# Fittings and Accessories

For oil and grease. For Centralized Lubrication Systems and General Use

# Fittings and Accessories

**This brochure provides an overview of metallic pipe unions for fluid engineering.**

**This brochure is divided into the sections**

- Accessories for tubes and hoses
- SKF Quick Connectors for pressures up to 300 bar and 350 bar
- Solderless pipe unions with cutting sleeve acc. to DIN EN ISO 8434-1 and DIN 2353, DIN EN ISO 9974-1/DIN 2353 and elastomer washer
- Tubes and hoses
- Accessories
- Reservoirs

Dimensions in mm.

CAD models for the products shown in this brochure can be downloaded at:
**skf-lubrication.partcommunity.com**

# Contents

# Accessories for tubes and hoses

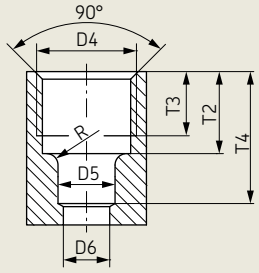
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Counterbores**
**DIN 3854/DIN 3862 – for solderless tube connection**

| Specification of counterbores | Tube ø | $D5^{B11}$ | D6 | D4 | T3 | T2 | T4 | R |
|---|---|---|---|---|---|---|---|---|
| **1102** [1] | 2,5 | 2,5 | 1,5 | M6×0,75 | 4,5 | 5,5 | 8,5 | 1,3 |
| **1404** | 4 | 4 | 3 | M8×1 | 6,5 | 8,5 | 12,5 | 1,6 |
| **1406** | 6 | 6 | 4,5 | M10×1 | 7 | 9 | 14 | 1,6 |
| **1408** | 8 | 8 | 6,5 | M14×1,5 | 9 | 11,5 | 18,5 | 1,6 |
| **1410** | 10 | 10 | 8,5 | M16×1,5 | 9 | 11,5 | 19,5 | 1,6 |
| **1412** | 12 | 12 | 10,5 | M18×1,5 | 9,5 | 12 | 22 | 1,6 |

1) not shown in DIN standard

**Counterbore**




**Form counterbores**
**to tap ports for solderless tube connection**

| Form counterbore Order No. | Tube ø | for counter-bore | L1 | D1 | D2 | twist drill D6 | D3 | T1 | 2 |
|---|---|---|---|---|---|---|---|---|---|
| **902-111** | 2,5 | 1102 | 60,5 | 10 | | 1,5 | 5 | 4,5 | 5,5 |
| **904-411** | 4 | 1404 | 65 | 10 | | 3 | 6,5 | 7,5 | 8,5 |
| **906-411** | 6 | 1406 | 66 | 12 | 10 | 4,5 | 8,5 | 8 | 9 |
| **908-411** | 8 | 1408 | 70 | 16 | | 6,5 | 12 | 10,5 | 11,5 |
| **910-411** | 10 | 1410 | 72 | 18 | | 8,5 | 14 | 10,5 | 11,5 |
| **912-411** | 12 | 1412 | 75 | 20 | | 10,5 | 16 | 11 | 12 |

Provision of counterbore → Figure 1

**Form counterbore**

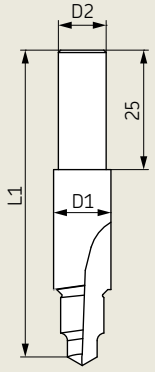
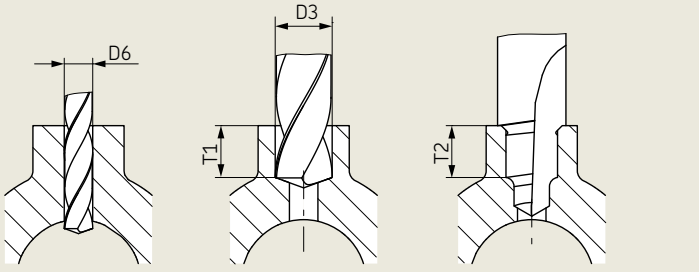



**Figure 1**

**Provision of counterbore**




predrill holes | bore hole to be tapped | counterbore with form counterbore up to the stop

Form counterbore enlarges bore hole diam. d4 to core hole for ISO thread..

**Important note #3:**
When using a hand drill, take care not to tilt the counterbore out of the drill axis. To avoid damages drill steadily without interruption. Increase pressure slightly at the stop.

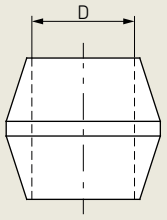
# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Double tapered sleeves – DIN 3862**

| Order No. | for tube ø D |
|---|---|
| **Brass** | |
| **402-001** [1] | 2,5 |
| **404-001** | 4 |
| **406-001** | 6 |
| **408-001** | 8 |
| **410-001** | 10 |
| **412-001** | 12 |
| **Stainless steel** | |
| **404-001-S3** | 4 |
| **406-001-S3** | 6 |
| **408-001-S3** | 8 |

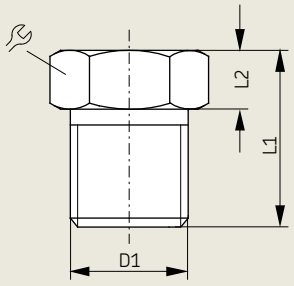
**Double tapered sleeves**




**Socket unions – DIN 3871**

| Order No. | for tube ø | D1 | L1 | L2 | | Series |
|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | |
| **402-002** [1] | 2,5 | M6×0,75 | 9 | 3 | 7 | |
| **404-002** | 4 | M8×1 | 12 | 4 | 8 | LL |
| **406-002** | 6 | M10×1 | 13 | 4 | 10 | |
| **408-202** | 8 | M14×1,5 | 16 | 4,5 | 14 | |
| **410-002** | 10 | M16×1,5 | 17 | 5,5 | 17 | L |
| **412-002** | 12 | M18×1,5 | 18 | 6 | 19 | |
| **Stainless steel** | | | | | | |
| **404-002-S3** | 4 | M8×1 | 12 | 4 | 8 | |
| **406-002-S3** | 6 | M10×1 | 13 | 4 | 10 | |
| **408-002-S3** | 8 | M14×1,5 | 16 | 4,5 | 14 | |

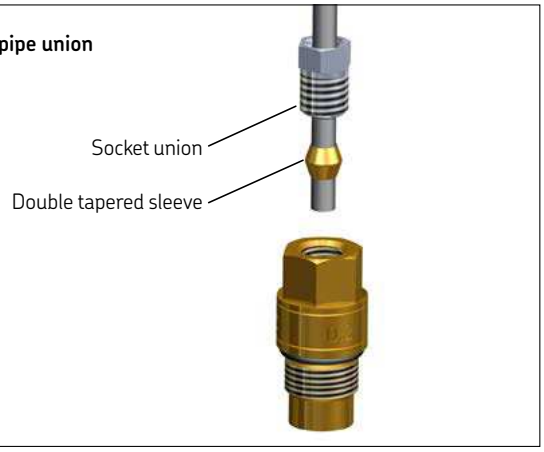
**Socket unions**




1) not shown in DIN standard

LL-series (extra light version), L-series (light version)

**Solderless pipe union**




**Installation (steel and copper tubing)**

1. Push socket union and double tapered sleeve onto tube end.
2. Insert tube end into tapped port up to the stop.
3. First tighten socket union finger-tight by hand. Then turn another 1 1/2 turns.

