

**Pinces tirées W - W Zugspannzangen - W Pull-type collets**

Le serrage intervient en tirant la pince dans son logement au moyen d'une clé de serrage.

Les pinces de type "W" se distinguent des autres pinces tirées par leur filet extérieur, dont le diamètre nominal correspond pratiquement au diamètre du corps de la pince.

Elles sont principalement recommandées pour les tours outilleurs et les machines de haute précision.

L'ouverture de ces pinces est très peu prononcée. Généralement, ces pinces ne serrent que le diamètre nominal. Pour obtenir une bonne concentricité, il est recommandé de ne pas serrer plus bas que 0.1 mm

Les alésages de ces pinces sont lisses.

Das Spannen erfolgt durch Ziehen der Spannzange in der Aufnahme (mit Spannschlüssel).

Bei den Spannzangen Typ "W" ist der Aussendurchmesser des Aussengewindes praktisch gleich gross wie derjenige des Schaftes (Führungsdurchmessers).

Besonders geeignet zur Verwendung auf Werkzeugmacher-Drehbänken und Präzisionsmaschinen.

Die Spannzangen Typ "W" sind im Ruhezustand nur sehr wenig geöffnet. Generell spannt die Zugspannzange nur den Nenndurchmesser. Für eine gute Rundlaufgenauigkeit sollte man diesen nicht um mehr als 0.1 mm unterschreiten.

Diese Spannzangen haben normalerweise eine glatte Spannbohrung.

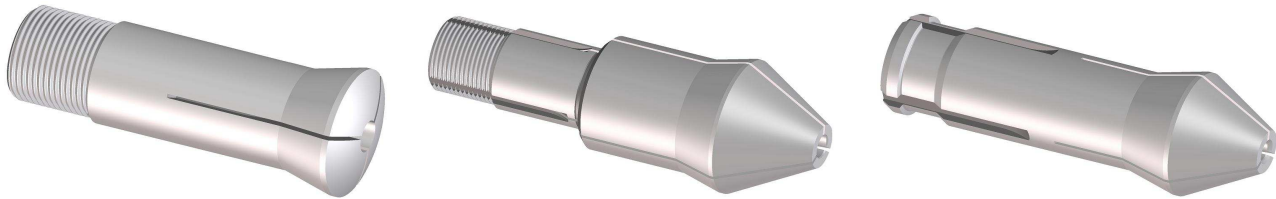
These collets are closed by being drawn back into the collet seating by means of a draw bar.

The "W" collets differ from the other pull-type collets because of their external thread, which has a nominal diameter almost identical to the collet shank diameter.

They are principally recommended for toolroom lathes and high precision machines.

The collets only open a minimal amount. The pull-type collets generally only clamp the nominal diameter. To obtain optimal concentricity, it is recommended not to clamp less than 0.1 mm below the nominal diameter.

The bores of these collets are smooth.

**Pinces tirées B - B Zugspannzangen - B Pull-type collets**

Le serrage intervient en tirant la pince dans son logement au moyen d'une clé de serrage.

Ces pinces se distinguent des autres pinces tirées par leur filet extérieur, dont le diamètre est plus petit que le diamètre du corps de la pince. Elles sont recommandées principalement pour les tours outilleurs et les machines de haute précision.

Elles sont également utilisées comme pinces de serrage sur certains tours de production. Dans ce cas, leur construction est un peu différente. En exécution pour tours outilleurs, l'ouverture est très peu prononcée. Pour obtenir une bonne concentricité, il est recommandé d'employer une pince au diamètre nominal de la pièce à serrer.

Les alésages de ces pinces sont généralement lisses. Cependant, pour l'utilisation sur les tours de production, ils peuvent être obtenus rainurés en rond à partir du dia. 9 ou striés (rainuré en rond et en long) au-dessus du dia. 14 mm .

Das Spannen erfolgt von hinten mit einem Spannzangenschlüssel. Bei den Spannzangen Typ "B" ist der Aussendurchmesser des Gewindes kleiner als der Durchmesser des Schaftes (Führungsdurchmesser). Dieser Typ wird besonders für Werkzeugmacher Drehbänke und Präzisionsmaschinen empfohlen, kann aber auch als Material-Spannzange auf Produktionsmaschinen verwendet werden.

Bei Verwendung auf Werkzeugmacher Drehbänken ist die Öffnung der Spannzange gering. Um eine gute Rundlaufgenauigkeit zu erreichen ist es ratsam, eine Spannzange mit dem Nenn-Durchmesser des zu bearbeitenden Stückes zu verwenden.

Die Spannbohrungen der Spannzangen Typ "B" sind im allgemeinen glatt. Bei Verwendung auf Produktionsmaschinen können Bohrungen auch gerillt (mit Querrillen ab 9 mm) oder geriffelt (mit Quer- und Längsrillen ab 14 mm) angeboten werden.

These collets are closed by being drawn back into the collet seating by means of a draw bar.

These collets differ from the other pull-type collets because of their external thread, where the diameter is slightly smaller than the collet shank diameter. The collets are principally used on tool room or precision lathes.

These collets can be also used as clamping tools for certain types of equipment. When used in this manner the design is slightly modified. When used on tool room lathes the collets open only a minimal amount. In order to obtain maximum concentricity it is advisable to use a collet fitting the nominal diameter of the part to be held.

The bores of these collets are generally smooth. Depending on the type of lathe; collets are available with grooved bores beginning at 9 mm diameter and serrated (cylindrical and longitudinal grooves) from 14 mm diameter.

**Pinces tirées L - L Zugspannzangen - L Pull-type collets**

Le serrage intervient en tirant la pince dans son logement au moyen d'une clé de serrage.

Leurs caractéristiques extérieures sont celles des pinces des types "B" ou "W", à l'exception du corps qui est relativement long par rapport au diamètre (type "L" = long).

L'ouverture de ces pinces est très peu prononcée et ces pinces s'utilisent souvent sur des tours outilleurs et autre machine de précision. Pour obtenir une bonne concentricité, il est recommandé d'employer une pince au diamètre nominal de la pièce à serrer.

Les alésages de ces pinces sont généralement lisses.

Das Spannen erfolgt durch Ziehen der Spannzange in der Aufnahme (mit Spannzangenschlüssel).

Die Eigenschaften dieser Spannzangen sind die gleichen wie diejenigen der anderen Zugspannzangen Typ "B" oder "W". Der einzige Unterschied liegt darin, dass der Schaft länger ist als bei den genannten Typen "B" und "W" (Typ "L" = lange Ausführung).

Diese Spannzangen sind im Ruhezustand auch sehr wenig geöffnet und finden oft Verwendung auf Werkzeugmacher-Drehbänken und auf anderen Präzisions-Werkzeugmaschinen. Um eine gute Rundlaufgenauigkeit zu erreichen ist es ratsam, eine Spannzange mit dem Nenndurchmesser des zu bearbeitenden Stückes zu verwenden.

Bei diesen Spannzangen ist die Bohrung in der Regel glatt.

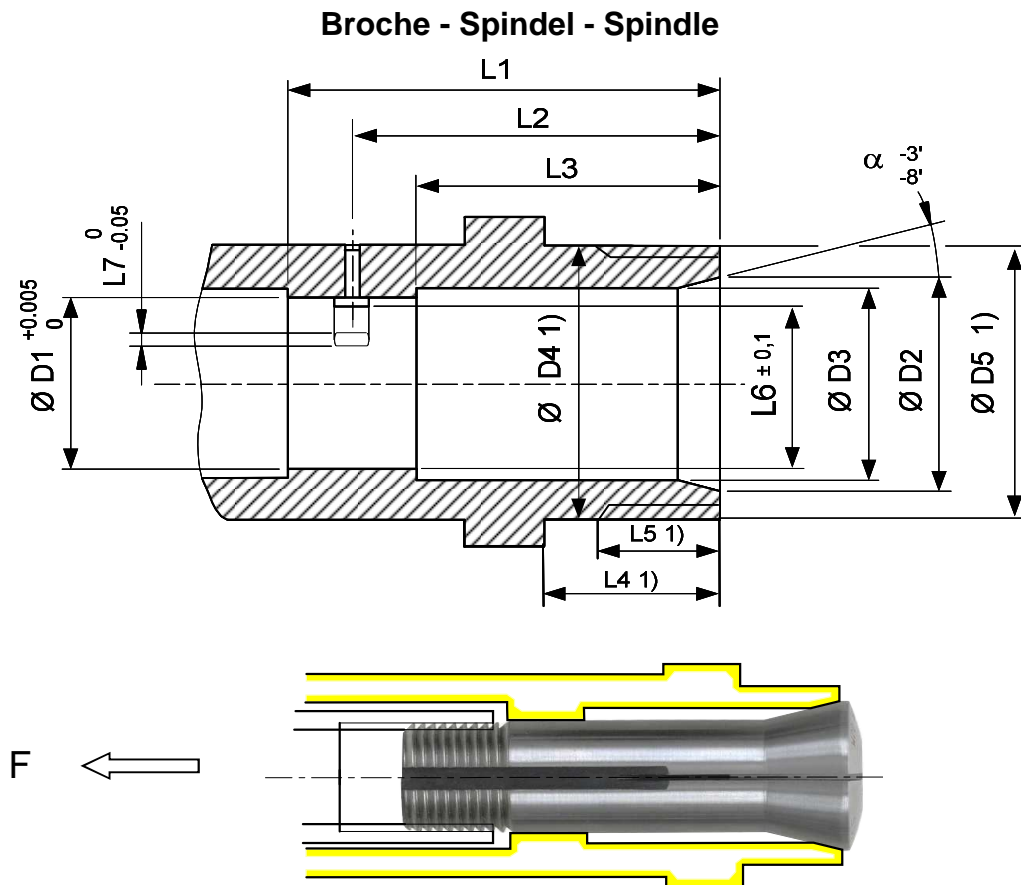
Collets are closed by a draw bar.

