | 6.6 | 79 | 44 | 66 | 54 | M8 | 8 | | 79 | 44 |
| 42 | | 95 | 46 | 50 | 26 | 20 | 3.0 | 2.0 | 12 | 140 | 115 | 95 | 6 | 9.0 | 88 | 50 | 80 | 65 | M8 | 12 | | 88 | 50 |
| 48 | | 105 | 51 | 56 | 28 | 21 | 3.5 | 2.0 | 12 | 150 | 125 | 105 | 8 | 9.0 | 96 | 52 | 90 | 75 | M8 | 12 | 16x22.5° | 96 | 52 |
| 55 | | 120 | 60 | 65 | 30 | 22 | 4.0 | 2.0 | 16 | 175 | 145 | 120 | 8 | 11.0 | 111 | 62 | 102 | 84 | M10 | 8 | 8x45° | 111 | 62 |
| 65 | | 135 | 68 | 75 | 35 | 26 | 4.5 | 2.0 | 16 | 190 | 160 | 135 | 10 | 11.0 | 126 | 67 | 116 | 96 | M10 | 12 | 16x22.5° | 126 | 67 |
| 75 | | 160 | 80 | 85 | 40 | 30 | 5.0 | 2.5 | 19 | 215 | 185 | 160 | 10 | 13.5 | 144 | 78 | 136 | 112 | M12 | 15 | | 144 | 78 |
| 90 | | 200 | 100 | 100 | 45 | 34 | 5.5 | 3.0 | 20 | 260 | 225 | 200 | 12 | 13.5 | 165 | 85 | 172 | 145 | M16 | 15 | | 165 | 85 |
| 100 | | 225 | 113 | 110 | 50 | 38 | 6.0 | 4.0 | 25 | 285 | 250 | 225 | 12 | 13.5 | 185 | 100 | 195 | 165 | M16 | 15 | | 185 | 100 |
| 110 | | 255 | 127 | 120 | 55 | 42 | 6.5 | 4.0 | 26 | 330 | 290 | 255 | 12 | 17.5 | 201 | 107 | 218 | 180 | M20 | 15 | 20x18° | 201 | 107 |
| 125 | | 290 | 147 | 140 | 60 | 46 | 7.0 | 5.0 | 30 | 370 | 325 | 290 | 16 | 17.5 | 230 | 120 | 252 | 215 | M20 | 15 | | 230 | 120 |
| 140 | | 320 | 165 | 155 | 65 | 50 | 7.5 | 5.0 | 34 | 410 | 360 | 320 | 16 | 22.0 | 254 | 133 | 282 | 245 | M20 | 15 | | 254 | 133 |
| 160 | | 370 | 190 | 175 | 75 | 57 | 9.0 | 5.0 | 38 | 460 | 410 | 370 | 16 | 22.0 | 288 | 151 | 325 | 280 | M24 | 15 | | 288 | 151 |
| 180 | | 420 | 220 | 195 | 85 | 64 | 10.5 | 5.5 | 40 | 520 | 465 | 420 | 16 | 26.0 | 320 | 165 | 375 | 330 | M24 | 18 | 24x15° | 320 | 165 |

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).

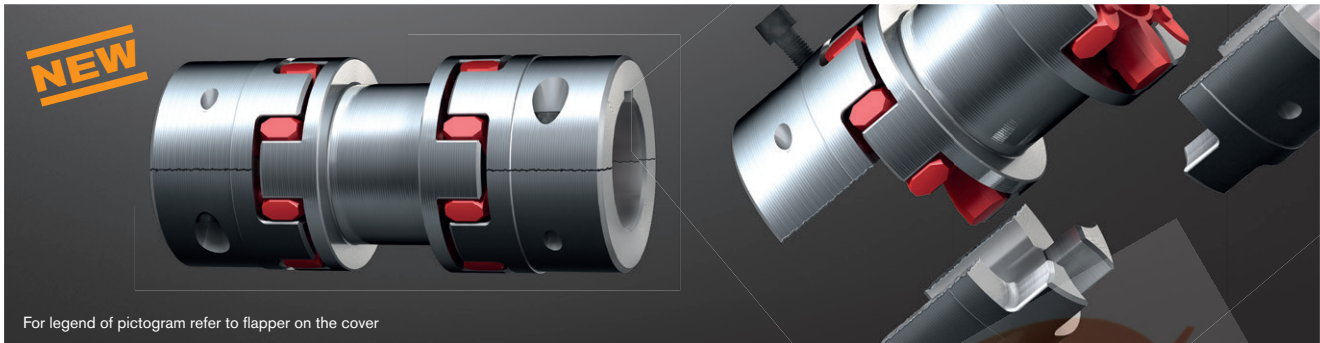


| | | | | | | |
|-------------------|---------------|------|-----------------|---------------------|----------|-------------|
| Ordering example: | ROTEX® 38 | CF | 92 ShA | 1 | GJL | Ø20 |
| | Coupling size | Type | Spider hardness | Hub side, component | Material | Finish bore |

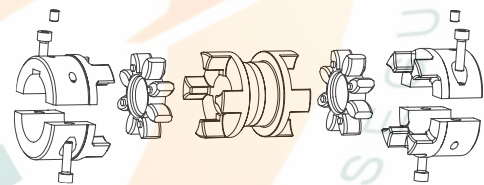
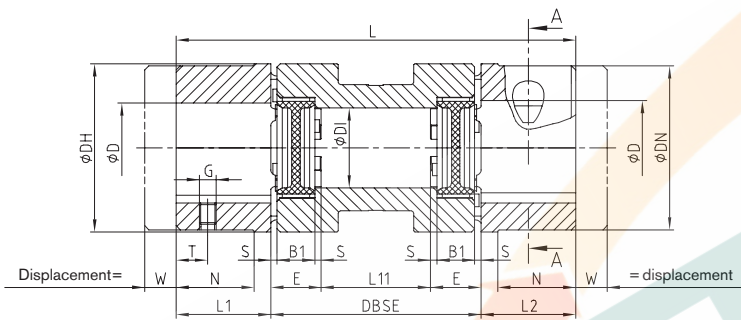
ROTEX® ZS-DKM-SH

Flexible jaw couplings

Double-cardanic shaft coupling with SPLIT hubs



For legend of pictogram refer to flapper on the cover



| ROTEX® type ZS-DKM-SH | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|--------------------------------------|-----------------|------|-----|-------------------|---------------------|-----|--------|-----|----|----|-----|-----|-----|---------------------------|--------|--------------------|---------------|----------------------|----------------|----------------------|----------------|
| Size ³⁾ | Spider 98 ShA-GS TKN [Nm] ¹⁾²⁾ | Drop-out center length DBSE | Dimensions [mm] | | | | | | | | | | | | | Screws DIN EN ISO 4762 | | Max. displacements | | | | | |
| | | | Finish bore D | | DH | DN | DK | DI | L1, L2 | L11 | E | B1 | S | L | G | W | MxLM | TA [Nm] | Axial [mm] | with n = 1500 rpm | | with n = 3000 rpm | |
| | | | min. | Max. | | | | | | | | | | | | | | | | Radial [mm] | Angular [°] | Radial [mm] | Angular [°] |
| 19 | 10 | 42 ⁵⁾ | 0 | 24 | 40 | - | - | 18 | 25 | 10 | 16 | 12 | 2.0 | 92 | - | - | - | 1.2 | 0.45 | - | - | - | |
| | | 52 ⁵⁾ | | | | | | | | 112 | | | | | | | | | 0.59 | - | | | |
| 24 | 35 | 100 | 0 | 28 | 55 | - | 57.5 | 27 | 30 | 64 | 18 | 14 | 2.0 | 160 | M5 | 12 | M6x20 | 14 | 1.4 | 1.43 | 1.07 | - | |
| | | 140 | | | | | | | | 200 | | | | | | | | | 2.13 | 1.60 | | | |
| 28 | 95 | 58 ⁵⁾ | 0 | 38 | 65 | - | 73 | 30 | 35 | 18 | 20 | 15 | 2.5 | 170 | M8 | 12 | M8x25 | 34 | 1.5 | 1.40 | 1.05 | - | |
| | | 140 | | | | | | | | 210 | | | | | | | | | 2.10 | 1.57 | | | |
| 38 | 190 | 68 ⁵⁾ | 24 | 45 | 80 | 78 | 83.5 | 38 | 45 | 20 | 24 | 18 | 3.0 | 190 | M8 | 15 | M8x30 | 34 | 1.8 | 0.77 | 0.99 | - | |
| | | 140 | | | | | | | | 230 | | | | | | | | | 2.02 | 1.52 | | | |
| 42 | 265 | 74 ⁵⁾ | 24 | 55 | 95 | 94 | 97 | 46 | 50 | 22 | 26 | 20 | 3.0 | 200 | M8 | 15 | M10x35 | 67 | 2.0 | 1.29 | 0.97 | - | |
| | | 140 | | | | | | | | 240 | | | | | | | | | 2.00 | 1.49 | | | |
| 48 | 310 | 80 ⁵⁾ | 24 | 60 | 105 | 104 | 108.5 | 51 | 56 | 24 | 28 | 21 | 3.5 | 212 | M8 | 15 | M12x40 | 115 | 2.1 | 0.91 | 0.94 | - | |
| | | 140 | | | | | | | | 192 | | | | | | | | | 1.26 | 0.94 | | | |
| 55 | 410 | 88 ⁵⁾ | 24 | 70 | 120 | 118 | 122 | 60 | 65 | 84 | 30 | 22 | 4.0 | 270 | M10 | 15 | M12x45 | 115 | 2.2 | 1.95 | 1.47 | 0.75 | |
| | | 100 | | | | | | | | 218 | | | | | | | | | 1.01 | - | | | |
| 65 | 625 | 100 | 24 | 80 | 135 | 135 ⁶⁾ | 132.5 ⁶⁾ | 68 | 75 | 40 | 35 | 26 | 4.5 | 230 | M10 | 15 | M12x40 | 115 | 2.6 | 1.22 | 0.92 | - | |
| | | 140 | | | | | | | | 230 | | | | | | | | | 1.92 | 1.44 | | | |
| 75 | 1280 | 116 ⁵⁾ | 40 | 90 | 160 | 160 ⁶⁾ | 158 ⁶⁾ | 80 | 85 | 60 | 40 | 30 | 5.0 | 350 | M10 | 20 | M16x50 | 290 | 3.0 | 2.62 | 1.96 | - | |
| | | 140 | | | | | | | | 310 | | | | | | | | | 2.22 | 2.22 | | | |
| 90 | 2400 | 180 | 40 | 110 | 200 | 200 ⁶⁾ | 197 ⁶⁾ | 100 | 100 | 120 | 45 | 34 | 5.5 | 380 | M12 | 30 | M20x60 | 560 | 3.4 | 2.97 | 1.76 | - | |
| | | 250 | | | | | | | | 330 | | | | | | | | | 1.17 | 2.68 | | | |