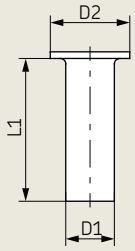
# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Reinforcing sockets (if plastic tubing is used)**

| Order No. | for tube | D1 | D2 | L1 |
|---|---|---|---|---|
| **Brass** | | | | |
| **402-603** | 2.5×0.5 | 1.4 | 2.3 | 8 |
| **404-603** | 4×0.85 | 2.2 | 3.8 | 10 |
| **406-603** | 6×1 | 3.9 | 5.8 | 12 |
| **406-613** | 6×1.25 | 3.4 | 5.8 | 12 |
| **408-603** | 8×1.25 | 5.4 | 7.8 | 15 |
| **410-603** | 10×1.5 | 6.9 | 9.8 | 18 |
| **412-603** | 12×1.5 | 8.9 | 11.8 | 20 |

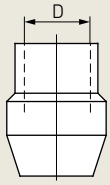
**Reinforcing socket**



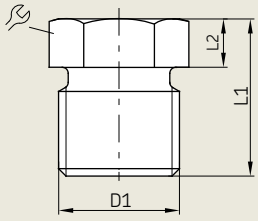

**Tapered sleeves – DIN 3862**

| Order No. | for tube ø D |
|---|---|
| **Brass** | |
| **402-611** | 2.5 |
| **404-611** | 4 |
| **406-611** | 6 |
| **408-611** | 8 |
| **410-611** | 10 |
| **412-611** | 12 |

**Tapered sleeve**



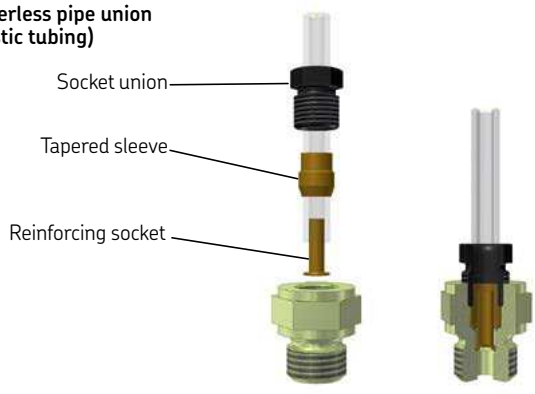

**Socket union**




**Socket unions – DIN 3871**

| Order No. | for tube ø | D1 | L1 | L2 | |
|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | |
| **402-612** | 2.5 | M6×0.75 | 9 | 3 | 7 |
| **404-612** | 4 | M8×1 | 12 | 4 | 8 |
| **406-612** | 6 | M10×1 | 13 | 4 | 10 |
| **408-612** | 8 | M14×1.5 | 16 | 4.5 | 14 |
| **410-612** | 10 | M16×1.5 | 17 | 5.5 | 17 |
| **412-612** | 12 | M18×1.5 | 18 | 6 | 19 |
| **Brass** | | | | | |
| **404-612-MS** | 4 | M8×1 | 12 | 4 | 8 |
| **406-612-MS** | 6 | M10×1 | 13 | 4 | 10 |
| **408-612-MS** | 8 | M14×1.5 | 16 | 4.5 | 14 |
| **410-612-MS** | 10 | M16×1.5 | 17 | 5.5 | 17 |

**Solderless pipe union (plastic tubing)**




**Installation (plastic tubing)**

**1** Insert reinforcing socket into plastic tube.
**2** Push socket union and tapered sleeve onto tube end.
**3** Insert tube end into counterbored port up to the stop.
**4** First tighten socket union finger-tight by hand. Then turn another 1 1/2 turns.

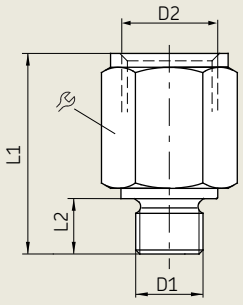
# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Adaptors with cylindrical thread to DIN 71428 (sealed by flat washer to DIN 7603)**

| Order No. | Tube ø | D1 | D2 | L1 | L2 | |
|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | |
| **402-004** | | M6 | | 13 | 5.5 | 9 |
| **402-003** | **2.5** | M6×0.75 | M6×0.75 | 13 | 5.5 | 9 |
| **402-006** | | M8×1 | | 15 | 7.5 | 11 |
| **404-004** | | M8×1 | | 24 | 14 | 11 |
| **404-005** | | M8×1 | | 32 | 22 | 11 |
| **404-061** | | M5 | | 20 | 5.5 | 11 |
| **404-063** | | M8 | | 22 | 8 | 11 |
| **404-003** | 4 | M8×1 | M8×1 | 18 | 7.5 | 11 |
| **404-006** | | M10×1 | | 18 | 7.5 | 14 |
| **404-040** | | G 1/8 A | | 18 | 8 | 14 |
| **404-162** | | M12×1 | | 18 | 9 | 17 |
| **404-164** | | M14×1.5 | | 18 | 9 | 17 |
| **406-158** | | M8×1 | | 23 | 7.5 | 14 |
| **406-004** | | M10×1 | | 18 | 7.5 | 14 |
| **406-162** | | M12×1 | | 19 | 9 | 17 |
| **406-054** | 6 | G 1/4 A | M10×1 | 20 | 10 | 17 |
| **301-005** | | M14×1.5 | | 18 | 9 | 17 |
| **406-166** | | M16×1.5 | | 19 | 9 | 19 |
| **406-055** | | G 3/8 A | | 21 | 10 | 22 |
| **408-004** | | M10×1 | | 28 | 7.5 | 17 |
| **408-154** | | G 1/8A | | 29 | 8 | 17 |
| **408-160** | | G 1/4 A | | 30 | 16 | 17 |
| **408-162** | | M12×1 | | 29 | 9 | 17 |
| **301-020** | 8 | G 1/4 A | M14×1.5 | 23 | 10 | 17 |
| **301-001** | | M14×1.5 | | 26 | 9 | 17 |
| **408-005** | | M16×1.5 | | 22 | 9 | 19 |
| **408-006** | | M18×1.5 | | 22 | 10 | 22 |
| **408-022** | | M22×1.5 | | 24 | 12 | 27 |
| **410-160** | | M10×1 | | 30 | 7.5 | 19 |
| **410-162** | | M12×1 | | 31 | 9 | 19 |
| **410-163** | | G 1/4 A | | 30 | 10 | 19 |
| **410-164** | | M14×1.5 | | 29 | 9 | 19 |
| **410-169** | 10 | G 1/4 A | M16×1.5 | 52 | 16 | 19 |
| **410-004** | | M16×1.5 | | 23 | 9 | 19 |
| **410-018** | | M18×1.5 | | 24 | 10 | 22 |
| **410-171** | | G 1/2 A | | 24 | 12 | 27 |
| **410-022** | | M22×1.5 | | 24 | 12 | 27 |
| **412-162** | | M12×1 | | 35 | 9 | 22 |
| **412-163** | | G 1/4A | | 35 | 10 | 22 |
| **412-164** | 12 | M14×1.5 | M18×1.5 | 33 | 9 | 22 |
| **412-169** | | G 1/4 A | | 41 | 16 | 22 |
| **412-004** | | M18×1.5 | | 24 | 10 | 22 |
| **412-014** | | M22×1.5 | | 26 | 12 | 27 |

**Adaptor**




**Adaptors with cylindrical thread to DIN 71428 (sealed by flat washer to DIN 7603)**

| Order No. | Tube ø | D1 | D2 | L1 | L2 | |
|---|---|---|---|---|---|---|
| **Brass** | | | | | | |
| **301-134**[1] | – | M10×1 | G 1/4 | 23 | 7.5 | 17 |
| **301-034**[1] | – | M14×1.5 | G 1/4 | 22 | 9 | 17 |
| **267-001.17** | | G 1/8 A | | 24 | 8 | 14 |
| **406-163** | | M12×1 | | 19 | 9 | 17 |
| **D301-005-MS** | 6 | M14×1.5 | M10×1 | 20 | 9 | 17 |
| **406-167** | | M16×1.5 | | 19 | 9 | 19 |
| **267-001.19** | | M18×1.5 | | 21 | 10 | 22 |
| **D408-004-MS** | | M10×1 | | 29 | 7.5 | 17 |
| **D301-001-MS** | 8 | M14×1.5 | M14×1.5 | 28 | 9 | 17 |
| **D301-020-MS** | | G 1/4 A | | 30 | 10 | 17 |
| **267-001.13** | | G 1/8 A | | 24 | 12 | 27 |
| **Stainless steel** | | | | | | |
| **301-005-S3** | 6 | M14×1.5 | M10×1 | 18 | 9 | 17 |
| **406-004-S3** | 6 | M10×1 | M10×1 | 18 | 7.5 | 14 |
| **406-158-S3** | 6 | M8×1 | M10×1 | 23 | 7.5 | 14 |
| **301-020-S3** | 8 | G 1/4 A | M14×1.5 | 23 | 10 | 17 |

1) Pressure gauge screws: pressure gauge screw unions → page 34.

