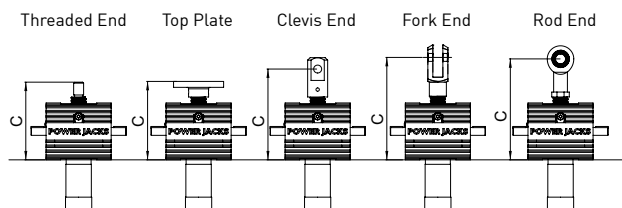


Performance

| Screw Jack Model ⁴ | | S-050 | | |
|--|---------------|-----------|-------|-------|
| Capacity | kN | 50 | | |
| Lead Screw ¹ | Diameter (mm) | 40 | | |
| | Lead (mm) | 9 | 18 | |
| Gear Ratios | Option 1 | 6:1 | | |
| | Option 2 | 24:1 | | |
| | Option 3 | 8:1 (AOR) | | |
| 4 x Turns of worm for travel of lead screw | Option 1 | 6mm | 12mm | |
| | Option 2 | 1.5mm | 3mm | |
| | Option 3 | 4.5mm | 9mm | |
| Maximum Input Power (kW) | Option 1 | 3.0 | | |
| | Option 2 | 0.550 | | |
| | Option 3 | 3.0 | | |
| Start up torque at full load (Nm) ² | Option 1 | 54 | 73 | |
| | Option 2 | 24 | 33 | |
| | Option 3 | 44 | 59 | |
| Maximum Through Torque (Nm) ⁷ | Option 1 | 168.0 | | |
| | Option 2 | 76.5 | | |
| | Option 3 | 168.0 | | |
| Static Efficiency ³ | Option 1 | 0.222 | 0.325 | |
| | Option 2 | 0.125 | 0.184 | |
| | Option 3 | 0.206 | 0.302 | |
| Dynamic Efficiency ³ | Option 1 | 50rpm | 0.281 | 0.398 |
| | Option 1 | 750rpm | 0.324 | 0.460 |
| | Option 1 | 1500rpm* | 0.337 | 0.477 |
| | Option 2 | 50rpm | 0.171 | 0.242 |
| | Option 2 | 750rpm | 0.238 | 0.337 |
| | Option 2 | 1500rpm* | 0.263 | 0.372 |
| | Option 3 | 50rpm | 0.264 | 0.374 |
| | Option 3 | 750rpm | 0.312 | 0.442 |
| | Option 3 | 1500rpm* | 0.328 | 0.465 |
| Maximum Input Speed (rpm) | - | 3000 | | |
| Gear Case Material | - | SG Iron | | |
| Weight (kg) – stroke = 150mm | ST050 | 25.5 | | |
| | SR050 | 27.9 | | |
| Weight (kg) – per extra 25mm | ST050 | 0.24 | | |
| | SR050 | 0.19 | | |

ST050 Closed Height



| Closed Height 'C' | Threaded End | Top Plate | Clevis End | Fork End | Rod End |
|-------------------|------------------------|-----------|------------|----------|---------|
| ST050 | 192 | 192 | 217 | 257 | 251 |
| Stroke (mm) | With Bellows Boots (B) | | | | |
| 0 - 300 | 192 | 206 | 217 | 257 | 251 |
| 301 - 600 | 206 | 206 | 231 | 271 | 265 |
| 601 - 1050 | 224 | 224 | 249 | 289 | 283 |
| 1051 - 1500 | 244 | 244 | 269 | 309 | 303 |
| 1501 - 1800 | 258 | 258 | 283 | 323 | 317 |

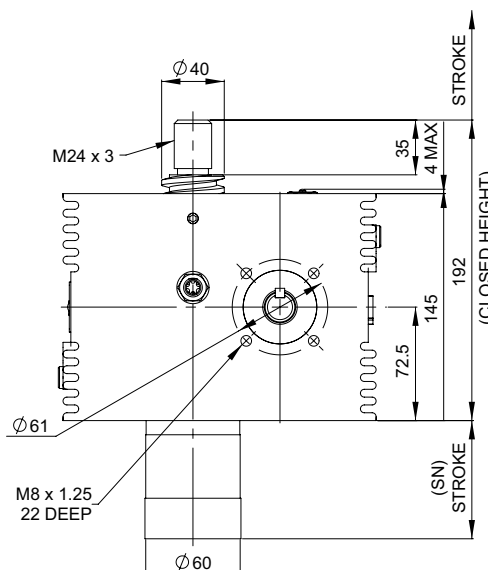
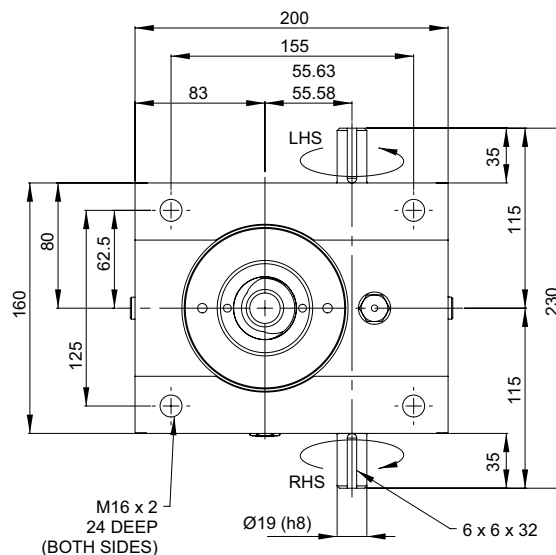
ST050 Stop Nut



Stop nut provides a full power mechanical stop at the end of the lead screw. To be used as a safety feature in emergency conditions.

SN = Stroke + 34mm

ST050



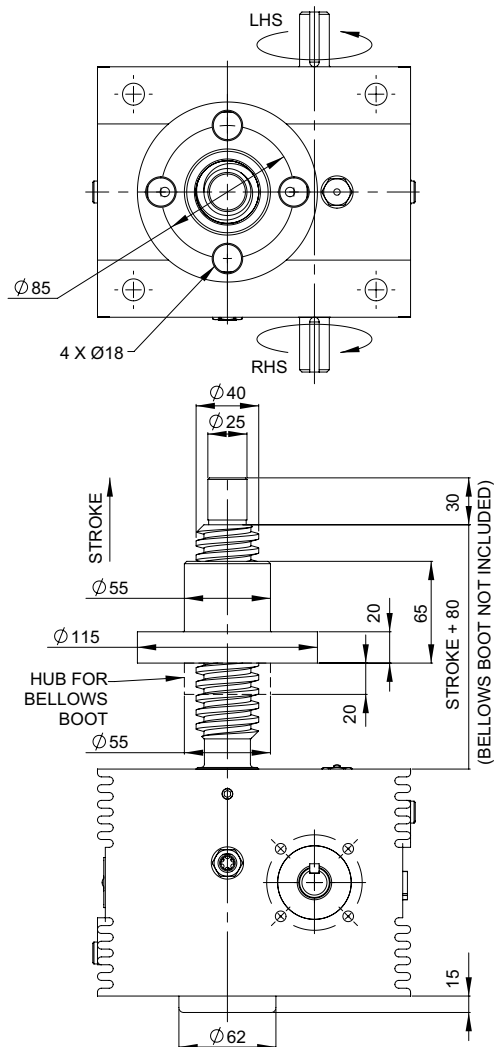
Note:

1. All dimension in millimetres unless otherwise stated.
2. Designs subject to change without notice.

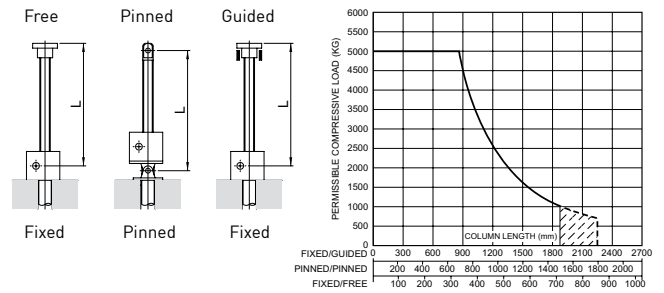
S-SERIES

Rotating Screw Jack 50kN

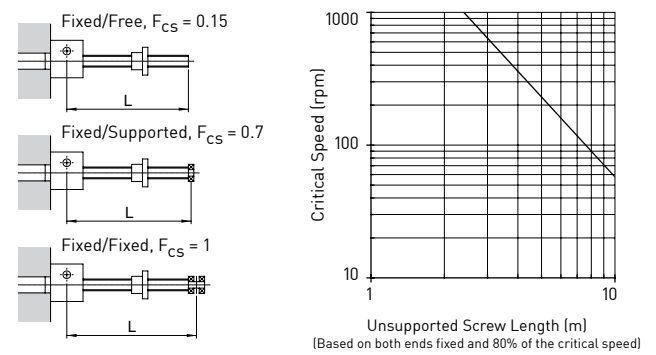
SR050



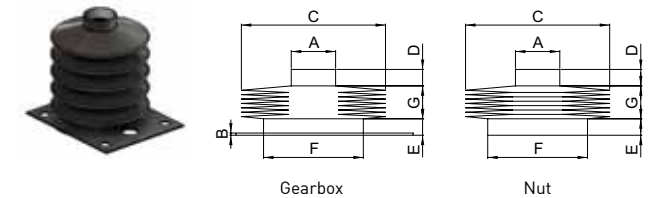
Column Strength



Critical Screw Speed



Bellows Boot



| | ØA | B | ØC | D | E | ØF |
|-------|----|---|-----|----|----|----|
| ST050 | 50 | 2 | 140 | 10 | 10 | 50 |
| SR050 | 55 | 2 | 140 | 10 | 15 | 50 |

| Stroke | 1 - 300 | 301 - 600 | 601 - 1050 | 1051 - 1500 | 1501 - 1800 |
|--------|---------|-----------|------------|-------------|-------------|
| G | 14 | 28 | 46 | 66 | 80* |

*control tapes fitted ØC=160

Accessories & Options

| | | | | | |
|--|-----------------------|--|----------------------|--|-----------------------------|
| | Anti-Backlash | | End Fittings | | Rotary Limit Switch Adaptor |
| | Anti-Rotation (Keyed) | | Limit Switches | | Double Hub Nut |
| | Safety Nut | | Motor Adaptors | | Drives |
| | Trunnion Mounts | | Corrosion Protection | | Secondary Guide |

S-SERIES

Translating Screw Jack 100kN

Performance

| Screw Jack Model ⁴ | | S-100 | | |
|--|---------------|-----------|-------|-------|
| Capacity | kN | 100 | | |
| Lead Screw ¹ | Diameter (mm) | 55 | | |
| | Lead (mm) | 12 | 24 | |
| Gear Ratios | Option 1 | 8:1 | | |
| | Option 2 | 24:1 | | |
| | Option 3 | 6:1 (AOR) | | |
| 4 x Turns of worm for travel of lead screw | Option 1 | 6mm | 12mm | |
| | Option 2 | 2mm | 4mm | |
| | Option 3 | 8mm | 16mm | |
| Maximum Input Power (kW) | Option 1 | 3.75 | | |
| | Option 2 | 1.125 | | |
| | Option 3 | 3.75 | | |
| Start up torque at full load (Nm) ² | Option 1 | 111 | 151 | |
| | Option 2 | 57 | 77 | |
| | Option 3 | 140 | 190 | |
| Maximum Through Torque (Nm) ⁷ | Option 1 | 347.7 | | |
| | Option 2 | 181.5 | | |
| | Option 3 | 347.7 | | |
| Static Efficiency ³ | Option 1 | 0.214 | 0.317 | |
| | Option 2 | 0.140 | 0.207 | |
| | Option 3 | 0.227 | 0.336 | |
| Dynamic Efficiency ³ | Option 1 | 50rpm | 0.272 | 0.389 |
| | Option 1 | 750rpm | 0.315 | 0.450 |
| | Option 1 | 1500rpm* | 0.328 | 0.468 |
| | Option 2 | 50rpm | 0.188 | 0.269 |
| | Option 2 | 750rpm | 0.252 | 0.359 |
| | Option 2 | 1500rpm* | 0.274 | 0.391 |
| | Option 3 | 50rpm | 0.285 | 0.407 |
| | Option 3 | 750rpm | 0.324 | 0.462 |
| | Option 3 | 1500rpm* | 0.336 | 0.479 |
| Maximum Input Speed (rpm) | - | 3000 | | |
| Gear Case Material | - | SG Iron | | |
| Weight (kg) – stroke = 150mm | ST100 | 47.7 | | |
| | SR100 | 53.9 | | |
| Weight (kg) – per extra 25mm | ST100 | 0.47 | | |
| | SR100 | 0.36 | | |

ST100 Closed Height

| | Threaded End | Top Plate | Clevis End | Fork End | Rod End |
|-------------------|-----------------------|-----------|------------|----------|---------|
| Closed Height 'C' | 224 | 224 | 269 | 328 | 309 |
| Stroke (mm) | With Bellow Boots (B) | | | | |
| 0 - 300 | 224 | 224 | 269 | 328 | 309 |
| 301 - 600 | 238 | 238 | 283 | 342 | 323 |
| 601 - 1050 | 256 | 256 | 301 | 360 | 341 |
| 1051 - 1500 | 275 | 275 | 320 | 379 | 360 |
| 1501 - 1800 | 295 | 295 | 340 | 399 | 380 |

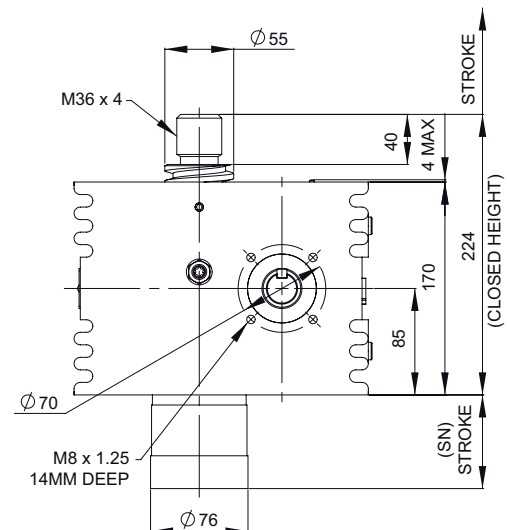
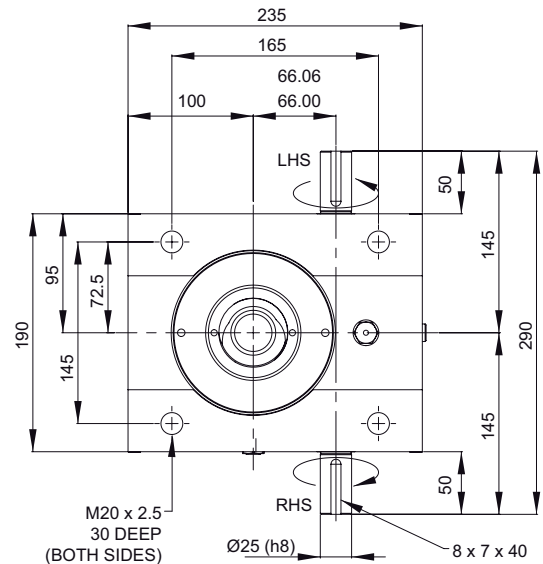
ST100 Stop Nut



Stop nut provides a full power mechanical stop at the end of the lead screw. To be used as a safety feature in emergency conditions.

SN = Stroke + 37mm

ST100



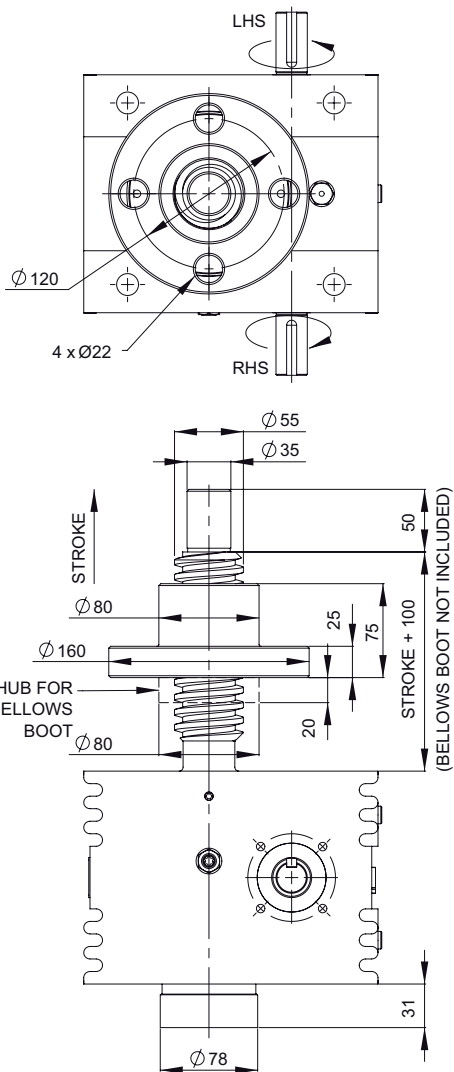
Note:

1. All dimension in millimetres unless otherwise stated.
2. Designs subject to change without notice.

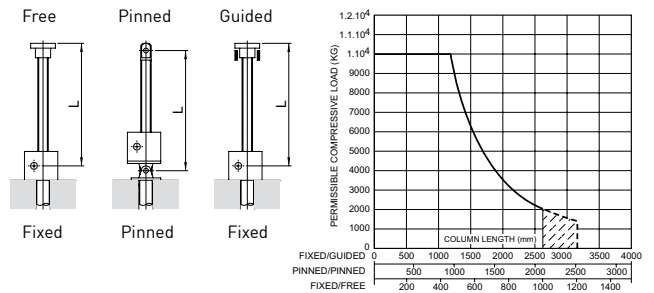
S-SERIES

Rotating Screw Jack 100kN

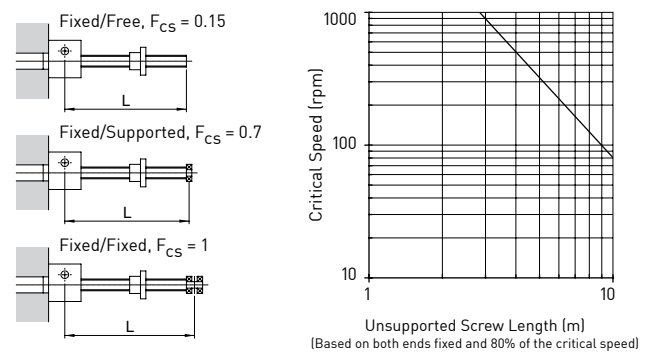
SR100



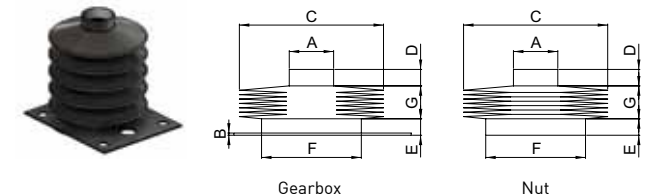
Column Strength



Critical Screw Speed



Bellows Boot



| | ØA | B | ØC | D | E | ØF |
|-------|----|---|-----|----|----|----|
| ST100 | 65 | 3 | 150 | 10 | 10 | 70 |
| SR100 | 80 | 3 | 150 | 10 | 15 | 70 |

| Stroke | 1 - 300 | 301 - 600 | 601 - 1050 | 1051 - 1500 | 1501 - 1800 |
|--------|---------|-----------|------------|-------------|-------------|
| G | 14 | 28 | 46 | 65 | 85* |

*control tapes fitted ØC=170

Accessories & Options

| | | | | | |
|--|-----------------------|--|----------------------|--|-----------------------------|
| | Anti-Backlash | | End Fittings | | Rotary Limit Switch Adaptor |
| | Anti-Rotation (Keyed) | | Limit Switches | | Double Hub Nut |
| | Safety Nut | | Motor Adaptors | | Drives |
| | Trunnion Mounts | | Corrosion Protection | | Secondary Guide |

S-SERIES

Translating Screw Jack 200kN

Performance

| Screw Jack Model ⁴ | S-200 | |
|--|-------------------|-------------|
| Capacity | kN | 200 |
| Lead Screw ¹ | Diameter (mm) | 65 |
| | Lead (mm) | 12 24 |
| Gear Ratios | Option 1 | 8:1 |
| | Option 2 | 24:1 |
| | Option 3 | 6:1 (AOR) |
| 4 x Turns of worm for travel of lead screw | Option 1 | 6mm 12mm |
| | Option 2 | 2mm 4mm |
| | Option 3 | 8mm 16mm |
| Maximum Input Power (kW) | Option 1 | 3.75 |
| | Option 2 | 1.125 |
| | Option 3 | 3.75 |
| Start up torque at full load (Nm) ² | Option 1 | 252 330 |
| | Option 2 | 129 168 |
| | Option 3 | 317 416 |
| Maximum Through Torque (Nm) ⁷ | Option 1 | 525 |
| | Option 2 | 275 |
| | Option 3 | 525 |
| Static Efficiency ³ | Option 1 | 0.190 0.290 |
| | Option 2 | 0.214 0.189 |
| | Option 3 | 0.201 0.307 |
| Dynamic Efficiency ³ | Option 1 50rpm | 0.243 0.358 |
| | Option 1 750rpm | 0.282 0.415 |
| | Option 1 1500rpm* | 0.293 0.431 |
| | Option 2 50rpm | 0.168 0.248 |
| | Option 2 750rpm | 0.225 0.331 |
| | Option 2 1500rpm* | 0.245 0.361 |
| | Option 3 50rpm | 0.255 0.375 |
| | Option 3 750rpm | 0.289 0.426 |
| | Option 3 1500rpm* | 0.300 0.442 |
| Maximum Input Speed (rpm) | - | 3000 |
| Gear Case Material | - | SG Iron |
| Weight (kg) – stroke = 150mm | ST025 | 67.8 |
| | SR025 | 76.9 |
| Weight (kg) – per extra 25mm | ST025 | 0.72 |
| | ST025 | 0.53 |

ST200 Closed Height

| | Threaded End | Top Plate | Clevis End | Fork End | Rod End |
|-------------------|-----------------------|-----------|------------|----------|---------|
| Closed Height 'C' | 265 | 265 | 310 | 402 | 370 |
| Stroke (mm) | With Bellow Boots (B) | | | | |
| 0 - 300 | 265 | 265 | 310 | 402 | 370 |
| 301 - 600 | 279 | 279 | 324 | 416 | 384 |
| 601 - 1050 | 297 | 297 | 342 | 434 | 402 |
| 1051 - 1500 | 317 | 317 | 362 | 454 | 422 |
| 1501 - 1800 | 331 | 331 | 376 | 468 | 436 |

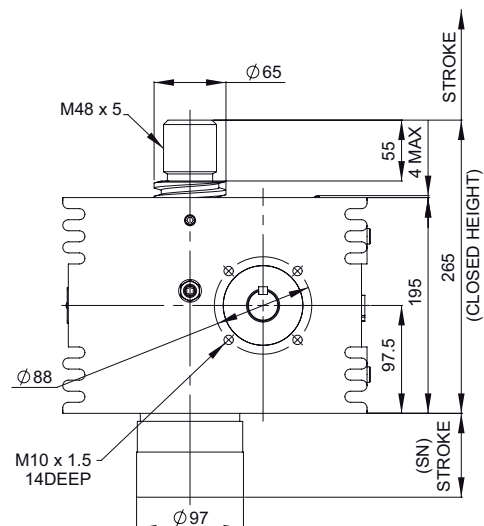
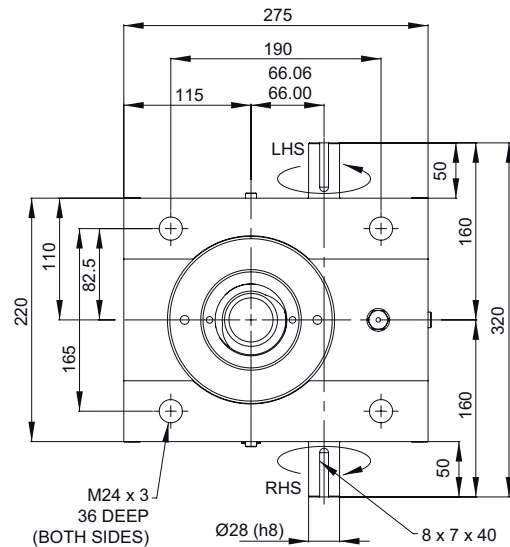
ST200 Stop Nut



Stop nut provides a full power mechanical stop at the end of the lead screw. To be used as a safety feature in emergency conditions.

