



Pinces acier

Stahl Zangen

Steel collets





**Pinces d'avance**  
*Vorschubzangen / Feedfingers*

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A



**Pinces poussées**  
*Druckspannzangen / Dead length collets*

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**Pinces tirées avec filet extérieur**  
*Zugspannzangen mit Aussengewinde*  
Drawback collets with external thread

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**Pinces tirées avec filet intérieur**  
*Zugspannzangen mit Innengewinde*  
Drawback collets with internal thread

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Werkzeugspannung  
Tools clamping

**Pinces pour usinage à haute vitesse (UGV)**  
*Spannzangen für Hochgeschwindigbearbeitung (HSC)*  
Collets for high speed cutting (HSC)

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**Pinces EX-ESX-ET1-ER**  
*Spannzangen EX-ESX-ET1-ER*  
Collets EX-ESX-ET1-ER

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E



**Porte-pinces avec queue cylindrique**  
*Spannzangenhalter mit zylindrischer Schaft*  
Collets chucks with cylindrical shank

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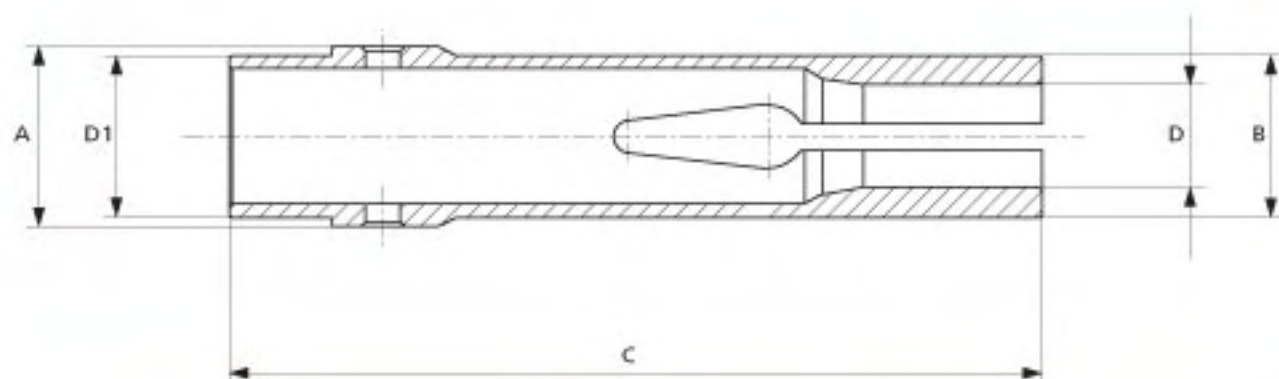




Vorschubzangen  
Feedfingers

## Pinces d'avance type A

Vorschubzangen Typ A / Feedfingers type A



| Type    | No                     | A     | B     | C   | D1          | D min.-max.  |   |               |
|---------|------------------------|-------|-------|-----|-------------|--------------|---|---------------|
| Typ     | Nr.                    | A     | B     | C   | D1          | D min.-max.  |   |               |
| Type    | Nr                     | A     | B     | C   | D1          | D min.-max.  |   |               |
|         |                        |       |       |     |             | ○            | □ | ○             |
| A 17.90 | 71-335                 | 17.90 | 17.50 | 70  | M 16 x 0.75 | 4.76 - 14.00 |   | 5.00 - 12.00  |
|         | 71-213 <sup>13)</sup>  | 17.90 | 17.50 | 70  | M 16 x 0.75 |              |   |               |
| A 22.80 | 71-1922                | 22.80 | 20.50 | 98  | M 20 x 0.75 | 4.00 - 17.00 |   | 7.00 - 14.00  |
|         | 71-2011 <sup>13)</sup> | 22.80 | 20.50 | 98  | M 20 x 0.75 |              |   |               |
| A 27.70 | 71-2000                | 27.70 | 25.30 | 116 | M 25 x 1.00 | 6.00 - 21.00 |   | 10.00 - 19.05 |
|         | 71-2002 <sup>13)</sup> | 27.70 | 25.30 | 116 | M 25 x 1.00 |              |   |               |

Alésages standards selon liste de prix / Standardbohrungen gemäss Preisliste / Standard bores according to pricelist

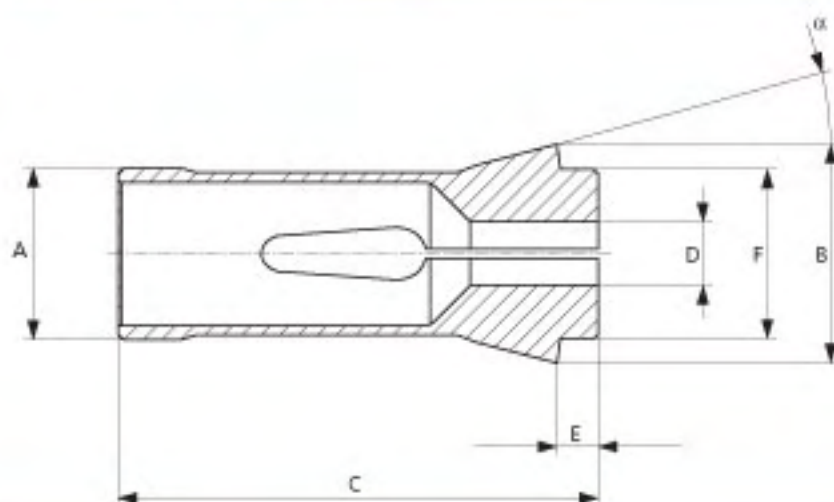
<sup>13)</sup> Pince d'avance maîtresse / Vorschubzangen-Körper / Master feedfingers



Druckspannzangen  
Dead length collets

## Pinces poussées type F

Druckspannzangen Typ F / Dead length collets type F



| Type    | No         | A     | B     | C     | E    | F     | $\alpha$ | D min.-max.  |             |              |
|---------|------------|-------|-------|-------|------|-------|----------|--------------|-------------|--------------|
| Typ     | Nr.        | A     | B     | C     | E    | F     | $\alpha$ | D min.-max.  |             |              |
| Type    | Nr         | A     | B     | C     | E    | F     | $\alpha$ | D min.-max.  |             |              |
|         |            |       |       |       |      |       |          | ○            | □           | ○            |
| F 4.50  | 76-76      | 4.50  | 6.75  | 17.25 | 1.80 | 4.50  | 15°      | 0.50 - 3.50  |             |              |
| F 6.00  | 76-599     | 6.00  | 10.00 | 30.00 | 3.00 | 6.00  | 15°      | 1.00 - 4.50  |             |              |
| F 7.00  | 76-66      | 7.00  | 10.70 | 26.00 | 2.90 | 7.00  | 15°      | 0.50 - 5.00  |             |              |
|         | 76-206     | 7.00  | 10.50 | 26.00 | 3.00 | 7.00  | 15°      | 1.00 - 5.50  |             |              |
|         | 76-576 1)  | 7.00  | 11.00 | 41.00 | 5.00 | 7.00  | 16°      |              |             |              |
| F 8.00  | 76-577     | 8.00  | 12.00 | 42.00 | 4.50 | 8.00  | 16°      | 0.50 - 6.35  |             |              |
|         | 76-719 1)  | 8.00  | 14.00 | 35.00 | 3.00 | 8.00  | 15°      |              |             |              |
|         | 76-1079 1) | 8.00  | 12.00 | 41.00 | 3.50 | 8.00  | 16°      |              |             |              |
|         | 76-1844    | 8.00  | 11.00 | 19.00 | 2.00 | 8.00  | 15°      | 1.00 - 6.00  |             |              |
| F 9.00  | 76-77 1)   | 9.00  | 13.30 | 36.50 | 3.00 | 9.00  | 20°      |              |             |              |
| F 10.00 | 76-86      | 10.00 | 15.50 | 47.50 | 5.50 | 10.00 | 20°      | 0.50 - 8.00  | 4.00 - 5.00 | 4.00 - 6.00  |
|         | 76-720 1)  | 10.00 | 16.00 | 43.00 | 3.00 | 10.00 | 15°      |              |             |              |
|         | 76-1178    | 10.00 | 16.00 | 46.00 | 4.00 | 10.00 | 20°      | 0.50 - 7.00  |             | 4.00 - 6.00  |
| F 12.00 | 76-78      | 12.00 | 18.10 | 44.50 | 4.30 | 12.00 | 15°      | 0.50 - 10.00 |             |              |
|         | 76-578     | 12.00 | 18.00 | 64.00 | 6.00 | 12.00 | 16°      | 1.00 - 10.00 |             |              |
| F 13.00 | 76-357     | 13.00 | 19.00 | 64.00 | 6.00 | 13.00 | 16°      | 1.00 - 10.00 | 4.00 - 7.00 | 4.00 - 8.00  |
| F 14.00 | 76-98      | 14.00 | 18.00 | 46.00 | 4.00 | 14.00 | 13°      | 1.50 - 10.00 |             |              |
| F 15.00 | 76-358     | 15.00 | 22.00 | 47.00 | 5.00 | 15.00 | 20°      | 2.00 - 10.00 |             |              |
|         | 76-580     | 15.00 | 21.00 | 64.00 | 6.00 | 15.00 | 16°      | 1.00 - 12.70 | 4.00 - 8.00 | 4.00 - 10.00 |
|         | 76-1902 1) | 15.00 | 19.20 | 24.00 | 2.00 | 15.00 | 15°      | 2.00 - 9.50  |             |              |
| F 16.00 | 76-104     | 16.00 | 22.00 | 55.00 | 5.00 | 16.00 | 15°      | 1.00 - 13.00 |             | 5.00 - 11.00 |
|         | 76-830     | 16.00 | 21.00 | 66.00 | 8.00 | 16.00 | 16°      | 2.00 - 12.50 |             |              |
|         | 76-1076    | 16.00 | 21.00 | 64.00 | 6.00 | 16.00 | 16°      | 1.00 - 13.00 |             |              |





