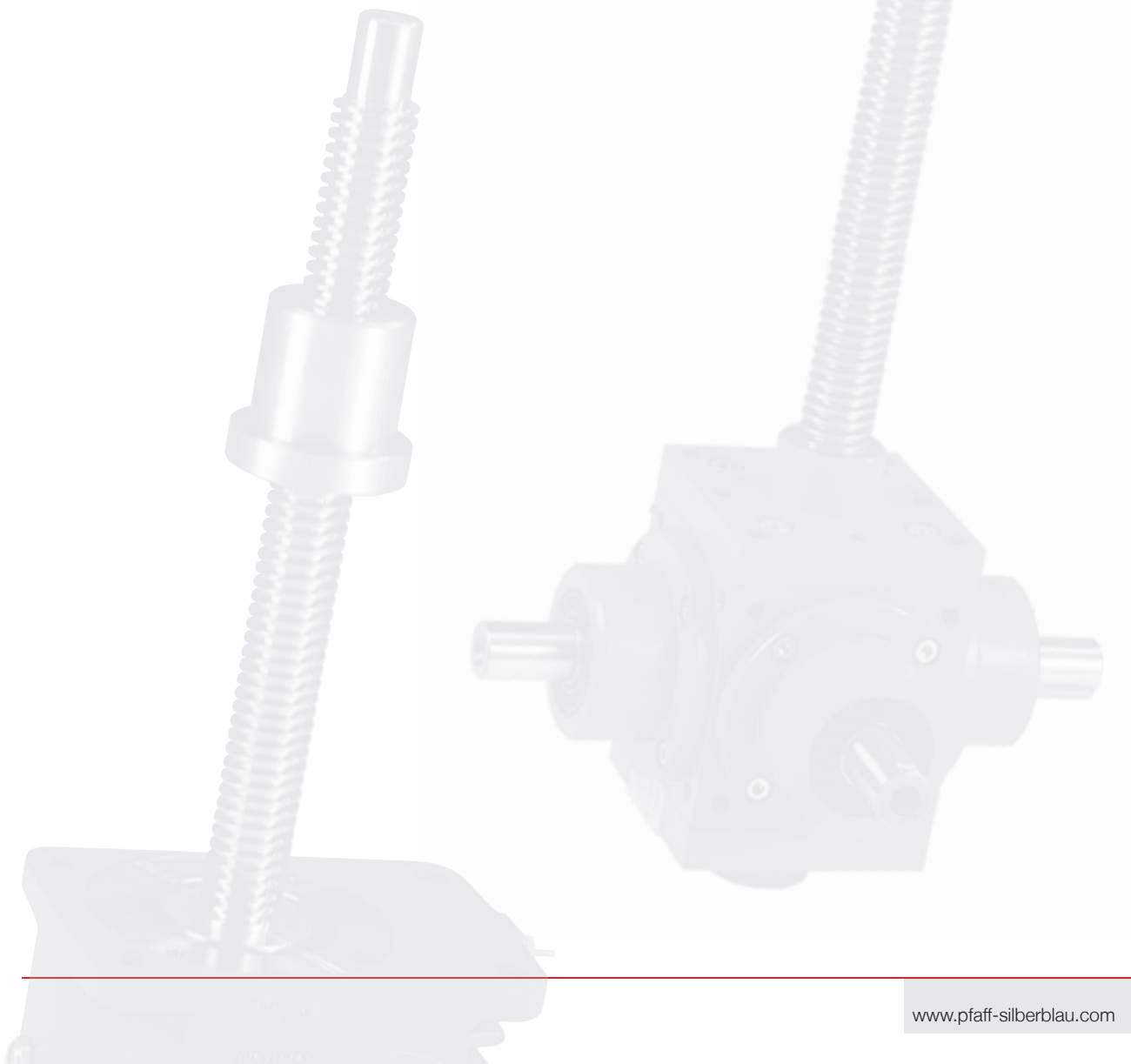


Screw jacks

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