

## FLEXIBLE JAW AND PIN & BUSH COUPLINGS TYPES AND OPERATING DESCRIPTION

### Properties of flexible jaw and pin & bush couplings

|   |          |  |  |             |
|---|---|---|---|--|
| Product   | ROTEX®  | POLY-NORM®  | POLY  | REVOLEX®   |
| Type  | Torsionally flexible jaw coupling   |   |   | Torsionally flexible pin & bush coupling   |
| <b>Features</b>   |   |   |   |  |
| Torsionally flexible  | ●   | ●   | ●   | ●  |
| Damping vibrations  | ●   | ●   | ●   | ●  |
| Maintenance-free  | ●   | ●   | ●   | ●  |
| Axial plug-in   | ●   | ●   | ●   | ●  |
| Shear type  |   |   | ●   |  |
| Fail-safe   | ●   | ●   |   | ●  |
| Compensating for misalignment   | ●   | ●   | ●   | ●  |
| <b>Types</b>  |   |   |   |  |
| Variant diversity   | very high   | 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  | extensive programme, ideal for customised solutions, for applications with high performances   |
| Applications / core industries  | manifold applications, applicable in all industries                                       | 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  | allover machining, good dynamic properties   |
| <b>Torque range <math>T_{KN}</math> [Nm]</b>                          |   |   |   |  |
| Min.  | 1   | 40  | 42  | 4300   |
| Max.  | 35,000  | 67,000  | 6,100   | 1,350,000  |
| <b>Max. circumferential speed <math>v</math> [m/s]</b>                |   |   |   |  |
| Cast EN-GJL (dynamic balancing)                                       | 35  | 35  | 35  | 35   |
| Steel + cast EN-GJS (dynamic balancing)                               | 60  |   |   | 60   |
| <b>Hub materials available</b>  |   |   |   |  |
| Steel (semi-finished product)<br>» customised solutions available     | ●   |   |   | ●  |
| Cast iron (GJL)<br>» subject to mould                                 | ●   | ●   | ●   | ●  |
| Nodular iron (GJS)<br>» subject to mould                              | ●   | ○   |   | ○  |
| Aluminium wrought products (Al-H)<br>» customised solutions available | ●   |   |   |  |
| Aluminium diecast (Al-D)  | ●   |   |   |  |
| Stainless steel   | ●   |   |   |  |
| Corrosion-protected types   | ●   | ○   | ○   | ●  |
| <b>Spiders / elastomers</b>   |   |   |   |  |
| Material  | T-PUR®, PA, PEEK, Hytel, ...  | NBR (up to size 180)<br>T-PUR® (from size 200)                                    | NBR   | NR, NBR<br>NBR electrically insulating   |
| Degree of hardness  | flexible to torsionally rigid   | flexible  | flexible  | flexible   |
| Temperature range in °C, min. / max. (standard)                       | - 50 / + 120  | - 30 / + 80   | - 30 / + 80   | - 30 / + 80  |
| Temperature range in °C, min. / max. (special)                        | - 50 / + 250  | - 30 / + 80   | - 30 / + 80   | - 50 / + 80  |

● = Standard  
 ○ = On request

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### Product finder of jaw and pin & bush couplings

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|---|---|---|--|---|
| Product   | ROTEX®  | POLY-NORM®  | POLY   | REVOLEX®  |
| Type  | Torsionally flexible jaw coupling   |   |  | Torsionally flexible pin & bush coupling  |
| <b>Geometries</b>   |   |   |  |   |
| Design  | compact   | short   | short  | short   |
| Mass moment of inertia  | low   | average   | high   | average   |
| Shaft distance dimension  | low / average   | low   | low  | low   |
| <b>Types (extract)</b>  |   |   |  |   |
| Elastomers can be radially disassembled<br>* with no need of displacing driving/driven side         | AFN, AH, SH, ZR, DF, DFN, CF-H  | ADR, ADR-SB   | PKD  | Standard  |
| Intermediate shaft types<br>* bridging larger shaft distances                                       | ZR, ZWN   | -   | -  | customised  |
| Standard spacers 100 mm to 250 mm   | ZS-DKM-H  | AZR   | PKA  | customised  |
| Shaft-to-shaft connection   | Standard  | Standard  | Standard   | Standard  |
| Flange-to-shaft connection  | CF, CFN   | -   | -  | customised  |
| Flange-to-flange connection<br>* particularly short mounting lengths                                | DF, DNF   | -   | -  | customised  |
| Double-cardanic<br>* compensating for big displacements, lower restoring forces                     | ZS-DKM-H, ZR, ZWN   | -   | -  | -   |
| <b>Certifications/type examinations</b>   |   |   |  |   |
| ATEX             | ●   | ●   | ●  | ●   |
| UL-listed        | ●   |   |  |   |
| GOST R/ GOST TR  | ●   | ●   | ●  | ●   |
| DNV/GL           | ●   |   |  | ●   |
| ABS              | ●   |   |  | ○   |
| Bureau Veritas   | ●   |   |  | ○   |
| LR               | ○   |   |  | ○   |
| RS CLASS         | ○   |   |  | ○   |
| CCS              | ○   |   |  | ○   |
| ClassNK          | ○   |   |  |   |

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Flexible jaw and pin & bush couplings

ROTEX®

POLY-NORM®

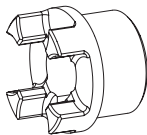
POLY

REVOLEX®

## ROTEX® Flexible jaw couplings

### 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.



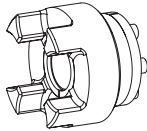
#### Type 1.0 hub with feather keyway and setscrew

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 36)

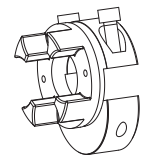


#### Type 4.2 hub for CLAMPEX® clamping set KTR 250

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

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

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

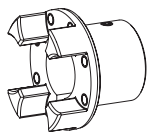


#### Type 7.5 clamping hub type DH without feather keyway for double-cardanic connection

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

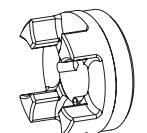
Type 7.6 clamping hub type DH  
with feather keyway for double-cardanic connection

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



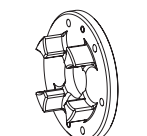
#### FNN hub

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



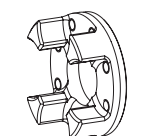
#### TB1 hub/TB2 hub

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



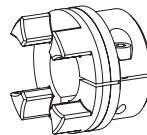
#### Driving flange type 3b

Driving flange to connect to customer's component. For dimensions see page 52



#### Driving flange type 3Na

Driving flange to connect to customer's component. For dimensions see page 52



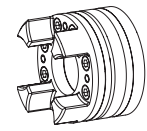
#### Type 2.0 clamping hub single slot without feather keyway

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 or reduces reverse backlash. Surface pressure of the keyway connection is reduced.

Type 2.3 clamping hub  
with spline bore (see page 36)

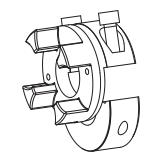


#### Type 6.0 clamping ring hub (see ROTEX® GS series)

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. As an example for radial disassembly of intermediate pipe (special design).

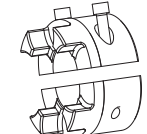


#### Type 7.8 clamping hub type H without feather keyway

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

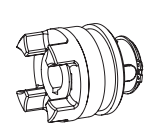
Type 7.9 clamping hub type H  
with feather keyway

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



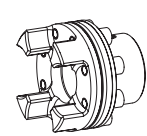
#### Type 7.1 SPLIT hub with feather keyway

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



#### SD hub shifting hub

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



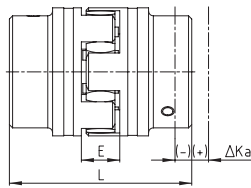
#### Type 3Na and 4N Driving flange with flange type K

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

# ROTEX® Flexible jaw couplings

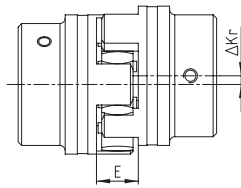
## Displacements

Axial displacement  $\Delta K_a$

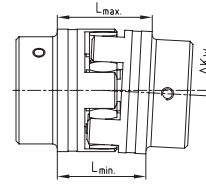


$$L_{\max.} = L + \Delta K_a$$

Radial displacement  $\Delta K_r$



Angular displacement  $\Delta K_w$  [degree]



$$\Delta K_w \text{ [mm]} = L_{\max} - L_{\min}$$

Displacements for spider 92 and 98 Shore A

| ROTEX® size   | 14           | 19           | 24           | 28           | 38           | 42           | 48           | 55           | 65           | 75           | 90          | 100          | 110          | 125          | 140          | 160          | 180          |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Max. axial displacement $\Delta K_a$ [mm]                         | -0.5<br>+1.0 | -0.5<br>+1.2 | -0.5<br>+1.4 | -0.7<br>+1.5 | -0.7<br>+1.8 | -1.0<br>+2.0 | -1.0<br>+2.1 | -1.0<br>+2.2 | -1.0<br>+2.6 | -1.5<br>+3.0 | -1.5<br>3.4 | -1.5<br>+3.8 | -2.0<br>+4.2 | -2.0<br>+4.6 | -2.0<br>+5.0 | -2.5<br>+5.7 | -3.0<br>+6.4 |
| Max. radial displacement with $n=1500$ rpm $\Delta K_r$ [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 $\Delta K_w$ [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          |
| $\Delta K_w$ [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 $\Delta K_a$ [mm]                         | -0.5<br>+1.0 | -0.5<br>+1.2 | -0.5<br>+1.4 | -0.7<br>+1.5 | -0.7<br>+1.8 | -1.0<br>+2.0 | -1.0<br>+2.1 | -1.0<br>+2.2 | -1.0<br>+2.6 | -1.5<br>+3.0 | -1.5<br>+3.4 | -1.5<br>+3.8 | -2.0<br>+4.2 | -2.0<br>+4.6 | -2.0<br>+5.0 | -2.5<br>+5.7 | -3.0<br>+6.4 |
| Max. radial displacement with $n=1500$ rpm $\Delta K_r$ [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 $\Delta K_w$ [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          |
| $\Delta K_w$ [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