Druckspannzangen  
Dead length collets

| Type    | No         | A     | B     | C      | E     | F     | $\alpha$ | D min.-max.  |              |               |
|---------|------------|-------|-------|--------|-------|-------|----------|--------------|--------------|---------------|
| Typ     | Nr.        | A     | B     | C      | E     | F     | $\alpha$ | D min.-max.  |              |               |
| Type    | Nr         | A     | B     | C      | E     | F     | $\alpha$ | D min.-max.  |              |               |
|         |            |       |       |        |       |       |          | ○            | □            | ○             |
| F 17.46 | 76-79 1)   | 17.46 | 22.05 | 51.00  | 5.00  | 16.00 | 15°      |              |              |               |
| F 18.00 | 76-85 1)   | 18.00 | 25.00 | 67.00  | 7.00  | 19.50 | 15°      |              |              |               |
|         | 76-579 1)  | 18.00 | 24.00 | 64.00  | 6.00  | 18.00 | 16°      |              |              |               |
| F 20.00 | 76-87      | 20.00 | 28.00 | 67.00  | 7.00  | 21.00 | 16°      | 1.50 - 16.00 | 4.00 - 11.00 | 4.00 - 14.00  |
|         | 76-102 1)  | 20.00 | 27.50 | 60.00  | 5.00  | 20.00 | 15°      |              |              |               |
|         | 76-201     | 20.00 | 26.00 | 54.00  | 5.00  | 19.00 | 15°      | 1.50 - 16.00 | 4.00 - 8.00  | 4.00 - 14.00  |
|         | 76-1251 1) | 20.00 | 25.20 | 28.00  | 2.50  | 20.00 | 15°      |              |              |               |
| F 22.00 | 76-71      | 22.00 | 30.00 | 55.00  | 6.00  | 21.00 | 15°      | 1.00 - 16.00 |              |               |
|         | 76-88 1)   | 22.00 | 28.00 | 67.00  | 7.00  | 23.50 | 13°      |              |              |               |
|         | 76-727 1)  | 22.00 | 32.00 | 66.00  | 7.00  | 25.00 | 16°      |              |              |               |
| F 23.00 | 76-569 1)  | 23.00 | 31.00 | 47.00  | 7.50  | 25.00 | 15°      |              |              |               |
| F 23.80 | 76-1214 1) | 23.80 | 28.57 | 63.50  | 6.35  | 20.60 | 15°15'   |              |              |               |
| F 25.00 | 76-64      | 25.00 | 35.00 | 77.00  | 10.00 | 27.00 | 16°      | 1.00 - 20.00 | 4.00 - 15.00 | 4.00 - 18.00  |
|         | 76-91 1)   | 25.00 | 34.00 | 65.00  | 6.00  | 25.00 | 15°      |              |              |               |
| F 26.00 | 76-90      | 26.00 | 32.00 | 67.00  | 7.00  | 27.50 | 13°      | 3.00 - 20.00 | 4.00 - 14.00 | 4.00 - 17.00  |
| F 27.00 | 76-22      | 27.00 | 38.00 | 72.70  | 8.00  | 30.00 | 15°      | 2.00 - 23.00 | 4.00 - 16.00 | 4.00 - 20.00  |
| F 28.00 | 76-93      | 28.00 | 38.00 | 70.00  | 7.00  | 28.00 | 15°      | 1.00 - 23.00 |              |               |
| F 30.00 | 76-63      | 30.00 | 42.00 | 80.00  | 10.00 | 34.00 | 16°      | 3.00 - 25.40 | 4.00 - 18.00 | 4.76 - 22.22  |
|         | 76-101     | 30.00 | 38.00 | 65.00  | 6.00  | 32.00 | 15°      | 3.00 - 26.00 | 5.00 - 18.00 | 4.00 - 22.00  |
| F 32.00 | 76-221     | 32.00 | 45.00 | 75.00  | 8.00  | 34.00 | 15°      | 2.00 - 26.00 | 4.00 - 18.00 | 4.00 - 22.00  |
|         | 76-1023 1) | 32.00 | 40.00 | 65.00  | 6.00  | 34.00 | 15°      |              |              |               |
| F 34.00 | 76-1077 1) | 34.00 | 44.00 | 80.00  | 10.00 | 37.00 | 16°      |              |              |               |
| F 35.00 | 76-67 1)   | 35.00 | 43.00 | 70.00  | 7.00  | 34.00 | 15°      |              |              |               |
|         | 76-94      | 35.00 | 48.00 | 80.00  | 8.00  | 38.00 | 15°      | 2.00 - 30.00 | 5.00 - 20.00 | 4.00 - 24.00  |
| F 37.00 | 76-740     | 37.00 | 47.00 | 92.00  | 10.00 | 40.00 | 16°      | 3.00 - 32.00 |              | 5.00 - 27.00  |
| F 38.00 | 76-72      | 38.08 | 49.00 | 107.50 | 9.00  | 38.00 | 15°      | 2.00 - 32.00 | 4.00 - 22.00 | 4.00 - 27.00  |
| F 39.00 | 76-1208 1) | 39.00 | 46.00 | 80.00  | 9.00  | 39.50 | 15°      |              |              |               |
| F 42.00 | 76-99      | 42.00 | 55.00 | 94.00  | 9.00  | 42.00 | 15°      | 3.00 - 36.00 |              | 10.00 - 30.00 |
| F 48.00 | 76-81      | 48.00 | 60.00 | 94.00  | 9.00  | 50.00 | 15°      | 3.00 - 42.00 | 4.00 - 30.00 | 6.00 - 36.00  |
| F 64.00 | 76-82 1)   | 64.00 | 78.70 | 124.00 | 11.00 | 66.00 | 15°      |              |              |               |
| F 66.00 | 76-359     | 66.00 | 84.00 | 110.00 | 9.00  | 73.00 | 15°      | 4.00 - 60.00 | 7.00 - 40.00 | 10.00 - 51.00 |

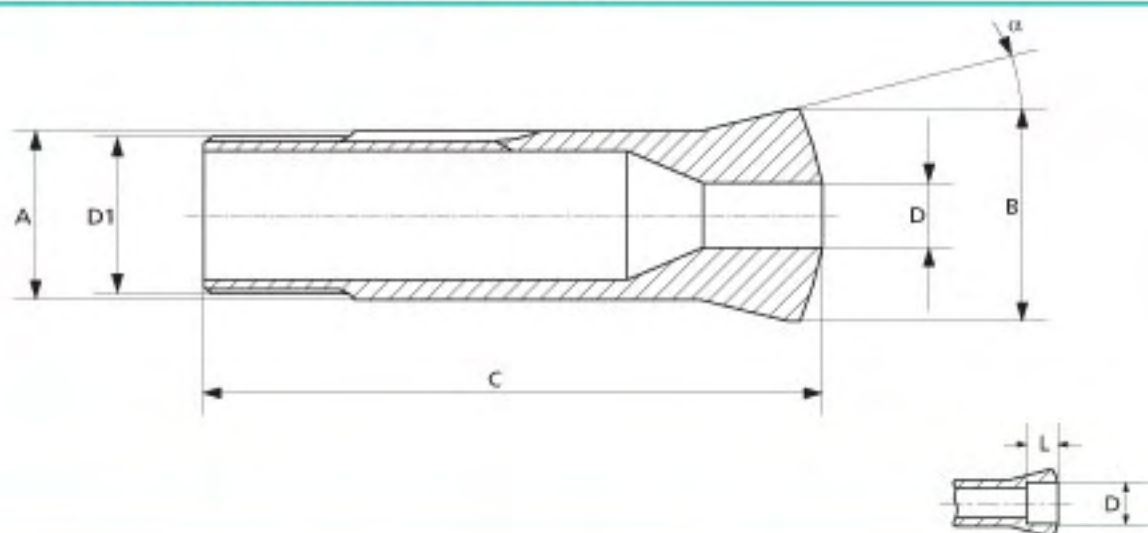




Zugspannzangen  
Drawback collets

## Pinces tirées type B

Zugspannzangen Typ B / Drawback collets type B



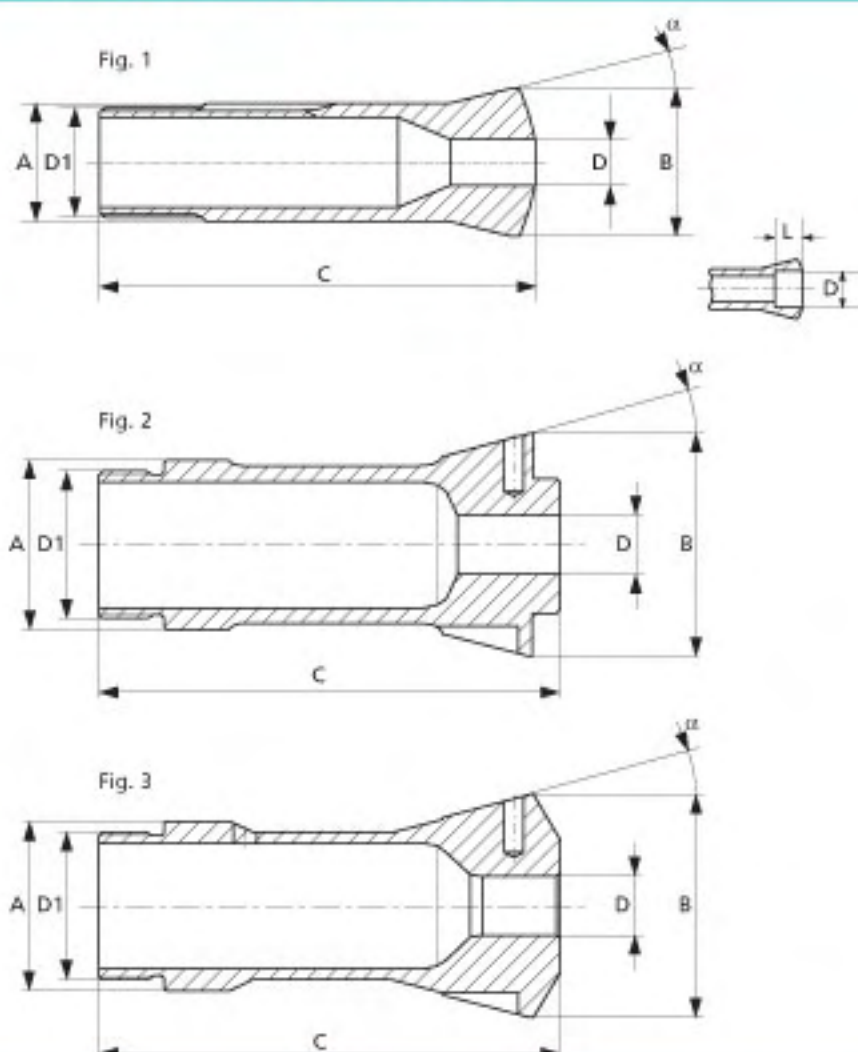
| Type | No                     | A     | B     | C      | D1                   | α        | L   | D min.-max. ○ |
|------|------------------------|-------|-------|--------|----------------------|----------|-----|---------------|
| Typ  | Nr.                    | A     | B     | C      | D1                   | α        | L   | D min.-max. ○ |
| Type | Nr                     | A     | B     | C      | D1                   | α        | L   | D min.-max. ○ |
| B 6  | 72-128                 | 6.00  | 10.50 | 31.30  | ∅ 5 x 36f"           | < 55°    | 20° | -             |
|      |                        |       |       |        |                      |          |     | 0.50 - 3.00   |
|      |                        |       |       |        |                      |          |     | 12.00         |
|      |                        |       |       |        |                      |          |     | 3.01 - 4.50   |
|      |                        |       |       |        |                      |          |     | 4.50          |
|      | 72-1897 <sup>12)</sup> | 6.00  | 9.00  | 31.30  | ∅ 5 x 36f"           | < 55°    | 20° | 4.50          |
|      |                        |       |       |        |                      |          |     | 5.01 - 5.50   |
|      |                        |       |       |        |                      |          |     | 3.50          |
|      |                        |       |       |        |                      |          |     | 5.51 - 6.00   |
|      |                        |       |       |        |                      |          |     | -             |
| B 8  | 72-137                 | 8.00  | 13.00 | 35.50  | ∅ 6.82 x 0.625 < 55° | < 55°    | 20° | 1.00 - 3.00   |
|      |                        |       |       |        |                      |          |     | 12.00         |
|      |                        |       |       |        |                      |          |     | 3.01 - 4.50   |
|      |                        |       |       |        |                      |          |     | 4.50          |
|      |                        |       |       |        |                      |          |     | 4.51 - 5.00   |
| B 15 | 72-139                 | 15.00 | 21.00 | 55.00  | M 13 x 1             | < 55°    | 20° | 0.50 - 4.00   |
|      |                        |       |       |        |                      |          |     | 12.50         |
|      |                        |       |       |        |                      |          |     | 4.01 - 6.50   |
|      |                        |       |       |        |                      |          |     | 6.00          |
|      |                        |       |       |        |                      |          |     | 6.51 - 7.00   |
|      |                        |       |       |        |                      | < 55°    | 20° | 5.00          |
|      |                        |       |       |        |                      |          |     | 7.01 - 7.50   |
|      |                        |       |       |        |                      |          |     | 4.00          |
|      |                        |       |       |        |                      |          |     | 7.51 - 8.00   |
|      |                        |       |       |        |                      |          |     | -             |
| B 32 | 72-55                  | 32.00 | 40.00 | 102.00 | M 30 x 1.50          | < 55°    | 20° | 1.00 - 9.50   |
|      |                        |       |       |        |                      |          |     | 20.00         |
|      |                        |       |       |        |                      |          |     | 9.51 - 12.50  |
|      |                        |       |       |        |                      |          |     | 8.50          |
|      |                        |       |       |        |                      |          |     | 12.51 - 13.00 |
| UP   |                        |       |       |        |                      | < 55°    | 20° | 7.70          |
|      |                        |       |       |        |                      |          |     | 13.01 - 13.50 |
|      |                        |       |       |        |                      |          |     | 7.00          |
|      |                        |       |       |        |                      |          |     | 13.51 - 14.00 |
|      |                        |       |       |        |                      |          |     | 6.50          |
|      |                        |       |       |        |                      | < 55°    | 20° | 14.01 - 14.50 |
|      |                        |       |       |        |                      |          |     | 6.00          |
|      |                        |       |       |        |                      |          |     | 14.51 - 15.00 |
|      |                        |       |       |        |                      |          |     | -             |
|      |                        |       |       |        |                      |          |     | 1.00 - 24.00  |
| B 32 | 72-65                  | 32.00 | 40.00 | 106.00 | ∅ 29.7 x 15f"        | < 45°/5° | 15° | 44.00         |
|      |                        |       |       |        |                      |          |     | 24.01 - 28.00 |
|      |                        |       |       |        |                      |          |     | 12.00         |
|      |                        |       |       |        |                      |          |     | 28.01 - 30.00 |
|      |                        |       |       |        |                      |          |     | 8.00          |
|      |                        |       |       |        |                      | < 45°/5° | 15° | 30.01 - 32.00 |
|      |                        |       |       |        |                      |          |     | 0.50 - 24.00  |
|      |                        |       |       |        |                      |          |     | 44.00         |
|      |                        |       |       |        |                      |          |     | 24.01 - 28.00 |
|      |                        |       |       |        |                      |          |     | 12.00         |
|      |                        |       |       |        |                      | < 45°/5° | 15° | 28.01 - 30.00 |
|      |                        |       |       |        |                      |          |     | 8.00          |
|      |                        |       |       |        |                      |          |     | 30.01 - 32.00 |
|      |                        |       |       |        |                      |          |     | -             |
|      |                        |       |       |        |                      |          |     | 0.50 - 24.00  |