¹⁾ Maximum torque of coupling $T_{K \max}$ = rated torque of coupling $T_{KN} \times 2$
²⁾ Mathematically transmittable torque with double-cardanic types acc. to 92 ShA-GS using the higher quality spiders 98 ShA-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 spacer Al-H
⁶⁾ $\varnothing DN$ and $\varnothing DK$ depending on finish bore $\varnothing D$, see page 47

The max. permissible circumferential speed for double-cardanic ROTEX® DKM and ZS-DKM-SH coupling 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.

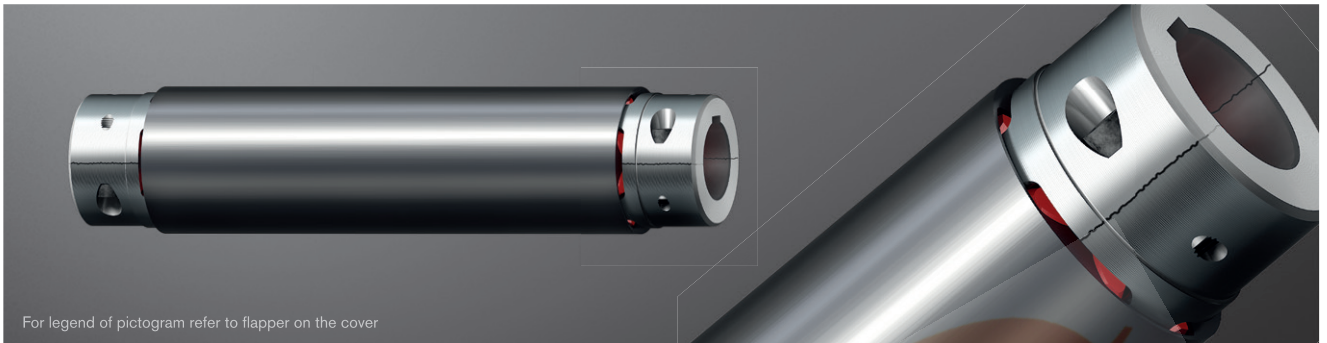
| Ordering example: | ROTEX® 38 | ZS-DKM-SH | 140 | 98 ShA-GS | 7.1 ⁴⁾ | $\varnothing 38$ | 7.1 ⁴⁾ | $\varnothing 30$ |
|-------------------|-----------|---------------|------|-------------------------------|-------------------|------------------|-------------------|------------------|
| | | Coupling size | Type | Shaft distance dimension DBSE | Spider hardness | Hub type | Finish bore | Hub type |

ROTEX®
 Flexible jaw and pin & bush couplings
 ROFLEX®
 POLY-NORM®
 POLY
 REVOLEX®

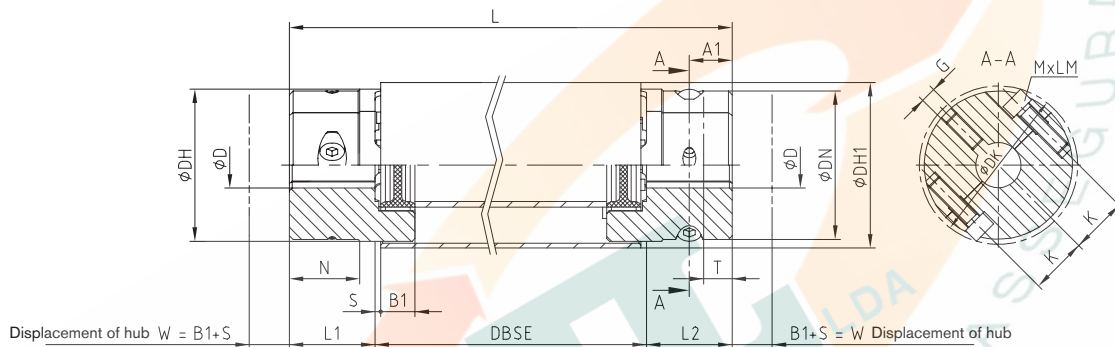
ROTEX® ZRS

Flexible /backlash-free intermediate shaft coupling

Intermediate shaft programme



For legend of pictogram refer to flapper on the cover



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

¹⁾ 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).

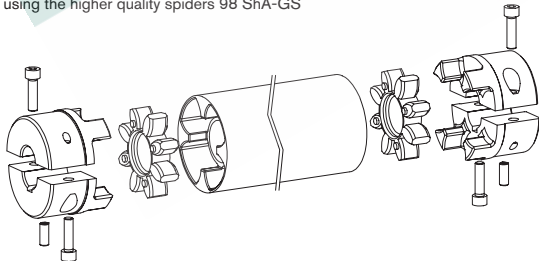
²⁾ Torsion spring stiffness with an intermediate pipe length of 1 m

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

⁴⁾ L = DBSE + L1 + L2 - 15

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

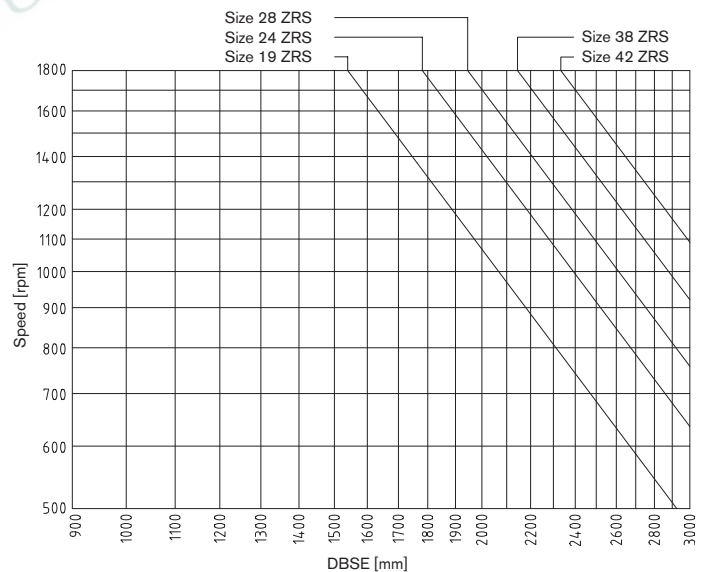
Mathematically transmittable torque with double-cardanic types acc. to 92 ShA-GS using the higher quality spiders 98 ShA-GS



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 |

Diagramme for coupling selection:

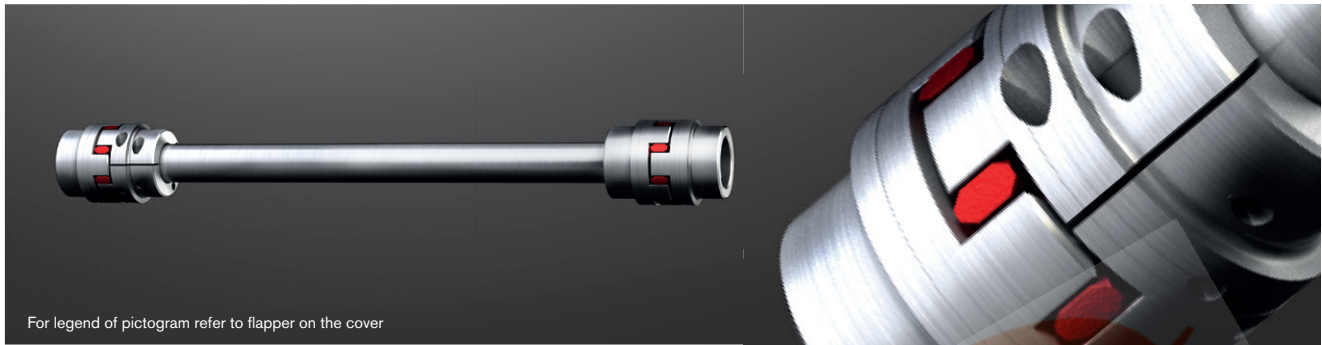


| | | | | | | | | |
|-------------------|---------------|------|-------------------------------|-----------------|----------|-------------|----------|-------------|
| Ordering example: | ROTEX® 38 | ZRS | 1200 | 98 ShA-GS | 7.1 | Ø30 | 7.1 | Ø30 |
| | Coupling size | Type | Shaft distance dimension DBSE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

ROTEX® ZR

Flexible jaw couplings

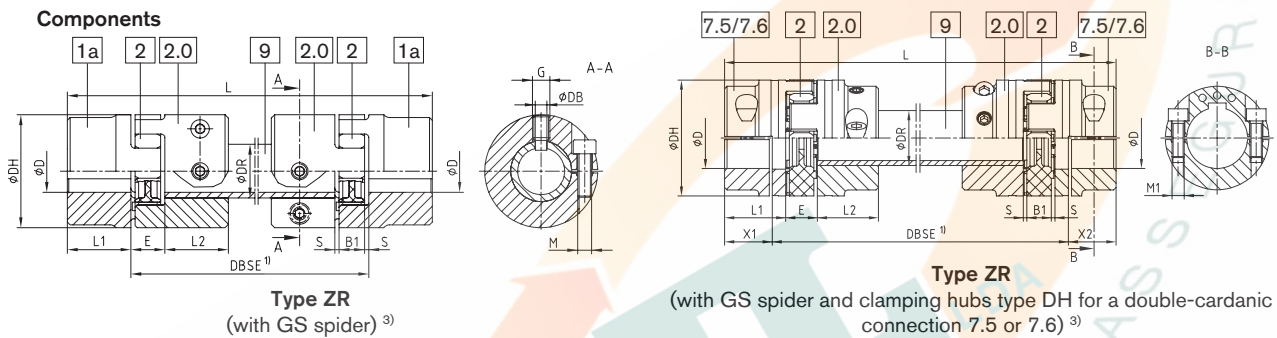
Intermediate shaft programme



For legend of pictogram refer to flapper on the cover



Components



ROTEX® Type ZR

| Size | Dimensions [mm] | | | | | | | | | | | | | | | | | Intermediate pipe Torsional stiffness/m | Locking screw G | Pin hole DB [mm] | Axial displacement [mm] | Angular displacement [degree] |
|------|--------------------|-------------------|-----|--------|--------|----|----|-----|--------------|-------------------|-----------|---------------------|------------------------------|---------------------|----------------------------------|--|-----|---|-----------------|------------------|-------------------------|-------------------------------|
| | Max. finish bore D | | DH | L1, L2 | X1, X2 | E | B1 | S | L | | min. DBSE | | Clamping screw component 2.0 | | Clamping screw component 7.5/7.6 | | | | | | | |
| | Component 1a | Component 7.5/7.6 | | | | | | | Component 1a | Component 7.5/7.6 | M | T _A [Nm] | M1 | T _A [Nm] | DR | C ²⁾ [Nm ² /rad] | | | | | | |
| 19 | 25 | 20 | 40 | 25 | 17.5 | 16 | 12 | 2.0 | 110 | 97 | M6 | 14 | M6 | 10 | Ø20x3 | 954.9 | M6 | 4.0 | 1.2 | 0.9 | | |
| 24 | 35 | 28 | 55 | 30 | 22.5 | 18 | 14 | 2.0 | 128 | 111 | M6 | 14 | M6 | 14 | Ø30x4 | 4522 | M8 | 5.5 | 1.4 | 0.9 | | |
| 28 | 40 | 38 | 65 | 35 | 25.5 | 20 | 15 | 2.5 | 145 | 129 | M8 | 35 | M8 | 35 | Ø35x4 | 7611 | M10 | 7.0 | 1.5 | 0.9 | | |
| 38 | 48 | 45 | 80 | 45 | 35.5 | 24 | 18 | 3.0 | 180 | 157 | M8 | 25 | M8 | 35 | Ø40x4 | 11870 | M12 | 8.5 | 1.8 | 1.0 | | |
| 42 | 55 | 55 | 95 | 50 | 39.0 | 26 | 20 | 3.0 | 198 | 174 | M10 | 49 | M10 | 69 | Ø45x4 | 17487 | M12 | 8.5 | 2.0 | 1.0 | | |
| 48 | 62 | 60 | 105 | 56 | 45.0 | 28 | 21 | 3.5 | 217 | 190 | M12 | 86 | M12 | 120 | Ø50x4 | 24648 | M16 | 12 | 2.1 | 1.1 | | |
| 55 | 74 | 70 | 120 | 65 | 50.0 | 30 | 22 | 4.0 | 242 | 220 | M12 | 120 | M12 | 120 | Ø55x4 | 33544 | M16 | 12 | 2.2 | 1.1 | | |
| 65 | 80 | 80 | 135 | 75 | 60.0 | 35 | 26 | 4.5 | 281 | 250 | M12 | 120 | M12 | 120 | Ø65x5 | 68329 | M16 | 12 | 2.6 | 1.2 | | |
| 75 | 95 | 90 | 160 | 85 | 67.5 | 40 | 30 | 4.0 | 318 | 285 | M16 | 295 | M16 | 295 | Ø75x5 | 108000 | M16 | 12 | 3.0 | 1.2 | | |

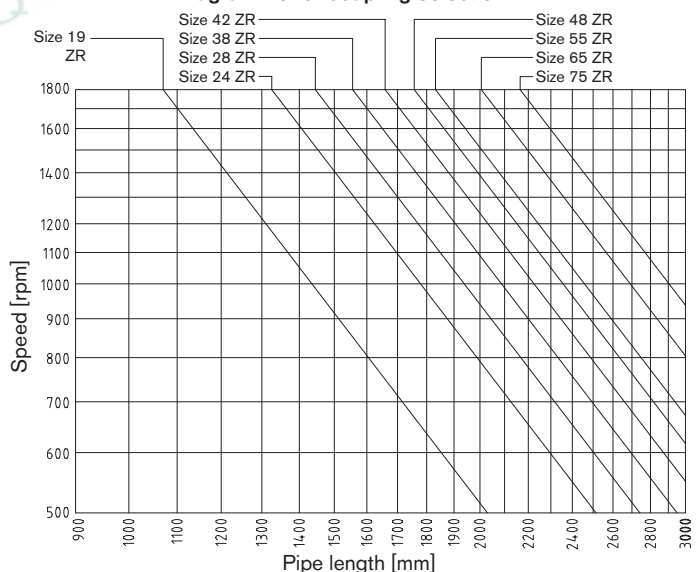
¹⁾ With inquiries and orders please specify the shaft distance dimension DBSE along with the maximum speed to review the critical bending speed.

²⁾ 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 have to be considered. Please order dimension sheet M583613.

