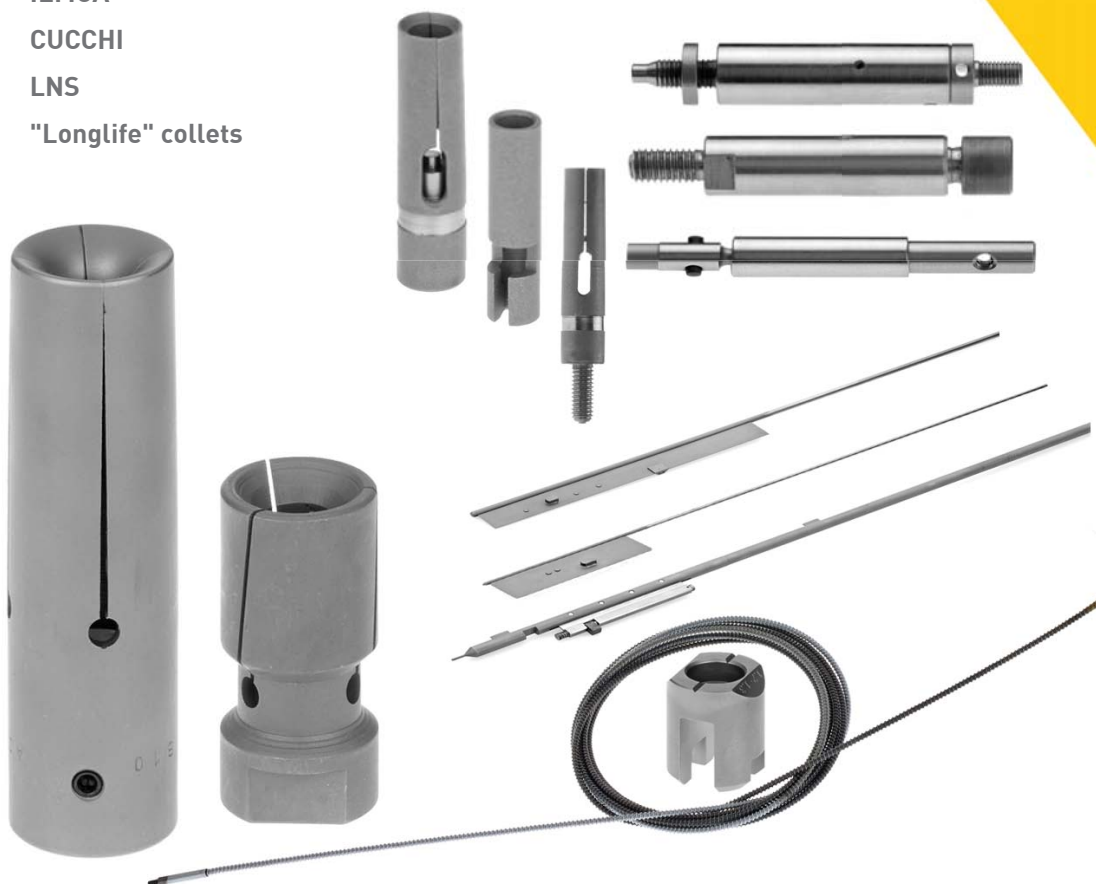


## 3 Accessories for barloaders

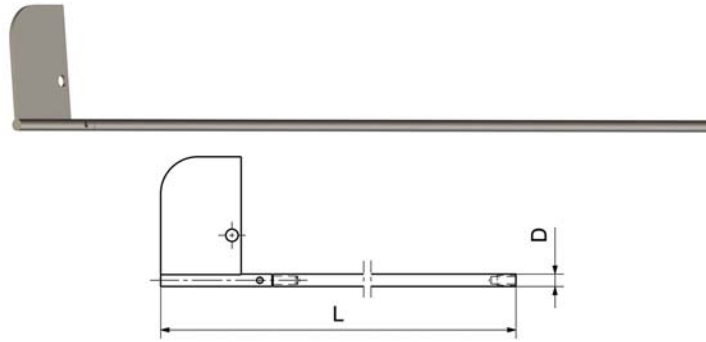
- 3.3 Single tubes and Vibo
- 3.6 Télébar
- 3.10 Super-Télébar and Barboy
- 3.16 Multibar Bechler
- 3.22 CADDIE AS-14 / SAS-16
- 3.24 Robobar
- 3.26 FMB Turbo
- 3.28 Bechet
- 3.32 FMB, Traub, IEMCA, LNS, SAMECA
- 3.34 IEMCA
- 3.36 CUCCHI
- 3.40 LNS
- 3.43 "Longlife" collets





# Single tubes and Vibo

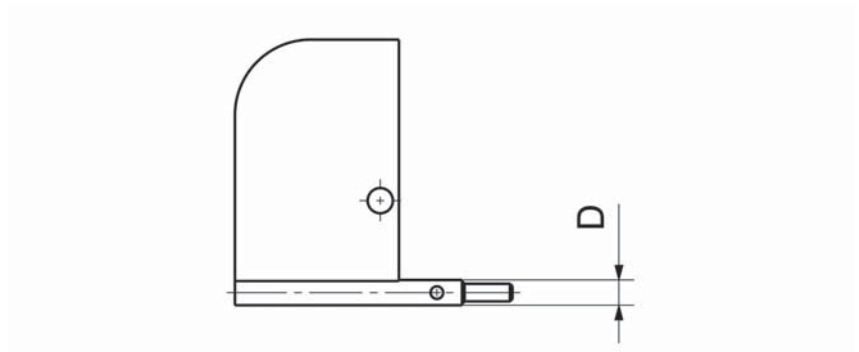
## Simple pushrods



| Item No | D     | L       | Barloader      |
|---------|-------|---------|----------------|
| V100    | 4.50  | 430.00  | Tornos M4      |
| V101    | 4.50  | 510.00  | Tornos M4      |
| V102    | 4.50  | 510.00  | Tornos T4      |
| V103    | 6.50  | 565.00  | Tornos M7      |
| V104    | 6.50  | 665.00  | Tornos MS7     |
| V105    | 10.00 | 755.00  | Tornos R10     |
| V106    | 10.00 | 825.00  | Tornos R10     |
| V109    | 12.00 | 533.00  | Tornos R125    |
| V110    | 12.00 | 711.00  | Tornos R125    |
| V111    | 16.00 | 750.00  | Tornos R16     |
| V113    | 20.00 | 750.00  | Tornos RR20    |
| V115    | 25.00 | 800.00  | Tornos MR28    |
| V117    | 30.00 | 800.00  | Tornos MR32    |
| V200    | 4.50  | 800.00  | Bechler AS4    |
| V201    | 6.50  | 800.00  | Bechler AS7    |
| V202    | 10.00 | 800.00  | Bechler AR10   |
| V203    | 12.00 | 1060.00 | Bechler BE12   |
| V204    | 16.00 | 1060.00 | Bechler BR16   |
| V205    | 20.00 | 1060.00 | Bechler BE20   |
| V206    | 30.00 | 1060.00 | Bechler C32    |
| V300    | 4.50  | 620.00  | Petermann P4   |
| V301    | 6.50  | 800.00  | Petermann P7   |
| V302    | 10.00 | 800.00  | Petermann P7R  |
| V303    | 10.00 | 950.00  | Petermann P7R  |
| V304    | 14.00 | 790.00  | Petermann 10HS |
| V305    | 16.00 | 890.00  | Petermann P16  |
| V306    | 25.00 | 900.00  | Petermann P25  |

# Single tubes and Vibo

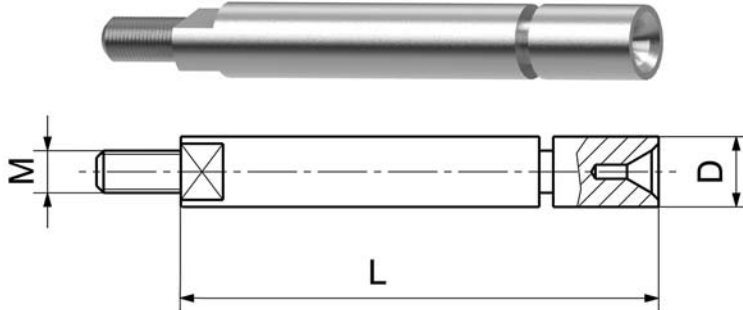
## Changeable Flags



Accessories for barloaders

| Item No | D     |
|---------|-------|
| V400    | 7.00  |
| V401    | 10.00 |
| V402    | 12.00 |
| V403    | 14.00 |
| V404    | 16.00 |
| V405    | 20.00 |
| V406    | 25.00 |
| V407    | 28.00 |
| V408    | 30.00 |

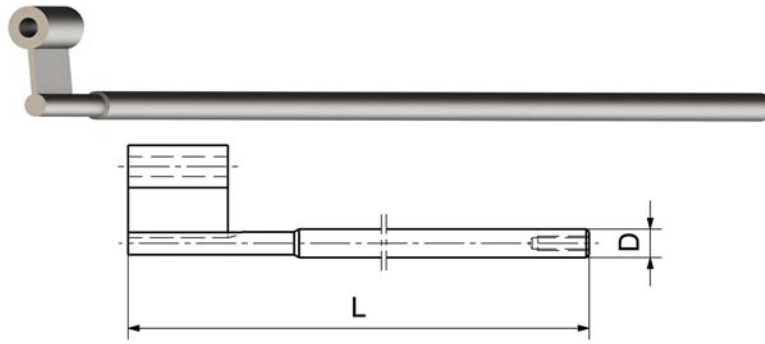
## Simple revolving end pieces



| Item No | D     | L      | M      |
|---------|-------|--------|--------|
| V600    | 4.50  | 30.00  | M3.50  |
| V601    | 7.00  | 42.00  | M5.00  |
| V602    | 10.00 | 49.00  | M6.00  |
| V603    | 12.00 | 49.00  | M6.00  |
| V604    | 14.00 | 80.00  | M8.00  |
| V605    | 16.00 | 80.00  | M10.00 |
| V606    | 20.00 | 88.00  | M10.00 |
| V607    | 25.00 | 108.00 | M12.00 |
| V608    | 30.00 | 108.00 | M14.00 |
| V609    | 32.00 | 108.00 | M16.00 |
| V610    | 36.00 | 108.00 | M16.00 |

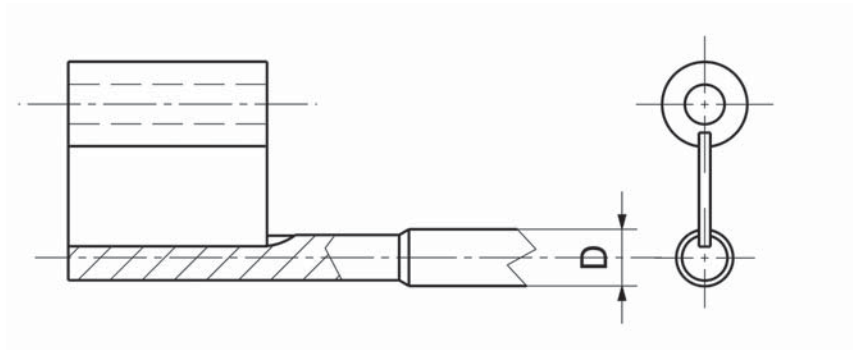
# Single tubes and Vibo

## Vibo pushrods



| Item No | D     | L      | Barloader |
|---------|-------|--------|-----------|
| V107    | 10.00 | 540.00 | R10       |
| V108    | 10.00 | 710.00 | R10       |
| V112    | 16.00 | 750.00 | R16       |
| V114    | 20.00 | 750.00 | RR20      |
| V116    | 28.00 | 750.00 | MR28      |
| V118    | 30.00 | 750.00 | MR32      |

## Vibo flags



| Item No | D     |
|---------|-------|
| V500    | 10.00 |
| V501    | 16.00 |
| V502    | 20.00 |
| V503    | 25.00 |
| V504    | 28.00 |
| V505    | 30.00 |

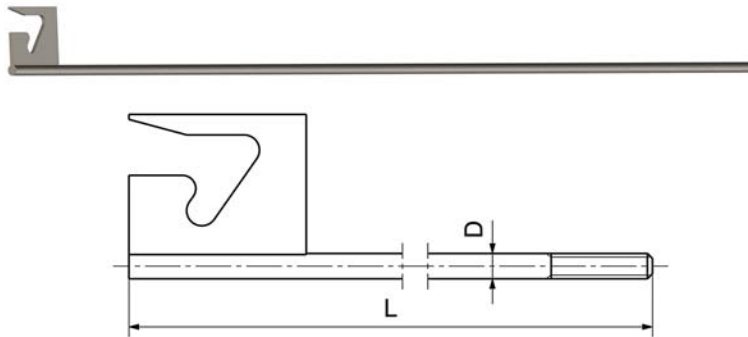
# Télébar

## Télébar summary

| Shank D                      | Pushrod | Distance piece   | Hook  | End cap |
|------------------------------|---------|--|-------|---------|
| <b>Télébar 12 tubes (M4)</b> |         |  |       |         |
| 4.50                         | V1000   | V1001 lg. 30.00<br>V1002 lg. 85.00                     | V1003 | V1100   |
| <b>Télébar 12 tubes (M7)</b> |         |  |       |         |
| 5.50                         | V1004   | V1005 lg. 40.00<br>V1006 lg. 70.00<br>V1007 lg. 110.00 | V1008 | V1101   |
| <b>Télébar 9 tubes (M7)</b>  |         |  |       |         |
| 7.00                         | V1009   | V1011 lg. 50.00<br>V1012 lg. 110.00                    | V1013 | V1102   |
| <b>Télébar 9 tubes (R10)</b> |         |  |       |         |
| 7.00                         | V1010   | V1011 lg. 50.00<br>V1012 lg. 110.00                    | V1013 | V1102   |