$$SN = \text{Stroke} + 37\text{mm}$$

ST200



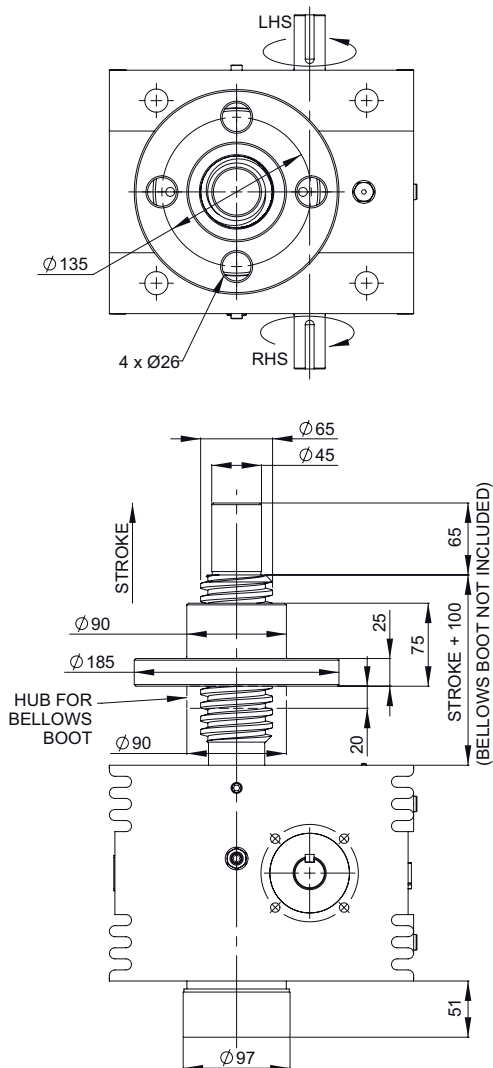
Note:

1. All dimension in millimetres unless otherwise stated.
2. Designs subject to change without notice.

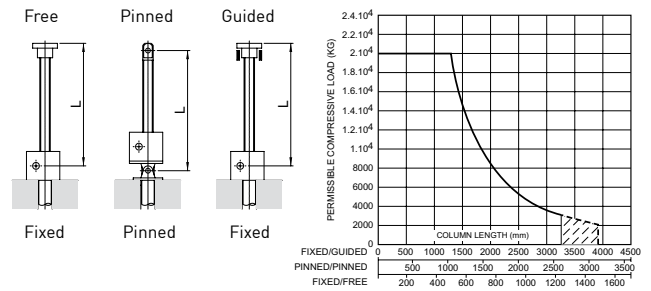
S-SERIES

Rotating Screw Jack 200kN

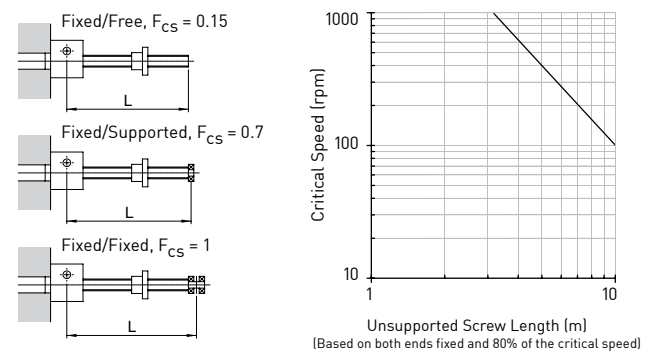
SR200



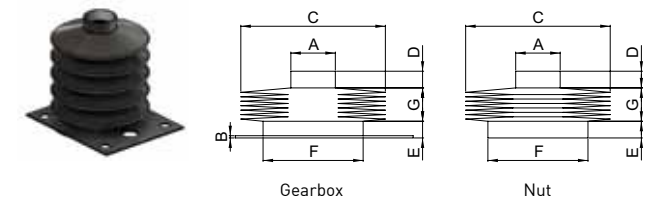
Column Strength



Critical Screw Speed



Bellows Boot

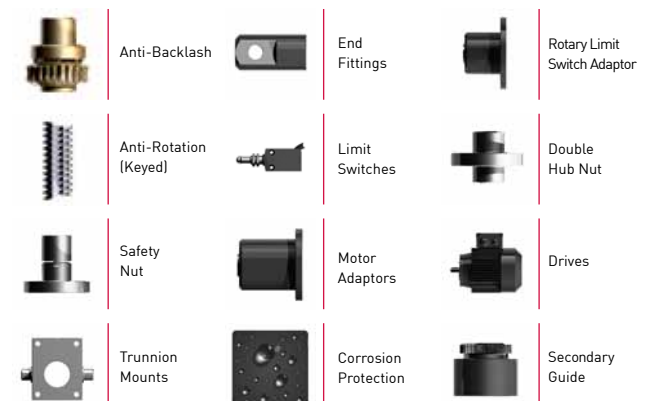


| | ØA | B | ØC | D | E | ØF |
|-------|----|---|-----|----|----|----|
| ST200 | 75 | 3 | 170 | 15 | 10 | 80 |
| SR200 | 90 | 3 | 170 | 15 | 15 | 80 |

| Stroke | 1 - 300 | 301 - 600 | 601 - 1050 | 1051 - 1500 | 1501 - 1800 |
|--------|---------|-----------|------------|-------------|-------------|
| G | 14 | 28 | 46 | 66 | 80* |

*control tapes fitted ØC=190

Accessories & Options



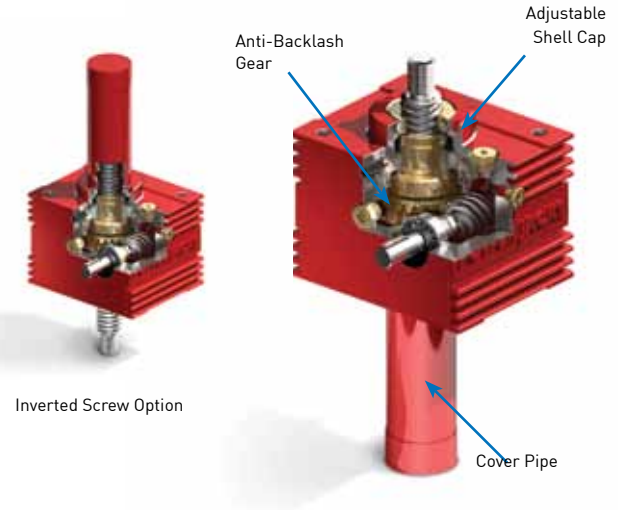
S-SERIES

Anti-Backlash for Screw Jacks

The Anti-Backlash feature provides a reliable method to regulate the axial backlash in a screw jack for applications where there is a reversal of loading from tension to compression. The amount of backlash between the screw and worm gear nut can be adjusted (adjust shell cap) to a desired amount or a practical minimum. To avoid binding and excessive wear do not adjust backlash to less than 0.025mm.

The Anti-Backlash feature also acts as a safety device, providing dual nut load carrying unit, when the worm gear becomes worn. It can also be fitted with a wear indicator for critical applications. This can be further upgraded to use a sensor for automatic detection (consult Power Jacks).

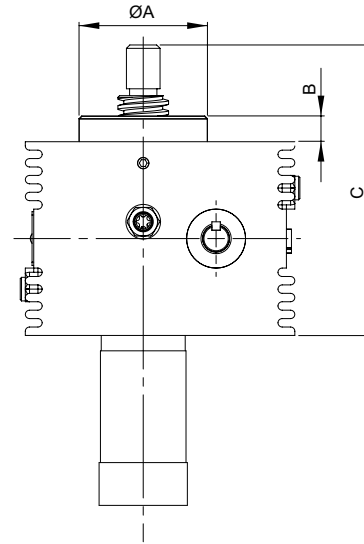
The S-Series Anti-Backlash screw jacks are available with an inverted screw design for maximum design flexibility (refer to diagram on the left).



