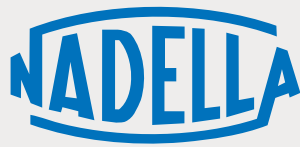


# ADJUSTING NUTS AND THREADED RINGS

THE SPECIALIST  
FOR MOTION  
TECHNOLOGY





Nadella is an expert system partner for all areas of **motion technology**, with specialized manufacturer companies and a worldwide sales network.

Wherever innovative ideas, customized solutions, precision and reliability are required, developers and design engineers rely on our products and solutions.

## BRANDS AND PRODUCTS OVERVIEW



Linear Guides



Telescopic Rails



Linear Modules



Linear Axes and Systems



Circular Systems



Bearings and Cam Followers



Adjusting Nuts & Rings



Rod Ends and Spherical Plain Bearings



Clevises and Ball/Axial Joints



Precision Ball Screws



Rolled Ball Screws

## MILESTONES

**1930**

NADELLA foundation in France

**1958**

Founding of NADELLA GMBH in Germany

**1963**

Founding of NADELLA S.P.A. in Italy

**1984**

Start of development and sale of Nadella Linear

**2012**

New Nadella subsidiaries in China and USA

**2014**

Acquisition of DURBAL

**2018**

Acquisition of CHIAVETTE UNIFICATE

**2019**

Founding of Nadella Motion Technology

**2020**

New Nadella subsidiaries in France and Spain  
Acquisition of SHUTON and IPIRANGA

**2021**

Acquisition of DAMO

**2022**

Orchestra enters in Nadella Group

**2023**

Timken acquires Nadella Group

## KEY NUMBERS

**8** manufacturing plants

**14** main locations

Italy, Germany, France,  
United Kingdom, Spain,  
United States, China

leading the way in the international markets

in over **60** countries

for more than **90** years

## APPLICATION SECTORS



AUTOMATION AND ROBOTICS



AUTOMOTIVE



ENERGY



FOOD & BEVERAGE



MACHINE TOOL



MEDICAL TECHNOLOGY



METAL WORKING



PACKAGING



POWER TRANSMISSION



SPECIAL MACHINERY



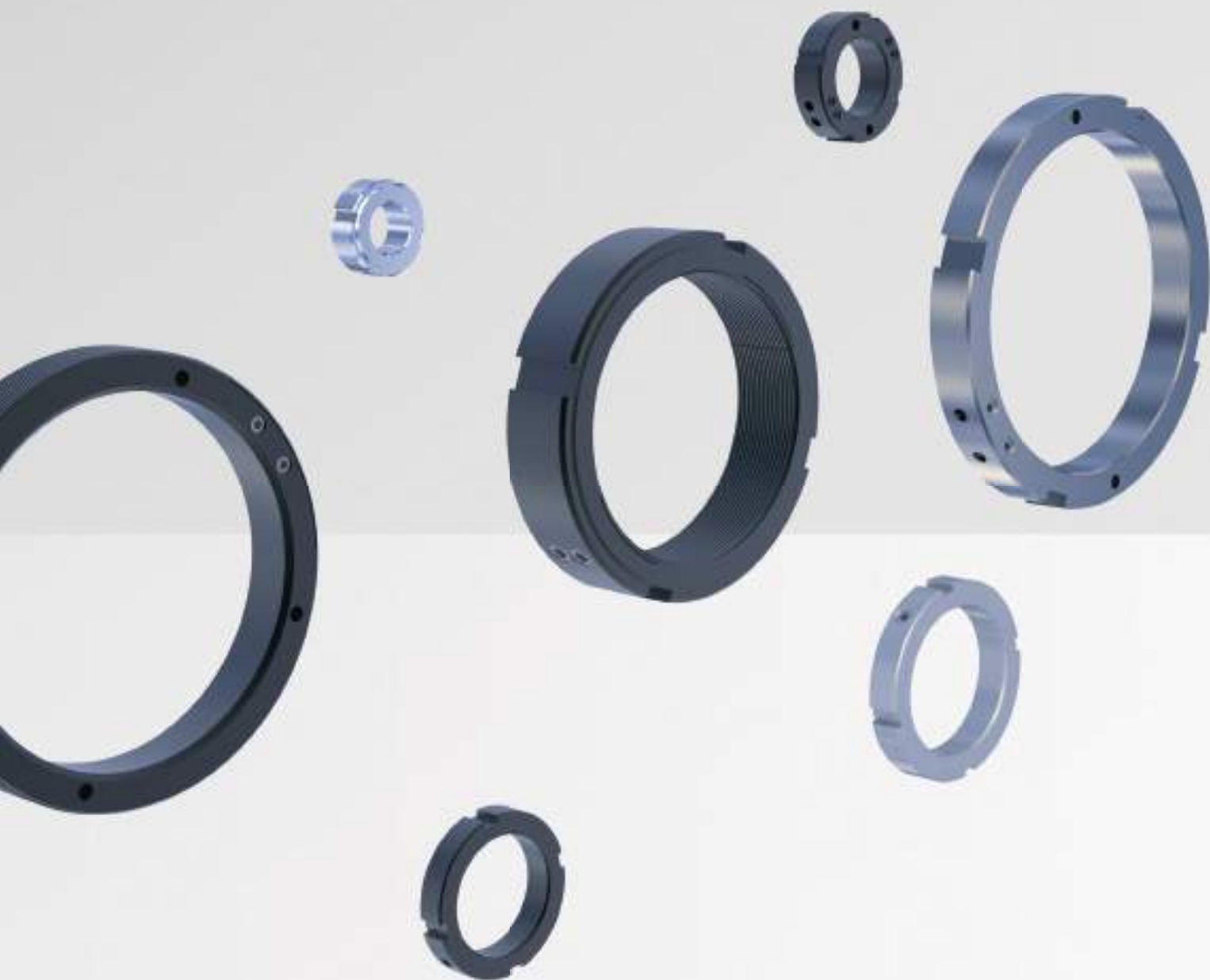
TRANSPORTATION



WAREHOUSE AND LOGISTICS

# SUMMARY

|                |  |
|----------------|--|
| <b>PAGE 8</b>  | <b>1.0 CLAMPING SYSTEM APPLICATIONS</b>      |
| <b>PAGE 12</b> | <b>2.0 ADJUSTING NUTS AND THREADED RINGS</b> |
| <b>PAGE 20</b> | <b>3.0 SPECIAL APPLICATIONS</b>              |



# CLAMPING SYSTEM APPLICATIONS



PAGE 08

1.1 CLAMPING SYSTEM

PAGE 08

1.2 MOUNTING

PAGE 09

1.3 APPLICATIONS

# CLAMPING SYSTEM APPLICATIONS

## SPRING NUTS

The new generation of spring nuts consists of six different models, each of which uses the same clamping technology with a spring.

| Clamping   | Radial | Axial |
|------------|--------|-------|
| Standard   | LR     | LF    |
| Balanced   | LRE    | LFE   |
| Heavy-duty | LRP    |       |

## Spring ring

| Clamping | Axial |
|----------|-------|
| Standard | LX    |

## CLAMPING SYSTEM

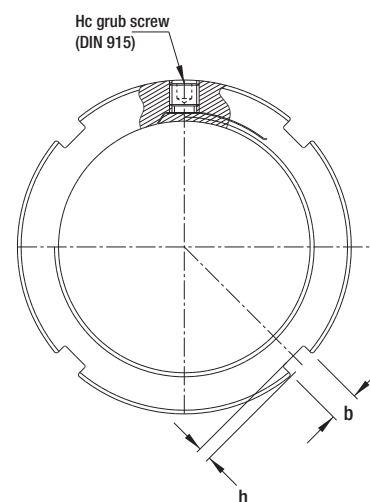
- The threaded bore of the nuts and outside threading of the rings is partially wired EDM to form a clamping spring. When tightening the Hc grub screws clamping is applied with a very strong pressure onto the threaded spring which meshes perfectly into the corresponding threads of the shaft or spindle.
- The contacted threaded surface of the spring pressing onto the threaded surface of the shaft/spindle, amplifies the clamping power, ensuring thereby a highly efficient clamping and making any unlocking hazard or loss of grip almost impossible.

## REMARKS ABOUT UNLOCKING TORQUES

- Numerous parameters influence the unlocking torque:
  - Precision of the screw-nut assembly
  - Clamping strength applied to the Hc grub screws (applying pressure onto the threaded spring)
  - Nature of materials and corresponding surface quality various heat treatments and coatings
  - Environment (temperature, vibrations, atmospheric conditions, etc...)
  - Overall toughness of the assembly.
- The locking torque and axial loading values on this catalogue are given for static assemblies. They are indicative and do not involve the manufacturers responsibility.