Accessories for barloaders

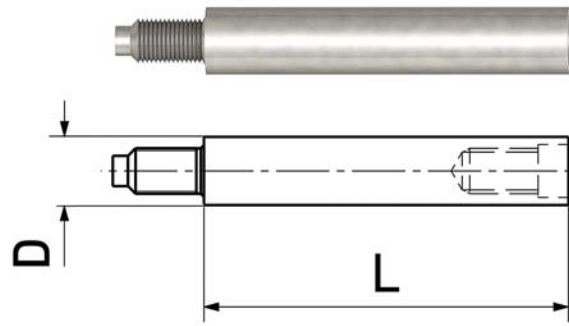
## Pushrods



| Item No | D    | L      | Barloader             |
|---------|------|--------|-----------------------|
| V1000   | 4.50 | 467.00 | Télébar 12 tubes (M4) |
| V1004   | 5.00 | 570.00 | Télébar 12 tubes (M7) |
| V1009   | 7.00 | 570.00 | Télébar 9 tubes (M7)  |
| V1010   | 7.00 | 695.00 | Télébar 9 tubes (R10) |

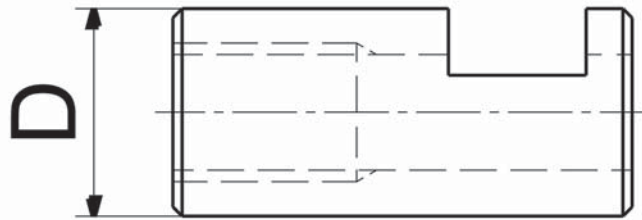
# Télébar

## Distance pieces



| Item No | D    | L      | Barloader         |
|---------|------|--------|-------------------|
| V1001   | 4.50 | 30.00  | 12 tubes M4       |
| V1002   | 4.50 | 85.00  | 12 tubes M4       |
| V1005   | 5.00 | 40.00  | 12 tubes M4       |
| V1006   | 5.00 | 70.00  | 12 tubes M4       |
| V1007   | 5.00 | 110.00 | 12 tubes M4       |
| V1011   | 7.00 | 50.00  | 9 tubes M7 et R10 |
| V1012   | 7.00 | 110.00 | 9 tubes M7 et R10 |

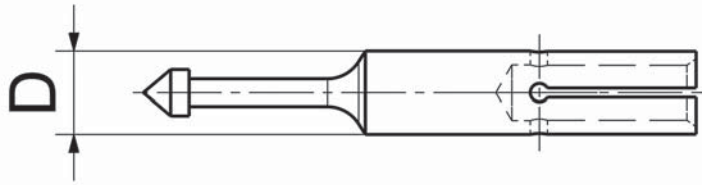
## Hooks



| Item No | D    | Barloader        |
|---------|------|------------------|
| V1003   | 4.50 | 12 tubes M4      |
| V1008   | 5.00 | 12 tubes M7      |
| V1013   | 7.00 | 9 tubes M7 & R10 |

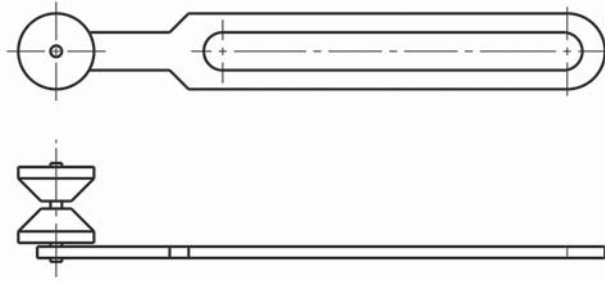
# Télébar

## End caps



| Item No | D    | Barloader          |
|---------|------|--------------------|
| V1100-Ø | 4.50 | 12 tubes M4        |
| V1101-Ø | 5.50 | 12 tubes M7        |
| V1102-Ø | 7.50 | 9 tubes M7 and R10 |

## Driving guide plate



| Item No | D | L1 |
|---------|---|----|
| T32024  | - | -  |





# Super-Télébar and Barboy

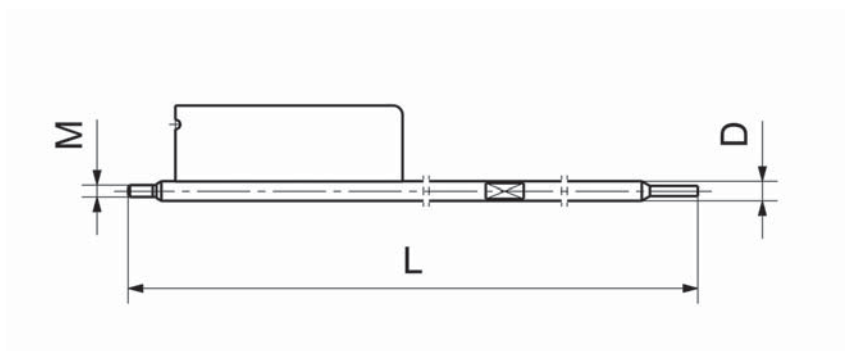
## Super-Télébar summary

| Shank D                                | Pushrod | End piece | Collet | Cable         | Fixed Jaws |
|--|---------|-----------|--------|---------------|------------|
| <b>Super-Télébar 30 tubes</b>          |         |           |        |               |            |
| 4.50                                   | V1400   | V1030     | V1600  | H29Q (lg. 2m) | V9000      |
| 5.50                                   |         | V1031     | V1031a | H29M (lg. 3m) | V9000      |
| <b>Super-Télébar 24 tubes</b>          |         |           |        |               |            |
| 7.00                                   | V1401   | V1032     | V1032a | H29P (lg. 3m) | V9000      |
| 7.50                                   | V1401   | V1033     | V1032a | H29P (lg. 3m) | V9000      |
| 8.50                                   | V1402   | V1034     | V1034a | H29P (lg. 3m) | V9000      |
| <b>Super-Télébar 24 tubes vertical</b> |         |           |        |               |            |
| 7.00                                   | V1401   | V1032     | V1032a | H29R (lg. 3m) | V9000      |
| 7.50                                   | V1401   | V1033     | V1032a | H29R (lg. 3m) | V9000      |
| 8.50                                   | V1402   | V1034     | V1034a | H29R (lg. 3m) | V9000      |

## Barboy summary

| Shank D       | Flag for pushrod | Rod for pushrod | End piece | Collet |
|---------------|------------------|-----------------|-----------|--------|
| <b>Barboy</b> |                  |                 |           |        |
| 5.50          | V1300            | V1301           | V1031     | V1031a |
| 7.00          | V1302            | V1303           | V1032     | V1032a |
| 7.50          | V1302            | V1303           | V1033     | V1032a |
| 8.50          | V1304            | V1305           | V1034     | V1034a |
| 10.50         | V1306            | V1307           | V1035     | V1035a |
| 12.00         | V1308            | V1309           | V1037     | V1037a |
| 13.00         | V1310            | V1311           | V1038     | V1038a |
| 15.00         |                  |                 | V1100     | V1608  |
| 16.00         |                  |                 | V1101     | V1609  |
| 20.00         |                  |                 | V1102     | V1121a |

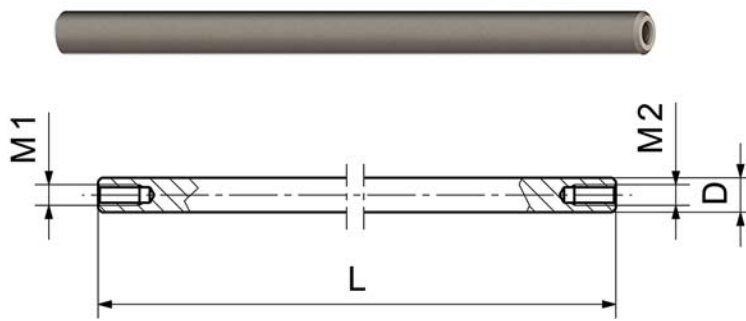
## Flags for pushrods



| Item No | D     | L      | M     | Ø Capacity |
|---------|-------|--------|-------|------------|
| V1300   | 5.00  | 373.00 | M3.00 | 2 - 4      |
| V1302   | 7.50  | 374.00 | M5.00 | 2 - 7      |
| V1304   | 8.00  | 374.00 | M5.00 | 2 - 9      |
| V1306   | 10.00 | 375.00 | M6.00 | 7 - 11     |
| V1308   | 12.00 | 375.00 | M6.00 | 7 - 11     |
| V1310   | 13.00 | 420.00 | M7.00 | 13 - >     |

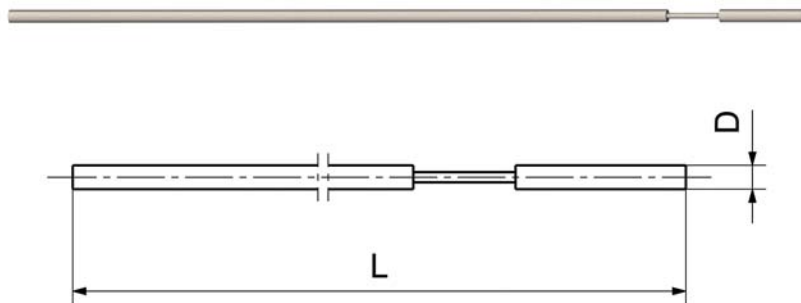
# Super-Télébar and Barboy

## Rods for pushrods



| Item No | D     | L      | M1    | M2    |
|---------|-------|--------|-------|-------|
| V1301   | 5.00  | 742.00 | M3.00 | M3.00 |
| V1303   | 7.00  | 742.00 | M5.00 | M5.00 |
| V1305   | 8.00  | 742.00 | M5.00 | M5.00 |
| V1307   | 10.00 | 742.00 | M6.00 | M6.00 |
| V1309   | 12.00 | 742.00 | M6.00 | M6.00 |
| V1311   | 13.00 | 944.00 | M7.00 | M6.00 |

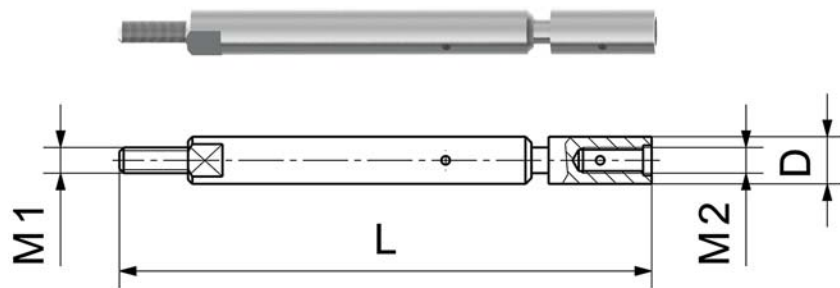
## Pushrods



| Item No | D    | L      | Barloader       |
|---------|------|--------|-----------------|
| V1400   | 4.50 | 457.00 | 24 and 30 tubes |
| V1401   | 7.00 | 453.00 | 24 and 30 tubes |
| V1402   | 8.50 | 453.00 | 24 and 30 tubes |

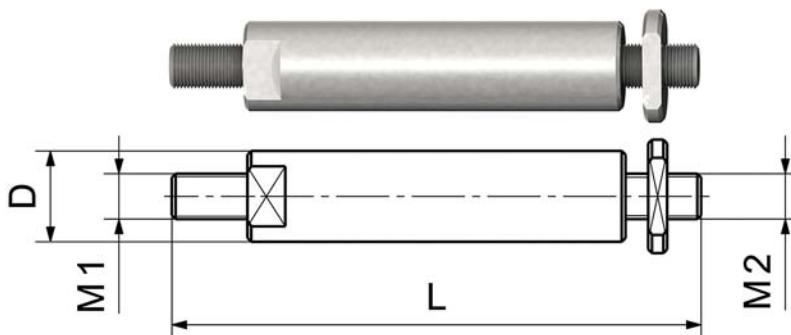
# Super-Télébar and Barboy

## Revolving end pieces for Super Télébar 30 tubes



| Item No | D    | L     | M1    | M2    | Barloader |
|---------|------|-------|-------|-------|-----------|
| V1030   | 4.50 | 62.00 | M3.00 | M3.00 | 30 tubes  |
| V1031   | 5.50 | 62.00 | M3.00 | M3.00 | 30 tubes  |

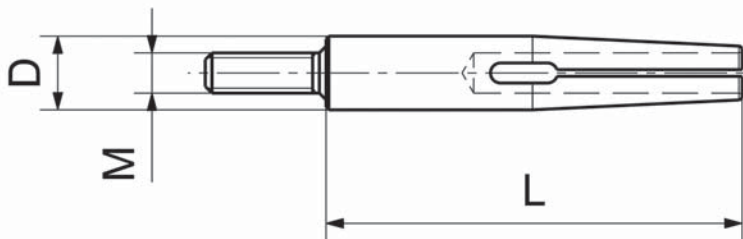
## Revolving end pieces for Super Télébar 24 tubes & Barboy



| Item No | D     | L     | M1    | M2    |
|---------|-------|-------|-------|-------|
| V1032   | 7.00  | 63.00 | M5.00 | M4.00 |
| V1033   | 7.50  | 63.00 | M5.00 | M4.00 |
| V1034   | 8.50  | 63.00 | M5.00 | M5.00 |
| V1035   | 10.50 | 70.00 | M6.00 | M6.00 |
| V1037   | 12.00 | 70.00 | M6.00 | M6.00 |
| V1038   | 13.00 | 70.00 | M6.00 | M6.00 |
| V1100   | 15.00 | 92.00 | M7.00 | M6.00 |
| V1101   | 16.00 | 92.00 | M7.00 | M8.00 |
| V1102   | 20.00 | 92.00 | M7.00 | M8.00 |