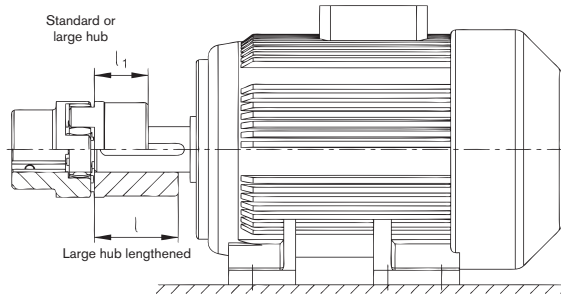
| ROTEX® size   | 14           | 19           | 24           | 28           | 38           | 42           | 48           | 55           | 65           | 75           | 90           | 100          | 110          | 125          | 140          |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Max. axial displacement $\Delta K_a$ [mm]                         | -0.5<br>+1.0 | -0.5<br>+1.2 | -0.5<br>+1.4 | -0.7<br>+1.5 | -0.7<br>+1.8 | -1.0<br>+2.0 | -1.0<br>+2.1 | -1.0<br>+2.2 | -1.0<br>+2.6 | -1.0<br>+3.0 | -1.5<br>+3.4 | -1.5<br>+3.8 | -1.5<br>+4.2 | -2.0<br>+4.6 | -2.0<br>+5.0 |
| Max. radial displacement with $n=1500$ rpm $\Delta K_r$ [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 $\Delta K_w$ [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         |
| $\Delta K_w$ [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 above-mentioned 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](http://www.ktr.com).

# ROTEX® Flexible jaw couplings

## Selection of standard IEC motors



Flexible jaw and pin &amp; bush couplings

ROTEX®

POLY-NORM®

POLY

REVOLEX®

| 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 |
|  | 2 poles           | 4, 6, 8 poles | Power P [kW]                   | Torque T [Nm] |                      | Power P [kW]                   | Torque T [Nm] |                      | Power P [kW]                   | Torque T [Nm] |                      | Power P [kW]                  | Torque T [Nm] |                      |
| 56   | 9 x 20            |               | 0.09                           | 0.32          | 9 <sup>1)</sup>      | 0.06                           | 0.43          | 9 <sup>1)</sup>      | 0.037                          | 0.43          | 9 <sup>1)</sup>      |                               |               |                      |
|  |                   |               | 0.12                           | 0.41          |                      |                                | 0.09          |                      | 0.64                           |               |                      | 0.045                         | 0.52          |                      |
| 63   | 11 x 23           |               | 0.18                           | 0.62          | 14                   | 0.12                           | 0.88          | 14                   | 0.06                           | 0.7           | 14                   |                               |               |                      |
|  |                   |               | 0.25                           | 0.86          |                      |                                | 0.18          |                      | 1.3                            |               |                      | 0.09                          | 1.1           |                      |
| 71   | 14 x 30           |               | 0.37                           | 1.3           | 19                   | 0.25                           | 1.8           | 19                   | 0.18                           | 2             | 19                   | 0.09                          | 1.4           | 14                   |
|  |                   |               | 0.55                           | 1.9           |                      |                                | 0.37          |                      | 2.5                            |               |                      | 0.25                          | 2.8           |                      |
| 80   | 19 x 40           |               | 0.75                           | 2.5           | 19                   | 0.55                           | 3.7           | 19                   | 0.37                           | 3.9           | 19                   | 0.18                          | 2.5           | 19                   |
|  |                   |               | 1.1                            | 3.7           |                      |                                | 0.75          |                      | 5.1                            |               |                      | 0.55                          | 5.8           |                      |
| 90S  | 24 x 50           |               | 1.5                            | 5             | 24                   | 1.1                            | 7.5           | 24                   | 0.75                           | 8             | 24                   | 0.37                          | 5.3           | 24                   |
| 90L  |                   |               | 2.2                            | 7.4           |                      |                                | 1.5           |                      | 10                             |               |                      | 1.1                           | 12            |                      |
| 100L   | 28 x 60           |               | 3                              | 9.8           | 24                   | 2.2                            | 15            | 24                   | 1.5                            | 15            | 24                   | 0.75                          | 11            | 24                   |
|  |                   |               | 5.5                            | 18            |                      |                                | 3             |                      | 20                             |               |                      | 1.5                           | 15            |                      |
| 112M   | 38 x 80           |               | 4                              | 13            | 28                   | 4                              | 27            | 28                   | 2.2                            | 22            | 28                   | 1.5                           | 21            | 28                   |
| 132S   |                   |               | 7.5                            | 25            |                      |                                | 5.5           |                      | 36                             |               |                      | 3                             | 30            |                      |
| 132M   | 42 x 110          |               |                                |               | 38                   | 7.5                            | 49            | 38                   | 4                              | 40            | 38                   | 3                             | 40            | 38                   |
|  |                   |               |                                |               |                      |                                |               |                      |                                |               |                      | 5.5                           | 55            |                      |
| 160M   | 48 x 110          |               | 11                             | 36            | 42                   | 11                             | 72            | 42                   | 7.5                            | 75            | 42                   | 4                             | 54            | 42                   |
|  |                   |               | 15                             | 49            |                      |                                | 15            |                      | 98                             |               |                      | 11                            | 109           |                      |
| 160L   | 55 x 110          |               | 18.5                           | 60            | 42                   | 18.5                           | 121           | 42                   | 15                             | 148           | 42                   | 7.5                           | 100           | 42                   |
| 180M   |                   |               | 22                             | 71            |                      |                                | 22            |                      | 144                            |               |                      | 18.5                          | 181           |                      |
| 180L   | 60 x 140          |               |                                |               | 48                   |                                |               | 48                   | 22                             | 215           | 48                   | 15                            | 198           | 48                   |
|  |                   |               |                                |               |                      |                                |               |                      |                                |               |                      | 22                            | 215           |                      |
| 200L   | 65 x 140          |               | 30                             | 97            | 55                   | 30                             | 196           | 55                   | 18.5                           | 181           | 55                   | 15                            | 198           | 55                   |
|  |                   |               | 37                             | 120           |                      |                                |               |                      |                                |               |                      | 22                            | 215           |                      |
| 225S   | 65 x 170          |               |                                |               | 65                   | 37                             | 240           | 65                   | 22                             | 215           | 65                   | 18.5                          | 244           | 65                   |
| 225M   |                   |               | 45                             | 145           |                      |                                | 45            |                      | 292                            |               |                      | 30                            | 293           |                      |
| 250M   | 75 x 140          |               | 55                             | 177           | 75                   | 55                             | 356           | 75                   | 37                             | 361           | 75                   | 30                            | 392           | 75                   |
| 280S   |                   |               | 75                             | 241           |                      |                                | 75            |                      | 484                            |               |                      | 45                            | 438           |                      |
| 280M   | 80 x 170          |               | 90                             | 289           | 90                   | 90                             | 581           | 90                   | 55                             | 535           | 90                   | 45                            | 587           | 90                   |
| 315S   |                   |               | 110                            | 353           |                      |                                | 110           |                      | 707                            |               |                      | 75                            | 727           |                      |
| 315M   | 85 x 170          |               | 132                            | 423           | 90                   | 132                            | 849           | 90                   | 90                             | 873           | 90                   | 75                            | 971           | 90                   |
|  |                   |               | 160                            | 513           |                      |                                | 160           |                      | 1030                           |               |                      | 110                           | 1070          |                      |
| 315L   | 95 x 170          |               | 200                            | 641           | 100                  | 200                            | 1290          | 100                  | 132                            | 1280          | 100                  | 110                           | 1420          | 100                  |
|  |                   |               |                                |               |                      |                                |               |                      |                                |               |                      | 160                           | 1550          |                      |
| 315  | 110 x 210         |               | 250                            | 802           | 110                  | 250                            | 1600          | 110                  | 200                            | 1930          | 110                  | 160                           | 2070          | 110                  |
|  |                   |               | 315                            | 1010          |                      |                                | 315           |                      | 2020                           |               |                      | 250                           | 2410          |                      |
| 355  | 120 x 210         |               | 355                            | 1140          | 125                  | 355                            | 2280          | 125                  | 250                            | 2410          | 125                  | 200                           | 2580          | 125                  |
|  |                   |               | 400                            | 1280          |                      |                                | 400           |                      | 2570                           |               |                      | 315                           | 3040          |                      |
| 400  | 140 x 210         |               | 500                            | 1600          | 140                  | 500                            | 3210          | 140                  | 400                            | 3850          | 140                  | 315                           | 4060          | 140                  |
|  |                   |               | 560                            | 1790          |                      |                                | 560           |                      | 3580                           |               |                      | 450                           | 4330          |                      |
| 450  | 160 x 210         |               | 630                            | 2020          | 160                  | 630                            | 4030          | 160                  | 500                            | 4810          | 160                  | 400                           | 5150          | 160                  |
|  |                   |               | 710                            | 2270          |                      |                                | 710           |                      | 4540                           |               |                      | 560                           | 5390          |                      |
|  | 180 x 210         |               | 800                            | 2560          | 180                  | 800                            | 5120          | 180                  | 630                            | 6060          | 180                  | 500                           | 6420          | 180                  |
|  |                   |               | 900                            | 2880          |                      |                                | 900           |                      | 5760                           |               |                      | 710                           | 6830          |                      |
|  | 200 x 210         |               | 1000                           | 3200          | 180                  | 1000                           | 6400          | 180                  | 800                            | 7690          | 180                  | 630                           | 8090          | 180                  |