## MOUNTING THE NUTS AND RINGS

- The mounting occurs by driving the spring nuts and rings clockwise with standard spanner wrench (Din 1810) adapting onto the peripheral notches (b x h) of the nuts.
- The mounting can also easily be achieved thanks to the pin-key holes on the front-side of the nuts with the adequate key.
- Once in the correct position on the shaft/spindle the blocking can be simply secured by turning the Hc grub screws located either on the outside diameter or on the front side of the nuts.
- For nuts showing two locking springs or additional clamping screws (LRE - LFE - LRP) it is recommended to activate these screws alternatively and progressively so as to ensure an efficient locking.
- The use of a torque wrench is recommended so as to achieve a safe clamping of the Hc grub screw with the required value. However, using HEX male keys is also highly efficient.
- Very easy release of the nut through simple unlocking of the Hc grub screws.
- **ATTENTION : When disassembling, start with the clamping screw.**



“HC Grub tool“ and “bxh“ example



LR Nut



LFE Nut



LX Ring

# APPLICATIONS

The threaded spring nuts and rings are used whenever precision mechanisms require a precision clamping as well as a powerful and safe locking:

- Power transmission and motion technology
- Adjusting and clamping all types of bearings
- Mount/release of ball bearings
- Elimination of back lash
- Securing mechanical safety devices
- Templating spring-mounted measuring systems
- Safety nuts for use in high-temperature applications
- Periodical mounting and dismounting of adjusting locking/unlocking nuts and rings
- Assemblies subjected to vibrations
- Cyclic uneven rotation
- High and very high rotation spindle/shaft assemblies

## ADVANTAGES OF THE NUTS

- A precise and powerful locking of bearings in axial positioning after assembly.
- A higher unlocking torque when compared to other locking techniques.
- Time-saving through a more simple technical design and construction of shaft-bodies and assemblies.
- No key slot required as for locking washers. Thus saving thread deburring operation.
- No use of locking washers, thus preventing seal damage.
- Clamping and locking the adjusting nut without any loss of axial precision.
- Easy mount and release re-usable many times without loss of precision.
- Recommended use under severe conditions (High-temperature, vibrations, etc...).

## APPLICATIONS DETAILS

- Transmissions
- Machine-tool
- Textile machinery
- Printing industry
- Conditioning
- Special machinery
- Automotive industry
- Engine/turbine manufacturing
- Onshore and offshore industry
- Transportation
- Aeronauticals
- Marine equipment
- Nuclear industry
- Agriculture and Food industry
- Civil and military engineering
- Precision optical attachments



# ADJUSTING NUTS AND THREADED RINGS



**PAGE 12**

## **2.1 ADJUSTING NUT LR**

- Strong radial clamping
- High breakaway moment

**PAGE 13**

## **2.2 ADJUSTING NUT LRE**

- Strong radial clamping
- High breakaway moment

**PAGE 14**

## **2.3 ADJUSTING NUT LF**

- Effective thread locking by axial clamping screws on the resilient threaded surface
- High breakaway moment

**PAGE 15**

## **2.4 ADJUSTING NUT LFE**

- Effective thread locking by axial clamping screws on the resilient threaded surface
- High breakaway moment

**PAGE 16**

## **2.5 ADJUSTING NUT LRP**

- High radial protection via the internal thread
- Especially suitable for ball screw spindles

**PAGE 17**


## **2.6 ADJUSTING NUT LX**

- Clamping spring external front locking LX
- Ideal for setting and tensioning rolling bearings

## CHARACTERISTICS

- LR nuts are used wherever a strong radial clamping is required.
- The radial strength activated by turning the Hc grub screw is applied onto the threaded spring.
- The contact surface perpendicular to the threaded side allows the adjusting and locking of all types of bearings as well as other mechanical elements requiring very precise tolerances.

## SPECIFICATIONS

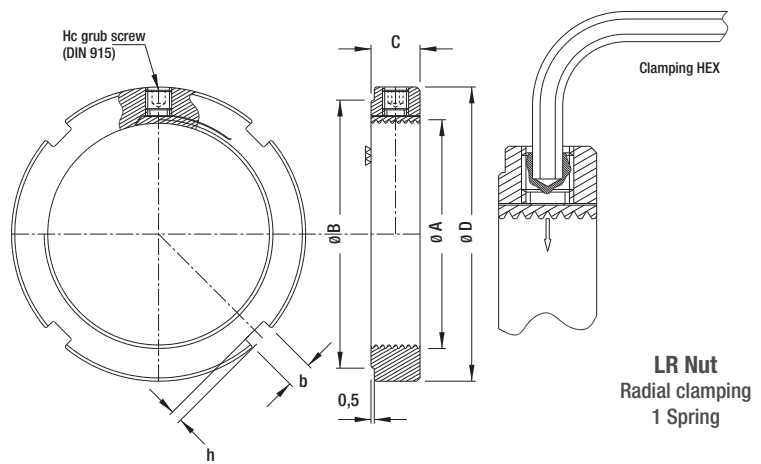
- Material:  
High elastic limit steel
- Peripheral notches:  
4 x 90°
-  To ensure squareness and minimum run-out of the nuts and rings, all threading and contact face machining operations are performed in one setting.
- Grub screw:  
Hc type with dog-point tip 14.9
- Standard manufacturing:
  - 4H class precision threading
  - right-hand thread
  - Fine-ground contact face
  - Marquing on the opposite side
  - Black oxide

## OPTIONS

- Other versions are also available upon request:
  - Fine-ground threads
  - Left-hand thread
  - 2 twinned screws for increased locking torque
  - Other sizes
  - Other materials

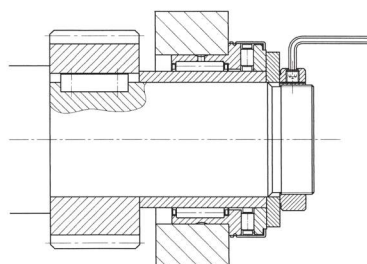
\*Values obtained with Hc grub screws:

|                              |       |
|------------------------------|-------|
| M 6 screw - clamping torque  | 8 Nm  |
| M 8 screw - clamping torque  | 18 Nm |
| M 10 screw - clamping torque | 36 Nm |

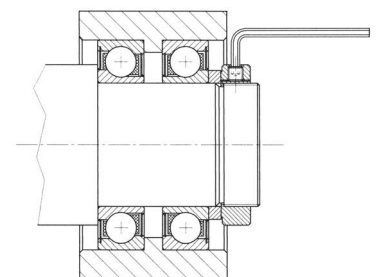


LR Nut  
Radial clamping  
1 Spring

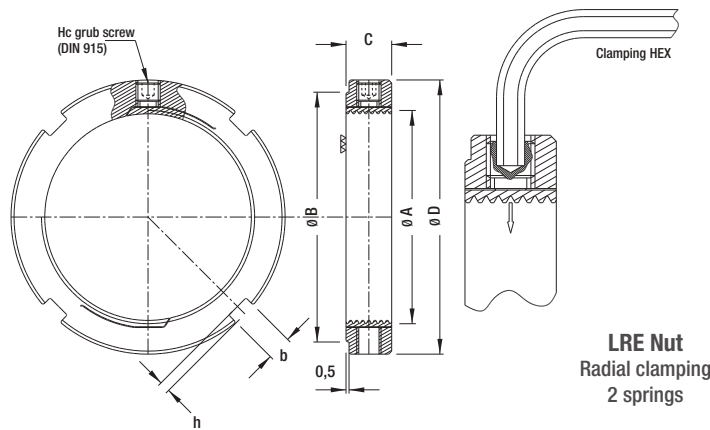
| Type  | Thread A   | Ø D | Ø B | C  | b x h   | Hc grub screw | Unlocking Torque Nm* | Max Axial load N | Weight kg |
|-------|------------|-----|-----|----|---------|---------------|----------------------|------------------|-----------|
| LR 1  | 12 x 1,00  | 24  | 19  | 12 | 4 x 2   | 1 x M6        | 23                   | 28 500           | 0,03      |
| LR 2  | 14 x 1,00  | 26  | 21  | 12 | 4 x 2   | 1 x M6        | 26                   | 33 500           | 0,04      |
| LR 3  | 15 x 1,00  | 30  | 25  | 12 | 4 x 2   | 1 x M6        | 29                   | 40 500           | 0,05      |
| LR 4  | 17 x 1,00  | 32  | 27  | 12 | 4 x 2   | 1 x M6        | 32                   | 46 100           | 0,06      |
| LR 5  | 18 x 1,00  | 32  | 27  | 12 | 4 x 2   | 1 x M6        | 37                   | 49 000           | 0,06      |
| LR 6  | 20 x 1,00  | 35  | 30  | 12 | 4 x 2   | 1 x M6        | 42                   | 54 600           | 0,06      |
| LR 7  | 22 x 1,50  | 35  | 30  | 12 | 4 x 2   | 1 x M6        | 47                   | 56 600           | 0,06      |
| LR 8  | 25 x 1,50  | 40  | 35  | 12 | 5 x 2   | 1 x M6        | 53                   | 67 100           | 0,07      |
| LR 9  | 30 x 1,50  | 45  | 40  | 12 | 5 x 2   | 1 x M6        | 59                   | 81 100           | 0,09      |
| LR 10 | 32 x 1,50  | 46  | 41  | 12 | 5 x 2   | 1 x M6        | 65                   | 92 900           | 0,09      |
| LR 11 | 35 x 1,50  | 50  | 45  | 12 | 5 x 2   | 1 x M6        | 75                   | 98 000           | 0,10      |
| LR 12 | 38 x 1,50  | 52  | 47  | 12 | 5 x 2   | 1 x M6        | 83                   | 101 900          | 0,10      |
| LR 13 | 40 x 1,50  | 55  | 49  | 12 | 6 x 2,5 | 1 x M6        | 94                   | 104 000          | 0,10      |
| LR 14 | 42 x 1,50  | 56  | 50  | 12 | 6 x 2,5 | 1 x M6        | 105                  | 109 300          | 0,11      |
| LR 15 | 45 x 1,50  | 60  | 54  | 12 | 6 x 2,5 | 1 x M6        | 118                  | 119 200          | 0,12      |
| LR 16 | 50 x 1,50  | 65  | 59  | 12 | 6 x 2,5 | 1 x M6        | 132                  | 134 900          | 0,13      |
| LR 17 | 52 x 1,50  | 67  | 61  | 12 | 6 x 2,5 | 1 x M6        | 147                  | 140 400          | 0,13      |
| LR 18 | 55 x 2,00  | 75  | 68  | 15 | 7 x 3   | 1 x M8        | 512                  | 168 900          | 0,23      |
| LR 19 | 60 x 2,00  | 80  | 73  | 15 | 7 x 3   | 1 x M8        | 532                  | 184 600          | 0,25      |
| LR 20 | 65 x 2,00  | 85  | 78  | 15 | 7 x 3   | 1 x M8        | 560                  | 203 500          | 0,27      |
| LR 21 | 70 x 2,00  | 90  | 82  | 15 | 8 x 3,5 | 1 x M8        | 587                  | 219 500          | 0,28      |
| LR 22 | 75 x 2,00  | 95  | 87  | 15 | 8 x 3,5 | 1 x M8        | 615                  | 237 000          | 0,3       |
| LR 23 | 80 x 2,00  | 105 | 97  | 15 | 8 x 3,5 | 1 x M8        | 650                  | 255 400          | 0,42      |
| LR 24 | 85 x 2,00  | 110 | 102 | 15 | 8 x 3,5 | 1 x M8        | 675                  | 273 300          | 0,44      |
| LR 25 | 90 x 2,00  | 115 | 106 | 15 | 10 x 4  | 1 x M8        | 713                  | 292 300          | 0,46      |
| LR 26 | 95 x 2,00  | 120 | 111 | 15 | 10 x 4  | 1 x M8        | 750                  | 308 800          | 0,49      |
| LR 27 | 100 x 2,00 | 125 | 116 | 15 | 10 x 4  | 1 x M8        | 790                  | 325 300          | 0,51      |
| LR 28 | 105 x 2,00 | 130 | 119 | 15 | 12 x 5  | 1 x M8        | 830                  | 341 700          | 0,52      |
| LR 29 | 110 x 2,00 | 135 | 124 | 15 | 12 x 5  | 1 x M8        | 870                  | 358 200          | 0,55      |
| LR 30 | 115 x 2,00 | 140 | 129 | 15 | 12 x 5  | 1 x M8        | 930                  | 377 000          | 0,57      |
| LR 31 | 120 x 2,00 | 145 | 134 | 15 | 12 x 5  | 1 x M8        | 960                  | 394 000          | 0,59      |
| LR 32 | 125 x 2,00 | 150 | 139 | 15 | 12 x 5  | 1 x M8        | 1040                 | 413 800          | 0,62      |
| LR 33 | 130 x 2,00 | 155 | 144 | 15 | 12 x 5  | 1 x M8        | > 2000               | 434 400          | 0,65      |
| LR 34 | 135 x 2,00 | 165 | 152 | 20 | 14 x 6  | 1 x M10       | > 2000               | 677 000          | 1,10      |
| LR 35 | 140 x 2,00 | 170 | 157 | 20 | 14 x 6  | 1 x M10       | > 2000               | 704 400          | 1,13      |
| LR 36 | 145 x 2,00 | 175 | 162 | 20 | 14 x 6  | 1 x M10       | > 2000               | 729 800          | 1,15      |
| LR 37 | 150 x 2,00 | 180 | 167 | 20 | 14 x 6  | 1 x M10       | > 2000               | 757 400          | 1,20      |



