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# IKUSE XL Jaw coupling with elastic spider

## Overview

An elastic spider between the jaws of the two coupling halves transmits torque and cushions shocks.

## Construction and maintenance

Check bores, flanges and the elastic element against the corresponding XL, XLS or XLD connection arrangement.

## Technical specifications

XL1–XL16; nominal torque 34–35000 N·m. The bore range includes enlarged-bore configurations. Select according to the hub construction, elastic element and actual operating conditions.

## Ordering information

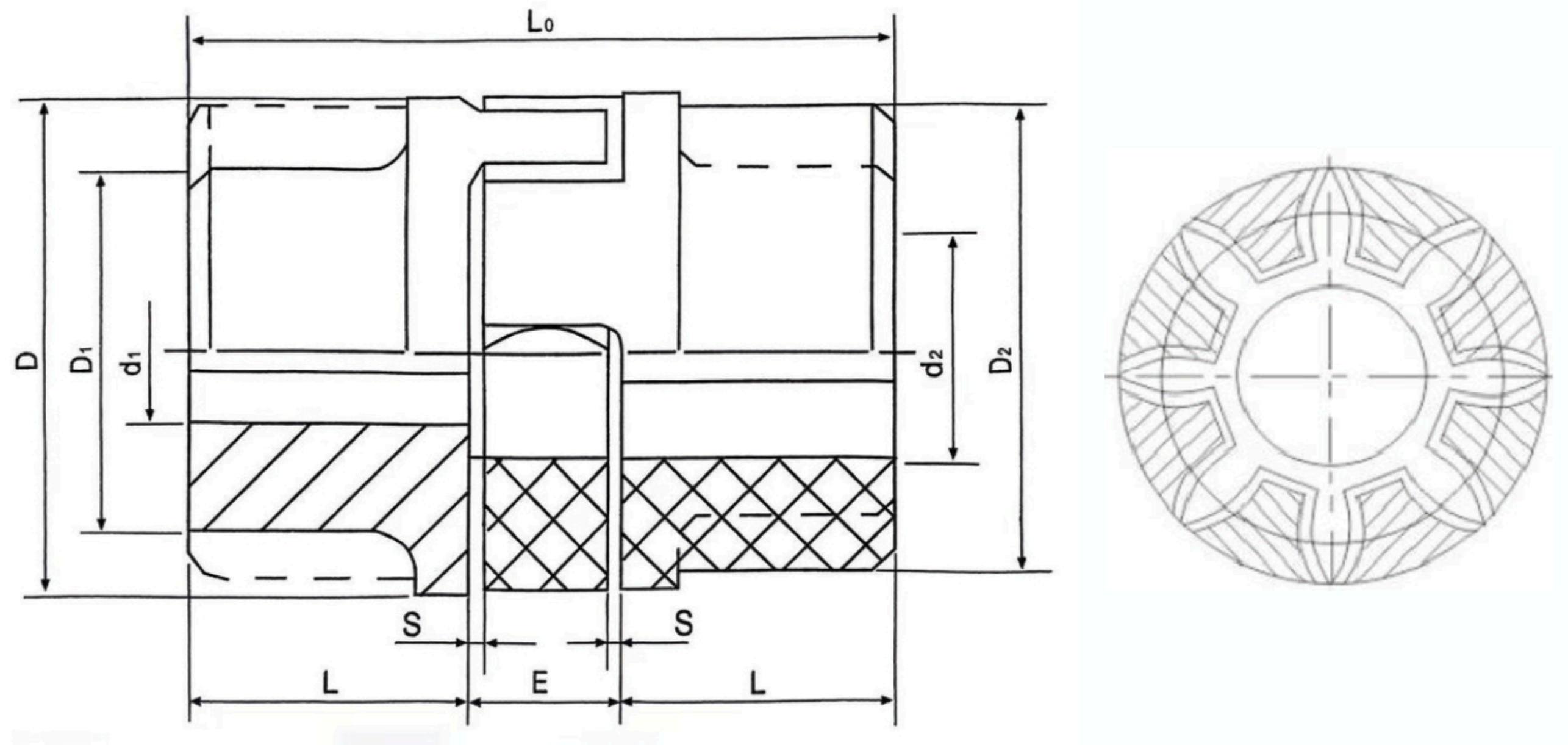
Specify power, operating speed, load characteristics, both shaft diameters and extension lengths, shaft-end separation and installation conditions. Include brake, dynamic-balancing and elastic-element requirements where applicable.