# Accessories for tubes and hoses

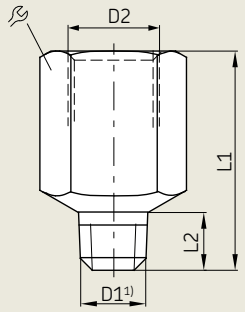
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Adaptors with tapered thread**

Tapered threads are used without washers;
sealed by tapered outer thread and sealant according to DIN 3852-1.
It is not necessary to provide the ports with seal faces.

| Order No. | Tube ø | D1 [1] | D2 | L1 | L2 | |
|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | |
| **402-003K** | 2.5 | M6×0.75 tap. | M6×0.75 | 11.5 | 4.5 | 8 |
| **402-006K** | | M8×1 tap. | | 15 | 8 | 9 |
| **402-008K** | | M10×1 tap. | | 16 | 7.5 | 12 |
| **404-662K** | 4 | M6 tap. | M8×1 | 19 | 5 | 11 |
| **404-663K** | | M6 tap. | | 20 | 6 | 11 |
| **404-673K** | | M6×0.75 tap. | | 20 | 6 | 11 |
| **404-047K** | | M7 tap. | | 20 | 6 | 11 |
| **404-003K** | | M8×1 tap. | | 17 | 7.4 | 11 |
| **404-045** | | M8×1 tap. | | 62.5 | 7.4 | 11 |
| **404-006K** | | M10×1 tap. | | 16 | 7.4 | 11 |
| **401-004-512** | | M10×1 tap. | | 25 | 7.4 | 11 |
| **404-040K** | | R 1/8 tap. | | 16 | 6 | 11 |
| **404-040K-US** | | 1/8 NPTF | | 20 | 6.7 | 11 |
| **404-054K** | | R 1/4 tap. | | 14 | 9 | 14 |
| **404-072** | | 1/4-28 UNF | | 20 | 5.6 | 11 |
| **401-004-903** | | 1/4 BSF | | 20 | 5 | 11 |
| **401-004-904** | | 116 BSF | | 18 | 5 | 11 |
| **406-004K** | 6 | M10×1 tap. | M10×1 | 23 | 7.4 | 14 |
| **456-004K** | | R 1/8 tap. | | 21 | 6 | 14 |
| **406-054K** | | R 1/4 tap. | | 20 | 9 | 17 |

**Adaptor**




1) Tapered thread according to DIN 158. short, resp. according to DIN 2999

**Reducing adapters with cylindrical thread (sealed by flat washer to DIN 7603)**

| Order No. | D1 | D2 | L1 | L2 | | Figure |
|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | |
| **843-130-021** | M3 | | | | | |
| **843-130-022** | M4 | M5 | 22 | 10 | 3 [2] | 2 |
| **843-130-023** | M5 | | | | | |
| **406-044-S1** | M10×1 tap. | G 1/4 | 22.5 | 8 | 17 | |
| **P-78.01** | M12×1 | G 1/4 | 27 | 8.5 | 19 | |
| **401-013-161** | G 1/4 A | G 1/2 | 40 | 12 | 27 | |
| **401-016-371** | M16×1.5 | G 1/4 | 30 | 12 | 19 | |
| **243-001.10** | M16×1.5 | G 1/2 | 31 | 9 | 27 | |
| **267-001.36** | M18×1.5 | G 3/8 | 32 | 10 | 22 | 3 |
| **243-001.20** | M18×1.5 | G 1/2 | 32 | 10 | 27 | |
| **44-1755-2029** | M20×1.5 | G 1/4 | 28 | 12 | 24 | |
| **401-011-132** | G 1/2 A | G 1 | 49 | 14 | 41 | |
| **433-890-131** | G 1/2 A | G 1 1/4 | 53 | 14 | 55 | |
| **401-013-171** | G 3/4 A | G 1/2 | 41 | 16 | 32 | |
| **401-013-111** | G 1 A | G 1/2 | 29 | 18 | 41 | |
| **Brass, galvanized surface** | | | | | | |
| **406-024** | M10×1 | G 1/8 | 20 | 8 | 14 | 3 |
| **Brass** | | | | | | |
| **401-016-312** | M10×1 | G 1/4 | 26.5 | 7.5 | 17 | 3 |
| **401-019-352** | M14×1,5 | G 1/8 | 20 | 9 | 17 | |
| **267-001.47** | G 3/8 A | G 1/4 | 31 | 10 | 22 | 3 |
| **267-001.60** | | G 1/2 | 34 | | 27 | |
| **401-019-132** | G 1/2 A | G 1/8 | 24 | 12 | 27 | 3 |
| **DZ333** | | G 1/4 | 24 | | 27 | |
| **401-013-131** | | G 1/2 | 40,5 | | 27 | |
| **DZ334** | | G 3/8 | 31 | | 27 | |
| **267-001.03** | | G 3/4 | 40 | | 36 | |

2) With female threade

**Figure 2**

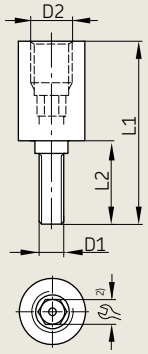
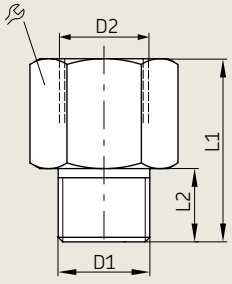



**Figure 3**



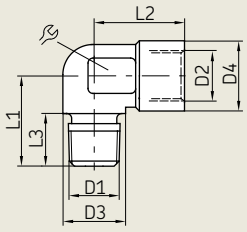
# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Elbows with tapered thread to DIN 71429 (→ Figure 4)**

| Order No. | Tube ø | D1 [1] | D2 | D3 | D4 | L1 | L2 | L3 | |
|---|---|---|---|---|---|---|---|---|---|
| **Die-cast zinc** | | | | | | | | | |
| **504-510K** | 4 | M10×1 tap. | M8×1 | 13 | 13 | 21 | 16 | 10 | |
| **514-018K** | 4 | R 1/8 tap. | M8×1 | 13 | 13 | 21 | 16 | 10 | |
| **506-508K** | 6 | M8×1 tap. | M10×1 | 12,5 | 14 | 18 | 18 | 10,5 | 14 |
| **506-510K** | 6 | M10×1 tap. | M10×1 | 12,5 | 14 | 18 | 18 | 10,5 | |
| **506-512K** | 6 | M12×1 tap. | M10×1 | 12,5 | 14 | 18 | 18 | 10,5 | |
| **508-512K** | 8 | M12×1 tap. | M14×1,5 | 14 | 19,5 | 19,5 | 24 | 10 | |

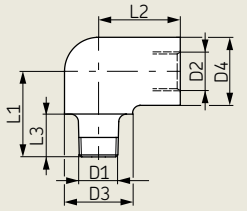
**Figure 4**




**Elbows with tapered thread (→ Figure 5)**

| Order No. | Tube ø | D1 [1] | D2 | D3 | D4 | L1 | L2 | L3 |
|---|---|---|---|---|---|---|---|---|
| **Steel** | | | | | | | | |
| **502-206K** | 2.5 | M6 tap. | M6×0.75 | – | 8 | 10 | 9.5 | 6 |
| **403-006-651** | 6 | R 1/4 tap. | M10×1 | 14 | 14 | 17 | 17.5 | 8.5 |
| **Brass** | | | | | | | | |
| **506-202K** | 6 | M10×1 tap. | M10×1 | 17 | 17 | 22 | 21 | 11 |