Zugspannzangen  
Drawback collets

## Pinces tirées type B

Zugspannzangen Typ B / Drawback collets type B



| Type | No         | A  | B     | C   | D1                   | α      | Fig. | L     | D min.-max. ∅ |
|------|------------|----|-------|-----|----------------------|--------|------|-------|---------------|
| Typ  | Nr.        | A  | B     | C   | D1                   | α      | Fig. | L     | D min.-max. ∅ |
| Type | Nr         | A  | B     | C   | D1                   | α      | Fig. | L     | D min.-max. ∅ |
| B 34 | 72-1820 2) | 34 | 42.00 | 90  | M 30 x 1.00 à gauche | 16°6'  | 2    | -     | 3.00 - 20.00  |
| B 45 | 72-199     | 45 | 53.00 | 115 | M 42 x 1.50          | 15°    | 1    | -     | 1.00 - 36.00  |
|      |            |    |       |     |                      |        |      | 53.00 | 36.01 - 40.00 |
|      |            |    |       |     |                      |        |      | 15.50 | 40.01 - 41.00 |
|      |            |    |       |     |                      |        |      | 13.50 | 41.01 - 42.00 |
|      |            |    |       |     |                      |        |      | 11.50 | 42.01 - 43.00 |
|      |            |    |       |     |                      |        |      | 9.50  | 43.01 - 44.00 |
|      |            |    |       |     |                      |        |      | 7.50  | 44.01 - 45.00 |
| B 46 | 72-2007    | 46 | 60.30 | 120 | M 40 x 1.50 à gauche | 15°10' | 3    | -     | 6.00 - 32.00  |

Alésages standards selon liste de prix / Standardbohrungen gemäss Preisliste / Standard bores according to pricelist  
Autres alésages sur demande / Andere Bohrungen auf Anfrage / Other bores on request

2) Sur demande / Auf Anfrage / On request

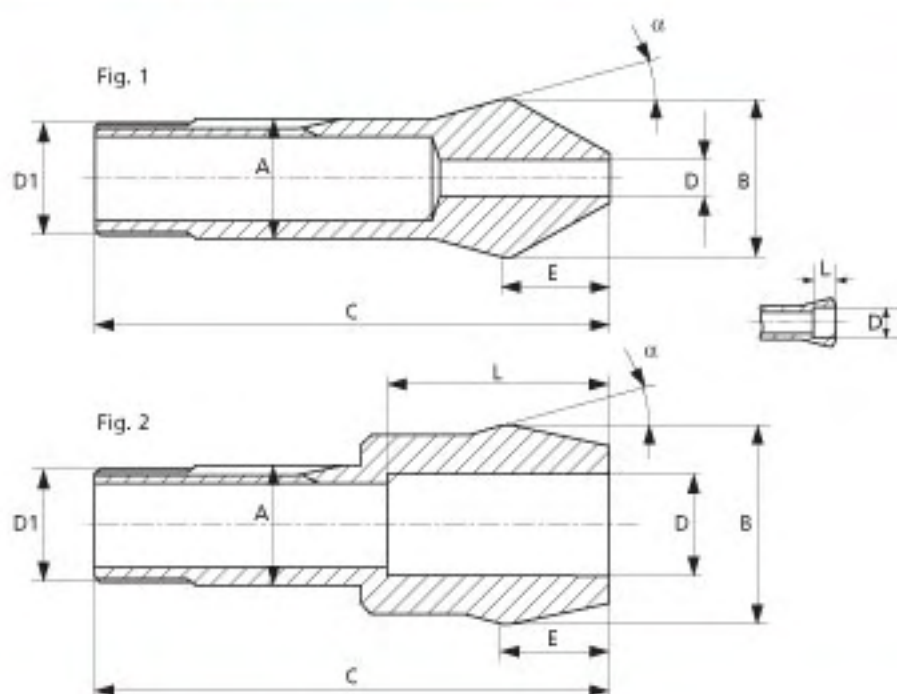




Schnabelspannzangen  
Extended nose collet

## Pinces à bec type B

Schnabelspannzangen Typ B / Extended nose collet type B



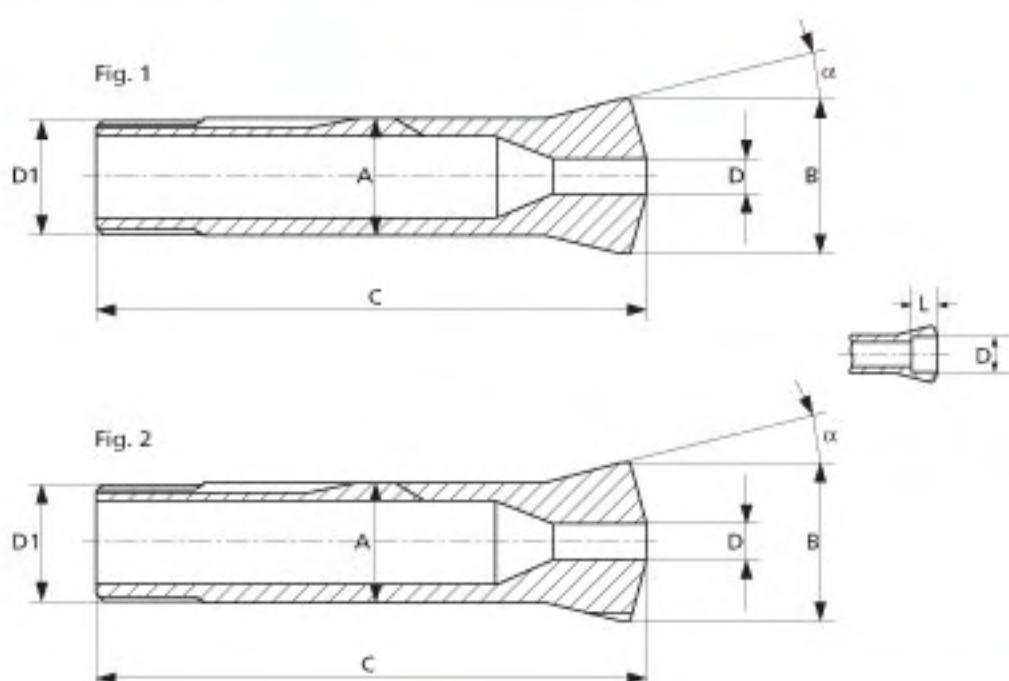
| Type    | No      | A  | B  | C      | D1                                                     | E     | $\alpha$   | Fig. | L  | D min.-max. $\varnothing$ |
|---------|---------|----|----|--------|--------------------------------------------------------|-------|------------|------|----|---------------------------|
| Typ     | Nr.     | A  | B  | C      | D1                                                     | E     | $\alpha$   | Fig. | L  | D min.-max. $\varnothing$ |
| Type    | Nr      | A  | B  | C      | D1                                                     | E     | $\alpha$   | Fig. | L  | D min.-max. $\varnothing$ |
| B 8     | 72-95   | 8  | 13 | 40.50  | $\varnothing 6.82 \times 0.625 \leq 55^\circ$          | 7.00  | $20^\circ$ | 1    | -  | 1.00 - 3.30               |
| B 32    | 72-2003 | 32 | 40 | 124.00 | $\varnothing 29.70 \times 15f'' \leq 45^\circ/5^\circ$ | 24.00 | $15^\circ$ | 1    | -  | 4.00 - 24.00              |
| B 32/45 | 72-2005 | 32 | 53 | 148.50 | $\varnothing 29.70 \times 15f'' \leq 45^\circ/5^\circ$ | 32.50 | $15^\circ$ | 2    | -  | 1.00 - 24.00              |
|         |         |    |    |        |                                                        |       |            |      | 80 | 24.01 - 40.00             |



Zugspannzangen  
Drawback collets

## Pinces tirées type L

Zugspannzangen Typ L / Drawback collets type L



| Type | No     | A  | B     | C   | D1                                                      | $\alpha$       | Fig. | L  | D min.-max. $\varnothing$ |
|------|--------|----|-------|-----|---------------------------------------------------------|----------------|------|----|---------------------------|
| Typ  | Nr.    | A  | B     | C   | D1                                                      | $\alpha$       | Fig. | L  | D min.-max. $\varnothing$ |
| Type | Nr     | A  | B     | C   | D1                                                      | $\alpha$       | Fig. | L  | D min.-max. $\varnothing$ |
| L 20 | 77-122 | 20 | 28.00 | 122 | $\varnothing 19.70 \times 2.00 \angle 45^\circ/5^\circ$ | $17^\circ 30'$ | 1    | -  | 1.00 - 12.70              |
|      |        |    |       |     |                                                         |                |      | 60 | 12.71 - 17.50             |
|      |        |    |       |     |                                                         |                |      | 12 | 17.51 - 18.00             |
|      |        |    |       |     |                                                         |                |      | 11 | 18.01 - 18.50             |
|      |        |    |       |     |                                                         |                |      | 10 | 18.51 - 19.00             |
|      |        |    |       |     |                                                         |                |      | 9  | 19.01 - 19.50             |
|      |        |    |       |     |                                                         |                |      | 8  | 19.51 - 20.00             |
|      | 77-826 | 20 | 27.50 | 122 | $\varnothing 18.50 \times 1.40 \angle 50^\circ$         | $20^\circ$     | 2    | -  | 2.00 - 13.20              |
|      |        |    |       |     |                                                         |                |      | 60 | 13.21 - 18.00             |
|      |        |    |       |     |                                                         |                |      | 11 | 18.01 - 18.50             |
|      |        |    |       |     |                                                         |                |      | 10 | 18.51 - 19.00             |
|      |        |    |       |     |                                                         |                |      | 9  | 19.01 - 19.50             |
|      |        |    |       |     |                                                         |                |      | 8  | 19.51 - 20.00             |
|      |        |    |       |     |                                                         |                |      |    |                           |