³⁾ Mathematically transmittable torque with double-cardanic types acc. to 92 ShA-GS using the higher quality spiders 98 ShA-GS

Not permissible for crane and hoist drives

Diagramme for coupling selection:



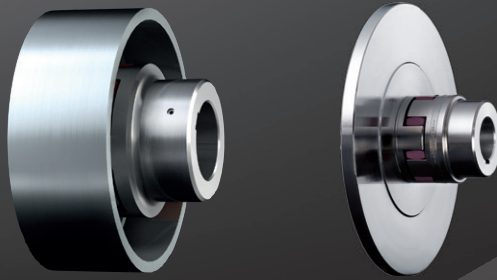
| | | | | | | | | |
|-------------------|---------------|------|-------------------------------|-----------------|----------|-------------|----------|-------------|
| Ordering example: | ROTEX® 38 | ZR | 1200 | 98 ShA-GS | 7.5 | Ø38 | 7.5 | Ø30 |
| | Coupling size | Type | Shaft distance dimension DBSE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

ROTEX® BTAN and SBAN Flexible jaw couplings

With brake drum/with brake disk



For legend of pictogram refer to flapper on the cover



ROTEX® Type BTAN and SBAN

| Size | Pilot bore, D, DN, DN1 | Max. finish bore D1 | | Dimensions [mm] | | | | | | | | | | |
|------|--|---------------------|-------|-----------------|-----|-----|-----|-----|----|---------------------|-----|---------------------|--------|----|
| | | GJS | steel | L | DH | D1 | D4 | D5 | Z | pitch ¹⁾ | M | T _A [Nm] | L1, L2 | E |
| 38 | Jaw coupling: page 38 to 40 Stock programme: page 36 and 37 | - | 37 | 114 | 80 | 38 | 66 | 50 | 8 | 8 x 45° | M8 | 35 | 45 | 24 |
| 42 | | - | 44 | 126 | 95 | 46 | 80 | 60 | 12 | 16 x 22.5° | M8 | 41 | 50 | 26 |
| 48 | | - | 50 | 140 | 105 | 51 | 90 | 68 | 12 | | M8 | 41 | 56 | 28 |
| 55 | | - | 57 | 160 | 120 | 60 | 102 | 78 | 8 | 8 x 45° | M10 | 83 | 65 | 30 |
| 65 | | - | 68 | 185 | 135 | 68 | 116 | 92 | 12 | 16 x 22.5° | M10 | 83 | 75 | 35 |
| 75 | | - | 78 | 210 | 160 | 80 | 136 | 106 | 15 | 20 x 18° | M12 | 120 | 85 | 40 |
| 90 | | - | 104 | 245 | 200 | 100 | 172 | 140 | 15 | | M16 | 295 | 100 | 45 |
| 100 | | 100 | - | 270 | 225 | 113 | 195 | 156 | 15 | M16 | 295 | 110 | 50 | |
| 110 | | 110 | - | 295 | 255 | 127 | 218 | 176 | 15 | M20 | 580 | 120 | 55 | |
| 125 | | 130 | - | 340 | 290 | 147 | 252 | 204 | 15 | M20 | 580 | 140 | 60 | |

| Brake drum | Type BTAN | | | | | | | | | | Speed rpm [V] (30 m/s) | Brake disk | Type SBAN | | | | | | | | | | Speed rpm [V] (30 m/s) |
|------------|----------------------------|-----|-----|----|-----|-----|-----|-----|-----|-----|------------------------|------------|----------------------------|-------|-------|------|------|------|------|------|------|-------|------------------------|
| | ROTEX® BTAN dimension "AB" | | | | | | | | | | | | ROTEX® SBAN dimension "AS" | | | | | | | | | | |
| | 38 | 42 | 48 | 55 | 65 | 75 | 90 | 100 | 110 | 125 | | 38 | 42 | 48 | 55 | 65 | 75 | 90 | 100 | 110 | 125 | | |
| 160x60 | 14 | | | | | | | | | | 3550 | 200x12.5 | 31.25 | | | | | | | | | | 2800 |
| 200x75 | 9 | 12 | 17 | 24 | | | | | | | 2800 | 250x12.5 | 31.25 | 34.25 | 39.25 | | | | | | | | 2240 |
| 250x95 | 1 | 4 | 9 | 16 | 25 | 33 | | | | | 2240 | 315x16 | | 32.5 | 37.5 | 44.5 | 53.5 | 61.5 | | | | | 1800 |
| 315x118 | | -5 | 0 | 7 | 16 | 24 | 36 | | | | 1800 | 400x16 | | | 37.5 | 44.5 | 53.5 | 61.5 | 73.5 | 81.5 | 88.5 | | 1400 |
| 400x150 | | -18 | -13 | -6 | 3 | 11 | 23 | 31 | 38 | | 1400 | 500x16 | | | | 44.5 | 53.5 | 61.5 | 73.5 | 81.5 | 88.5 | 104.5 | 1120 |
| 500x190 | | | | | -12 | -4 | 8 | 16 | 23 | 39 | 1120 | 630x20 | | | | | 51.5 | 59.5 | 71.5 | 79.5 | 86.5 | 102.5 | 900 |
| 630x236 | | | | | | -22 | -10 | -2 | 5 | 21 | 900 | 710x20 | | | | | 51.5 | 59.5 | 71.5 | 79.5 | 86.5 | 102.5 | 800 |
| 710x265 | | | | | | | | -13 | -6 | 10 | 800 | 800x25 | | | | | | 69 | 77 | 84 | 100 | 710 | |
| 800x300 | | | | | | | | | | -4 | 710 | 900x25 | | | | | | | | | 84 | 100 | 630 |

¹⁾ Thread in the hub between the cams.

Other sizes on request according to dimension sheet:

BTAN: M380821

SBAN straight: M380822; cranked: M 370065

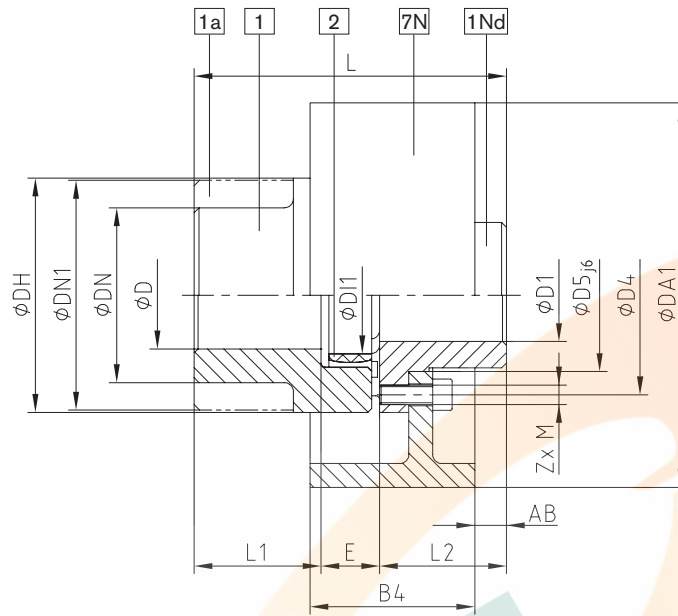
FNN hub: M 380823

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

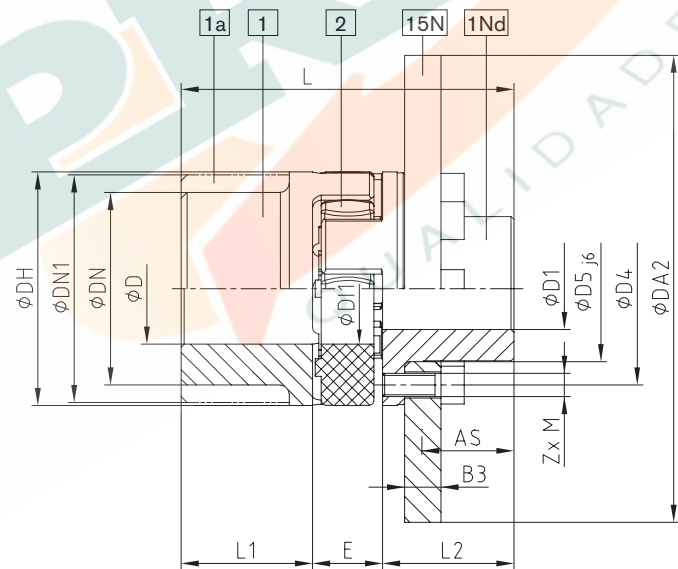
Ordering example:

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

Components



Brake drum
Type BTAN



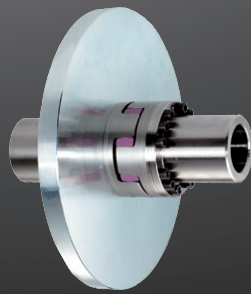
Brake disk
Type SBAN

ROTEX® AFN-SB special Flexible jaw couplings

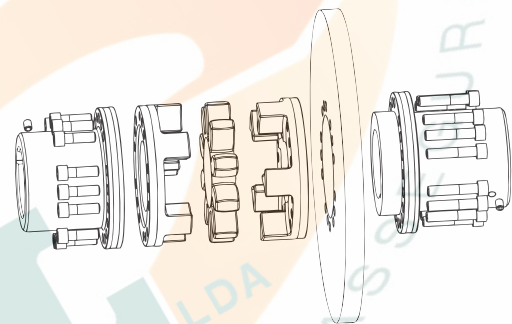
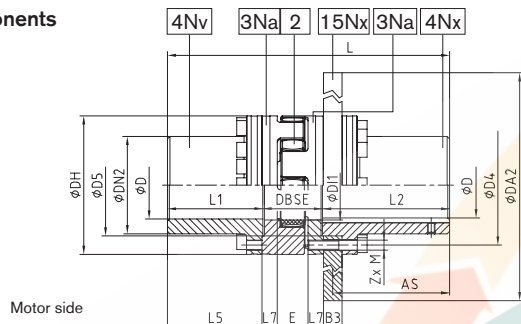
Drop-out center design coupling with brake disk



