

This chuck is used for aligning irregularly shaped workpieces.

Principle of operation

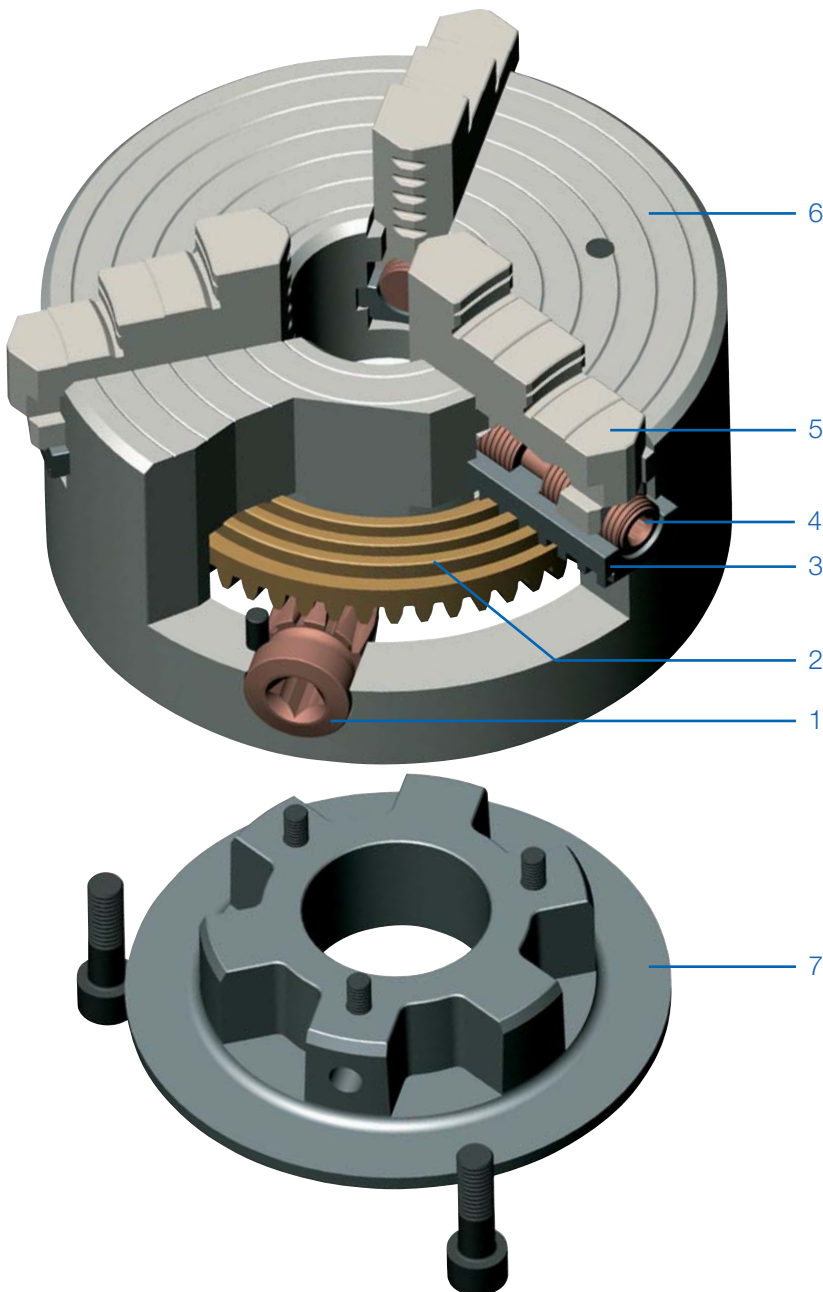
Through a radially arranged drive (1, hardened), the force is transferred via a bevel gearing to a hardened spiral ring (2) and further conducted via the spiral to the base jaws (3, hardened and ground), spindle (4, hardened) and reversible jaws (5, hardened and ground). The position of the workpiece can be adjusted by turning the spindle. Steel body (6), cover (7).

Clamping force transfer system

The jaws can be adjusted over the entire clamping range by turning the key.

Lubrication

To maintain the clamping force, rotary chucks must be lubricated regularly. You will find corresponding information in the operating instructions which are enclosed with every chuck. All rotary chucks are provided with grease nipples for easy maintenance.