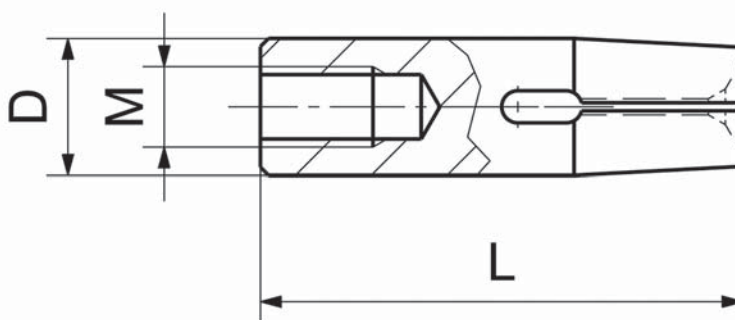
# Super-Télébar and Barboy

## Collets for Super Télébar 30 tubes



| Item No  | D    | L     | M          |
|----------|------|-------|------------|
| V1600-Ø  | 4.50 | 31.00 | M3.00 ext. |
| V1031a-Ø | 5.50 | 31.00 | M3.00 ext. |

## Collets for Super Télébar 24 tubes

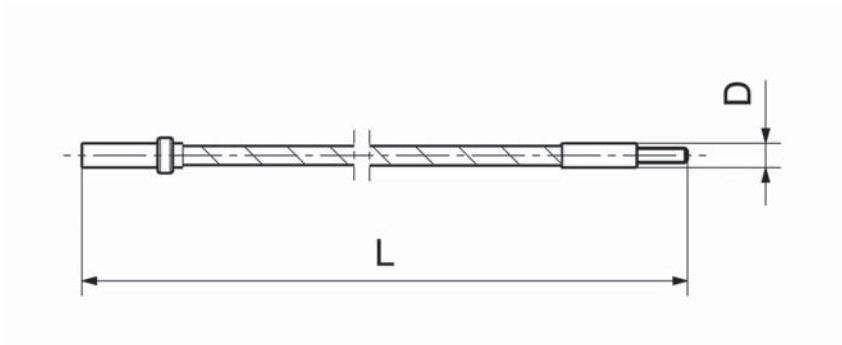


| Item No  | D     | L     | M          |
|----------|-------|-------|------------|
| V1032a-Ø | 7.50  | 30.00 | M4.00 int. |
| V1034a-Ø | 8.50  | 30.00 | M5.00 int. |
| V1035a-Ø | 10.50 | 35.00 | M6.00 int. |
| V1037a-Ø | 12.00 | 35.00 | M6.00 int. |
| V1608-Ø  | 15.00 | 35.00 | M6.00 int. |
| V1609-Ø  | 16.50 | 33.00 | M8.00 int. |
| V1121a-Ø | 20.50 | 33.00 | M8.00 int. |

# Super-Télébar and Barboy

TELEFLEX cables

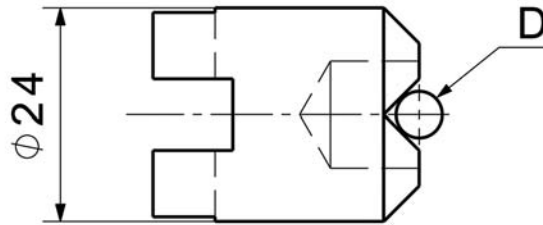
Accessories for barloaders



| Item No | D    | Ø Cable | L      | Barloader            |
|---------|------|---------|--------|----------------------|
| H29Q    | 4.80 | 3.80    | 3.08 m | 30 tubes (2 m)       |
| H29M    | 4.80 | 3.80    | 4.08 m | 30 tubes (3 m)       |
| H29P    | 6.80 | 3.80    | 4.08 m | 24 tubes (3 m)       |
| H29R    | 6.80 | 4.80    | 4.08 m | 24 tubes vertical    |
| H227-24 | 6.80 | 3.80    | 3.94 m | 24 tubes Robobar SSF |
| H227-40 | 4.80 | 3.80    | 3.94 m | 40 tubes Robobar SSF |

# Super-Télébar and Barboy

Fixed jaws for Super Télébar, Barboy and Robobar



| Item No    | D [Capacity] |
|------------|--------------|
| V9000.0809 | Ø 0.8-0.9    |
| V9000.0910 | Ø 0.9-1.0    |
| V9000.1011 | Ø 1.0-1.1    |
| V9000.1112 | Ø 1.1-1.2    |
| V9000.1213 | Ø 1.2-1.3    |
| V9000.1314 | Ø 1.3-1.4    |
| V9000.1415 | Ø 1.4-1.5    |
| V9000.1516 | Ø 1.5-1.6    |
| V9000.1617 | Ø 1.6-1.7    |
| V9000.1718 | Ø 1.7-1.8    |
| V9000.1819 | Ø 1.8-1.9    |
| V9000.1920 | Ø 1.9-2.0    |
| V9000.2021 | Ø 2.0-2.1    |
| V9000.2223 | Ø 2.2-2.3    |
| V9000.2425 | Ø 2.4-2.5    |
| V9000.2526 | Ø 2.5-2.6    |
| V9000.3031 | Ø 3.0-3.1    |
| V9000.3536 | Ø 3.5-3.6    |
| V9000.4041 | Ø 4.0-4.1    |
| V9000.4546 | Ø 4.5-4.6    |
| V9000.5051 | Ø 5.0-5.1    |
| V9000.5556 | Ø 5.5-5.6    |
| V9000.6061 | Ø 6.0-6.1    |
| V9000.6364 | Ø 6.3-6.4    |
| V9000.6566 | Ø 6.5-6.6    |
| V9000.7071 | Ø 7.0-7.1    |
| V9000.7576 | Ø 7.5-7.6    |
| V9000.8081 | Ø 8.0-8.1    |
| V9000.8586 | Ø 8.5-8.6    |

# Multibar Bechler

## Multibar Bechler summary

| Shank D               | Pushrod | Pushrod with rope | Pushrod with chain | End piece     | Collet |
|-----------------------|---------|-------------------|--------------------|---------------|--------|
| <b>Multibar 320</b>   |         |                   |                    |               |        |
| 4.50                  |         | V1200             | V1201              | V1026         | V1026a |
| <b>Multibar 3000H</b> |         |                   |                    |               |        |
| 5.00                  | V1214   |                   |                    | V1027         | V1027a |
| 5.00                  | V1215   |                   |                    |               |        |
| <b>Multibar 5.5</b>   |         |                   |                    |               |        |
| 5.50                  |         | V1202             | V1203              | V1106         | V1802  |
| <b>Multibar 7.0</b>   |         |                   |                    |               |        |
| 7.00                  | V1216   | V1204             | V1206              | V1028 lg. 83  | V1028a |
| 7.00                  | V1217   | V1205             | V1207              | V1028 lg. 60  | V1028a |
| 7.00                  | V1218   |                   | V1208              |               |        |
| <b>Multibar 10.0</b>  |         |                   |                    |               |        |
| 10.00                 | V1219   | V1209             | V1212              | V1029 lg. 102 | V1029a |
| 10.00                 | V1220   | V1210             |                    | V1029 lg. 86  | V1029a |
|                       |         | V1211             |                    |               |        |
| <b>Multibar 12.0</b>  |         |                   |                    |               |        |
| 12.00                 | V1230   |                   |                    | V1110 lg. 122 | V1122a |
| 12.00                 | V1231   |                   |                    | V907 lg. 90   | V1122b |
| <b>Multibar 16.0</b>  |         |                   |                    |               |        |
| 16.00                 |         |                   | V1213              | V1117         | V1123a |
|                       |         |                   |                    |               | V1807  |
| <b>Multibar 20.0</b>  |         |                   |                    |               |        |
| 20.00                 | V1221   |                   | V1222              | V1118         | V1124a |
|                       |         |                   |                    |               | V1809  |

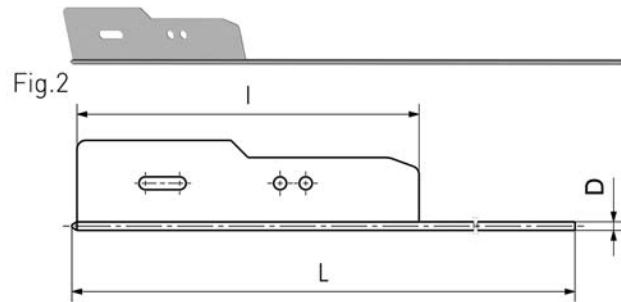
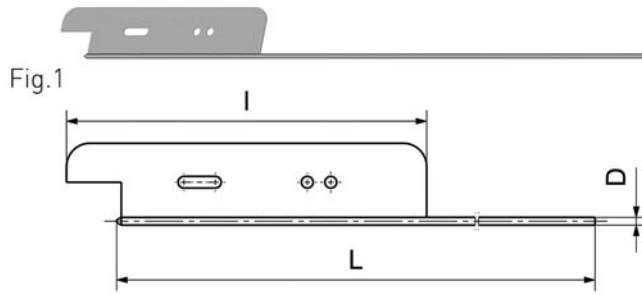
Accessories for barloaders





# Multibar Bechler

## Pushrods with rope

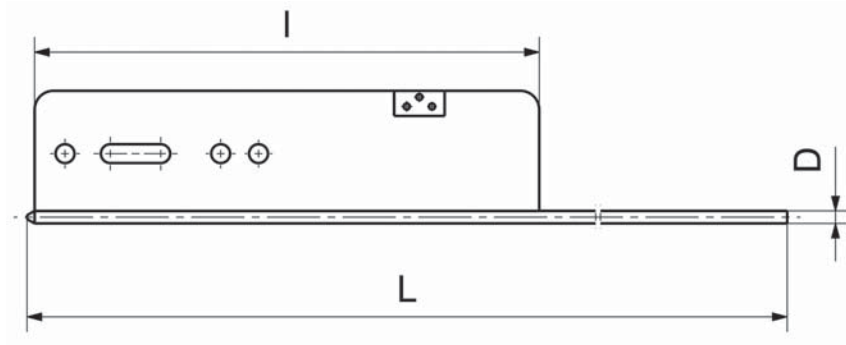


| Item No | D     | L       | l      | Fig. |
|---------|-------|---------|--------|------|
| V1200   | 4.50  | 1033.00 | 400.00 | 2    |
| V1202   | 5.50  | 1033.00 | 400.00 | 2    |
| V1204   | 7.00  | 980.00  | 400.00 | 2    |
| V1205   | 7.00  | 1029.00 | 400.00 | 2    |
| V1208   | 7.00  | 1305.00 | 460.00 | 1    |
| V1209   | 10.00 | 948.00  | 400.00 | 2    |
| V1210   | 10.00 | 1008.00 | 400.00 | 2    |
| V1211   | 10.00 | 1278.00 | 460.00 | 1    |
| V1213   | 16.00 | 1266.00 | 460.00 | 1    |

# Multibar Bechler

Pushrods with chain

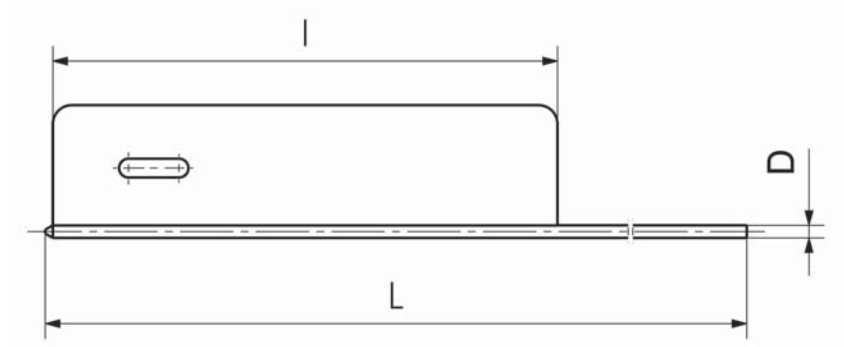
Accessories for barloaders



| Item No | D     | L       | l      |
|---------|-------|---------|--------|
| V1201   | 4.50  | 1033.00 | 400.00 |
| V1203   | 5.50  | 1033.00 | 400.00 |
| V1206   | 7.00  | 1019.00 | 400.00 |
| V1207   | 7.00  | 1029.00 | 400.00 |
| V1212   | 10.00 | 1019.00 | 400.00 |
| V1222   | 20.00 | 1273.00 | 400.00 |

# Multibar Bechler

Pushrods type 73

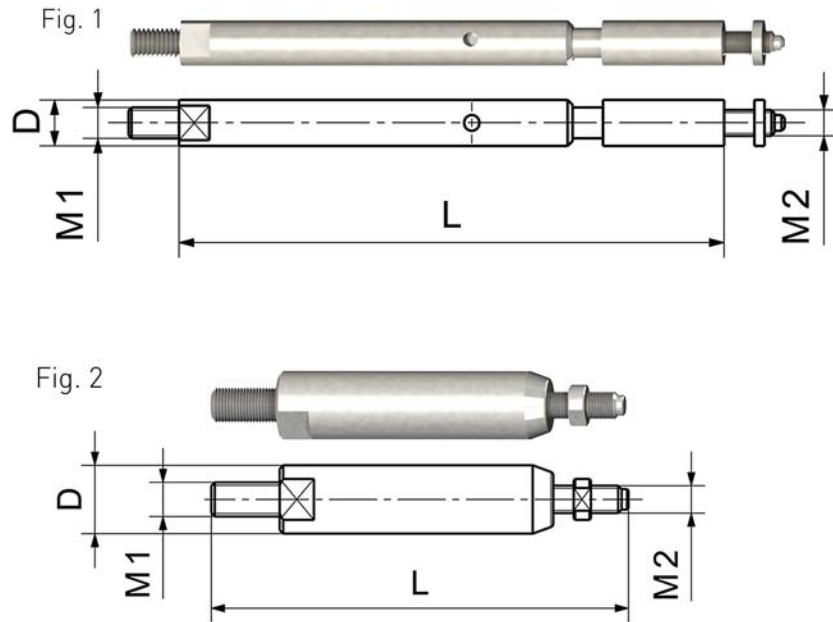


Accessories for barloaders

| Item No | D     | L      | l      |
|---------|-------|--------|--------|
| V1214   | 5.00  | 733.00 | 160.00 |
| V1215   | 5.00  | 917.00 | 200.00 |
| V1216   | 7.00  | 753.00 | 160.00 |
| V1217   | 7.00  | 965.00 | 160.00 |
| V1218   | 7.00  | 980.00 | 160.00 |
| V1219   | 10.00 | 712.00 | 160.00 |
| V1220   | 10.00 | 948.00 | 220.00 |
| V1221   | 20.00 | 925.00 | 220.00 |
| V1230   | 12.00 | 980.00 | 220.00 |
| V1231   | 12.00 | 712.00 | 160.00 |