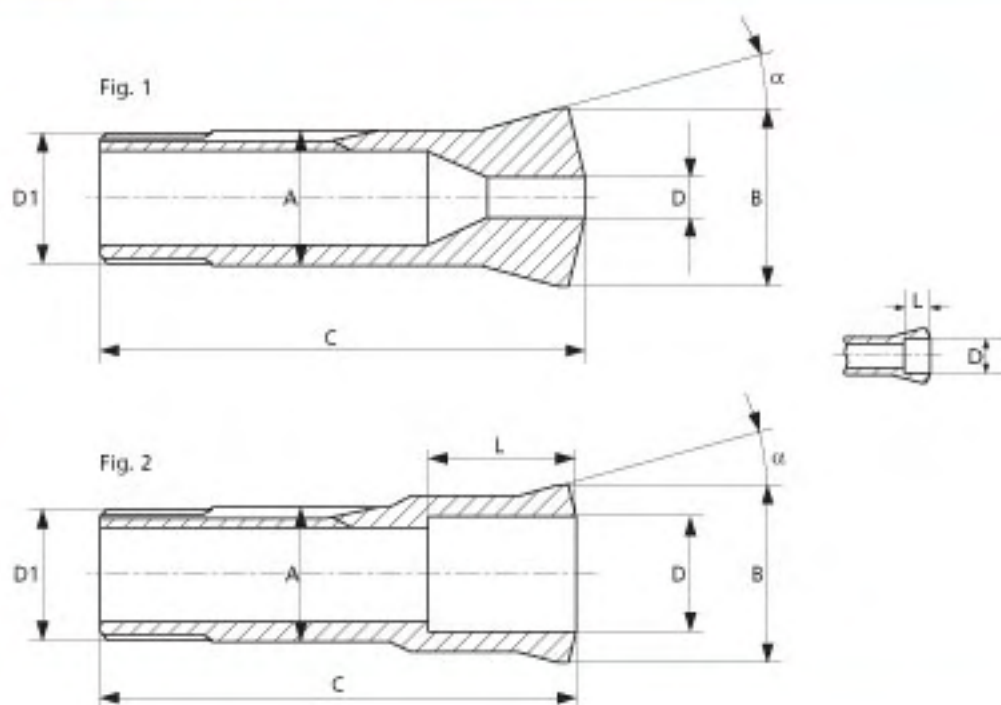




Zugspannzangen  
Drawback collets

## Pinces tirées type W

Zugspannzangen Typ W / Drawback collets type W



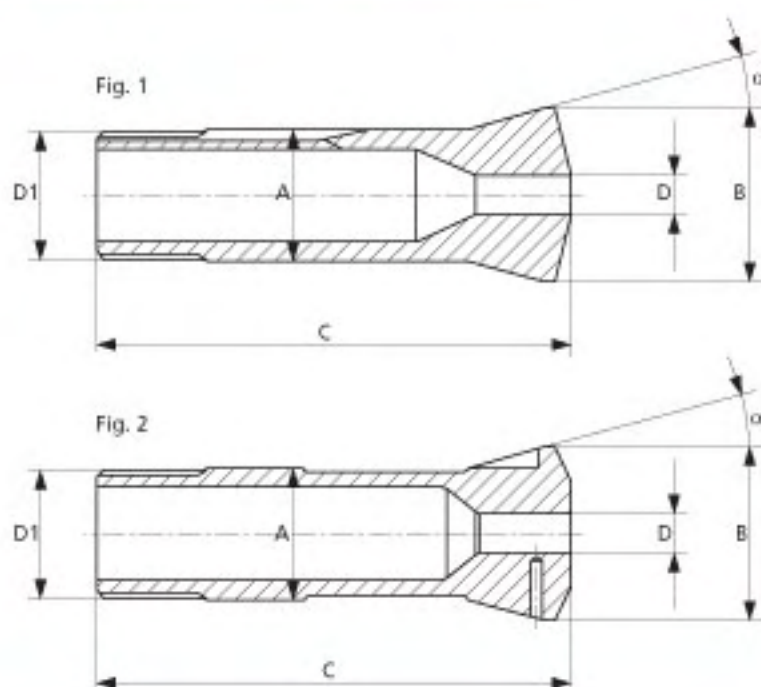
| Type | No     | A  | B     | C     | D1                                                     | $\alpha$   | Fig. | L  | D min.-max. $\varnothing$ |
|------|--------|----|-------|-------|--------------------------------------------------------|------------|------|----|---------------------------|
| Typ  | Nr.    | A  | B     | C     | D1                                                     | $\alpha$   | Fig. | L  | D min.-max. $\varnothing$ |
| Type | Nr     | A  | B     | C     | D1                                                     | $\alpha$   | Fig. | L  | D min.-max. $\varnothing$ |
| W 10 | 80-1   | 10 | 14.00 | 43.60 | $\varnothing 9.83 \times 0.833 \leq 45^\circ/5^\circ$  | $15^\circ$ | 1    | -  | 1.00 - 6.70               |
|      |        |    |       |       |                                                        |            |      | 15 | 6.71 - 8.00               |
|      |        |    |       |       |                                                        |            |      | 6  | 8.01 - 8.50               |
|      |        |    |       |       |                                                        |            |      | 5  | 8.51 - 9.00               |
|      |        |    |       |       |                                                        |            |      | 4  | 9.01 - 9.50               |
|      |        |    |       |       |                                                        |            |      | 3  | 9.51 - 10.00              |
| W 12 | 80-2   | 12 | 16.00 | 46.00 | $\varnothing 11.75 \times 1.25 \leq 45^\circ/5^\circ$  | $15^\circ$ | 1    | -  | 0.30 - 8.00               |
|      |        |    |       |       |                                                        |            |      | 17 | 8.01 - 10.00              |
|      |        |    |       |       |                                                        |            |      | 6  | 10.10 - 10.50             |
|      |        |    |       |       |                                                        |            |      | 5  | 10.51 - 11.00             |
|      |        |    |       |       |                                                        |            |      | 4  | 11.01 - 11.50             |
|      |        |    |       |       |                                                        |            |      | 3  | 11.51 - 12.00             |
| W 15 | 80-3   | 15 | 20.20 | 58.30 | $\varnothing 14.75 \times 1.25 \leq 45^\circ/5^\circ$  | $15^\circ$ | 1    | -  | 0.50 - 10.70              |
|      |        |    |       |       |                                                        |            |      | 22 | 10.71 - 12.00             |
| W 20 | 80-4   | 20 | 26.30 | 73.00 | $\varnothing 19.70 \times 1.666 \leq 45^\circ/5^\circ$ | $15^\circ$ | 1    | -  | 0.50 - 14.50              |
|      |        |    |       |       |                                                        |            |      | 27 | 14.51 - 16.00             |
|      | 80-107 | 20 | 26.30 | 73.00 | $\varnothing 19.70 \times 1.666 \leq 45^\circ/5^\circ$ | $15^\circ$ | 2    | 24 | 16.01 - 20.00             |
| W 25 | 80-5   | 25 | 33.70 | 97.60 | $\varnothing 24.70 \times 15f'' \leq 45^\circ/5^\circ$ | $15^\circ$ | 1    | -  | 0.50 - 19.05              |
|      |        |    |       |       |                                                        |            |      | 33 | 19.06 - 21.00             |
|      | 80-700 | 25 | 33.70 | 97.60 | $\varnothing 24.70 \times 15f'' \leq 45^\circ/5^\circ$ | $15^\circ$ | 2    | 30 | 21.01 - 25.40             |



Zugspannzangen  
Drawback collets

## Pinces tirées type W

Zugspannzangen Typ W / Drawback collets type W



| Type    | No      | A     | B     | C  | D1                   | $\alpha$ | Fig. | D min.-max.  |
|---------|---------|-------|-------|----|----------------------|----------|------|--------------|
| Typ     | Nr.     | A     | B     | C  | D1                   | $\alpha$ | Fig. | D min.-max.  |
| Type    | Nr      | A     | B     | C  | D1                   | $\alpha$ | Fig. | D min.-max.  |
| W 25.00 | 80-1923 | 25.00 | 35.00 | 94 | M 25 x 1             | 16°      | 2    | 3.00 - 17.00 |
| W 31.75 | 80-842  | 31.75 | 37.30 | 87 | ∅ 31.40 x 20f" < 60° | 10°3'    | 1    | 3.00 - 27.00 |

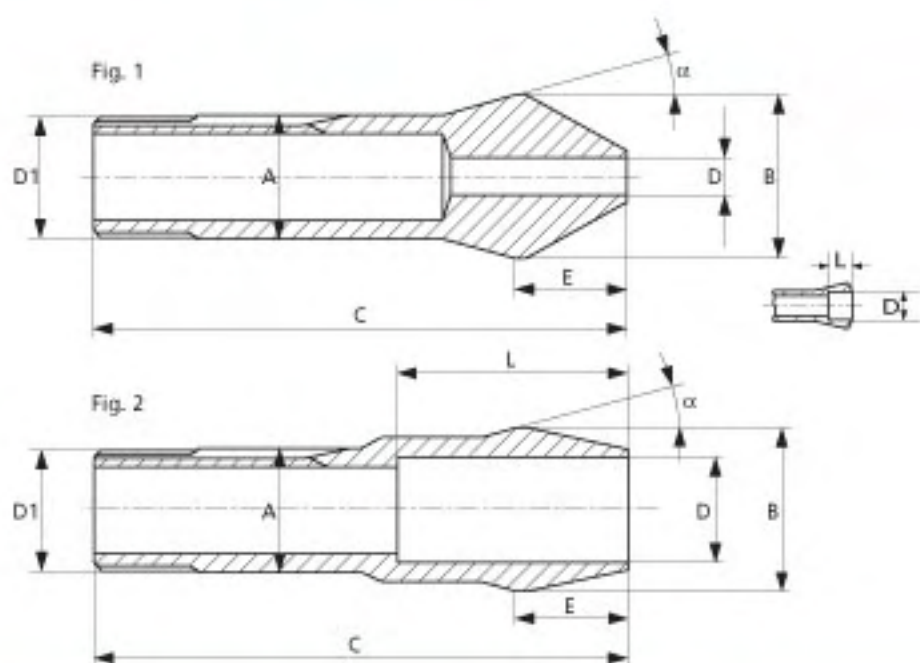




Schnabelspannzangen  
Extended nose collets

## Pinces à bec type W

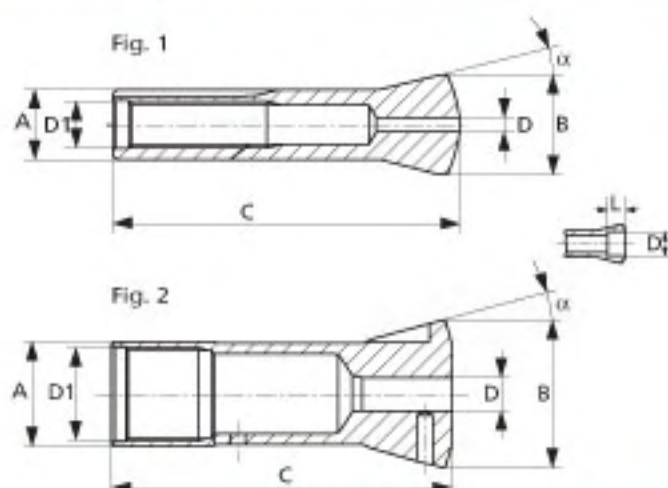
Schnabelspannzangen Typ W / Extended nose collet type W



| Type    | No       | A     | B     | C      | D1                                                       | E     | $\alpha$      | Fig. | L  | D min.-max. $\odot$ |
|---------|----------|-------|-------|--------|----------------------------------------------------------|-------|---------------|------|----|---------------------|
| Typ     | Nr.      | A     | B     | C      | D1                                                       | E     | $\alpha$      | Fig. | L  | D min.-max. $\odot$ |
| Type    | Nr       | A     | B     | C      | D1                                                       | E     | $\alpha$      | Fig. | L  | D min.-max. $\odot$ |
| W 12.00 | 80-93108 | 12.00 | 16.00 | 52.00  | $\varnothing 11.75 \times 1.25 \angle 45^\circ/5^\circ$  | 8.00  | $15^\circ$    | 1    | -  | 1.00 - 8.00         |
| W 15.00 | 80-93285 | 15.00 | 20.20 | 67.00  | $\varnothing 14.75 \times 1.25 \angle 45^\circ/5^\circ$  | 12.00 | $15^\circ$    | 1    | -  | 1.00 - 10.70        |
|         |          |       |       |        |                                                          |       |               |      | 32 | 10.71 - 12.70       |
| W 20.00 | 80-92744 | 20.00 | 26.30 | 84.50  | $\varnothing 19.70 \times 1.666 \angle 45^\circ/5^\circ$ | 15.50 | $15^\circ$    | 1    | -  | 1.00 - 13.00        |
|         |          |       |       |        |                                                          |       |               |      | 41 | 13.01 - 16.00       |
|         | 80-93286 | 20.00 | 26.30 | 84.50  | $\varnothing 19.70 \times 1.666 \angle 45^\circ/5^\circ$ | 15.50 | $15^\circ$    | 2    | 37 | 16.01 - 20.00       |
| W 25.00 | 80-92872 | 25.00 | 33.70 | 112.20 | $\varnothing 24.70 \times 15f'' \angle 45^\circ/5^\circ$ | 19.70 | $15^\circ$    | 1    | -  | 1.00 - 19.05        |
|         |          |       |       |        |                                                          |       |               |      | 50 | 19.06 - 21.00       |
|         | 80-2006  | 25.00 | 33.70 | 112.20 | $\varnothing 24.70 \times 15f'' \angle 45^\circ/5^\circ$ | 19.70 | $15^\circ$    | 2    | 47 | 21.01 - 25.40       |
| W 31.75 | 80-93308 | 31.75 | 37.40 | 121.50 | $\varnothing 31.40 \times 20f'' \angle 60^\circ$         | 38.20 | $10^\circ 3'$ | 1    | -  | 4.00 - 25.40        |

