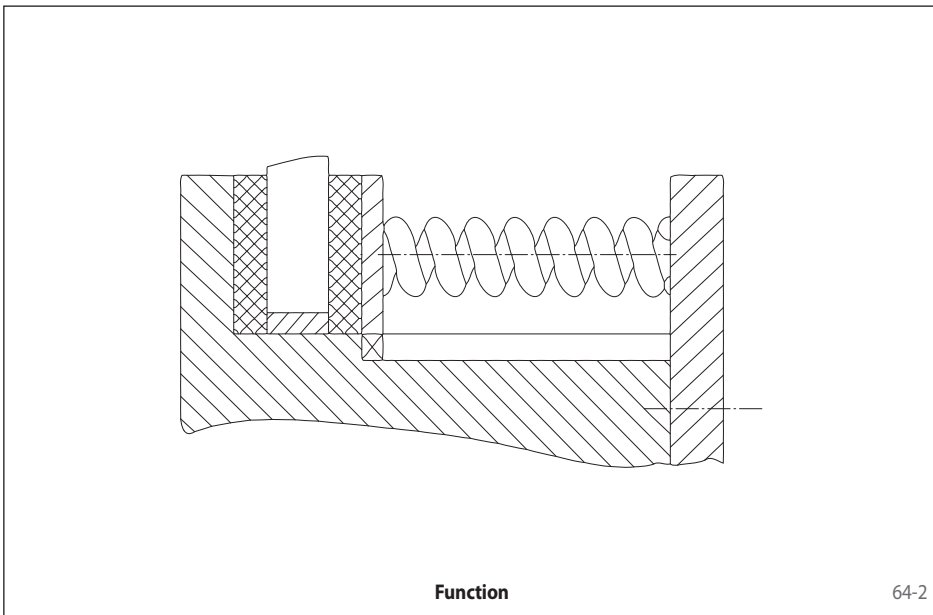


## Advantages

- Particularly suitable in applications with frequent slipping
- Better stability of slipping torque than Belleville spring torque limiters over duration of the operating period
- Adjustment of slipping torque setting according to the number of active springs – not through modification of spring pressure

64-1

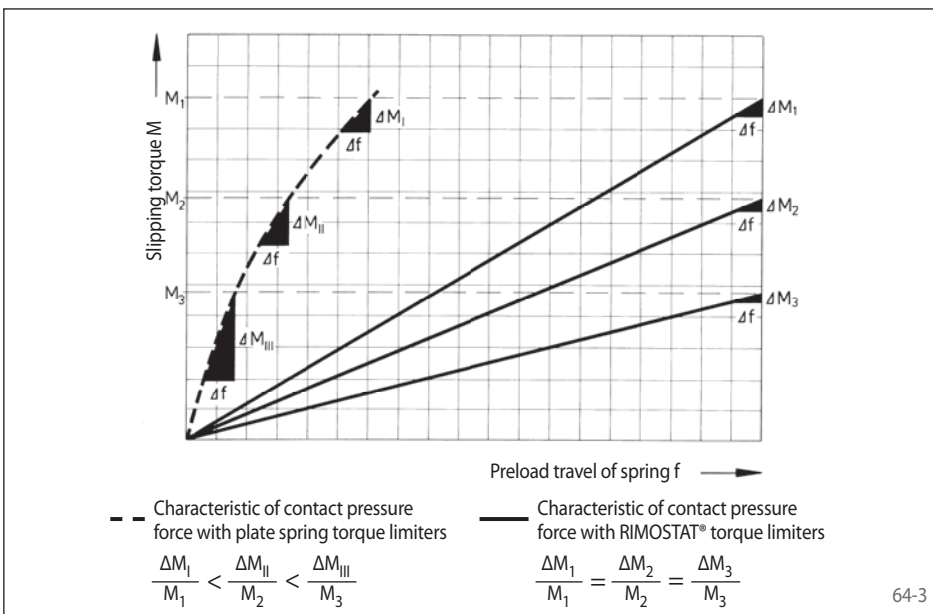


## The RIMOSTAT® Principle

The contact pressure on the friction surfaces is produced by long coil springs. Because of the RIMOSTAT® Torque Limiter's linear, flat-angle characteristic of the pressure force, practically no reduction of the slipping torque occurs even when friction linings are subjected to wear. As the diagram 64-3 shows, compared with Belleville spring torque limiters, assuming a friction wear of  $\Delta f$  the reduction of the slipping torque  $\Delta M$  is negligible.