The coupling selection is based on an ambient temperature up to +30 °C. The selection is based on a minimum safety factor of 2 versus the max. coupling torque ( $T_K \max$ ). A detailed selection is possible according to catalogue page 14 et seqq. Drives with periodical torque curves must be selected according to DIN 740 part 2. If requested, KTR will perform the selection. Torque T = rated torque according to Siemens catalogue M 11 · 1994/95.

<sup>1)</sup> For dimensions see ROTEX® GS series

<sup>2)</sup> For motor hub made of steel see page 40

**ROTEX®**  
 Flexible jaw couplings

**Cylindrical bores and spline bores**

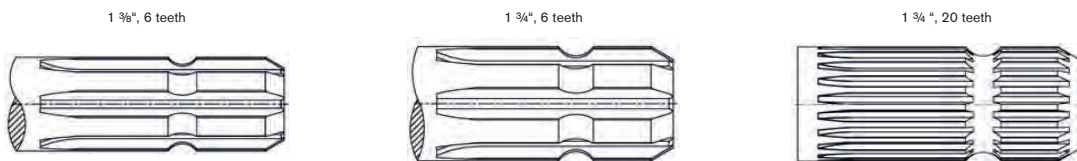
| ROTEX® size |          | Stock programme of cylindrical finish bores [mm] H7 feather keyway acc. to DIN 6885 sheet 1 [JS9] and setscrew |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|-------------|----------|--|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|---|---|--|
| Material    | Un-bored | Ø6   | Ø8 | Ø9 | Ø10 | Ø11 | Ø12 | Ø14 | Ø15 | Ø16 | Ø17 | Ø18 | Ø19 | Ø20 | Ø22 | Ø24 | Ø25 | Ø28 | Ø30 | Ø32 | Ø35 | Ø38 | Ø40 | Ø42 | Ø45 | Ø48 | Ø50 | Ø55 | Ø60 | Ø65 | Ø70 | Ø75 | Ø80 | Ø85 | Ø90 | Ø100 |   |   |  |
| 14          | Sint     | •  | •  | •  | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | Al-H     | •  | •  | •  | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 19          | Sint     | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | Al-D     | •  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •    | • | • |  |
|             | St       | •  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •    | • | • |  |
| 24          | Sint     | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | Al-D     | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 28          | Al-D     | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 38          | GJL      | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 42          | GJL      | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 48          | GJL      | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 55          | GJL      | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 65          | GJL      | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 75          | GJL      | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
| 90          | GJL      | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |
|             | St       | •  |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |   |   |  |

| 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 <sup>1)</sup> | 2"     | 47.625       | 8/16  | 15           | 30°   |
| PC-S                                    | 1 1/4" | 29.63        | 12/24 | 14           | 30°   | PO-C <sup>1)</sup> | 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 <sup>2)</sup> | A 35 x 31 | 31.50        | 1.75   | 18           | +0.676             |
| A 20 x 17  | 19.20        | 1.6    | 12           | -0.2                 | 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 7H                                 | 18.0         | 1      | 18           | 40 x 2 x 18 x 8H | 36.0         | 2      | 18           |
| 20 x 1.25 x 14 x 7H                              | 17.5         | 1.25   | 14           | 45 x 2 x 21 x 7H | 41.0         | 2      | 21           |
| 25 x 1.25 x 18 x 7H                              | 22.5         | 1.25   | 18           | 48 x 2 x 22 x 9H | 44.0         | 2      | 22           |
| 28 x 1.25 x 21 x 7H                              | 26.25        | 1.25   | 21           | 50 x 2 x 24 x 8H | 48.0         | 2      | 24           |
| 30 x 2 x 14 x 7H                                 | 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 7H | 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 <sup>3)</sup> |
| 1 3/4"   | 11.07           | 6            | 44.45      | 37.74               |
| 1 3/4"   | -               | 20           | 45.20      | 40.20               |



Spline clamping hubs are often adapted to the shafts of hydraulic pumps/hydraulic motor shafts. Please contact us for the respective hub length of the spline code!

<sup>1)</sup> For clamping hubs only, with plug-in hubs use code PT or PO.