Base jaw GB, hardened and ground



Reversible top jaw UB, hardened and ground



Unstepped jaw BL unstepped, soft, material 16MnCr5



APPLICATION

Optimized for the machining of irregularly shaped workpieces.

TYPE

Face spiral chucks in steel design with which irregularly shaped workpieces can be aligned via adjusting spindles.

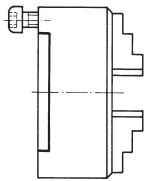
CUSTOMER BENEFITS

- ⊕ Exact alignment of irregularly shaped workpieces
- ⊕ Jaws centrally clamping and individually adjustable
- ⊕ Die-forged spiral ring, series-balanced and hardened
- ⊕ Jaws in chuck ground out for concentricity

TECHNICAL FEATURES

- With one set each of base and reversible jaws
- Clamping wrench
- Dimensions and take-ups in acc. with DIN 6351
- Hardened spiral ring
- Die-forged steel body

A09
DIN 6351, cylindrical centre mount, form A



| Size | Cylindrical centre mount | Through-hole mm | 3 jaw chuck steel | 4 jaw chuck steel | Torque Nm | Total clamping force kN |
|------|--------------------------|-----------------|-------------------|-------------------|-----------|-------------------------|
| 160 | 125 | 42 | 111360 | 111789 | 110 | 47 |
| 200 | 160 | 55 | 111365 | 111793 | 140 | 55 |
| 250 | 200 | 76 | 111370 | 111797 | 150 | 63 |
| 315 | 260 | 103 | 111375 | 111801 | 180 | 69 |
| 400 | 330 | 136 | 111380 ▲ | 111805 ▲ | 240 | 92 |
| 500 | 420 | 190 | 111385 ▲ | 111809 ▲ | 260 | 100 |
| 630 | 545 | 240 | 111390 ▲ | 111813 ▲ | 280 | 105 |

Further sizes and mountings available on request

Jaws ES

A09

Reversible jaw UB, hardened


| Chuck Size | 3-jaw set | 4-jaw set | Jaw length | Jaw height | Jaw width |
|------------|---------------|---------------|------------|------------|-----------|
| 160 | 110118 | 110124 | 69 | 50 | 20 |
| 200 | 139666 | 139670 | 85 | 57,5 | 24 |
| 250 | 139667 | 139671 | 90 | 67,5 | 24 |
| 315/400 | 139668 | 139672 | 130 | 79,5 | 34 |
| 500/630 | 139669 | 139673 | 190 | 95 | 42 |

A09

Unstepped jaw BL, unstepped, soft


| Chuck Size | 3-jaw set | 4-jaw set | Jaw length | Jaw height | Jaw width |
|------------|---------------|---------------|------------|------------|-----------|
| 160 | 107669 | 107675 | 69 | 50 | 20 |
| 200 | 139674 | 139678 | 85 | 57,5 | 24 |
| 250 | 139675 | 139679 | 90 | 67,5 | 24 |
| 315/400 | 139676 | 139680 | 130 | 79,5 | 34 |
| 500/630 | 139677 | 139681 | 190 | 95 | 42 |

A09

Base jaw GB, hardened


| Chuck Size | 3-jaw set | 4-jaw set | Jaw length | Jaw height | Jaw width |
|------------|---------------|---------------|------------|------------|-----------|
| 160 | 107654 | 107662 | 62 | 15,3 | 26 |
| 200 | 139682 | 139686 | 78 | 17,8 | 30 |
| 250 | 139683 | 139687 | 86 | 17,8 | 30 |
| 315 | 139684 | 139688 | 118 | 22,7 | 44 |
| 400 | 139685 | 139689 | 118 | 22,7 | 44 |
| 500/630 | 107659 | 107667 | 176 | 25 | 54 |

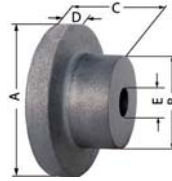
Accessories ES

A09 **Base plates** for lathe chucks with **cylindrical centre mount** DIN 6350



| Item no. | Size |
|----------|------|
| 162793 | 160 |
| 162401 | 200 |
| 163036 | 250 |
| 133705 | 315 |