Their configuration is the same as collet types "B" and "W", except the shank is longer ("L" = long type).

The collets only open a minimal amount and are often used on toolmaker lathes and other precision machines. To obtain optimal concentricity, it is recommended to use a collet that is the nominal diameter of the part to be clamped.

The bores of these collets are smooth.

**Dimensions d'adaptation pour pinces W**  
**Abmessungen für Spannzangenaufnahme W**  
**Dimensions for collet seating W**



- 1) Ermöglicht den Einbau von Glockenzange, Ringfutter und Spreizdorne  
 1) Permet l'emploi des pinces entonnoirs, pinces échelles et tasseaux expansibles  
 1) Permits use of external step collets, internal step collets, and expanding arbors

**De préférence: cémenté 0,4-0,6 mm, trempé 58-62 HRC**

**Vorzugsweise: Einsatzgehärtet 0,4-0,6 mm, Gehärtet 58-62 HRC**

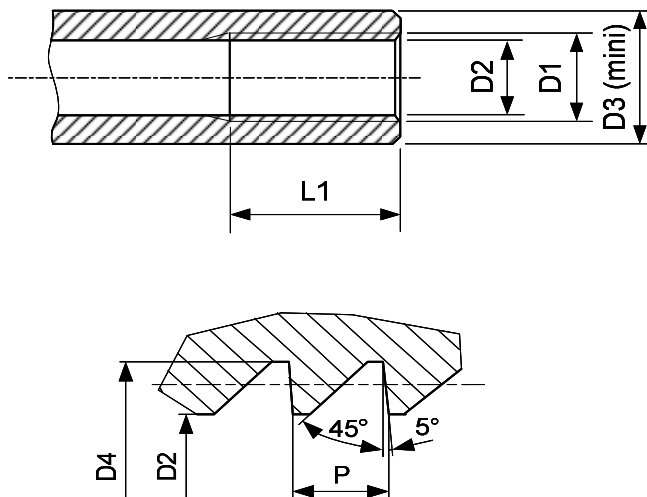
**Preferably : case hardened 0,4-0,6 mm, heat treat 58-62 HRC**

| Type         | D1 | D2   | D3 | D4    | D5      | L1 | L2   | L3 | L4 | L5 | L6   | L7  | $\alpha$ | F       |
|--------------|----|------|----|-------|---------|----|------|----|----|----|------|-----|----------|---------|
| W 10<br>80-1 | 10 | 13.8 | 12 | -     | -       | 31 | 26   | 22 | -  | -  | 9.2  | 2.1 | 15°      | 2000 N  |
| W 12<br>80-2 | 12 | 15.8 | 14 | 23    | M22.6x2 | 31 | 26.5 | 22 | 16 | 11 | 11   | 2.4 | 15°      | 3000 N  |
| W 15<br>80-3 | 15 | 20   | 17 | -     | -       | 40 | 35   | 30 | -  | -  | 14   | 2.9 | 15°      | 5000 N  |
| W 20<br>80-4 | 20 | 26   | 23 | 37.97 | M37.6x3 | 52 | 42   | 36 | 25 | 15 | 18.7 | 3.9 | 15°      | 7500 N  |
| W 25<br>80-5 | 25 | 33.4 | 29 | 48    | M47.6x3 | 67 | 54   | 43 | 25 | 15 | 23.2 | 4.9 | 15°      | 10000 N |

- F Force de serrage pour applications générales, serrage barres (tournage, fraisage)  
 F Spannkraft für übliche Anwendung, Spannen und Stangenmaterial (Drehen, Fräsen)  
 F Clamping force for general applications, bar holding (turning, milling)

**Dimensions d'adaptation pour pinces W**  
**Abmessungen für Spannzangenaufnahme W**  
**Dimensions for collet seating W**

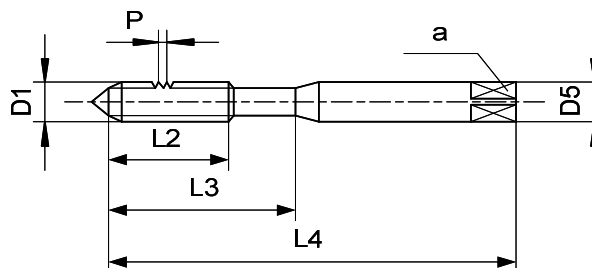
**Clé de serrage - Spanschlüssel - Drawbar**



**Tarauds pour clés de serrage sont obtenables chez:**  
**Gewindebohrer für Spannzangenaufnahmen sind erhältlich bei:**  
**Tapping tools for collet seatings are available from:**



**DC SWISS SA**  
**Case postale 363**  
**Grand-Rue 19**  
**CH 2735 Malleray**  
**Tel.++41 32 491 63 63**  
**Fax.++41 32 491 64 64**