<sup>2)</sup> Profile correction different from DIN

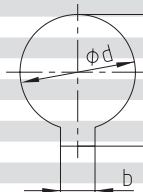
<sup>3)</sup> Similar to code PA-S

**ROTEX®**  
 Flexible jaw couplings

Flexible jaw and pin &amp; bush couplings

**Inch bores and taper bores**

| Stock programme of inch bores  |            |                     |                           |                           |   | Size  |    |    |    |                  |    |    |    |    |    |
|--|------------|---------------------|---------------------------|---------------------------|---|-------|----|----|----|------------------|----|----|----|----|----|
| Bore and keyway acc. to ANSI/AGMA 9002-C14<br>Bore (clearance fit) Keyway (commercial class fit) |            |                     |                           |                           |   | 19    | 24 | 28 | 38 | 42               | 48 | 55 | 65 | 75 | 90 |
| KTR code   | Ø bore ["] | Width of keyway ["] | Ø bore [mm]               | Width of keyway [mm]      | Keyway depth/<br>Tolerance<br>+0.381 [mm] | Steel |    |    |    | Cast iron (G.JL) |    |    |    |    |    |
| Tb   | 3/8        | 1/8                 | 9.525 <sup>+0.0254</sup>  | 3.175 <sup>+0.051</sup>   | 10.972                                    |       |    |    |    |                  |    |    |    |    |    |
| DNB  | 7/16       | 3/32                | 11.112 <sup>+0.0254</sup> | 2.382 <sup>+0.051</sup>   | 12.293                                    |       |    |    |    |                  |    |    |    |    |    |
| T  | 1/2        | 3/16                | 12.7 <sup>+0.0254</sup>   | 4.762 <sup>+0.051</sup>   | 14.757                                    |       |    |    |    |                  |    |    |    |    |    |
| Ta   | 1/2        | 1/8                 | 12.7 <sup>+0.0254</sup>   | 3.175 <sup>+0.051</sup>   | 14.224                                    | •     | •  |    |    |                  |    |    |    |    |    |
| DNC  | 17/32      | 1/8                 | 13.495 <sup>+0.0254</sup> | 3.175 <sup>+0.051</sup>   | 15.011                                    |       |    |    |    |                  |    |    |    |    |    |
| Do   | 9/16       | 1/8                 | 14.287 <sup>+0.0254</sup> | 3.175 <sup>+0.051</sup>   | 15.824                                    |       |    |    |    |                  |    |    |    |    |    |
| E  | 5/8        | 1/8                 | 15.875 <sup>+0.0254</sup> | 3.175 <sup>+0.051</sup>   | 17.424                                    |       |    |    |    |                  |    |    |    |    |    |
| Es   | 5/8        | 5/32                | 15.875 <sup>+0.0254</sup> | 3.968 <sup>+0.051</sup>   | 17.729                                    | •     | •  | •  |    |                  |    |    |    |    |    |
| Ed   | 5/8        | 3/16                | 15.875 <sup>+0.0254</sup> | 4.762 <sup>+0.051</sup>   | 18.008                                    | •     | •  |    |    |                  |    |    |    |    |    |
| DNH  | 11/16      | 3/16                | 17.462 <sup>+0.0254</sup> | 4.762 <sup>+0.051</sup>   | 19.634                                    |       |    |    |    |                  |    |    |    |    |    |
| Ad   | 3/4        | 1/8                 | 19.05 <sup>+0.0254</sup>  | 3.175 <sup>+0.051</sup>   | 20.624                                    |       |    |    |    |                  |    |    |    |    |    |
| A  | 3/4        | 3/16                | 19.05 <sup>+0.0254</sup>  | 4.762 <sup>+0.051</sup>   | 21.259                                    | •     | •  | •  | •  |                  |    |    |    |    |    |
| G  | 7/8        | 3/16                | 22.225 <sup>+0.0254</sup> | 4.762 <sup>+0.051</sup>   | 24.485                                    | •     | •  | •  | •  | •                |    |    |    |    |    |
| F  | 7/8        | 1/4                 | 22.225 <sup>+0.0254</sup> | 6.35 <sup>+0.051</sup>    | 25.069                                    |       | •  | •  | •  | •                |    |    |    |    |    |
| Gf   | 15/16      | 1/4                 | 23.812 <sup>+0.0254</sup> | 6.35 <sup>+0.051</sup>    | 26.695                                    |       |    |    |    |                  |    |    |    |    |    |
| H  | 1          | 3/16                | 25.4 <sup>+0.0254</sup>   | 4.762 <sup>+0.051</sup>   | 27.686                                    |       |    |    |    |                  |    |    |    |    |    |
| Hs   | 1          | 1/4                 | 25.4 <sup>+0.0254</sup>   | 6.35 <sup>+0.051</sup>    | 28.295                                    |       | •  | •  | •  | •                |    |    |    |    |    |
| R  | 1 1/16     | 3/16                | 26.987 <sup>+0.0254</sup> | 4.762 <sup>+0.051</sup>   | 29.286                                    |       |    |    |    |                  |    |    |    |    |    |
| Sb   | 1 1/8      | 1/4                 | 28.575 <sup>+0.0254</sup> | 6.35 <sup>+0.051</sup>    | 31.521                                    |       | •  | •  | •  | •                |    |    |    |    |    |
| Sd   | 1 1/8      | 5/16                | 28.575 <sup>+0.0254</sup> | 7.937 <sup>+0.051</sup>   | 32.105                                    |       |    |    |    |                  |    |    |    |    |    |
| Js   | 1 1/4      | 1/4                 | 31.75 <sup>+0.0254</sup>  | 6.35 <sup>+0.051</sup>    | 34.721                                    |       |    |    | •  | •                |    |    |    |    |    |
| K  | 1 1/4      | 5/16                | 31.75 <sup>+0.0254</sup>  | 7.937 <sup>+0.051</sup>   | 35.331                                    |       |    |    | •  | •                | •  |    |    |    |    |
| Ma   | 1 3/8      | 5/16                | 34.925 <sup>+0.0254</sup> | 7.937 <sup>+0.051</sup>   | 38.557                                    |       |    |    | •  | •                | •  | •  |    |    |    |
| RH1  | 1 3/8      | 3/8                 | 34.925 <sup>+0.0254</sup> | 9.525 <sup>+0.0635</sup>  | 39.141                                    |       |    |    |    |                  |    |    |    |    |    |
| Cb   | 1 7/16     | 3/8                 | 36.512 <sup>+0.0254</sup> | 9.525 <sup>+0.0635</sup>  | 40.767                                    |       |    |    |    |                  |    |    |    |    |    |
| Ca   | 1 1/2      | 5/16                | 38.1 <sup>+0.0254</sup>   | 7.937 <sup>+0.051</sup>   | 41.783                                    |       |    |    |    |                  |    |    |    |    |    |
| C  | 1 1/2      | 3/8                 | 38.1 <sup>+0.0254</sup>   | 9.525 <sup>+0.0635</sup>  | 42.392                                    |       |    |    |    |                  |    |    |    |    |    |
| Nb   | 1 5/8      | 3/8                 | 41.275 <sup>+0.0254</sup> | 9.525 <sup>+0.0635</sup>  | 45.618                                    |       |    |    | •  | •                | •  | •  | •  | •  |    |
| Ls   | 1 3/4      | 3/8                 | 44.45 <sup>+0.0254</sup>  | 9.525 <sup>+0.0635</sup>  | 48.818                                    |       |    |    | •  | •                | •  | •  | •  | •  |    |
| L  | 1 3/4      | 7/16                | 44.45 <sup>+0.0254</sup>  | 11.112 <sup>+0.0635</sup> | 49.428                                    |       |    |    |    |                  |    |    |    |    |    |
| Lu   | 1 7/8      | 1/2                 | 47.625 <sup>+0.0254</sup> | 12.7 <sup>+0.0635</sup>   | 53.238                                    |       |    |    | •  | •                |    |    |    |    |    |
| Da   | 1 15/16    | 1/2                 | 49.212 <sup>+0.0254</sup> | 12.7 <sup>+0.0635</sup>   | 54.864                                    |       |    |    |    |                  |    |    |    |    |    |
| Ds   | 2          | 1/2                 | 50.8 <sup>+0.0254</sup>   | 12.7 <sup>+0.0635</sup>   | 56.464                                    |       |    |    |    |                  |    |    |    |    |    |
| Pa   | 2 1/8      | 1/2                 | 53.975 <sup>+0.0381</sup> | 12.7 <sup>+0.0635</sup>   | 59.69                                     |       |    |    |    |                  |    |    |    |    |    |
| U  | 2 1/4      | 1/2                 | 57.15 <sup>+0.0381</sup>  | 12.7 <sup>+0.0635</sup>   | 62.915                                    |       |    |    |    |                  |    |    |    |    |    |
| Ub   | 2 3/8      | 5/8                 | 60.325 <sup>+0.0381</sup> | 15.875 <sup>+0.0762</sup> | 67.335                                    |       |    |    |    |                  |    |    |    |    |    |
| Wd   | 3 3/8      | 7/8                 | 85.725 <sup>+0.0381</sup> | 22.225 <sup>+0.0762</sup> | 95.504                                    |       |    |    |    |                  |    |    |    |    |    |
| Wf   | 3 5/8      | 7/8                 | 92.075 <sup>+0.0381</sup> | 22.225 <sup>+0.0762</sup> | 101.955                                   |       |    |    |    |                  |    |    |    |    |    |

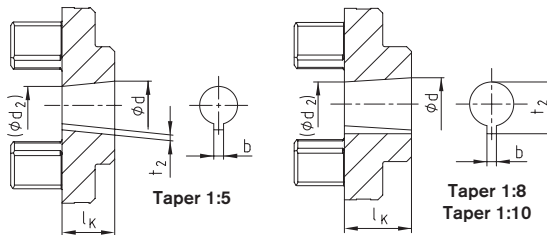


| Basic programme taper 1:8 |                    |                   |                       |                                |      |
|---------------------------|--------------------|-------------------|-----------------------|--------------------------------|------|
| Code                      | d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

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

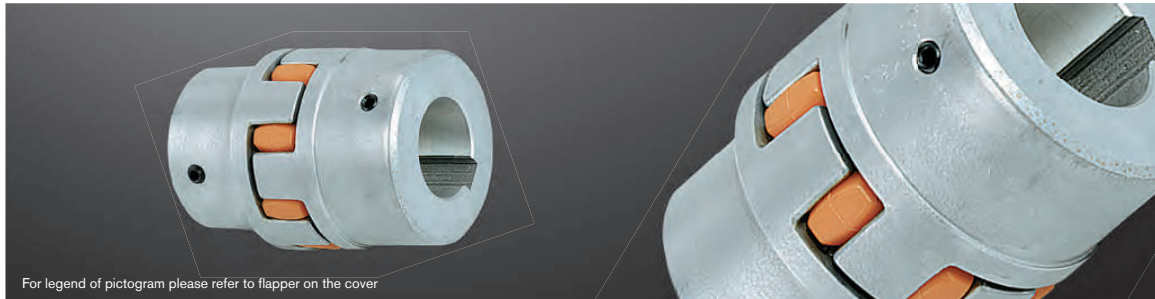
| Basic programme of taper 1:10 |                    |                   |                  |                                |    |
|-------------------------------|--------------------|-------------------|------------------|--------------------------------|----|
| Code                          | d <sup>+0.05</sup> | (d <sub>2</sub> ) | b <sub>JS9</sub> | t <sub>2</sub> <sup>+0.1</sup> | lk |
| CX                            | 19.95              | 16.75             | 5 <sup>JS9</sup> | 22.08                          | 32 |
| DX                            | 24.95              | 20.45             | 6 <sup>JS9</sup> | 26.68                          | 45 |
| EX                            | 29.75              | 24.75             | 8 <sup>JS9</sup> | 31.88                          | 50 |

| Basic programme taper 1:5 |                    |                   |                  |                                |      |
|---------------------------|--------------------|-------------------|------------------|--------------------------------|------|
| Code                      | d <sup>+0.05</sup> | (d <sub>2</sub> ) | b <sub>JS9</sub> | t <sub>2</sub> <sup>+0.1</sup> | lk   |
| A-10                      | 9.85               | 7.55              | 2 <sup>JS9</sup> | 1.0                            | 11.5 |
| B-17                      | 16.85              | 13.15             | 3 <sup>JS9</sup> | 1.8                            | 18.5 |
| C-20                      | 19.85              | 15.55             | 4 <sup>JS9</sup> | 2.2                            | 21.5 |
| Cs-22                     | 21.95              | 17.65             | 3 <sup>JS9</sup> | 1.8                            | 21.5 |
| D-25                      | 24.85              | 19.55             | 5 <sup>JS9</sup> | 2.9                            | 26.5 |
| E-30                      | 29.85              | 23.55             | 6 <sup>JS9</sup> | 2.6                            | 31.5 |
| F-35                      | 34.85              | 27.55             | 6 <sup>JS9</sup> | 2.6                            | 36.5 |
| G-40                      | 39.85              | 32.85             | 6 <sup>JS9</sup> | 2.6                            | 35.0 |