A09 **Unfinished adapter plates** for **cylindrical mount**
The unfinished back plate must be machined and fitted on both machine and chuck side



| Item no. | Chuck Size | Inch | A mm | B mm | C mm | D mm | E mm |
|----------|------------|------|------|------|------|------|------|
| 017114 | 100 | 4 | 120 | 80 | 58 | 20 | 25 |
| 017115 | 125 | 5 | 135 | 80 | 58 | 20 | 25 |
| 017116 | 160 | 6 ¼ | 170 | 80 | 58 | 20 | 30 |
| 017117 | 200 | 8 | 210 | 92 | 66 | 22 | 40 |
| 017118 | 250 | 10 | 260 | 105 | 92 | 25 | 50 |

C15 **Special grease F80 for lathe chucks** for lubrication and conservation of chucking power



| Item no. | Design | Contents |
|----------|-----------|----------|
| 308555 | Cartridge | 0,5 kg |
| 028975 | Tin | 1 kg |

C15 **Adjusting spindle**



| Item no. | For chuck size |
|----------|----------------|
| 103199 | 100 |
| 104251 | 125 |
| 104271 | 160 |
| 137735 | 200 |
| 137643 | 250 |
| 137701 | 400 |
| 137716 | 500 |

A09 **Adjusting key**



| Item no. | For chuck size | Square | Hexagon |
|----------|----------------|--------|---------|
| 107444 | 160 | 5,5 | - |
| 139695 | 400 | - | 8 |
| 139696 | 500 | - | 12 |

A09 **Scroll**



| Item no. | Size |
|----------|------|
| 101754 | 100 |
| 101721 | 125 |
| 100303 | 160 |
| 100003 | 200 |
| 100203 | 250 |
| 101552 | 315 |
| 102497 | 400 |
| 162973 | 500 |
| 162964 | 630 |

A09 **Driving pinion**



| Item no. | Size | Hexagon |
|----------|------|---------|
| 178473 | 100 | 9 |
| 178475 | 125 | 10 |
| 178477 | 160 | 11 |
| 178478 | 200 | 12 |
| 178480 | 250 | 14 |
| 178482 | 315 | 17 |
| 178483 | 400 | 19 |
| 178484 | 500 | 22 |
| 178485 | 630 | 22 |

A09 **Pinion holder screw**



| Item no. | Size |
|----------|------|
| 100305 | 160 |
| 100006 | 270 |
| 101554 | 315 |
| 102499 | 400 |
| 103300 | 630 |

Accessories ES

A09

Standard key


| Item no. | Size | Square | Length mm |
|----------|---------|--------|-----------|
| 107427 | 100/110 | 8 | 75 |
| 107428 | 125/140 | 9 | 80 |
| 107429 | 160 | 10 | 90 |
| 107430 | 200/230 | 11 | 100 |
| 107431 | 250/270 | 12 | 100 |
| 107432 | 315 | 14 | 110 |
| 107433 | 350 | 14 | 140 |
| 107434 | 400 | 17 | 140 |
| 107435 | 500/630 | 19 | 150 |

A09

Safety key with ejector


| Item no. | Size | Square | Length mm |
|----------|---------|--------|-----------|
| 154371 | 100/110 | 8 | 130 |
| 154372 | 125/140 | 9 | 130 |
| 154373 | 160 | 10 | 160 |
| 154374 | 200/230 | 11 | 160 |
| 154375 | 250/270 | 12 | 160 |
| 154376 | 315 | 14 | 200 |
| 154377 | 350 | 14 | 200 |
| 154378 | 400 | 17 | 250 |
| 154379 | 500/630 | 19 | 250 |

A09

Elongated safety key with ejector


| Item no. | Size | Square | Length mm |
|----------|---------|--------|-----------|
| 154683 | 125/140 | 9 | 170 |
| 154685 | 160 | 10 | 180 |
| 154687 | 200/230 | 11 | 200 |
| 154689 | 250/270 | 12 | 200 |
| 154695 | 315 | 14 | 250 |

A09

Safety adapter with ejector

for actuating the chuck with torque (defined torque introduction)



| Item no. | Size | Square | Inch |
|----------|---------|--------|------|
| 178566 | 80/85 | 6 | 3/8 |
| 178567 | 100/110 | 8 | 1/2 |
| 178568 | 125/140 | 9 | 1/2 |
| 178569 | 160 | 10 | 1/2 |
| 178570 | 200/230 | 11 | 1/2 |
| 178571 | 250/270 | 12 | 1/2 |
| 178572 | 315/350 | 14 | 1/2 |