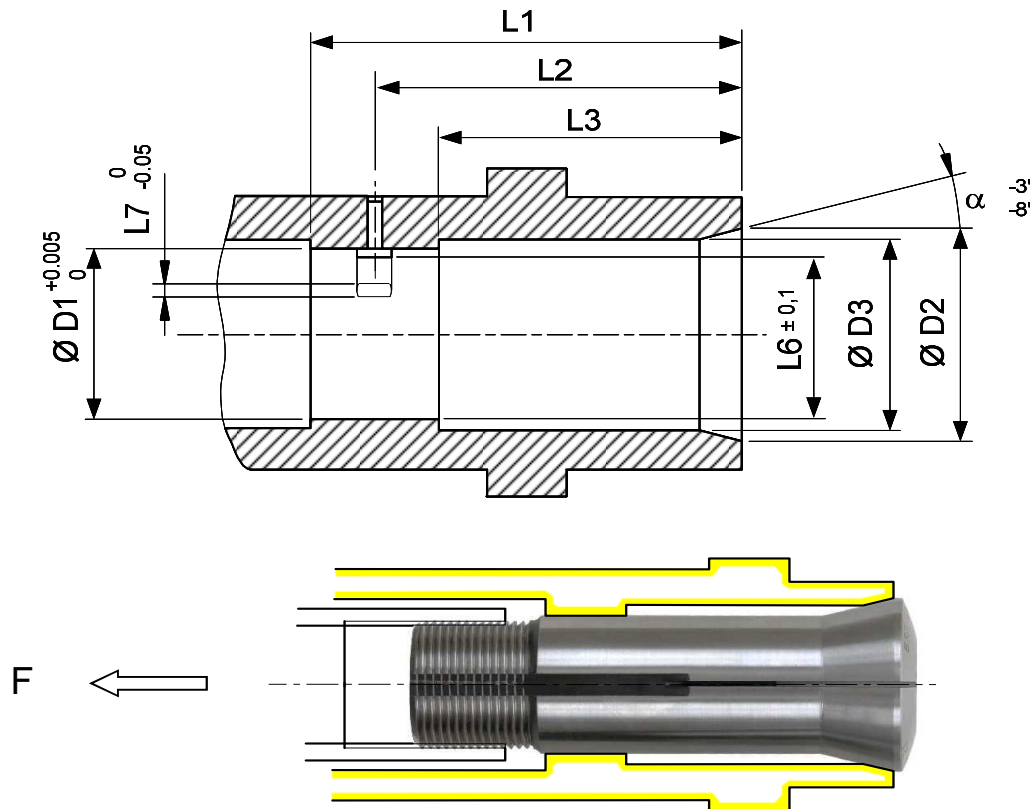


| Type         | D1 (x P)                      | D2   | D3   | D4 | L1 | Art. DC     | D5 | L2 | L3 | L4  | a    |
|--------------|-------------------------------|------|------|----|----|-------------|----|----|----|-----|------|
| W 10<br>80-1 | SV10<br>∅ 9.83x0.833 ↯ 45°/5° | 8.8  | 12   | 10 | 15 | 4)          | -  | -  | -  | -   | -    |
| W 12<br>80-2 | SV12<br>∅ 11.75x1.25 ↯ 45°/5° | 10.5 | 14   | 12 | 18 | <b>SV12</b> | 9  | 24 | -  | 84  | 7.1  |
| W 15<br>80-3 | SV15<br>∅ 14.75x1.25 ↯ 45°/5° | 13.5 | 17.5 | 15 | 20 | 4)          | -  | -  | -  | -   | -    |
| W 20<br>80-4 | SV20<br>∅ 19.7x1.666 ↯ 45°/5° | 17.8 | 22.5 | 20 | 25 | <b>SV20</b> | 14 | 33 | -  | 112 | 11.2 |
| W 25<br>80-5 | SV25<br>∅ 24.7x1.693 ↯ 45°/5° | 22.7 | 28   | 25 | 35 | <b>SV25</b> | 18 | 35 | -  | 120 | 14   |

- 4) Pas dans le programme standard, contacter **DC SWISS** pour plus de renseignements  
 Nicht im Standardprogramm, kontaktieren Sie **DC SWISS** für weitere Informationen  
 Not in standard offering, please contact **DC SWISS** for more information

**Dimensions d'adaptation pour pinces B**  
**Abmessungen für Spannzangenaufnahme B**  
**Dimensions for collet seating B**

**Broche - Spindel - Spindle**



**De préférence: cémenté 0,4-0,6 mm, trempé 58-62 HRC**

**Vorzugsweise: Einsatzgehärtet 0,4-0,6 mm, Gehärtet 58-62 HRC**

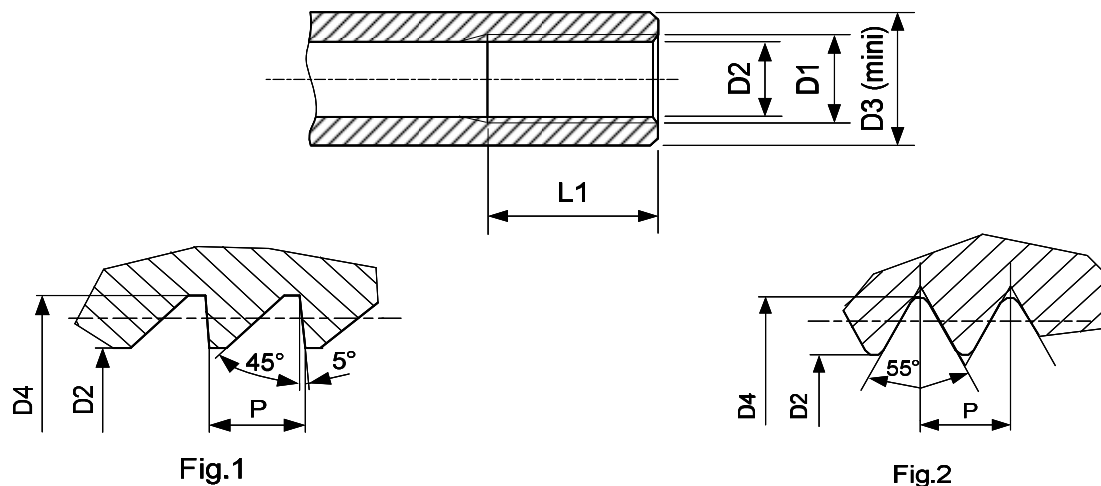
**Preferably : case hardened 0,4-0,6 mm, heat treat 58-62 HRC**

| Type               | D1   | D2   | D3 | L1 | L2 | L3 | L6   | L7   | $\alpha$ | F       |
|--------------------|--|------|----|----|----|----|------|------|----------|---------|
| B 6<br>72-128      | 6  | 10.2 | 7  | 22 | 19 | 16 | 5.5  | 0.95 | 20°      | 700 N   |
| B 8<br>72-137      | 8  | 12.8 | 9  | 25 | 20 | 17 | 7.5  | 1.75 | 20°      | 1400 N  |
| B 15<br>72-139     | 15   | 20.8 | 16 | 38 | 32 | 22 | 14.2 | 3    | 20°      | 3000N   |
| B 32<br>72-65      | 32   | 40   | 36 | 75 | 63 | 49 | 29.9 | 4.9  | 15°      | 11500 N |
| B 32/45<br>72-2005 | 32   | 53   | 49 | 90 | 80 | 70 | 29.9 | 4.9  | 15°      | 11500 N |
| B 45<br>72-199     | 45   | 53   | 49 | 84 | 66 | 52 | 42.9 | 4.9  | 15°      | 27000 N |
| BCR 32<br>72-93235 | Demander le dessin d'adaptation nr. 72-93235IN<br>Fragen Sie die Zeichnung Nr. 72-93235IN<br>Ask for the drawing number 72-93235IN |      |    |    |    |    |      |      |          |         |

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 F Spannkraft für übliche Anwendung, Spannen und Stangenmaterial (Drehen, Fräsen)  
 F Clamping force for general applications, bar holding (turning, milling)

**Dimensions d'adaptation pour pinces**  
**Abmessungen für Spannzangenaufnahme**  
**Dimensions for collet seating**

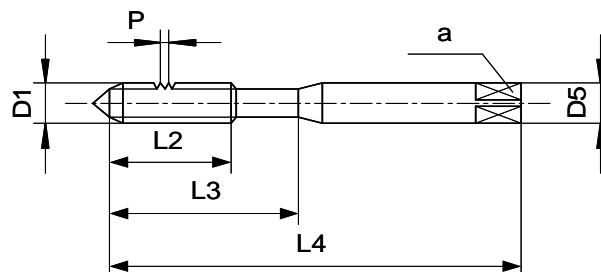
**Clé de serrage - Spannschlüssel - Draw bar**



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**Gewindebohrer für Spannzangenahmen sind erhältlich bei:**  
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**Tel.++41 32 491 63 63**  
**Fax.++41 32 491 64 64**



| Type               | D1 (x P)              | D2   | D3   | D4   | L1 | Fig. | Art. DC      | D5  | L2 | L3 | L4  | a   |
|--------------------|-----------------------|------|------|------|----|------|--------------|-----|----|----|-----|-----|
| B 6<br>72-128      | ∅5x0.706 ↯ 55°        | 4.2  | 7    | 5.06 | 12 | 2    | <b>W5</b>    | 5   | 16 | 25 | 58  | 4   |
| B 8<br>72-137      | ∅ 6.82x0.625 ↯ 55°    | 6.15 | 8.5  | 6.9  | 10 | 2    | <b>W6.82</b> | 7.1 | 19 | 30 | 66  | 5.6 |
| B 15<br>72-139     | M13 x 1               | 12   | 16   | 13   | 18 | 1    | 4)           | -   | -  | -  | -   | -   |
| B 32<br>72-65      | ∅ 29.7x1.693 ↯ 45°/5° | 27.7 | 33.5 | 30   | 27 | 1    | <b>SV30</b>  | 20  | 37 | -  | 127 | 16  |
| B 32/45<br>72-2005 | ∅ 29.7x1.693 ↯ 45°/5° | 27.7 | 33.5 | 30   | 27 | 1    | <b>SV30</b>  | 20  | 37 | -  | 127 | 16  |
| B 45<br>72-199     | M42 x 1.5             | 40.2 | 47   | 42   | 25 | -    | 4)           | -   | -  | -  | -   | -   |

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**Pinces tirées - Zugspannzangen - Pull-type collets**

Fig. 1

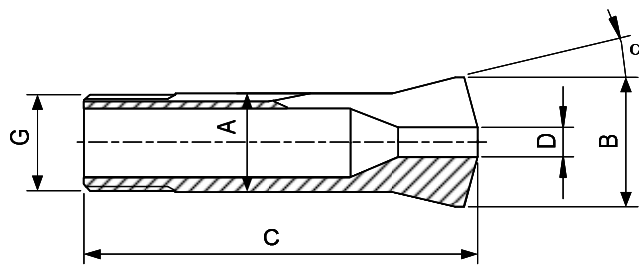
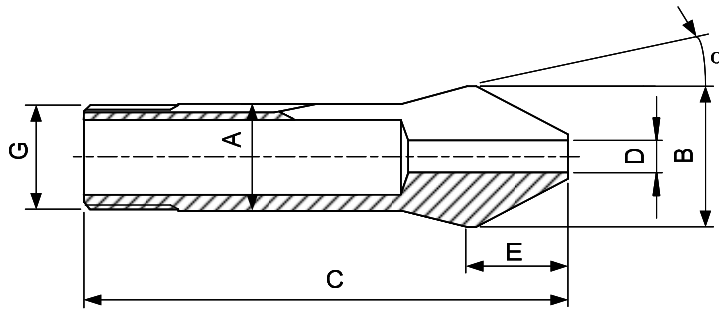
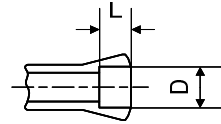