Img.1: Set up of a combination needle-bearing onto a drill press spindle.




Img. 2: Set up the preloading of angular contact bearings.



## CHARACTERISTICS

- LRE nuts are used wherever a strong radial clamping is required.
- Featuring 2 symmetrically opposed clamping springs at 180°, these nuts have two advantages when compared to the LR nuts:
  - Improved balance allowing higher rotation speeds
  - Twice as much unlocking torque for the same size.
- The radial strength activated by turning the 2 Hc grub screws is exercised onto the threaded clamping spring.
- The contact surface perpendicular to the threaded side allows the adjusting and securing of all types of bearings as well as other mechanical elements requiring very precise tolerances.

## SPECIFICATIONS

- Material: High elastic limit steel
- Peripheral notches: 4 x 90°
-  To ensure squareness and minimum run-out of the nuts and rings, all threading and contact face machining operations are performed in one setting.
- Grub screw: Hc type with dog-point tip 14.9
- Standard manufacturing:
  - 4H class precision threading
  - Right-hand thread
  - Fine-ground contact face
  - Marquing on the opposite side
  - Black oxide

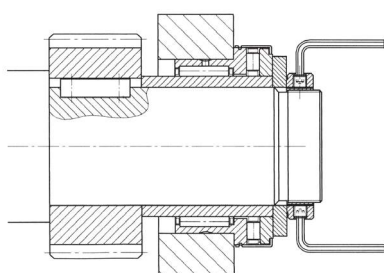
## OPTIONS

- Other versions are also available upon request:
  - fine-ground threads
  - Left-hand thread
  - 2 twinned screws for increased unlocking torque
  - Other sizes
  - Other materials

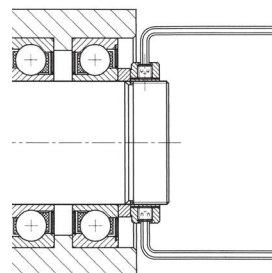
\*Values obtained with Hc grub screws:

|                               |       |
|-------------------------------|-------|
| M 6 screw - clamping torque:  | 8 Nm  |
| M 8 screw - clamping torque:  | 18 Nm |
| M 10 screw - clamping torque: | 36 Nm |

| Type   | Thread A   | Ø D | Ø B | C  | b x h   | Hc grub screw | Unlocking Torque Nm* | Max Axial load N | Weight kg |
|--------|------------|-----|-----|----|---------|---------------|----------------------|------------------|-----------|
| LRE 7  | 22 x 1,50  | 35  | 30  | 12 | 4 x 2   | 2 x M6        | 94                   | 37 800           | 0,06      |
| LRE 8  | 25 x 1,50  | 40  | 35  | 12 | 5 x 2   | 2 x M6        | 106                  | 48 000           | 0,07      |
| LRE 9  | 30 x 1,50  | 45  | 40  | 12 | 5 x 2   | 2 x M6        | 118                  | 58 000           | 0,09      |
| LRE 10 | 32 x 1,50  | 46  | 41  | 12 | 5 x 2   | 2 x M6        | 130                  | 74 400           | 0,09      |
| LRE 11 | 35 x 1,50  | 50  | 45  | 12 | 5 x 2   | 2 x M6        | 150                  | 77 700           | 0,10      |
| LRE 12 | 38 x 1,50  | 52  | 47  | 12 | 5 x 2   | 2 x M6        | 166                  | 82 000           | 0,10      |
| LRE 13 | 40 x 1,50  | 55  | 49  | 12 | 6 x 2,5 | 2 x M6        | 188                  | 85 200           | 0,10      |
| LRE 14 | 42 x 1,50  | 56  | 50  | 12 | 6 x 2,5 | 2 x M6        | 210                  | 89 600           | 0,11      |
| LRE 15 | 45 x 1,50  | 60  | 54  | 12 | 6 x 2,5 | 2 x M6        | 236                  | 100 000          | 0,12      |
| LRE 16 | 50 x 1,50  | 65  | 59  | 12 | 6 x 2,5 | 2 x M6        | 264                  | 115 600          | 0,13      |
| LRE 17 | 52 x 1,50  | 67  | 61  | 12 | 6 x 2,5 | 2 x M6        | 294                  | 120 400          | 0,13      |
| LRE 18 | 55 x 2,00  | 75  | 68  | 15 | 7 x 3   | 2 x M8        | 1024                 | 144 800          | 0,23      |
| LRE 19 | 60 x 2,00  | 80  | 73  | 15 | 7 x 3   | 2 x M8        | 1064                 | 158 300          | 0,25      |
| LRE 20 | 65 x 2,00  | 85  | 78  | 15 | 7 x 3   | 2 x M8        | 1120                 | 178 100          | 0,27      |
| LRE 21 | 70 x 2,00  | 90  | 82  | 15 | 8 x 3,5 | 2 x M8        | 1174                 | 192 100          | 0,28      |
| LRE 22 | 75 x 2,00  | 95  | 87  | 15 | 8 x 3,5 | 2 x M8        | 1230                 | 209 000          | 0,30      |
| LRE 23 | 80 x 2,00  | 105 | 97  | 15 | 8 x 3,5 | 2 x M8        | 1300                 | 228 000          | 0,42      |
| LRE 24 | 85 x 2,00  | 110 | 102 | 15 | 8 x 3,5 | 2 x M8        | 1350                 | 245 800          | 0,44      |
| LRE 25 | 90 x 2,00  | 115 | 106 | 15 | 10 x 4  | 2 x M8        | 1426                 | 265 800          | 0,46      |
| LRE 26 | 95 x 2,00  | 120 | 111 | 15 | 10 x 4  | 2 x M8        | 1500                 | 280 800          | 0,49      |
| LRE 27 | 100 x 2,00 | 125 | 116 | 15 | 10 x 4  | 2 x M8        | 1580                 | 295 800          | 0,51      |
| LRE 28 | 105 x 2,00 | 130 | 119 | 15 | 12 x 5  | 2 x M8        | 1660                 | 310 800          | 0,52      |
| LRE 29 | 110 x 2,00 | 135 | 124 | 15 | 12 x 5  | 2 x M8        | 1740                 | 325 700          | 0,55      |
| LRE 30 | 115 x 2,00 | 140 | 129 | 15 | 12 x 5  | 2 x M8        | 1860                 | 345 200          | 0,57      |
| LRE 31 | 120 x 2,00 | 145 | 134 | 15 | 12 x 5  | 2 x M8        | 1920                 | 362 800          | 0,59      |
| LRE 32 | 125 x 2,00 | 150 | 139 | 15 | 12 x 5  | 2 x M8        | 2080                 | 383 000          | 0,62      |
| LRE 33 | 130 x 2,00 | 155 | 144 | 15 | 12 x 5  | 2 x M8        | > 4000               | 406 200          | 0,65      |
| LRE 34 | 135 x 2,00 | 165 | 152 | 20 | 14 x 6  | 2 x M10       | > 4000               | 633 000          | 1,10      |
| LRE 35 | 140 x 2,00 | 170 | 157 | 20 | 14 x 6  | 2 x M10       | > 4000               | 660 800          | 1,13      |
| LRE 36 | 145 x 2,00 | 175 | 162 | 20 | 14 x 6  | 2 x M10       | > 4000               | 684 600          | 1,15      |
| LRE 37 | 150 x 2,00 | 180 | 167 | 20 | 14 x 6  | 2 x M10       | > 4000               | 712 900          | 1,20      |