C15

Mounting screws

 for lathe chucks with direct **short-taper, for front mounting**


| Item no. | Size | Thread | Contents of delivery | Chuck Size | Taper size |
|----------|------|---------|----------------------|------------|------------|
| 233059 | 74 | M10x70 | piece | 160 | 5 |
| 308436 | 80 | M10x85 | piece | 200 | 5 |
| 200186 | 85 | M12x85 | piece | 200 | 6 |
| 234615 | 100 | M10x110 | piece | 250 | 5 |
| 302215 | 110 | M12x90 | piece | 250 | 6 |
| 202439 | 125 | M16x90 | piece | 250 | 8 |
| 316244 | 140 | M12x120 | piece | 315 | 6 |
| 308439 | 160 | M16x105 | piece | 315 | 8 |
| 342701 | 315 | M16x130 | piece | 400 | 8 |
| 698878 | 350 | M20x115 | piece | 400 | 11 |
| 011528 | 400 | M20x155 | piece | 500 | 11 |
| 358815 | 500 | M20x170 | piece | 630 | 11 |
| 202509 | 630 | M24x150 | piece | 630 | 15 |

C15

Set screw with nut DIN 55021


| Item no. | Thread | For taper | Quantity |
|----------|--------|-----------|----------|
| 107453 | M10x30 | 4 | 3 |
| 107455 | M10x35 | 5 | 4 |
| 107456 | M12x40 | 6 | 4 |
| 107457 | M16x45 | 8 | 4 |
| 107458 | M20x55 | 11 | 6 |
| 127618 | M24x65 | 15 | 6 |

A09

Stud and locknut ISO 702-3 (DIN 55027)


| Item no. | Thread | Contents of delivery | For taper | Quantity |
|----------|--------|----------------------|-----------|----------|
| 107447 | M10x34 | piece | 3 | 3 |
| 107448 | M10x39 | piece | 4 | 3 |
| 107449 | M10x43 | piece | 5 | 4 |
| 107450 | M12x50 | piece | 6 | 4 |
| 107451 | M16x60 | piece | 8 | 4 |
| 107452 | M20x75 | piece | 11 | 6 |
| 125650 | M24x90 | piece | 15 | 6 |

A09

Stud for Camlock ASA B 5.9 (DIN 55029) and cylindrical studs


| Item no. | Thread | For taper | Quantity |
|----------|-------------|-----------|----------|
| 107465 | 7/16-20x35 | 3 | 3 |
| 107466 | 7/16-20x37 | 4 | 3 |
| 107467 | 1/2-20x43 | 5 | 6 |
| 107468 | 5/8-18x49 | 6 | 6 |
| 107469 | 3/4-16x55,5 | 8 | 6 |
| 107470 | 7/8-14x67 | 11 | 6 |
| 127621 | 1-14x76 | 15 | 6 |

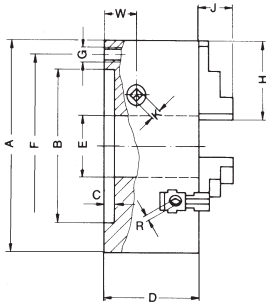
A09

Stud for Camlock ISO 702-2 (DIN 55029) and cylindrical studs


| Item no. | Thread | For taper | Quantity |
|----------|---------|-----------|----------|
| 178364 | M10x1 | 3 | 3 |
| 178365 | M10x1 | 4 | 3 |
| 178366 | M12x1 | 5 | 6 |
| 178367 | M16x1,5 | 6 | 6 |
| 178368 | M20x1,5 | 8 | 6 |
| 178369 | M22x1,5 | 11 | 6 |
| 178370 | M24x1,5 | 15 | 6 |
| 178371 | M27x2 | 20 | 6 |

Chuck dimensions ES

Cylindrical centre mount DIN 6351



The bore could be enlarged (measure E, at surcharge)

Enlarged bore max.