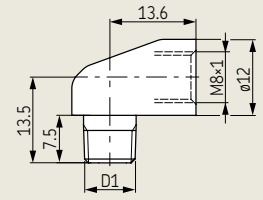
**Figure 5**




**Elbows with tapered thread (→ Figure 6)**

| Order No. | Tube ø | D1 [1] |
|---|---|---|
| **Brass** | | |
| **504-200K** | | M6 tap. |
| **504-201K** | | M8×1 tap. |
| **504-202K** | 4 | M10×1 tap. |
| **504-203K** | | M6x0.75 tap. |
| **514-018K-S1** | | R 1/8 tap. |

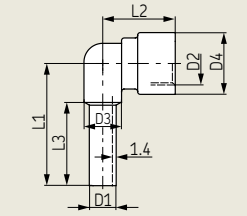
**Figure 6**




**Elbows with tube end for pipe union (→ Figure 7)**
**(for installation in counterbores as per DIN 3854/DIN 3862)**

| Order No. | Tube ø | D1 | D2 | D3 | D4 | L1 | L2 | L3 |
|---|---|---|---|---|---|---|---|---|
| **Brass** | | | | | | | | |
| **DY958** | 6 | 6 | M10×1 | 8 | 14 | 30.8 | 21 | 22 |
| **DY960** | 8 | 8 | M14×1.5 | 11 | 18 | 37 | 24.5 | 27 |
| **DY961** | 10 | 10 | M16×1.5 | 15 | 23 | 42.5 | 26.5 | 29 |
| **DY962** | 12 | 12 | M18×1.5 | 15 | 23 | 46 | 26.5 | 32 |

**Figure 7**

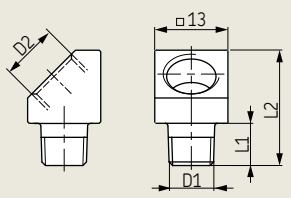



**Elbows**

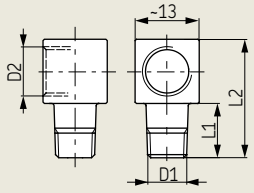
| Order No. | D1 | D2 | L1 | L2 | Fig. |
|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | |
| **406-155K** | R 1/8 tap. | M10×1 | 7.5 | 20.5 | a |
| **406-165K** | R 1/8 tap. | G 1/8 | 7.5 | 20.5 | a |
| **406-145K** | M8×1 tap. | M10×1 | 7.5 | 21 | a |
| **406-045K** | M10×1 tap. | M10×1 | 7.5 | 21 | a |
| **406-094K** | M8×1.25 tap. | M8×1.25 | 11 | 24 | b |
| **406-089K** | M8×1 tap. | M10×1 | 11 | 24 | b |
| **406-090K** | M10×1 tap. | M10×1 | 11 | 24 | b |
| **406-091K** | R 1/8 tap. | G 1/8 | 11 | 24 | b |
| **406-092K** | M10×1 tap. | M10×1 | 17 | 30 | b |
| **406-093K** | R 1/8 tap. | M10×1 | 11 | 24 | b |

**Elbow**

**a)**




**b)**




1) Tapered thread according to DIN 158. short, resp. according to DIN 2999.

# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

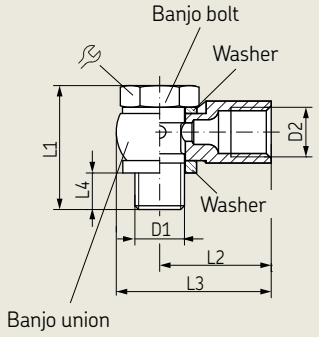
### Banjo fittings to DIN 71430 Form A

**Elbow**

| Order No. | Tube ø | D1 | D2 | L1 | L2 | L3 | L4 | | Banjo bolt [2] | Banjo union [3] |
|---|---|---|---|---|---|---|---|---|---|---|
| **502-161** [1] | 2.5 | M6 | M6×0.75 | 20 | 13 | 19 | 4.5 | 9 | **502-056** | **502-051** |
| **502-101** [1] | 2.5 | M6×0.75 | M6×0.75 | 18 | 13 | 19 | 5 | 9 | **502-053** | **502-051** |
| **502-102** [1] | 2.5 | M8×1 | M6×0.75 | 20 | 14 | 21 | 6.5 | 11 | **502-054** | **502-052** |
| **504-161** [1] | 4 | M6 | M8×1 | 20 | 17 | 24 | 4.1 | 9 | **502-056** | **504-651** |
| **504-162** [1] | 4 | M6×0.75 | M8×1 | 18 | 17 | 24 | 4.5 | 9 | **502-053** | **504-651** |
| **504-411** [1] | 4 | M8 | M8×1 | 23 | 18 | 25 | 7.5 | 11 | **502-154** | **504-851** |
| **504-401** [1] | 4 | M8×1 | M8×1 | 20 | 18 | 25 | 7 | 11 | **502-054** | **504-851** |
| **504-101** | 4 | M8×1 | M8×1 | 26 | 18 | 25 | 6.5 | 11 | **504-073** | **504-072** |
| **504-102** | 4 | M10×1 | M8×1 | 26 | 19 | 27.5 | 6.5 | 14 | **504-054** | **504-052** |
| **504-108** | 4 | G 1/8 A | M8×1 | 27 | 19 | 27.5 | 6.8 | 14 | **504-027** | **504-052** |
| **506-140** | 6 | M10×1 | M10×1 | 26 | 21 | 28.5 | 6.5 | 14 | **504-054** | **506-033** |
| **506-142** | 6 | M12×1 | M10×1 | 34 | 25 | 35.2 | 7.5 | 17 | **558-012** | **506-030** |
| **506-012** | 6 | M14×1.5 | M10×1 | 34 | 25 | 35.2 | 7.5 | 17 | **508-006** | **506-005** |
| **506-145** | 6 | M16×1.5 | M10×1 | 35 | 30 | 41 | 8.7 | 19 | **510-017** | **506-034** |
| **506-108** | 6 | G 1/8 A | M10×1 | 27 | 21 | 28.5 | 7 | 14 | **504-027** | **506-033** |
| **506-214** | 6 | G 1/4 A | M10×1 | 35 | 25 | 35.2 | 8.5 | 17 | **508-023** | **506-005** |
| **508-142** | 8 | M12×1 | M14×1.5 | 34 | 27 | 37 | 7.5 | 17 | **558-012** | **508-030** |
| **508-144** | 8 | M14×1.5 | M14×1.5 | 34 | 27 | 37 | 7.5 | 17 | **508-006** | **508-007** |
| **508-145** | 8 | M16×1.5 | M14×1.5 | 35 | 30 | 41 | 8.7 | 19 | **510-017** | **508-054** |
| **508-024** | 8 | G 1/4 A | M14×1.5 | 35 | 27 | 37 | 8.5 | 17 | **508-023** | **508-007** |
| **510-142** | 10 | M12×1 | M16×1.5 | 34 | 30 | 40 | 7.5 | 17 | **558-012** | **510-041** |
| **510-145** | 10 | M16×1.5 | M16×1.5 | 35 | 30 | 41 | 10.7 | 19 | **510-017** | **510-044** |
| **510-024** | 10 | G 1/4 A | M16×1.5 | 35 | 30 | 40 | 7.5 | 17 | **508-023** | **510-023** |