For legend of pictogram refer to flapper on the cover



Components



ROTEX® Type AFN-SB special

| Size | Finish bore D | | Dimensions [mm] | | | | | | | | | | |
|------|---------------|------|-----------------|-----|-----|----------|-----|------|----|-----|----|----------|---------------------|
| | min. | Max. | DH | DN2 | D4 | D5 H7/h7 | DI1 | DBSE | E | M | Z | pitch | T _A [Nm] |
| 65 | 22 | 70 | 135 | 94 | 116 | 96 | 68 | 65 | 35 | M10 | 12 | 16x22.5° | 83 |
| 75 | 30 | 80 | 160 | 108 | 136 | 112 | 80 | 75 | 40 | M12 | 15 | | 120 |
| 90 | 40 | 105 | 200 | 142 | 172 | 145 | 100 | 82 | 45 | M16 | 15 | | 295 |
| 100 | 46 | 115 | 225 | 158 | 195 | 165 | 113 | 97 | 50 | M16 | 15 | | 295 |
| 110 | 60 | 130 | 255 | 178 | 218 | 180 | 127 | 103 | 55 | M20 | 15 | 20x18° | 580 |
| 125 | 60 | 150 | 290 | 206 | 252 | 215 | 147 | 116 | 60 | M20 | 15 | | 580 |
| 140 | 60 | 170 | 320 | 235 | 282 | 245 | 165 | 128 | 65 | M20 | 15 | | 580 |
| 160 | 80 | 200 | 370 | 270 | 325 | 280 | 190 | 146 | 75 | M24 | 15 | | 1000 |
| 180 | 85 | 230 | 420 | 315 | 375 | 330 | 220 | 159 | 85 | M24 | 18 | 24x15° | 1000 |

ROTEX® Type AFN-SB special

| Size | Torque with 98 ShA ¹⁾ | | Max. speed [rpm] | Max. braking torque ²⁾ [Nm] | Dimensions [mm] | | | | | |
|------|----------------------------------|--------------------|------------------|--|-----------------|-------|-------|----|-------------------|-------|
| | T _{KN} | T _{K max} | | | L1 | L2 | L5 | L7 | AS | L |
| 65 | 940 | 1880 | 3450 | 1880 | 113.5 | 166.0 | 112.5 | 16 | 150 | 344.5 |
| 75 | 1920 | 3840 | 3250 | 3840 | 133.0 | 166.5 | 131.5 | 19 | 150 | 374.5 |
| 90 | 3600 | 7200 | 3000 | 7200 | 165.5 | 206.5 | 164.0 | 20 | 190 | 454.0 |
| 100 | 4950 | 9900 | 2800 | 9900 | 155.0 | 206.5 | 153.5 | 25 | 190 | 458.5 |
| 110 | 7200 | 14400 | 2600 | 14400 | 203.5 | 212.0 | 201.5 | 26 | 195 | 518.5 |
| 125 | 10000 | 20000 | 2250 | 20000 | 200.5 | 212.0 | 198.5 | 30 | 195 | 528.5 |
| 140 | 12800 | 25600 | 1800 | 25600 | 247.0 | 252.5 | 244.5 | 34 | 235 | 627.5 |
| | | | | | | | | | 230 ³⁾ | |
| 160 | 19200 | 38400 | 1500 | 38400 | 229.0 | 252.5 | 226.5 | 38 | 235 | 627.5 |
| | | | | | | | | | 230 ³⁾ | |
| 180 | 28000 | 56000 | 1350 | 56000 | 198.0 | 252.5 | 195.0 | 40 | 235 | 609.5 |

ROTEX® Selection of coupling/brake disk

| Size | Brake disk ØDA2 x B3 | | | | | | | | | | |
|------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| | 355x30 | 400x30 | 450x30 | 500x30 | 560x30 | 630x30 | 710x30 | 800x30 | 900x30 | 900x40 | 1000x40 |
| 65 | x | x | x | | | | | | | | |
| 75 | | x | x | x | | | | | | | |
| 90 | | | x | x | x | x | | | | | |
| 100 | | | | x | x | x | | | | | |
| 110 | | | | x | x | x | x | | | | |
| 125 | | | | | | x | x | x | | | |
| 140 | | | | | | | x | x | x | x | x |
| 160 | | | | | | | x | x | x | x | x |
| 180 | | | | | | | x | x | x | x | x |

¹⁾ For selection see page 14 et seqq. ²⁾ The maximum braking torque must not exceed the maximum torque of the coupling. ³⁾ Dimensions with a width of brake disk B3 of 40 mm.

Ordering example:

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

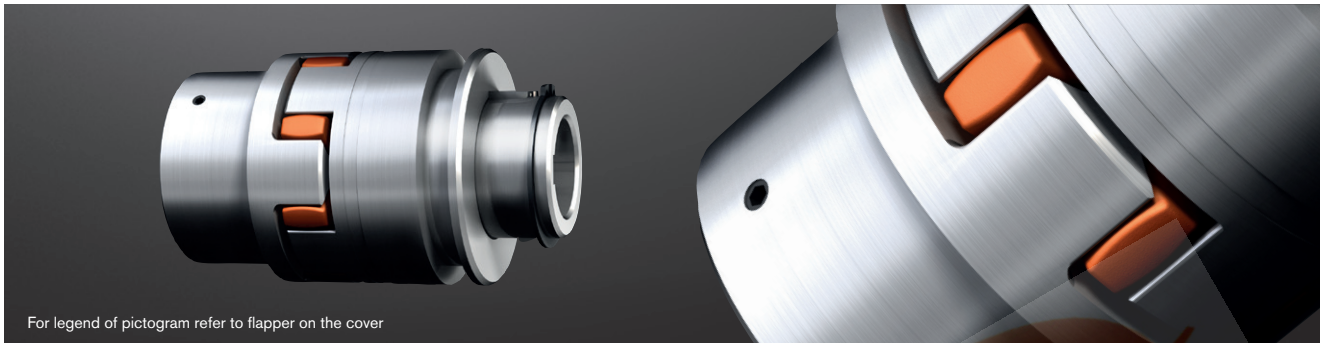
ROTEX® SD

Flexible jaw couplings

Flexible jaw and pin & bush couplings

ROTEX®

Shiftable coupling shiftable at standstill

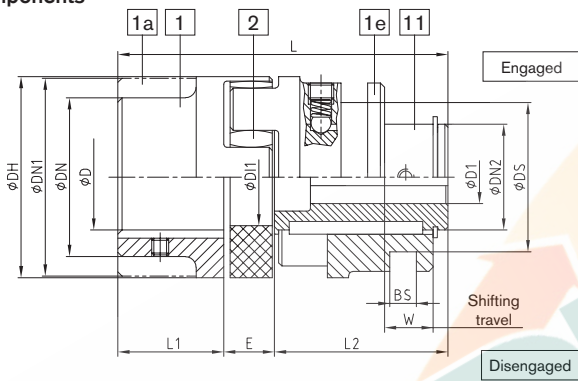


For legend of pictogram refer to flapper on the cover

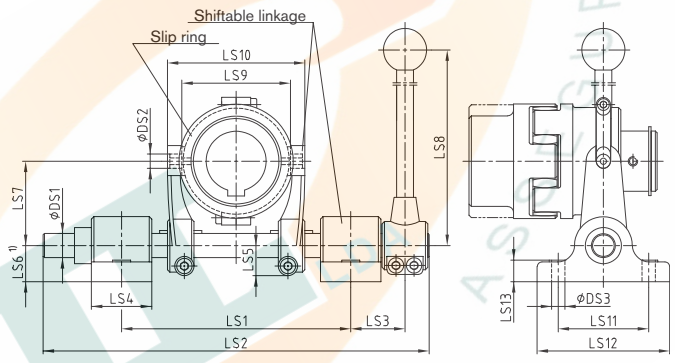


ROFLEX®

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.