Fig. 2



Alésage à cran  
Stufenbohrung  
Step bore



Obturbateurs pour pinces, voir page 75  
Dichtgummi für Spannzangen auf Seite 75  
Rubber seals for collets on page 75

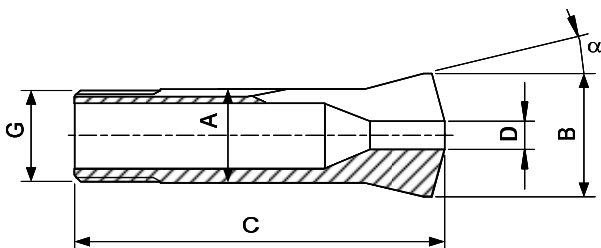
| Type          | Art.     | A  | B    | C    | E   | G                             | $\alpha$          | D min-max  |  | L   | Fig. |
|---------------|----------|----|------|------|-----|-------------------------------|-------------------|------------|---|-----|------|
| W 10          | 80-1     | 10 | 14   | 43.6 | -   | $\emptyset 9.83 \times 0.833$ | $\nabla 45^\circ$ | $15^\circ$ | 0.30...6.70   | -   | 1    |
|               |          |    |      |      |     |                               |                   |            | 6.71...8.00   | 15  |      |
|               |          |    |      |      |     |                               |                   |            | 8.01...8.50   | 6   |      |
|               |          |    |      |      |     |                               |                   |            | 8.51...9.00   | 5   |      |
|               |          |    |      |      |     |                               |                   |            | 9.01...9.50   | 4   |      |
|               |          |    |      |      |     |                               |                   |            | 9.51...10.00  | 3   |      |
| W 12          | 80-2     | 12 | 16   | 46   | -   | $\emptyset 11.75 \times 1.25$ | $\nabla 45^\circ$ | $15^\circ$ | 0.30...8.00   | -   | 1    |
|               |          |    |      |      |     |                               |                   |            | 8.01...10.00  | 17  |      |
|               |          |    |      |      |     |                               |                   |            | 10.01...10.50   | 6   |      |
|               |          |    |      |      |     |                               |                   |            | 10.51...11.00   | 5   |      |
|               |          |    |      |      |     |                               |                   |            | 11.01...11.50   | 4   |      |
|               |          |    |      |      |     |                               |                   |            | 11.51...12.00   | 3   |      |
|               |          |    |      |      |     |                               |                   |            | 12.01...12.50   | 2   |      |
| W 12          | 80-93108 | 12 | 16   | 52   | 8.8 | $\emptyset 11.75 \times 1.25$ | $\nabla 45^\circ$ | $15^\circ$ | 0.30...8.00   | -   | 2    |
|               |          |    |      |      |     |                               |                   |            | 8.01...10.00  | 24  |      |
| W 15          | 80-3     | 15 | 20.2 | 58.3 | -   | $\emptyset 14.75 \times 1.25$ | $\nabla 45^\circ$ | $15^\circ$ | 0.30...10.70  | -   | 1    |
|               |          |    |      |      |     |                               |                   |            | 10.71...12.70   | 22  |      |
|               |          |    |      |      |     |                               |                   |            | 12.71...13.00   | 9.5 |      |
|               |          |    |      |      |     |                               |                   |            | 13.01...13.50   | 8.5 |      |
|               |          |    |      |      |     |                               |                   |            | 13.51...14.00   | 7.5 |      |
|               |          |    |      |      |     |                               |                   |            | 14.01...14.50   | 6.5 |      |
|               |          |    |      |      |     |                               |                   |            | 14.51...15.00   | 5.5 |      |
|               |          |    |      |      |     |                               |                   |            | 15.01...15.50   | 4.5 |      |
| 15.51...16.00 | 3.5      |    |      |      |     |                               |                   |            |   |     |      |
| W 15          | 80-93285 | 15 | 20.2 | 67   | 12  | $\emptyset 14.75 \times 1.25$ | $\nabla 45^\circ$ | $15^\circ$ | 0.30...10.20  | -   | 2    |
|               |          |    |      |      |     |                               |                   |            | 10.21...12.70   | 32  |      |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.



**Pinces tirées - Zugspannzangen - Pull-type collets**

Fig. 1



Alésage à cran  
Stufenbohrung  
Step bore

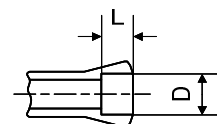


Fig. 2

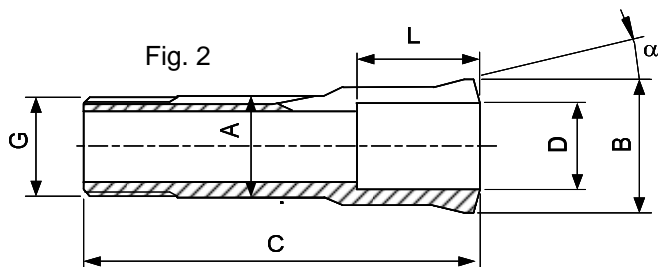


Fig. 3

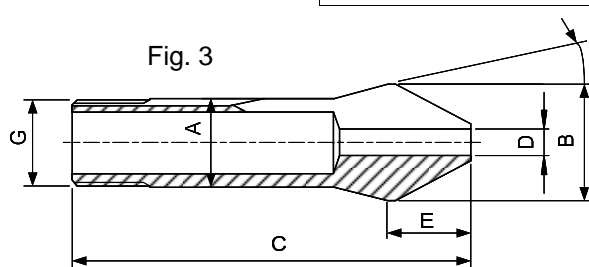


Fig. 4

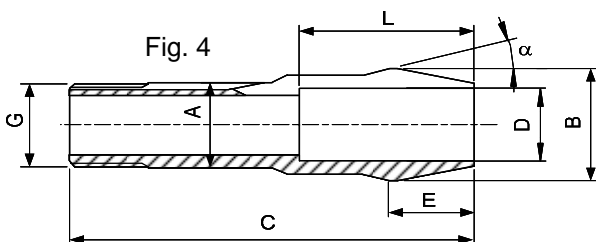
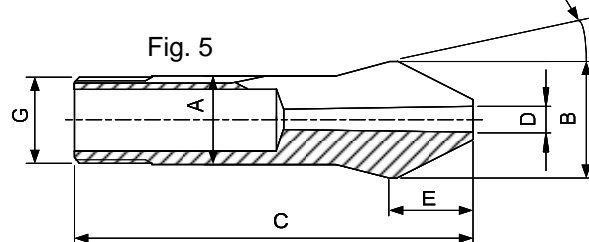


