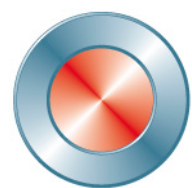


## Double-acting pneumatic cylinder type SC



**Stafsjö**  
SINCE 1666

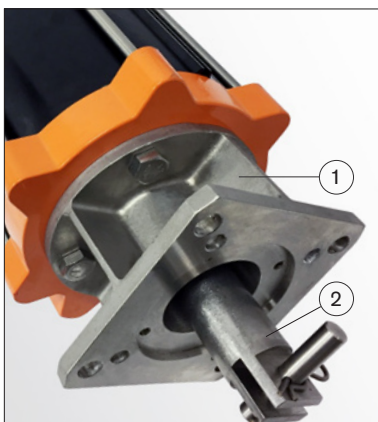
## Double-acting pneumatic cylinder type SC

Stafsjö's standard double-acting pneumatic cylinder type SC is manufactured by Ebro Armaturen. It is a solid construction designed for tough knife gate applications available from 100 mm (4") up to 320 mm (12.6") bore diameter.

The SC cylinder has a hard anodized aluminium barrel with coated aluminium caps, hold strongly together by stainless steel tie rods to enable a long-term linear operation independent of position. The SC also include several internal and extended precision supports to further guarantee the linear stroke. A piston rod wiper in bottom end cap ensure that no material enter the cylinder.

The supply pressure for the cylinder should be max 10 bar and the compressed air should be dry or slightly oil misted. Temperature range for the actuator is -30 to +100 °C.

The SC cylinder is CE marked and also approved for use in EX areas according directive 2014/34/EU Group II category 2G/2D (zone 1 or 21).



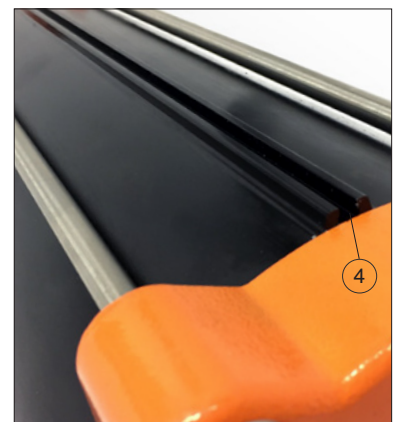
### Assembly kit included for Stafsjö's knife gate valves

Stainless steel adapter (1) and gate clevis (2) kit are supplied assembled on the SC cylinder to make it easy to install on Stafsjö's different knife gate valves.



### Namur interface for direct assembly of solenoid valves

Integrated Namur interface according VDI/VDE 3845 (3) on the top cover enable direct assembly of solenoid valves which reduce piping efforts to minimum.



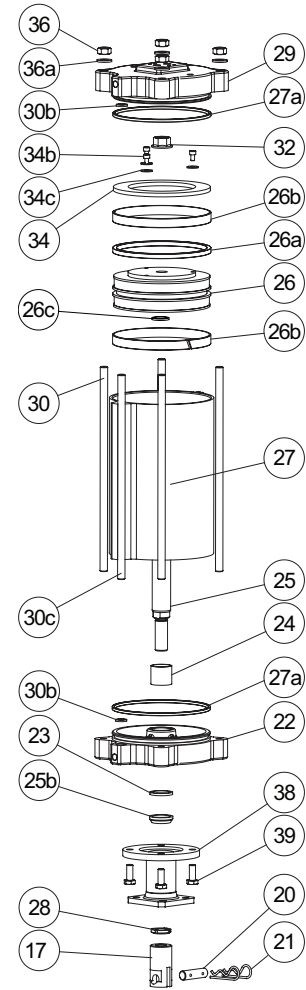
### Prepared for magnetic limit switches up to SC200

The SC is supplied as standard with a magnetic ring on the piston and an integrated T groove (4) in the cylinder barrel up to SC200 for installation of magnetic limit switches according to ISO 15552.