POLY-NORM®

| ROTEX® Type SD | | | | | | | | | | | | | | | | |
|----------------|--|-----------------|-----|-----|-----|-----|--------|-----|-----|-------|--------|------|------|---------------------------|----------------|------------------------|
| Size | D, DN, DN1 | Dimensions [mm] | | | | | | | | | | | | Shifting force set in [N] | Slip ring size | Shiftable linkage size |
| | | Finish bore D1 | | DH | DI1 | DN2 | DS±0.1 | L | L1 | L2 | L6±0.1 | E | W | | | |
| min. | Max. | | | | | | | | | | | | | | | |
| 24 | Jaw coupling: page 36 to 40 Stock programme: page 36 and 37 | 8 | 20 | 55 | 27 | 30 | 41 | 98 | 30 | 51.5 | 6.0 | 16.5 | 16.0 | 110 | - | - |
| 28 | | 10 | 24 | 65 | 30 | 36 | 58 | 113 | 35 | 60.0 | 8.0 | 18.0 | 17.5 | 130 | - | - |
| 38 | | 12 | 30 | 80 | 38 | 45 | 70.5 | 140 | 45 | 73.0 | 12.5 | 22.0 | 21.0 | 150 | 1.1 | 1 |
| 42 | | 14 | 35 | 95 | 46 | 50 | 70.5 | 156 | 50 | 82.0 | 12.5 | 24.0 | 23.0 | 180 | 1.1 | 1 |
| 48 | | 15 | 42 | 105 | 51 | 60 | 89.5 | 172 | 56 | 90.5 | 17.5 | 25.5 | 24.5 | 200 | 2.2 | 2 |
| 55 | | 18 | 50 | 120 | 60 | 70 | 112.5 | 195 | 65 | 103.0 | 18.0 | 27.0 | 26.0 | 250 | 3.3 | 3 |
| 65 | | 20 | 55 | 135 | 68 | 80 | 112.5 | 227 | 75 | 120.0 | 18.0 | 32.0 | 30.5 | 280 | 3.3 | 3 |
| 75 | | 25 | 65 | 160 | 80 | 95 | 130.5 | 257 | 85 | 135.0 | 20.5 | 37.0 | 35.0 | 350 | 4.4 | 3 |
| 90 | | 28 | 75 | 200 | 100 | 110 | 164.5 | 293 | 100 | 152.0 | 25.5 | 41.0 | 39.5 | 350 | 5.5 | 4 |
| 100 | | 30 | 80 | 225 | 113 | 115 | 164.5 | 325 | 110 | 169.0 | 25.5 | 46.0 | 44.0 | 380 | 5.5 | 4 |
| 110 | | 35 | 85 | 255 | 127 | 125 | 164.5 | 355 | 120 | 184.0 | 25.5 | 51.5 | 48.5 | 450 | 5.5 | 4 |
| 125 | | 40 | 100 | 290 | 147 | 145 | 210.5 | 404 | 140 | 208.5 | 30.5 | 55.5 | 53.0 | 500 | 6.6 | 5 |

POLY

| Slip ring and shiftable linkage | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---------------------------|-----------------|-----|------|-----|-----|-----|-----|-----|------|-----|-------|------|-----|------|------|------|------|-------------------------------|--|
| Size | Size of shiftable linkage | Dimensions [mm] | | | | | | | | | | | | | | | | | Max. speed [rpm] of slip ring | |
| | | DS1 | DS2 | DS3 | LS1 | | LS2 | LS3 | LS4 | LS5 | LS6 | LS7 | LS8 | LS9 | LS10 | LS11 | LS12 | LS13 | | |
| min. | Max. | | | | | | | | | | | | | | | | | | | |
| 38 | 1 | 20 | 12 | 11 | 180 | 190 | 320 | 55 | 50 | 25 | 30 | 70 | 400 | 90 | 114 | 75 | 110 | 18 | 3280 | |
| 42 | 1 | | | | | | | | | | | | | | | | | | | |
| 48 | 2 | 25 | | | 240 | 270 | 430 | 60 | | 27 | | 97.5 | 450 | 111 | 151 | | | | 2550 | |
| 55 | 3 | | | | | | | | | | | | | | | | | | | |
| 65 | 3 | 30 | 17 | | 280 | 310 | 490 | | | 32.5 | 40 | 120 | 600 | 140 | 180 | 100 | 140 | | 2120 | |
| 75 | 3 | | | | | | | | | | | | | | | | | | | |
| 90 | 4 | | | 13.5 | | | | 70 | 60 | | | | | 170 | 210 | | | 25 | 1710 | |
| 100 | 4 | 35 | 21 | | 321 | 365 | 565 | | | 37.5 | 50 | 147.5 | 750 | 200 | 244 | 120 | 160 | | 1360 | |
| 110 | 4 | | | | | | | | | | | | | | | | | | | |
| 125 | 5 | 40 | 25 | | 365 | 410 | 630 | 80 | | 46 | | 190 | 1085 | 250 | 300 | | | | 855 | |

¹⁾ With a through base plate dimension „LS6“ of the shiftable linkage size 5 to be increased by at least 10 mm. Finish bore according to ISO fit H7, feather keyway according to DIN 6885, sheet 1 [JS9].

REVOLEX®

| | | | | | | | | |
|-------------------|---------------|------|--|-----------------|-----------|-------------|-----------|-------------|
| Ordering example: | ROTEX® 38 | SD | With 1.1 and 1 | 98 ShA | 1 | Ø38 | 11 | Ø28 |
| | Coupling size | Type | With slip ring 1.1 and shiftable linkage 1 | Spider hardness | Component | Finish bore | Component | Finish bore |

ROTEX® FNN Flexible jaw couplings

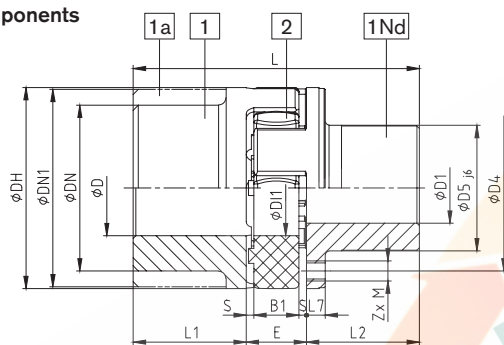
For mounting of fan



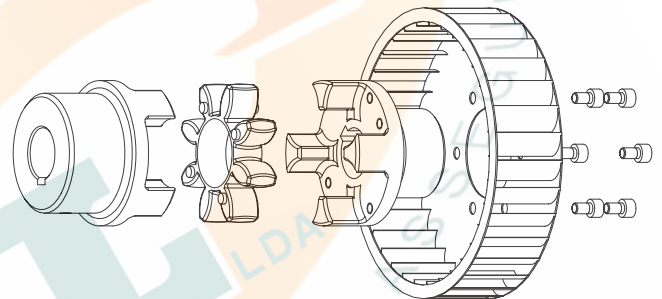
For legend of pictogram refer to flapper on the cover



Components



Type FNN



Type FNN with fan (type 1)

| ROTEX® Type FNN | | | | | | | | | | | | | | | | |
|-----------------|--|---------------------|-----------------|-----|-----|-----|-----|----|----|-----|--------|------|-----|----|----------|--|
| Size | D, DN, DN1 | Max. finish bore D1 | Dimensions [mm] | | | | | | | | | | | | | |
| | | | L | DH | DI1 | D4 | D5 | E | B1 | S | L1, L2 | L7 | M | Z | pitch | |
| 28 | Jaw coupling: page 38 to 40 Stock programme: page 36 and 37 | 29 | 90 | 65 | 30 | 54 | 40 | 20 | 15 | 2.5 | 35 | 6.5 | M6 | 8 | 8x45° | |
| 38 | | 37 | 114 | 80 | 38 | 66 | 50 | 24 | 18 | 3.0 | 45 | 7.5 | M8 | 8 | | |
| 42 | | 44 | 126 | 95 | 46 | 80 | 60 | 26 | 20 | 3.0 | 50 | 9.5 | M8 | 12 | | |
| 48 | | 50 | 140 | 105 | 51 | 90 | 68 | 28 | 21 | 3.5 | 56 | 10.5 | M8 | 12 | 16x22.5° | |
| 55 | | 57 | 160 | 120 | 60 | 102 | 78 | 30 | 22 | 4.0 | 65 | 12.5 | M10 | 8 | 8x45° | |
| 65 | | 68 | 185 | 135 | 68 | 116 | 92 | 35 | 26 | 4.5 | 75 | 13.5 | M10 | 12 | 16x22.5° | |
| 75 | | 78 | 210 | 160 | 80 | 136 | 106 | 40 | 30 | 5.0 | 85 | 15.5 | M12 | 15 | 20x18° | |
| 90 | | 104 | 245 | 200 | 100 | 172 | 140 | 45 | 34 | 5.5 | 100 | 18.5 | M16 | 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.

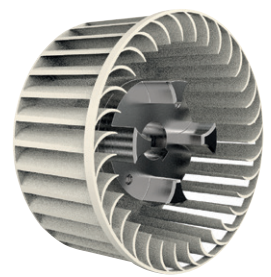
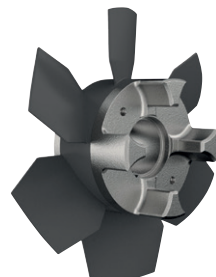
Type 1: Fan screwed on

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

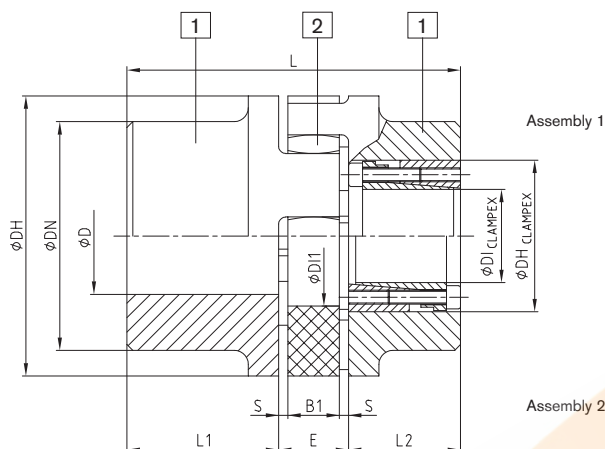
Low prices due to optimisation of production with bigger volumes.