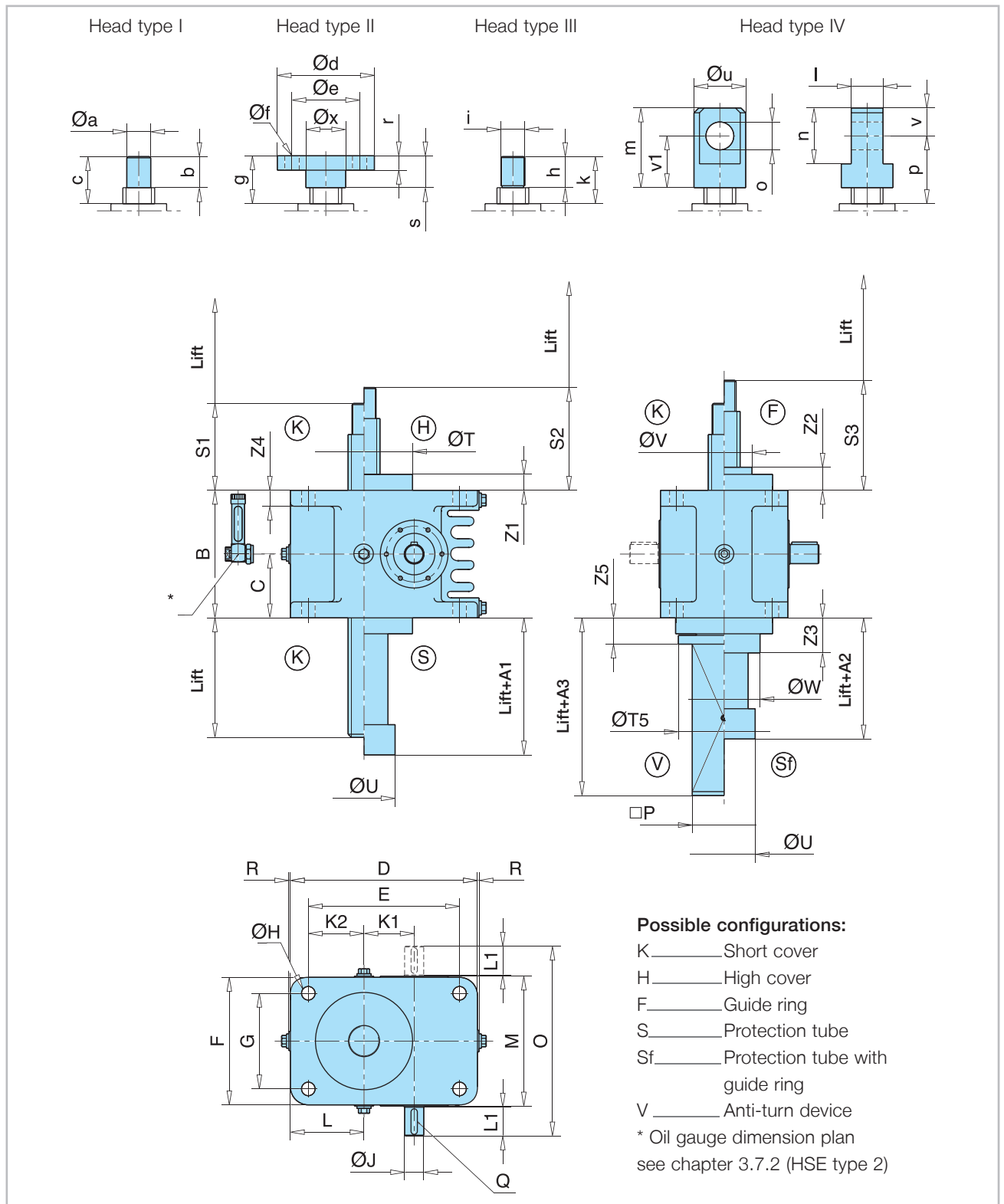
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3.7 HSE range dimension plans