# Multibar Bechler

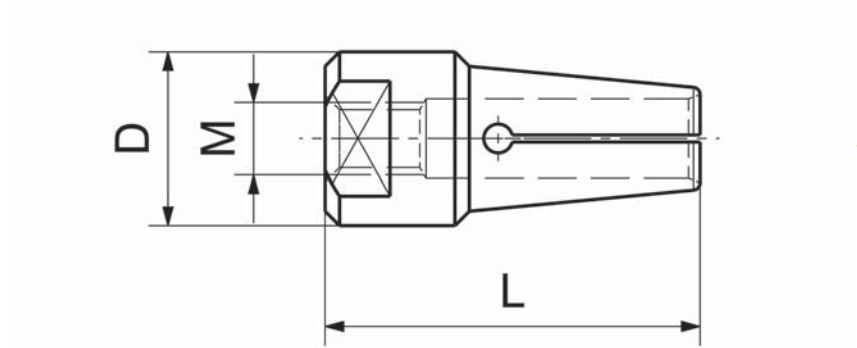
## Multibar revolving end pieces



| Item No   | D     | L      | M1     | M2         | Fig. |
|-----------|-------|--------|--------|------------|------|
| V1026     | 4.50  | 54.00  | M3.00  | M2.50      | 1    |
| V1027     | 5.00  | 58.50  | M3.50  | M3.00      | 1    |
| V1106     | 5.50  | 57.00  | M4.00  | M3.50      | 1    |
| V1028-60  | 7.00  | 60.00  | M5.00  | M4.00      | 2    |
| V1028-83  | 7.00  | 83.00  | M5.00  | M4.00      | 2    |
| V1029-86  | 10.00 | 86.00  | M6.00  | M5.00      | 2    |
| V1029-102 | 10.00 | 102.00 | M6.00  | M5.00      | 2    |
| V907      | 12.00 | 90.00  | M8.00  | M5.00      | 2    |
| V1110-122 | 12.00 | 122.00 | M8.00  | M5.00      | 2    |
| V1117     | 16.00 | 100.00 | M12.00 | M6.00      | 2    |
| V1118     | 20.00 | 104.00 | M16.00 | M8.00x1.00 | 2    |

# Multibar Bechler

## Collets

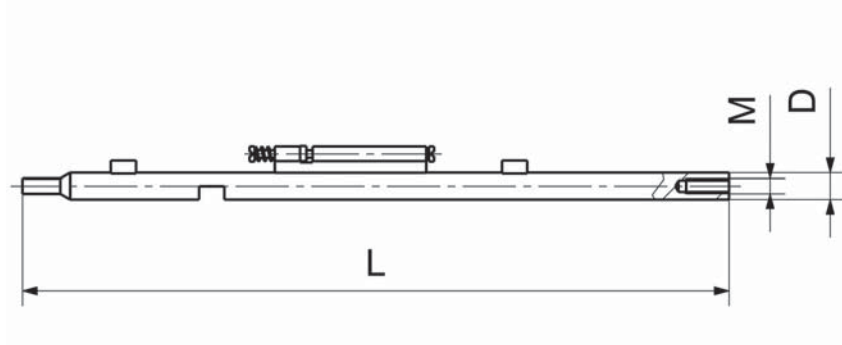


| Item No  | D     | L     | M          |
|----------|-------|-------|------------|
| V1026a-Ø | 4.50  | 22.00 | M2.50      |
| V1027a-Ø | 5.00  | 22.00 | M3.00      |
| V1802-Ø  | 5.50  | 22.00 | M3.50      |
| V1028a-Ø | 7.00  | 22.00 | M4.00      |
| V1029a-Ø | 10.00 | 26.00 | M5.00      |
| V1122a-Ø | 12.00 | 26.00 | M5.00      |
| V1122b-Ø | 12.00 | 60.00 | M5.00      |
| V1123a-Ø | 16.00 | 30.00 | M6.00      |
| V1807-Ø  | 16.00 | 60.00 | M6.00      |
| V1124a-Ø | 20.00 | 30.00 | M8.00x1.00 |
| V1809-Ø  | 20.00 | 60.00 | M8.00x1.00 |

# CADDIE AS-14 / SAS-16

## Pushrods

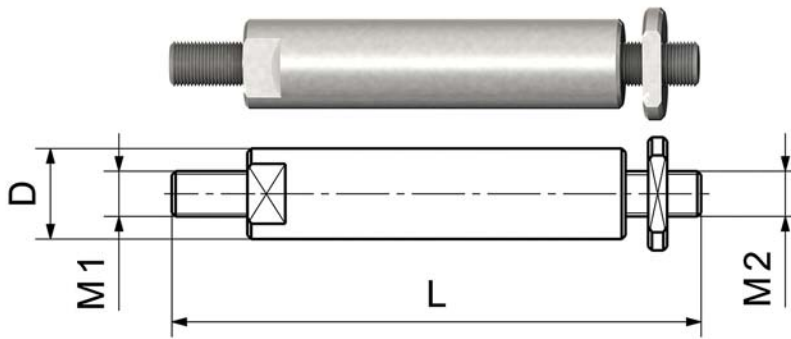
Accessories for barloaders



| Item No | D     | L      | M       | Ø Capacity    |
|---------|-------|--------|---------|---------------|
| V8.50   | 8.50  | 939.00 | M5 left | 4.00 - 6.50   |
| V9.50   | 9.50  | 927.00 | M6 left | 6.50 - 8.50   |
| V10.50  | 10.50 | 927.00 | M6 left | 7.50 - 9.50   |
| V12.50  | 12.50 | 927.00 | M6 left | 9.50 - 10.50  |
| V15.00  | 15.00 | 914.00 | M7 left | 10.50 - 13.50 |
| V16.50  | 16.50 | 914.00 | M8 left | 13.50 - 16.00 |

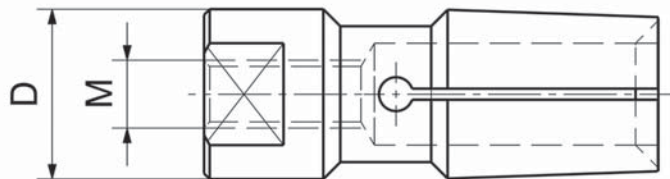
# CADDIE AS-14 / SAS-16

## Revolving end pieces



| Item No | D     | L     | M1    | M2    |
|---------|-------|-------|-------|-------|
| V1111   | 8.50  | 63.00 | M5.00 | M5.00 |
| V1112   | 9.50  | 72.00 | M6.00 | M6.00 |
| V1103   | 10.50 | 72.00 | M6.00 | M6.00 |
| V1104   | 12.50 | 72.00 | M6.00 | M6.00 |
| V1105   | 15.00 | 92.00 | M7.00 | M6.00 |
| V1113   | 16.50 | 92.00 | M8.00 | M8.00 |

## Collets



| Item No  | D     | M          | Bore from - to - |
|----------|-------|------------|------------------|
| V1699-Ø  | 8.50  | M5.00 left | 2.00 - 7.00      |
| V1700-Ø  | 9.50  | M6.00 left | 2.00 - 8.00      |
| V1125a-Ø | 10.50 | M6.00 left | 3.00 - 9.00      |
| V1126a-Ø | 12.50 | M6.00 left | 4.00 - 11.00     |
| V1127a-Ø | 15.00 | M6.00 left | 4.00 - 13.00     |
| V1128a-Ø | 16.50 | M8.00 left | 5.00 - 14.50     |

# Robobar

## Revolving end pieces

Fig. 1

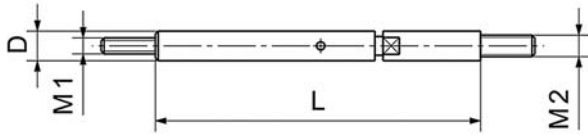


Fig. 3

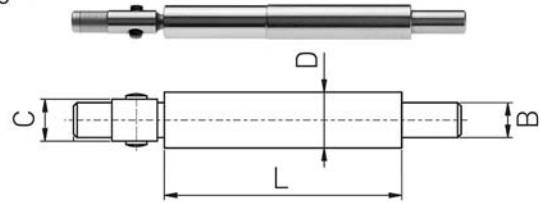


Fig. 2

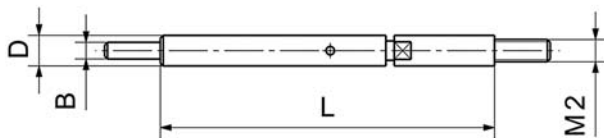
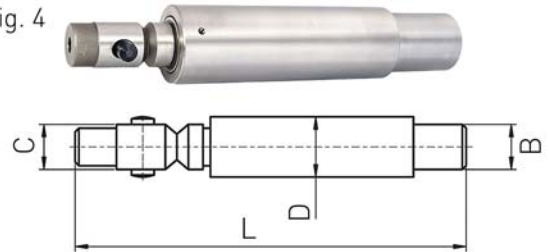
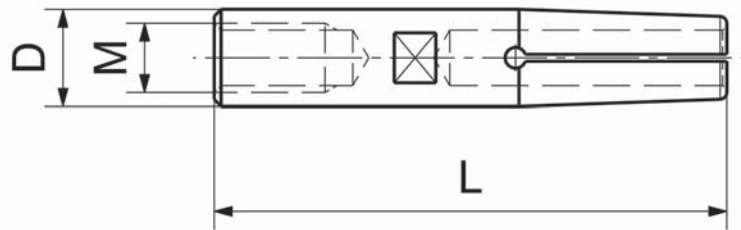


Fig. 4



| Item No   | D     | L      | M1    | M2    | B     | C     | Fig. |
|-----------|-------|--------|-------|-------|-------|-------|------|
| ROB-5.50  | 5.50  | 78.00  | M3.00 | M4.00 |       |       | 1    |
| ROB-7.50  | 7.50  | 78.00  |       | M5.00 | 5.00  |       | 2    |
| ROB-10.50 | 10.50 | 73.00  |       |       | 7.00  | 7.00  | 3    |
| ROB-12.50 | 12.00 | 73.00  |       |       | 8.00  | 8.00  | 3    |
| ROB-16.00 | 16.00 | 116.00 |       |       | 10.00 | 11.00 | 3    |
| ROB-18.00 | 18.00 | 116.00 |       |       | 10.00 | 11.00 | 3    |
| ROB-20.50 | 20.50 | 110.00 |       |       | 14.00 | 14.00 | 3    |
| ROB-25.00 | 25.00 | 114.00 |       |       | 20.00 | 20.00 | 3    |
| ROB-26.00 | 26.00 | 114.00 |       |       | 20.00 | 20.00 | 3    |
| ROB-30.00 | 30.00 | 197.00 |       |       | 25.00 | 20.00 | 4    |
| ROB-32.00 | 32.00 | 197.00 |       |       | 25.00 | 20.00 | 4    |
| ROB-36.00 | 36.00 | 207.00 |       |       | 30.00 | 20.00 | 4    |

## Collets (tapped)

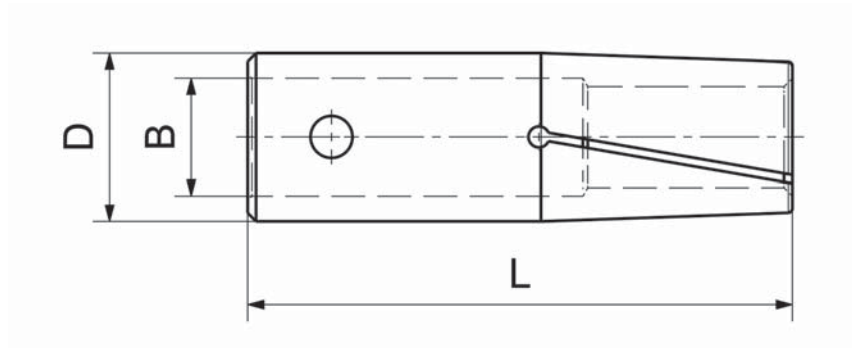


| Item No | D    | L     | M     | Bore from - to - |
|---------|------|-------|-------|------------------|
| V4005-Ø | 5.00 | 37.00 | M4.00 | 0.80 - 4.50      |
| v4007-Ø | 7.00 | 37.00 | M5.00 | 0.80 - 6.00      |