# IKUSE XL Jaw coupling with elastic spider

Construction and installation dimensions

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## Structural diagram



Bores, shaft extensions, connection dimensions and installation spacing must correspond to the selected size.

| Model | Nominal torque | Allowable speed | Bore diameter                  | Bore length | D   | D <sub>1</sub> | D <sub>2</sub> | E  | S    | Mass moment of inertia | Mass  |
|-------|----------------|-----------------|--------------------------------|-------------|-----|----------------|----------------|----|------|------------------------|-------|
|       | [T] N·m        | [n] r/min       | d <sub>1</sub> ,d <sub>2</sub> | L           |     |                |                |    |      | kg·m²                  | kg    |
| XL1   | 34             | 19000           | 6-24                           | 25          | 40  | 32             | 40             | 16 | 2    | —                      | 0.328 |
| XL2   | 120            | 14000           | 8-28                           | 30          | 55  | 40             | 55             | 18 | 2    | 0.0003                 | 0.66  |
| XL3   | 320            | 11800           | 10-38                          | 35          | 65  | 48             | 65             | 20 | 2.5  | 0.0007                 | 1.16  |
| XL4   | 650            | 9500            | 12-45                          | 45          | 80  | 66             | 78             | 24 | 3    | 0.002                  | 2.27  |
| XL5   | 900            | 8000            | 14-55                          | 50          | 95  | 75             | 94             | 26 | 3    | 0.005                  | 3.57  |
| XL6   | 1050           | 7100            | 15-60                          | 56          | 105 | 85             | 104            | 28 | 3.5  | 0.008                  | 4.8   |
| XL7   | 1250           | 6300            | 20-70                          | 65          | 120 | 98             | 118            | 30 | 4    | 0.016                  | 7.37  |
| XL8   | 1280           | 5600            | 22-75                          | 75          | 135 | 115            | 134            | 35 | 4.5  | 0.031                  | 10.89 |
| XL9   | 2930           | 4750            | 30-90                          | 85          | 160 | 135            | 158            | 40 | 5    | 0.068                  | 17.73 |
| XL10  | 7200           | 3750            | 40-100                         | 100         | 200 | 160            | 180            | 45 | 5.5  | 0.159                  | 29.6  |
| XL11  | 9900           | 3350            | 50—110                         | 110         | 225 | 180            | 200            | 50 | 6    | 0.277                  | 41    |
| XL12  | 12000          | 3000            | 60-125                         | 120         | 255 | 200            | 230            | 55 | 6.5  | 0.51                   | 58.6  |
| XL13  | 15000          | 2650            | 60-145                         | 140         | 290 | 230            | 265            | 60 | 7    | 1                      | 88.4  |
| XL14  | 22000          | 2360            | 60-165                         | 155         | 320 | 255            | 300            | 65 | 7.5  | 1.7                    | 120.6 |
| XL15  | 30000          | 2000            | 80-190                         | 175         | 370 | 290            | 345            | 75 | 9    | 3.35                   | 179.1 |
| XL16  | 35000          | 1800            | 85-220                         | 195         | 420 | 325            | 400            | 85 | 10.5 | 6.37                   | 261   |

**Notes**

Linear dimensions are in mm; other units are given in the corresponding column headings. Check bores, shaft extensions and installation dimensions for the same size.

The bore range includes enlarged-bore configurations; confirm the hub construction when ordering. A dash means that the value is not listed. Bore ranges include enlarged-bore options; confirm hub configuration when ordering. A dash indicates a value not listed in this table.

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# IKUSE XLD Single-flange jaw coupling

## Overview

An elastic spider between the jaws of the two coupling halves transmits torque and cushions shocks.

## Construction and maintenance

Check bores, flanges and the elastic element against the corresponding XL, XLS or XLD connection arrangement.