1) Miniature design, banjo union steel

**Banjo fitting Form A**

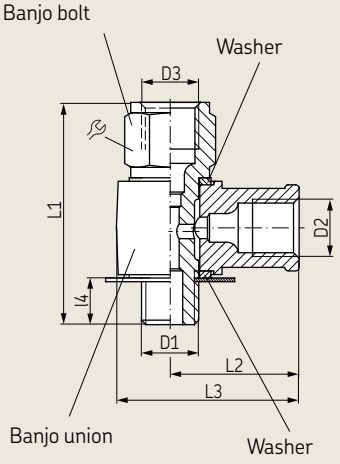



### Banjo fittings to DIN 71430 Form B

**L-Form**

| Order No. | Tube ø | D1 | D2 | D3 | L1 | L2 | L3 | L4 | | Banjo bolt [2] | Banjo union [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **504-114** | 4 | M8×1 | M8×1 | M8×1 | 31 | 18 | 25.5 | 6.5 | 11 | **504-075** | **504-072** |
| **504-115** | 4 | M10×1 | M8×1 | M8×1 | 31 | 19 | 27.5 | 6.5 | 14 | **504-056** | **504-052** |
| **504-105** | 4 / 6 | M10×1 | M8×1 | M10×1 | 33 | 19 | 27.5 | 6.5 | 14 | **506-006** | **504-052** |
| **405-619-061** | 4 / 6 | G 1/8 A | M8×1 | M10×1 | 33 | 19 | 27.5 | 6.3 | 14 | **402-606-191** | **504-052** |
| **506-114** | 6 | M10×1 | M10×1 | M10×1 | 33 | 21 | 28.5 | 6.3 | 14 | **506-006** | **506-033** |
| **506-342** | 6 | M12×1 | M10×1 | M10×1 | 38 | 25 | 35.2 | 7.5 | 17 | **558-612** | **506-030** |
| **506-101** | 6 | M14×1.5 | M10×1 | M10×1 | 40 | 25 | 35.2 | 7.5 | 17 | **508-303** | **506-005** |
| **586-342** | 6 / 8 | M12×1 | M10×1 | M14×1.5 | 44 | 25 | 35.2 | 7.5 | 17 | **558-812** | **506-030** |
| **506-013** | 6 / 8 | M14×1.5 | M10×1 | M14×1.5 | 43 | 25 | 35.2 | 7.5 | 17 | **508-008** | **506-005** |
| **506-345** | 6 / 10 | M12×1 | M10×1 | M16×1.5 | 48.5 | 25 | 35 | 7.7 | 19 | **558-912** | **506-030** |
| **506-346** | 6 / 10 | M16×1.5 | M10×1 | M16×1.5 | 50 | 30 | 41 | 8.7 | 19 | **510-010** | **506-034** |
| **508-342** | 8 | M12×1 | M14×1.5 | M14×1.5 | 44 | 27 | 37 | 7.5 | 17 | **558-812** | **508-030** |
| **508-012** | 8 | M14×1.5 | M14×1.5 | M14×1.5 | 43 | 27 | 37 | 7.5 | 17 | **508-008** | **508-007** |
| **508-034** | 8 | G 1/4 A | M14×1.5 | M14×1.5 | 44 | 27 | 37 | 7.5 | 17 | **508-033** | **508-007** |
| **568-342** | 8 / 6 | M12×1 | M14×1.5 | M10×1 | 38 | 27 | 37 | 7.5 | 17 | **558-612** | **508-030** |
| **508-304** | 8 / 6 | M14×1.5 | M14×1.5 | M10×1 | 40 | 27 | 37 | 7.5 | 17 | **508-303** | **508-007** |
| **508-345** | 8 / 10 | M12×1 | M14×1.5 | M16×1.5 | 48.5 | 27 | 37 | 7.7 | 19 | **558-912** | **508-030** |
| **508-346** | 8 / 10 | M16×1.5 | M14×1.5 | M16×1.5 | 50 | 30 | 41 | 8.7 | 19 | **510-010** | **508-054** |
| **510-342** | 10 | M12×1 | M16×1.5 | M16×1.5 | 48.5 | 30 | 40 | 7.5 | 19 | **558-912** | **510-041** |
| **510-344** | 10 | M16×1.5 | M16×1.5 | M16×1.5 | 50 | 30 | 41 | 8.7 | 19 | **510-010** | **510-044** |
| **510-343** | 10 | G 1/4 A | M16×1.5 | M16×1.5 | 48.5 | 30 | 40 | 7.5 | 19 | **558-913** | **510-023** |
| **510-346** | 10 / 6 | M16×1.5 | M16×1.5 | M10×1 | 50 | 30 | 41 | 8.7 | 19 | **506-018** | **510-044** |
| **510-341** | 10 / 8 | M12×1 | M16×1.5 | M14×1.5 | 44 | 30 | 40 | 7.5 | 17 | **558-812** | **510-041** |

**Banjo fitting Form B**




2) Material banjo bolt: steel, galavanized surface
3) Material banjo union: die-cast zinc

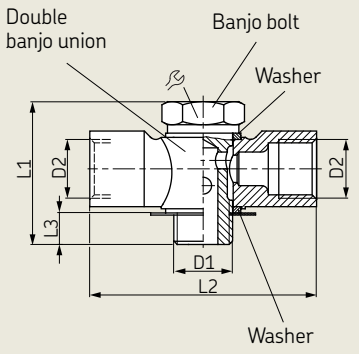
# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

### Banjo fittings to DIN 71430 Form C

| Tee<br>Order No. | Tube ø | D1 | D2 | L1 | L2 | L3 | | Banjo bolt [1] | Double banjo union [2] |
|---|---|---|---|---|---|---|---|---|---|
| **504-109** | 4 | M8×1 | M8×1 | 26 | 38 | 6.5 | 11 | **504-073** | **504-071** |
| **504-112** | 4 | M10×1 | M8×1 | 26 | 38 | 6.5 | 14 | **504-054** | **504-051** |
| **506-242** | 6 | M12×1 | M10×1 | 34 | 48 | 7.5 | 17 | **558-012** | **506-032** |
| **506-025** | 6 | M14×1.5 | M10×1 | 34 | 48 | 7.5 | 17 | **508-006** | **506-007** |
| **508-242** | 8 | M12×1 | M14×1.5 | 34 | 54 | 7.5 | 17 | **558-012** | **508-032** |
| **508-013** | 8 | M14×1.5 | M14×1.5 | 34 | 54 | 7.5 | 17 | **508-006** | **508-005** |
| **508-025** | 8 | G 1/4 A | M14×1.5 | 35 | 54 | 7.5 | 17 | **508-023** | **508-005** |
| **510-242** | 10 | M12×1 | M16×1.5 | 34 | 60 | 7.5 | 17 | **558-012** | **510-042** |