3.7.1 Type 1

3.7.1.1 Standard



Screw jacks

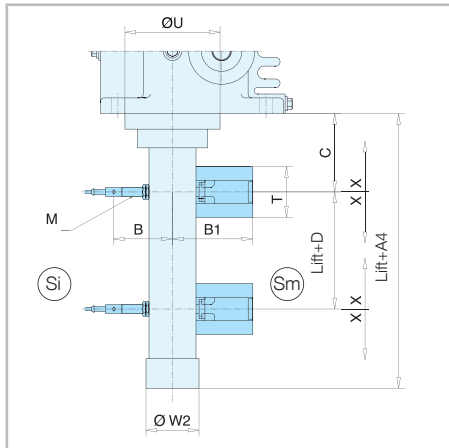
| Size | 32 ¹⁾ | 36.1 | 50.1 | 63.1 | 80.1 | 100.1 | 125.1 | 140 | 200.1 |
|-----------------|------------------|----------|----------|---------|----------|----------|----------|-----------|-----------|
| Screw | Tr 18x6 | Tr 24x5 | Tr 40x8 | Tr 50x9 | Tr 60x12 | Tr 70x12 | Tr100x16 | Tr 120x16 | Tr 160x20 |
| A 1 | 22 | 22 | 22 | 22 | 22 | 23 | 22 | 22 | 22 |
| A 2 | 39 | 44 | 46 | 52 | 61 | 71 | 76 | 86 | 101 |
| A 3 | 98 | 104 | 117 | 123 | 136 | 146 | 154 | 179 | 199 |
| B | 80 | 105 | 130 | 160 | 200 | 230 | 300 | 350 | 450 |
| C | 40 | 52,5 | 65 | 80 | 100 | 115 | 150 | 175 | 225 |
| D | 117 | 138 | 175 | 235 | 275 | 330 | 410 | 490 | 680 |
| E | 95 | 110 | 140 | 190 | 220 | 270 | 330 | 390 | 550 |
| F | 80 | 105 | 130 | 160 | 200 | 230 | 300 | 350 | 460 |
| G | 62 | 80 | 100 | 120 | 150 | 175 | 230 | 260 | 330 |
| Ø H | 9 | 9 | 13 | 17 | 21 | 28 | 39 | 46 | 66 |
| Ø J k6 | 14 | 14 | 16 | 24 | 32 | 38 | 42 | 50 | 70 |
| K 1 | 32 | 36 | 50 | 63 | 80 | 100 | 125 | 140 | 196 |
| K 2 | 31 | 40 | 50 | 70 | 75 | 87,5 | 110 | 130 | 185 |
| L | 42 | 54 | 67,5 | 92,5 | 102,5 | 117,5 | 150 | 180 | 250 |
| L 1 | 25,5 | 18 | 28 | 36 | 58 | 58 | 82 | 82 | 105 |
| M | 83 | 108 | 133 | 163 | 204 | 235 | 305 | 355 | 470 |
| N | 86 | 112 | 136 | 166 | 206 | 240 | 310 | 360 | 472 |
| O | 140 | 140 | 192 | 238 | 322 | 356 | 474 | 524 | 682 |
| □ P | 30 | 40 | 70 | 80 | 90 | 100 | 140 | 180 | 220 |
| Q | 5x5x20 | 5x5x16 | 5x5x25 | 8x7x32 | 10x8x50 | 10x8x50 | 12x8x70 | 14x9x70 | 20x12x100 |
| R | 3 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 |
| S 1 | 43 | 45 | 50 | 60 | 70 | 75 | 100 | 120 | 140 |
| S 2 | 58 | 61 | 68 | 80 | 95 | 105 | 135 | 160 | 190 |
| S 3 | 66 | 69 | 76 | 89 | 109 | 124 | 154 | 184 | 219 |
| Ø T f7 | 62 | 72 | 92 | 122 | 152 | 182 | 222 | 262 | 352 |
| Ø T5 | 50 | - | 100 | 115 | 130 | - | 200 | 260 | 310 |
| Ø U | 29 | 40 | 66 | 82 | 78 | 88,5 | 136 | 143 | 198 |
| Ø V | 35 | 35 | 60 | 70 | 100 | 125 | 140 | 195 | 240 |
| Ø W | 45 | 50 | 80 | 100 | 120 | 125 | 140 | 220 | 290 |
| Z 1 | 15 | 16 | 18 | 20 | 25 | 30 | 35 | 40 | 50 |
| Z 2 | 23 | 24 | 26 | 29 | 39 | 49 | 54 | 64 | 79 |
| Z 3 | 29 | 34 | 39 | 44 | 54 | 64 | 74 | 84 | 109 |
| Z 4 | 10 | 12 | 15 | 20 | 25 | 28 | 35 | 45 | 60 |
| Z 5 | 27 | - | 28 | 33 | 40 | - | 54 | 63 | 73 |
| Head I | | | | | | | | | |
| Ø a k6 | 18h9 | 15 | 20 | 30 | 40 | 50 | 80 | 95 | 130 |
| b | 20 | 24 | 29 | 39 | 49 | 54 | 79 | 99 | 119 |
| c | 37 | 44 | 49 | 59 | 69 | 74 | 99 | 119 | 139 |
| Head II | | | | | | | | | |
| Ø d | 65 | 72 | 92 | 122 | 150 | 182 | 222 | 262 | 352 |
| Ø e | 45 | 50 | 65 | 85 | 105 | 135 | 170 | 205 | 270 |
| Ø f | 4xø 7 | 4xø 9 | 4xø 14 | 4xø 17 | 4xø 22 | 6xø 26 | 8xø 30 | 8xø 33 | 8xø 45 |
| g | 43 | 45 | 50 | 60 | 70 | 75 | 100 | 120 | 140 |
| r | 8 | 10 | 12 | 18 | 20 | 25 | 30 | 35 | 50 |
| s | 20 | 25 | 30 | 40 | 50 | 55 | 80 | 100 | 120 |
| Ø x | 18 | 30 | 35 | 50 | 65 | 85 | 115 | 140 | 185 |
| Head III | | | | | | | | | |
| h | 15 | 24 | 29 | 39 | 49 | 54 | 79 | 99 | 119 |
| i | M 18x1,5 | M 16x1,5 | M 20x1,5 | M 30x2 | M 42x3 | M 56x3 | M 80x3 | M 100x4 | M 140x4 |
| k | 37 | 44 | 49 | 59 | 69 | 74 | 99 | 119 | 139 |
| Head IV | | | | | | | | | |
| l - 0,2 | 20 | 25 | 30 | 40 | 60 | 75 | 100 | 120 | 160 |
| m | 50 | 60 | 70 | 100 | 130 | 150 | 230 | 300 | 360 |
| n | 30 | 40 | 50 | 70 | 100 | 120 | 160 | 200 | 280 |
| Ø o H8 | 15 | 20 | 25 | 35 | 50 | 60 | 80 | 100 | 140 |
| p | 55 | 60 | 65 | 85 | 100 | 110 | 170 | 220 | 240 |
| Ø u | 30 | 40 | 50 | 65 | 90 | 110 | 140 | 170 | 220 |
| v | 15 | 20 | 25 | 35 | 50 | 60 | 80 | 100 | 140 |
| v1 | 35 | 40 | 45 | 65 | 80 | 90 | 150 | 200 | 220 |

¹⁾ Size 32 will replace the existing size 31.