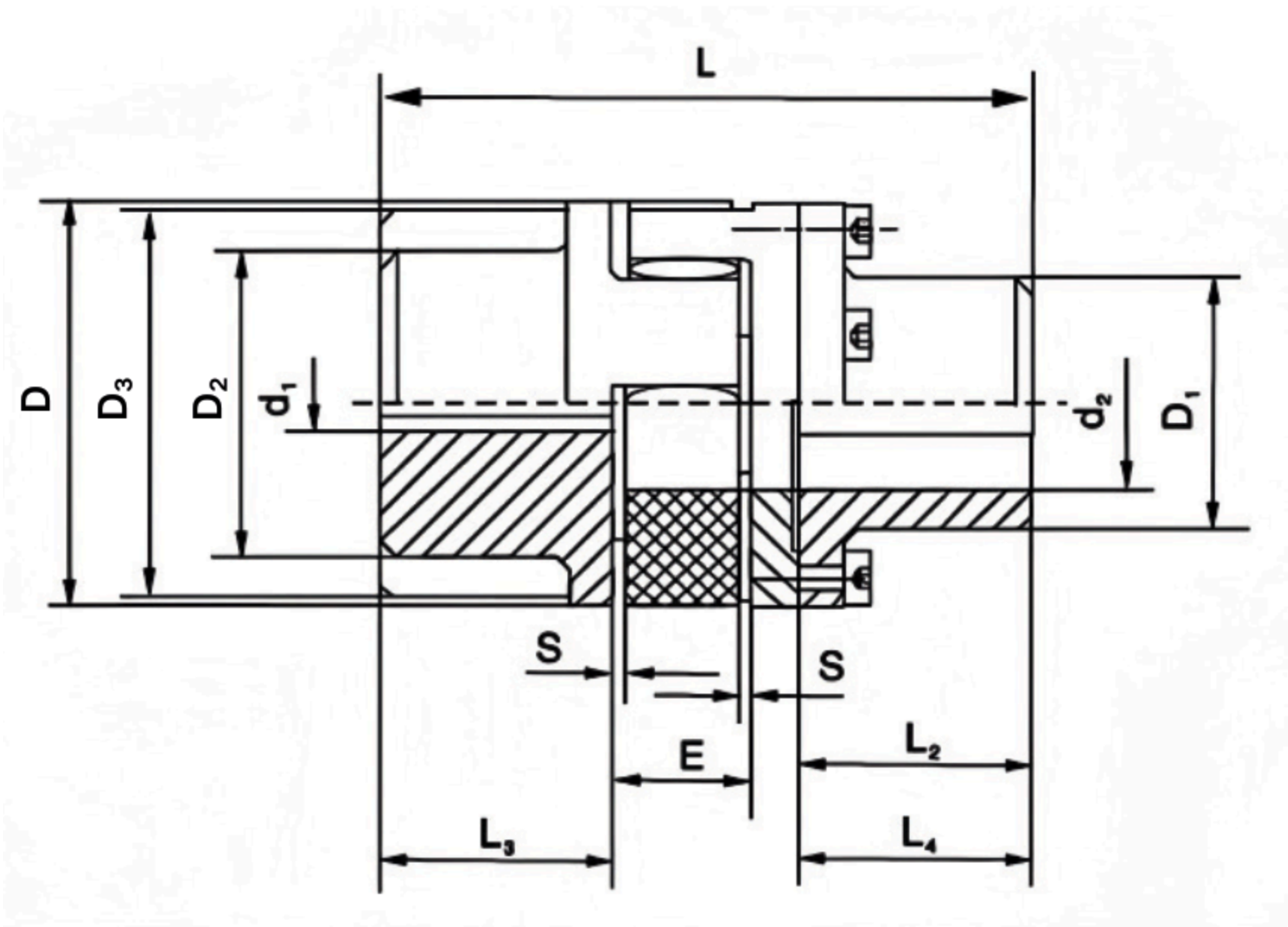
## Technical specifications

Torque, speed, bores and installation dimensions must all correspond to the same size.

## Ordering information

Specify power, operating speed, load characteristics, both shaft diameters and extension lengths, shaft-end separation and installation conditions. Include brake, dynamic-balancing and elastic-element requirements where applicable.

Structural diagram



Bores, shaft extensions, connection dimensions and installation spacing must correspond to the selected size.

| Model | Nominal torque | Allowable speed | Bore diameter | Bore length | L <sub>2</sub> | L <sub>3</sub> (L <sub>4</sub> ) | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>3</sub> | E  | S    |
|-------|----------------|-----------------|---------------|-------------|----------------|----------------------------------|-----|----------------|----------------|----------------|----|------|
|       | [T] N·m        | [n] r/min       | d             | L           |                |                                  |     |                |                |                |    |      |
| XLD1  | 35             | 14000           | 8-24          | 86          | 30             | 30.5                             | 55  | 36             | 40             | 55             | 18 | 2    |
| XLD2  | 95             | 11800           | 8-28          | 100         | 35             | 35.5                             | 65  | 42             | 48             | 65             | 20 | 2.5  |
| XLD3  | 190            | 9500            | 10-38         | 124         | 45             | 45.5                             | 80  | 52             | 66             | 78             | 24 | 3    |
| XLD4  | 265            | 8000            | 10-42         | 138         | 50             | 51                               | 95  | 62             | 75             | 94             | 26 | 3    |
| XLD5  | 310            | 7100            | 10-48         | 152         | 56             | 57                               | 105 | 70             | 85             | 104            | 28 | 3.5  |
| XLD6  | 410            | 6300            | 15-55         | 176         | 65             | 66                               | 120 | 80             | 98             | 118            | 30 | 4    |
| XLD7  | 625            | 5600            | 15-65         | 201         | 75             | 76                               | 135 | 94             | 115            | 134            | 35 | 4.5  |
| XLD8  | 1280           | 4750            | 20-75         | 229         | 85             | 86.5                             | 160 | 108            | 135            | 158            | 40 | 5    |
| XLD9  | 2400           | 3750            | 30-90         | 265         | 100            | 101.5                            | 200 | 142            | 160            | 180            | 45 | 5.5  |
| XLD10 | 3300           | 3350            | 30-115        | 295         | 110            | 111.5                            | 225 | 158            | 180            | 200            | 50 | 6    |
| XLD11 | 4800           | 3000            | 40-125        | 321         | 120            | 122                              | 255 | 178            | 200            | 230            | 55 | 6.5  |
| XLD12 | 6650           | 2650            | 40-145        | 370         | 140            | 142                              | 290 | 206            | 230            | 265            | 60 | 7    |
| XLD13 | 8600           | 2350            | 40-160        | 409         | 155            | 157                              | 320 | 235            | 256            | 300            | 65 | 7.5  |
| XLD14 | 12800          | 2000            | 60-180        | 463         | 175            | 177                              | 370 | 270            | 290            | 345            | 75 | 9    |
| XLD15 | 18650          | 1800            | 85-200        | 515         | 195            | 198                              | 420 | 315            | 325            | 400            | 85 | 10.5 |