Img. 1: Adjusting of a combination needle-bearing onto a drill press spindle.




Img. 2: Example of application of one LRE Nut.

## CHARACTERISTICS

- LF nuts are used wherever a strong radial clamping is not possible.
- The axial strength activated by turning the front Hc grub screw is applied onto the threaded clamping spring through 90° wedges.
- The resulting radial strength applies onto the clamping spring. The clamping pressure applied onto the threaded surface of the spring allows for a powerful locking.
- The contact surface perpendicular to the threaded side allows the adjusting and securing of all types of bearings as well as other mechanical elements requiring very precise tolerances.
- In addition to the notches, the holes located on the front side allow an easy positioning of the nut by mean of a spanner wrench.

## SPECIFICATIONS

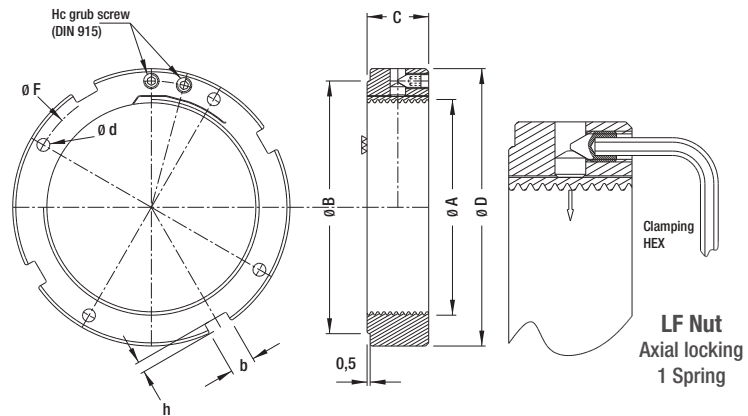
- Material:  
High elastic limit steel
- Peripheral notches:  
4 x 90°
-  To ensure squareness and minimum run-out of the nuts and rings, all threading and contact face machining operations are performed in one setting.
- Grub screw:  
Hc type set-screw with cone tip 14.9
- Standard manufacturing:
  - 4H class precision threading
  - Right-hand thread
  - Fine-ground contact face
  - Marquing on the opposite side
  - Black oxide

## OPTIONS

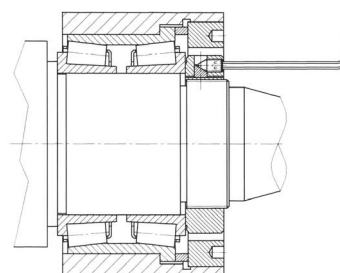
- Other versions are also available upon request:
  - Fine-ground threads
  - Left-hand thread
  - Other sizes
  - Other materials

\*Values obtained with Hc grub screws:

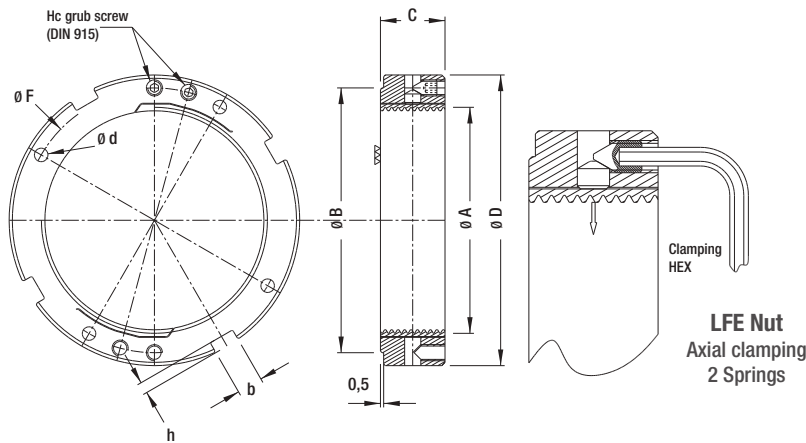
|                              |        |
|------------------------------|--------|
| M 4 screw - clamping torque: | 2,5 Nm |
| M 5 screw - clamping torque: | 5 Nm   |
| M 6 screw - clamping torque: | 8 Nm   |
| M 8 screw - clamping torque: | 18 Nm  |



| Type  | Thread A   | $\varnothing D$ | $\varnothing B$ | C  | b x h   | $\varnothing F$ | $\varnothing d$ | Hc grub screw | Unlocking Torque | Max Axial load | Weight |
|-------|------------|-----------------|-----------------|----|---------|-----------------|-----------------|---------------|------------------|----------------|--------|
|       |            |                 |                 |    |         |                 |                 |               | Nm               | N              | kg     |
| LF 1  | 12 x 1,00  | 28              | 22              | 15 | 4 x 2   | 20              | 3,2             | 1 x M4        | 4                | 36 200         | 0,05   |
| LF 2  | 14 x 1,00  | 30              | 25              | 15 | 4 x 2   | 22              | 3,2             | 1 x M4        | 6                | 42 600         | 0,06   |
| LF 3  | 15 x 1,00  | 31              | 26              | 15 | 4 x 2   | 23              | 3,2             | 1 x M4        | 6                | 51 500         | 0,06   |
| LF 4  | 17 x 1,00  | 33              | 28              | 15 | 4 x 2   | 26              | 3,2             | 1 x M4        | 7                | 58 700         | 0,07   |
| LF 5  | 18 x 1,00  | 34              | 29              | 15 | 4 x 2   | 26              | 3,2             | 2 x M4        | 9                | 55 400         | 0,07   |
| LF 6  | 20 x 1,00  | 37              | 32              | 15 | 4 x 2   | 29              | 3,2             | 2 x M4        | 10               | 61 800         | 0,08   |
| LF 7  | 22 x 1,50  | 39              | 34              | 15 | 4 x 2   | 30              | 3,2             | 2 x M4        | 12               | 64 700         | 0,09   |
| LF 8  | 25 x 1,50  | 43              | 38              | 15 | 5 x 2   | 33              | 4,2             | 2 x M5        | 15               | 80 200         | 0,10   |
| LF 9  | 30 x 1,50  | 48              | 43              | 15 | 5 x 2   | 39              | 4,2             | 2 x M5        | 20               | 100 600        | 0,12   |
| LF 10 | 32 x 1,50  | 50              | 45              | 15 | 5 x 2   | 41              | 4,2             | 2 x M5        | 24               | 113 500        | 0,13   |
| LF 11 | 35 x 1,50  | 53              | 48              | 15 | 5 x 2   | 44              | 4,2             | 2 x M5        | 29               | 118 500        | 0,14   |
| LF 12 | 38 x 1,50  | 56              | 51              | 15 | 5 x 2   | 47              | 4,2             | 2 x M5        | 35               | 124 500        | 0,15   |
| LF 13 | 40 x 1,50  | 58              | 52              | 15 | 6 x 2,5 | 50              | 4,2             | 2 x M5        | 41               | 127 100        | 0,15   |
| LF 14 | 42 x 1,50  | 62              | 56              | 15 | 6 x 2,5 | 52              | 4,2             | 2 x M5        | 45               | 131 300        | 0,18   |
| LF 15 | 45 x 1,50  | 65              | 59              | 15 | 6 x 2,5 | 55              | 4,2             | 2 x M5        | 55               | 143 400        | 0,19   |
| LF 16 | 50 x 1,50  | 69              | 63              | 15 | 6 x 2,5 | 59              | 4,2             | 2 x M5        | 70               | 165 200        | 0,19   |
| LF 17 | 52 x 1,50  | 72              | 66              | 15 | 6 x 2,5 | 62              | 4,2             | 2 x M5        | 85               | 171 900        | 0,22   |
| LF 18 | 55 x 2,00  | 75              | 68              | 15 | 7 x 3   | 65              | 4,2             | 2 x M5        | 105              | 241 300        | 0,23   |
| LF 19 | 60 x 2,00  | 80              | 73              | 20 | 7 x 3   | 72              | 4,2             | 2 x M5        | 130              | 263 800        | 0,33   |
| LF 20 | 65 x 2,00  | 85              | 78              | 20 | 7 x 3   | 76              | 4,2             | 2 x M5        | 160              | 291 000        | 0,35   |
| LF 21 | 70 x 2,00  | 90              | 82              | 20 | 8 x 3,5 | 81              | 4,2             | 2 x M5        | 200              | 313 900        | 0,36   |
| LF 22 | 75 x 2,00  | 95              | 87              | 20 | 8 x 3,5 | 86              | 4,2             | 2 x M5        | 220              | 347 800        | 0,39   |
| LF 23 | 80 x 2,00  | 105             | 97              | 20 | 8 x 3,5 | 93              | 5,2             | 2 x M6        | 240              | 371 300        | 0,55   |
| LF 24 | 85 x 2,00  | 110             | 102             | 20 | 8 x 3,5 | 98              | 5,2             | 2 x M6        | 250              | 394 900        | 0,57   |
| LF 25 | 90 x 2,00  | 115             | 106             | 20 | 10 x 4  | 104             | 5,2             | 2 x M6        | 265              | 422 500        | 0,60   |
| LF 26 | 95 x 2,00  | 120             | 111             | 20 | 10 x 4  | 107             | 5,2             | 2 x M6        | 295              | 446 300        | 0,63   |
| LF 27 | 100 x 2,00 | 125             | 116             | 20 | 10 x 4  | 114             | 5,2             | 2 x M6        | 325              | 470 200        | 0,65   |
| LF 28 | 105 x 2,00 | 130             | 119             | 20 | 12 x 5  | 118             | 5,2             | 2 x M6        | 365              | 494 000        | 0,68   |
| LF 29 | 110 x 2,00 | 135             | 124             | 20 | 12 x 5  | 122             | 5,2             | 2 x M6        | 405              | 517 800        | 0,72   |
| LF 30 | 115 x 2,00 | 140             | 129             | 20 | 12 x 5  | 127             | 5,2             | 2 x M6        | 450              | 545 000        | 0,75   |
| LF 31 | 120 x 2,00 | 145             | 134             | 20 | 12 x 5  | 132             | 5,2             | 2 x M6        | 500              | 574 300        | 0,78   |
| LF 32 | 125 x 2,00 | 150             | 139             | 20 | 12 x 5  | 137             | 5,2             | 2 x M6        | 560              | 598 500        | 0,80   |
| LF 33 | 130 x 2,00 | 155             | 144             | 20 | 12 x 5  | 142             | 5,2             | 2 x M6        | 635              | 626 600        | 0,85   |
| LF 34 | 135 x 2,00 | 165             | 152             | 22 | 14 x 6  | 150             | 6,2             | 2 x M8        | 680              | 723 300        | 1,15   |
| LF 35 | 140 x 2,00 | 170             | 157             | 22 | 14 x 6  | 155             | 6,2             | 2 x M8        | 1065             | 761 900        | 1,20   |
| LF 36 | 145 x 2,00 | 175             | 162             | 22 | 14 x 6  | 160             | 6,2             | 2 x M8        | 1065             | 789 300        | 1,25   |
| LF 37 | 150 x 2,00 | 180             | 167             | 22 | 14 x 6  | 165             | 6,2             | 2 x M8        | 1065             | 821 700        | 1,30   |