Dimensions for Anti-Backlash

The dimensions for these screw jacks are the same as the standard units except those detailed below.

| Model | ST025-R | ST050-R | ST100-R | ST200-R |
|-------|---------|---------|---------|---------|
| ØA | 76 | 100 | 127 | 145 |
| B | 15 | 25 | 28 | 34 |
| C | 172 | 217 | 252 | 299 |



Performance for Anti-Backlash

| Screw Jack Model ⁴ | | ST025-R | | ST050-R | | ST100-R | | ST200-R | | |
|-----------------------------------|-------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-------|
| Lead Screw | Lead (mm) | 6 | 12 | 9 | 18 | 12 | 24 | 12 | 24 | |
| | Gear Ratios | Option 1 | 6:1 | | 6:1 | | 8:1 | | 8:1 | |
| | | Option 2 | 24:1 | | 24:1 | | 24:1 | | 24:1 | |
| Option 3 | | 8:1 (AOR) | | 8:1 (AOR) | | 6:1 (AOR) | | 6:1 (AOR) | | |
| Start up torque at full load (Nm) | Option 1 | 21 | 28 | 60 | 82 | 124 | 167 | 280 | 366 | |
| | Option 2 | 9 | 12 | 27 | 36 | 63 | 85 | 143 | 187 | |
| | Option 3 | 17 | 23 | 48 | 66 | 156 | 211 | 353 | 462 | |
| Static Efficiency | Option 1 | 0.188 | 0.283 | 0.200 | 0.293 | 0.193 | 0.285 | 0.171 | 0.261 | |
| | Option 2 | 0.109 | 0.164 | 0.112 | 0.165 | 0.126 | 0.186 | 0.112 | 0.170 | |
| | Option 3 | 0.175 | 0.263 | 0.185 | 0.272 | 0.204 | 0.302 | 0.181 | 0.276 | |
| Dynamic Efficiency | Option 1 | 50rpm | 0.237 | 0.344 | 0.253 | 0.358 | 0.245 | 0.350 | 0.219 | 0.322 |
| | | 750rpm | 0.269 | 0.391 | 0.292 | 0.414 | 0.284 | 0.405 | 0.254 | 0.373 |
| | | 1000rpm | 0.272 | 0.394 | 0.296 | 0.419 | 0.288 | 0.411 | 0.257 | 0.379 |
| | | 1500rpm+ | 0.278 | 0.403 | 0.303 | 0.430 | 0.295 | 0.421 | 0.264 | 0.388 |
| | Option 2 | 50rpm | 0.148 | 0.214 | 0.153 | 0.218 | 0.169 | 0.242 | 0.151 | 0.223 |
| | | 750rpm | 0.198 | 0.288 | 0.213 | 0.302 | 0.227 | 0.323 | 0.202 | 0.298 |
| | | 1000rpm | 0.203 | 0.295 | 0.220 | 0.312 | 0.234 | 0.333 | 0.209 | 0.307 |
| | | 1500rpm+ | 0.215 | 0.313 | 0.237 | 0.335 | 0.247 | 0.352 | 0.220 | 0.325 |
| | Option 3 | 50rpm | 0.222 | 0.322 | 0.237 | 0.336 | 0.257 | 0.367 | 0.229 | 0.338 |
| | | 750rpm | 0.259 | 0.376 | 0.281 | 0.398 | 0.291 | 0.416 | 0.260 | 0.383 |
| | | 1000rpm | 0.263 | 0.382 | 0.286 | 0.406 | 0.296 | 0.422 | 0.264 | 0.389 |
| | | 1500rpm+ | 0.271 | 0.392 | 0.295 | 0.418 | 0.302 | 0.431 | 0.270 | 0.397 |
| Weight (kg) – stroke = 150mm | | 14.2 | | 26.7 | | 50.3 | | 70.8 | | |

Note: Values for standard oil lubricated worm gear box and grease lubricated lead screw.

S-SERIES

Anti-Rotation (Keyed) for Screw Jacks

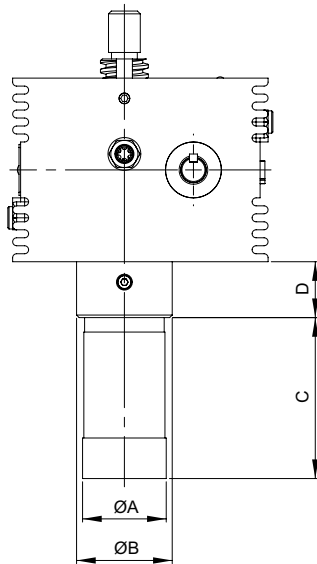


The Anti-Rotation feature for translating screw jacks stops the lead screw from rotating without the need for end pinning. This is done by keying the lead screw. However the keyway in the screw will cause greater than normal wear on the internal threads of the worm gear.

Dimensions for Anti-Rotation

The dimensions for these screw jacks are the same as the standard units except those detailed below.

| Model | ST025-K | ST050-K | ST100-K | ST200-K |
|-------|---------|---------|---------|---------|
| ØA | 60 | 75 | 90 | 102 |
| ØB | 50 | 60 | 76 | 95 |
| C | Stroke | Stroke | Stroke | Stroke |
| D | 35 | 42 | 52 | 63 |



Performance for Anti-Rotation

| Screw Jack Model ⁴ | | ST025-K | | ST050-K | | ST100-K | | ST200-K | | |
|-----------------------------------|-----------|----------------------|-------|-----------|-------|-----------|-------|-----------|-------|-------|
| Lead Screw | Lead (mm) | 6 | 12 | 9 | 18 | 12 | 24 | 12 | 24 | |
| Gear Ratios | Option 1 | 6:1 | | 6:1 | | 8:1 | | 8:1 | | |
| | Option 2 | 24:1 | | 24:1 | | 24:1 | | 24:1 | | |
| | Option 3 | 8:1 [AOR] | | 8:1 [AOR] | | 6:1 [AOR] | | 6:1 [AOR] | | |
| Start up torque at full load (Nm) | Option 1 | 20 | 27 | 57 | 77 | 117 | 159 | 265 | 347 | |
| | Option 2 | 9 | 11 | 25 | 34 | 60 | 81 | 135 | 177 | |
| | Option 3 | 16 | 21 | 46 | 62 | 148 | 200 | 334 | 437 | |
| Static Efficiency | Option 1 | 0.199 | 0.297 | 0.211 | 0.309 | 0.203 | 0.301 | 0.180 | 0.275 | |
| | Option 2 | 0.115 | 0.174 | 0.119 | 0.175 | 0.133 | 0.197 | 0.118 | 0.180 | |
| | Option 3 | 0.185 | 0.278 | 0.196 | 0.287 | 0.215 | 0.318 | 0.191 | 0.291 | |
| Dynamic Efficiency | Option 1 | 50rpm | 0.249 | 0.360 | 0.267 | 0.378 | 0.259 | 0.369 | 0.231 | 0.340 |
| | | 750rpm | 0.284 | 0.413 | 0.308 | 0.437 | 0.300 | 0.428 | 0.268 | 0.394 |
| | | 1000rpm | 0.287 | 0.416 | 0.312 | 0.443 | 0.304 | 0.434 | 0.271 | 0.400 |
| | | 1500rpm ⁺ | 0.294 | 0.426 | 0.320 | 0.454 | 0.312 | 0.445 | 0.278 | 0.410 |
| | Option 2 | 50rpm | 0.156 | 0.226 | 0.162 | 0.230 | 0.179 | 0.255 | 0.160 | 0.235 |
| | | 750rpm | 0.209 | 0.304 | 0.226 | 0.320 | 0.239 | 0.341 | 0.214 | 0.315 |
| | | 1000rpm | 0.215 | 0.311 | 0.234 | 0.332 | 0.247 | 0.352 | 0.220 | 0.324 |
| | | 1500rpm ⁺ | 0.227 | 0.330 | 0.250 | 0.354 | 0.260 | 0.372 | 0.233 | 0.343 |
| | Option 3 | 50rpm | 0.235 | 0.340 | 0.250 | 0.355 | 0.271 | 0.387 | 0.242 | 0.357 |
| | | 750rpm | 0.274 | 0.397 | 0.296 | 0.420 | 0.308 | 0.439 | 0.275 | 0.405 |
| | | 1000rpm | 0.278 | 0.403 | 0.302 | 0.428 | 0.312 | 0.446 | 0.279 | 0.411 |
| | | 1500rpm ⁺ | 0.286 | 0.414 | 0.311 | 0.441 | 0.319 | 0.455 | 0.285 | 0.419 |
| Weight (kg) – stroke = 150mm | | 14.6 | | 26.8 | | 50.3 | | 71.6 | | |

Note: Values for standard oil lubricated worm gear box and grease lubricated lead screw.

S-SERIES

Anti-Rotation with Anti-Backlash or Safety Nut

The anti-rotation feature can be combined with the Anti-Backlash or Safety Nut mechanism into one screw jack. For this option the anti-rotation device is located in-line with the cover pipe. As with the standard anti-backlash screw jack these are also available with an inverted screw design for maximum design flexibility (refer to diagram below).