| Size A | 100 | 125 | 160 | 200 | 250 | 315 | 400 | 500 | 630 |
|-------------------|------|------|-------|-------|-------|-------|-------|-------|-------|
| BH6 | 70 | 95 | 125 | 160 | 200 | 260 | 330 | 420 | 545 |
| C | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 7 |
| D | 67 | 71 | 80 | 95,5 | 100 | 117 | 123 | 145 | 160 |
| E | 20 | 32 | 42 | 55 | 76 | 103 | 136 | 190 | 240 |
| E _{max.} | 21 | 33 | 50 | 70 | 92 | 114 | 150 | 210 | 253 |
| F | 83 | 108 | 140 | 176 | 224 | 286 | 362 | 458 | 586 |
| G | 3xM8 | 3xM8 | 3xM10 | 3xM10 | 3xM12 | 3xM16 | 3xM16 | 6xM16 | 6xM16 |
| H | 56 | 56 | 69 | 85 | 90 | 130 | 130 | 190 | 190 |
| J | 22 | 21 | 28 | 32,5 | 40,6 | 46,5 | 47 | 55 | 55 |
| K | 8 | 9 | 10 | 11 | 12 | 14 | 17 | 19 | 19 |
| R* | 5,5 | 5,5 | 5,5 | 8 | 8 | 8 | 8 | 12 | 12 |
| W | 20 | 20 | 22,45 | 25,7 | 26,5 | 30 | 35 | 38 | 48 |
| approx. kg | 4 | 6 | 10 | 18 | 29 | 54 | 88 | 145 | 240 |

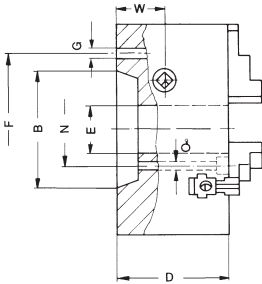
* from Ø 200 hexagon

Short taper mount

DIN 55021 with setscrews and nuts



DIN 55027 with studs and locknuts
Available on request!



DIN 55029 with studs for camlock
Available on request!

| Size A | 125 | | 160 | | 200 | | 250 | | | | |
|------------------|---------|------|------|-------|-------|-------|------|-------|-------|-------|-------|
| Short-taper size | 3 | 4 | 4 | 5 | 6 | 4 | 5 | 6 | 5 | 6 | 8 |
| B | 53,9 | 63,5 | 63,5 | 82,5 | 106,4 | 63,5 | 82,5 | 106,4 | 82,5 | 106,4 | 139,7 |
| D | 84 | 84 | 81 | 81 | 81 | 96,5 | 96,5 | 96,5 | 101 | 101 | 101 |
| E | 32 | 32 | 42 | 42 | 42 | 55 | 55 | 55 | 76 | 76 | 76 |
| F | DIN | 75 | 85 | 85 | 104,8 | 133,4 | 85 | 104,8 | 133,4 | 104,8 | 133,4 |
| | Camlock | 70,6 | 82,5 | 82,5 | 104,8 | 133,4 | 82,5 | 104,8 | 133,4 | 104,8 | 133,4 |
| W | | 21 | 21 | 23,45 | 23,45 | 23,45 | 26,7 | 26,7 | 26,7 | 27,5 | 27,5 |
| Mouting holes | DIN | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 |
| | Camlock | 3 | 3 | 3 | 6 | 6 | 3 | 6 | 6 | 6 | 6 |
| approx. kg | | 6 | | 10 | | 19 | | 30 | | | |

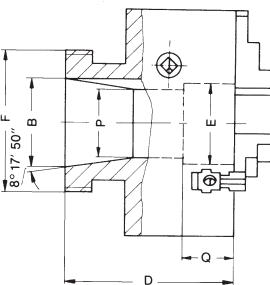
| Size A | 315 | | | 400 | | 500 | | 630 | | |
|------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Short-taper size | 6 | 8 | 11 | 8 | 11 | 11 | 15 | 11 | 15 | |
| B | 106,4 | 139,7 | 196,9 | 139,7 | 196,9 | 196,9 | 285,8 | 196,9 | 285,8 | |
| D | 118 | 118 | 118 | 124 | 124 | 147 | 147 | 162 | 162 | |
| E | 103 | 103 | 103 | 136 | 136 | 190 | 190 | 240 | 240 | |
| F | 133,4 | 171,4 | 235 | 171,4 | 235 | 235 | 330,2 | 235 | 330,2 | |
| P | - | - | - | - | - | - | - | 192,7 | - | |
| Q | - | - | - | - | - | - | - | 88 | - | |
| W | 31 | 31 | 31 | 36 | 36 | 40 | 40 | 50 | 50 | |
| Mouting holes | DIN | 4 | 4 | 6 | 4 | 6 | 6 | 6 | 6 | |
| | Camlock | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| aporoxx. kg | | 56 | | | 92 | | 155 | | 250 | |