Set up of taper roller bearing onto a drill press spindle.




| Type   | Thread A   | Ø D | Ø B | C  | b x h   | Ø F | Ø d | Hc grub screw (DIN 915) | Unlocking Torque Nm* | Max Axial load N | Weight kg |
|--------|------------|-----|-----|----|---------|-----|-----|-------------------------|----------------------|------------------|-----------|
| LFE 7  | 22 x 1,50  | 39  | 34  | 15 | 4 x 2   | 30  | 3,2 | 4 x M4                  | 24                   | 37 800           | 0,09      |
| LFE 8  | 25 x 1,50  | 43  | 38  | 15 | 5 x 2   | 33  | 4,2 | 4 x M5                  | 30                   | 49 400           | 0,10      |
| LFE 9  | 30 x 1,50  | 48  | 43  | 15 | 5 x 2   | 39  | 4,2 | 4 x M5                  | 40                   | 67 100           | 0,12      |
| LFE 10 | 32 x 1,50  | 50  | 45  | 15 | 5 x 2   | 41  | 4,2 | 4 x M5                  | 48                   | 83 600           | 0,13      |
| LFE 11 | 35 x 1,50  | 53  | 48  | 15 | 5 x 2   | 44  | 4,2 | 4 x M5                  | 58                   | 87 400           | 0,14      |
| LFE 12 | 38 x 1,50  | 56  | 51  | 15 | 5 x 2   | 47  | 4,2 | 4 x M5                  | 70                   | 91 700           | 0,15      |
| LFE 13 | 40 x 1,50  | 58  | 52  | 15 | 6 x 2,5 | 50  | 4,2 | 4 x M5                  | 82                   | 96 500           | 0,15      |
| LFE 14 | 42 x 1,50  | 62  | 56  | 15 | 6 x 2,5 | 52  | 4,2 | 4 x M5                  | 90                   | 96 800           | 0,18      |
| LFE 15 | 45 x 1,50  | 65  | 59  | 15 | 6 x 2,5 | 55  | 4,2 | 4 x M5                  | 110                  | 108 800          | 0,19      |
| LFE 16 | 50 x 1,50  | 69  | 63  | 15 | 6 x 2,5 | 59  | 4,2 | 4 x M5                  | 140                  | 132 200          | 0,19      |
| LFE 17 | 52 x 1,50  | 72  | 66  | 15 | 6 x 2,5 | 62  | 4,2 | 4 x M5                  | 170                  | 137 600          | 0,22      |
| LFE 18 | 55 x 2,00  | 75  | 68  | 15 | 7 x 3   | 65  | 4,2 | 4 x M5                  | 210                  | 193 000          | 0,23      |
| LFE 19 | 60 x 2,00  | 80  | 73  | 20 | 7 x 3   | 72  | 4,2 | 4 x M5                  | 260                  | 211 000          | 0,33      |
| LFE 20 | 65 x 2,00  | 85  | 78  | 20 | 7 x 3   | 76  | 4,2 | 4 x M5                  | 320                  | 238 600          | 0,35      |
| LFE 21 | 70 x 2,00  | 90  | 82  | 20 | 8 x 3,5 | 81  | 4,2 | 4 x M5                  | 400                  | 257 300          | 0,36      |
| LFE 22 | 75 x 2,00  | 95  | 87  | 20 | 8 x 3,5 | 86  | 4,2 | 4 x M5                  | 440                  | 298 100          | 0,39      |
| LFE 23 | 80 x 2,00  | 105 | 97  | 20 | 8 x 3,5 | 93  | 5,2 | 4 x M6                  | 480                  | 318 300          | 0,55      |
| LFE 24 | 85 x 2,00  | 110 | 102 | 20 | 8 x 3,5 | 98  | 5,2 | 4 x M6                  | 500                  | 338 600          | 0,57      |
| LFE 25 | 90 x 2,00  | 115 | 107 | 20 | 10 x 4  | 104 | 5,2 | 4 x M6                  | 530                  | 366 700          | 0,60      |
| LFE 26 | 95 x 2,00  | 120 | 111 | 20 | 10 x 4  | 107 | 5,2 | 4 x M6                  | 590                  | 387 400          | 0,63      |
| LFE 27 | 100 x 2,00 | 125 | 117 | 20 | 10 x 4  | 114 | 5,2 | 4 x M6                  | 650                  | 408 100          | 0,65      |
| LFE 28 | 105 x 2,00 | 130 | 119 | 20 | 12 x 5  | 118 | 5,2 | 4 x M6                  | 730                  | 428 800          | 0,68      |
| LFE 29 | 110 x 2,00 | 135 | 124 | 20 | 12 x 5  | 122 | 5,2 | 4 x M6                  | 810                  | 449 500          | 0,72      |
| LFE 30 | 115 x 2,00 | 140 | 129 | 20 | 12 x 5  | 127 | 5,2 | 4 x M6                  | 900                  | 476 900          | 0,75      |
| LFE 31 | 120 x 2,00 | 145 | 134 | 20 | 12 x 5  | 132 | 5,2 | 4 x M6                  | 1000                 | 508 600          | 0,78      |
| LFE 32 | 125 x 2,00 | 150 | 139 | 20 | 12 x 5  | 137 | 5,2 | 4 x M6                  | 1120                 | 530 000          | 0,80      |
| LFE 33 | 130 x 2,00 | 155 | 144 | 20 | 12 x 5  | 142 | 5,2 | 4 x M6                  | 1270                 | 559 200          | 0,85      |
| LFE 34 | 135 x 2,00 | 165 | 152 | 22 | 14 x 6  | 150 | 6,2 | 4 x M8                  | 1359                 | 645 400          | 1,15      |
| LFE 35 | 140 x 2,00 | 170 | 157 | 22 | 14 x 6  | 155 | 6,2 | 4 x M8                  | 2130                 | 692 600          | 1,20      |
| LFE 36 | 145 x 2,00 | 175 | 162 | 22 | 14 x 6  | 160 | 6,2 | 4 x M8                  | 2130                 | 717 600          | 1,25      |
| LFE 37 | 150 x 2,00 | 180 | 167 | 22 | 14 x 6  | 165 | 6,2 | 4 x M8                  | 2130                 | 752 500          | 1,30      |

## CHARACTERISTICS

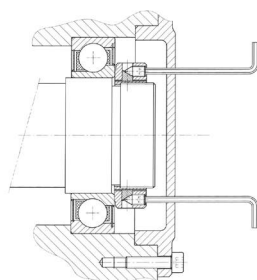
- LFE nuts are used wherever radial clamping is not possible. They are therefore highly recommended for securing parts inside housings or deep chambers as well as for mounting bearings inside such places.
- Featuring 2 symmetrically opposed clamping springs at 180°, these nuts have two advantages when compared to LF nuts:
  - Increased balance allowing higher rotation speeds
  - Twice as much locking power for the same size
- The axial strength activated by turning the 2 Hc grub screws is exercised onto the threaded spring through 90° wedges.
- The resulting radial strength applies onto the threaded spring. The clamping pressure applied onto the threaded surface of the spring allows for a powerful locking.
- The contact surface perpendicular to the threaded side allows the adjusting and clamping of all types of bearings as well as other mechanical elements requiring very precise tolerances.
- In addition to the notches, the holes located on the front side allow an easy positioning of the nut by mean of a spanner wrench.