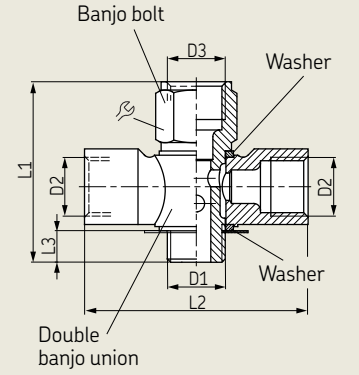
**Banjo fitting Form C**




### Banjo fittings to DIN 71430 Form D

| Cross<br>Order No. | Tube ø | D1 | D2 | D3 | L1 | L2 | L3 | | Banjo bolt [1] | Double banjo union [2] |
|---|---|---|---|---|---|---|---|---|---|---|
| **504-110** | 4 | M8×1 | M8×1 | M8×1 | 31 | 38 | 6.5 | 11 | **504-071** | **504-071** |
| **504-111** | 4 | M10×1 | M8×1 | M8×1 | 31 | 38 | 6.5 | 14 | **504-056** | **504-051** |
| **504-106** | 4 / 6 | M10×1 | M8×1 | M10×1 | 33 | 38 | 6.5 | 14 | **506-006** | **504-051** |
| **506-442** | 6 | M12×1 | M10×1 | M10×1 | 38 | 48 | 7.5 | 17 | **558-612** | **506-032** |
| **506-014** | 6 | M14×1.5 | M10×1 | M10×1 | 40 | 48 | 7.5 | 17 | **508-303** | **506-007** |
| **586-442** | 6 / 8 | M12×1 | M10×1 | M14×1.5 | 44 | 48 | 7.5 | 17 | **558-812** | **506-032** |
| **506-026** | 6 / 8 | M14×1.5 | M10×1 | M14×1.5 | 43 | 48 | 7.5 | 17 | **508-008** | **506-007** |
| **508-442** | 8 | M12×1 | M14×1.5 | M14×1.5 | 44 | 54 | 7.5 | 17 | **558-812** | **508-032** |
| **508-014** | 8 | M14×1.5 | M14×1.5 | M14×1.5 | 43 | 54 | 7.5 | 17 | **508-008** | **508-005** |
| **568-442** | 8 / 6 | M12×1 | M14×1.5 | M10×1 | 38 | 54 | 7.5 | 17 | **558-612** | **508-032** |
| **508-305** | 8 / 6 | M14×1.5 | M14×1.5 | M10×1 | 40 | 54 | 7.5 | 17 | **508-303** | **508-005** |
| **510-442** | 10 | M12×1 | M16×1.5 | M16×1.5 | 48.5 | 60 | 7.5 | 19 | **558-912** | **210-042** |

**Banjo fitting Form D**

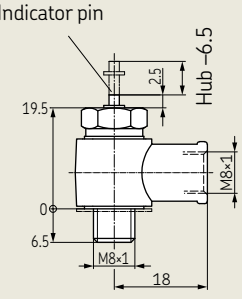



1) Material banjo bolt: steel, galavanized surface
2) Material banjo union: die-cast zinc

### Banjo fitting with indicator pin for lubricant distributor

| Order No. | Tube ø |
|---|---|
| **169-200-008** | 4 |

**Banjo fitting with indicator pin**



# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

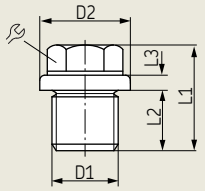
### Screw plugs (sealed by flat washer to DIN 7603)

| Order No. | D1 | D2 | L1 | L2 | L3 | | Fig. |
|---|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | | |
| **DIN910-R1-8-5.8** | G 1/8 A | 14 | 17 | 8 | 3 | 11 | |
| **DIN910-R1-4×8-5.8** | G 1/4 A | 18 | 17 | 8 | 3 | 14 | |
| **DIN910-R3-8-5.8** | G 3/8 A | 22 | 21 | 12 | 3 | 17 | |
| **DIN910-R1-2-5.8** | G 1/2 A | 26 | 26 | 14 | 4 | 19 | a |
| **DIN910-R3-4-5.8** | G 3/4 A | 32 | 30 | 16 | 4 | 24 | |
| **DIN910-R1-5.8** | G 1 A | 39 | 32 | 16 | 5 | 27 | |
| **402-011** | M6×0.75 | – | 9 | 5 | – | 10 | |
| **404-011** | M8×1 | – | 9.5 | 5.5 | – | 11 | |
| **406-011** | M10×1 | – | 12 | 7 | – | 12 | |
| **408-211** | M12×1 | – | 12 | 7 | – | 17 | b |
| **408-011** | M14×1.5 | – | 12 | 7 | – | 17 | |
| **410-011** | M16×1.5 | – | 14 | 8 | – | 19 | |
| **412-011** | M18×1.5 | – | 15 | 10 | – | 22 | |
| **DIN 908-M10×1-5.8** | M10×1 | 14 | 11 | 8 | 3 | 5 [1] | |
| **DIN 908-M12×1,5-5.8** | M12×1.5 | 17 | 15 | 12 | 3 | 6 [1] | c |
| **DIN 908-M14×1,5-5.8** | M14×1.5 | 19 | 15 | 12 | 3 | 6 [1] | |
| **DIN 908-G1-8A-5.8** | G 1/8 A | 14 | 11 | 8 | 3 | 5 [1] | |
| **DIN 908-G1-4A-5.8** | G 1/4 A | 18 | 15 | 12 | 3 | 6 [1] | c |
| **DIN 908-G3-8A-5.8** | G 3/8 A | 22 | 15 | 12 | 3 | 8 [1] | |

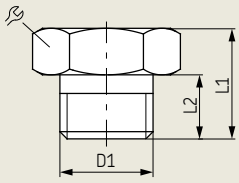
1) Hexagon socket

**Screw plugs**

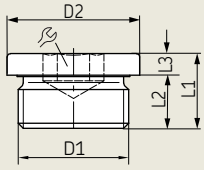
a)




b)



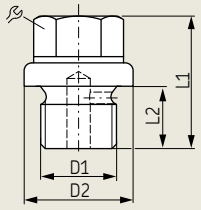

c)




### Vent plugs (sealed by flat washer to DIN 7603)

| Order No. | D1 | D2 | L1 | L2 | |
|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | |
| **833-020-022** | M8×1 | 12 | 13.5 | 7.5 | 11 |
| **833-330-016** | M 10×1 | 14 | 17 | 8 | 11 |
| **44-1855-6021** | M12×1 | 17 | 13.5 | 7.5 | 17 |
| **833-330-021** | G 1/8 A | 14 | 17 | 8 | 11 |
| **833-340-034** | G 1/4 | 18 | 17 | 8 | 14 |

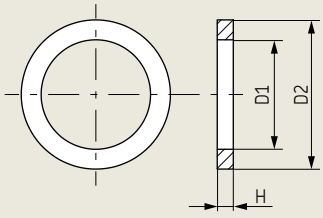
**Vent plug**




### Flat washers

| Order No. | D1 | D2 | H | Suitable for thread mm | inches |
|---|---|---|---|---|---|
| **Aluminum** | | | | | |
| **504-019-AL** | 10.2 | 13.9 | 1.1 | M10 | G 1/8 |
| **Copper** | | | | | |
| **DIN7603-A6×10-CU** | 6.2 | 9.9 | 1 | M6 | – |
| **DIN7603-A8×11.5-CU** | 8.2 | 11.4 | 1 | M8 | – |
| **504-019** | 10.2 | 13.9 | 1.1 | M10 | G 1/8 |
| **508-215-CU** | 12.2 | 15.9 | 1.4 | M12 | – |
| **508-320-CU** | 12.2 | 15.9 | 2 | M12 | – |
| **DIN7603-A12×18-CU** | 12.2 | 14.9 | 1 | M12 | – |
| **508-108** | 13.3 | 17.9 | 1.5 | – | G 1/4 |
| **DIN7603-A14×18-CU** | 14.2 | 17.9 | 1.5 | M14 | – |
| **DIN7603-A16×20-CU** | 16.2 | 19.9 | 1.5 | M16 | – |
| **DIN7603-A17×21-CU** | 17.2 | 20.9 | 1.5 | – | G 3/8 |
| **DIN7603-A18×22-CU** | 18.2 | 21.9 | 1.5 | M18 | – |
| **DIN7603-A20×24-CU** | 20.2 | 23.9 | 1.5 | M20 | – |
| **DIN7603-A21×26-CU** | 21.2 | 25.9 | 1.5 | – | G 1/2 |
| **DIN7603-A22×27-CU** | 22.2 | 26.9 | 1.5 | M22 | – |
| **DIN7603-A27×32-CU** | 27.3 | 31.9 | 2 | M27 | – |
| **DIN7603-A30×36-CU** | 30.3 | 35.9 | 2 | M30 | – |
| **DIN7603-A33×39-CU** | 33.3 | 38.9 | 2 | M33 | – |