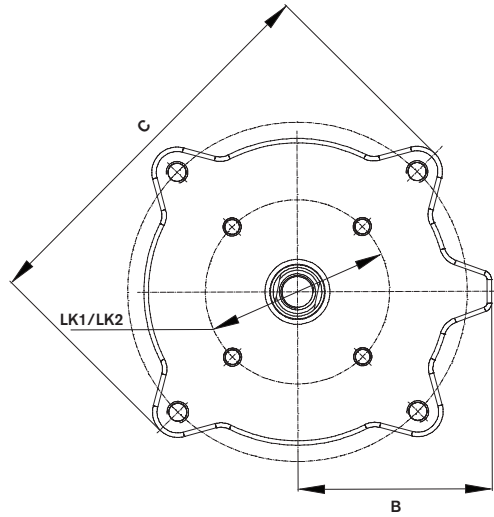
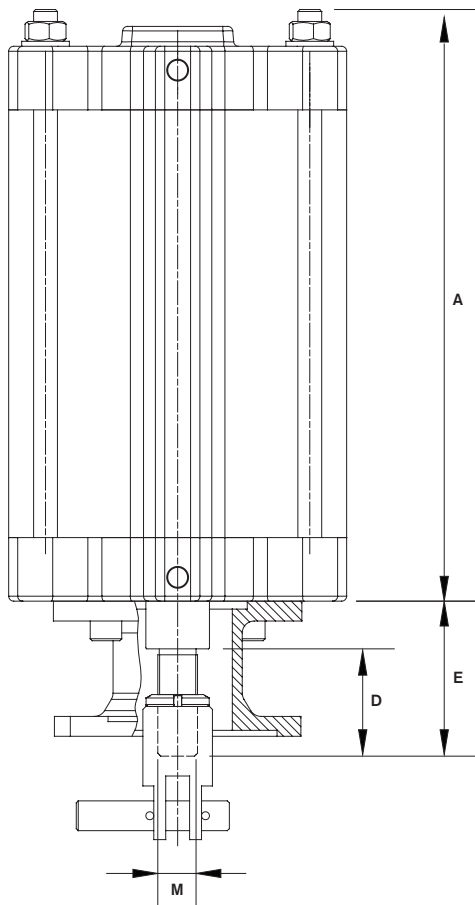
## Part list SC100 - SC320

| Pos. | Detail                                          | Material                                                      |
|------|-------------------------------------------------|---------------------------------------------------------------|
| 17   | Gate clevis                                     | Stainless steel (EN 1.4305)                                   |
| 20   | Clevis pin                                      | Stainless steel (EN 1.4305)                                   |
| 21   | Split pins                                      | Stainless steel (EN 1.4305)                                   |
| 22   | Bottom end cap                                  | Anodized and powder coated aluminium (EN AC 46000)            |
| 23*  | Piston rod sealing                              | Nitrile                                                       |
| 24   | Piston rod guide                                | Iglidur G                                                     |
| 25   | Piston rod                                      | Steel (C45), hard chromed and phosphated in the threaded ends |
| 25b* | Piston rod wiper                                | Nitrile 90N                                                   |
| 26   | Piston                                          | Aluminium (EN AC 46000)                                       |
| 26a* | Piston sealing                                  | Nitrile                                                       |
| 26b  | Support ring                                    | POM                                                           |
| 26c* | Piston rod o-ring                               | Nitrile                                                       |
| 27   | Cylinder barrel                                 | Anodized aluminium (EN AW 6063-T66)                           |
| 27a* | End cup o-rings                                 | Nitrile                                                       |
| 28   | Locking nut                                     | Stainless steel (EN 1.4305)                                   |
| 29   | Top end cap                                     | Anodized and powder coated aluminium (EN AC 46000)            |
| 30   | Tie rod                                         | Stainless steel (EN 1.4301)                                   |
| 30b* | End cup o-rings                                 | Nitrile                                                       |
| 30c  | External air pipe<br><i>only on SC250-SC320</i> | Stainless steel (EN 1.4301)                                   |
| 32   | Ripp lock nut                                   | Zinc coated steel                                             |
| 34   | Magnetic washer                                 | Flexo 150                                                     |
| 34b  | Screw                                           | Stainless steel (A2)                                          |
| 34c  | Washer                                          | Stainless steel (EN 1.4301)                                   |
| 36   | Nut                                             | Stainless steel (EN 1.4301)                                   |
| 36a  | Washer                                          | Stainless steel (EN 1.4301)                                   |
| 38   | Valve adapter                                   | Stainless steel (EN 1.4308)                                   |
| 39   | Hex socket screws                               | Stainless steel (A2)                                          |