Function

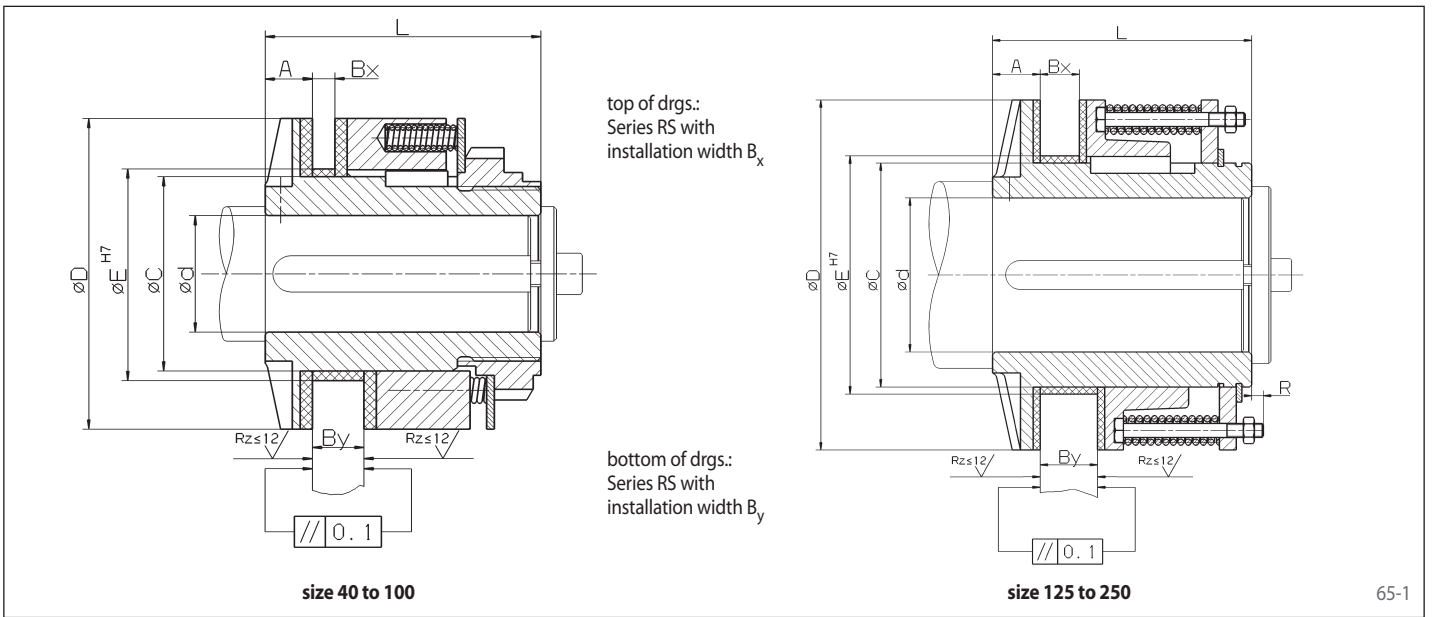
64-2



## Function

- When the preset slipping torque has been reached the built-in component (e. g. chain wheel) slips.
- During the slipping process, input and output rotate relative to each other and the preset slipping torque continues to be transmitted.
- Inherent in the slipping process is a high energy consumption.
- Re-engagement is not necessary.