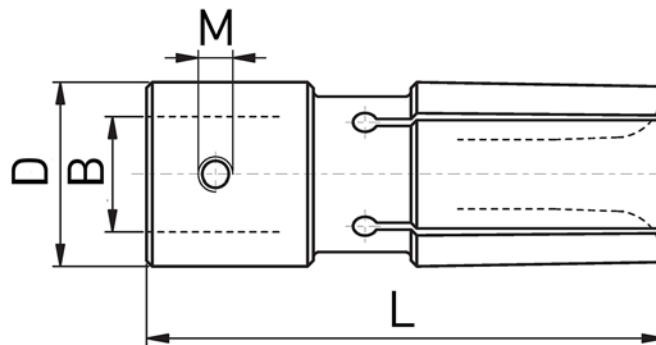
# Robobar

## Collets (pin hole)



| Item No    | D     | L     | B     | Bore         |
|------------|-------|-------|-------|--------------|
| V4010-Ø    | 10.00 | 40.00 | 7.00  | 1.00 - 9.00  |
| V4012-Ø    | 12.00 | 40.00 | 8.00  | 1.50 - 10.50 |
| V4015-Ø    | 15.00 | 40.00 | 11.00 | 2.00 - 13.50 |
| V4016-Ø    | 16.00 | 40.00 | 11.00 | 4.00 - 15.00 |
| V4018-Ø    | 18.00 | 40.00 | 11.00 | 3.00 - 17.00 |
| V4020-Ø    | 20.00 | 65.00 | 14.00 | 2.00 - 19.00 |
| V4025-Ø    | 25.00 | 65.00 | 20.00 | 2.00 - 24.00 |
| V4030-65-Ø | 30.00 | 65.00 | 20.00 | 4.00 - 29.00 |
| V4032-65-Ø | 32.00 | 65.00 | 20.00 | 3.00 - 31.00 |

## Collets lg. 90 mm (screw fixation)

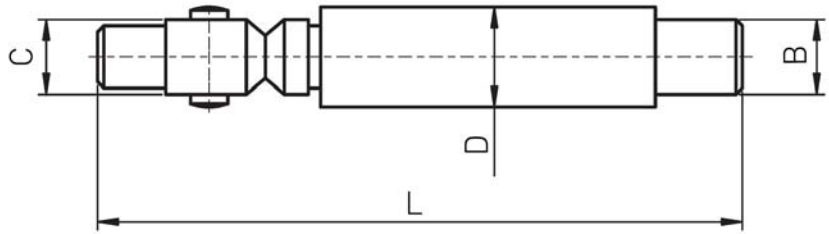


| Item No    | D     | L     | B     | M  | Bore from - to - |
|------------|-------|-------|-------|----|------------------|
| V4030-90-Ø | 30.00 | 90.00 | 20.00 | M6 | 3.00 - 28.00     |
| V4032-90-Ø | 32.00 | 90.00 | 20.00 | M6 | 2.50 - 30.50     |
| V4036-90-Ø | 36.00 | 90.00 | 20.00 | M8 | 4.00 - 34.00     |

# FMB Turbo

FMB, LNS, Breuning, Irco revolving end pieces

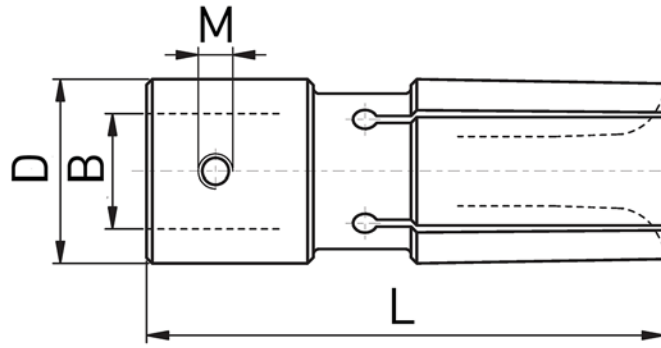
Accessories for barloaders



| Item No   | D     | L      | B     | C     |
|-----------|-------|--------|-------|-------|
| S9025-197 | 25.00 | 197.00 | 20.00 | 20.00 |
| S9030-197 | 30.00 | 197.00 | 25.00 | 20.00 |
| S9032-197 | 32.00 | 197.00 | 25.00 | 20.00 |
| S9034-197 | 34.00 | 197.00 | 30.00 | 20.00 |
| S9036-197 | 36.00 | 207.00 | 30.00 | 20.00 |
| S9038-197 | 38.00 | 207.00 | 30.00 | 20.00 |
| S9040-207 | 40.00 | 207.00 | 33.00 | 20.00 |
| S9042-207 | 42.00 | 207.00 | 33.00 | 20.00 |
| S9045-207 | 45.00 | 207.00 | 33.00 | 20.00 |
| S9050-207 | 50.00 | 207.00 | 42.00 | 20.00 |
| S9060-232 | 60.00 | 232.00 | 51.00 | 20.00 |
| S9063-232 | 63.00 | 232.00 | 51.00 | 20.00 |
| S9065-232 | 65.00 | 232.00 | 51.00 | 20.00 |
| S9070-232 | 70.00 | 232.00 | 51.00 | 20.00 |
| S9080-232 | 80.00 | -      | 51.00 | 20.00 |

# FMB Turbo

FMB, LNS, Breuning, Irco collets



| Item No    | D      | L      | B     | M  | Bore from - to - |
|------------|--------|--------|-------|----|------------------|
| V4025-90-Ø | 25.00  | 90.00  | 20.00 | M5 | 2.50 - 24.00     |
| V4030-90-Ø | 30.00  | 90.00  | 20.00 | M6 | 3.00 - 28.00     |
| V4032-90-Ø | 32.00  | 90.00  | 20.00 | M6 | 2.50 - 30.50     |
| V4034-90-Ø | 34.00  | 90.00  | 20.00 | M6 | 6.00 - 32.50     |
| V4036-90-Ø | 36.00  | 90.00  | 20.00 | M8 | 4.00 - 34.00     |
| V4038-90-Ø | 38.00  | 90.00  | 20.00 | M8 | 10.00 - 36.00    |
| V4040-90-Ø | 40.00  | 90.00  | 20.00 | M8 | 7.00 - 38.50     |
| V4042-90-Ø | 42.00  | 90.00  | 20.00 | M8 | 3.00 - 40.00     |
| V4045-90-Ø | 45.00  | 90.00  | 20.00 | M8 | 10.00 - 43.00    |
| V4050-90-Ø | 50.00  | 90.00  | 20.00 | M8 | 6.00 - 48.50     |
| V4054-90-Ø | 54.00  | 90.00  | 20.00 | M8 | 20.00 - 51.00    |
| V4058-90-Ø | 58.00  | 90.00  | 20.00 | M8 | 20.00 - 55.00    |
| V4060-90-Ø | 60.00  | 90.00  | 20.00 | M8 | 10.00 - 58.50    |
| V4065-90-Ø | 65.00  | 90.00  | 20.00 | M8 | 8.00 - 63.50     |
| V4080-90-Ø | 80.00  | 90.00  | 35.00 | M8 | 40.00 - 77.00    |
| V4090-90-Ø | 90.00  | 90.00  | 35.00 | M8 | 50.00 - 86.00    |
| V4100-110  | 100.00 | 110.00 | 35.00 | M8 | 60.00 - 95.00    |

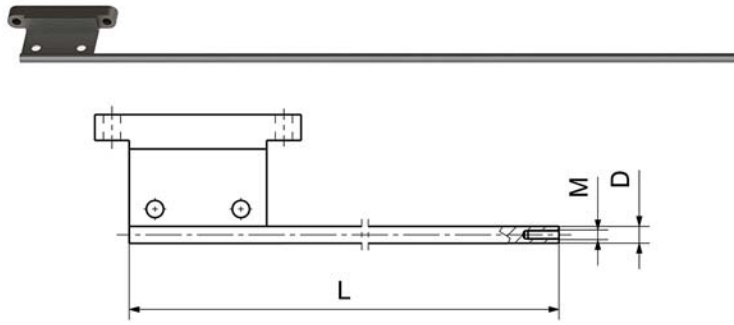
# Bechet

## Bechet summary

| Shank D               | Pushrod | End piece                    | Collet           |
|-----------------------|---------|------------------------------|------------------|
| <b>Bechet Ø 5.00</b>  |         |                              |                  |
| 5.00                  | V1500   | V1027                        | V1027a           |
| 5.50                  | V1500a  | V1031                        | V1031a           |
| <b>Bechet Ø 7.00</b>  |         |                              |                  |
| 7.00                  | V1501   | V1506                        | V4007            |
| 7.00                  | V1501a  | V1028 lg. 83                 | V1028a           |
| <b>Bechet Ø 10.00</b> |         |                              |                  |
| 10.00                 | V1502   | V1507                        | V4010            |
| 10.00                 | V1502a  | V1029 lg. 102                | V1029a           |
| <b>Bechet Ø 12.00</b> |         |                              |                  |
| 12.00                 | V1503   | V1508                        | V4012            |
| 12.00                 | V1503a  | V1110 lg. 122<br>V907 lg. 90 | V1122a<br>V1122a |
| <b>Bechet Ø 15.00</b> |         |                              |                  |
| 15.00                 | V1504   | V1509                        | V4015            |
| 15.00                 | V1504a  | V1100                        | V1608            |
| <b>Bechet Ø 20.00</b> |         |                              |                  |
| 20.00                 | V1505   | V1510                        | V4020            |
| 20.00                 | V1505a  | V1118                        | V1124a           |

# Bechet

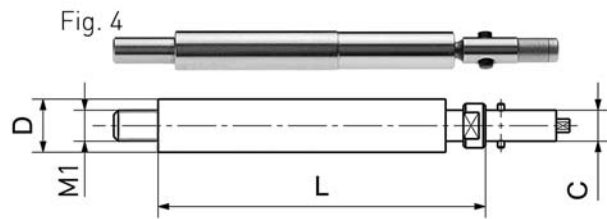
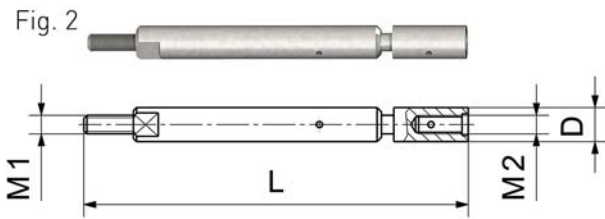
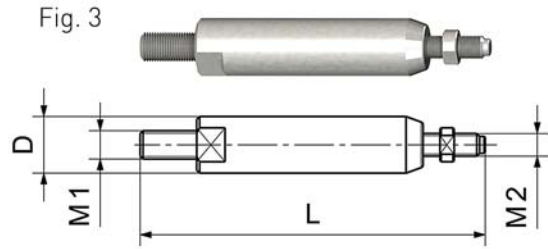
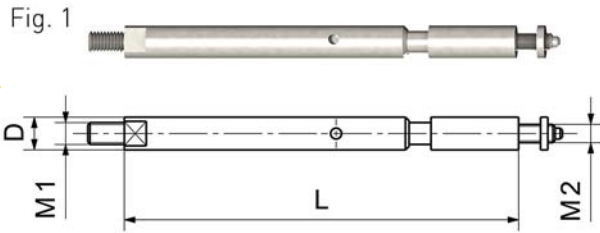
## Pushrods



| Item No | D     | L      | M      |
|---------|-------|--------|--------|
| V1500   | 5.00  | 923.00 | M3.50  |
| V1500a  | 5.00  | 921.00 | M3.00  |
| V1501   | 7.00  | 881.00 | M5.00  |
| V1501a  | 7.00  | 916.00 | M5.00  |
| V1502   | 10.00 | 838.50 | M7.00  |
| V1502a  | 10.00 | 892.50 | M6.00  |
| V1503   | 12.00 | 838.00 | M8.00  |
| V1503a  | 12.00 | 910.00 | M8.00  |
| V1504   | 15.00 | 839.00 | M10.00 |
| V1504a  | 15.00 | 895.00 | M7.00  |
| V1505   | 20.00 | 787.00 | M14.00 |
| V1505a  | 20.00 | 885.00 | M16.00 |

# Bechet

## Revolving end pieces



| Item No   | D     | L      | M1     | M2    | C     | Fig. |
|-----------|-------|--------|--------|-------|-------|------|
| V1027     | 5.00  | 58.50  | M3.50  | M3.00 |       | 1    |
| V1031     | 5.50  | 62.00  | M3.00  | M3.00 |       | 2    |
| V1506     | 7.00  | 78.50  | M5.00  | M5.00 |       | 1    |
| V1028-83  | 7.00  | 83.00  | M5.00  | M4.00 |       | 3    |
| V1029-102 | 10.00 | 102.00 | M6.00  | M5.00 |       | 3    |
| V1507     | 10.00 | 116.00 | M7.00  |       | 7.00  | 4    |
| V907      | 12.00 | 90.00  | M8.00  | M5.00 |       | 3    |
| V1508     | 12.00 | 116.00 | M8.00  |       | 8.00  | 4    |
| V1110-122 | 12.00 | 122.00 | M8.00  | M8.00 |       | 3    |
| V1100     | 15.00 | 92.00  | M7.00  | M6.00 |       | 3    |
| V1509     | 15.00 | 116.00 | M10.00 |       | 11.00 | 4    |
| V1118     | 20.00 | 104.00 | M7.00  | M8.00 |       | 3    |
| V1510     | 20.00 | 148.00 | M14.00 |       | 14.00 | 4    |

# Bechet

## Collets

Fig. 1

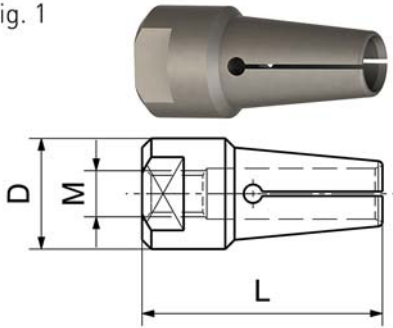


Fig. 3

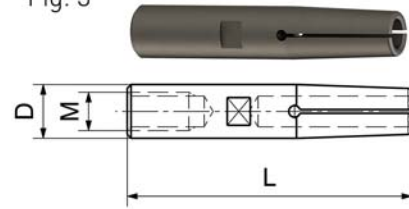


Fig. 2

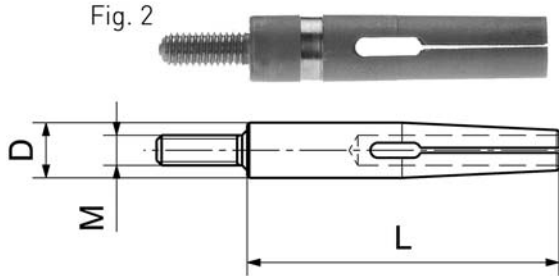
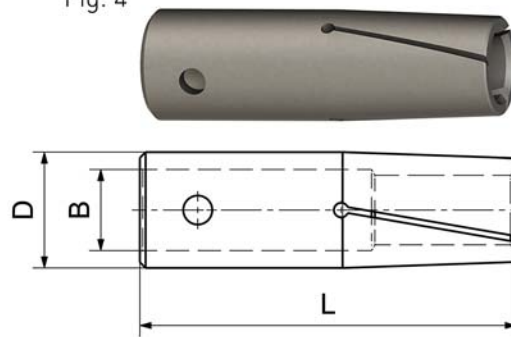