**Notes**

Linear dimensions are in mm; other units are given in the corresponding column headings. Check bores, shaft extensions and installation dimensions for the same size.

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# IKUSE XLS Double-flange jaw coupling

## Overview

An elastic spider between the jaws of the two coupling halves transmits torque and cushions shocks.

## Construction and maintenance

Check bores, flanges and the elastic element against the corresponding XL, XLS or XLD connection arrangement.

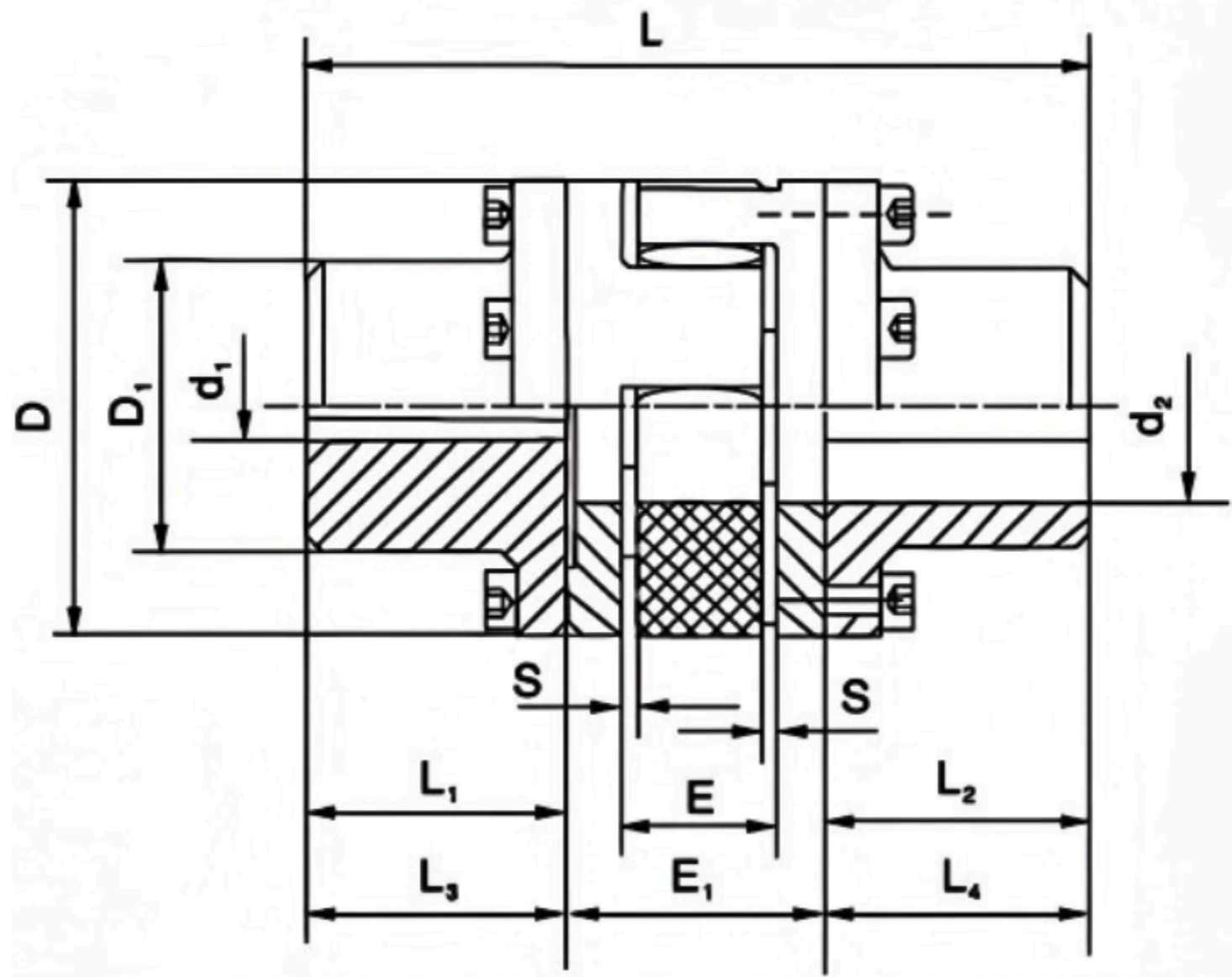
## Technical specifications

Torque, speed, bores and installation dimensions must all correspond to the same size.