64-3



## Technical Data and Dimensions

| Type     | Art.-No.    | Slipping torque<br>Nm | Max. speed <sup>1)</sup><br>min <sup>-1</sup> | Bore<br>d <sup>H7</sup> |            | A<br>mm | B <sub>x</sub><br>mm | B <sub>y</sub><br>mm | C <sup>2)</sup><br>mm | D<br>mm | E <sup>2)</sup><br>mm | L<br>mm | R<br>mm |
|----------|-------------|-----------------------|---|-------------------------|------------|---------|----------------------|----------------------|-----------------------|---------|-----------------------|---------|---------|
|          |             |                       |   | min.<br>mm              | max.<br>mm |         |                      |                      |                       |         |                       |         |         |
| RS 40.1  | 4474-040820 | 2 - 12                | 13000   | 8                       | 16         | 8       | 4,4                  | 7,0                  | 25                    | 40      | 28                    | 35,5    | -       |
| RS 40.2  | 4474-040920 | 4 - 25                | 13000   | 8                       | 16         | 8       | 4,4                  | 7,0                  | 25                    | 40      | 28                    | 35,5    | -       |
| RS 50.1  | 4474-050820 | 4 - 25                | 10500   | 9                       | 20         | 8       | 5,2                  | 8,7                  | 32                    | 50      | 36                    | 45      | -       |
| RS 50.2  | 4474-050920 | 8 - 50                | 10500   | 9                       | 20         | 8       | 5,2                  | 8,7                  | 32                    | 50      | 36                    | 45      | -       |
| RS 63.1  | 4474-063820 | 8 - 50                | 8500  | 9                       | 25         | 10      | 5,8                  | 10,5                 | 40                    | 63      | 44                    | 56      | -       |
| RS 63.2  | 4474-063920 | 16 - 100              | 8500  | 9                       | 25         | 10      | 5,8                  | 10,5                 | 40                    | 63      | 44                    | 56      | -       |
| RS 80.1  | 4474-080820 | 10 - 100              | 6700  | 15                      | 32         | 12      | 5,8                  | 15,3                 | 50                    | 80      | 55                    | 71      | -       |
| RS 80.2  | 4474-080920 | 20 - 200              | 6700  | 15                      | 32         | 12      | 5,8                  | 15,3                 | 50                    | 80      | 55                    | 71      | -       |
| RS 100.1 | 4474-081820 | 20 - 200              | 5350  | 25                      | 40         | 15      | 8,7                  | 18,0                 | 65                    | 100     | 70                    | 90      | -       |
| RS 100.2 | 4474-081920 | 40 - 375              | 5350  | 25                      | 40         | 15      | 8,7                  | 18,0                 | 65                    | 100     | 70                    | 90      | -       |
| RS 125.1 | 4474-082820 | 40 - 375              | 4300  | 22                      | 55         | 17      | 15,3                 | 23,0                 | 80                    | 125     | 85                    | 105     | 2,5     |
| RS 125.2 | 4474-082920 | 75 - 750              | 4300  | 22                      | 55         | 17      | 15,3                 | 23,0                 | 80                    | 125     | 85                    | 105     | 2,5     |
| RS 160.1 | 4474-083820 | 75 - 750              | 3350  | 40                      | 70         | 22      | 15,3                 | 28,0                 | 100                   | 160     | 105                   | 130     | 5,5     |
| RS 160.2 | 4474-083920 | 150 - 1500            | 3350  | 40                      | 70         | 22      | 15,3                 | 28,0                 | 100                   | 160     | 105                   | 130     | 5,5     |
| RS 200.1 | 4474-084820 | 150 - 1500            | 2700  | 50                      | 90         | 27      | 23                   | 34,0                 | 125                   | 200     | 130                   | 160     | 7,5     |
| RS 200.2 | 4474-084920 | 300 - 3000            | 2700  | 50                      | 90         | 27      | 23                   | 34,0                 | 125                   | 200     | 130                   | 160     | 7,5     |
| RS 250.1 | 4474-085820 | 300 - 3000            | 2100  | 55                      | 115        | 34      | 28                   | 41,0                 | 160                   | 250     | 165                   | 185     | 9,0     |
| RS 250.2 | 4474-085920 | 600 - 6000            | 2100  | 55                      | 115        | 34      | 28                   | 41,0                 | 160                   | 250     | 165                   | 185     | 9,0     |

<sup>1)</sup> The max. speed relates to the design straight of the Torque Limiter; the max. permissible speed differential  $\Delta n$  should be checked according to the heat calculation on page 73.

<sup>2)</sup> If the part to be coupled is used without bearing bush, the bore should be made to dimension C (tolerance F8).

Keyway as per DIN 6885, page 1 · Tolerance of keyway width P9. Further sizes available on request.

### Width of parts to be connected

Components may be connected with either width B<sub>x</sub> or B<sub>y</sub>.