Dimensions for Anti-Backlash with Anti-Rotation (Keyed)

The dimensions for these screw jacks are the same as the standard anti-backlash units except those detailed below.

| Model | ST025-Y | ST050-Y | ST100-Y | ST200-Y |
|-------|---------|---------|---------|---------|
| ØD | 60 | 75 | 90 | 102 |
| ØE | 50 | 60 | 76 | 95 |
| F | Stroke | Stroke | Stroke | Stroke |
| G | 35 | 38 | 52 | 63 |

Detail A = Same as Anti-Backlash screw jack

Dimension for Safety Nut with Anti-Rotation (Keyed)

Load Direction - Tension (T)

| Model | ST025-KT | ST030-KT | ST100-KT | ST200-KT |
|-------|----------|----------|----------|----------|
| ØD | 55 | 70 | 89 | 110 |
| ØE | 50 | 60 | 76 | 95 |
| F | Stroke | Stroke | Stroke | Stroke |
| G | 50 | 60 | 60 | 65 |

Detail A = Same as standard S-Series screw jack

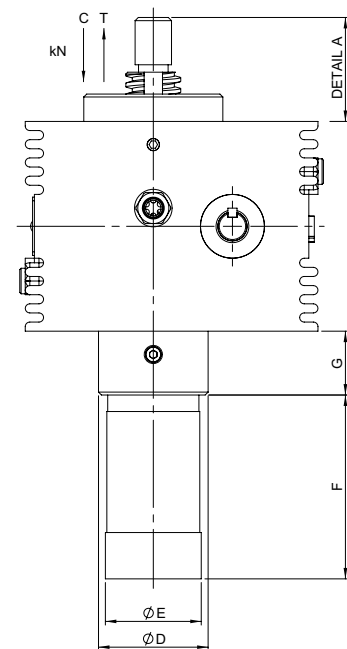
Load Direction - Compression (C)

| Model | ST025-KC | ST030-KC | ST100-KC | ST200-KC |
|-------|----------|----------|----------|----------|
| ØD | 60 | 75 | 90 | 110 |
| ØE | 50 | 60 | 76 | 95 |
| F | Stroke | Stroke | Stroke | Stroke |
| G | 35 | 38 | 52 | 63 |

Detail A = Same as Safety Nut screw jack with compression load



Inverted Screw Option



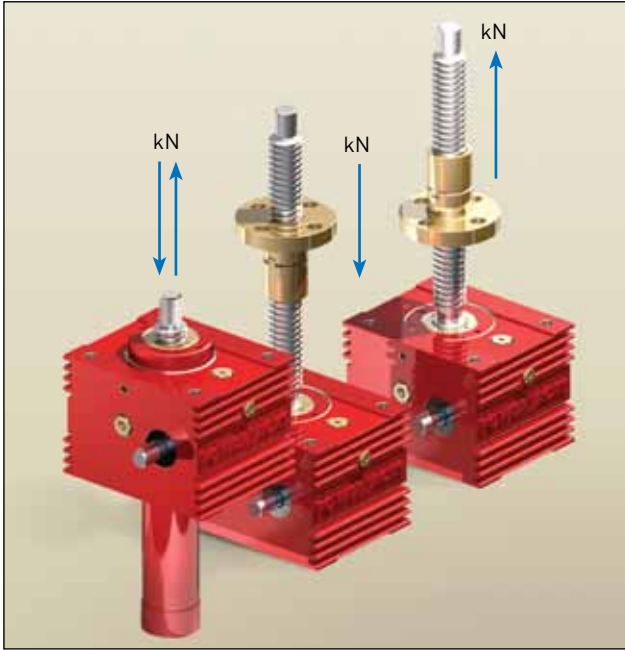
Performance for Anti-Backlash with Anti-Rotation

| Screw Jack Model ⁴ | | ST025-Y* | | ST050-Y* | | ST100-Y* | | ST200-Y* | | |
|-----------------------------------|-------------|----------------------|-------|-----------|-------|-----------|-------|-----------|-------|-------|
| Lead Screw | Lead (mm) | 6 | 12 | 9 | 18 | 12 | 24 | 12 | 24 | |
| | Gear Ratios | Option 1 | 6:1 | | 6:1 | | 8:1 | | 8:1 | |
| | | Option 2 | 24:1 | | 24:1 | | 24:1 | | 24:1 | |
| Option 3 | | 8:1 (AOR) | | 8:1 (AOR) | | 6:1 (AOR) | | 6:1 (AOR) | | |
| Start up torque at full load (Nm) | Option 1 | 22 | 30 | 63 | 86 | 130 | 176 | 294 | 385 | |
| | Option 2 | 10 | 13 | 28 | 38 | 67 | 90 | 150 | 197 | |
| | Option 3 | 18 | 24 | 51 | 69 | 164 | 222 | 371 | 486 | |
| Static Efficiency | Option 1 | 0.179 | 0.269 | 0.190 | 0.278 | 0.183 | 0.271 | 0.162 | 0.248 | |
| | Option 2 | 0.104 | 0.156 | 0.107 | 0.156 | 0.120 | 0.177 | 0.106 | 0.162 | |
| | Option 3 | 0.166 | 0.250 | 0.176 | 0.258 | 0.194 | 0.287 | 0.172 | 0.262 | |
| Dynamic Efficiency | Option 1 | 50rpm | 0.225 | 0.326 | 0.240 | 0.340 | 0.233 | 0.332 | 0.208 | 0.306 |
| | | 750rpm | 0.257 | 0.371 | 0.277 | 0.393 | 0.270 | 0.385 | 0.241 | 0.355 |
| | | 1000rpm | 0.258 | 0.374 | 0.281 | 0.398 | 0.273 | 0.390 | 0.244 | 0.360 |
| | | 1500rpm ⁺ | 0.264 | 0.383 | 0.288 | 0.408 | 0.280 | 0.400 | 0.250 | 0.369 |
| | Option 2 | 50rpm | 0.140 | 0.204 | 0.145 | 0.206 | 0.161 | 0.230 | 0.144 | 0.212 |
| | | 750rpm | 0.188 | 0.273 | 0.202 | 0.286 | 0.215 | 0.307 | 0.192 | 0.283 |
| | | 1000rpm | 0.193 | 0.280 | 0.209 | 0.297 | 0.222 | 0.317 | 0.198 | 0.292 |
| | | 1500rpm ⁺ | 0.205 | 0.297 | 0.225 | 0.317 | 0.234 | 0.335 | 0.209 | 0.308 |
| | Option 3 | 50rpm | 0.211 | 0.306 | 0.225 | 0.319 | 0.244 | 0.348 | 0.218 | 0.321 |
| | | 750rpm | 0.246 | 0.357 | 0.266 | 0.378 | 0.277 | 0.395 | 0.247 | 0.364 |
| | | 1000rpm | 0.250 | 0.363 | 0.272 | 0.386 | 0.281 | 0.401 | 0.251 | 0.370 |
| | | 1500rpm ⁺ | 0.257 | 0.373 | 0.280 | 0.397 | 0.287 | 0.410 | 0.256 | 0.378 |
| Weight (kg) - stroke = 150mm | | 15 | | 28 | | 52.7 | | 75.1 | | |

Note: Values for standard oil lubricated worm gear box and grease lubricated lead screw

S-SERIES

with Safety Nut



Power Jacks metric machine screw jacks can be fitted with a safety nut, which provides 2 safety roles:

1. In the event of excessive wear on the nut thread the load will be transferred from the standard nut to the safety nut. This will also provide visual wear indication as the gap between the safety nut decreases to zero as the standard lifting nut wears.
2. In the unlikely event of catastrophic nut thread failure the safety nut will sustain the load. The safety of industrial and human cargo is therefore improved.

There are several configurations for each safety nut device as they only work in one load direction. For this reason when ordering please supply a sketch of your application showing load directions.

Translating Screw Jack with Safety Nut

The dimensions for these screw jacks are the same as the standard units except those detailed below.