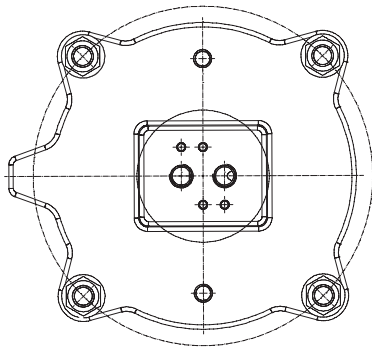
\* Recommended spare parts



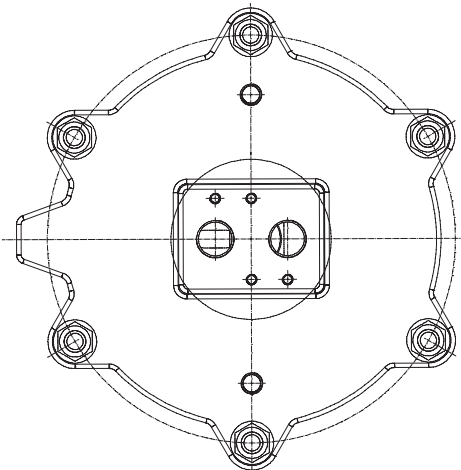
# Main dimensions (mm)



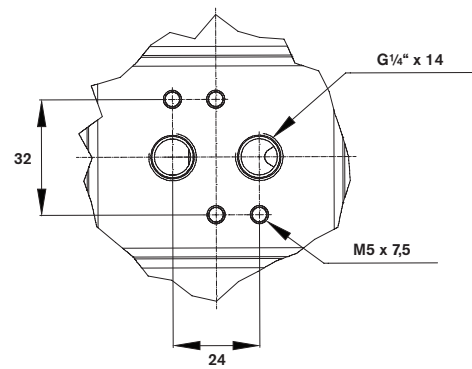
SC100 - SC160



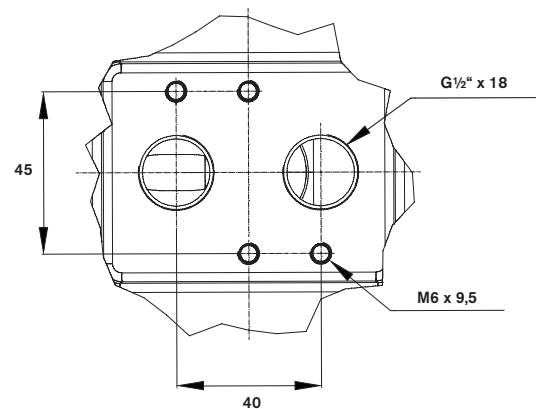
SC200 - SC320



Namur Interface  
VDI/VDE 3845



Namur interface  
VDI/VDE 3845



## Main dimensions (mm)

| SC size | Stroke length | A      | B     | C   | D  | E   | M         | LK1 | LK2 | Weight <sup>1)</sup> (kg) | Filling volume in NL / Stroke at 1 atm |
|---------|---------------|--------|-------|-----|----|-----|-----------|-----|-----|---------------------------|----------------------------------------|
| 100     | 90            | 219,0  | 72,0  | 148 | 32 | 48  | M16 x 1,5 | F07 | -   | 3,4                       | 1,87                                   |
| 100     | 115           | 244,0  | 72,0  | 148 | 32 | 48  | M16 x 1,5 | F07 | -   | 3,6                       | 2,27                                   |
| 100     | 140           | 269,0  | 72,0  | 148 | 32 | 48  | M16 x 1,5 | F07 | -   | 3,8                       | 2,65                                   |
| 100     | 165           | 294,0  | 72,0  | 148 | 32 | 48  | M16 x 1,5 | F07 | -   | 4,0                       | 3,04                                   |
| 125     | 90            | 232,0  | 88,0  | 176 | 54 | 78  | M20 x 1,5 | F10 | -   | 5,5                       | 2,66                                   |
| 125     | 115           | 255,0  | 88,0  | 176 | 54 | 78  | M20 x 1,5 | F10 | -   | 5,9                       | 3,40                                   |
| 125     | 140           | 280,0  | 88,0  | 176 | 54 | 78  | M20 x 1,5 | F10 | -   | 6,3                       | 4,02                                   |
| 125     | 165           | 305,0  | 88,0  | 176 | 54 | 78  | M20 x 1,5 | F10 | -   | 6,6                       | 4,62                                   |
| 160     | 90            | 263,0  | 107,5 | 216 | 54 | 78  | M20 x 1,5 | F10 | -   | 8,9                       | 4,50                                   |
| 160     | 115           | 286,0  | 107,5 | 216 | 54 | 78  | M20 x 1,5 | F10 | -   | 9,4                       | 5,75                                   |
| 160     | 140           | 311,0  | 107,5 | 216 | 54 | 78  | M20 x 1,5 | F10 | -   | 9,6                       | 6,80                                   |