### Supply

Unless requested otherwise, the Torque Limiters are supplied pilot bored, a full complement of springs, without slipping torque setting and without bearing bush. Factory slipping torque setting is only possible when the order includes built-in component (RSK and RSC) and finish bore.

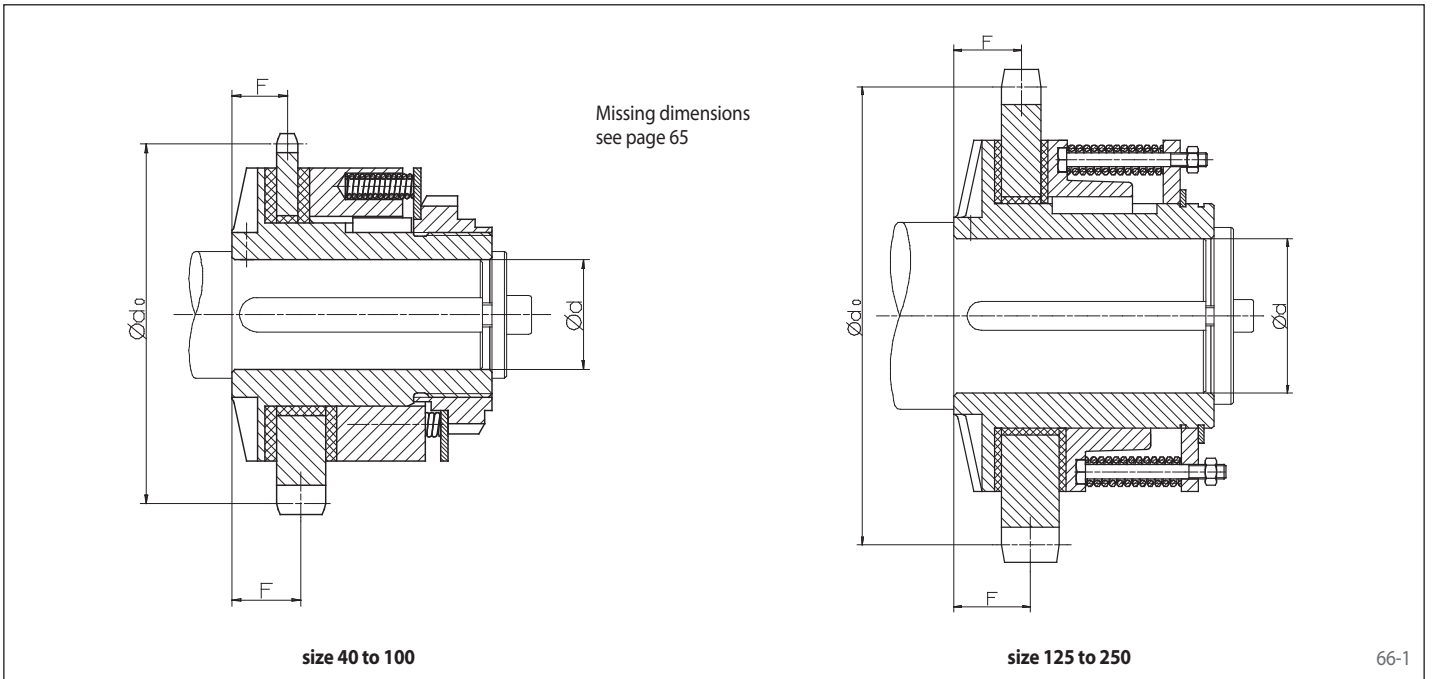
### Accessories

- Width B<sub>x</sub> or B<sub>y</sub> bearing bushes
- Standard tools are normally sufficient for adjusting the slipping torque. Only sizes 125 and 160 require a tool adapter which can be ordered from us.