Screw jacks

3.7 HSE range dimension plans

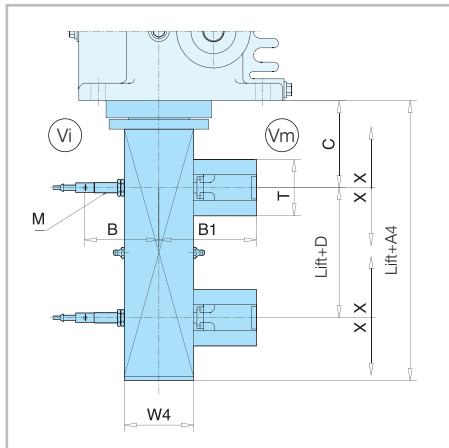
3.7.1.2 With added-on limit switches Sm/Si



| Size | A4 | B | B1 | C | D | T | M | ØU | ØW2 | X |
|-------|-------------|-----|-----|-----|----|----|------|-----|-----|-----|
| 32 | *on request | | | | | | | | | |
| 36.1 | 140 | 86 | * | 70 | 12 | * | 12x1 | 72 | 42 | ±10 |
| 50.1 | 174 | 97 | 110 | 77 | 20 | 58 | 12x1 | 92 | 66 | ±10 |
| 63.1 | 180 | 106 | 110 | 88 | 25 | 58 | 12x1 | 122 | 82 | ±10 |
| 80.1 | 220 | 114 | 120 | 100 | 30 | 58 | 12x1 | 152 | 96 | ±10 |
| 100.1 | *on request | | | | | | | | | |
| 125.1 | *on request | | | | | | | | | |
| 140 | *on request | | | | | | | | | |
| 200.1 | *on request | | | | | | | | | |

3

3.7.1.3 Anti-turn device Vm/Vi with added-on limit switches



| Size | A4 | B | B1 | C | D | T | M | W4 | X |
|-------|------------|-----|-----|----|----|----|------|-------|-----|
| 32 | on request | | | | | | | | |
| 36.1 | on request | | | | | | | | |
| 50.1 | 137 | 102 | 115 | 68 | 20 | 58 | 12x1 | 70x70 | ±10 |
| 63.1 | 150 | 107 | 115 | 75 | 25 | 58 | 12x1 | 80x80 | ±10 |
| 80.1 | 170 | 112 | 117 | 85 | 30 | 58 | 12x1 | 90x90 | ±10 |
| 100.1 | on request | | | | | | | | |
| 125.1 | on request | | | | | | | | |
| 140 | on request | | | | | | | | |
| 200.1 | on request | | | | | | | | |

3.7.1.4 With short safety nut SFM-O

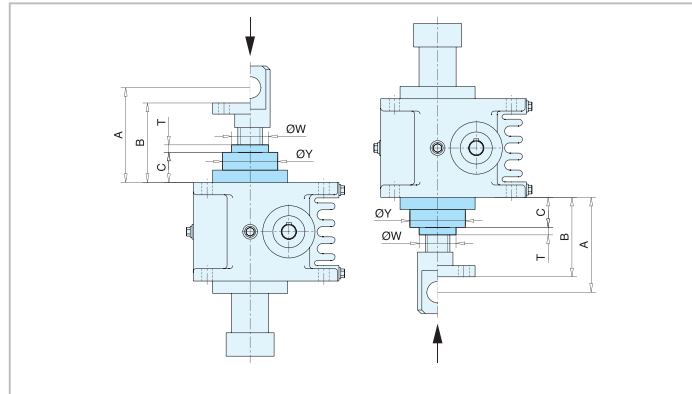
The short safety nut takes up the axial strain if the main nut breaks. This considerably increases the operating safety of the drive elements. The safety nut can also be used to precisely check for wear on the main nut, as the clearance between the two nuts changes according to the amount of wear. In the case of worm gear screw jacks with short safety nut, the direction of main stress (tensile and compression force) and the mounting position should be taken into account, as only a correctly fitted safety nut is capable of taking up the load.

Screw jacks

3.7 HSE range dimension plans

HSE type 1, compression force

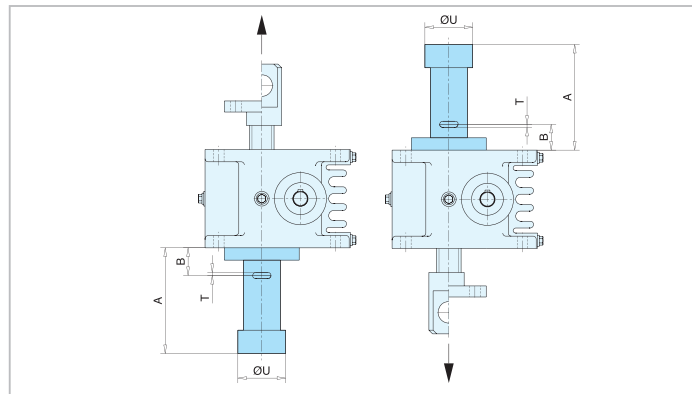
| Size | A | B | C | T ¹⁾ | ØY | ØW |
|-------|------------|-----|------|-----------------|-----|-----|
| 32 | 80 | 63 | 24 | 1 | 50 | 30 |
| 36.1 | 85 | 70 | 24 | 1 | 55 | 35 |
| 50.1 | 100 | 85 | 43,5 | 1,5 | 85 | 60 |
| 63.1 | 125 | 100 | 48,5 | 1,5 | 105 | 70 |
| 80.1 | 160 | 130 | 57 | 3 | 125 | 90 |
| 100.1 | 170 | 135 | 57 | 3 | 155 | 110 |
| 125.1 | 250 | 180 | 76 | 4 | 190 | 140 |
| 140 | on request | | | | | |
| 200.1 | 335 | 235 | 90 | 5 | 300 | 240 |



3

HSE type 1, tensile force

| Size | A | B | T ¹⁾ | ØU |
|-------|------------|----|-----------------|-----|
| 32 | lift + 67 | 25 | 1 | 47 |
| 36.1 | lift + 67 | 25 | 1 | 56 |
| 50.1 | lift + 77 | 35 | 1,5 | 80 |
| 63.1 | lift + 82 | 40 | 1,5 | 92 |
| 80.1 | lift + 102 | 60 | 3 | 107 |
| 100.1 | lift + 102 | 60 | 3 | 132 |
| 125.1 | lift + 122 | 80 | 4 | 158 |
| 140 | on request | | | |
| 200.1 | lift + 137 | 95 | 5 | 272 |



¹⁾ As new. If "T = 0", supporting and safety nut must be repaired.