| 160     | 165           | 336,0  | 107,5 | 216 | 54 | 78  | M20 x 1,5 | F10 | -   | 10,0                      | 7,79                                   |
| 160     | 215           | 386,0  | 107,5 | 216 | 54 | 78  | M20 x 1,5 | F10 | -   | 11,2                      | 9,77                                   |
| 160     | 270           | 441,0  | 107,5 | 216 | 54 | 78  | M20 x 1,5 | F10 | -   | 11,9                      | 11,95                                  |
| 160     | 320           | 491,0  | 107,5 | 216 | 54 | 78  | M20 x 1,5 | F10 | -   | 12,8                      | 13,92                                  |
| 200     | 140           | 341,5  | 130,0 | 256 | 72 | 102 | M30 x 1,5 | F10 | F14 | 16,1                      | 10,43                                  |
| 200     | 165           | 366,5  | 130,0 | 256 | 72 | 102 | M30 x 1,5 | F10 | F14 | 16,8                      | 12,30                                  |
| 200     | 215           | 412,5  | 130,0 | 256 | 72 | 102 | M30 x 1,5 | F10 | F14 | 18,0                      | 16,01                                  |
| 200     | 270           | 467,5  | 130,0 | 256 | 72 | 102 | M30 x 1,5 | F10 | F14 | 19,4                      | 19,43                                  |
| 200     | 320           | 517,5  | 130,0 | 256 | 72 | 102 | M30 x 1,5 | F10 | F14 | 20,7                      | 22,51                                  |
| 200     | 350           | 547,5  | 130,0 | 256 | 72 | 102 | M30 x 1,5 | F10 | F14 | 21,5                      | 25,16                                  |
| 200     | 400           | 597,5  | 130,0 | 256 | 72 | 102 | M30 x 1,5 | F10 | F14 | 22,8                      | 27,43                                  |
| 200     | 423           | 624,5  | 130,0 | 256 | 72 | 102 | M36 x 2   | F10 | F14 | 23,4                      | 29,00                                  |
| 200     | 450           | 647,5  | 130,0 | 256 | 72 | 102 | M36 x 2   | F10 | F14 | 24,3                      | 30,51                                  |
| 200     | 550           | 747,5  | 130,0 | 256 | 72 | 102 | M36 x 2   | F10 | F14 | 26,9                      | 36,66                                  |
| 250     | 215           | 461,0  | 163,0 | 322 | 72 | 102 | M30 x 1,5 | F10 | F14 | 28,9                      | 21,89                                  |
| 250     | 270           | 516,0  | 163,0 | 322 | 72 | 102 | M30 x 1,5 | F10 | F14 | 30,7                      | 27,49                                  |