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

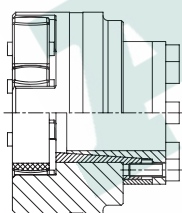
Other types with clamping sets

Components



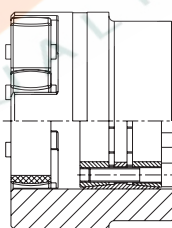
| ROTEX® with clamping set CLAMPEX® KTR 200 | | | | | | | | | | | | | | |
|---|---|----------------------|------------------------------------|--------------------------------------|-----------------|-----|----|----|------|-----|-----|-----|-----|-------------------------------------|
| Size | D, DN | Hub material | CLAMPEX® KTR 200 | | Dimensions [mm] | | | | | | | | | |
| | | | Max. size of KTR clamping set DxDH | Transmittable torque and axial force | | L1 | L2 | E | B1 | S | DH | DN | DI1 | L |
| | | | | T [Nm] | FAX [kN] | | | | | | | | | |
| 42 | Jaw coupling: page 38 to 40 Stock programme: page 36 | steel Component 1 | 30x55 | 790 | 53 | 50 | 48 | 26 | 20 | 3.0 | 95 | — | 46 | Length = L1 + E + L2 (clamping set) |
| 48 | | | 35x60 | 1300 | 74 | 56 | 48 | 28 | 21 | 3.5 | 105 | — | 51 | |
| 55 | | | 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 | | 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 | | |

ROTEX® hub combined with CLAMPEX® KTR 250



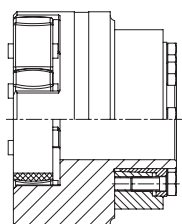
Frictionally engaged and backlash-free transmission of medium torques. CLAMPEX® KTR 250 is particularly suitable for thin-walled hubs and/or those made of aluminium or cast material. Please contact the KTR engineering department for further details.

ROTEX® hub 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 further details.

ROTEX® hub combined with CLAMPEX® KTR 620



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 further details.

Other types with torque limiter



ROTEX® BKN - Overload coupling, type BKN

- Torsionally flexible coupling ROTEX® with shear pins
- Load-separating with blockage/overload
- Easy replacement of shear pin
- Fracture torque to be defined individually depending on the application

Customer variant from the stock programme.
Please specify the fracture torques with your order!
For further details see dimension sheet No. 5020/000/009-760313



ROTEX® - RUFLEX® - Overload coupling

- High power density
- Large wear volume with long service life
- Easy assembly and torque setting

For further details see catalogue page 288



ROTEX® - KTR-SI - Overload coupling

- Available in a ratchet, synchronous, idle rotation and fail-safe design
- High response accuracy, even after a long operating period
- Maintenance-free

For further details see catalogue page 295



ROTEX® - KTR-SI FRE - idle rotation overload coupling

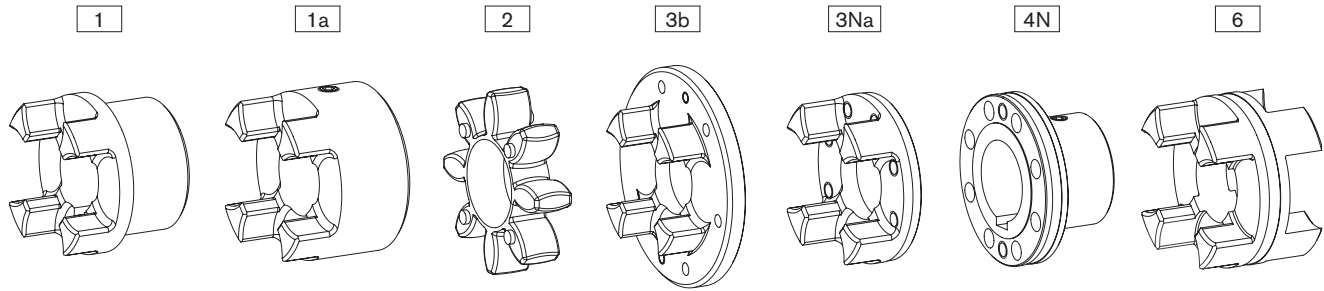
- Idle rotation overload system for high torques
- High repeatability
- Intelligent further development towards the shear pin coupling and hydraulic clamping sets

For further details see catalogue page 297

ROTEX®

Flexible jaw couplings

Weights and mass moments of inertia



| ROTEX® individual components | | | | | | | | | | | | | |
|------------------------------|------------------------------------|------------------------------|------------------------------|-----------------------------|------------------------------------|------------------------------|-----------------------------|---|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------------|
| Size | Standard hub | | | | Large hub | | | Spider | Driving flange | | | Coupling flange | DKM spacer |
| | Component 1 | | | | Component 1a | | | Component 2 | Component 3b | Component 3Na | | Component 4N | Component 6 |
| | Aluminium [kg] [kgm ²] | GJL [kg] [kgm ²] | GJS [kg] [kgm ²] | St [kg] [kgm ²] | Aluminium [kg] [kgm ²] | GJL [kg] [kgm ²] | St [kg] [kgm ²] | Polyurethane (Vulkollan) [kg] [kgm ²] | GJS [kg] [kgm ²] | St [kg] [kgm ²] | GJS [kg] [kgm ²] | St [kg] [kgm ²] | Aluminium [kg] [kgm ²] |
| 14 | — | — | — | — | 0.020 | — | — | 0.0044 | — | — | — | — | — |
| 19 | 0.064 | — | — | — | 0.074 | — | 0.25 | 0.0057 | — | — | — | — | — |
| 24 | 0.123 | — | — | — | 0.174 | — | 0.55 | 0.014 | 0.028 | 0.145 | — | 0.30 | 0.14 |
| 28 | 0.200 | — | — | — | 0.264 | — | 0.89 | 0.024 | 0.54 | 0.232 | — | 0.49 | 0.22 |
| 38 | 0.44 | 1.16 | — | 1.6 | 0.470 | 1.32 | 1.74 | 0.042 | 0.73 | — | 0.313 | 0.87 | 0.35 |
| 42 | 0.69 | 1.75 | — | 2.44 | 0.772 | 2.05 | 2.74 | 0.065 | 1.26 | — | 0.608 | 1.4 | 0.47 |
| 48 | 0.80 | 2.44 | — | 3.34 | 1.01 | 2.78 | 3.72 | 0.086 | 1.45 | — | 0.755 | 1.92 | 0.62 |
| 55 | — | 3.68 | — | 5.05 | — | 4.08 | 5.57 | 0.11 | 2.58 | — | 1.243 | 2.93 | 0.90 |
| 65 | — | 5.67 | — | 6.79 | — | 6.04 | 8.22 | 0.17 | 3.10 | — | 1.635 | 4.36 | 1.31 |
| 75 | — | 8.72 | — | 10.5 | — | 9.53 | 14.3 | 0.32 | 4.46 | — | 2.511 | 6.80 | 1.97 |
| 90 | — | 14.8 | — | 18.7 | — | 18.2 | 24.0 | 0.57 | 6.94 | — | 4.151 | 12.84 | 3.45 |
| 100 | — | 0.06730 | — | 0.08742 | — | 0.15086 | 0.13151 | 0.00326 | 0.0651 | — | 0.02723 | 0.0448 | 0.0224 |
| 110 | — | — | 19.7 | — | — | — | — | 0.82 | 10.2 | — | 6.350 | 16.16 | — |
| 125 | — | — | 0.11694 | — | — | — | — | 0.00592 | 0.1165 | — | 0.05273 | 0.0798 | — |
| 140 | — | — | 27.4 | — | — | — | — | 1.14 | — | — | 8.578 | 21.35 | — |
| 160 | — | — | 0.20465 | — | — | — | — | 0.01048 | — | — | 0.09121 | 0.2824 | — |
| 180 | — | — | 42.3 | — | — | — | — | 1.56 | — | — | 12.598 | 34.33 | — |
| 200 | — | — | 0.40727 | — | — | — | — | 0.01878 | — | — | 0.17469 | 0.3229 | — |
| 225 | — | — | 58.1 | — | — | — | — | 2.02 | — | — | 17.271 | 48.69 | — |
| 250 | — | — | 0.67739 | — | — | — | — | 0.02989 | — | — | 0.29247 | 0.4917 | — |
| 280 | — | — | 84.2 | — | — | — | — | 3.08 | — | — | 26.305 | 71.08 | — |
| 315 | — | — | 1.31729 | — | — | — | — | 0.06049 | — | — | 0.59436 | 0.9693 | — |
| 355 | — | — | 118.5 | — | — | — | — | 5.04 | — | — | 33.076 | 109.43 | — |
| 400 | — | — | 2.30835 | — | — | — | — | 0.13295 | — | — | 0.97394 | 1.9650 | — |

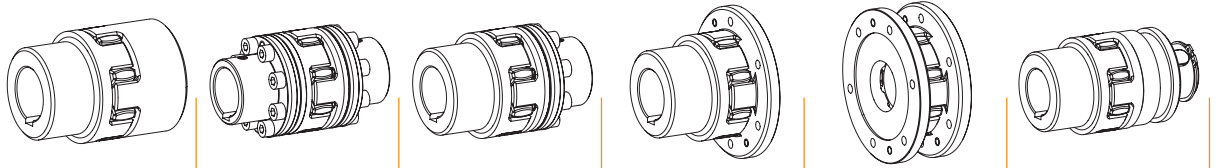
Weight and mass moment of inertia each refer to the average finish bore without feather keyway.