Load Direction - Compression (C)

| Model | ST025-C | ST050-C | ST100-C | ST200-C |
|-------|---------|---------|---------|---------|
| ØA | 76 | 100 | 127 | 145 |
| B | 15 | 25 | 28 | 34 |
| C | 172 | 217 | 252 | 299 |

Dimensions F, G, ØD not applicable

Detail A = As per table

Detail B = Same as standard S-Series screw jack

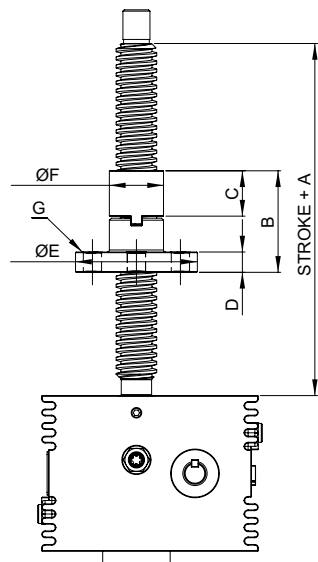
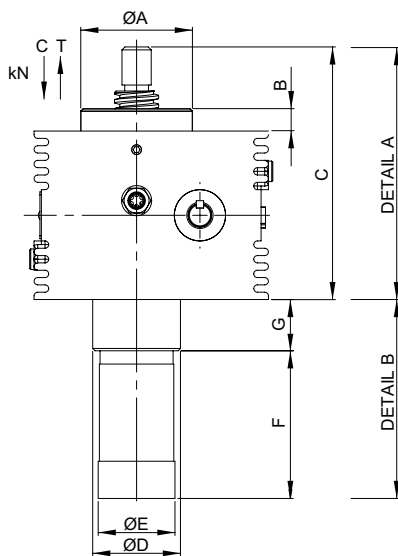
Load Direction - Tension (T)

| Model | ST025-T | ST050-T | ST100-T | ST200-T |
|-------|---------|---------|---------|---------|
| ØD | 55 | 70 | 89 | 110 |
| F | Stroke | Stroke | Stroke | Stroke |
| G | 50 | 60 | 60 | 65 |

Dimensions A, B, C not applicable

Detail A = Same as standard S-Series screw jack

Detail B = As per table



Rotating Screw Jack with Safety Nut

The dimensions for these screw jacks are the same as the standard units except those detailed below. A bellows boot hub can be provided on the flanged half of the safety nut.

| Model | SR025 | SR050 | SR100 | SR200 |
|-------------|----------------------|--------------------|---------------------|---------------------|
| A | Stroke +95 | Stroke +140 | Stroke +170 | Stroke +170 |
| B | 75 | 125 | 145 | 145 |
| C | 33.5 | 58 | 67 | 67 |
| D | 15 | 20 | 25 | 25 |
| ØE | 90 | 115 | 160 | 185 |
| ØF | 40 | 55 | 80 | 90 |
| G | 4 x Ø13.5 Ø65 PCD | 4 x Ø18 Ø85 PCD | 4 x Ø22 Ø120 PCD | 4 x Ø26 Ø135 PCD |
| Weight (kg) | 15.4 | 28.8 | 55.9 | 79.5 |

PCD = Pitch Circle Diameter

| Model | ST025 | ST050 | ST100 | ST200 |
|-------------|-------|-------|-------|-------|
| Weight (kg) | 15.2 | 28.4 | 54.9 | 78.8 |

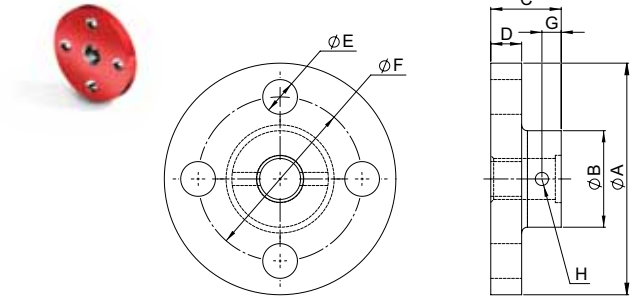
S-SERIES

End Fittings for Translating Screw

Top Plate

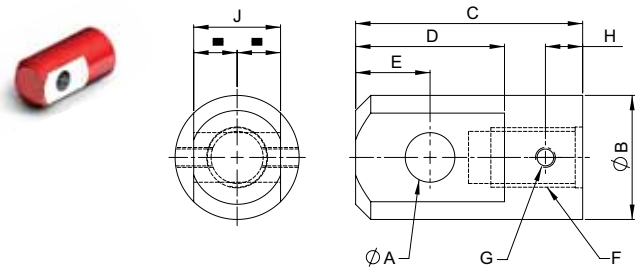
| Capacity | 25kN | 50kN | 100kN | 200kN |
|-------------|-----------|-----------|-----------|------------|
| ØA | Ø100 | Ø120 | Ø150 | Ø170 |
| ØB | Ø40 | Ø50 | Ø65 | Ø75 |
| C | 31.5 | 36.5 | 42 | 58 |
| D | 12 | 16 | 20 | 25 |
| ØE | Ø13.5 | Ø18 | Ø22 | Ø26 |
| ØF (PCD) | Ø70 | Ø85 | Ø110 | Ø120 |
| G | 10 | 10 | 12 | 16 |
| H | M8 x 1.25 | M8 x 1.25 | M10 x 1.5 | M12 x 1.75 |
| Weight (kg) | 0.79 | 1.5 | 2.82 | 4.5 |

PCD = Pitch Circle Diameter



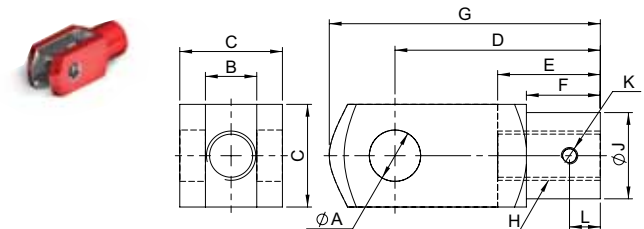
Clevis End

| Capacity | 25kN | 50kN | 100kN | 200kN |
|-------------|----------------------|--------------------|--------------------|--------------------|
| ØA | Ø16 | Ø20 | Ø22 | Ø30 |
| ØB | Ø40 | Ø50 | Ø65 | Ø75 |
| C | 79.5 | 91.5 | 120 | 143 |
| D | 46 | 60 | 66 | 80 |
| E | 23 | 30 | 33 | 40 |
| F | M20 x 2.5 32 Deep | M24 x 3 37 Deep | M36 x 4 42 Deep | M48 x 5 58 Deep |
| G | M8 x 1.25 | M8 x 1.25 | M10 x 1.5 | M12 x 1.75 |
| H | 15 | 15 | 20 | 25 |
| J | 30 | 35 | 40 | 50 |
| Weight (kg) | 0.57 | 1.0 | 2.1 | 3.1 |



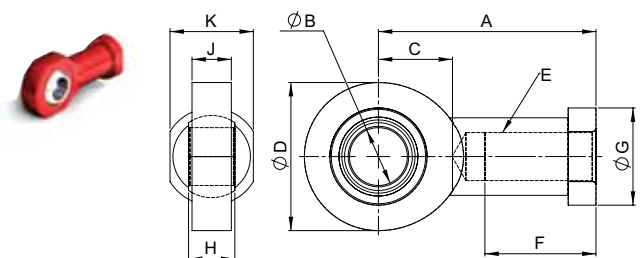
Fork End

| Capacity | 25kN | 50kN | 100kN | 200kN |
|-------------|-----------|-----------|-----------|------------|
| ØA | Ø20 | Ø25 | Ø35 | Ø50 |
| B | 20 | 25 | 35 | 50 |
| C | 40 | 50 | 70 | 96 |
| D | 80 | 100 | 144 | 192 |
| E | 40 | 50 | 72 | 96 |
| F | 30 | 36 | 54 | 73 |
| G | 105 | 132 | 188 | 265 |
| H | M20 x 2.5 | M24 x 3 | M36 x 4 | M48 x 5 |
| ØJ | 34 | 42 | 60 | 82 |
| K | M8 x 1.25 | M8 x 1.25 | M10 x 1.5 | M12 x 1.75 |
| L | 10 | 15 | 20 | 25 |
| Weight (kg) | 0.55 | 1.1 | 2.93 | 7.86 |



Rod End

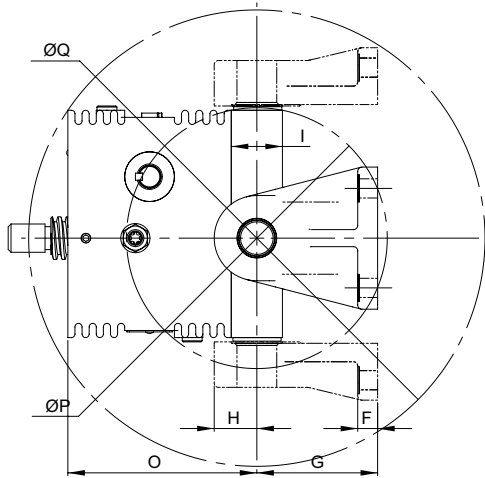
| Capacity | 25kN | 50kN | 100kN | 200kN |
|-------------|-----------|---------|---------|---------|
| A | 77 | 94 | 125 | 160 |
| ØB | 20 | 25 | 35 | 50 |
| C | 27 | 32 | 42 | 60 |
| ØD | 53 | 64 | 82 | 112 |
| E | M20 x 1.5 | M24 x 2 | M36 x 3 | M45 x 3 |
| F | 40 | 48 | 60 | 68 |
| ØG | 35 | 42 | 58 | 75 |
| H | 16 | 20 | 25 | 35 |
| J | 13 | 17 | 21 | 30 |
| K | 32 | 36 | 50 | 65 |
| Weight (kg) | 0.35 | 0.64 | 1.3 | 3.5 |



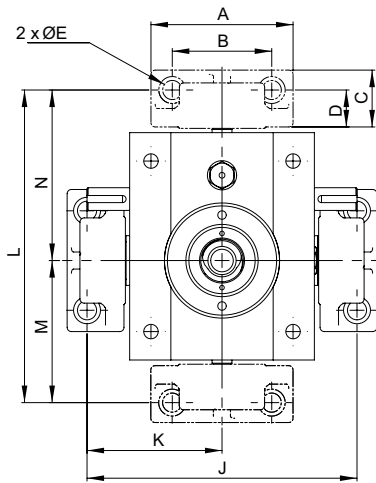
Note: Lead screw threaded end made to suit rod end.