## SPECIFICATIONS

- Material: High elastic limit steel
- Peripheral notches: 4 x 90°
-  To ensure squareness and minimum run-out of the nuts and rings, all threading and contact face machining operations are performed in one setting.
- Grub screw: Hc type with dog-point tip 14.9
- Standard manufacturing:
  - 4H class precision threading
  - Right-hand thread
  - Fine-ground contact face
  - Marquing on the opposite side
  - Black oxide

## OPTIONS

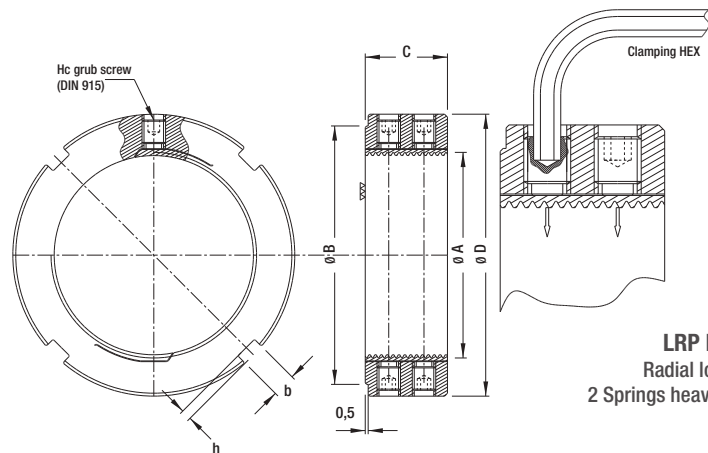
- Other versions are also available upon request:
  - Fine-ground threads
  - Left-hand thread
  - Other sizes
  - Other materials



Backlash-free adjustment of an angular contact ball bearing.


## CHARACTERISTICS

- LRP nuts are used wherever heavy duty clamping for ball bearings is required.
- Larger nuts, symmetrical clamping springs and bigger screws ensure an increased unlocking torque as well as a much stronger resistance to axial load stress.
- The contact surface perpendicular to the threaded side allows the adjusting and securing of all types of bearings as well as other mechanical elements requiring very precise tolerances.



**LRP Nut**  
Radial locking  
2 Springs heavy duty series

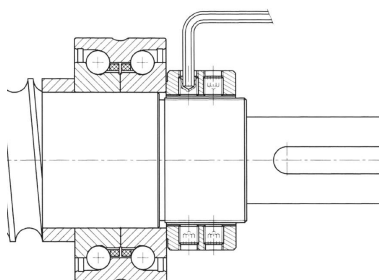
## SPECIFICATIONS

- **Material:**  
High elastic limit steel
- **Peripheral notches:**  
4 x 90°
-   
To ensure squareness and minimum run-out of the nuts and rings, all threading and contact face machining operations are performed in one setting.
- **Grub screw:**  
Hc type with dog-point tip 14.9
- **Standard manufacturing:**
  - 4H class precision threading
  - Right-hand thread
  - Fine-ground contact face
  - Marquing on the opposite side
  - Black oxide

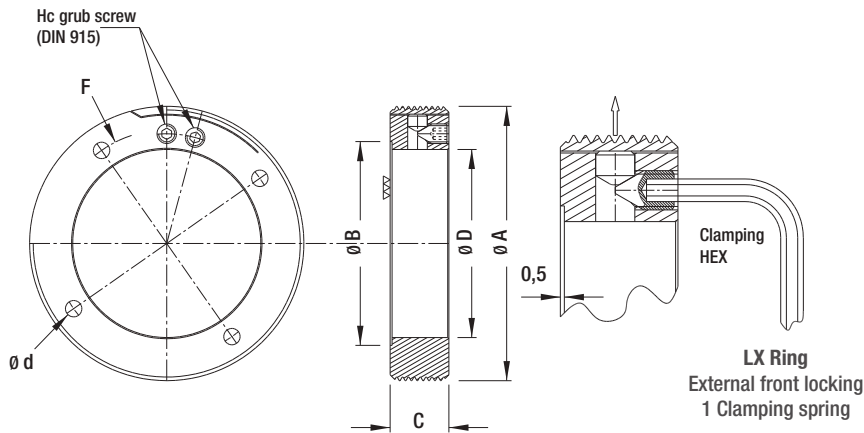
## OPTIONS

- Other versions are also available upon request:
  - Fine-ground threads
  - Left-hand thread
  - Other sizes
  - Other materials

| Type        | Thread<br>A | Ø D | Ø B | C  | b x h   | Hc grub screw | Max Axial load<br>N |
|-------------|-------------|-----|-----|----|---------|---------------|---------------------|
|             |             | mm  | mm  |    |         |               |                     |
| LRP 20.150  | 20 x 1,50   | 42  | 37  | 16 | 5 x 2   | 2 x M8        | 48 861              |
| LRP 22.150  | 22 x 1,50   | 44  | 39  | 16 | 5 x 2   | 2 x M8        | 56 997              |
| LRP 25.150  | 25 x 1,50   | 47  | 42  | 16 | 5 x 2   | 2 x M8        | 68 558              |
| LRP 30.150  | 30 x 1,50   | 52  | 47  | 16 | 5 x 2   | 2 x M8        | 91 109              |
| LRP 32.150  | 32 x 1,50   | 55  | 50  | 16 | 5 x 2   | 2 x M8        | 101 813             |
| LRP 35.150  | 35 x 1,50   | 60  | 55  | 16 | 5 x 2   | 2 x M8        | 116 513             |
| LRP 38.150  | 38 x 1,50   | 62  | 57  | 16 | 5 x 2   | 2 x M8        | 126 786             |
| LRP 40.150  | 40 x 1,50   | 65  | 59  | 16 | 6 x 2,5 | 2 x M8        | 139 203             |
| LRP 42.150  | 42 x 1,50   | 68  | 62  | 16 | 6 x 2,5 | 2 x M8        | 146 337             |
| LRP 45.150  | 45 x 1,50   | 70  | 64  | 16 | 6 x 2,5 | 2 x M8        | 163 319             |
| LRP 50.150  | 50 x 1,50   | 72  | 66  | 28 | 6 x 2,5 | 4 x M8        | 290 849             |
| LRP 55.150  | 55 x 1,50   | 78  | 71  | 28 | 7 x 3   | 4 x M8        | 327 796             |
| LRP 55.200  | 55 x 2,00   | 78  | 71  | 28 | 7 x 3   | 4 x M8        | 297 488             |
| LRP 60.150  | 60 x 1,50   | 83  | 76  | 28 | 7 x 3   | 4 x M8        | 358 134             |
| LRP 60.200  | 60 x 2,00   | 83  | 76  | 28 | 7 x 3   | 4 x M8        | 330 268             |
| LRP 65.150  | 65 x 1,50   | 88  | 81  | 28 | 7 x 3   | 4 x M8        | 402 859             |
| LRP 65.200  | 65 x 2,00   | 88  | 81  | 28 | 7 x 3   | 4 x M8        | 358 400             |
| LRP 70.150  | 70 x 1,50   | 96  | 88  | 28 | 8 x 3,5 | 4 x M8        | 440 525             |
| LRP 70.200  | 70 x 2,00   | 96  | 88  | 28 | 8 x 3,5 | 4 x M8        | 407 345             |
| LRP 75.150  | 75 x 1,50   | 104 | 96  | 28 | 8 x 3,5 | 4 x M8        | 482 416             |
| LRP 75.200  | 75 x 2,00   | 104 | 96  | 28 | 8 x 3,5 | 4 x M8        | 446 561             |
| LRP 80.200  | 80 x 2,00   | 110 | 102 | 32 | 8 x 3,5 | 4 x M10       | 558 080             |
| LRP 85.200  | 85 x 2,00   | 115 | 107 | 32 | 8 x 3,5 | 4 x M10       | 606 075             |
| LRP 90.150  | 90 x 1,50   | 120 | 111 | 32 | 10 x 4  | 4 x M10       | 666 863             |
| LRP 90.200  | 90 x 2,00   | 120 | 111 | 32 | 10 x 4  | 4 x M10       | 651 140             |
| LRP 95.200  | 95 x 2,00   | 125 | 116 | 32 | 10 x 4  | 4 x M10       | 687 844             |
| LRP 100.200 | 100 x 2,00  | 130 | 121 | 32 | 10 x 4  | 4 x M10       | 734 407             |
| LRP 105.200 | 105 x 2,00  | 135 | 124 | 32 | 12 x 5  | 4 x M10       | 776 789             |
| LRP 110.200 | 110 x 2,00  | 138 | 127 | 32 | 12 x 5  | 4 x M10       | 825 099             |
| LRP 115.200 | 115 x 2,00  | 145 | 134 | 32 | 12 x 5  | 4 x M10       | 868 730             |
| LRP 120.200 | 120 x 2,00  | 148 | 137 | 32 | 12 x 5  | 4 x M10       | 912 861             |
| LRP 125.200 | 125 x 2,00  | 155 | 144 | 32 | 12 x 5  | 4 x M10       | 957 491             |
| LRP 130.200 | 130 x 2,00  | 158 | 147 | 32 | 12 x 5  | 4 x M10       | 1 002 620           |
| LRP 135.200 | 135 x 2,00  | 165 | 152 | 32 | 14 x 6  | 4 x M10       | 1 048 248           |
| LRP 140.200 | 140 x 2,00  | 168 | 155 | 32 | 14 x 6  | 4 x M10       | 1 087 450           |
| LRP 145.200 | 145 x 2,00  | 175 | 162 | 32 | 14 x 6  | 4 x M10       | 1 133 828           |
| LRP 150.200 | 150 x 2,00  | 178 | 165 | 32 | 14 x 6  | 4 x M10       | 1 180 705           |
| LRP 155.300 | 155 x 3,00  | 185 | 172 | 32 | 14 x 6  | 4 x M10       | 1 184 672           |
| LRP 160.300 | 160 x 3,00  | 188 | 175 | 32 | 14 x 6  | 4 x M10       | 1 231 267           |
| LRP 165.300 | 165 x 3,00  | 195 | 182 | 32 | 14 x 6  | 4 x M10       | 1 278 361           |
| LRP 170.300 | 170 x 3,00  | 198 | 185 | 32 | 14 x 6  | 4 x M10       | 1 325 955           |
| LRP 180.300 | 180 x 3,00  | 210 | 197 | 32 | 14 x 6  | 4 x M10       | 1 413 749           |
| LRP 190.300 | 190 x 3,00  | 220 | 207 | 32 | 14 x 6  | 4 x M10       | 1 493 151           |
| LRP 200.300 | 200 x 3,00  | 230 | 217 | 32 | 14 x 6  | 4 x M10       | 1 582 443           |