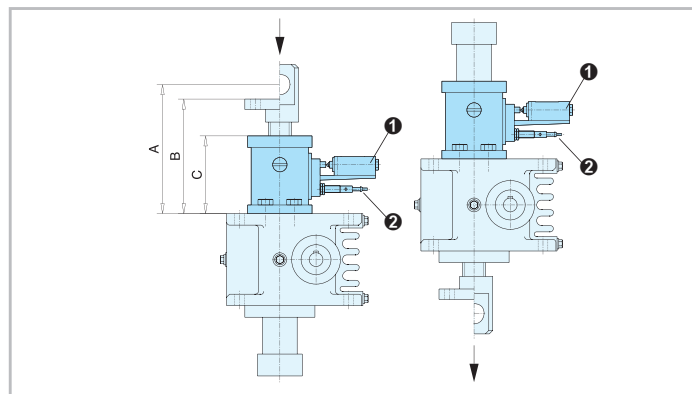
3.7.1.5 With long safety nut SFM-E / SFM-D (BGV C1 or VBG 14)

Worm gear screw jacks used on theatre stages (BGV-C1, former VBG 70), lifting platforms (VBG 14) or lifting systems that might affect personal safety are designed according to current regulations, and include such items as anti-drop systems (self-locking screws and/or mechanical safety brakes as part of the drive system). The function of the synchronizing device is guaranteed, if required, by additional components.



HSE type 1, compression and tensile force

| Size | A | B | C |
|-------|------------|-----|-----|
| 32 | on request | | |
| 36.1 | on request | | |
| 50.1 | on request | | |
| 63.1 | 220 | 195 | 135 |
| 80.1 | 270 | 240 | 170 |
| 100.1 | 330 | 295 | 220 |
| 125.1 | 360 | 290 | 190 |
| 140 | on request | | |
| 200.1 | on request | | |



Ind. proximity switch ② Mechanical limit switch ①

See chapter on accessories for technical data and dimension plans

Screw jacks

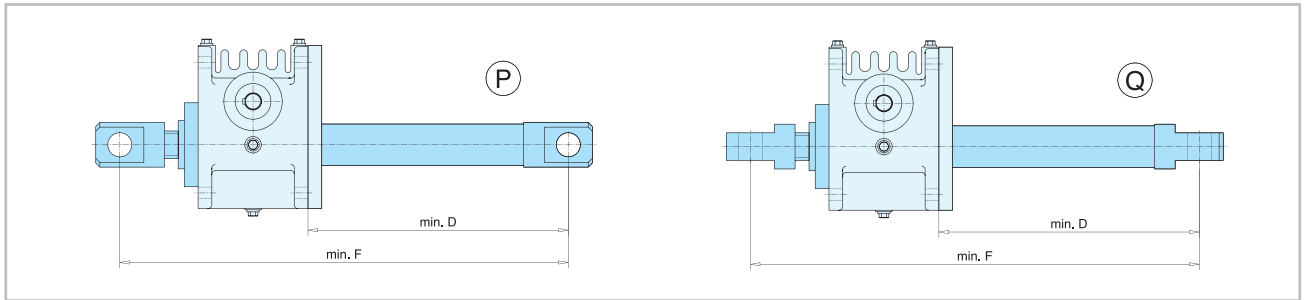
3.7 HSE range dimension plans



3.7.1.6 Swivelling configuration

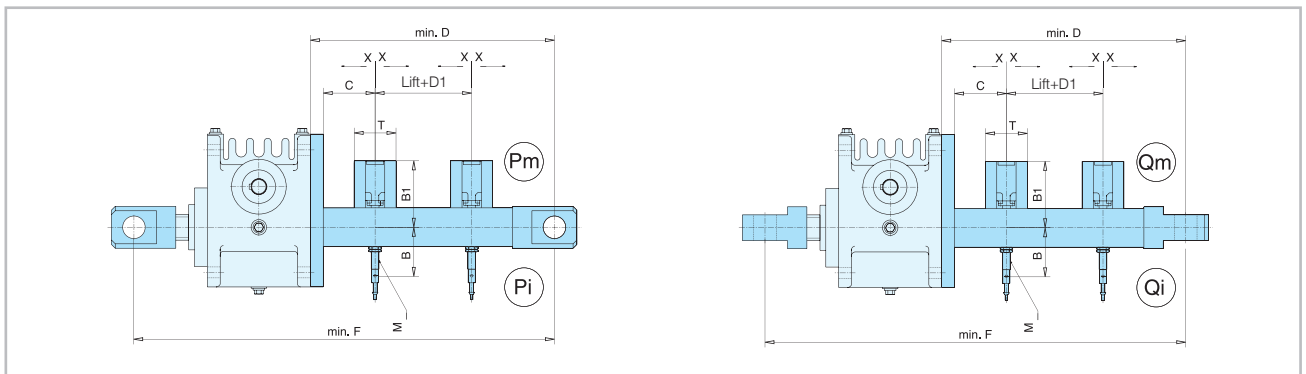
In order to allow worm gear screw jacks to carry out swivelling and tipping movements, the drive elements must be secured at two points and permitted to move. This can be done using head IV on both screw ends or an articulated head.