## Pinces tirées type P

### Zugspannzangen Typ P / Drawback collets type P



| Type    | No      | A     | B     | C      | D1             | $\alpha$ | Fig. | L     | D min.-max.  |
|---------|---------|-------|-------|--------|----------------|----------|------|-------|--------------|
| Typ     | Nr.     | A     | B     | C      | D1             | $\alpha$ | Fig. | L     | D min.-max.  |
| Type    | Nr      | A     | B     | C      | D1             | $\alpha$ | Fig. | L     | D min.-max.  |
| P 4.50  | 78-153  | 4.50  | 6.75  | 22.90  | M 3.35         | 15°      | 1    | -     | 0.50 - 2.50  |
|         |         |       |       |        |                |          |      | 8.50  | 2.51 - 3.00  |
|         |         |       |       |        |                |          |      | 4.00  | 3.01 - 4.00  |
|         |         |       |       |        |                |          |      | 3.00  | 4.01 - 4.50  |
| P 5.00  | 78-154  | 5.00  | 7.00  | 22.90  | M 3.50         | 15°      | 1    | -     | 0.50 - 2.70  |
|         |         |       |       |        |                |          |      | 8.50  | 2.71 - 3.50  |
|         |         |       |       |        |                |          |      | 4.00  | 3.51 - 4.00  |
|         |         |       |       |        |                |          |      | 3.00  | 4.01 - 4.50  |
|         |         |       |       |        |                |          |      | 2.00  | 4.51 - 5.00  |
| P 6.00  | 78-150  | 6.00  | 8.50  | 27.20  | M 4.00         | 15°      | 1    | -     | 0.50 - 3.20  |
|         |         |       |       |        |                |          |      | 11.50 | 3.21 - 4.50  |
|         |         |       |       |        |                |          |      | 4.50  | 4.51 - 5.00  |
|         | 78-155  | 6.00  | 8.50  | 24.10  | M 4.00         | 20°      | 1    | -     | 0.50 - 3.20  |
|         |         |       |       |        |                |          |      | 8.50  | 3.21 - 4.50  |
|         |         |       |       |        |                |          |      | 3.50  | 4.51 - 5.00  |
| P 9.00  | 78-157  | 9.00  | 13.20 | 39.30  | M 6.00         | 15°      | 1    | -     | 0.50 - 4.70  |
|         |         |       |       |        |                |          |      | 12.00 | 4.71 - 7.00  |
|         |         |       |       |        |                |          |      | 7.00  | 7.01 - 8.00  |
|         |         |       |       |        |                |          |      | 5.00  | 8.01 - 9.00  |
| P 10.00 | 78.228  | 10.00 | 14.00 | 39.00  | M 7.00         | 15°      | 1    | -     | 0.50 - 5.70  |
|         |         |       |       |        |                |          |      | 21.50 | 5.71 - 8.00  |
|         |         |       |       |        |                |          |      | 6.00  | 8.01 - 8.50  |
|         |         |       |       |        |                |          |      | 5.00  | 8.51 - 9.00  |
|         |         |       |       |        |                |          |      | 4.00  | 9.01 - 9.50  |
|         |         |       |       |        |                |          |      | 3.00  | 9.51 - 10.00 |
| P 25.00 | 78-334  | 25.00 | 35.00 | 75.00  | M 22.00 x 1.00 | 16°      | 2    | -     | 3.00 - 15.87 |
| P 36.00 | 78-2007 | 36.00 | 45.00 | 107.00 | M 33.00 x 1.25 | 16°      | 2    | -     | 3.00 - 21.00 |



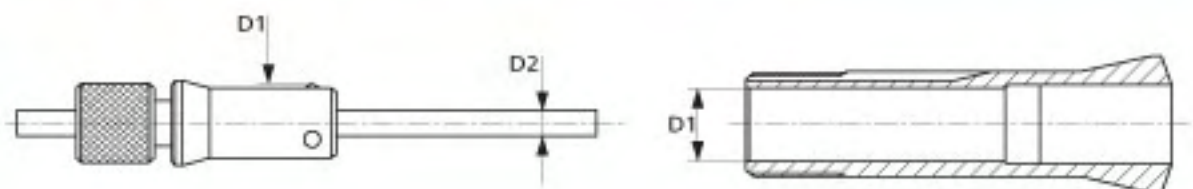


Tiefenanschlge  
Adjustable depth stops

## Butes de profondeur types W, B, L, F

Tiefenanschlge Typ W, B, L, F

Adjustable depth stops typ W, B, L, F

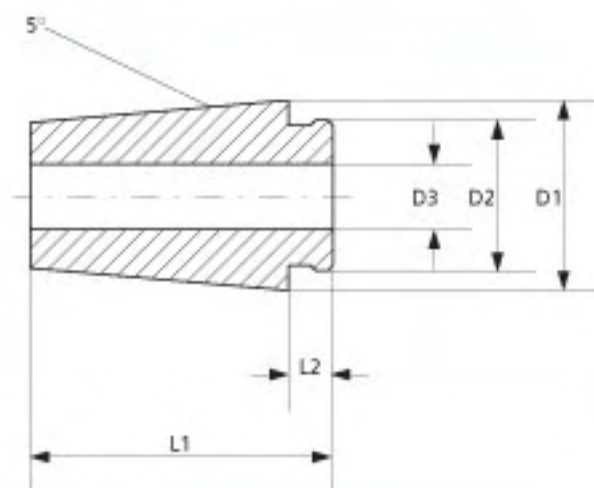


| No       | D1 min.-D1 max. | D2    | Employ pour                       |
|----------|-----------------|-------|------------------------------------|
| Nr.      | D1 min.-D1 max. | D2    | Verwendet fr                      |
| Nr       | D1 min.-D1 max. | D2    | Used for                           |
| 68-99100 | 3.90 - 4.40     | 1.20  | B 8, F 6                           |
| 68-99101 | 4.50 - 5.40     | 1.20  | F 7, W 8, W 9                      |
| 68-99102 | 5.40 - 6.60     | 1.50  | F 7, F 8                           |
| 68-99103 | 6.50 - 7.40     | 2.00  | F 9, F 10, W 10                    |
| 68-99104 | 8.00 - 8.80     | 2.50  | W 12                               |
| 68-99105 | 9.30 - 10.90    | 2.50  | B 15, F 12, F 13, F 14, F 15, W 15 |
| 68-99106 | 12.00 - 13.80   | 2.50  | F 16, L 20, W 16.50                |
| 68-99107 | 13.50 - 15.10   | 5.00  | F 17.46, F 18, W 20                |
| 68-99108 | 15.00 - 16.80   | 5.00  | B 23                               |
| 68-99109 | 16.40 - 18.20   | 7.00  | B 23, F 20, F 22, F 23.8           |
| 68-99110 | 16.50 - 19.95   | 5.00  | W 25                               |
| 68-99111 | 19.80 - 22.80   | 7.00  | F 25, F 26                         |
| 68-99112 | 22.00 - 23.80   | 7.00  | F 27, F 28                         |
| 68-99113 | 23.00 - 24.80   | 7.00  | B 32, W 30                         |
| 68-99114 | 24.60 - 27.80   | 7.00  | F 30, F 32, W 31.75                |
| 68-99115 | 27.60 - 30.80   | 7.00  | F 34, F 35                         |
| 68-99116 | 30.00 - 33.80   | 7.00  | F 38                               |
| 68-99117 | 34.80 - 40.70   | 10.00 | B 45, F 42                         |
| 68-99118 | 39.80 - 44.70   | 10.00 | F 48                               |



Spannzangen und ausgewuchtete Muttern  
Collets and balanced nuts

## Pince type D / Spannzange Typ D / Collet type D



Avec cône adapté pour la haute vitesse  
Qualité UP: serre le diamètre nominal

Mit flachem Konus für hohe Drehzahlen  
Qualität UP: spannt den Nenndurchmesser

With special taper for high-speed cutting  
Quality UP: clamps the diameter nominal

| Gr.  | Pince         |       |      |       |       |              |
|------|---------------|-------|------|-------|-------|--------------|
| Gr.  | Spannzange    |       |      |       |       |              |
| Gr.  | Collet        |       |      |       |       |              |
|      | No / Nr. / Nr | L1    | L2   | D1    | D2    | D3           |
| D 8  | 74-8000       | 16.50 | 2.80 | 8.13  | 7.00  | 0.50 - 5.00  |
| D 10 | 74-10000      | 20.00 | 3.00 | 10.14 | 8.40  | 0.50 - 6.00  |
| D 12 | 74-12000      | 24.00 | 3.20 | 12.65 | 9.50  | 1.00 - 7.00  |
| D 14 | 74-14000      | 25.00 | 3.60 | 14.15 | 11.70 | 1.00 - 9.00  |
| D 16 | 74-16000      | 28.50 | 4.20 | 16.65 | 13.00 | 1.00 - 10.00 |
| D 20 | 74-20000      | 32.00 | 4.60 | 20.18 | 16.00 | 1.00 - 12.70 |
| D 24 | 74-24000      | 35.00 | 5.00 | 24.18 | 19.50 | 1.00 - 16.00 |
| D 29 | 74-29000      | 40.00 | 5.40 | 29.18 | 24.00 | 2.00 - 20.00 |





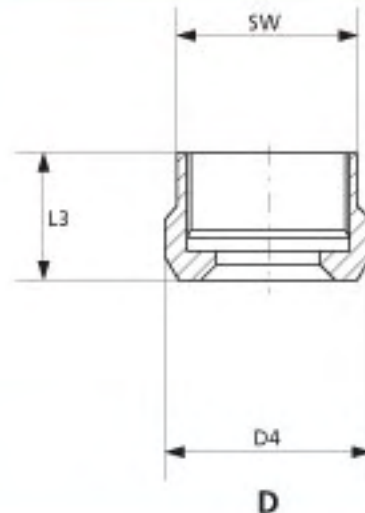
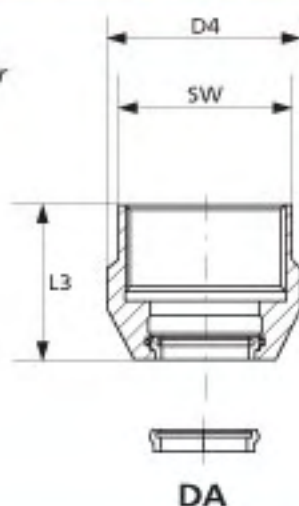
Spannzangen und ausgewuchtete Muttern  
Collets and balanced nuts

## Ecrou type D / Mutter Typ D / Nut type D

Ecrou étanche

Abgedichtete Mutter

Sealed nut

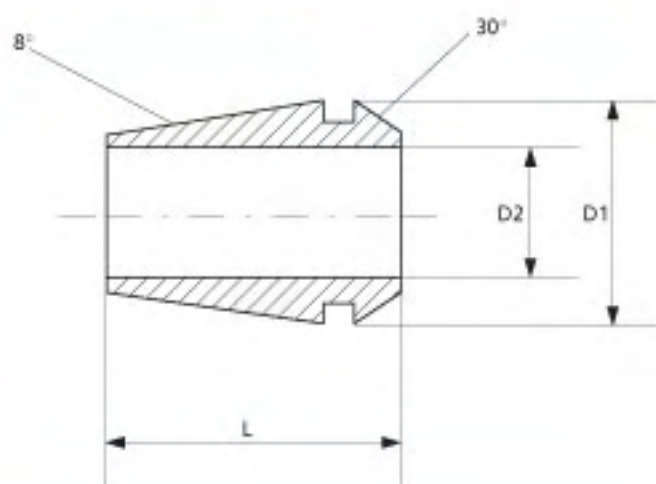


| Type  | Ecrou équilibré      |    |       |    | Bague étanche |
|-------|----------------------|----|-------|----|---------------|
| Typ   | Ausgewuchtete Mutter |    |       |    | Dichtscheibe  |
| Type  | Balanced nut         |    |       |    | Sealed disc   |
|       | No / Nr. / Nr        | L3 | D4    | SW | No / Nr. / Nr |
| D 8   | 68-8700              | 12 | 13.50 | 12 | -             |
| D 10  | 68-10700             | 14 | 15.70 | 14 | -             |
| DA 10 | 68-10790             | 20 | 15.70 | 14 | 68-10791      |
| D 12  | 68-10112             | 16 | 20.00 | 18 | -             |
| DA 12 | 68-12790             | 22 | 20.00 | 18 | 68-12791      |
| D 14  | 68-14700             | 18 | 22.50 | 20 | -             |
| DA 14 | 68-14790             | 24 | 22.50 | 20 | 68-14791      |
| D 16  | 68-16700             | 19 | 27.00 | 24 | -             |
| DA 16 | 68-16790             | 25 | 27.00 | 24 | 68-16791      |
| D 20  | 68-20700             | 19 | 30.50 | 27 | -             |
| DA 20 | 68-20790             | 25 | 30.50 | 27 | 68-20791      |
| D 24  | 68-24700             | 22 | 36.00 | 32 | -             |
| DA 24 | 68-24790             | 28 | 36.00 | 32 | 68-24791      |
| D 29  | 68-29700             | 25 | 42.00 | 38 | -             |
| DA29  | 68-29790             | 31 | 42.00 | 38 | 68-29791      |