Fig. 4



| Item No  | D     | L     | M          | B     | Fig. |
|----------|-------|-------|------------|-------|------|
| V1027a-Ø | 5.00  | 22.00 | M3.00      |       | 3    |
| V1031a-Ø | 5.50  | 31.00 | M3.00 ext. |       | 2    |
| V1028a-Ø | 7.00  | 22.00 | M4.00      |       | 3    |
| V4007-Ø  | 7.00  | 37.00 | M5.00      |       | 3    |
| V1029a-Ø | 10.00 | 26.00 | M5.00      |       | 1    |
| V4010-Ø  | 10.00 | 40.00 |            | 7.00  | 4    |
| V1122a-Ø | 12.00 | 26.00 | M5.00      |       | 1    |
| V4012-Ø  | 12.00 | 40.00 |            | 8.00  | 4    |
| V1608-Ø  | 15.00 | 35.00 | M6.00      |       | 1    |
| V4015-Ø  | 15.00 | 40.00 |            | 11.00 | 4    |
| V1124a-Ø | 20.00 | 30.00 | M8.00x1.00 |       | 1    |
| V4020-Ø  | 20.00 | 65.00 |            | 14.00 | 4    |

# FMB, Traub, IEMCA, LNS, SAMECA

## Revolving end pieces

Fig. 1

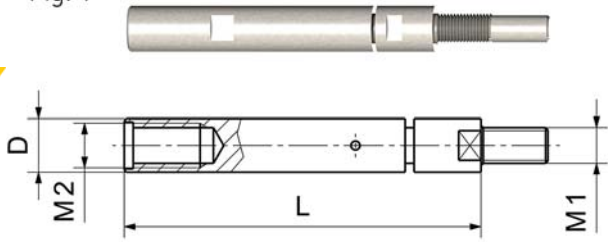


Fig. 2

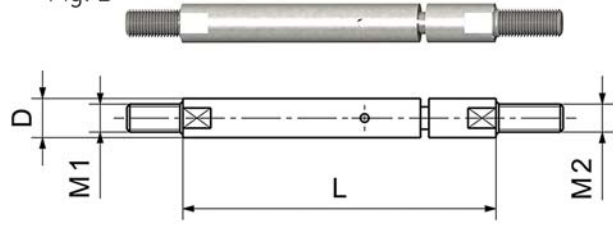
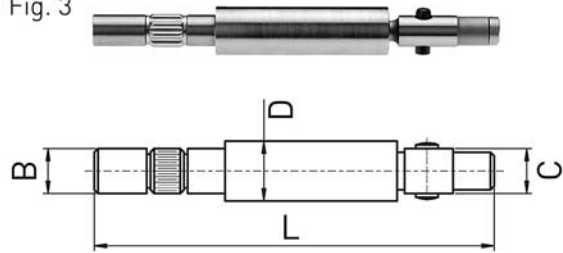


Fig. 3



| Item No | D     | L      | M1    | M2    | B     | C     | Fig. |
|---------|-------|--------|-------|-------|-------|-------|------|
| S9005A  | 5.50  | 68.00  | M4.00 | 4.50  |       |       | 1    |
| S9005B  | 5.50  | 73.00  | M4.00 | M4.00 |       |       | 2    |
| S9007A  | 7.00  | 79.00  | M5.00 | M5.00 |       |       | 2    |
| S9007B  | 7.50  | 79.00  | M5.00 | 6.50  |       |       | 1    |
| S9010   | 10.50 | 101.00 |       |       | 8.00  | 7.00  | 3    |
| S9012   | 12.00 | 101.00 |       |       | 8.00  | 8.00  | 3    |
| S9015   | 15.00 | 101.00 |       |       | 12.00 | 11.00 | 3    |
| S9018   | 18.00 | 101.00 |       |       | 12.00 | 11.00 | 3    |
| S9020   | 20.00 | 117.00 |       |       | 17.00 | 14.00 | 3    |
| S9025   | 25.00 | 120.00 |       |       | 20.00 | 20.00 | 3    |



# FMB, Traub, IEMCA, LNS, SAMECA

## Collets

Fig. 1

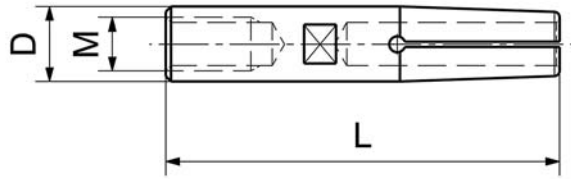
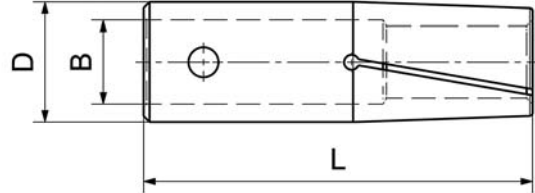


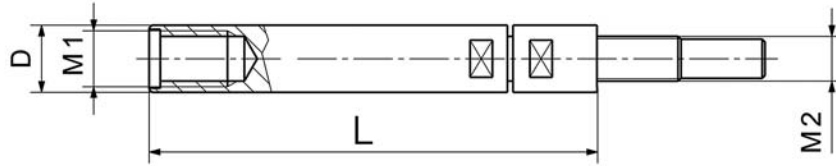
Fig. 2



| Item No | D     | L     | M     | B     | Bore          | Fig. |
|---------|-------|-------|-------|-------|---------------|------|
| V4005-Ø | 5.00  | 37.00 | M4.00 |       | 0.80 - 4.50   | 1    |
| V4007-Ø | 7.00  | 37.00 | M5.00 |       | 0.80 - 6.00   | 1    |
| V4010-Ø | 10.00 | 40.00 |       | 7.00  | 1.00 - 9.00   | 2    |
| V4011-Ø | 11.00 | 40.00 |       | 7.00  | 9.50 - 10.00  | 2    |
| V4012-Ø | 12.00 | 40.00 |       | 8.00  | 1.50 - 10.50  | 2    |
| V4013-Ø | 13.00 | 40.00 |       | 8.00  | 2.00 - 12.00  | 2    |
| V4014-Ø | 14.00 | 40.00 |       | 8.00  | 8.00 - 13.00  | 2    |
| V4015-Ø | 15.00 | 40.00 |       | 11.00 | 2.00 - 13.50  | 2    |
| V4016-Ø | 16.00 | 40.00 |       | 11.00 | 4.00 - 15.00  | 2    |
| V4018-Ø | 18.00 | 40.00 |       | 11.00 | 3.00 - 17.00  | 2    |
| V4020-Ø | 20.00 | 65.00 |       | 14.00 | 2.00 - 19.00  | 2    |
| V4021-Ø | 21.00 | 65.00 |       | 14.00 | 18.00 - 20.00 | 2    |
| V4022-Ø | 22.00 | 65.00 |       | 14.00 | 4.00 - 21.00  | 2    |
| V4024-Ø | 24.00 | 65.00 |       | 20.00 | 16.00 - 23.00 | 2    |
| V4025-Ø | 25.00 | 65.00 |       | 20.00 | 2.00 - 24.00  | 2    |
| V4028-Ø | 28.00 | 65.00 |       | 20.00 | 3.00 - 27.00  | 2    |
| V4030-Ø | 30.00 | 65.00 |       | 20.00 | 4.00 - 29.00  | 2    |
| V4032-Ø | 32.00 | 65.00 |       | 20.00 | 3.00 - 31.00  | 2    |
| V4034-Ø | 34.00 | 65.00 |       | 20.00 | 28.00 - 33.00 | 2    |
| V4036-Ø | 36.00 | 65.00 |       | 20.00 | 4.00 - 35.00  | 2    |
| V4042-Ø | 42.00 | 65.00 |       | 20.00 | 15.00 - 41.00 | 2    |
| V4052-Ø | 52.00 | 65.00 |       | 20.00 | 40.00 - 51.00 | 2    |

# IEMCA

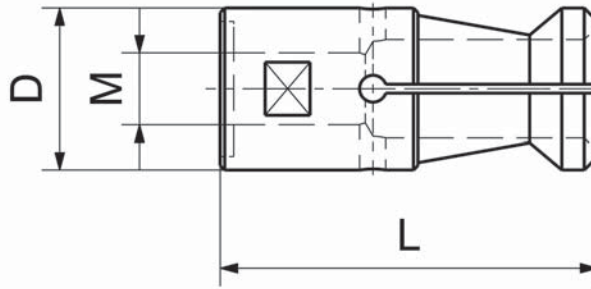
## Revolving end pieces



Accessories for barloaders

| Item No | D     | L      | M1         | M2         |
|---------|-------|--------|------------|------------|
| V100550 | 5.50  | 69.00  |            | M4         |
| V100750 | 7.50  | 126.00 | M6 x 0.75  | M5 x 0.50  |
| V101000 | 10.00 | 113.00 | M8 x 1.00  | M6 x 0.75  |
| V101200 | 12.00 | 116.00 | M10 x 1.00 | M7 x 0.75  |
| V101500 | 15.00 | 121.00 | M12 x 1.50 | M8 x 1.00  |
| V102000 | 20.00 | 133.00 | M14 x 1.50 | M10 x 1.00 |
| V102500 | 25.00 | 133.00 | M14 x 1.50 | M10 x 1.00 |
| V103000 | 30.00 | 135.00 | M14 x 1.50 | M10 x 1.00 |

## Collets



\* also available on demand with : M17 x 1.0 / M25 x 1.5 / M18 x 1.5 or M18 x 1.5 Left

| Item No   | D     | L     | M           |
|-----------|-------|-------|-------------|
| V110550-Ø | 5.50  | 37.00 | M4 x 0.50   |
| V110750-Ø | 7.50  | 40.00 | M5 x 0.50   |
| V111000-Ø | 10.00 | 40.00 | M6 x 0.75   |
| V111200-Ø | 12.00 | 42.00 | M7 x 0.75   |
| V111500-Ø | 15.00 | 42.00 | M8 x 1.00   |
| V111600-Ø | 16.00 | 42.00 | M8 x 1.00   |
| V111800-Ø | 18.00 | 42.00 | M8 x 1.00   |
| V112000-Ø | 20.00 | 59.00 | M10 x 1.00  |
| V112300-Ø | 23.00 | 59.00 | M10 x 1.00  |
| V112500-Ø | 25.00 | 59.00 | M10 x 1.00  |
| V113000-Ø | 30.00 | 65.00 | M10 x 1.00* |
| V113200-Ø | 32.00 | 65.00 | M10 x 1.00* |
| V113300-Ø | 33.00 | 65.00 | M10 x 1.00* |
| V113400-Ø | 34.00 | 65.00 | M25 x 1.50  |
| V113500-Ø | 35.00 | 65.00 | M25 x 1.50  |
| V113600-Ø | 36.00 | 65.00 | M25 x 1.50  |
| V114000-Ø | 40.00 | 70.00 | M25 x 1.50  |
| V114200-Ø | 42.00 | 70.00 | M25 x 1.50  |
| V114600-Ø | 46.00 | 72.00 | M25 x 1.50  |
| V115000-Ø | 50.00 | 80.00 | M25 x 1.50  |
| V115200-Ø | 52.00 | 80.00 | M25 x 1.50  |
| V115400-Ø | 54.00 | 80.00 | M25 x 1.50  |
| V115500-Ø | 55.00 | 80.00 | M25 x 1.50  |
| V115600-Ø | 56.00 | 80.00 | M25 x 1.50  |
| V115800-Ø | 58.00 | 80.00 | M25 x 1.50  |
| V116000-Ø | 60.00 | 80.00 | M25 x 1.50  |
| V116500-Ø | 65.00 | 80.00 | M25 x 1.50  |
| V117000-Ø | 70.00 | 80.00 | M25 x 1.50  |
| V117500-Ø | 75.00 | 80.00 | M25 x 1.50  |
| V118000-Ø | 80.00 | 80.00 | M25 x 1.50  |

Fig. 1

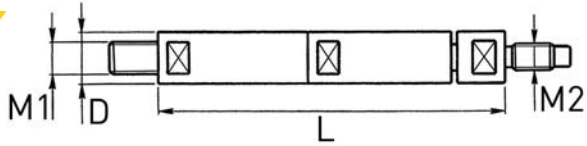
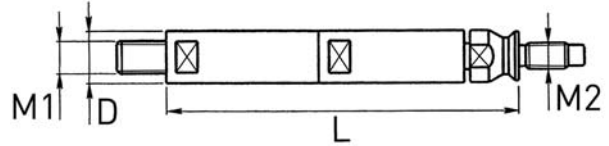