### Please specify when ordering

- Type of Torque Limiter
- Diameter d, if finish bore is requested
- Width of bearing bush B<sub>x</sub> or B<sub>y</sub>

with chain wheel



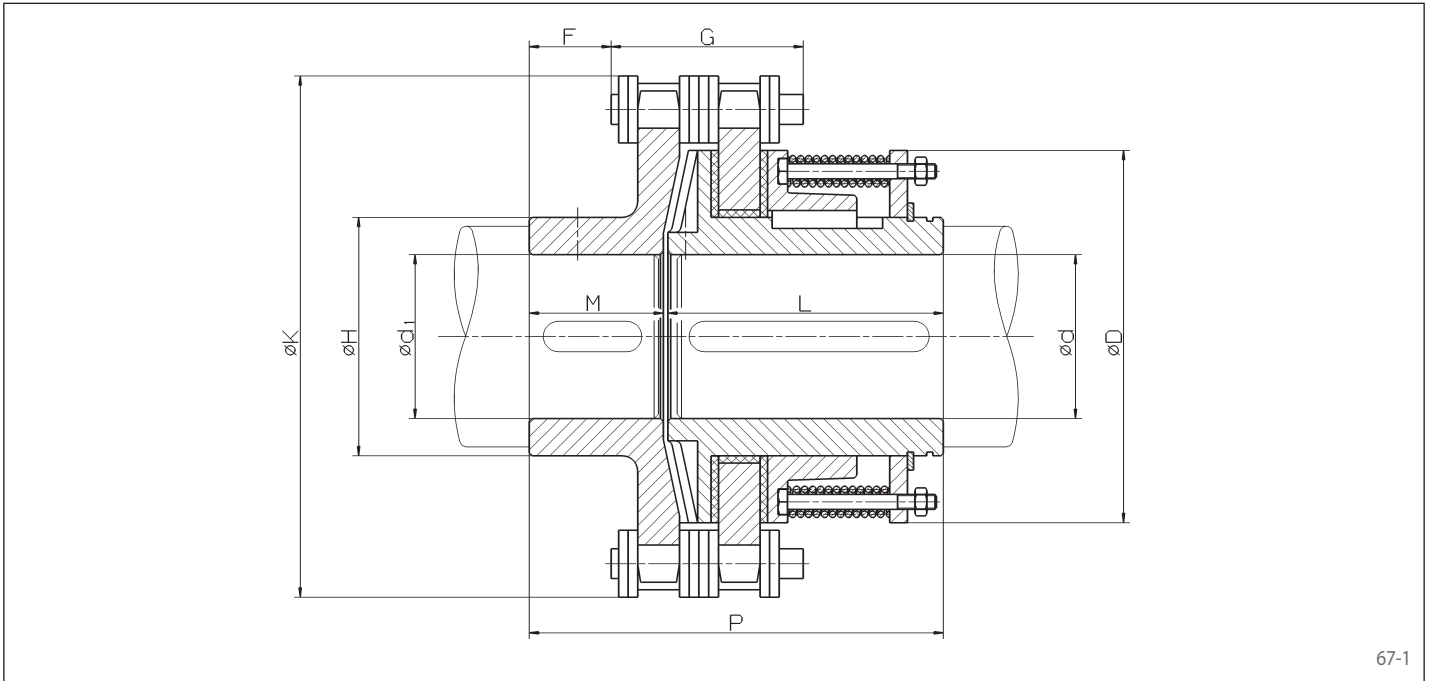
## Technical Data and Dimensions

| Type        | Art.-No.          | Slipping torque<br>Nm | Bore<br>d <sup>H7</sup> |            | Chainwheel suitable for simple roller chain as per DIN 8154 or DIN 8187 |         |         |                        |  |                              | F<br>mm |
|-------------|-------------------|-----------------------|-------------------------|------------|---|---------|---------|------------------------|--|------------------------------|---------|
|             |                   |                       | min.<br>mm              | max.<br>mm | Roller chain dimensions   |         |         | N° of teeth<br>Z<br>mm | Pitch circle-ø<br>d <sub>0</sub><br>mm | Chainwheel-<br>width B<br>mm |         |
| Pitch<br>mm | Inner width<br>mm | Roller-ø<br>mm        |                         |            |   |         |         |                        |  |                              |         |
| RSK 40.1    | 4474-040822       | 2 - 12                | 8                       | 16         | 9,525   | x 4,77  | x 5,08  | 17                     | 51,8                                   | 4,4                          | 10,2    |
| RSK 40.2    | 4474-040922       | 4 - 25                | 8                       | 16         | 9,525   | x 4,77  | x 5,08  | 17                     | 51,8                                   | 4,4                          | 10,2    |
| RSK 40.1    | 4474-040823       | 2 - 12                | 8                       | 16         | 12,70   | x 7,75  | x 8,51  | 14                     | 57,1                                   | 7,0                          | 11,5    |
| RSK 40.2    | 4474-040923       | 4 - 25                | 8                       | 16         | 12,70   | x 7,75  | x 8,51  | 14                     | 57,1                                   | 7,0                          | 11,5    |
| RSK 50.1    | 4474-050821       | 4 - 25                | 9                       | 20         | 9,525   | x 5,72  | x 6,35  | 20                     | 60,9                                   | 5,2                          | 10,6    |
| RSK 50.2    | 4474-050921       | 8 - 50                | 9                       | 20         | 9,525   | x 5,72  | x 6,35  | 20                     | 60,9                                   | 5,2                          | 10,6    |
| RSK 50.1    | 4474-050823       | 4 - 25                | 9                       | 20         | 15,87   | x 9,65  | x 10,16 | 14                     | 71,3                                   | 8,7                          | 12,4    |
| RSK 50.2    | 4474-050923       | 8 - 50                | 9                       | 20         | 15,87   | x 9,65  | x 10,16 | 14                     | 71,3                                   | 8,7                          | 12,4    |
| RSK 63.1    | 4474-063822       | 8 - 50                | 9                       | 25         | 12,70   | x 6,40  | x 8,51  | 20                     | 81,2                                   | 5,8                          | 12,9    |