## Ordering information

Specify power, operating speed, load characteristics, both shaft diameters and extension lengths, shaft-end separation and installation conditions. Include brake, dynamic-balancing and elastic-element requirements where applicable.

Structural diagram



Bores, shaft extensions, connection dimensions and installation spacing must correspond to the selected size.

| Model | Nominal torque | Allowable speed | Bore diameter | Bore length | L <sub>1</sub> (L <sub>2</sub> ) | L <sub>3</sub> (L <sub>4</sub> ) | D   | D <sub>1</sub> | E  | E <sub>1</sub> | S    |
|-------|----------------|-----------------|---------------|-------------|----------------------------------|----------------------------------|-----|----------------|----|----------------|------|
|       | [T] N·m        | [n] r/min       | d             | L           |                                  |                                  |     |                |    |                |      |
| XLS1  | 35             | 14000           | 8-24          | 94          | 30                               | 30.5                             | 55  | 36             | 18 | 33             | 2    |
| XLS2  | 95             | 11800           | 8-28          | 110         | 35                               | 35.5                             | 65  | 42             | 20 | 39             | 2.5  |
| XLS3  | 190            | 9500            | 10-38         | 134         | 45                               | 45.5                             | 80  | 52             | 24 | 43             | 3    |
| XLS4  | 265            | 8000            | 10-42         | 150         | 50                               | 51                               | 95  | 62             | 26 | 48             | 3    |
| XLS5  | 310            | 7100            | 10-48         | 164         | 56                               | 57                               | 105 | 70             | 28 | 50             | 3.5  |
| XLS6  | 410            | 6300            | 15-55         | 192         | 65                               | 66                               | 120 | 80             | 30 | 60             | 4    |
| XLS7  | 625            | 5600            | 15-65         | 217         | 75                               | 76                               | 135 | 94             | 35 | 65             | 4.5  |
| XLS8  | 1280           | 4750            | 20-75         | 248         | 85                               | 86.5                             | 160 | 108            | 40 | 75             | 5    |
| XLS9  | 2400           | 3750            | 30-90         | 285         | 100                              | 101.5                            | 200 | 142            | 45 | 82             | 5.5  |
| XLS10 | 3300           | 3350            | 30-115        | 320         | 110                              | 111.5                            | 225 | 158            | 50 | 97             | 6    |
| XLS11 | 4800           | 3000            | 40-125        | 347         | 120                              | 122                              | 255 | 178            | 55 | 103            | 6.5  |
| XLS12 | 6650           | 2650            | 40-145        | 400         | 140                              | 142                              | 290 | 206            | 60 | 116            | 7    |
| XLS13 | 8600           | 2350            | 40-160        | 443         | 155                              | 157                              | 320 | 235            | 65 | 128            | 7.5  |
| XLS14 | 12800          | 2000            | 60-180        | 501         | 175                              | 177                              | 370 | 270            | 75 | 146            | 9    |
| XLS15 | 18650          | 1800            | 85-200        | 555         | 195                              | 198                              | 420 | 315            | 85 | 159            | 10.5 |

**Notes**

Linear dimensions are in mm; other units are given in the corresponding column headings. Check bores, shaft extensions and installation dimensions for the same size.

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# IKUSE JSA Safety grid coupling

## Overview

For torque transmission and overload protection in shaft systems. Confirm the protective action for the specific construction.

## Construction and maintenance

Specify operating torque, overload conditions, speed and required protective action when ordering.