All other dimensions should be taken from the table on the top

DIN 55026

Mounting from front

Available on request!



| Size A | 160 | 200 | 250 | 315 | 400 | 500 | 630 | | | | | |
|------------------|------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Short-taper size | 5 | 5 | 6 | 6 | 8 | 6 | 8 | 8 | 11 | 11 | 11 | 15 |
| B | 82,5 | 82,5 | 106,4 | 106,4 | 139,7 | 106,4 | 139,7 | 139,7 | 196,9 | 196,9 | 196,9 | 285,8 |
| D | 81 | 96,5 | 96,5 | 101 | 101 | 118 | 118 | 124 | 124 | 147 | 162 | 162 |
| E | 42 | 42 | 55 | 55 | 76 | 103 | 76 | 136 | 125 | 190 | 190 | 190 |
| F ³⁾ | - | - | - | - | - | 133,4 | - | 171,4 | - | 235 | 235 | - |
| G | - | - | - | - | - | 14 | - | 18 | - | 22 | 22 | - |
| N ²⁾ | 61,9 | 61,9 | 82,6 | 82,6 | 111,1 | - | 111,1 | - | 165,1 | - | - | 247,6 |
| O | 11 ¹⁾ | 11 ¹⁾ | 14 | 14 | 18 | - | 18 | - | 22 | - | - | 26 |
| W | 23,45 | 26,7 | 26,7 | 27,5 | 27,5 | 31 | 31 | 36 | 36 | 40 | 50 | 50 |
| Mouting holes | * | 3 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | ** | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 |
| approx. kg | 10 | 19 | 19 | 30 | 30 | 56 | 56 | 92 | 92 | 154 | 250 | 238 |

1) 12 with ASA B 5.9 A1/A2 inch, all other dim. should be taken from the above table.

2) With DIN 55026 form B; ASA B 5.9 A1/B1

* 3-Jaw

** 4-Jaw

3) With DIN 55026 Form A and B; DIN 55021 Forme A and B; ASA B 5.9 A1/A2

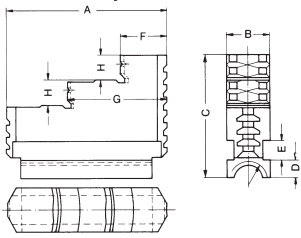
Chuck dimensions ES

**Max. permissible speeds for chucks
EG-ES to DIN 6351**

The specified values are only applicable for workpieces not exceeding a specific unbalance of 25 gmm/kg.

| Size | 3-Jaw Steel body | 4-Jaw Steel body |
|------|---------------------|---------------------|
| 100 | - | - |
| 125 | - | - |
| 160 | 3200 | 2850 |
| 200 | 2650 | 2350 |
| 250 | 2200 | 1900 |
| 315 | 1400 | 1220 |
| 400 | 1400 | 1220 |
| 500 | 880 | 770 |
| 630 | 750 | 660 |

Reversible jaw **UB**



| Size | 100 | 125 | 160 | 200 | 250 | 315 | 400 | 500 | 630 |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A | 56 | 56 | 69 | 85 | 90 | 130 | 130 | 190 | 190 |
| B | 18 | 18 | 20 | 24 | 24 | 34 | 34 | 42 | 42 |
| C | 41,5 | 41,5 | 50 | 57,5 | 67,5 | 79,5 | 79,5 | 95 | 95 |
| D | 8,7 | 8,7 | 9,7 | 9,7 | 9,7 | 11,15 | 11,15 | 15 | 15 |
| E | 7 | 7 | 8 | 10 | 10 | 15 | 15 | 15 | 15 |
| F | 17 | 17 | 19 | 25 | 26 | 40 | 40 | 50 | 50 |
| G | 35 | 35 | 43 | 54 | 56 | 85 | 85 | 120 | 120 |
| H | 8 | 8 | 10 | 12 | 14 | 15 | 15 | 20 | 20 |
| Thread | Tr14x3 | Tr14x3 | Tr16x4 | Tr18x2 | Tr18x2 | Tr20x2 | Tr20x2 | Tr26x3 | Tr26x3 |
| approx. kg | 0,18 | 0,18 | 0,3 | 0,53 | 0,7 | 1,7 | 1,7 | 3,7 | 3,7 |

Left-hand thread