Fig. 2



\* = left thread

| Item No      | D     | L      | M1           | M2           | Fig. |
|--------------|-------|--------|--------------|--------------|------|
| V201000      | 10.00 | 107.00 | M7 x 1.00    | M6 x 0.75    | 1    |
| V201200      | 12.00 | 107.00 | M8 x 1.25    | M7 x 0.75    | 1    |
| V201400      | 14.00 | 107.00 | M10 x 1.50   | M8 x 1.00    | 1    |
| V201600      | 16.00 | 107.00 | M10 x 1.50   | M8 x 1.00    | 1    |
| V201900      | 19.00 | 118.00 | M12 x 1.75   | M10 x 1.00   | 1    |
| V201900-L-v1 | 19.00 | 100.00 | M17 x 1.00 * | M10 x 1.00 * | 1    |
| V201900-L-v2 | 19.00 | 100.00 | M17 x 1.00 * | M14 x 1.50 * | 1    |
| V202400-L-v1 | 24.00 | 100.00 | M20 x 1.50 * | M14 x 1.00 * | 1    |
| V202500      | 25.00 | 118.00 | M20 x 1.50   | M14 x 1.00   | 1    |
| V202930-L-v1 | 29.30 | 121.00 | M26 x 1.50 * | M18 x 1.50 * | 1    |
| V202930-L-v2 | 29.30 | 121.00 | M26 x 1.50 * | M18 x 1.50 * | 2    |
| V202930-L-v3 | 29.30 | 121.00 | M26 x 1.50 * | M26 x 1.50 * | 1    |
| V203000      | 30.00 | 123.00 | M24 x 1.50   | M18 x 1.50   | 1    |
| V203800-L-v1 | 38.00 | 109.00 | M30 x 1.50 * | M30 x 1.50 * | 1    |
| V203800-L-v2 | 38.00 | 109.00 | M30 x 1.50 * | M30 x 1.50 * | 1    |
| V204000      | 40.00 | 61.00  | M28 x 1.50   | M25 x 1.50   | 1    |

Fig. 1

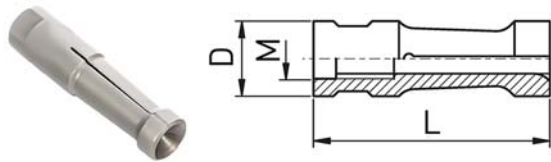


Fig. 3

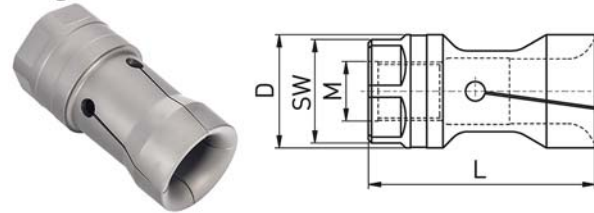
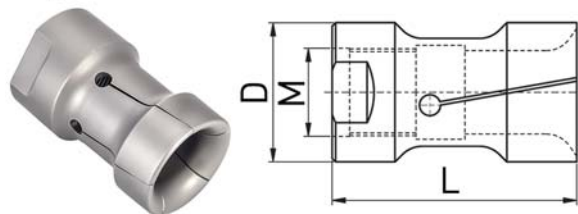


Fig. 2



Type L



Type LS



\* = left thread

SW = on flats

Fig. 2 & 3 also available in version "L" or "LS"

| Item No   | D     | L     | M            | SW | Bore from - to - | Fig. |
|-----------|-------|-------|--------------|----|------------------|------|
| V211000-Ø | 10.00 | 50.00 | M6 x 0.75    |    | 2.00 - 9.00      | 1    |
| V211200-Ø | 12.00 | 52.00 | M7 x 0.75    |    | 3.00 - 11.00     | 1    |
| V211400-Ø | 14.00 | 52.00 | M8 x 1.00    |    | 4.00 - 12.50     | 1    |
| V211500-Ø | 15.00 | 52.00 | M8 x 1.00    |    | 4.00 - 14.00     | 1    |
| V211600-Ø | 16.00 | 52.00 | M8 x 1.00    |    | 4.00 - 15.00     | 1    |
| V211800-Ø | 18.00 | 59.00 | M10 x 1.00   |    | 4.00 - 17.00     | 1    |
| V212500-Ø | 25.00 | 59.00 | M14 x 1.00   |    | 10.00 - 23.00    | 1    |
| V213000-Ø | 30.00 | 65.00 | M18 x 1.50   |    | 8.00 - 28.00     | 1    |
| V222900-Ø | 29.00 | 80.00 | M17 x 1.00   |    | 5.00 - 27.00     | 2    |
| V223000-Ø | 30.00 | 80.00 | M17 x 1.00   |    | 5.00 - 28.00     | 2    |
| V223200-Ø | 32.00 | 80.00 | M25 x 1.50   |    | 5.00 - 30.00     | 2    |
| V223400-Ø | 34.00 | 80.00 | M25 x 1.50   |    | 20.00 - 32.00    | 2    |
| V223600-Ø | 36.00 | 80.00 | M25 x 1.50   |    | 20.00 - 34.00    | 2    |
| V223800-Ø | 38.00 | 80.00 | M25 x 1.50   |    | 20.00 - 36.00    | 2    |
| V224000-Ø | 40.00 | 80.00 | M25 x 1.50   |    | 10.00 - 38.00    | 2    |
| V224200-Ø | 42.00 | 80.00 | M25 x 1.50   |    | 10.00 - 40.00    | 2    |
| V224400-Ø | 44.00 | 80.00 | M25 x 1.50   |    | 38.00 - 42.00    | 2    |
| V224600-Ø | 46.00 | 80.00 | M25 x 1.50   |    | 39.00 - 44.00    | 2    |
| V224800-Ø | 48.00 | 80.00 | M25 x 1.50   |    | 40.00 - 46.00    | 2    |
| V231900-Ø | 19.00 | 60.00 | M10 x 1.00 * | 17 | 4.00 - 17.00     | 3    |
| V232000-Ø | 20.00 | 60.00 | M10 x 1.00 * | 17 | 8.00 - 18.50     | 3    |
| V232300-Ø | 23.00 | 60.00 | M14 x 1.00 * | 21 | 4.00 - 21.00     | 3    |
| V232400-Ø | 24.00 | 60.00 | M14 x 1.00 * | 22 | 21.00 - 22.00    | 3    |
| V232500-Ø | 25.00 | 60.00 | M14 x 1.00 * | 22 | 6.00 - 23.50     | 3    |
| V232800-Ø | 28.00 | 65.00 | M18 x 1.50 * | 24 | 21.00 - 24.00    | 3    |
| V232900-Ø | 29.00 | 65.00 | M18 x 1.50 * | 27 | 5.00 - 27.50     | 3    |
| V233000-Ø | 30.00 | 65.00 | M18 x 1.50 * | 28 | 18.00 - 28.00    | 3    |
| V233200-Ø | 32.00 | 65.00 | M18 x 1.50 * | 28 | 20.00 - 30.00    | 3    |
| V233300-Ø | 33.00 | 70.00 | M18 x 1.50 * | 30 | 25.00 - 31.00    | 3    |
| V233400-Ø | 34.00 | 70.00 | M18 x 1.50 * | 30 | 8.00 - 32.50     | 3    |

Fig. 1

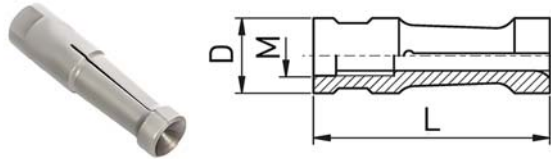


Fig. 3

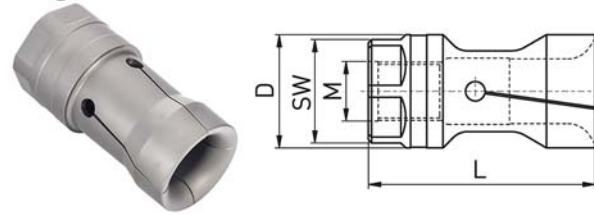
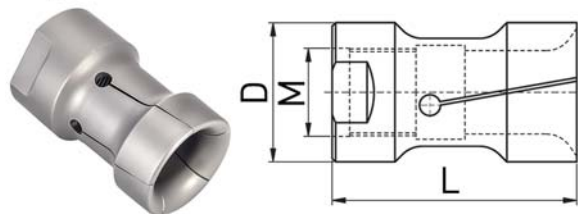


Fig. 2



Type L



Type LS



| Item No   | D     | L     | M            | SW | Bore from - to - | Fig. |
|-----------|-------|-------|--------------|----|------------------|------|
| V233500-Ø | 35.00 | 70.00 | M18 x 1.50 * | 32 | 10.00 - 33.00    | 3    |
| V233700-Ø | 37.00 | 70.00 | M25 x 1.50 * | 32 | 10.00 - 35.00    | 3    |
| V233780-Ø | 37.80 | 70.00 | M25 X 1.50 * | 32 | 30.00 - 36.00    | 3    |
| V233900-Ø | 39.00 | 70.00 | M25 x 1.50 * | 36 | 16.00 - 37.00    | 3    |
| V234000-Ø | 40.00 | 70.00 | M25 x 1.50 * | 36 | 20.00 - 38.00    | 3    |
| V234100-Ø | 41.00 | 70.00 | M25 x 1.50 * | 36 | 19.00 - 40.00    | 3    |
| V234200-Ø | 42.00 | 70.00 | M25 x 1.50 * | 36 | 20.00 - 40.00    | 3    |
| V234280-Ø | 42.80 | 70.00 | M25 x 1.50 * | 36 | 20.00 - 41.00    | 3    |
| V234400-Ø | 44.00 | 70.00 | M25 x 1.50 * | 36 | 20.00 - 42.00    | 3    |
| V234700-Ø | 47.00 | 70.00 | M30 x 1.50 * | 40 | 10.00 - 45.00    | 3    |
| V234970-Ø | 49.70 | 70.00 | M30 x 1.50 * | 50 | 20.00 - 48.00    | 3    |
| V235500-Ø | 55.00 | 80.00 | M30 x 1.50 * | 50 | 20.00 - 53.00    | 3    |
| V235900-Ø | 59.00 | 80.00 | M30 x 1.50 * | 56 | 19.00 - 58.00    | 3    |
| V236500-Ø | 65.00 | 80.00 | M30 x 1.50 * | 60 | 58.00 - 62.00    | 3    |
| V237000-Ø | 70.00 | 80.00 | M30 x 1.50 * | -  | 60.00 - 67.00    | 3    |
| V237500-Ø | 75.00 | 80.00 | M30 x 1.50 * | -  | 65.00 - 72.00    | 3    |



# LNS

## LNS Tryton summary

| Shank D | End piece | Collet |
|---------|-----------|--------|
| 6.00    | V1032     | V2000  |
| 7.00    | V1032     | V2001  |
| 10.00   | V1029-102 | V2002  |
| 12.70   | V1037     | V2003  |

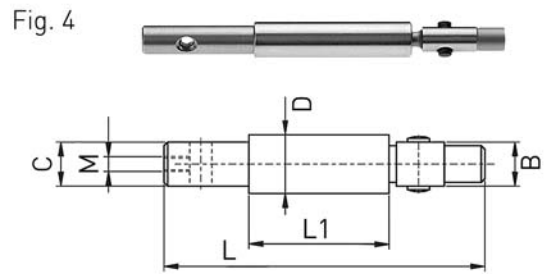
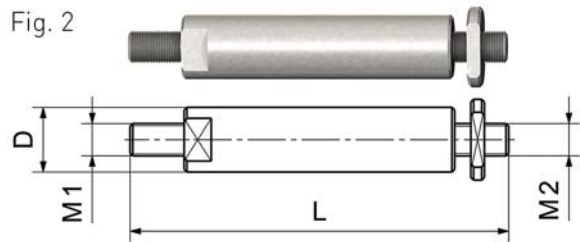
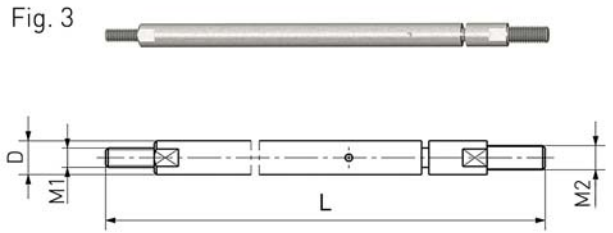
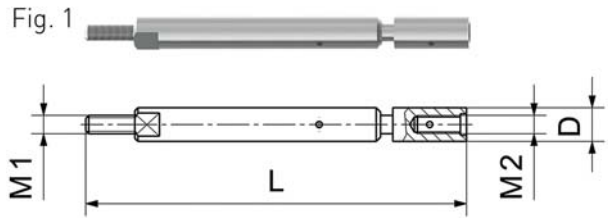
## LNS Minisprint & Express summary

| Shank D | End piece | Collet   |
|---------|-----------|----------|
| 7.00    | LNS7      | V4007    |
| 10.00   | LNS10     | V4010    |
| 11.00   | LNS10     | V4011    |
| 12.00   | LNS12     | V4012    |
| 13.00   | LNS12     | V4013    |
| 14.00   | LNS12     | V4014    |
| 15.00   | LNS15     | V4015    |
| 16.00   | LNS15     | V4016    |
| 17.00   | LNS15     | V4017    |
| 18.00   | LNS18     | V4018    |
| 19.00   | LNS18     | V4019    |
| 20.00   | LNS20     | V4020    |
| 21.00   | LNS20     | V4021    |
| 22.00   | LNS20     | V4022    |
| 23.00   | LNS20     | V4023    |
| 24.00   | LNS20     | V4024    |
| 25.00   | LNS25     | V4025-65 |
| 26.00   | LNS25     | V4026-65 |
| 27.00   | LNS25     | V4027-65 |
| 28.00   | LNS25     | V4028-65 |
| 29.00   | LNS25     | V4030-65 |
| 32.00   | LNS25     | V4032-65 |
| 34.00   | LNS25     | V4034-90 |
| 36.00   | LNS36     | V4036-90 |
| 37.00   | LNS36     | V4037-90 |
| 38.00   | LNS36     | V4038-90 |
| 40.00   | LNS50     | V4040-90 |
| 42.00   | LNS50     | V4042-90 |