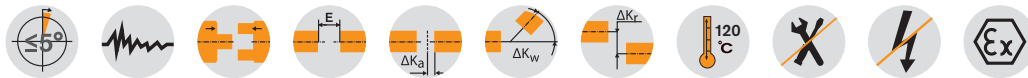


## ROTEX® Standard Flexible jaw couplings


### Material aluminium + cast + powder metal



For legend of pictogram please refer to flapper on the cover



| ROTEX® Powder metal steel (Sint) |           |   |        |        |               |                 |                                 |    |    |     |                |                |    |   |    |          |                     |
|----------------------------------|-----------|---|--------|--------|---------------|-----------------|---------------------------------|----|----|-----|----------------|----------------|----|---|----|----------|---------------------|
| Size                             | Component | Spider <sup>1)</sup> (component 2)<br>Rated torque [Nm] |        |        | Finish bore d | Dimensions [mm] |                                 |    |    |     |                |                |    |   |    |          |                     |
|                                  |           | 92 ShA  | 98 ShA | 64 ShD |               | General         |                                 |    |    |     |                |                |    |   |    | Setscrew |                     |
|                                  |           |   |        |        |               | L               | l <sub>1</sub> , l <sub>2</sub> | E  | b  | s   | D <sub>H</sub> | d <sub>H</sub> | D  | N | G  | t        | T <sub>A</sub> [Nm] |
| 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     | —      | 0-24          | 66              | 25                              | 16 | 12 | 2.0 | 40             | 18             | 40 | — | M5 | 10       | 2                   |
| 24                               | 1a        | 35  | 60     | —      | 0-28          | 78              | 30                              | 18 | 14 | 2.0 | 56             | 27             | 56 | — | M5 | 10       | 2                   |

| ROTEX® Aluminium diecast (Al-D)  |         |    |     |   |                |    |    |    |    |     |    |    |          |    |    |    |    |
|--|---------|----|-----|---|----------------|----|----|----|----|-----|----|----|----------|----|----|----|----|
| 19   | 1<br>1a | 10 | 17  | — | 6-19<br>19-24  | 66 | 25 | 16 | 12 | 2   | 41 | 18 | 32<br>41 | 20 | M5 | 10 | 2  |
| 24   | 1<br>1a | 35 | 60  | — | 9-24<br>22-28  | 78 | 30 | 18 | 14 | 2   | 56 | 27 | 40<br>56 | 24 | M5 | 10 | 2  |
| 28   | 1<br>1a | 95 | 160 | — | 10-28<br>28-38 | 90 | 35 | 20 | 15 | 2.5 | 66 | 30 | 48<br>66 | 28 | M8 | 15 | 10 |

| ROTEX® Aluminium (Al-H) |    |     |      |     |      |     |    |    |    |     |     |      |   |   |    |     |     |
|-------------------------|----|-----|------|-----|------|-----|----|----|----|-----|-----|------|---|---|----|-----|-----|
| 5                       | 1a | 0.5 | 0.9  | -   | 0-6  | 15  | 5  | 5  | 4  | 0.5 | 10  | -    | - | - | M2 | 2.5 | -   |
| 7                       | 1a | 1.2 | 2.0  | 2.4 | 0-7  | 22  | 7  | 8  | 6  | 1.0 | 14  | -    | - | - | M3 | 3.5 | -   |
| 9                       | 1a | 3.0 | 5.0  | 6.0 | 0-11 | 30  | 10 | 10 | 8  | 1.0 | 20  | 7.2  | - | - | M4 | 5   | 1.5 |
| 12                      | 1a | 5.0 | 9.0  | 12  | 0-12 | 34  | 11 | 12 | 10 | 1.0 | 25  | 8.5  | - | - | M4 | 5   | 1.5 |
| 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 | 3.0 | 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) |               |      |      |      |                         |     |     |    |    |     |     |     |           |          |     |    |    |
|------------------------|---------------|------|------|------|-------------------------|-----|-----|----|----|-----|-----|-----|-----------|----------|-----|----|----|
| 38                     | 1<br>1a<br>1b | 190  | 325  | 405  | 12-40<br>38-48<br>12-48 | 114 | 45  | 24 | 18 | 3   | 80  | 38  | 66<br>78  | 37<br>62 | M8  | 15 | 10 |
| 42                     | 1<br>1a<br>1b | 265  | 450  | 560  | 14-45<br>42-55<br>14-55 | 126 | 50  | 26 | 20 | 3   | 95  | 46  | 75<br>94  | 40<br>65 | M8  | 20 | 10 |
| 48                     | 1<br>1a<br>1b | 310  | 525  | 655  | 15-52<br>48-62<br>15-62 | 140 | 56  | 28 | 21 | 3.5 | 105 | 51  | 85<br>104 | 45<br>69 | M8  | 20 | 10 |
| 55                     | 1<br>1a       | 410  | 685  | 825  | 20-60<br>55-74          | 160 | 65  | 30 | 22 | 4   | 120 | 60  | 98<br>118 | 52       | M10 | 20 | 17 |
| 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 |

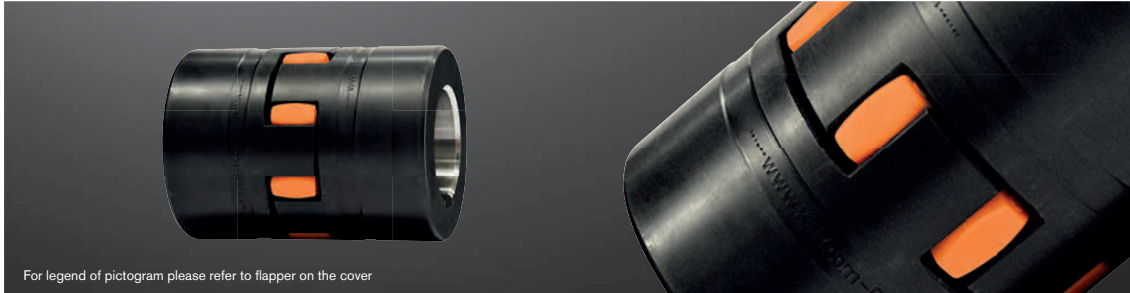
| ROTEX® Nodular iron (GJS) |   |       |       |       |        |     |     |    |    |      |     |     |     |     |     |    |     |
|---------------------------|---|-------|-------|-------|--------|-----|-----|----|----|------|-----|-----|-----|-----|-----|----|-----|
| 100                       | 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 |

<sup>1)</sup> Unless any material is specified in the order, it is defined with the calculation/order.

<sup>1)</sup> Maximum torque of the coupling  $T_{K \max}$  = rated torque of the coupling  $T_{K \text{ rated}}$  x 2. For selection see page 14 et seqq.

|                   |               |          |                 |           |             |           |             |
|-------------------|---------------|----------|-----------------|-----------|-------------|-----------|-------------|
| Ordering example: | ROTEX® 38     | GJL      | 92 ShA          | 1a        | Ø 45        | 1         | Ø 25        |
|                   | Coupling size | Material | Spider hardness | Component | Finish bore | Component | Finish bore |