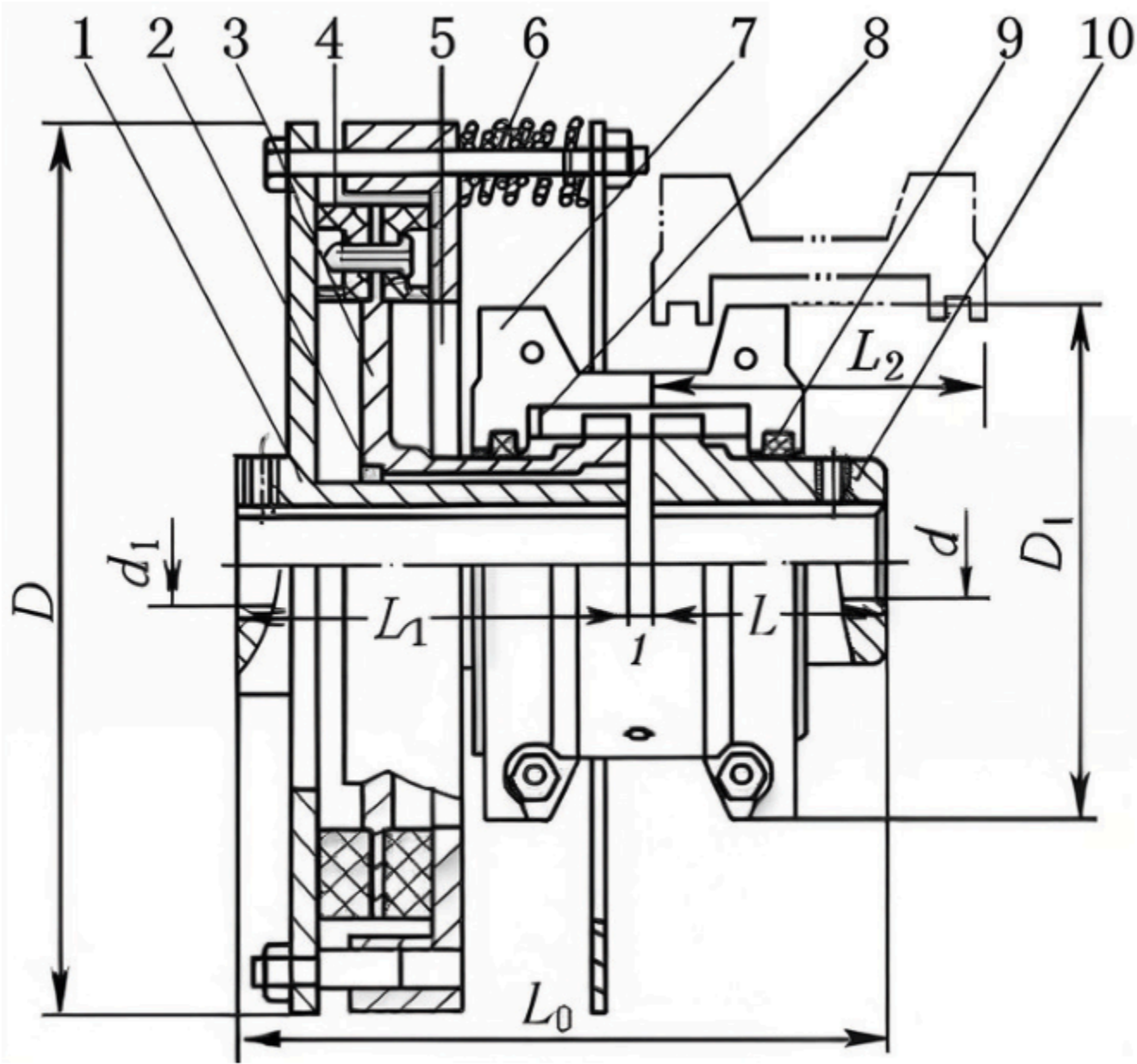
## Technical specifications

Torque, speed, bores and installation dimensions must all correspond to the same size.

## Ordering information

Specify power, operating speed, load characteristics, both shaft diameters and extension lengths, shaft-end separation and installation conditions. Include brake, dynamic-balancing and elastic-element requirements where applicable.

Structural diagram



Bores, shaft extensions, connection dimensions and installation spacing must correspond to the selected size.