| RSK 63.2    | 4474-063922       | 16 - 100              | 9                       | 25         | 12,70   | x 6,40  | x 8,51  | 20                     | 81,2                                   | 5,8                          | 12,9    |
| RSK 63.1    | 4474-063823       | 8 - 50                | 9                       | 25         | 19,05   | x 11,68 | x 12,07 | 14                     | 85,6                                   | 10,5                         | 15,0    |
| RSK 63.2    | 4474-063923       | 16 - 100              | 9                       | 25         | 19,05   | x 11,68 | x 12,07 | 14                     | 85,6                                   | 10,5                         | 15,0    |
| RSK 80.1    | 4474-080822       | 10 - 100              | 15                      | 32         | 12,70   | x 6,40  | x 8,51  | 23                     | 93,3                                   | 5,8                          | 15,0    |
| RSK 80.2    | 4474-080922       | 20 - 200              | 15                      | 32         | 12,70   | x 6,40  | x 8,51  | 23                     | 93,3                                   | 5,8                          | 15,0    |
| RSK 80.1    | 4474-080823       | 10 - 100              | 15                      | 32         | 25,40   | x 17,02 | x 15,88 | 13                     | 106,1                                  | 15,3                         | 19,8    |
| RSK 80.2    | 4474-080923       | 20 - 200              | 15                      | 32         | 25,40   | x 17,02 | x 15,88 | 13                     | 106,1                                  | 15,3                         | 19,8    |
| RSK 100.1   | 4474-081821       | 20 - 200              | 25                      | 40         | 15,87   | x 9,65  | x 10,16 | 24                     | 121,6                                  | 8,7                          | 19,5    |
| RSK 100.2   | 4474-081921       | 40 - 375              | 25                      | 40         | 15,87   | x 9,65  | x 10,16 | 24                     | 121,6                                  | 8,7                          | 19,5    |
| RSK 100.1   | 4474-081823       | 20 - 200              | 25                      | 40         | 31,75   | x 19,56 | x 19,05 | 13                     | 132,7                                  | 18,0                         | 24,1    |
| RSK 100.2   | 4474-081923       | 40 - 375              | 25                      | 40         | 31,75   | x 19,56 | x 19,05 | 13                     | 132,7                                  | 18,0                         | 24,1    |
| RSK 125.1   | 4474-082821       | 40 - 375              | 22                      | 55         | 25,40   | x 17,02 | x 15,88 | 19                     | 154,3                                  | 15,3                         | 24,8    |
| RSK 125.2   | 4474-082921       | 75 - 750              | 22                      | 55         | 25,40   | x 17,02 | x 15,88 | 19                     | 154,3                                  | 15,3                         | 24,8    |