Fig. 5

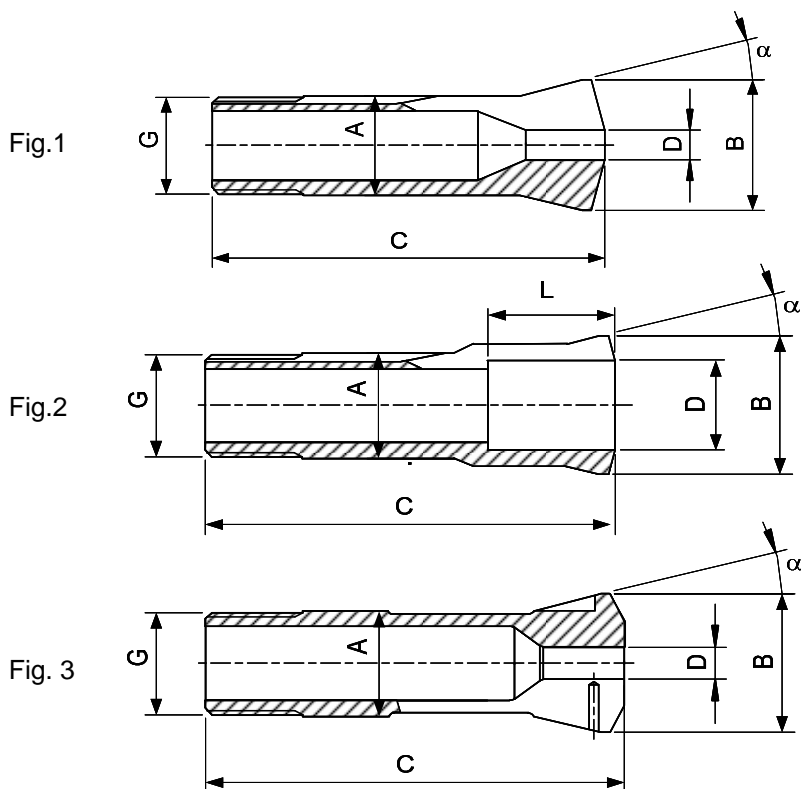


| Type          | Art.     | A  | B    | C    | E    | G   | $\alpha$   | D min-max                     | L       | Fig. |
|---------------|----------|----|------|------|------|---|------------|-------------------------------|---------|------|
| W 20          | 80-4     | 20 | 26.3 | 73   | -    | $\emptyset 19.7 \times 1.666 \nabla 45^\circ$ | $15^\circ$ | 0.30...14.50                  | -       | 1    |
|               |          |    |      |      |      |   |            | 14.51...16.00                 | 28      |      |
|               |          |    |      |      |      |   |            | 20) 16.01...16.50             | 13.5    |      |
|               |          |    |      |      |      |   |            | 20) 16.51...17.00             | 13      |      |
|               |          |    |      |      |      |   |            | 20) 17.01...17.50             | 12.2    |      |
|               |          |    |      |      |      |   |            | 20) 17.51...18.00             | 11.5    |      |
|               |          |    |      |      |      |   |            | 20) 18.01...18.50             | 10.7    |      |
|               |          |    |      |      |      |   |            | 20) 18.51...19.00             | 10      |      |
|               |          |    |      |      |      |   |            | 20) 19.01...19.50             | 8.7     |      |
|               |          |    |      |      |      |   |            | 20) 19.51...20.00             | 7.5     |      |
|               |          |    |      |      |      |   |            | 20.01...20.50                 | 6.5     |      |
| 20.51...21.00 | 5.5      |    |      |      |      |   |            |                               |         |      |
| 21.01...21.50 | 4.7      |    |      |      |      |   |            |                               |         |      |
| 21.51...22.00 | 4        |    |      |      |      |   |            |                               |         |      |
| 22.01...22.50 | 3        |    |      |      |      |   |            |                               |         |      |
| 22.51...23.00 | 2        |    |      |      |      |   |            |                               |         |      |
|               | 80-107   | 20 | 26.3 | 73   | -    | $\emptyset 19.7 \times 1.666 \nabla 45^\circ$ | $15^\circ$ | 16.01...20.00                 | 24      | 2    |
|               | 80-92744 | 20 | 26.3 | 84.5 | 15.5 | $\emptyset 19.7 \times 1.666 \nabla 45^\circ$ | $15^\circ$ | 0.30...13.00<br>13.01...16.00 | -<br>41 | 3    |
|               | 80-93286 | 20 | 26.3 | 84.5 | 15.5 | $\emptyset 19.7 \times 1.666 \nabla 45^\circ$ | $15^\circ$ | 16.01...20.00                 | 37      | 4    |
|               | 80-93828 | 20 | 26.3 | 84.5 | 15.5 | $\emptyset 19.7 \times 1.666 \nabla 45^\circ$ | $15^\circ$ | Morse DIN228<br>MK-1          | -       | 5    |
|               | 80-93829 | 20 | 26.3 | 94.5 | 25.5 | $\emptyset 19.7 \times 1.666 \nabla 45^\circ$ | $15^\circ$ | Morse DIN228<br>MK-2          | 66      | 5    |

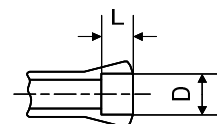
Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.

20) Dimensions non standard, voir 80-107 - Keine Standardabmessung, siehe 80-107  
Non standard bores, see 80-107

**Pincés tirées - Zugspannzangen - Pull-type collets**



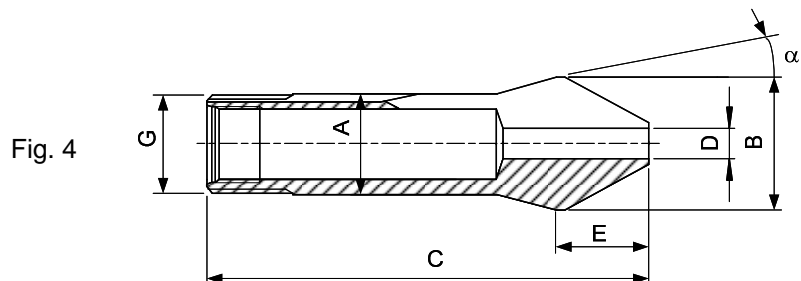
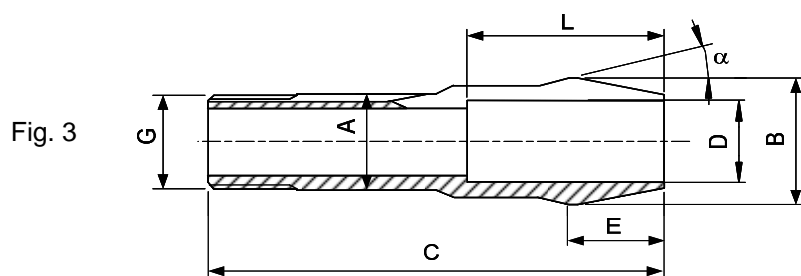
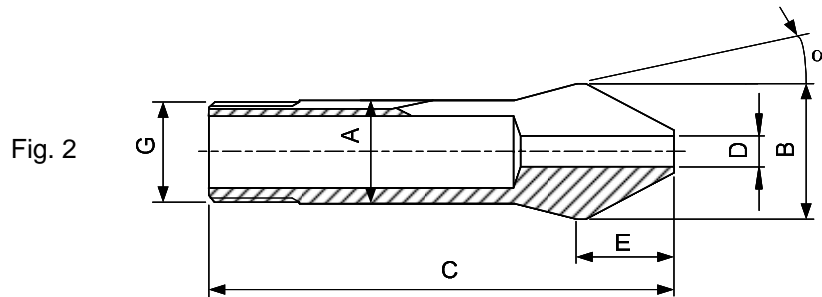
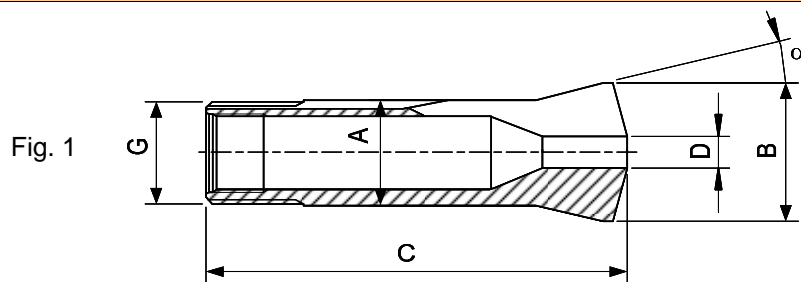
Alésage à cran  
Stufenbohrung  
Step bore



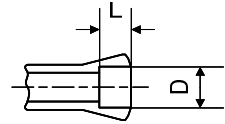
| Type          | Art.            | A  | B    | C    | E | G   | $\alpha$   | D min-max         | L    | Fig. |
|---------------|-----------------|----|------|------|---|---|------------|-------------------|------|------|
| W 25          | <b>80-5</b>     | 25 | 33.7 | 97.6 | - | $\emptyset 24.7 \times 1.693 \nabla 45/5^\circ$ | $15^\circ$ | 0.30...19.05      | -    | 1    |
|               |                 |    |      |      |   |   |            | 19.06...21.00     | 35   |      |
|               |                 |    |      |      |   |   |            | 21) 21.01...21.50 | 16.5 |      |
|               |                 |    |      |      |   |   |            | 21) 21.51...22.00 | 16   |      |
|               |                 |    |      |      |   |   |            | 21) 22.01...23.00 | 15.5 |      |
|               |                 |    |      |      |   |   |            | 21) 23.01...23.50 | 15   |      |
|               |                 |    |      |      |   |   |            | 21) 23.51...24.00 | 14.5 |      |
|               |                 |    |      |      |   |   |            | 21) 24.01...24.50 | 13.5 |      |
|               |                 |    |      |      |   |   |            | 21) 24.51...25.00 | 12.5 |      |
|               |                 |    |      |      |   |   |            | 21) 25.01...25.40 | 11.5 |      |
|               |                 |    |      |      |   |   |            | 25.41...25.50     | 11.5 |      |
|               |                 |    |      |      |   |   |            | 25.51...26.00     | 10.5 |      |
| 26.01...26.50 | 9.5             |    |      |      |   |   |            |                   |      |      |
| 26.51...27.00 | 8.5             |    |      |      |   |   |            |                   |      |      |
| 27.01...27.50 | 7.5             |    |      |      |   |   |            |                   |      |      |
| 27.51...28.00 | 6.5             |    |      |      |   |   |            |                   |      |      |
| 28.01...28.50 | 5.5             |    |      |      |   |   |            |                   |      |      |
| 28.51...29.00 | 4.5             |    |      |      |   |   |            |                   |      |      |
|               | <b>80-700</b>   | 25 | 33.7 | 97.6 | - | $\emptyset 24.7 \times 1.693 \nabla 45/5^\circ$ | $15^\circ$ | 21.01...25.40     | 30   | 2    |
|               | <b>80-01923</b> | 25 | 35   | 94   | - | M25x1   | $16^\circ$ | 0.50...17.00      | -    | 3    |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.