LRP nuts for mounting and set up of a ball screw.




| Type   | Thread A   | Ø D | Ø B | C  | Ø d | Hc grub screw | Max Axial load | Weight |
|--------|------------|-----|-----|----|-----|---------------|----------------|--------|
|        |            | mm  | mm  | mm | mm  |               | N              | kg     |
| LX 28  | 28 x 1,50  | 12  | 16  | 15 | 3,2 | 1 x M4        | 97 200         | 0,05   |
| LX 30  | 30 x 1,50  | 14  | 20  | 15 | 3,2 | 1 x M4        | 104 400        | 0,06   |
| LX 32  | 32 x 1,50  | 15  | 20  | 15 | 3,2 | 1 x M4        | 119 500        | 0,06   |
| LX 34  | 34 x 1,50  | 18  | 22  | 15 | 3,2 | 1 x M4        | 127 200        | 0,06   |
| LX 37  | 37 x 1,50  | 20  | 26  | 15 | 3,2 | 1 x M4        | 138 800        | 0,06   |
| LX 39  | 39 x 1,50  | 22  | 28  | 15 | 3,2 | 1 x M4        | 146 500        | 0,08   |
| LX 40  | 40 x 1,50  | 23  | 29  | 15 | 3,2 | 1 x M4        | 152 800        | 0,08   |
| LX 42  | 42 x 1,50  | 24  | 31  | 15 | 3,2 | 2 x M4        | 160 700        | 0,09   |
| LX 44  | 44 x 1,50  | 26  | 32  | 15 | 3,2 | 2 x M4        | 168 500        | 0,09   |
| LX 46  | 46 x 1,50  | 28  | 33  | 15 | 3,2 | 2 x M4        | 179 200        | 0,11   |
| LX 47  | 47 x 1,50  | 29  | 34  | 15 | 3,2 | 2 x M4        | 183 200        | 0,11   |
| LX 49  | 49 x 1,50  | 31  | 34  | 15 | 3,2 | 2 x M4        | 188 100        | 0,10   |
| LX 50  | 50 x 1,50  | 32  | 35  | 15 | 3,2 | 2 x M4        | 173 500        | 0,11   |
| LX 54  | 54 x 1,50  | 36  | 40  | 15 | 3,2 | 2 x M4        | 187 700        | 0,15   |
| LX 57  | 57 x 1,50  | 39  | 44  | 15 | 3,2 | 2 x M4        | 198 300        | 0,14   |
| LX 60  | 60 x 1,50  | 42  | 50  | 15 | 3,2 | 2 x M4        | 208 900        | 0,14   |
| LX 63  | 63 x 1,50  | 43  | 46  | 15 | 4,2 | 2 x M5        | 219 500        | 0,17   |
| LX 64  | 64 x 1,50  | 44  | 46  | 15 | 4,2 | 2 x M5        | 223 000        | 0,18   |
| LX 67  | 67 x 1,50  | 47  | 47  | 15 | 4,2 | 2 x M5        | 237 400        | 0,19   |
| LX 70  | 70 x 1,50  | 48  | 48  | 15 | 4,2 | 2 x M5        | 248 200        | 0,21   |
| LX 74  | 74 x 1,50  | 54  | 57  | 15 | 4,2 | 2 x M5        | 262 600        | 0,21   |
| LX 77  | 77 x 1,50  | 55  | 64  | 15 | 4,2 | 2 x M5        | 275 000        | 0,33   |
| LX 80  | 80 x 1,50  | 55  | 55  | 20 | 4,2 | 2 x M5        | 384 800        | 0,37   |
| LX 82  | 82 x 1,50  | 62  | 68  | 20 | 4,2 | 2 x M5        | 394 500        | 0,33   |
| LX 87  | 87 x 1,50  | 67  | 76  | 20 | 4,2 | 2 x M5        | 421 400        | 0,34   |
| LX 92  | 92 x 1,50  | 72  | 80  | 20 | 4,2 | 2 x M5        | 450 000        | 0,35   |
| LX 97  | 97 x 1,50  | 77  | 85  | 20 | 4,2 | 2 x M5        | 474 700        | 0,37   |
| LX 100 | 100 x 2,00 | 80  | 90  | 20 | 4,2 | 2 x M5        | 488 000        | 0,40   |
| LX 102 | 102 x 2,00 | 82  | 91  | 20 | 4,2 | 2 x M5        | 497 900        | 0,42   |
| LX 107 | 107 x 2,00 | 82  | 92  | 20 | 5,2 | 2 x M6        | 522 600        | 0,53   |
| LX 112 | 112 x 2,00 | 87  | 100 | 20 | 5,2 | 2 x M6        | 547 300        | 0,55   |
| LX 117 | 117 x 2,00 | 92  | 101 | 20 | 5,2 | 2 x M6        | 575 500        | 0,57   |
| LX 122 | 122 x 2,00 | 97  | 107 | 20 | 5,2 | 2 x M6        | 602 200        | 0,60   |
| LX 125 | 125 x 2,00 | 100 | 110 | 20 | 5,2 | 2 x M6        | 620 800        | 0,62   |
| LX 127 | 127 x 2,00 | 102 | 110 | 20 | 5,2 | 2 x M6        | 630 900        | 0,63   |
| LX 132 | 132 x 2,00 | 107 | 116 | 20 | 5,2 | 2 x M6        | 661 800        | 0,66   |
| LX 142 | 142 x 2,00 | 117 | 118 | 20 | 5,2 | 2 x M6        | 714 600        | 0,73   |
| LX 147 | 147 x 2,00 | 122 | 133 | 20 | 5,2 | 2 x M6        | 740 000        | 0,74   |
| LX 152 | 152 x 2,00 | 127 | 138 | 20 | 5,2 | 2 x M6        | 767 600        | 0,78   |
| LX 160 | 160 x 2,00 | 135 | 145 | 20 | 5,2 | 2 x M6        | 808 400        | 0,83   |

## CHARACTERISTICS

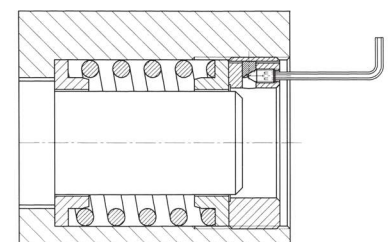
- LX rings feature the same principles as those of the LF nuts, applying the same to the bores and being consequently perfectly adapted for securing parts inside housings or chambers.
- The axial strength activated by turning the Hc grub screw is activated onto the threaded spring through 90° wedges.
- The resulting radial strength applies onto the threaded spring.
- The clamping pressure applied onto the threaded surface of the spring allows for a powerful locking.
- The contact surface perpendicular to the threaded side allows the adjusting and locking of all types of bearings as well as other mechanical elements requiring very precise tolerances.
- In addition to the notches, the holes located on the front side allow an easy positioning of the ring by mean of a spanner wrench.