| RSK 125.1   | 4474-082823       | 40 - 375              | 22                      | 55         | 38,10   | x 25,40 | x 25,40 | 14                     | 171,2                                  | 23,0                         | 28,7    |
| RSK 125.2   | 4474-082923       | 75 - 750              | 22                      | 55         | 38,10   | x 25,40 | x 25,40 | 14                     | 171,2                                  | 23,0                         | 28,7    |
| RSK 160.1   | 4474-083821       | 75 - 750              | 40                      | 70         | 25,40   | x 17,02 | x 15,88 | 23                     | 186,5                                  | 15,3                         | 29,7    |
| RSK 160.2   | 4474-083921       | 150 - 1500            | 40                      | 70         | 25,40   | x 17,02 | x 15,88 | 23                     | 186,5                                  | 15,3                         | 29,7    |
| RSK 160.1   | 4474-083823       | 75 - 750              | 40                      | 70         | 50,80   | x 30,99 | x 29,21 | 13                     | 212,3                                  | 28,0                         | 36,0    |
| RSK 160.2   | 4474-083923       | 150 - 1500            | 40                      | 70         | 50,80   | x 30,99 | x 29,21 | 13                     | 212,3                                  | 28,0                         | 36,0    |
| RSK 200.1   | 4474-084821       | 150 - 1500            | 50                      | 90         | 38,10   | x 25,40 | x 25,40 | 20                     | 243,6                                  | 23,0                         | 38,5    |
| RSK 200.2   | 4474-084921       | 300 - 3000            | 50                      | 90         | 38,10   | x 25,40 | x 25,40 | 20                     | 243,6                                  | 23,0                         | 38,5    |
| RSK 200.1   | 4474-084823       | 150 - 1500            | 50                      | 90         | 63,50   | x 38,10 | x 39,37 | 13                     | 265,4                                  | 34,0                         | 44,0    |
| RSK 200.2   | 4474-084923       | 300 - 3000            | 50                      | 90         | 63,50   | x 38,10 | x 39,37 | 13                     | 265,4                                  | 34,0                         | 44,0    |
| RSK 250.1   | 4474-085821       | 300 - 3000            | 55                      | 115        | 44,45   | x 30,99 | x 27,94 | 21                     | 298,3                                  | 28,0                         | 48,0    |
| RSK 250.2   | 4474-085921       | 600 - 6000            | 55                      | 115        | 44,45   | x 30,99 | x 27,94 | 21                     | 298,3                                  | 28,0                         | 48,0    |
| RSK 250.1   | 4474-085823       | 300 - 3000            | 55                      | 115        | 76,20   | x 45,72 | x 48,26 | 14                     | 342,4                                  | 41,0                         | 54,5    |
| RSK 250.2   | 4474-085923       | 600 - 6000            | 55                      | 115        | 76,20   | x 45,72 | x 48,26 | 14                     | 342,4                                  | 41,0                         | 54,5    |