Spannzangen  
Collets

## ESX + ER (DIN 6499 B)



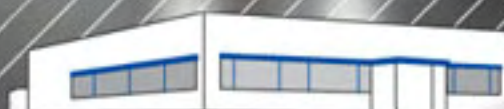
Qualité standard  
Avec plage de serrage (S) vers le bas

Qualität Standard  
Mit Spannbereich (S) nach unten

Quality standard  
With collapsability (S) inwards

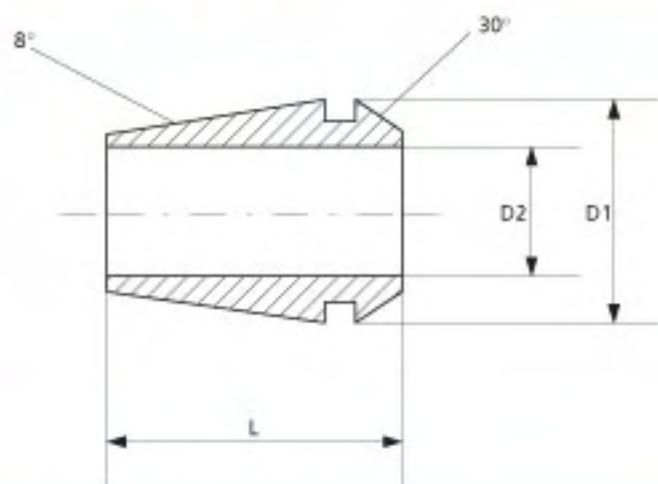
| Gr.                 | No          | L     | D1 | D2           | S           |
|---------------------|-------------|-------|----|--------------|-------------|
| Gr.                 | Nr.         | L     | D1 | D2           | S           |
| Gr.                 | Nr          | L     | D1 | D2           | S           |
| ER 8                | 1108        | 14.50 | 8  | 1.00 - 5.00  | 0.50        |
| ESX 9               | 75-9300     | 14.50 | 9  | 1.00 - 5.00  | 0.50        |
| ER 11               | 1111        | 19.50 | 11 | 1.00 - 7.00  | 0.50        |
| ESX 12              | 75-12300    | 19.50 | 12 | 1.00 - 3.00  | 0.50        |
|                     |             |       |    | 4.00 - 7.00  | 1.00        |
| ESX 16 (DIN 6499B)  | 75-16300    | 27.50 | 17 | 0.50 - 3.00  | 0.50        |
|                     |             |       |    | 4.00 - 10.00 | 1.00        |
| ER 16               | 1116        | 27.50 | 17 | 0.50 - 10.00 | 0.50 / 1.00 |
| ESX 20 (DIN 6499 B) | 75-20300    | 31.50 | 21 | 1.00 - 3.00  | 0.50        |
|                     |             |       |    | 4.00 - 13.00 | 1.00        |
| ER 20               | 1120        | 31.50 | 21 | 0.50 - 13.00 | 0.50 / 1.00 |
| ESX 25 (DIN 6499 B) | 75-25300    | 34.00 | 26 | 1.00 - 3.00  | 0.50        |
|                     |             |       |    | 4.00 - 16.00 | 1.00        |
| ER 25               | 1125        | 34.00 | 26 | 0.50 - 16.00 | 0.50 / 1.00 |
| ESX 32 (DIN 6499 B) | 75-32300    | 40.00 | 33 | 2.50 - 3.00  | 0.50        |
|                     |             |       |    | 4.00 - 20.00 | 1.00        |
| ER 32               | 1132        | 40.00 | 33 | 1.00 - 20.00 | 0.50 / 1.00 |
| ESX 40 (DIN 6499 B) | 75-40300    | 46.00 | 41 | 3.00         | 0.50        |
|                     |             |       |    | 4.00 - 26.00 | 1.00        |
| ER 40               | 1140        | 46.00 | 41 | 2.00 - 30.00 | 0.50 / 1.00 |
| ESX 50              | 75-50300 2) | 55.00 | 51 | 6.00 - 34.00 | 1.00        |
| ER 50               | 1150        | 55.00 | 51 | 4.00 - 34.00 | 2.00        |





Spannzangen  
Collets

## EX + ER (DIN 6499 A)



Qualité UP  
Serre le diamètre nominal

Qualität UP  
Spannt den Nenndurchmesser

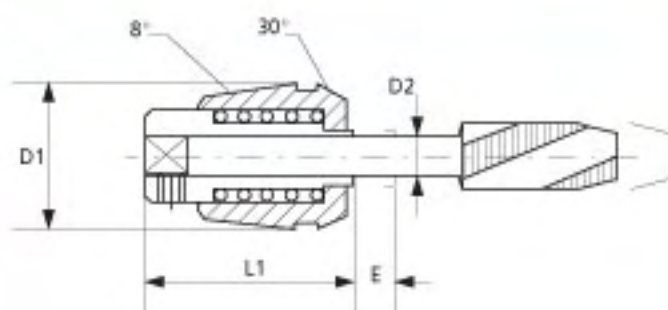
Quality UP  
Clamps the nominal diameter

| Gr.                | No       | L     | D1    | D2           |
|--------------------|----------|-------|-------|--------------|
| Gr.                | Nr.      | L     | D1    | D2           |
| Gr.                | Nr       | L     | D1    | D2           |
| ER 8               | 1108     | 14.50 | 8.00  | 1.00 - 5.00  |
| EX 9               | 75-9200  | 14.50 | 9.00  | 0.50 - 5.00  |
| ER 11              | 1111     | 19.50 | 11.00 | 1.00 - 7.00  |
| EX 12              | 75-12200 | 17.50 | 11.75 | 0.50 - 7.00  |
| EX 16 (DIN 6499 A) | 75-16200 | 27.50 | 16.70 | 0.50 - 10.00 |
| ER 16              | 1116     | 27.50 | 17.00 | 0.50 - 10.00 |
| EX 20 (DIN 6499 A) | 75-20200 | 31.50 | 20.70 | 1.00 - 13.00 |
| ER 20              | 1120     | 31.50 | 21.00 | 0.50 - 13.00 |
| EX 25 (DIN 6499 A) | 75-25200 | 34.00 | 25.70 | 1.00 - 16.00 |
| ER 25              | 1125     | 34.00 | 26.00 | 0.50 - 16.00 |
| EX 32 (DIN 6499 A) | 75-32200 | 40.00 | 32.70 | 2.00 - 20.00 |
| ER 32              | 1132     | 40.00 | 33.00 | 1.00 - 20.00 |
| EX 40 (DIN 6499 A) | 75-40200 | 46.00 | 40.70 | 3.00 - 26.00 |
| ER 40              | 1140     | 46.00 | 41.00 | 2.00 - 30.00 |
| ER 50              | 1150     | 55.00 | 51.00 | 4.00 - 34.00 |



PCM Gewindebohrzangen  
PCM tapping collets

## ET1 (DIN 6499)



Pince de taraudage avec une course d'extension

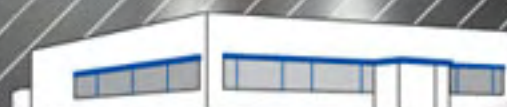
Avance de taraudage: 95 à 99% du pas

Gewindebohrzange mit Auszugsweg  
Vorschub beim Gewindebohren: 95 bis 99%

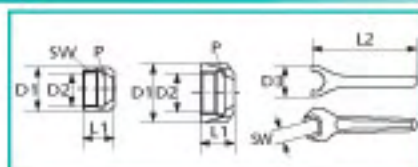
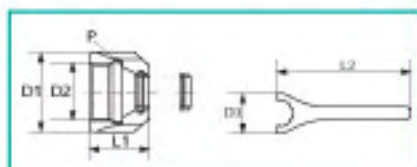
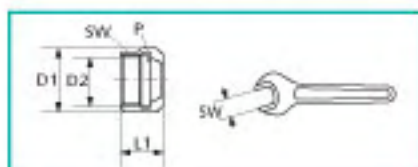
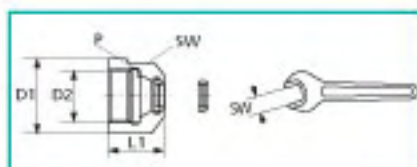
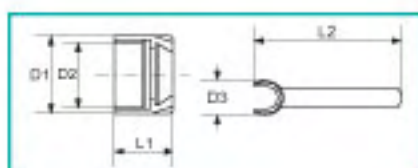
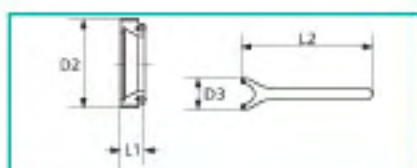
Tapping collet with extension stroke  
Tapping feed: 95 to 99%

|       | ET1-12...   | ET1-16...   | ET1-20... | ET1-25... | ET1-32... | ET1-40... |               |
|-------|-------------|-------------|-----------|-----------|-----------|-----------|---------------|
| L1    | 21.50       | 27          | 31        | 34        | 43        | 54        |               |
| D1    | 12.00       | 17          | 21        | 26        | 33        | 41        |               |
| E     | 5.50        | 7           | 7         | 8         | 10        | 13        |               |
| D2    | ET1-12...   | ET1-16...   | ET1-20... | ET1-25... | ET1-32... | ET1-40... | ISO DIN Japan |
| 1.00  | ET1-12100AL | ET1-16100AL |           |           |           |           | -             |
| 1.40  | ET1-12140   | ET1-16140   |           |           |           |           | D             |
| 1.50  | ET1-12150AL | ET1-16150AL |           |           |           |           | -             |
| 1.60  | ET1-12160   | ET1-16160   |           |           |           |           | D             |
| 1.80  | ET1-12180   | ET1-16180   |           |           |           |           | D             |
| 2.00  | ET1-12200   | ET1-16200   |           |           |           |           | (I)           |
| 2.20  | ET1-12221   | ET1-16221   | ET1-20221 |           |           |           | D             |
| 2.24  | ET1-12224   | ET1-16224   | ET1-20224 |           |           |           | I             |
| 2.50  | ET1-12250   | ET1-16250   | ET1-20250 | ET1-25250 |           |           | I/D           |
| 2.80  | ET1-12280   | ET1-16280   | ET1-20280 | ET1-25280 |           |           | I/D           |
| 3.00  | ET1-12300   | ET1-16300   | ET1-20300 | ET1-25300 |           |           | J             |
| 3.15  | ET1-12315   | ET1-16315   | ET1-20315 | ET1-25315 |           |           | I             |
| 3.50  | ET1-12350   | ET1-16350   | ET1-20350 | ET1-25350 |           |           | D             |
| 3.55  | ET1-12355   | ET1-16355   | ET1-20355 | ET1-25355 |           |           | I             |
| 4.00  |             | ET1-16400   | ET1-20400 | ET1-25400 |           |           | I/D/J         |
| 4.50  |             | ET1-16450   | ET1-20450 | ET1-25450 | ET1-32450 |           | I/D           |
| 5.00  |             | ET1-16500   | ET1-20500 | ET1-25500 | ET1-32500 |           | I/J           |
| 5.50  |             | ET1-16550   | ET1-20550 | ET1-25550 | ET1-32550 |           | (D)/J         |
| 5.60  |             | ET1-16560   | ET1-20560 | ET1-25560 | ET1-32560 |           | I             |
| 6.00  |             | ET1-16600   | ET1-20600 | ET1-25600 | ET1-32600 | ET1-40600 | D/J           |
| 6.20  |             | ET1-16620   | ET1-20620 | ET1-25620 | ET1-32620 | ET1-40620 | J             |
| 6.30  |             | ET1-16630   | ET1-20630 | ET1-25630 | ET1-32630 | ET1-40630 | I             |
| 7.00  |             |             | ET1-20700 | ET1-25700 | ET1-32700 | ET1-40700 | D/J           |
| 7.10  |             |             |           | ET1-25710 | ET1-32710 | ET1-40710 | I             |
| 8.00  |             |             |           | ET1-25800 | ET1-32800 | ET1-40800 | I/D/(J)       |
| 8.50  |             |             |           | ET1-25850 | ET1-32850 | ET1-40850 | J             |
| 9.00  |             |             |           | ET1-25900 | ET1-32900 | ET1-40900 | I/D           |
| 10.00 |             |             |           | ET1-25100 | ET1-32100 | ET1-40100 | I/D           |
| 10.50 |             |             |           |           | ET1-32105 | ET1-40105 | J             |
| 11.00 |             |             |           |           | ET1-32110 | ET1-40110 | D             |
| 11.20 |             |             |           |           | ET1-32112 | ET1-40112 | I             |
| 12.00 |             |             |           |           | ET1-32120 | ET1-40120 | D             |
| 12.50 |             |             |           |           | ET1-32125 | ET1-40125 | I/J           |
| 14.00 |             |             |           |           |           | ET1-40140 | I/D/J         |
| 15.00 |             |             |           |           |           | ET1-40150 | J             |
| 16.00 |             |             |           |           |           | ET1-40160 | I/D           |
| 17.00 |             |             |           |           |           | ET1-40170 | J             |