21) Dimensions non standard, voir 80-700 - Keine Standardabmessung, siehe 80-700  
Non standard bores, see 80-700

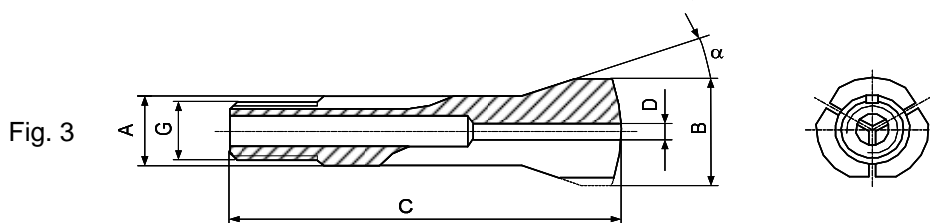
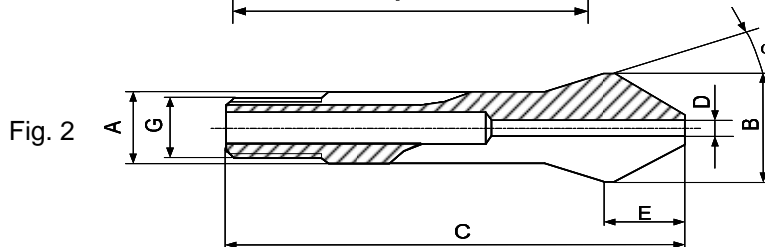
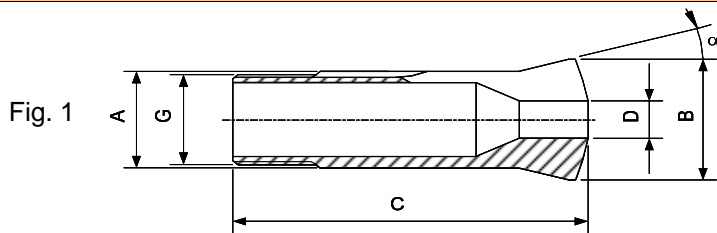
**Pinces tirées - Zugspannzangen - Pull-type collets**

Alésage à cran  
Stufenbohrung  
Step bore

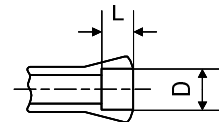


| Type    | Art.            | A     | B    | C     | E    | G                      | $\alpha$        | D min-max | L                    | Fig. |   |
|---------|-----------------|-------|------|-------|------|------------------------|-----------------|-----------|----------------------|------|---|
| W 25    | <b>80-92872</b> | 25    | 33.7 | 112.2 | 19.7 | $\emptyset$ 24.7x1.693 | $\nabla$ 45°/5° | 15°       | 0.30...19.05         | -    | 2 |
|         | <b>80-02006</b> | 25    | 33.7 | 112.2 | 19.7 | $\emptyset$ 24.7x1.693 | $\nabla$ 45°/5° | 15°       | 19.06...21.00        | 50   | 3 |
|         | <b>80-93837</b> | 25    | 33.7 | 112.2 | 19.7 | $\emptyset$ 24.7x1.693 | $\nabla$ 45°/5° | 15°       | Morse DIN228<br>MK-1 | -    | 2 |
|         | <b>80-93838</b> | 25    | 33.7 | 112.2 | 19.7 | $\emptyset$ 24.7x1.693 | $\nabla$ 45°/5° | 15°       | Morse DIN228<br>MK-2 | -    | 2 |
| W 31.75 | <b>80-842</b>   | 31.75 | 37.4 | 87    | -    | $\emptyset$ 31.4x1.27  | $\nabla$ 60°    | 10°3'     | 0.50...25.19         | -    | 1 |
|         | <b>80-2007</b>  | 31.75 | 37.4 | 108.7 | 25.4 | $\emptyset$ 31.4x1.27  | $\nabla$ 60°    | 10°3'     | 25.20...27.99        | 40   |   |
|         |                 |       |      |       |      |                        |                 |           | 28.00...28.99        | 10   |   |
|         |                 |       |      |       |      |                        |                 |           | 29.00...29.99        | 7    |   |
|         |                 |       |      |       |      |                        |                 |           | 30.00...31.00        | 4    |   |
|         |                 |       |      |       |      |                        |                 |           | 0.30...25.19         | -    | 4 |
|         |                 |       |      |       |      |                        |                 |           | 25.20...28.00        | 64   |   |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.

**Pincés tirées - Zugspannzangen - Pull-type collets**

Alésage à cran  
Stufenbohrung  
Step bore

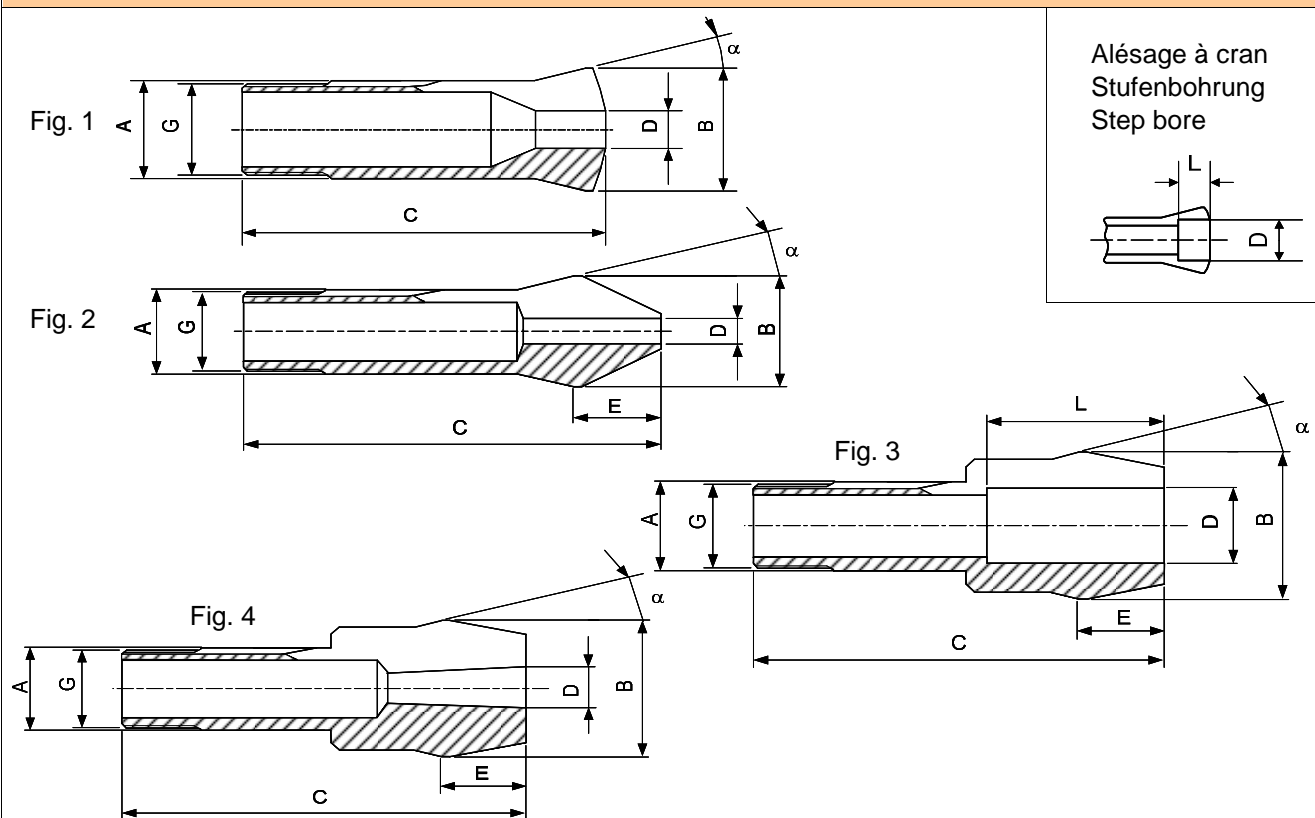


**Obturbateurs pour pincés, voir page 75**  
**Dichtgummi für Spannzangen auf Seite 75**  
**Rubber seals for collets on page 75**