## SPECIFICATIONS

- **Material:** High elastic limit steel
- **Peripheral notches:** 4 at 90°
-  To ensure squareness and minimum run-out of the nuts and rings, all threading and contact face machining operations are performed in one setting.
- **Screw:** Hc type set-screw with cone tip 14.9
- **Standard manufacturing:**
  - 4g class precision threading
  - Fine ground threads
  - Right-hand thread
  - Fine-ground contact face
  - Marquing on the opposite side
  - Black oxide

## OPTIONS

- Other versions are also available upon request:
  - Left-hand thread
  - Additional clamping springs
  - Other sizes
  - Other materials



Pre-loading or relief setting of a spring mounted device inside a housing.



# **SPECIAL** APPLICATIONS

# 3

**PAGE 20**

**3.1 SPECIAL GEOMETRIES**

**PAGE 20**

**3.2 TIGHTENING TABS OR ADDITIONAL EXTERNAL NOTCHES**

**PAGE 21**

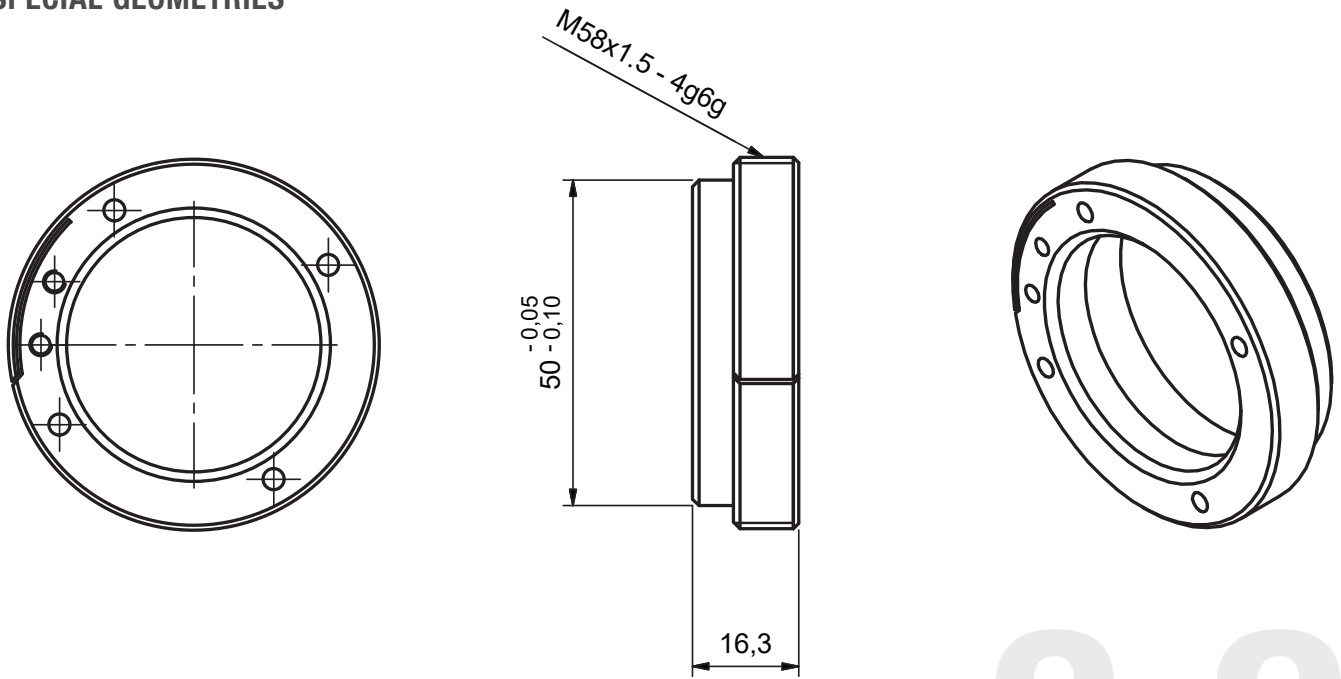
**3.3 ALTERNATIVE MATERIALS AND COATINGS**

**PAGE 21**

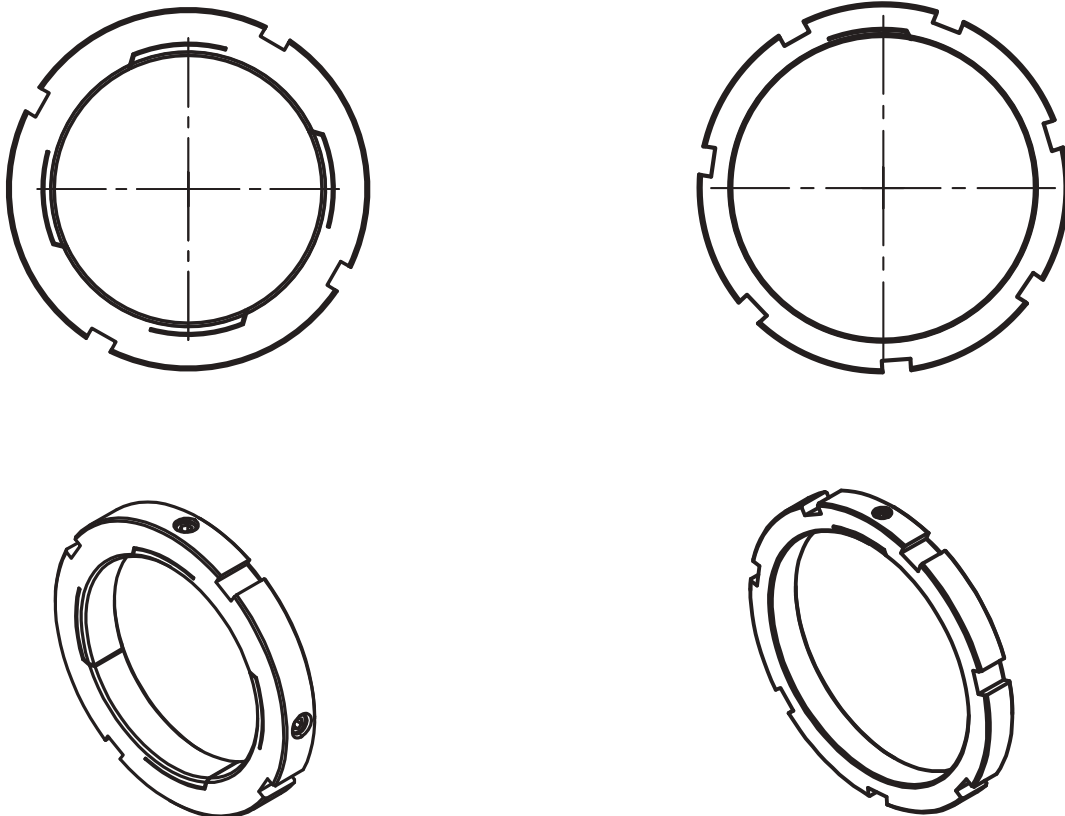
**3.4 DIMENSIONS AND THREAD PITCH ON REQUEST**

## SPECIAL APPLICATIONS EXAMPLES

### SPECIAL GEOMETRIES



### TIGHTENING TABS OR ADDITIONAL EXTERNAL NOTCHES



# 3.3

## ALTERNATIVE MATERIALS AND COATINGS

### ALTERNATIVE MATERIALS

- Aluminum 5083 (AG4,5)
- Stainless steel (AISI316, AISI304)
- 42CD4

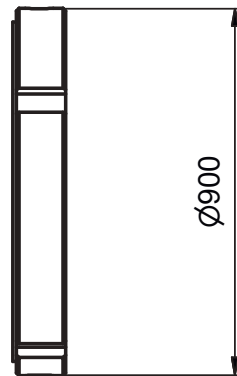
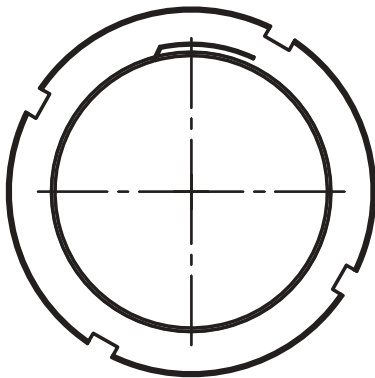
### COATINGS

- Phosphating
- Galvanization

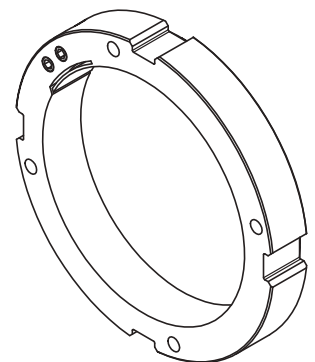
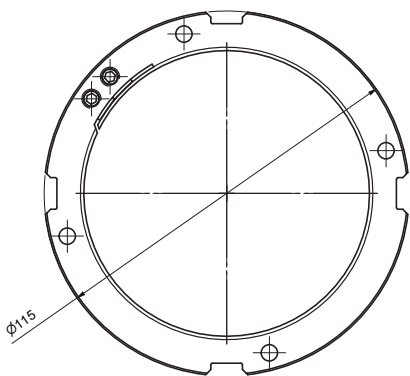
# 3.4

## DIMENSIONS AND THREAD PITCH ON REQUEST

- LARGER DIAMETER (maximum diameter: 900 mm)



- REDUCED THICKNESS (example: special LF25)



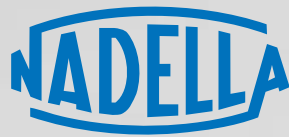


# NOTES

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.







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