For legend of pictogram please refer to flapper on the cover

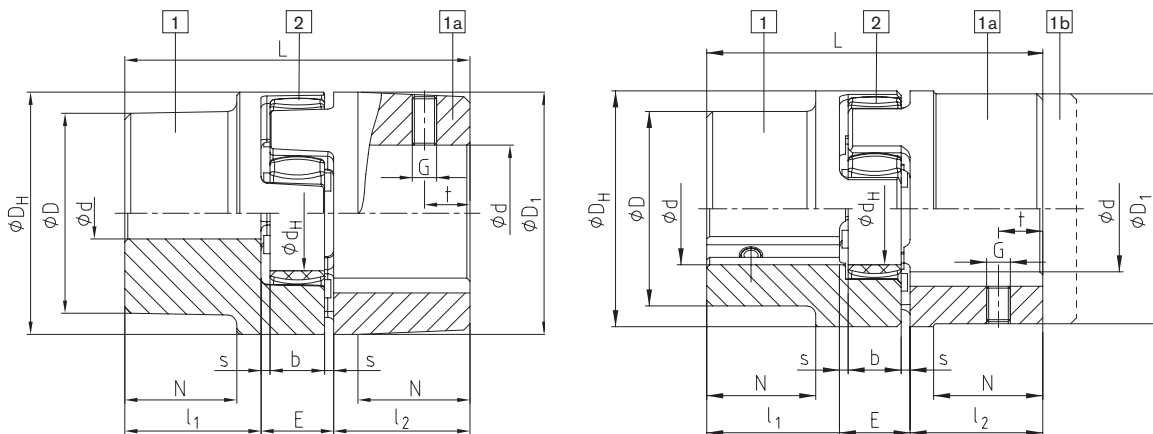


ROTEX® with CDP coating <sup>1)</sup>

| Size | Component | Spider (component 2)<br>Rated torque [Nm] |        |        | Finish bore<br>d (min. - max.) | Dimensions [mm] |                                 |    |    |     |                |                |     |          |     |    |                     |
|------|-----------|---|--------|--------|--------------------------------|-----------------|---------------------------------|----|----|-----|----------------|----------------|-----|----------|-----|----|---------------------|
|      |           | 92 ShA                                    | 98 ShA | 64 ShD |                                | General         |                                 |    |    |     |                |                |     | Setscrew |     |    |                     |
|      |           |   |        |        |                                | L               | l <sub>1</sub> , l <sub>2</sub> | E  | b  | s   | D <sub>H</sub> | d <sub>H</sub> | D   | N        | G   | t  | T <sub>A</sub> [Nm] |
| 19   | 1a        | 10  | 17     | 21     | 0-25                           | 66              | 25                              | 16 | 12 | 2   | 40             | 18             | 40  | -        | M5  | 10 | 2                   |
| 24   | 1a        | 35  | 60     | 75     | 0-35                           | 78              | 30                              | 18 | 14 | 2   | 55             | 27             | 55  | -        | M5  | 10 | 2                   |
| 28   | 1a        | 95  | 160    | 200    | 0-40                           | 90              | 35                              | 20 | 15 | 2.5 | 65             | 30             | 65  | -        | M8  | 15 | 10                  |
| 38   | 1         | 190                                       | 325    | 405    | 0-48                           | 114             | 45                              | 24 | 18 | 3   | 80             | 38             | 70  | 27       | M8  | 15 | 10                  |
| 42   | 1         | 265                                       | 450    | 560    | 0-55                           | 126             | 50                              | 26 | 20 | 3   | 95             | 46             | 85  | 28       | M8  | 20 | 10                  |
| 48   | 1         | 310                                       | 525    | 655    | 0-62                           | 140             | 56                              | 28 | 21 | 3.5 | 105            | 51             | 95  | 32       | M8  | 20 | 10                  |
| 55   | 1         | 410                                       | 685    | 825    | 0-74                           | 160             | 65                              | 30 | 22 | 4   | 120            | 60             | 110 | 37       | M10 | 20 | 17                  |
| 65   | 1         | 625                                       | 940    | 1175   | 0-80                           | 185             | 75                              | 35 | 26 | 4.5 | 135            | 68             | 115 | 47       | M10 | 20 | 17                  |
| 75   | 1         | 1280                                      | 1920   | 2400   | 0-95                           | 210             | 85                              | 40 | 30 | 5   | 160            | 80             | 135 | 53       | M10 | 25 | 17                  |
| 90   | 1         | 2400                                      | 3600   | 4500   | 0-110                          | 245             | 100                             | 45 | 34 | 5.5 | 200            | 100            | 160 | 62       | M12 | 25 | 40                  |
| 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                  |

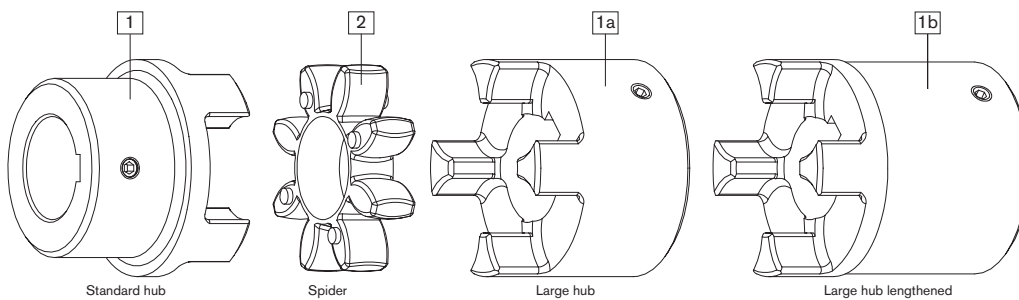
<sup>1)</sup> Corrosion protection class acc. to DIN EN ISO 12944: Min. C4, heavy-long

Components



AI-D (thread opposite the keyway)

GJL / GJS (thread on the keyway)



Standard hub

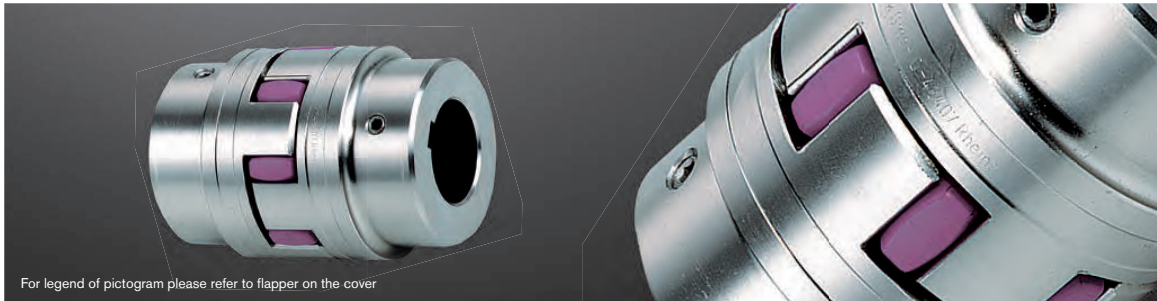
Spider

Large hub

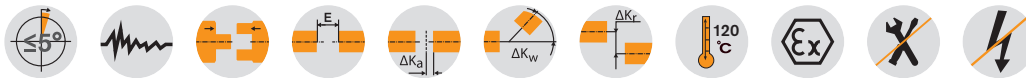
Large hub lengthened

## ROTEX® Standard Flexible jaw couplings

### Material steel/stainless steel



For legend of pictogram please refer to flapper on the cover



| ROTEX® Steel (St) |           |   |        |        |                                |                 |                                 |    |    |      |                |                |     |     |     |          |     |
|-------------------|-----------|---|--------|--------|--------------------------------|-----------------|---------------------------------|----|----|------|----------------|----------------|-----|-----|-----|----------|-----|
| Size              | Component | Spider <sup>1)</sup> (component 2)<br>Rated torque [Nm] |        |        | Finish bore<br>d (min. - max.) | Dimensions [mm] |                                 |    |    |      |                |                |     |     |     | Setscrew |     |
|                   |           | 92 ShA  | 98 ShA | 64 ShD |                                | General         |                                 |    |    |      |                |                |     |     |     | G        | t   |
|                   |           |   |        |        |                                | L               | l <sub>1</sub> , l <sub>2</sub> | E  | b  | s    | D <sub>H</sub> | d <sub>H</sub> | D   | N   |     |          |     |
| 14                | 1a        | 7.5   | 12.5   | 16     | 0-16                           | 35              | 11                              | 13 | 10 | 1.5  | 30             | 10             | 30  | —   | M4  | 5        | 1.5 |
|                   | 1b        |   |        |        |                                | 50              | 18.5                            |    |    |      |                |                |     |     |     |          |     |
| 19                | 1a        | 10  | 17     | 21     | 0-25                           | 66              | 25                              | 16 | 12 | 2    | 40             | 18             | 40  | —   | M5  | 10       | 2   |
|                   | 1b        |   |        |        |                                | 90              | 37                              |    |    |      |                |                |     |     |     |          |     |
| 24                | 1a        | 35  | 60     | 75     | 0-35                           | 78              | 30                              | 18 | 14 | 2    | 55             | 27             | 55  | —   | M5  | 10       | 2   |
|                   | 1b        |   |        |        |                                | 118             | 50                              |    |    |      |                |                |     |     |     |          |     |
| 28                | 1a        | 95  | 160    | 200    | 0-40                           | 90              | 35                              | 20 | 15 | 2.5  | 65             | 30             | 65  | —   | M8  | 15       | 10  |
|                   | 1b        |   |        |        |                                | 140             | 60                              |    |    |      |                |                |     |     |     |          |     |
| 38                | 1         | 190   | 325    | 405    | 0-48                           | 114             | 45                              | 24 | 18 | 3    | 80             | 38             | 70  | 27  | M8  | 15       | 10  |
|                   | 1b        |   |        |        |                                | 164             | 70                              |    |    |      |                |                | 80  | —   |     |          |     |
| 42                | 1         | 265   | 450    | 560    | 0-55                           | 126             | 50                              | 26 | 20 | 3    | 95             | 46             | 85  | 28  | M8  | 20       | 10  |
|                   | 1b        |   |        |        |                                | 176             | 75                              |    |    |      |                |                | 95  | —   |     |          |     |
| 48                | 1         | 310   | 525    | 655    | 0-62                           | 140             | 56                              | 28 | 21 | 3.5  | 105            | 51             | 95  | 32  | M8  | 20       | 10  |
|                   | 1b        |   |        |        |                                | 188             | 80                              |    |    |      |                |                | 105 | —   |     |          |     |
| 55                | 1         | 410   | 685    | 825    | 0-75                           | 160             | 65                              | 30 | 22 | 4    | 120            | 60             | 110 | 37  | M10 | 20       | 17  |
|                   | 1b        |   |        |        |                                | 210             | 90                              |    |    |      |                |                | 120 | —   |     |          |     |
| 65                | 1         | 625   | 940    | 1175   | 0-80                           | 185             | 75                              | 35 | 26 | 4.5  | 135            | 68             | 115 | 47  | M10 | 20       | 17  |
|                   | 1b        |   |        |        |                                | 235             | 100                             |    |    |      |                |                | 135 | —   |     |          |     |
| 75                | 1         | 1280  | 1920   | 2400   | 0-95                           | 210             | 85                              | 40 | 30 | 5    | 160            | 80             | 135 | 53  | M10 | 25       | 17  |
|                   | 1b        |   |        |        |                                | 260             | 110                             |    |    |      |                |                | 160 | —   |     |          |     |
| 90                | 1         | 2400  | 3600   | 4500   | 0-110                          | 245             | 100                             | 45 | 34 | 5.5  | 200            | 100            | 160 | 62  | M12 | 30       | 40  |
|                   | 1b        |   |        |        |                                | 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.