 Mutter EX  
Nuts EX

## EX (DIN 6499)

**EX**

**EXA**

**EXP**

**EXPA**

**EXM**

**EXF**


| Gr. / Type          |               | Ecrou  |             |       |    |          | Bague étanche |               | Clé    |     |
|---------------------|---------------|--------|-------------|-------|----|----------|---------------|---------------|--------|-----|
| Gr. / Typ           |               | Mutter |             |       |    |          | Dichtscheibe  | Schlüssel     |        |     |
| Size / Type         |               | Nut    |             |       |    |          | Sealed disc   | Spanner       |        |     |
|                     | No / Nr. / Nr | D1     | D2          | L1    | SW | P        | No / Nr. / Nr | No / Nr. / Nr | D3     | L2  |
| EX 9                | 61-9730       | 15.00  | M 11 x 0.75 | 11.50 | 13 | 61-9785  | -             | -             | -      | -   |
| EX 12               | 61-12730      | 19.00  | M 14 x 0.75 | 14.00 | 17 | 61-12785 | -             | -             | -      | -   |
| EX 16               | 61-16730      | 32.00  | M 22 x 1.50 | 17.50 | -  | 61-16785 | -             | 61-16800      | 55.00  | 163 |
| Ex 20               | 61-20730      | 35.00  | M 25 x 1.50 | 18.50 | -  | 61-20785 | -             | 61-20800      | 60.00  | 183 |
| EX 25               | 61-25730      | 42.00  | M 32 x 1.50 | 20.50 | -  | 61-25785 | -             | 61-25800      | 70.00  | 203 |
| EX 32               | 61-32730      | 50.00  | M 40 x 1.50 | 23.00 | -  | 61-32785 | -             | 61-32800      | 80.00  | 253 |
| EX 40               | 61-40730      | 63.00  | M 50 x 1.50 | 26.00 | -  | 61-40785 | -             | 61-40800      | 95.00  | 283 |
| EX 50 <sub>2)</sub> | 61-50730      | 73.00  | M 60 x 1.50 | 29.00 | -  | 61-50780 | -             | 61-50800      | 100.00 | 303 |
| EXP 9               | 61-9710       | 13.50  | M 10 x 0.75 | 11.50 | 12 | 61-9781  | -             | -             | -      | -   |
| EXP 12              | 61-12710      | 16.70  | M 13 x 0.75 | 14.00 | 15 | 61-12781 | -             | -             | -      | -   |
| EXP 16              | 61-16710      | 25.00  | M 20 x 1.00 | 18.00 | 22 | 61-16786 | -             | -             | -      | -   |
| EXP 20              | 61-20710      | 30.50  | M 24 x 1.00 | 18.50 | 27 | 61-20786 | -             | -             | -      | -   |
| EXM 11              | 61-11772      | 16.00  | M 13 x 0.75 | 12.10 | -  | -        | -             | 61-11812      | 16.80  | 90  |
| EXM 16              | 61-16772      | 22.00  | M 19 x 1.00 | 18.00 | -  | -        | -             | 61-16812      | 22.50  | 110 |
| EXM 20              | 61-20772      | 28.00  | M 24 x 1.00 | 19.50 | -  | -        | -             | 61-20812      | 29.00  | 120 |
| EXM 25              | 61-25772      | 35.00  | M 30 x 1.00 | 20.50 | -  | -        | -             | 61-25812      | 36.00  | 130 |
| EXA 16              | 61-16790      | 32.00  | M 22 x 1.50 | 22.80 | -  | 61-16780 | 61-16791      | 61-16800      | 55.00  | 163 |
| EXA 20              | 61-20790      | 35.00  | M 25 x 1.50 | 24.00 | -  | 61-20780 | 61-20791      | 61-20800      | 60.00  | 183 |
| EXA 25              | 61-25790      | 42.00  | M 32 x 1.50 | 25.70 | -  | 61-25780 | 61-25791      | 61-25800      | 70.00  | 203 |
| EXA 32              | 61-32790      | 50.00  | M 40 x 1.50 | 28.00 | -  | 61-32780 | 61-32791      | 61-32800      | 80.00  | 253 |
| EXA 40              | 61-40790      | 63.00  | M 50 x 1.50 | 31.50 | -  | 61-40780 | 61-40791      | 61-40800      | 95.00  | 283 |
| EXPA 16             | 61-16795      | 25.00  | M 20 x 1.00 | 23.30 | 22 | 61-16786 | 61-16791      | -             | -      | -   |
| EXPA 20             | 61-20795      | 30.50  | M 24 x 1.00 | 24.00 | 27 | 61-20786 | 61-20791      | -             | -      | -   |
| EXF 16              | 61-16777      | -      | M 24 x 1.00 | 8.10  | -  | -        | -             | 61-16813      | 25.00  | 118 |
| EXF 20              | 61-20777      | -      | M 28 x 1.50 | 10.90 | -  | -        | -             | 61-20813      | 28.00  | 123 |
| EXF 25              | 61-25777      | -      | M 32 x 1.50 | 12.50 | -  | -        | -             | 61-25813      | 30.50  | 139 |
| EXF 32              | 61-32777      | -      | M 40 x 1.50 | 14.00 | -  | -        | -             | 61-32813      | 42.00  | 182 |

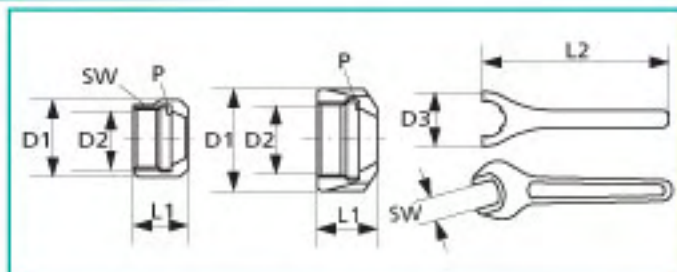




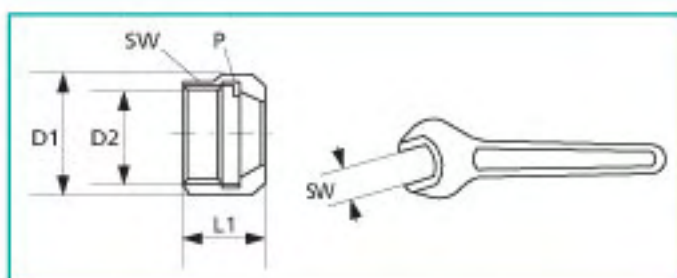
Ausgewuchtete Muttern EXE  
Balanced nuts EXE

## EXE (DIN 6499)

EXE



EXPE



| Gr. / Type  | Ecrou         |       |             |       |    |          | Bague étanche |               | Clé       |     |
|-------------|---------------|-------|-------------|-------|----|----------|---------------|---------------|-----------|-----|
| Gr. / Typ   | Mutter        |       |             |       |    |          | Dichtscheibe  |               | Schlüssel |     |
| Size / Type | Nut           |       |             |       |    |          | Sealed disc   |               | Spanner   |     |
|             | No / Nr. / Nr | D1    | D2          | L1    | SW | P        | No / Nr. / Nr | No / Nr. / Nr | D3        | L2  |
| EXE 9       | 61-9720       | 15.00 | M 11 x 0.75 | 11.50 | 13 | 61-9785  | -             | -             | -         | -   |
| EXE 12      | 61-12720      | 19.00 | M 14 x 0.75 | 14.00 | 17 | 61-12785 | -             | -             | -         | -   |
| EXE 16      | 61-16720      | 32.00 | M 22 x 1.50 | 17.50 | -  | 61-16785 | -             | 61-16800      | 55        | 163 |
| EXE 20      | 61-20720      | 35.00 | M 25 x 1.50 | 18.50 | -  | 61-20785 | -             | 61-20800      | 60        | 183 |
| EXE 25      | 61-25720      | 42.00 | M 32 x 1.50 | 20.50 | -  | 61-25785 | -             | 61-25800      | 70        | 203 |
| EXE 32      | 61-32720      | 50.00 | M 40 x 1.50 | 23.00 | -  | 61-32785 | -             | 61-32800      | 80        | 253 |
| EXE 40      | 61-40720      | 63.00 | M 50 x 1.50 | 26.00 | -  | 61-40785 | -             | 61-40800      | 95        | 283 |
| EXPE 9      | 61-9721       | 13.50 | M 10 x 0.75 | 11.50 | 12 | 61-9781  | -             | -             | -         | -   |
| EXPE 12     | 61-12721      | 16.70 | M 13 x 0.75 | 14.00 | 15 | 61-12781 | -             | -             | -         | -   |
| EXPE 16     | 61-16721      | 25.00 | M 20 x 1.00 | 18.00 | 22 | 61-16786 | -             | -             | -         | -   |
| EXPE 20     | 61-20721      | 30.50 | M 24 x 1.00 | 18.50 | 27 | 61-20786 | -             | -             | -         | -   |

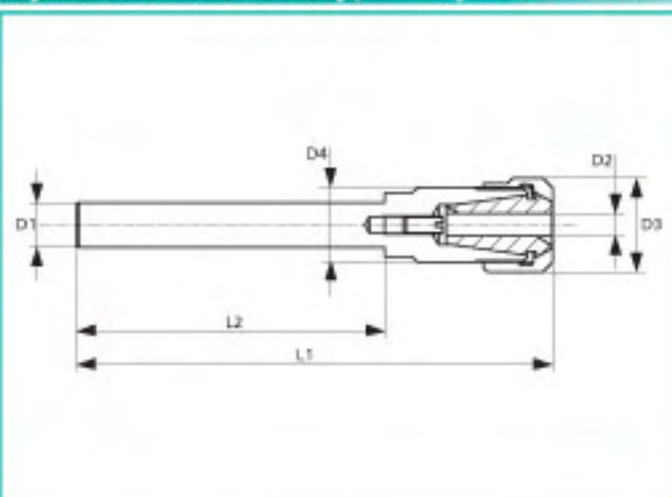




Spannzangenhalter  
Collet chucks

## Queue cylindrique type E

Zylindrischer Schaft Typ E / Cylindrical shank type E



|   |                              |                                                             |                         |
|---|------------------------------|-------------------------------------------------------------|-------------------------|
| M | DIN 6499 A<br>DIN 6499 B<br> | Pince<br>Spannzange<br>Collet                               | pages:<br>4.17-<br>4.18 |
| N | DIN 6499 D<br>               | Ecrou<br>Mutter<br>Nut                                      | page:<br>4.20           |
| O |                              | Clé pour l'écrou<br>Mutternschlüssel<br>Spanner for the nut | page:<br>4.20           |
| P |                              | Vis de réglage<br>Anschlagschraube<br>Adjusting screw       |                         |