| Model | Nominal torque | Allowable speed | Bore diameter      |         | Bore length    |     | Overall length | Maximum outside diameter | D <sub>1</sub> | L <sub>2</sub> | Clearance C | Mass    | Lubricating oil |
|-------|----------------|-----------------|--------------------|---------|----------------|-----|----------------|--------------------------|----------------|----------------|-------------|---------|-----------------|
|       | [T] N·m        | [n] r/min       | d <sub>1</sub> max | d       | L <sub>1</sub> | L   | L <sub>0</sub> | D                        |                |                |             | kg      |                 |
| JSA1  | 35.5           | 3600            | 25                 | 20-28   | 79             | 48  | 130            | 178                      | 102            | 48             | 3           | 6.17    | 0.027           |
| JSA2  | 100            | 3600            | 30                 | 25-35   | 79             | 48  | 130            | 202                      | 111            | 50             | 3           | 8.17    | 0.04            |
| JSA3  | 160            | 3600            | 35                 | 25-40   | 79             | 51  | 133            | 232                      | 117            | 63             | 3           | 11.53   | 0.054           |
| JSA4  | 250            | 3600            | 42                 | 30-48   | 87             | 60  | 150            | 270                      | 138            | 63             | 3           | 16.44   | 0.068           |
| JSA5  | 450            | 3600            | 45                 | 35-50   | 97             | 63  | 163            | 301                      | 151            | 76             | 3           | 21.97   | 0.086           |
| JSA6  | 630            | 3600            | 56                 | 40-63   | 104            | 76  | 183            | 324                      | 162            | 83             | 3           | 28.24   | 0.114           |
| JSA7  | 1250           | 2800            | 65                 | 45-75   | 114            | 89  | 206            | 362                      | 194            | 92             | 3           | 41.04   | 0.172           |
| JSA8  | 2000           | 2500            | 75                 | 50-85   | 129            | 99  | 231            | 414                      | 213            | 109            | 3           | 62.65   | 0.254           |
| JSA9  | 3550           | 2100            | 90                 | 70-100  | 144            | 121 | 270            | 491                      | 251            | 147            | 5           | 100.79  | 0.426           |
| JSA10 | 5600           | 1850            | 100                | 80-110  | 156            | 127 | 288            | 543                      | 270            | 152            | 5           | 128.03  | 0.499           |
| JSA11 | 8000           | 1750            | 110                | 90-125  | 185            | 149 | 340            | 590                      | 308            | 178            | 6           | 182.96  | 0.726           |
| JSA12 | 11200          | 1450            | 130                | 100-150 | 193            | 162 | 361            | 684                      | 346            | 185            | 6           | 260.14  | 0.908           |
| JSA13 | 16000          | 1300            | 160                | 120-180 | 199            | 184 | 389            | 767                      | 384            | 213            | 6           | 375.91  | 1.135           |
| JSA14 | 22400          | 1100            | 170                | 130-200 | 245            | 183 | 434            | 864                      | 453            | 254            | 6           | 502.12  | 1.907           |
| JSA15 | 31500          | 950             | 200                | 160-220 | 150            | 198 | 454            | 989                      | 501            | 254            | 6           | 652.40  | 2.815           |
| JSA16 | 45000          | 870             | 240                | 180-250 | 268            | 216 | 490            | 1066                     | 566            | 267            | 6           | 869.86  | 3.495           |
| JSA17 | 63000          | 760             | 280                | 200-280 | 292            | 239 | 537            | 1161                     | 630            | 267            | 6           | 1162.24 | 3.768           |
| JSA18 | 80000          | 720             | 300                | 240-300 | 297            | 259 | 562            | 1264                     | 673            | 279            | 6           | 1426.92 | 4.404           |
| JSA19 | 100000         | 670             | 320                | 250-320 | 315            | 279 | 600            | 1377                     | 757            | 279            | 6           | 1806.92 | 5.629           |

**Notes**

Linear dimensions are in mm; other units are given in the corresponding column headings. Check bores, shaft extensions and installation dimensions for the same size.

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# IKUSE TLQ Torque-limiting coupling

## Overview

The main parts are the driving flange, driven hub and torque-limiting mechanism between them. The mechanism typically comprises friction discs or blocks, a stack of disc springs providing axial clamping force, and a graduated nut for spring-force adjustment. A disengagement indicator pin and a microswitch-actuating signal device are commonly included, with a housing for sealing and protection.

## Construction and maintenance

Specify operating torque, overload conditions, speed and required protective action when ordering.