**Flat washer**




More screw plugs → page 39

# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Threaded sockets (→ Figure 8)**

| Order No. | D1 | L1 | |
|---|---|---|---|
| **Steel** | | | |
| **404-203** | M8×1 | 13 | 3.5 |
| **406-203** | M10×1 | 15 | 3.5 |
| **406-243-B** [1] | M10×1 | 18 | 3.5 |
| **408-243-B** [1] | M12×1 | 19 | 5.5 |
| **458-012** | M12×1 | 17 | 5.5 |
| **458-012-B** [1] | M12×1 | 17 | 5.5 |
| **408-023** | M14×1.5 | 18 | 5.5 |
| **410-003** | M16×1.5 | 19 | 7 |
| **410-003-B** [1] | M16×1.5 | 19 | 7 |
| **Stainless steel** | | | |
| **408-033-S3** | G 1/4 A | 15 | 5.5 |

1) Coated with microencapsulated adhesive

**Figure 8**

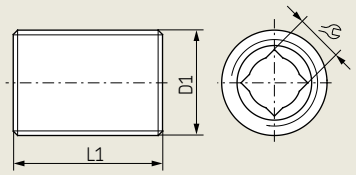
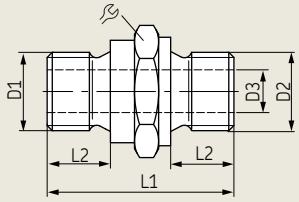


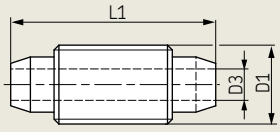

**Figure 9**




**Threaded sockets**

| Order No. | D1 | D2 | D3 | L1 | L2 | | Figure |
|---|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | | |
| **406-103** | M10×1 | M12×1 | 5 | 20 | 6 | 14 | |
| **408-103** | M12×1 | M14×1.5 | 6 | 21 | 7 | 17 | 9 |
| **853-750-024** | G 1/4 A | G 1/4 A | 7 | 31 | 10.5 | 19 | |
| **Brass** | | | | | | | |
| **406-233** | M10×1 | – | 4 | 26 | – | – | 10 |

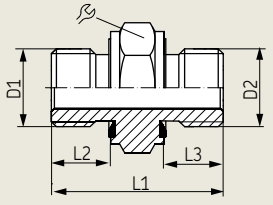
**Figure 10**




**Threaded sockets with profile sealing according to DIN 3869 (→ Figure 11)**

| Order No. | D1 | D2 | L1 | L2 | L3 | | Seal |
|---|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | | |
| **402-116-161** | G 1/4 A | G 1/4 A | 29 | 10 | 10 | 19 | NBR |
| **402-116-165** | G 1/2 | G 1/2 | 37 | 10 | 12 | 32 | |

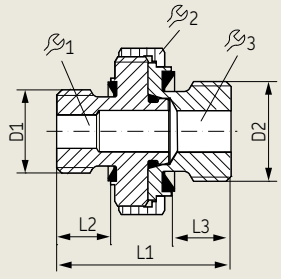
**Figure 11**




**Threaded sockets with profile sealing according to DIN 3869 (→ Figure 12)**
Leak-free connectors with soft seal. continuously adjustable

| Order No. | D1 | D2 | L1 | L2 | L3 | 1 | 2 | 3 | Seal |
|---|---|---|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | | | | |
| **995-014-014** | G 1/4 | G 1/4 | 26 | 8 | 8 | 4 | 24 | 5 | |
| **Brass** | | | | | | | | | |
| **995-340-000** | M10×1 | M10×1 | 19.5 | 6.5 | 6.5 | 4 | 16 | 4 | |
| **995-340-350** | M10×1 | M12×1 | 21 | 6.5 | 7.2 | 4 | 19 | 5 | NBR |
| **995-350-000** | M12×1 | M12×1 | 21.5 | 7 | 7.2 | 5 | 19 | 5 | |
| **995-340-000-S8** | M10×1 | M10×1 | 19.5 | 6.5 | 6.5 | 4 | 16 | 4 | |
| **995-340-350-S8** | M10×1 | M12×1 | 21 | 6.5 | 7.2 | 4 | 19 | 5 | FKM |
| **995-350-000-S8** | M12×1 | M12×1 | 21.5 | 7 | 7.2 | 5 | 19 | 5 | |

**Figure 12**



# Accessories for tubes and hoses

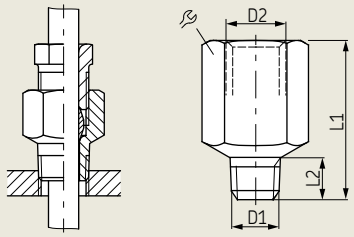
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Bulkhead connectors with tapered thread**
**(for tight tube feedthrough through a wall without tube discontinuity)**

| Order No. | Tube ø | D1[1)] | D2 | L1 | L2 | |
|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | |
| **404-003DK** | 4 | M8×1 tap. | M8×1 | 17 | 7.4 | 11 |
| **404-006DK** | 4 | M10×1 tap. | M8×1 | 16 | 7.4 | 11 |
| **406-004DK** | 6 | M10×1 tap. | M10×1 | 18 | 7.4 | 14 |
| **301-001DK** | 8 | M14×1.5 tap. | M14×1.5 | 24 | 11 | 17 |
| **410-004DK** | 10 | M16×1.5 tap. | M16×1.5 | 24 | 11 | 19 |

1) Tapered thread according to DIN 158. short

**Bulkhead connector**

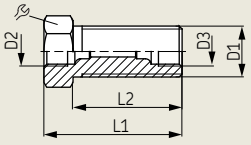



**Straight bulkhead fittings according to DIN 71429 Form A**

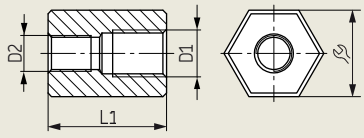
| Order No. | Tube ø | D1 | D2 | D3 | L1 | lL2 | | Fig. |
|---|---|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | | | |
| **404-008** | 4 | M14×1.5 | M8×1 | M8×1 | 27 | 19 | 17 | |
| **404-009** | 4 | M14×1.5 | M8×1 | M8×1 | 38 | 30 | 17 | |
| **406-008** | 6 | M14×1.5 | M10×1 | M10×1 | 30 | 20 | 17 | |
| **406-005** | 6 / 8 | M16×1.5 | M14×1.5 | M10×1 | 35 | 23 | 19 | a |
| **408-008** | 8 | M20×1.5 | M14×1.5 | M14×1.5 | 40 | 28 | 24 | |
| **410-008** | 10 | M20×1.5 | M16×1.5 | M16×1.5 | 42 | 27 | 24 | |
| **412-008** | 12 | M24×1.5 | M18×1.5 | M18×1.5 | 48 | 33 | 27 | |
| **44-1755-2019** | 4 | G 1/4 | M10×1 | – | 33 | | 24 | b |

**Straight bulkhead fitting**

a)



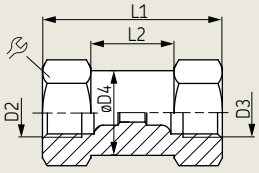

b)




**Connectors**

| Order No. | Tube ø | D2 | D3 | ø D4 | L1 | L2 | |
|---|---|---|---|---|---|---|---|
| **Steel, galvanized surface** | | | | | | | |
| **404-010** | 4 | M8×1 | M8×1 | 10.8 | 27 | 13 | 11 |
| **406-010** | 6 | M10×1 | M10×1 | 13.8 | 30 | 10 | 14 |
| **406-805** | 6 / 8 | M14×1.5 | M10×1 | 16.8 | 35 | 11 | 17 |
| **408-010** | 8 | M14×1.5 | M14×1.5 | 16.8 | 40 | 14 | 17 |
| **410-010** | 10 | M16×1.5 | M16×1.5 | 18.8 | 42 | 13 | 19 |
| **412-010** | 12 | M18×1.5 | M18×1.5 | 21.8 | 48 | 18 | 22 |