| Type | Art.                  | A | B    | C    | E | G                                   | $\alpha$ | D min-max  | L  | Fig. |
|------|-----------------------|---|------|------|---|-------------------------------------|----------|--|--|------|
| B 6  | <b>72-128</b>         | 6 | 10.5 | 31.3 | - | $\emptyset$ 5x0.706 $\nabla$ 55°    | 20°      | 0.30...3.00<br>3.01...4.50<br>4.51...5.00<br>5.01...5.50<br>5.51...6.00  | -<br>12<br>4.5<br>4<br>3.5                       | 1    |
|      | <b>72-1897</b><br>26) | 6 | 9    | 31.3 | - | $\emptyset$ 5x0.706 $\nabla$ 55°    | 20°      | 0.30...3.00<br>3.01...4.50<br>4.51...5.00<br>5.01...5.50<br>5.51...6.00  | -<br>12<br>4.5<br>4<br>3.5                       | 3    |
| B 8  | <b>72-137</b>         | 8 | 13   | 35.5 | - | $\emptyset$ 6.82x0.625 $\nabla$ 55° | 20°      | 0.30...4.00<br>4.01...6.50<br>6.51...7.00<br>7.01...7.50<br>7.51...8.00<br>8.01...8.50<br>8.51...9.00<br>9.01...9.50<br>9.51...10.00 | -<br>13<br>6<br>5<br>4<br>3.2<br>2.5<br>1.7<br>1 | 1    |
|      | <b>72-1898</b><br>26) | 8 | 13   | 35.5 | - | $\emptyset$ 6.82x0.625 $\nabla$ 55° | 20°      | 0.30...4.00<br>4.01...6.50<br>6.51...7.00<br>7.01...7.50<br>7.51...8.00  | -<br>12.5<br>6<br>5<br>4                         | 3    |
|      | <b>72-95</b>          | 8 | 13   | 40.5 | 7 | $\emptyset$ 6.82x0.625 $\nabla$ 55° | 20°      | 0.30...3.30<br>3.31...6.50   | -<br>21  | 2    |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.  
26) Sur demande - Auf Anfrage - On request

**Pinces tirées - Zugspannzangen - Pull-type collets**



Alésage à cran  
Stufenbohrung  
Step bore

| Type          | Art.         | A  | B  | C   | E  | G                                      | $\alpha$ | D min-max     | L   | Fig. |
|---------------|--------------|----|----|-----|----|--|----------|---------------|-----|------|
| B 15          | 72-139       | 15 | 21 | 55  | -  | M13 x 1                                | 20°      | 0.30...9.50   | -   | 1    |
|               |              |    |    |     |    |  |          | 9.51...12.50  | 20  |      |
|               |              |    |    |     |    |  |          | 12.51...13.00 | 8.5 |      |
|               |              |    |    |     |    |  |          | 13.01...13.50 | 7.7 |      |
|               |              |    |    |     |    |  |          | 13.51...14.00 | 7   |      |
|               |              |    |    |     |    |  |          | 14.01...14.50 | 6.5 |      |
| 14.51...15.00 | 6            |    |    |     |    |  |          |               |     |      |
| B 32          | 72-55<br>26) | 32 | 40 | 102 | -  | M30 x 1.5                              | 15°      | 0.30...24.00  | -   | 1    |
|               |              |    |    |     |    |  |          | 24.01...28.00 | 44  |      |
|               |              |    |    |     |    |  |          | 28.01...30.00 | 12  |      |
| B 32          | 72-65        | 32 | 40 | 106 | -  | $\emptyset$ 29.7x1.693 $\nabla$ 45°/5° | 15°      | 0.30...24.00  | -   | 1    |
|               |              |    |    |     |    |  |          | 24.01...28.00 | 44  |      |
|               |              |    |    |     |    |  |          | 28.01...30.00 | 12  |      |
|               |              |    |    |     |    |  |          | 30.01...32.00 | 8   |      |
|               | 72-2003      | 32 | 40 | 124 | 24 | $\emptyset$ 29.7x1.693 $\nabla$ 45°/5° | 15°      | 0.30...24.00  | -   | 2    |
|               |              |    |    |     |    |  |          | 24.01...28.00 | 64  |      |

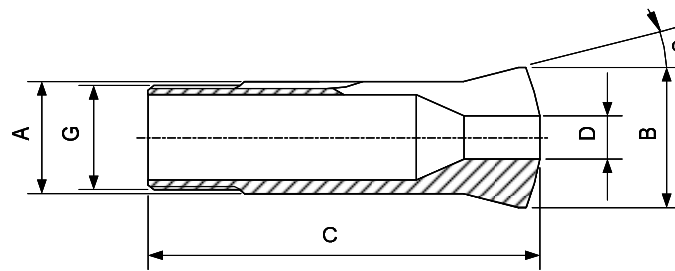
BCR 32 Voir page - Siehe Seite - see page 23.4

|         |          |    |    |       |      |  |     |                      |    |   |
|---------|----------|----|----|-------|------|--|-----|----------------------|----|---|
| B 32/45 | 72-2005  | 32 | 53 | 148.5 | 32.5 | $\emptyset$ 29.7x1.693 $\nabla$ 45°/5° | 15° | 1.00...24.00         | -  | 3 |
|         |          |    |    |       |      |  |     | 24.01...40.00        | 80 |   |
|         | 72-93409 | 32 | 53 | 148.5 | 32.5 | $\emptyset$ 29.7x1.693 $\nabla$ 45°/5° | 15° | Morse DIN228<br>MK-1 | -  | 4 |
|         | 72-93410 | 32 | 53 | 148.5 | 32.5 | $\emptyset$ 29.7x1.693 $\nabla$ 45°/5° | 15° | Morse DIN228<br>MK-2 | -  | 4 |
|         | 72-93411 | 32 | 53 | 148.5 | 32.5 | $\emptyset$ 29.7x1.693 $\nabla$ 45°/5° | 15° | Morse DIN228<br>MK-3 | -  | 4 |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.  
26) Sur demande - Auf Anfrage - On request

**Pinces tirées - Zugspannzangen - Pull-type collets**

Fig. 1



Alésage à cran  
Stufenbohrung  
Step bore

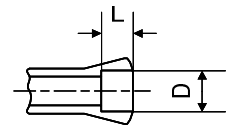


Fig. 2

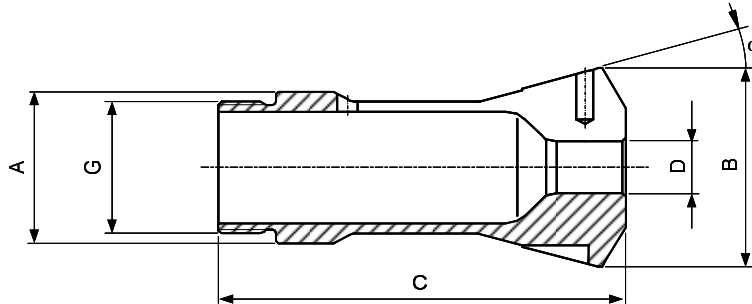


Fig. 3

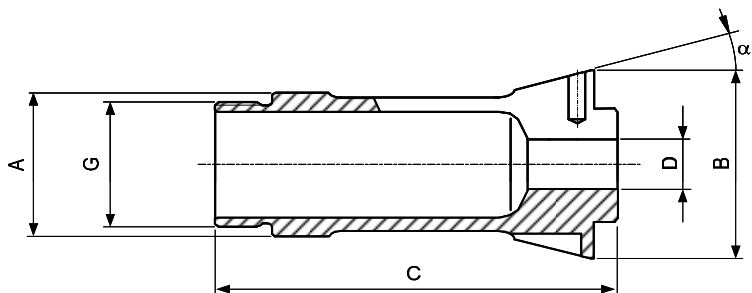
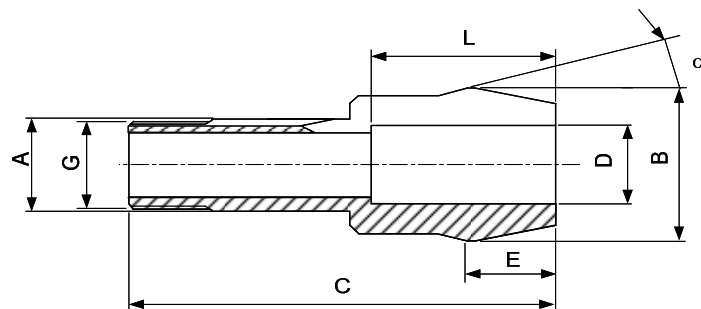