| D1              | No          | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P          |
|-----------------|-------------|--------|--------|--------------|-------|-------------|-----------------------------------|----------|----------|------------|
| D1              | Nr.         | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P          |
| D1              | Nr          | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P          |
| 6.00            | 61-12209    | 73.20  | 45.00  | 0.50 - 7.00  | 16.70 | M 13 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12710 | -        | -          |
| 7.00            | 61-12207    | 73.20  | 45.00  | 0.50 - 7.00  | 16.70 | M 13 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12710 | -        | -          |
| 8.00            | 61-9201 17) | 41.00  | 23.00  | 0.50 - 5.00  | 15.00 | M 11 x 0.75 | 75-9200<br>75-9300                | 61-9730  | -        | -          |
|                 | 61-12206    | 84.20  | 56.00  | 0.50 - 7.00  | 16.70 | M 13 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12710 | -        | -          |
| 10.00           | 61-9200 17) | 32.00  | 14.50  | 0.50 - 5.00  | 15.00 | M 11 x 0.75 | 75-9200<br>75-9300                | 61-9730  | -        | 2000-04008 |
|                 | 61-16230    | 97.60  | 60.00  | 0.50 - 10.00 | 22.00 | M 19 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16772 | 61-16812 | -          |
|                 | 61-16219    | 107.60 | 60.00  | 0.50 - 10.00 | 25.00 | M 20 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16710 | -        | -          |
| 12.00           | 61-9220 17) | 117.00 | 100.00 | 0.50 - 5.00  | 13.50 | M 10 x 0.75 | 75-9200<br>75-9300                | 61-9710  | 61-9781  | 61-9901    |
|                 | 61-16231    | 117.60 | 80.00  | 0.50 - 10.00 | 22.00 | M 19 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16772 | 61-16812 | -          |
|                 | 61-16224    | 127.60 | 80.00  | 0.50 - 10.00 | 25.00 | M 20 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16710 | -        | -          |
| 12.70<br>(1/2") | 61-9221 17) | 117.00 | 100.00 | 0.50 - 5.00  | 13.50 | M 10 x 0.75 | 75-9200<br>75-9300                | 61-9710  | -        | 61-9901    |

P = inclus dans la livraison / P = im Lieferumfang inbegriffen / P = included in delivery

17) Arrosage par le centre / Für zentrale Kühlmittelzufuhr / Colling through center





Spannzangenhalter  
Collet chucks

| D1    | No           | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P         |
|-------|--------------|--------|--------|--------------|-------|-------------|-----------------------------------|----------|----------|-----------|
| D1    | Nr           | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P         |
| D1    | Nr           | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P         |
| 14.00 | 61-12200 17) | 47.00  | 25.00  | 0.50 - 7.00  | 19.00 | M 14 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12730 | -        | 87-900116 |
|       | 61-12204 17) | 83.20  | 60.00  | 0.50 - 7.00  | 16.70 | M 13 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12710 | -        | 62-20910  |
|       | 61-16200 17) | 62.00  | 26.00  | 0.50 - 10.00 | 32.00 | M 22 x 1.50 | 75-16200<br>75-16300<br>ET1-16... | 61-16730 | 61-16800 | 87-90015  |
| 16.00 | 61-12205     | 120.20 | 100.00 | 0.50 - 7.00  | 19.00 | M 14 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12730 | -        | 61-25908  |
|       | 61-12223 17) | 174.20 | 151.00 | 0.50 - 7.00  | 16.70 | M 13 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12710 | -        | 87-90007  |
|       | 61-16206 17) | 62.00  | 28.00  | 0.50 - 10.00 | 32.00 | M 22 x 1.50 | 75-16200<br>75-16300<br>ET1-16... | 61-16730 | 61-16800 | 87-90015  |
|       | 61-16218 17) | 95.60  | 60.00  | 0.50 - 10.00 | 32.00 | M 22 x 1.50 | 75-16200<br>75-16300<br>ET1-16... | 61-16730 | 61-16800 | 87-90015  |
|       | 61-20209     | 148.50 | 100.00 | 0.50 - 13.00 | 30.50 | M 24 x 1.00 | 75-20200<br>75-20300<br>ET1-20... | 61-20710 | -        | 61-16903  |
| 20.00 | 61-12201     | 109.20 | 89.00  | 0.50 - 7.00  | 19.00 | M 19 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12730 | -        | 87-90007  |
|       | 61-16201 17) | 57.00  | 36.00  | 0.50 - 10.00 | 32.00 | M 22 x 1.50 | 75-16200<br>75-16300<br>ET1-16... | 61-16730 | 61-16800 | 87-90015  |
|       | 61-16225 17) | 80.60  | 50.00  | 0.50 - 10.00 | 32.00 | M 22 x 1.50 | 75-16200<br>75-16300<br>ET1-16... | 61-16730 | 61-16800 | 87-90015  |
|       | 61-16212     | 124.60 | 100.00 | 0.50 - 10.00 | 25.00 | M 20 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16710 | -        | 61-25904  |
|       | 61-16232     | 124.60 | 100.00 | 0.50 - 10.00 | 22.00 | M 19 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16772 | 61-16812 | 61-25904  |
|       | 61-16223 17) | 180.60 | 158.00 | 0.50 - 10.00 | 25.00 | M 20 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16710 | -        | 61-16903  |
|       | 61-20200 17) | 71.00  | 35.00  | 0.50 - 13.00 | 35.00 | M 25 x 1.50 | 75-20200<br>75-20300<br>ET1-20... | 61-20730 | 61-20800 | 61-16903  |
|       | 61-25200 17) | 81.00  | 34.00  | 0.50 - 16.00 | 42.00 | M 32 x 1.50 | 75-25200<br>75-25300<br>ET1-25... | 61-25730 | 61-25800 | 61-25902  |

P = inclus dans la livraison / P = im Lieferumfang inbegriffen / P = included in delivery

17) Arrosage par le centre / Für zentrale Kühlmittelzufuhr / Colling through center

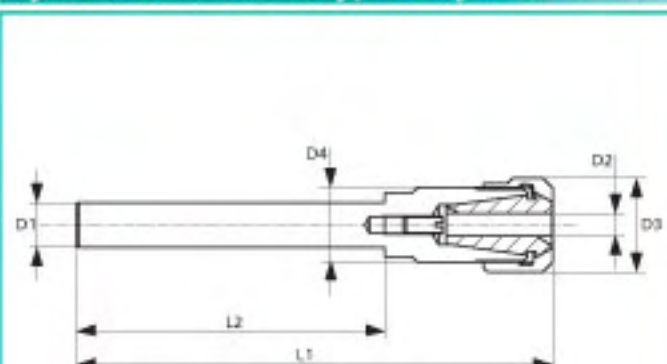




Spannzangenhalter  
Collet chucks

## Queue cylindrique type E

Zylindrischer Schaft Typ E / Cylindrical shank type E



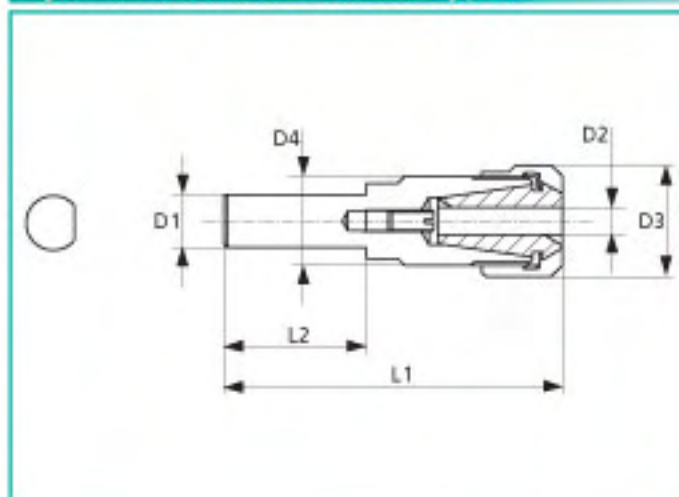
|   |                          |                                                             |                         |
|---|--------------------------|-------------------------------------------------------------|-------------------------|
| M | DIN 6499 A<br>DIN 6499 B | Pince<br>Spannzange<br>Collet                               | pages:<br>4.17-<br>4.18 |
| N | DIN 6499 D               | Ecrou<br>Mutter<br>Nut                                      | page:<br>4.20           |
| O |                          | Clé pour l'écrou<br>Mutternschlüssel<br>Spanner for the nut | page:<br>4.20           |
| P |                          | Vis de réglage<br>Anschlagschraube<br>Adjusting screw       |                         |

| D1            | No                      | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P        |
|---------------|-------------------------|--------|--------|--------------|-------|-------------|-----------------------------------|----------|----------|----------|
| D1            | Nr.                     | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P        |
| D1            | Nr                      | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P        |
| 20.00         | 61-25214 <sup>17)</sup> | 97.00  | 50.00  | 0.50 - 16.00 | 42.00 | M 32 x 1.50 | 75-25200<br>75-25300<br>ET1-25... | 61-25730 | 61-25800 | 61-25902 |
|               | 61-32200 <sup>17)</sup> | 87.00  | 34.00  | 2.00 - 20.00 | 50.00 | M 40 x 1.50 | 75-32200<br>75-32300<br>ET1-32... | 61-32730 | 61-32800 | 61-25907 |
| 25.00         | 61-20221 <sup>17)</sup> | 182.00 | 155.00 | 0.50 - 13.00 | 30.50 | M 24 x 1.00 | 75-20200<br>75-20300<br>ET1-20... | 61-20710 | -        | 87-90014 |
|               | 61-25201 <sup>17)</sup> | 84.00  | 48.00  | 0.50 - 16.00 | 42.00 | M 32 x 1.50 | 75-25200<br>75-25300<br>ET1-25... | 61-25730 | 61-25800 | 61-32908 |
|               | 61-32201 <sup>17)</sup> | 99.00  | 48.00  | 2.00 - 20.00 | 50.00 | M 40 x 1.50 | 75-32200<br>75-32300<br>ET1-32... | 61-32730 | 61-32800 | 61-32908 |
| 25.40<br>(1") | 61-25203 <sup>17)</sup> | 84.00  | 48.00  | 0.50 - 16.00 | 42.00 | M 32 x 1.50 | 75-25200<br>75-25300<br>ET1-25... | 61-25730 | 61-25800 | 61-32908 |
|               | 61-32202 <sup>17)</sup> | 99.00  | 48.00  | 2.00 - 20.00 | 50.00 | M 40 x 1.50 | 75-32200<br>75-32300<br>ET1-32... | 61-32730 | 61-32800 | 61-32908 |



Spannzangenhalter  
Collet chucks

## Queue cylindrique avec méplat type E Zylindrischer Schaft mit Spannfläche Typ E Cylindrical shank with flat type E



|   |                                                                                                                |                                                             |                         |
|---|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------|
| M | DIN 6499 A<br>DIN 6499 B<br> | Pince<br>Spannzange<br>Collet                               | pages:<br>4.17-<br>4.18 |
| N | DIN 6499 D<br>               | Ecrou<br>Mutter<br>Nut                                      | page:<br>4.20           |
| O |                              | Clé pour l'écrou<br>Mutternschlüssel<br>Spanner for the nut | page:<br>4.20           |
| P |                              | Vis de réglage<br>Anschlagschraube<br>Adjusting screw       |                         |

| D1    | No       | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P        |
|-------|----------|--------|--------|--------------|-------|-------------|-----------------------------------|----------|----------|----------|
| D1    | Nr.      | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P        |
| D1    | Nr.      | L1     | L2     | D2           | D3    | D4          | M                                 | N        | O        | P        |
| 14.00 | 61-12208 | 47.00  | 25.00  | 0.50 - 7.00  | 19.00 | M 14 x 0.75 | 75-12200<br>75-12300<br>ET1-12... | 61-12730 | -        | -        |
| 20.00 | 61-16233 | 180.60 | 158.00 | 0.50 - 10.00 | 22.00 | M 19 x 1.00 | 75-16200<br>75-16300<br>ET1-16... | 61-16772 | 61-16812 | 61-16903 |
| 25.00 | 61-20211 | 182.00 | 155.00 | 0.50 - 13.00 | 30.50 | M 24 x 1.00 | 75-20200<br>75-20300<br>ET1-20... | 61-20710 | -        | 61-16914 |
|       | 61-25216 | 182.00 | 145.00 | 0.50 - 16.00 | 35.00 | M 30 x 1.00 | 75-25200<br>75-25300<br>ET1-25... | 61-25772 | 61-25812 | 61-16914 |