For continuously updated data refer to our online catalogue at www.ktr.com

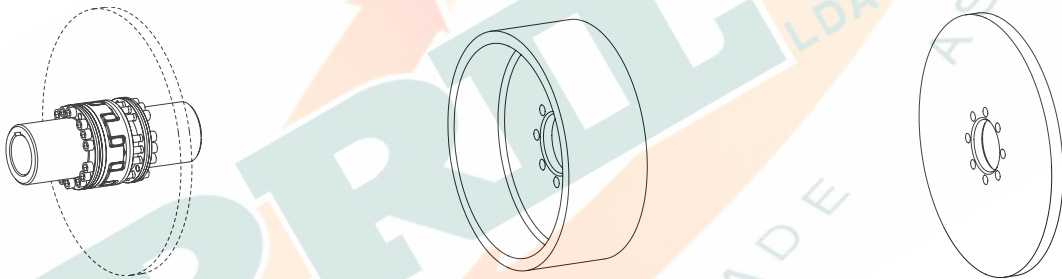
ROTEX®
 Flexible jaw and pin & bush couplings
 ROFLEX®
 POLY-NORM®
 POLY
 REVOLLEX®

ROTEX® Flexible jaw couplings

Weights and mass moments of inertia



| ROTEX® Complete coupling types | | | | | | | | | | | | |
|--------------------------------|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|
| Size | Standard | | AFN | | BFN | | CF | | DF | | SD | |
| | Weight [kg] | Mass moment of inertia J [kgm ²] | Weight [kg] | Mass moment of inertia J [kgm ²] | Weight [kg] | Mass moment of inertia J [kgm ²] | Weight [kg] | Mass moment of inertia J [kgm ²] | Weight [kg] | Mass moment of inertia J [kgm ²] | Weight [kg] | Mass moment of inertia J [kgm ²] |
| 19 | 0.51 | 0.000121 | — | — | — | — | 0.44 | 0.00016 | 0.38 | 0.00020 | 0.42 | 0.00008 |
| 24 | 1.1 | 0.000466 | 0.98 | 0.00036 | 1.1 | 0.00041 | 0.84 | 0.00047 | 0.57 | 0.00047 | 1.1 | 0.00046 |
| 28 | 1.8 | 0.00107 | 1.6 | 0.00083 | 1.7 | 0.00095 | 1.5 | 0.00124 | 1.1 | 0.00141 | 1.9 | 0.00106 |
| 38 | 2.5 | 0.00171 | 2.8 | 0.00209 | 2.6 | 0.00193 | 1.9 | 0.00217 | 1.5 | 0.00259 | 3.0 | 0.00435 |
| 42 | 3.9 | 0.00476 | 4.5 | 0.00472 | 4.1 | 0.00419 | 3.1 | 0.00513 | 2.6 | 0.00662 | 4.4 | 0.00804 |
| 48 | 5.3 | 0.00805 | 5.9 | 0.00736 | 5.5 | 0.00684 | 3.9 | 0.00755 | 3.0 | 0.00881 | 6.2 | 0.00223 |
| 55 | 7.9 | 0.01564 | 8.9 | 0.01480 | 8.3 | 0.01369 | 6.4 | 0.01692 | 5.3 | 0.02131 | 9.8 | 0.0166 |
| 65 | 11.9 | 0.03071 | 12.9 | 0.0266 | 12.3 | 0.0259 | 8.9 | 0.02780 | 6.4 | 0.003037 | 14.9 | 0.0326 |
| 75 | 18.6 | 0.06706 | 20.6 | 0.0601 | 19.3 | 0.0572 | 13.5 | 0.0557 | 9.2 | 0.05741 | 23.2 | 0.0706 |
| 90 | 33.6 | 0.22139 | 37.8 | 0.1718 | 34.2 | 0.1551 | 22.3 | 0.1356 | 14.5 | 0.1333 | 40.5 | 0.1891 |
| 100 | 40.2 | 0.23976 | 49.6 | 0.3068 | 45.2 | 0.2737 | 30.9 | 0.2401 | 21.2 | 0.2394 | 46.7 | 0.2467 |
| 110 | 56.0 | 0.42027 | 67.5 | 0.5385 | 61.7 | 0.4793 | 42.9 | 0.4324 | 29.8 | 0.4446 | 61.5 | 0.4186 |
| 125 | 86.2 | 0.83426 | 102.6 | 1.0485 | 94.4 | 0.9413 | 64.4 | 0.8187 | 42.2 | 0.8031 | 96.8 | 0.8497 |
| 140 | 118.3 | 1.38607 | 141.2 | 1.743 | 129.7 | 1.564 | 90.4 | 1.4221 | 62.5 | 1.4580 | 127.8 | 1.368 |
| 160 | 171.6 | 2.69781 | 210.3 | 3.517 | 190.9 | 3.107 | 127.6 | 2.589 | 83.6 | 2.4805 | 190.3 | 2.723 |
| 180 | 242.25 | 4.75449 | 306.6 | 6.582 | 274.4 | 5.668 | 175.1 | 4.448 | 107.9 | 4.141 | 262.2 | 4.810 |



| AFN-SB spec. without brake disk | | |
|---------------------------------|-------------|--|
| Size | Weight [kg] | Mass moment of inertia J [kgm ²] |
| 65 | 13.7 | 0.03126 |
| 75 | 21 | 0.06828 |
| 90 | 39 | 0.20132 |
| 100 | 53 | 0.34637 |
| 110 | 74 | 0.61684 |
| 125 | 101 | 1.12844 |
| 140 | 145 | 1.95075 |
| 160 | 200 | 3.67846 |
| 180 | 262 | 6.41621 |

| Brake drum for BTAN | | |
|-----------------------------------|-------------|--|
| Brake drum ØD _B x B | Weight [kg] | Mass moment of inertia J [kgm ²] |
| 160 x 60 | 2.1 | 0.01 |
| 200 x 75 | 3.5 | 0.03 |
| 250 x 95 | 6.9 | 0.08 |
| 315 x 118 | 15.0 | 0.28 |
| 400 x 150 | 31 | 0.89 |
| 500 x 190 | 60 | 2.70 |
| 630 x 236 | 112 | 8.01 |
| 710 x 265 | 161 | 14.9 |
| 800 x 300 | 202 | 27.2 |

| Brake disk for SBAN / AFN-SB spec. | | |
|------------------------------------|-------------|--|
| Brake disk ØA x G _S | Weight [kg] | Mass moment of inertia J [kgm ²] |
| 200 x 12.5 | 2.9 | 0.01537 |
| 250 x 20 | 7.7 | 0.05913 |
| 250 x 30 | 11.5 | 0.08869 |
| 250 x 12.5 | 4.7 | 0.03758 |
| 315 x 16 | 8.6 | 0.11183 |
| 315 x 20 | 12.3 | 0.15117 |
| 315 x 30 | 18.5 | 0.22601 |
| 355 x 20 | 15.5 | 0.23376 |
| 355 x 30 | 23.5 | 0.36432 |
| 400 x 16 | 15.2 | 0.31521 |
| 400 x 20 | 20 | 0.39058 |
| 400 x 30 | 30 | 0.57652 |
| 450 x 20 | 25 | 0.62101 |
| 450 x 30 | 38 | 0.93169 |
| 500 x 16 | 24 | 0.76996 |
| 500 x 20 | 31 | 0.93714 |
| 500 x 30 | 47 | 1.40607 |
| 560 x 20 | 39 | 1.50479 |
| 560 x 30 | 59 | 2.25145 |
| 630 x 20 | 48 | 2.38081 |
| 630 x 30 | 74 | 3.45018 |
| 710 x 20 | 61 | 3.90652 |
| 710 x 30 | 93 | 5.52149 |
| 800 x 25 | 95 | 7.87899 |
| 800 x 30 | 114 | 9.40746 |
| 900 x 25 | 119 | 12.60909 |
| 900 x 30 | 150 | 14.84302 |
| 900 x 40 | 200 | 20.15384 |
| 1000 x 25 | 148 | 19.23494 |
| 1000 x 30 | 185 | 22.79405 |
| 1000 x 40 | 246 | 30.35531 |
| 1250 x 30 | 290 | 56.25377 |
| 1250 x 40 | 385 | 75.00507 |