| 250     | 320           | 566,0  | 163,0 | 322 | 72 | 102 | M30 x 1,5 | F10 | F14 | 32,4                      | 32,58                                  |
| 250     | 350           | 596,0  | 163,0 | 322 | 72 | 102 | M30 x 1,5 | F10 | F14 | 33,4                      | 37,83                                  |
| 250     | 400           | 646,0  | 163,0 | 322 | 72 | 102 | M30 x 1,5 | F10 | F14 | 35,0                      | 42,67                                  |
| 250     | 450           | 696,0  | 163,0 | 322 | 72 | 102 | M36 x 2   | F10 | F14 | 36,9                      | 47,52                                  |
| 250     | 500           | 746,0  | 163,0 | 322 | 72 | 102 | M36 x 2   | F10 | F14 | 38,6                      | 52,37                                  |
| 250     | 525           | 771,0  | 163,0 | 322 | 72 | 102 | M36 x 2   | F10 | F14 | 39,4                      | 55,00                                  |
| 250     | 630           | 876,0  | 163,0 | 322 | 72 | 102 | M36 x 2   | F10 | F14 | 42,9                      | 62,68                                  |
| 250     | 800           | 1046,0 | 163,0 | 322 | 72 | 102 | M36 x 2   | F10 | F14 | 48,5                      | 81,44                                  |
| 320     | 320           | 577,0  | 201,5 | 406 | 72 | 102 | M30 x 1,5 | F10 | F14 | 50,2                      | 58,37                                  |
| 320     | 500           | 757,0  | 201,5 | 406 | 72 | 102 | M36 x 2   | F10 | F14 | 58,7                      | 87,09                                  |
| 320     | 575           | 832,0  | 201,5 | 406 | 72 | 102 | M36 x 2   | F10 | F14 | 62,1                      | 99,06                                  |
| 320     | 700           | 957,0  | 201,5 | 406 | 72 | 102 | M36 x 2   | F10 | F14 | 67,9                      | 119,01                                 |
| 320     | 715           | 972,0  | 201,5 | 406 | 72 | 102 | M36 x 2   | F10 | F14 | 68,6                      | 121,41                                 |
| 320     | 800           | 1057,0 | 201,5 | 406 | 72 | 102 | M36 x 2   | F10 | F14 | 72,5                      | 134,97                                 |
| 320     | 1030          | 1287,0 | 201,5 | 406 | 72 | 102 | M36 x 2   | F10 | F14 | 83,2                      | 171,68                                 |