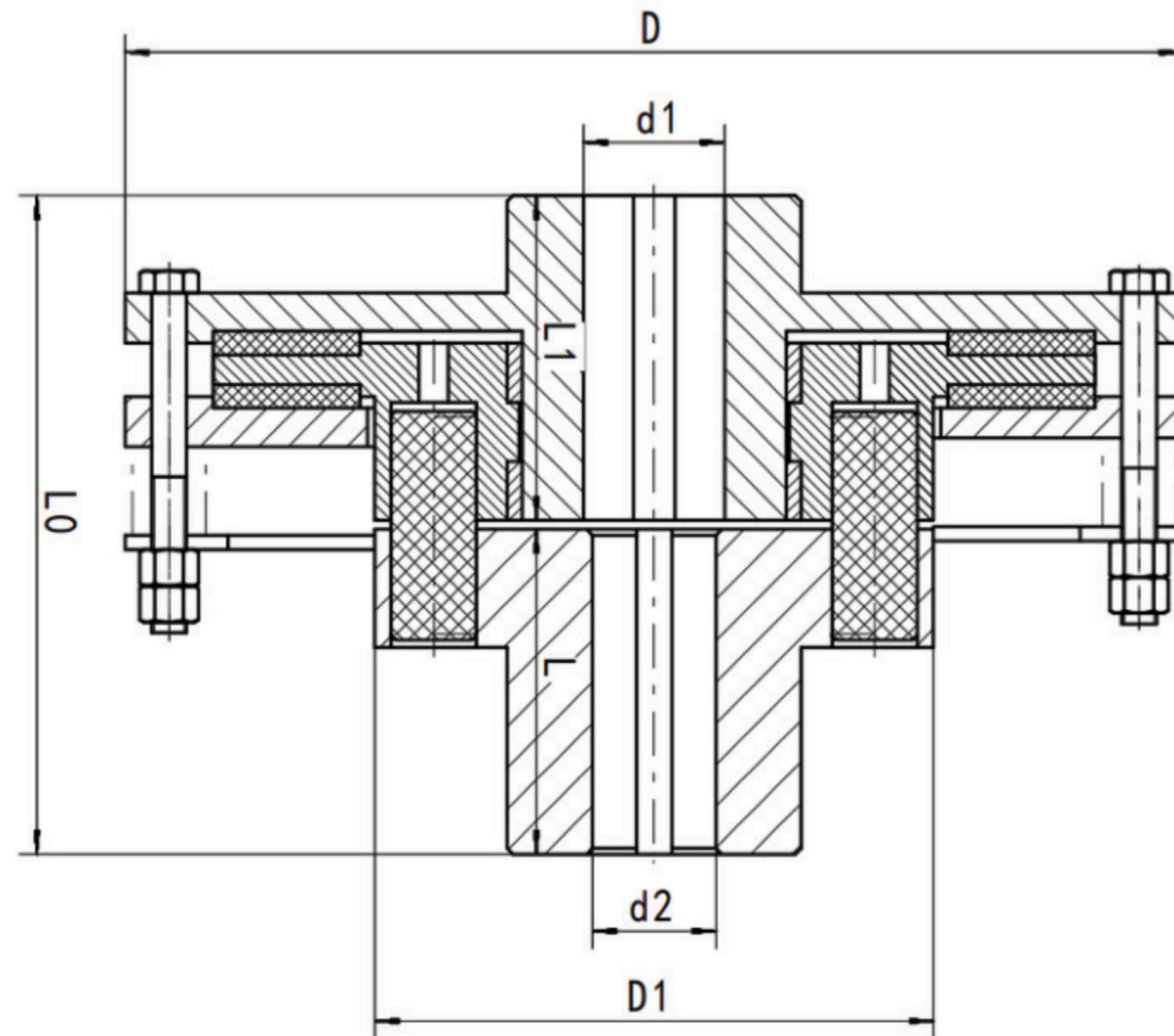
## Technical specifications

Torque, speed, bores and installation dimensions must all correspond to the same size.

## Ordering information

Specify power, operating speed, load characteristics, both shaft diameters and extension lengths, shaft-end separation and installation conditions. Include brake, dynamic-balancing and elastic-element requirements where applicable.

### Structural diagram



Bores, shaft extensions, connection dimensions and installation spacing must correspond to the selected size.

Technical specifications and main dimensions

| Model | Nominal torque<br>adjustment<br>range | Allowable<br>speed | Bore diameter d,d <sub>1</sub> |         | Bore length    |     | L <sub>0</sub> | D    | D <sub>1</sub> | b   | Clearance c | Mass |
|-------|---------------------------------------|--------------------|--------------------------------|---------|----------------|-----|----------------|------|----------------|-----|-------------|------|
|       | [T] N·m                               | [n] r/min          | d <sub>1</sub> max             | d       | L <sub>1</sub> | L   |                |      |                |     |             | kg   |
| TLQ1  | 1000-5000                             | 1750               | 75                             | 60-85   | 185            | 149 | 340            | 590  | 280            | 56  | 6           | 240  |
| TLQ2  | 1400-9500                             | 1450               | 100                            | 70-110  | 193            | 162 | 361            | 684  | 320            | 56  | 6           | 340  |
| TLQ3  | 2000-13000                            | 1300               | 110                            | 80-120  | 199            | 184 | 389            | 767  | 360            | 56  | 6           | 490  |
| TLQ4  | 2800-17000                            | 1100               | 130                            | 100-140 | 245            | 183 | 434            | 864  | 410            | 63  | 6           | 655  |
| TLQ5  | 4000-20000                            | 950                | 130                            | 110-140 | 250            | 198 | 454            | 989  | 410            | 63  | 6           | 852  |
| TLQ6  | 5600-29000                            | 870                | 170                            | 110-180 | 268            | 216 | 490            | 1066 | 480            | 75  | 6           | 1170 |
| TLQ7  | 7100-40000                            | 760                | 210                            | 140-220 | 292            | 239 | 537            | 1161 | 570            | 75  | 6           | 1520 |
| TLQ8  | 10000-55000                           | 720                | 250                            | 160-260 | 297            | 259 | 562            | 1264 | 630            | 75  | 6           | 1870 |
| TLQ9  | 14000-100000                          | 670                | 280                            | 240-300 | 315            | 279 | 600            | 1377 | 710            | 100 | 6           | 2400 |

**Notes**

Linear dimensions are in mm; other units are given in the corresponding column headings. Check bores, shaft extensions and installation dimensions for the same size.