3



| Size | D | F |
|-------|------------|-----------|
| 32 | on request | |
| 36.1 | lift +114 | lift +303 |
| 50.1 | lift +140 | lift +361 |
| 63.1 | lift +180 | lift +454 |
| 80.1 | lift +195 | lift +534 |
| 100.1 | | |
| 125.1 | on request | |
| 140 | | |
| 200.1 | | |

3.7.1.7 Swivelling configuration with added-on limit switches



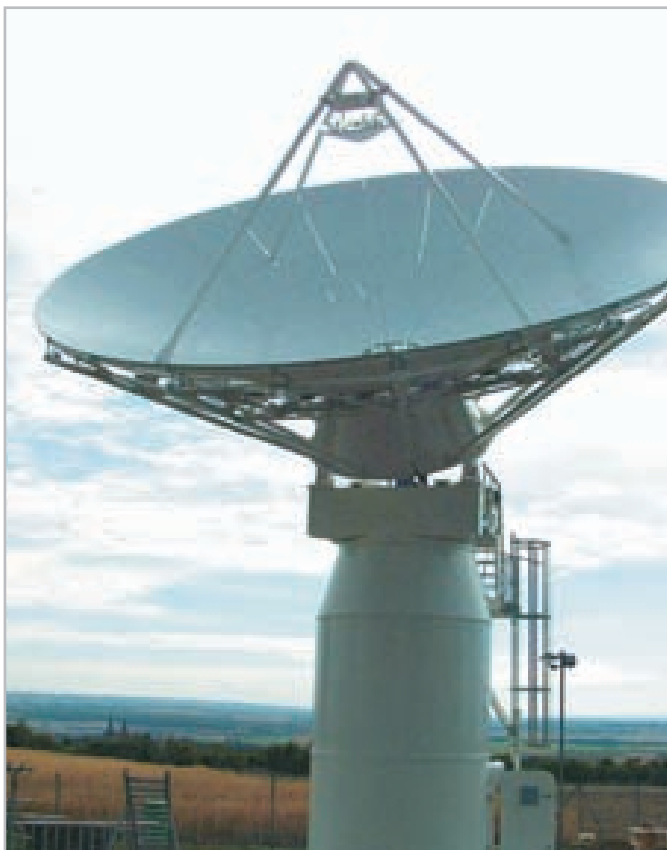
| Size | B | B1 | C | D | D1 | F | M | T | X |
|-------|-----|-----|----|-----|------------|-----|------|----|------|
| 32 | | | | | on request | | | | |
| 36.1 | 86 | 93 | 50 | 155 | 12 | 344 | 12x1 | 58 | ± 10 |
| 50.1 | 97 | 105 | 50 | 175 | 20 | 396 | 12x1 | 58 | ± 10 |
| 63.1 | 106 | 110 | 50 | 205 | 25 | 479 | 12x1 | 58 | ± 10 |
| 80.1 | 114 | 120 | 50 | 250 | 40 | 589 | 12x1 | 58 | ± 10 |
| 100.1 | | | | | | | | | |
| 125.1 | | | | | on request | | | | |
| 140 | | | | | | | | | |
| 200.1 | | | | | | | | | |