1) Excluding valve assembly parts.

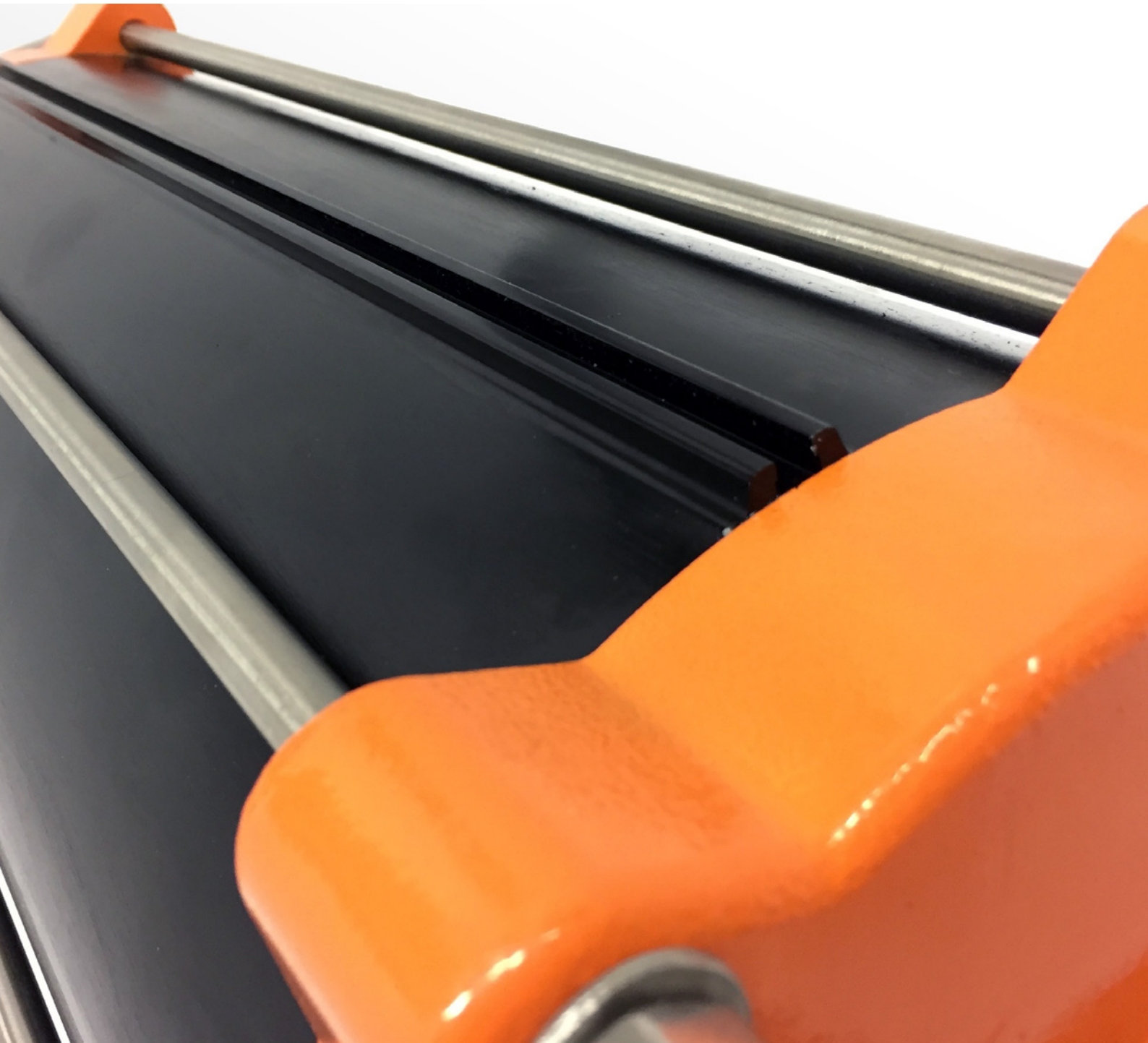
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## Stroke force in Newton (N)

| Type SC | 4 bar |       | 4,5 bar |       | 5 bar |       | 5,5 bar |       | 6 bar |       |
|---------|-------|-------|---------|-------|-------|-------|---------|-------|-------|-------|
|         | Close | Open  | Close   | Open  | Close | Open  | Close   | Open  | Close | Open  |
| 100     | 3140  | 3016  | 3532    | 3393  | 3925  | 3770  | 4319    | 4147  | 4712  | 4524  |
| 125     | 4908  | 4628  | 5522    | 5207  | 6135  | 5785  | 6749    | 6364  | 7363  | 6939  |
| 160     | 8044  | 7760  | 9050    | 8730  | 10055 | 9700  | 11061   | 10670 | 12063 | 11639 |
| 200     | 12568 | 12064 | 14139   | 13572 | 15710 | 15080 | 17281   | 16588 | 18849 | 18095 |
| 250     | 19635 | 19132 | 22089   | 21523 | 24543 | 23915 | 26998   | 26306 | 29452 | 28698 |
| 320     | 32170 | 31667 | 36191   | 35626 | 40212 | 39584 | 44234   | 43542 | 48255 | 47501 |

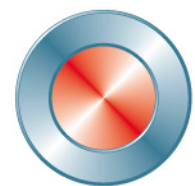
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Further information is available on [www.stafsjo.com](http://www.stafsjo.com)



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