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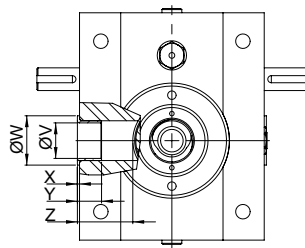
Trunnion Mounts



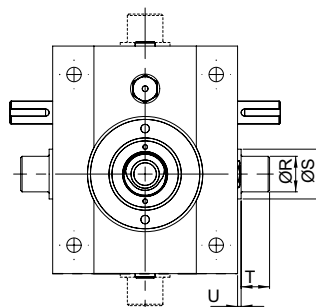
With Trunnion Feet



With Trunnion Feet



Male Trunnion



Female Trunnion



Trunnion mounts provide a pivot point at the gearbox of the screw jack.

- 2 Pivot Plane Options
- Supplied with or without Trunnion Feet
- Option of Male or Female Trunnions
- Trunnion mounts can be mounted on either side of the screw jacks gearbox

When the trunnions are on the same side as the worm shaft multiple screw jacks can be linked in line with a drive shaft and pivot around a common axis.

The trunnion mounts are connected to the screw jacks gearbox with 4 bolts.

| Model | S-025 | S-050 | S-100 | S-200 |
|-------|-------|-------|-------|-------|
| A | 100 | 140 | 170 | 220 |
| B | 70 | 100 | 120 | 150 |
| C | 40 | 55 | 70 | 90 |
| D | 26 | 35 | 44 | 58 |
| ØE | 13.5 | 18 | 22 | 30 |
| F | 14 | 20 | 25 | 25 |
| G | 85 | 120 | 130 | 170 |
| H | 30 | 42.5 | 47.5 | 59 |
| I | 36 | 50 | 60 | 75 |
| J | 190 | 240 | 292 | 352 |
| K | 95 | 120 | 146 | 176 |
| L | 220 | 280 | 337 | 407 |
| M | 100 | 123 | 151 | 181 |
| N | 120 | 157 | 186 | 226 |
| O | 133 | 170 | 200 | 232.5 |
| ØP | 184 | 240 | 277 | 329 |
| ØQ | 321 | 413 | 483 | 565 |
| ØR | 25 f7 | 35 f7 | 45 f7 | 60 f7 |
| ØS | 35 | 47 | 58 | 74 |
| T | 20 | 20 | 35 | 40 |
| U | 2.5 | 3 | 5 | 5 |
| ØV | 25 | 35 | 45 | 60 |
| ØW | 35 | 47 | 58 | 75 |
| X | 1.5 | 2 | 2.5 | 4 |
| Y | 17 | 26 | 26 | 50 |
| Z | 39 | 47 | 55 | 59 |

S-SERIES

Motor Adaptor

Mount an electric motor to the S-Series screw jack with the extensive range of motor adaptors designed to be used in conjunction with a flexible jaw coupling that connects the motor drive shaft to the screw jacks worm shaft.



| Model | S-025 | | | | |
|--------------|-------|----|-----|----|---------------|
| IEC Frame | A | B | ØC | ØD | Coupling |
| 71 B5 D160 | 158 | 10 | 160 | 75 | 19/24 A16 A14 |
| 71 B14 C105 | 158 | 10 | 105 | 75 | 19/24 A16 A14 |
| 80 B5 D200 | 158 | 10 | 200 | 75 | 19/24 A16 A19 |
| 80 B14 C120 | 158 | 10 | 120 | 75 | 19/24 A16 A19 |
| 90 B5 D200 | 175 | 10 | 200 | 75 | 24/30 A16 A24 |
| 90 B14 C140 | 175 | 10 | 140 | 75 | 24/30 A16 A24 |
| 100 B5 D250 | 185 | 10 | 250 | 75 | 24/30 A16 B28 |
| 100 B14 C160 | 185 | 10 | 160 | 75 | 24/30 A16 B28 |
| 112 B5 D250 | - | - | - | - | - |
| 112 B14 C160 | - | - | - | - | - |
| 132 B5 D300 | - | - | - | - | - |
| 132 B14 C200 | - | - | - | - | - |

| Model | S-050 | | | | |
|--------------|-------|----|-----|----|---------------|
| IEC Frame | A | B | ØC | ØD | Coupling |
| 71 B5 D160 | - | - | - | - | - |
| 71 B14 C105 | - | - | - | - | - |
| 80 B5 D200 | 180 | 10 | 200 | 86 | 19/24 A19 A19 |
| 80 B14 C120 | 180 | 10 | 120 | 86 | 19/24 A19 A19 |
| 90 B5 D200 | 200 | 10 | 200 | 95 | 24/30 A19 A24 |
| 90 B14 C140 | 200 | 10 | 140 | 95 | 24/30 A19 A24 |
| 100 B5 D250 | 200 | 10 | 250 | 95 | 24/30 A19 B28 |
| 100 B14 C160 | 200 | 10 | 160 | 95 | 24/30 A19 B28 |
| 112 B5 D250 | 200 | 10 | 250 | 95 | 24/30 A19 B28 |
| 112 B14 C160 | 200 | 10 | 300 | 95 | 24/30 A19 B28 |
| 132 B5 D300 | 200 | 10 | 300 | 95 | 28/38 A19 B38 |
| 132 B14 C200 | 230 | 10 | 200 | 95 | 28/38 A19 B38 |

| Model | S-100 | | | | |
|--------------|-------|----|-----|-----|---------------|
| IEC Frame | A | B | ØC | ØD | Coupling |
| 80 B5 D200 | - | - | - | - | - |
| 80 B14 C120 | - | - | - | - | - |
| 90 B5 D200 | 221 | 10 | 200 | 100 | 24/30 A25 B24 |
| 90 B14 C140 | 221 | 10 | 140 | 100 | 24/30 A25 B24 |
| 100 B5 D250 | 221 | 10 | 250 | 100 | 24/30 A25 B28 |
| 100 B14 C160 | 221 | 10 | 160 | 100 | 24/30 A25 B28 |
| 112 B5 D250 | 221 | 10 | 250 | 100 | 24/30 A25 B28 |
| 112 B14 C160 | 221 | 10 | 160 | 100 | 24/30 A25 B28 |
| 132 B5 D300 | 252 | 10 | 160 | 100 | 28/38 A25 B38 |
| 132 B14 C200 | 252 | 10 | 200 | 100 | 28/38 A25 B38 |

| Model | S-200 | | | | |
|--------------|------------|----|-----|-----|---------------|
| IEC Frame | A | B | ØC | ØD | Coupling |
| 80 B5 D200 | - | - | - | - | - |
| 80 B14 C120 | - | - | - | - | - |
| 90 B5 D200 | 236 | 10 | 200 | 120 | 24/30 B28 A24 |
| 90 B14 C140 | On Request | | | | |
| 100 B5 D250 | 246 | 10 | 250 | 120 | 24/30 B28 B28 |
| 100 B14 C160 | On Request | | | | |
| 112 B5 D250 | 246 | 10 | 250 | 120 | 24/30 B28 B28 |
| 112 B14 C160 | On Request | | | | |
| 132 B5 D300 | 267 | 10 | 300 | 120 | 28/38 A28 B38 |
| 132 B14 C200 | 267 | 10 | 200 | 120 | 28/38 A28 B38 |

Note:

1. NEMA Motor adaptors available on request.
2. Motor adaptors are for the support of motor weight only.