<sup>1)</sup> Maximum torque of the coupling T<sub>K max</sub> = rated torque of the coupling T<sub>K rated</sub> x 2. For selection see page 14 et seqq.

| ROTEX® Stainless steel |          |   |        |        |                                |                 |                                 |    |    |     |                |                |     |    |    |          |    |
|------------------------|----------|---|--------|--------|--------------------------------|-----------------|---------------------------------|----|----|-----|----------------|----------------|-----|----|----|----------|----|
| Size                   | Material | Spider (component 2)<br>Rated torque [Nm] |        |        | Finish bore d<br>(min. - max.) | Dimensions [mm] |                                 |    |    |     |                |                |     |    |    | Setscrew |    |
|                        |          | 92 ShA                                    | 98 ShA | 64 ShD |                                | General         |                                 |    |    |     |                |                |     |    |    | G        | t  |
|                        |          |   |        |        |                                | L               | l <sub>1</sub> , l <sub>2</sub> | E  | b  | s   | D <sub>H</sub> | d <sub>H</sub> | D   | N  |    |          |    |
| 19                     | 1.4305   | 10  | 17     | 21     | 0-25                           | 66              | 25                              | 16 | 12 | 2   | 40             | 18             | 40  | -  | M5 | 10       | 2  |
| 24                     | 1.4571   | 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                     | 1.4571   | 190                                       | 325    | 405    | 0-48                           | 114             | 45                              | 24 | 18 | 3   | 80             | 38             | 80  | 27 | M8 | 15       | 10 |
| 42                     | 1.4305   | 265                                       | 450    | 560    | 0-55                           | 126             | 50                              | 26 | 20 | 3   | 95             | 46             | 95  | 28 | M8 | 20       | 10 |
| 48                     | 1.4571   | 310                                       | 525    | 655    | 0-62                           | 140             | 56                              | 28 | 21 | 3.5 | 105            | 51             | 105 | 32 | M8 | 20       | 10 |

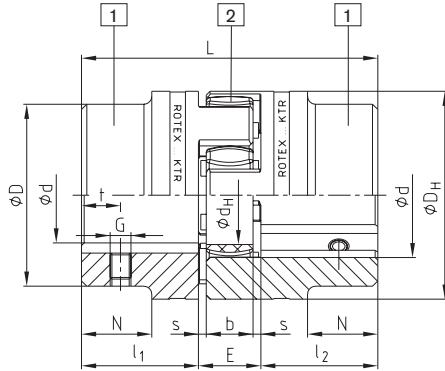
Ordering  
example:

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

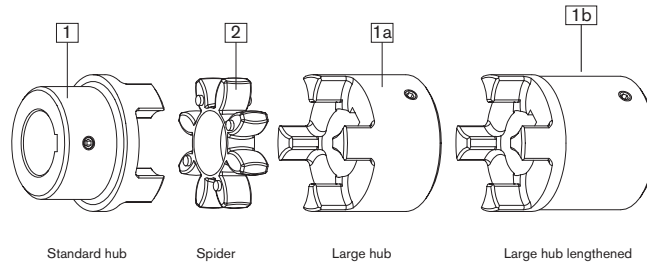
## ROTEX® Flexible jaw couplings

### DIN EN 10204 - 3.1 and 3.2 material test certificate

#### Components



Steel (thread on the keyway)



Flexible jaw and pin & bush couplings

ROTEX®

POLY-NORM®

POLY

#### ROTEX® Coupling hubs with test certificate <sup>1)</sup>

| Size | Component | Material <sup>2)</sup>    | Inspection certificate acc. to DIN EN 10204 | Notch impact strength |
|------|-----------|---------------------------|---|-----------------------|
| 19   | 1a        | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 24   | 1a        | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 28   | 1a        | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 38   | 1a        | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 42   | 1         | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 48   | 1         | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 55   | 1         | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 65   | 1         | S355 <sup>2)</sup>        | 3.1   | >=27 J                |
| 75   | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |
| 90   | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |
| 100  | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |
| 110  | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |
| 120  | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |
| 140  | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |
| 160  | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |
| 180  | 1         | S355 <sup>2)</sup>        | 3.1/3.2                                     | >=27 J                |
|      |           | 42CrMoS4+QT <sup>3)</sup> |   |                       |

<sup>1)</sup> S355 suitable for feather key connections, 42CrMoS4+QT for oil press-fits

<sup>2)</sup> Notch impact strength with -40 °C

<sup>3)</sup> Notch impact strength with -20 °C

#### Marine programme:

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



#### UL



#### Use in fire pumps

ROTEX® couplings comply with the specifications of NFPA 20 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:



| Size | Component | Material | ROTEX® UL Listed                          |                             |     |                                 |    |                |  |  |
|------|-----------|----------|---|-----------------------------|-----|---------------------------------|----|----------------|--|--|
|      |           |          | Spider (component 2)<br>Rated torque [Nm] | Dimensions [mm]             |     |                                 |    |                |  |  |
|      |           |          |   | Finish bore d (min. - max.) | L   | l <sub>1</sub> , l <sub>2</sub> | E  | D <sub>H</sub> |  |  |
|      |           |          | 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

For continuously updated data please refer to our online catalogue at [www.ktr.com](http://www.ktr.com)