# LNS

## LNS Minisprint & Express End pieces



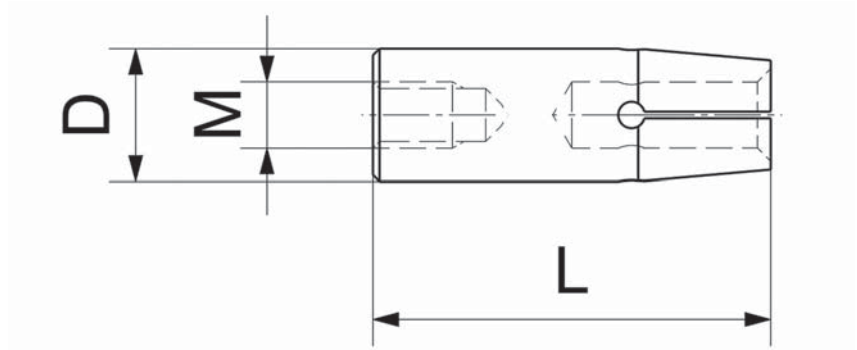
Accessories for barloaders

| Item No   | D     | L      | M     | M1    | M2    | L1    | B     | C     | Fig. |
|-----------|-------|--------|-------|-------|-------|-------|-------|-------|------|
| V1031     | 5.50  | 62.00  |       | M3.00 | M3.00 |       |       |       | 1    |
| V1032     | 7.00  | 63.00  |       | M5.00 | M4.00 |       |       |       | 2    |
| LNS7      | 7.00  | 131.00 |       | M4.00 | M5.00 |       |       |       | 3    |
| LNS10     | 10.00 | 95.00  | M4.00 |       |       | 42.00 | 7.00  | 8.00  | 4    |
| V1029-102 | 10.00 | 102.00 |       | M6.00 | M5.00 |       |       |       | 2    |
| V1037     | 12.00 | 70.00  |       | M6.00 | M6.00 |       |       |       | 2    |
| LNS12     | 12.00 | 95.00  |       |       |       | 42.00 | 8.00  | 8.00  | 4    |
| LNS15     | 15.00 | 96.00  | M5.00 |       |       | 42.00 | 11.00 | 12.00 | 4    |
| LNS18     | 18.00 | 96.00  |       |       |       | 42.00 | 11.00 | 12.00 | 4    |
| LNS20     | 20.00 | 111.00 | M8.00 |       |       | 46.00 | 14.00 | 17.00 | 4    |
| LNS25     | 25.00 | 115.50 | M8.00 |       |       | 48.00 | 20.00 | 20.00 | 4    |
| LNS36     | 36.00 | 198.00 |       |       |       |       | 20.00 | 30.00 | 4    |
| LNS50     | 50.00 | 208.00 |       |       |       |       | 20.00 | 42.00 | 4    |



# LNS

## LNS Tryton collets



| Item No | D     | L     | M  |
|---------|-------|-------|----|
| V2000-Ø | 6.00  | 30.00 | M4 |
| V2001-Ø | 7.00  | 30.00 | M4 |
| V2002-Ø | 10.00 | 30.00 | M5 |
| V2003-Ø | 12.00 | 30.00 | M6 |

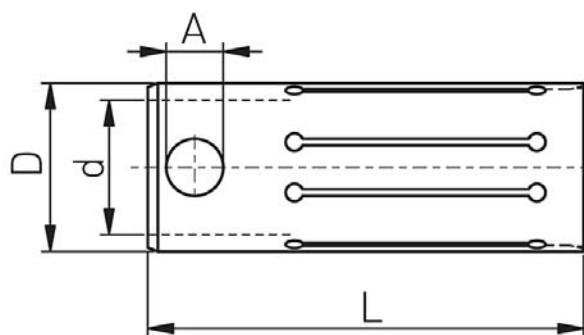
# "Longlife" collets

Longlife collets with pin hole

Type L



Type LS



"Longlife" collets available in versions :

- Type L = suitable for hex. and square
- Type LS = partial slots

| Type L No | Type LS No | D     | d     | L     | Bore from - to - | Square / hex from - to - |
|-----------|------------|-------|-------|-------|------------------|--------------------------|
| L4005-Ø   | LS4005-Ø   | 5.00  | M4    | 40.00 | 3.50 - 4.30      |                          |
| L4007-Ø   | LS4007-Ø   | 7.00  | M5    | 40.00 | 4.30 - 6.00      |                          |
| L4007R-Ø  | LS4007R-Ø  | 7.50  | M5    | 40.00 | 6.00 - 7.00      |                          |
| L4010-Ø   | LS4010-Ø   | 10.00 | 7.00  | 40.00 | 6.00 - 9.00      | 6.00 - 8.00              |
| L4011-Ø   | LS4011-Ø   | 11.00 | 7.00  | 40.00 | 9.00 - 10.00     | 8.00                     |
| L4012-Ø   | LS4012-Ø   | 12.00 | 8.00  | 40.00 | 8.00 - 11.00     | 7.00 - 9.00              |
| L4013-Ø   | LS4013-Ø   | 13.00 | 8.00  | 40.00 | 11.00 - 12.00    | 10.00                    |
| L4015-Ø   | LS4015-Ø   | 15.00 | 11.00 | 40.00 | 10.00 - 14.00    | 9.00 - 12.00             |
| L4016-Ø   | LS4016-Ø   | 16.00 | 11.00 | 40.00 | 13.00 - 15.00    | 12.00 - 13.00            |
| L4017-Ø   | LS4017-Ø   | 17.00 | 11.00 | 40.00 | 14.00 - 16.00    | 13.00                    |
| L4018-Ø   | LS4018-Ø   | 18.00 | 11.00 | 40.00 | 12.00 - 17.00    | 11.00 - 14.00            |
| L4019-Ø   | LS4019-Ø   | 19.00 | 11.00 | 40.00 | 17.00 - 18.00    | 15.00                    |
| L4020-Ø   | LS4020-Ø   | 20.00 | 14.00 | 65.00 | 14.00 - 19.00    | 13.00 - 16.00            |
| L4021-Ø   | LS4021-Ø   | 21.00 | 14.00 | 65.00 | 18.00 - 20.00    | 16.00 - 17.00            |
| L4022-Ø   | LS4022-Ø   | 22.00 | 14.00 | 65.00 | 16.50 - 21.00    | 15.00 - 18.00            |
| L4023-Ø   | LS4023-Ø   | 23.00 | 14.00 | 65.00 | 18.00 - 22.00    | 16.00 - 19.00            |
| L4024-Ø   | LS4023-Ø   | 24.00 | 20.00 | 65.00 | 20.00 - 23.00    | 18.00 - 20.00            |
| L4025-Ø   | LS4025-Ø   | 25.00 | 20.00 | 65.00 | 16.00 - 24.00    | 14.00 - 20.00            |
| L4026-Ø   | LS4026-Ø   | 26.00 | 20.00 | 65.00 | 23.00 - 25.00    | 20.00 - 21.00            |
| L4027-Ø   | LS4027-Ø   | 27.00 | 20.00 | 65.00 | 24.00 - 26.00    | 21.00 - 22.00            |
| L4028-Ø   | LS4028-Ø   | 28.00 | 20.00 | 65.00 | 20.00 - 27.00    | 18.00 - 23.00            |
| L4030-Ø   | LS4030-Ø   | 30.00 | 20.00 | 65.00 | 22.00 - 29.00    | 20.00 - 25.00            |
| L4031-Ø   | LS4031-Ø   | 31.00 | 20.00 | 65.00 | 29.50 - 30.00    | 26.00                    |
| L4032-Ø   | LS4032-Ø   | 32.00 | 20.00 | 65.00 | 20.00 - 31.00    | 18.00 - 27.00            |
| L4033-Ø   | LS4033-Ø   | 33.00 | 20.00 | 65.00 | 30.00 - 32.00    | 27.00                    |
| L4034-Ø   | LS4034-Ø   | 34.00 | 20.00 | 65.00 | 28.00 - 33.00    | 25.00 - 28.00            |
| L4036-Ø   | LS4036-Ø   | 36.00 | 20.00 | 65.00 | 30.00 - 35.00    | 27.00 - 30.00            |
| L4039-Ø   | LS4039-Ø   | 39.00 | 20.00 | 65.00 | 36.00 - 38.00    | 32.00 - 33.00            |

# "Longlife" collets

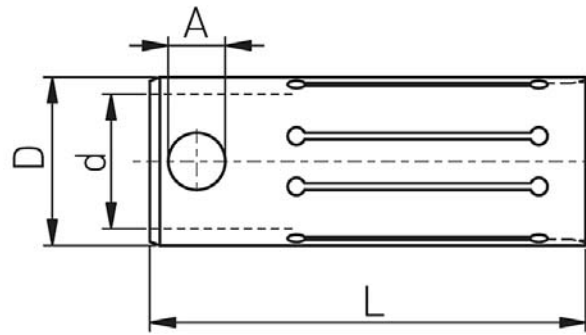
Longlife collets with pin hole

continuation ...

Type L



Type LS



Accessories for barloaders

| Type L No | Type LS No | D     | d     | L     | Bore from - to - | Square / hex from - to - |
|-----------|------------|-------|-------|-------|------------------|--------------------------|
| L4042-Ø   | LS4042-Ø   | 42.00 | 20.00 | 69.00 | 38.50 - 41.00    | 34.00 - 35.00            |
| L4052-Ø   | LS4052-Ø   | 52.00 | 20.00 | 70.00 | 47.00 - 50.00    | 41.00 - 43.00            |

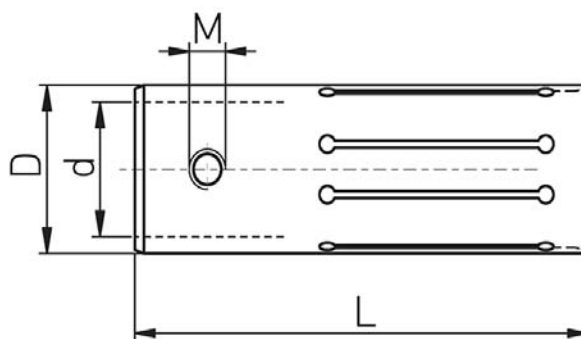
# "Longlife" collets

## Longlife collets with screws

Type L



Type LS



### "Longlife" collets available in versions :

- Type L = suitable for hex. and square
- Type LS = partial slots

| Type L No | Type LS No | D     | d           | L     | Bore from - to - | Square / hex from - to - |
|-----------|------------|-------|-------------|-------|------------------|--------------------------|
| L4025TD-Ø | LS4025TD-Ø | 25.00 | 20.00       | 90.00 | 15.00 - 24.00    | 13.00 - 20.00            |
| L4030TD-Ø | LS4030TD-Ø | 30.00 | 20.00       | 90.00 | 20.00 - 29.00    | 18.00 - 25.00            |
| L4032TD-Ø | LS4032TD-Ø | 32.00 | 20.00       | 90.00 | 22.00 - 31.00    | 19.00 - 26.00            |
| L4033TD-Ø | LS4033TD-Ø | 33.00 | 20.00       | 90.00 | 30.00 - 32.00    | 26.00 - 27.00            |
| L4034TD-Ø | LS4033TD-Ø | 34.00 | 20.00       | 90.00 | 25.00 - 33.00    | 22.00 - 28.00            |
| L4036TD-Ø | LS4036TD-Ø | 36.00 | 20.00       | 90.00 | 28.00 - 35.00    | 25.00 - 30.00            |
| L4038TD-Ø | LS4038TD-Ø | 38.00 | 20.00       | 90.00 | 30.00 - 37.00    | 27.00 - 32.00            |
| L4040TD-Ø | LS4040TD-Ø | 40.00 | 20.00       | 90.00 | 35.00 - 39.00    | 31.00 - 33.00            |
| L4042TD-Ø | LS4042TD-Ø | 42.00 | 20.00       | 90.00 | 30.00 - 41.00    | 27.00 - 35.00            |
| L4043TD-Ø | LS4043TD-Ø | 43.00 | 20.00       | 90.00 | 41.50 - 42.00    | 36.00                    |
| L4045TD-Ø | LS4045TD-Ø | 45.00 | 20.00       | 90.00 | 40.00 - 44.00    | 35.00 - 38.00            |
| L4050TD-Ø | LS4050TD-Ø | 50.00 | 20.00       | 90.00 | 40.00 - 49.00    | 35.00 - 42.00            |
| L4055TD-Ø | LS4055TD-Ø | 55.00 | 20.00       | 90.00 | 45.00 - 54.00    | 40.00 - 46.00            |
| L4060TD-Ø | LS4060TD-Ø | 60.00 | 20.00       | 90.00 | 50.00 - 59.00    | 44.00 - 51.00            |
| L4063TD-Ø | LS4063TD-Ø | 63.00 | 20.00       | 90.00 | 50.00 - 62.00    | 44.00 - 53.00            |
| L4065TD-Ø | LS4065TD-Ø | 65.00 | 20.00       | 90.00 | 53.00 - 64.00    | 46.00 - 55.00            |
| L4070TD-Ø | LS4070TD-Ø | 70.00 | 20.00       | 90.00 | 65.00 - 68.00    | -                        |
| L4073TD-Ø | LS4073TD-Ø | 73.00 | 20.00/35.00 | 90.00 | 68.00 - 71.00    | -                        |
| L4075TD-Ø | LS4075TD-Ø | 75.00 | 20.00/35.00 | 90.00 | 70.00 - 73.00    | -                        |
| L4080TD-Ø | LS4080TD-Ø | 80.00 | 35.00       | 90.00 | 75.00 - 78.00    | -                        |