Screw jacks

Application example



3



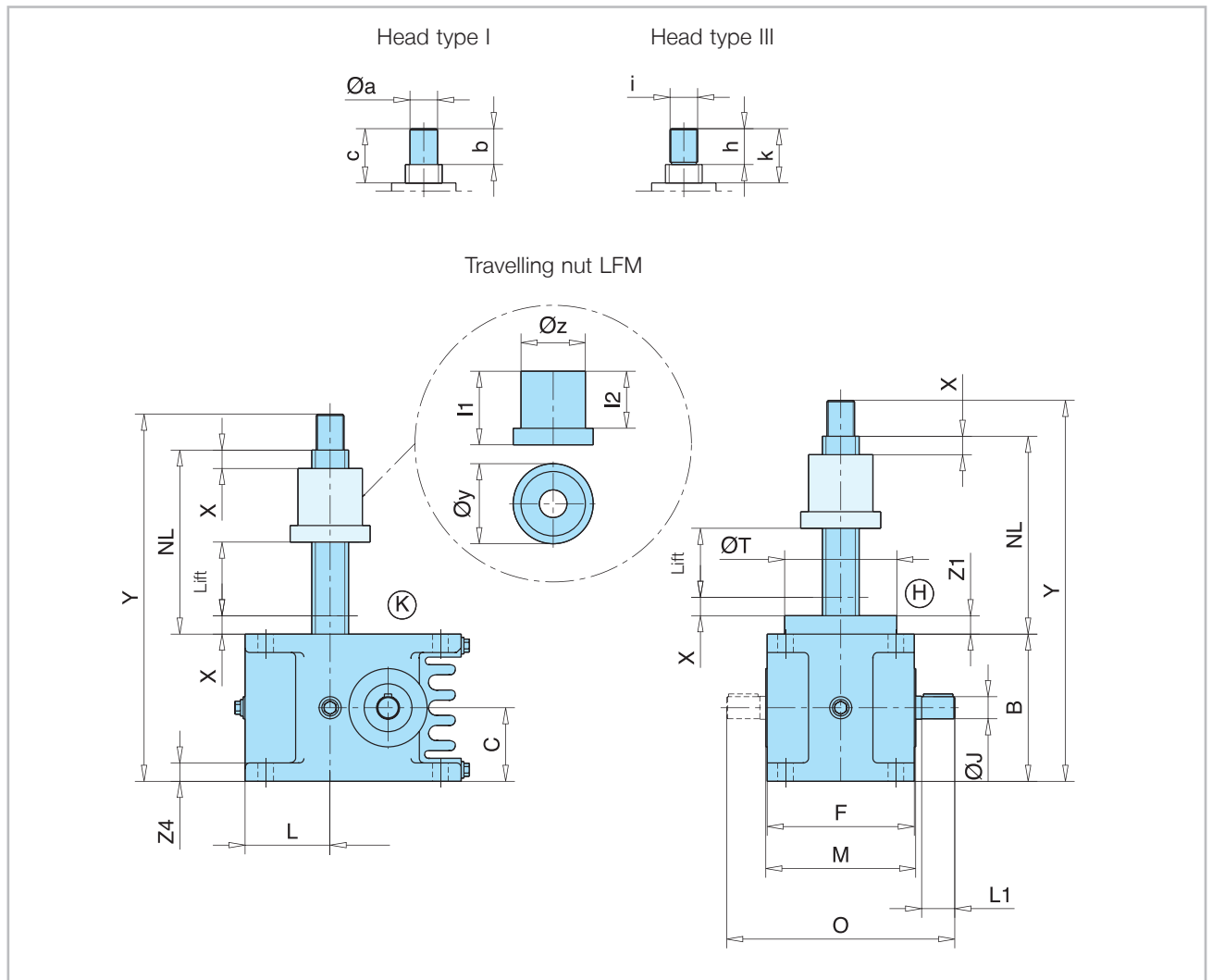
HSE high performance worm gear screw jack, type 1, special configuration for an elevation movement from 0 °C to 90 °C of an 11,1 m antenna.

Screw jacks

3.7 HSE range dimension plans

3.7.2 Type 2

3.7.2.1 Standard



Missing dimensions - see type 1

Possible configurations:

K _____ Short cover

H _____ High cover

Screw jacks

3.7 HSE range dimension plans

| Size | 32 | 36.1 | 50.1 | 63.1 | 80.1 | 100.1 | 125.1 | 140 | 200.1 |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Screw | Tr 18x6 | Tr 24x5 | Tr 40x8 | Tr 50x9 | Tr 60x12 | Tr 70x12 | Tr100x16 | | Tr 160x20 |
| B | 80 | 105 | 130 | 160 | 200 | 230 | 300 | | 450 |
| C | 40 | 52,5 | 65 | 80 | 100 | 115 | 150 | | 225 |
| F | 80 | 105 | 130 | 160 | 200 | 230 | 300 | | 460 |
| ØJ k6 | 14 | 14 | 16 | 24 | 32 | 38 | 42 | | 70 |
| L | 42 | 54 | 67,5 | 92,5 | 102,5 | 117,5 | 150 | | 250 |
| L1 | 15 | 18 | 28 | 36 | 58 | 58 | 82 | | 105 |
| M | 83 | 108 | 133 | 163 | 204 | 235 | 305 | | 470 |
| NL config. „K“ | lift + 85 | lift + 95 | lift + 120 | lift + 140 | lift + 170 | lift + 170 | lift + 200 | | lift + 260 |
| NL config. „H“ | lift + 100 | lift + 111 | lift + 138 | lift + 160 | lift + 195 | lift + 200 | lift + 235 | | lift + 310 |
| O | 140 | 140 | 192 | 238 | 322 | 356 | 474 | | 682 |
| Q | 5x5x20 | 5x5x16 | 5x5x25 | 8x7x32 | 10x8x50 | 10x8x50 | 12x8x70 | | 20x12x100 |
| ØT | 62 | 72 | 92 | 122 | 152 | 182 | 222 | | 352 |
| Safety X | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | 20 |
| Y | NL + 97 | NL + 129 | NL + 169 | NL + 199 | NL + 249 | NL + 284 | NL + 379 | on request | NL + 569 |
| Z1 | 15 | 16 | 18 | 20 | 25 | 30 | 35 | | 50 |
| Z4 | 10 | 12 | 15 | 20 | 25 | 28 | 35 | | 60 |
| Travelling nut LFM | | | | | | | | | |
| l1 | 45 | 55 | 80 | 100 | 130 | 130 | 160 | | 220 |
| l2 | 35 | 43 | 62 | 78 | 105 | 100 | 115 | | 140 |
| Øy | 50 | 65 | 87 | 105 | 110 | 120 | 190 | | 260 |
| Øz h9 | 40 | 45 | 70 | 80 | 90 | 90 | 150 | | 200 |
| Head I | | | | | | | | | |
| Ø a k6 | 10 | 15 | 30 | 40 | 40 | 50 | 80 | | 130 |
| b | 20 | 24 | 39 | 49 | 49 | 54 | 79 | | 119 |
| c | 37 | 44 | 59 | 69 | 69 | 74 | 99 | | 139 |
| Head III | | | | | | | | | |
| h | 20 | 24 | 39 | 49 | 49 | 54 | 79 | | 119 |
| i | M 10 | M 16x1,5 | M 30x2 | M 42x3 | M 42x3 | M 56x3 | M 80x3 | | M 140x4 |
| k | 37 | 44 | 59 | 69 | 69 | 74 | 99 | | 139 |