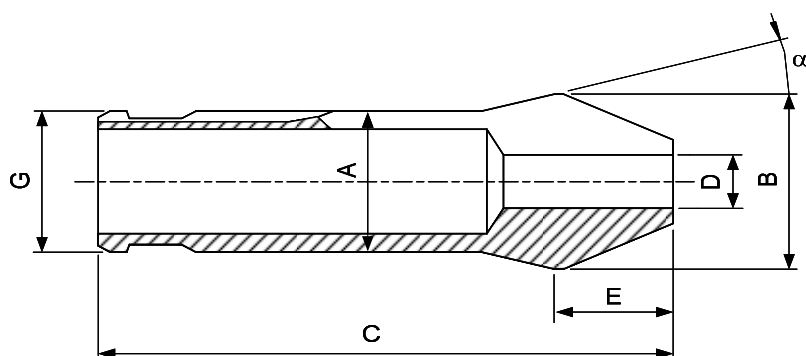


Fig. 4

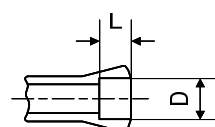



| Type    | Art.            | A  | B    | C   | E  | G                      | $\alpha$                 | D min-max |              | L                              | Fig. |
|---------|-----------------|----|------|-----|----|------------------------|--------------------------|-----------|---|--------------------------------|------|
| B 32/45 | <b>72-93412</b> | 32 | 53   | 173 | 57 | $\emptyset$ 29.7x1.693 | $\sphericalangle$ 45°/5° | 15°       | Morse DIN228<br>MK-4  | 107                            | 4    |
| B 34    | <b>72-1820</b>  | 34 | 42   | 90  | -  | M30x1 à gauche         |                          | 16°       | 3.00...25.00  | -                              | 3    |
| B 45    | <b>72-199</b>   | 45 | 53   | 115 | -  | M42x1.5                |                          | 15°       | 1.00...36.00<br>36.01...40.99<br>41.00...41.99<br>42.00...42.99<br>43.00...43.99<br>44.00...45.00 | -<br>53<br>14<br>12<br>10<br>8 | 1    |
| B 46    | <b>72-2007</b>  | 46 | 60.3 | 120 | -  | M40x1.5 à gauche       |                          | 15°       | 6.00...33.00  | -                              | 2    |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.

**Pinces tirées - Zugspannzangen - Pull-type collets****Pince de serrage - Spannzange - Clamping collet**

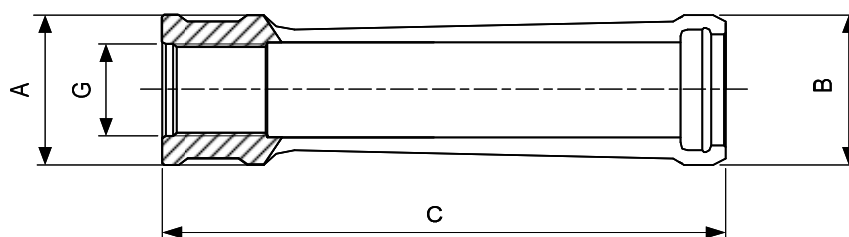
Alésage à cran  
Stufenbohrung  
Step bore



| Type   | Art.            | A  | B  | C   | E  | G  | $\alpha$ | D min-max     |  | L |
|--------|-----------------|----|----|-----|----|----|----------|---------------|---|---|
| BCR 32 | <b>72-93235</b> | 32 | 40 | 117 | 24 | 32 | 15°      | 0.30...24.00  | -   | - |
|        | <b>72-93416</b> | 32 | 40 | 117 | 24 | 32 | 15°      | 24.01...28.00 | 64  | - |
|        | <b>72-93417</b> | 32 | 40 | 117 | 24 | 32 | 15°      | Morse DIN228  | -   | - |
|        | <b>72-93418</b> | 32 | 40 | 117 | 24 | 32 | 15°      | Morse DIN228  | -   | - |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
Standard bores (round, square, hexagonal) according to price list. Other bores on request.

**Pince de traction pour BCR**  
**Zugspannzange für BCR**  
**Pull-type collet for BCR**



| Type | Art.            | A  | B  | C   | G       |
|------|-----------------|----|----|-----|---------|
| D 40 | <b>74-60039</b> | 40 | 40 | 133 | M24x1.5 |

**Pinces tirées - Zugspannzangen - Pull-type collets**

Fig.1

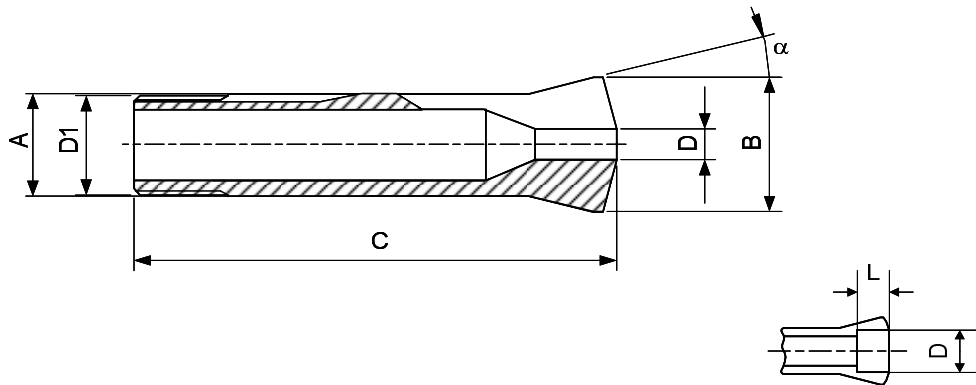
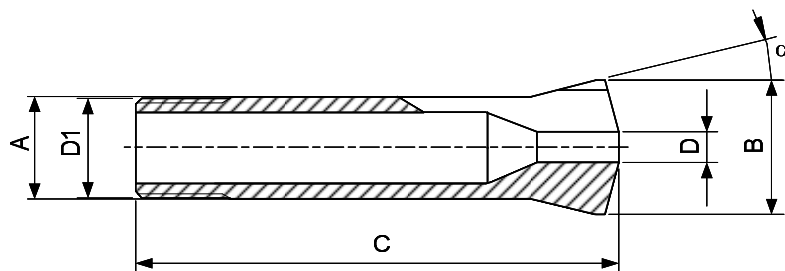


Fig.2



| Type          | Art.   | A  | B    | C   | G                      | $\alpha$ | D min-max | L             | Fig. |
|---------------|--------|----|------|-----|------------------------|----------|-----------|---------------|------|
| L 20          | 77-122 | 20 | 28   | 122 | $\emptyset$ 19.7x2 ↗   | 45°/5°   | 17°30'    | -             | 1    |
|               |        |    |      |     |                        |          |           | 0.30...13.00  | 59   |
|               |        |    |      |     |                        |          |           | 13.01...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 | 7    |
|               |        |    |      |     |                        |          |           | 20.01...20.50 | 6.5  |
|               |        |    |      |     |                        |          |           | 20.51...21.00 | 5.5  |
| 21.01...21.50 | 4.5    |    |      |     |                        |          |           |               |      |
| 77-826<br>26) | 26)    | 20 | 27.5 | 122 | $\emptyset$ 18.5x1.4 ↗ | 50°      | 20°       | -             | 2    |
|               |        |    |      |     |                        |          |           | 0.30...13.00  | 59   |
|               |        |    |      |     |                        |          |           | 13.01...18.00 | 11   |
|               |        |    |      |     |                        |          |           | 18.01...18.50 | 10   |
|               |        |    |      |     |                        |          |           | 18.51...19.00 | 9    |
|               |        |    |      |     |                        |          |           | 19.01...19.50 | 8    |
| 19.51...20.00 |        |    |      |     |                        |          |           |               |      |

Alésages standards (rond, carré, six-pans) selon liste de prix. Autres alésages sur demande.  
 Standardbohrungen (rund, vierkant, sechskant) gemäss Preisliste. Andere Bohrungen auf Anfrage.  
 Standard bores (round, square, hexagonal) according to price list. Other bores on request.

26) Sur demande  
 Auf Anfrage  
 On request