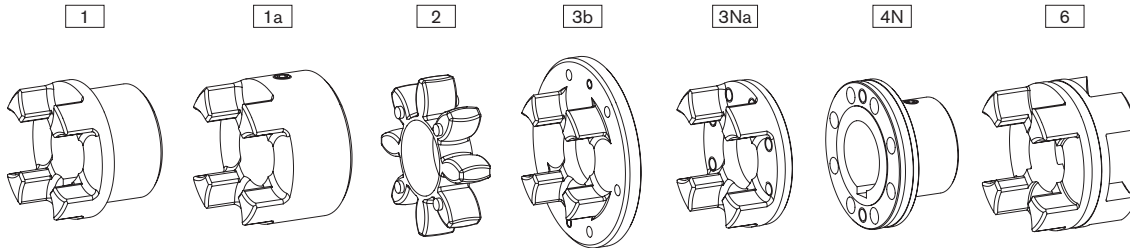
Archivierung 11/2020

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REVOLUX®

## ROTEX® Flexible jaw couplings

### Weights and mass moments of inertia



Flexible jaw and pin & bush couplings

ROTEX®

POLY-NORM®

POLY

REVOLEX®

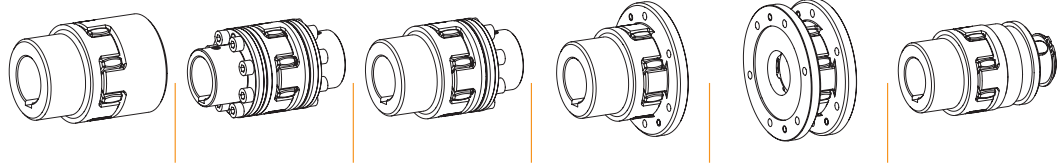
| ROTEX® individual components |                       |                 |                 |                |                       |                 |                |                                      |                 |                |                 |                 |                       |
|------------------------------|-----------------------|-----------------|-----------------|----------------|-----------------------|-----------------|----------------|--------------------------------------|-----------------|----------------|-----------------|-----------------|-----------------------|
| 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] [kgm²] | GJL [kg] [kgm²] | GJS [kg] [kgm²] | St [kg] [kgm²] | Aluminium [kg] [kgm²] | GJL [kg] [kgm²] | St [kg] [kgm²] | Polyurethane (Vulkollan) [kg] [kgm²] | GJS [kg] [kgm²] | St [kg] [kgm²] | GJS [kg] [kgm²] | St [kg] [kgm²]  | Aluminium [kg] [kgm²] |
| 14                           | —                     | —               | —               | —              | 0.020                 | —               | —              | 0.0044                               | —               | —              | —               | —               | —                     |
|                              | —                     | —               | —               | —              | 0.000003              | —               | —              | 0.0000005                            | —               | —              | —               | —               | —                     |
| 19                           | 0.064                 | —               | —               | —              | 0.074                 | —               | 0.25           | 0.0057                               | —               | —              | —               | —               | —                     |
|                              | 0.00001               | —               | —               | —              | 0.00002               | —               | 0.00006        | 0.000001                             | —               | —              | —               | —               | —                     |
| 24                           | 0.123                 | —               | —               | —              | 0.174                 | —               | 0.55           | 0.014                                | 0.028           | 0.145          | —               | 0.30            | 0.14                  |
|                              | 0.00004               | —               | —               | —              | 0.00008               | —               | 0.00023        | 0.000006                             | 0.00023         | 0.00007        | —               | 0.00009         | 0.00006               |
| 28                           | 0.200                 | —               | —               | —              | 0.264                 | —               | 0.89           | 0.024                                | 0.54            | 0.232          | —               | 0.49            | 0.22                  |
|                              | 0.00010               | —               | —               | —              | 0.00019               | —               | 0.00053        | 0.00001                              | 0.00007         | 0.00017        | —               | 0.0002          | 0.00013               |
| 38                           | 0.44                  | 1.16            | —               | 1.6            | 0.470                 | 1.32            | 1.74           | 0.042                                | 0.73            | —              | 0.313           | 0.87            | 0.35                  |
|                              | 0.00033               | 0.00086         | —               | 0.00151        | 0.00046               | 0.00135         | 0.00155        | 0.00004                              | 0.001           | —              | 0.00038         | 0.0005          | 0.00035               |
| 42                           | 0.69                  | 1.75            | —               | 2.44           | 0.772                 | 2.05            | 2.74           | 0.065                                | 1.26            | —              | 0.608           | 1.4             | 0.47                  |
|                              | 0.00067               | 0.00178         | —               | 0.00281        | 0.00111               | 0.00291         | 0.00343        | 0.00008                              | 0.0032          | —              | 0.00089         | 0.0011          | 0.00068               |
| 48                           | 0.80                  | 2.44            | —               | 3.34           | 1.01                  | 2.78            | 3.72           | 0.086                                | 1.45            | —              | 0.755           | 1.92            | 0.62                  |
|                              | 0.0012                | 0.00308         | —               | 0.00473        | 0.00174               | 0.00484         | 0.00570        | 0.00013                              | 0.0043          | —              | 0.001358        | 0.0018          | 0.0011                |
| 55                           | —                     | 3.68            | —               | 5.05           | —                     | 4.08            | 5.57           | 0.11                                 | 2.58            | —              | 1.243           | 2.93            | 0.90                  |
|                              | —                     | 0.00615         | —               | 0.00948        | —                     | 0.00926         | 0.01193        | 0.00023                              | 0.0105          | —              | 0.002920        | 0.0037          | 0.0021                |
| 65                           | —                     | 5.67            | —               | 6.79           | —                     | 6.04            | 8.22           | 0.17                                 | 3.10            | —              | 1.635           | 4.36            | 1.31                  |
|                              | —                     | 0.01240         | —               | 0.01516        | —                     | 0.01789         | 0.02079        | 0.00043                              | 0.0149          | —              | 0.004891        | 0.0069          | 0.0039                |
| 75                           | —                     | 8.72            | —               | 10.5           | —                     | 9.53            | 14.3           | 0.32                                 | 4.46            | —              | 2.511           | 6.80            | 1.97                  |
|                              | —                     | 0.02644         | —               | 0.03269        | —                     | 0.03946         | 0.05069        | 0.001166                             | 0.0281          | —              | 0.01050         | 0.0151          | 0.0082                |
| 90                           | —                     | 14.8            | —               | 18.7           | —                     | 18.2            | 24.0           | 0.57                                 | 6.94            | —              | 4.151           | 12.84           | 3.45                  |
|                              | —                     | 0.06730         | —               | 0.08742        | —                     | 0.15086         | 0.13151        | 0.00326                              | 0.0651          | —              | 0.02723         | 0.0448          | 0.0224                |
| 100                          | —                     | —               | 19.7            | —              | —                     | —               | —              | 0.82                                 | 10.2            | —              | 6.350           | 16.16           | —                     |
|                              | —                     | —               | 0.11694         | —              | —                     | —               | —              | 0.00592                              | 0.1165          | —              | 0.05273         | 0.0798          | —                     |
| 110                          | —                     | —               | 27.4            | —              | —                     | —               | —              | 1.14                                 | —               | —              | 8.578           | 21.35           | —                     |
|                              | —                     | —               | 0.20465         | —              | —                     | —               | —              | 0.01048                              | —               | —              | 0.09121         | 0.2824          | —                     |
| 125                          | —                     | —               | 42.3            | —              | —                     | —               | —              | 1.56                                 | —               | —              | 12.598          | 34.33           | —                     |
|                              | —                     | —               | 0.40727         | —              | —                     | —               | —              | 0.01878                              | —               | —              | 0.17469         | 0.3229          | —                     |
| 140                          | —                     | —               | 58.1            | —              | —                     | —               | —              | 2.02                                 | —               | —              | 17.271          | 48.69           | —                     |
|                              | —                     | —               | 0.67739         | —              | —                     | —               | —              | 0.02989                              | —               | —              | 0.29247         | 0.4917          | —                     |
| 160                          | —                     | —               | 84.2            | —              | —                     | —               | —              | 3.08                                 | —               | —              | 26.305          | 71.08           | —                     |
|                              | —                     | —               | 1.31729         | —              | —                     | —               | —              | 0.06049                              | —               | —              | 0.59436         | 0.9693          | —                     |
| 180                          | —                     | —               | 118.5           | —              | —                     | —               | —              | 5.04                                 | —               | —              | 33.076          | 109.43          | —                     |
|                              | —                     | —               | 2.30835         | —              | —                     | —               | —              | 0.13295                              | —               | —              | 0.97394         | 1.9650          | —                     |

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

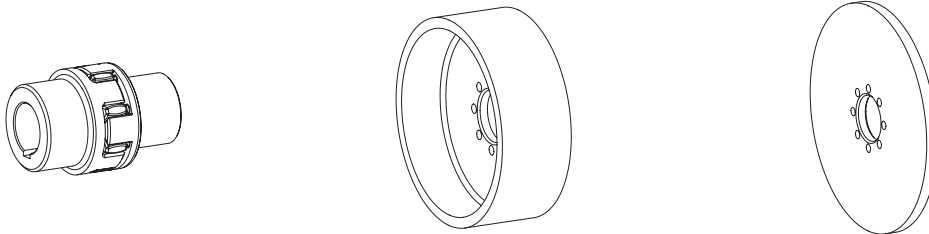
For continuously updated data please refer to our online catalogue at [www.ktr.com](http://www.ktr.com)

## 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 <sup>2</sup> ] | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] |
| 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  |



| BTAN/SBAN without drum/disk |             |  |
|-----------------------------|-------------|--|
| Size                        | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] |
| 28                          | 0.90        | 0.0004                                       |
| 38                          | 2.10        | 0.0014                                       |
| 42                          | 3.24        | 0.0031                                       |
| 48                          | 4.41        | 0.0053                                       |
| 55                          | 6.60        | 0.0105                                       |
| 65                          | 10.1        | 0.0209                                       |
| 75                          | 15.4        | 0.0442                                       |
| 90                          | 27.6        | 0.1224                                       |
| 100                         | 36.9        | 0.2074                                       |
| 110                         | 50.9        | 0.3665                                       |
| 125                         | 79.1        | 0.7349                                       |
| 140                         | 109.0       | 1.2292                                       |
| 160                         | 161.9       | 2.4569                                       |
| 180                         | 232.9       | 4.4967                                       |

| Brake drum for BTAN <sup>1)</sup> |             |  |
|-----------------------------------|-------------|--|
| Brake drum<br>ØD <sub>B</sub> x B | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] |
| 160 x 60                          | 2.12        | 0.01   |
| 200 x 75                          | 3.45        | 0.03   |
| 250 x 95                          | 6.87        | 0.08   |
| 315 x 118                         | 14.95       | 0.28   |
| 400 x 150                         | 31.20       | 0.89   |
| 500 x 190                         | 60.00       | 2.70   |
| 630 x 236                         | 112.00      | 8.01   |
| 710 x 265                         | 161.00      | 14.9   |
| 800 x 300                         | 202.00      | 27.2   |

| Brake disk for SBAN <sup>1)</sup> |             |  |
|-----------------------------------|-------------|--|
| Brake disk<br>ØA x G <sub>S</sub> | Weight [kg] | Mass moment of inertia J [kgm <sup>2</sup> ] |
| 200 x 12.5                        | 2.928       | 0.015367                                     |
| 250 x 12.5                        | 4.662       | 0.037584                                     |
| 315 x 16                          | 8.618       | 0.111829                                     |
| 400 x 16                          | 15.230      | 0.315206                                     |
| 500 x 16                          | 23.964      | 0.769963                                     |
| 630 x 20                          | 47.716      | 2.426359                                     |
| 710 x 20                          | 60.934      | 3.915100                                     |
| 800 x 25                          | 94.913      | 7.878998                                     |
| 900 x 25                          | 118.954     | 12.609089                                    |
| 1000 x 25                         | 148.240     | 19.234941                                    |