3

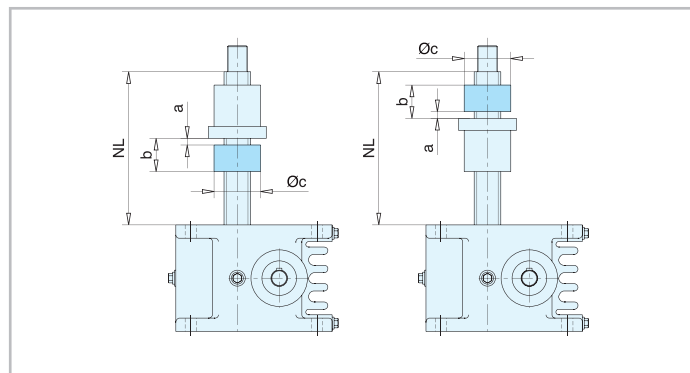
3.7.2.2 With short safety nut LFM-K

The short safety nut takes up the axial strain if the main nut breaks. This considerably increases the operating safety of the drive elements. The safety nut can also be used to precisely check for wear on the main nut, as the clearance between the two nuts changes according to the amount of wear. In the case of worm gear screw jacks with short safety nut, the direction of main stress (tensile and compression force) and the mounting position should be taken into account, as only a correctly fitted safety nut is capable of taking up the load.



HSE type 2, compression and tensile force

| Size | a ¹⁾ | b | Øc | NL | |
|-------|-----------------|-----|-----|-----------|-----------|
| | | | | config. K | config. H |
| 32 | 5 | 25 | 40 | lift+110 | lift+125 |
| 36.1 | 10 | 35 | 45 | lift+130 | lift+146 |
| 50.1 | 10 | 50 | 70 | lift+170 | lift+188 |
| 63.1 | 10 | 60 | 80 | lift+200 | lift+220 |
| 80.1 | 10 | 60 | 90 | lift+240 | lift+265 |
| 100.1 | 10 | 70 | 90 | lift+240 | lift+270 |
| 125.1 | 15 | 95 | 150 | lift+295 | lift+330 |
| 140 | on request | | | | |
| 200.1 | 15 | 115 | 200 | lift+375 | lift+425 |



¹⁾ As new.

Screw jacks

3.7 HSE range dimension plans

3.7.2.3 With long safety nut LFM-E (BGV C1 or VBG 14)



Worm gear screw jacks used on theatre stages (BGV C1, former VBG 70), lifting platforms (VBG 14) or lifting systems that might affect personal safety are designed according to current regulations, and include such items as anti-drop systems (self-locking screws and/or mechanical safety brakes as part of the drive system). The function of the synchronizing device is guaranteed, if required, by additional components.

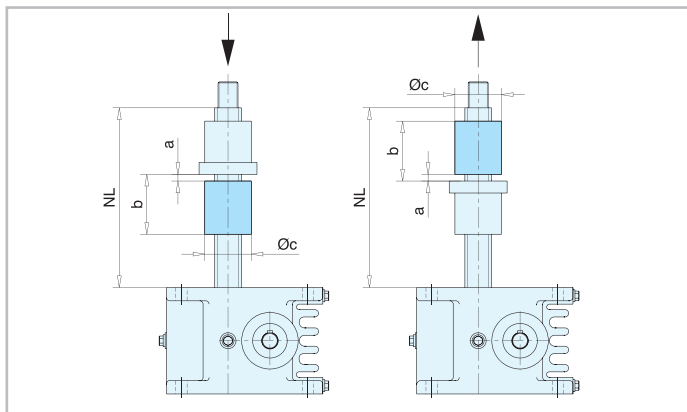


Fig. without limit switch

HSE type 2, compression and tensile force

| Size | a ¹⁾ | b | Øc | NL | |
|-------|-----------------|-----|-----|-----------|-----------|
| | | | | config. K | config. H |
| 32 | 5 | 50 | 40 | lift+135 | lift+150 |
| 36.1 | 10 | 65 | 45 | lift+160 | lift+176 |
| 50.1 | 10 | 90 | 70 | lift+210 | lift+228 |
| 63.1 | 10 | 110 | 80 | lift+250 | lift+270 |
| 80.1 | 10 | 140 | 90 | lift+310 | lift+335 |
| 100.1 | 10 | 140 | 90 | lift+310 | lift+340 |
| 125.1 | 15 | 175 | 150 | lift+375 | lift+410 |
| 140 | on request | | | | |
| 200.1 | 15 | 235 | 200 | lift+495 | lift+545 |

¹⁾ As new. If "T = 0", supporting and safety nut must be repaired.

3

3.7.2.4 In HLA configuration



Ask for copie of our "HLA High Performance Linear Actuator" brochure!