Keyway as per DIN 6885, page 1 • Tolerance of keyway width P9

The glidebush is incorporated as standard. Further chainwheels available on request. Factory slipping torque setting only possible for orders incl. finished bore. Further notes please refer to page 65.

with flexible chain coupling



## Technical Data and Dimensions

| Type      | Art.-No.    | Slipping torque<br>Nm | Max. speed<br>min <sup>-1</sup> | Bore d <sup>H7</sup> |         | Bore d <sub>1</sub> <sup>1)</sup> |         | D<br>mm | F<br>mm | G<br>mm | H<br>mm | K<br>mm | L<br>mm | M<br>mm | P<br>mm |
|-----------|-------------|-----------------------|---------------------------------|----------------------|---------|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|           |             |                       |                                 | min. mm              | max. mm | min. mm                           | max. mm |         |         |         |         |         |         |         |         |
| RSC 40.1  | 4474-240820 | 2 - 12                | 6300                            | 8                    | 16      | 10                                | 24      | 40      | 15      | 23      | 35      | 61      | 35,5    | 19,0    | 55,5    |
| RSC 40.2  | 4474-240920 | 4 - 25                | 6300                            | 8                    | 16      | 10                                | 24      | 40      | 15      | 23      | 35      | 61      | 35,5    | 19,0    | 55,5    |
| RSC 50.1  | 4474-250820 | 4 - 25                | 5300                            | 9                    | 20      | 13                                | 30      | 50      | 16      | 25      | 45      | 70      | 45      | 21,5    | 67,5    |
| RSC 50.2  | 4474-250920 | 8 - 50                | 5300                            | 9                    | 20      | 13                                | 30      | 50      | 16      | 25      | 45      | 70      | 45      | 21,5    | 67,5    |
| RSC 63.1  | 4474-263820 | 8 - 50                | 4250                            | 9                    | 25      | 17                                | 44      | 63      | 17      | 33      | 60      | 94      | 56      | 25,5    | 83,0    |
| RSC 63.2  | 4474-263920 | 16 - 100              | 4250                            | 9                    | 25      | 17                                | 44      | 63      | 17      | 33      | 60      | 94      | 56      | 25,5    | 83,0    |
| RSC 80.1  | 4474-280820 | 10 - 100              | 3350                            | 15                   | 32      | 17                                | 50      | 80      | 19      | 33      | 70      | 106     | 71      | 24,0    | 97,0    |
| RSC 80.2  | 4474-280920 | 20 - 200              | 3350                            | 15                   | 32      | 17                                | 50      | 80      | 19      | 33      | 70      | 106     | 71      | 24,0    | 97,0    |
| RSC 100.1 | 4474-281820 | 20 - 200              | 2650                            | 25                   | 40      | 17                                | 58      | 100     | 25      | 38      | 80      | 137     | 90      | 30,0    | 123,0   |
| RSC 100.2 | 4474-281920 | 40 - 375              | 2650                            | 25                   | 40      | 17                                | 58      | 100     | 25      | 38      | 80      | 137     | 90      | 30,0    | 123,0   |
| RSC 125.1 | 4474-282820 | 40 - 375              | 2120                            | 22                   | 55      | 26                                | 75      | 125     | 25      | 75      | 100     | 180     | 105     | 46,5    | 154,5   |
| RSC 125.2 | 4474-282920 | 75 - 750              | 2120                            | 22                   | 55      | 26                                | 75      | 125     | 25      | 75      | 100     | 180     | 105     | 46,5    | 154,5   |
| RSC 160.1 | 4474-283820 | 75 - 750              | 1700                            | 40                   | 70      | 26                                | 82      | 160     | 35      | 75      | 110     | 211     | 130     | 51,5    | 184,5   |
| RSC 160.2 | 4474-283920 | 150 - 1500            | 1700                            | 40                   | 70      | 26                                | 82      | 160     | 35      | 75      | 110     | 211     | 130     | 51,5    | 184,5   |
| RSC 200.1 | 4474-284820 | 150 - 1500            | 1320                            | 50                   | 90      | 26                                | 105     | 200     | 37      | 113     | 140     | 280     | 160     | 70,0    | 233,0   |
| RSC 200.2 | 4474-284920 | 300 - 3000            | 1320                            | 50                   | 90      | 26                                | 105     | 200     | 37      | 113     | 140     | 280     | 160     | 70,0    | 233,0   |
| RSC 250.1 | 4474-285820 | 300 - 3000            | 1120                            | 55                   | 115     | 26                                | 120     | 250     | 55      | 129     | 160     | 336     | 185     | 90,0    | 280,0   |
| RSC 250.2 | 4474-285920 | 600 - 6000            | 1120                            | 55                   | 115     | 26                                | 120     | 250     | 55      | 129     | 160     | 336     | 185     | 90,0    | 280,0   |

<sup>1)</sup> Check the stress of the keyway in the case of smaller finish bores d<sub>1</sub> and high slipping torques.  
Keyway as per DIN 6885, page 1 • Tolerance of keyway width P9

### Application

As slipping shaft coupling to compensate for minor misalignments.

### Supply

Unless specified otherwise, the Torque Limiters are supplied with a pilot bore, a full complement of springs and without slipping torque setting. Factory slipping torque setting is only possible when the order includes built-in component (RSK and RSC) and finish bore.

### Accessories

- Standard tools are normally sufficient for adjusting the slipping torque. Only sizes 125 and 160 require a tool adapter which can be ordered from us.

### Please specify when ordering

- Type of Torque Limiting chain coupling
- Diameter d and d<sub>1</sub>, if finish bore is requested
- Slipping torque to be preset, if required