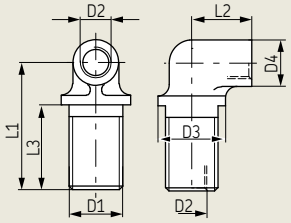
**Connector**




**Elbow bulkhead fittings according to DIN 71429 Form B**

| Order No. | Tube ø | D1 | D2 | D3 | D4 | L1 | L2 | L3 |
|---|---|---|---|---|---|---|---|---|
| **Die-cast zinc** | | | | | | | | |
| **504-003** | 4 | M14×1.5 | M8×1 | 18 | 12 | 33 | 16 | 22 |
| **Brass** | | | | | | | | |
| **504-103** | 4 | M14×1.5 | M8×1 | 18 | 12 | 33 | 18 | 22 |
| **506-004** | 6 | | M10×1 | 16.5 | 14 | 27 | 17.5 | 15 |

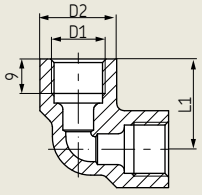
**Elbow bulkhead fitting**




**Elbows to DIN 71433 Form C**

| Order No. | Tube ø | D1 | D2 | L1 |
|---|---|---|---|---|
| **Die-cast zinc** | | | | |
| **408-013** | 8 | M14×1.5 | 20 | 23.5 |
| **410-013** | 10 | M16×1.5 | 21 | 26 |

**Elbow**



# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Bracketed connectors**

| Order No. | Tube ø | Fig. |
|---|---|---|
| **Die-cast zinc** | | |
| **504-004** | 4 | a |
| **Brass** | | |
| **506-010** | 6 | b |

**Bracketed connectors**

| Order No. | Tube ø | D1 | B | H | L1 | Fig. |
|---|---|---|---|---|---|---|
| **Aluminum** | | | | | | |
| **DAR506** | 6 | M10×1 | 15 | 20 | 12 | c |
| **DAR508** | 8 | M14×1.5 | 20 | 25 | 15 | |

**Bracketed connectors**

| Order No. | Tube ø | D1 | D2 | Fig. |
|---|---|---|---|---|
| **Steel, galvanized surface** | | | | |
| **DAR510** | 10 | M16×1.5 | M16×1.5 | d |
| **DAR510-S1** | 8 / 10 | M14×1.5 | | |

**Bracketed connectors**

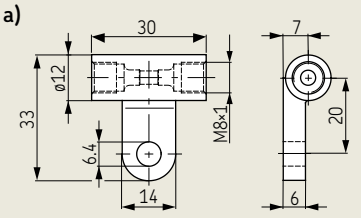
| Order No. | Tube ø | Fig. |
|---|---|---|
| **Steel, galvanized surface** | | |
| **DAR524** | 4 | e |
| **DAR534** | 4 | f |

**Tube-to-tube-connector with air vent**

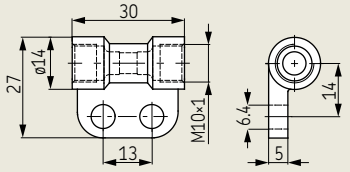
| Order No. | Tube ø | D1 | B | H | L1 |
|---|---|---|---|---|---|
| **Aluminum** | | | | | |
| **995-001-104** | 4 | M8×1 | 20 | 50 | 40 |
| **995-001-106** | 6 | M10×1 | | | |

**Bracketed connectors**

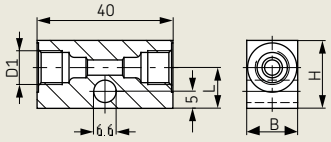
a)



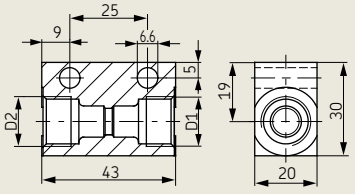

b)



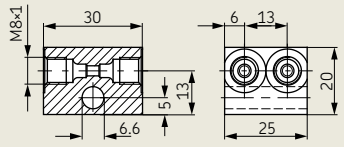

c)



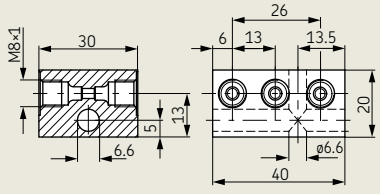

d)



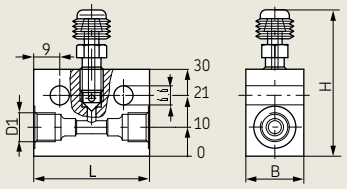

e)




f)




**Tube-to-tube-connector with air vent**



# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Tee connectors to DIN 71433**

| Order No. | Tube ø | D1 | D2 | D3 | L1 | L2 | Fig. |
|---|---|---|---|---|---|---|---|
| **Die-cast zinc** | | | | | | | |
| **Form A** | | | | | | | |
| **504-008** | 4 | M8×1 | M8×1 | 12 | 15 | 30.5 | |
| **506-008** | 6 | M10×1 | M10×1 | 14 | 18 | 36 | a |
| **510-102** | 10 | M16×1.5 | M16×1.5 | 20 | 25 | 50 | |
| **Form B** | | | | | | | |
| **506-408** | 6 / 4 | M10×1 | M8×1 | 14 | 18 | 36 | |

**Tee connectors to DIN 71433**

| Order No. | Tube ø | D2 | Fig. |
|---|---|---|---|
| **Die-cast zinc** | | | |
| **Form B** | | | |
| **508-602-2** | 8 / 6 | M10×1 | |
| **Form A** | | | b |
| **508-002-2** | 8 | M14×1.5 | |

**Tee connectors to DIN 71433 Form A**

| Order No. | Tube ø | Fig. |
|---|---|---|
| **Die-cast zinc** | | |
| **504-045** | 4 | c |
| **Brass** | | |
| **DY964** | 6 | d |

**Tee connectors to DIN 71433**

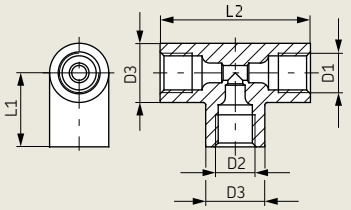
| Order No. | Tube ø | D1 | D2 | D3 | A | B | C | H | H1 | L1 | L2 | Fig. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Aluminum** | | | | | | | | | | | | |
| **Form A** | | | | | | | | | | | | |
| **DAT506** | 6 | M10×1 | M10×1 | 6.6 | 22 | 20 | 9 | 30 | 9 | 40 | 20 | |
| **DAT508** | 8 | M14×1.5 | M14×1.5 | 6.6 | 32 | 20 | 9 | 40 | 9 | 50 | 29 | e |
| **DAT512** | 12 | M18×1.5 | M18×1.5 | 6.6 | 42 | 25 | 9 | 40 | 9 | 60 | 29 | |
| **Form B** | | | | | | | | | | | | |
| **DAT510-S5** | 6 | M16×1.5 | M10×1 | 7 | 25 | 25 | 13.5 | 40 | 15 | 52 | 29 | |
| **Steel, galvanized surface** | | | | | | | | | | | | |
| **Form A** | | | | | | | | | | | | |
| **DAT510** | 10 | M16×1.5 | M16×1.5 | 7 | 25 | 20 | 13.5 | 40 | 15 | 52 | 29 | e |

**Tee connectors to DIN 71433 Form B**

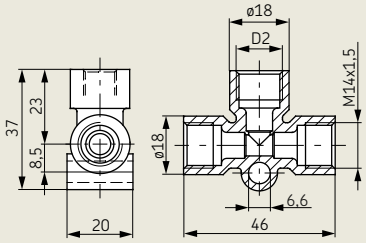
| Order No. | Tube ø | Fig. |
|---|---|---|
| **Steel, galvanized surface** | | |
| **DAT510-S1** | 8 (1×)<br>10 (2×) | f |

**Tee connectors**

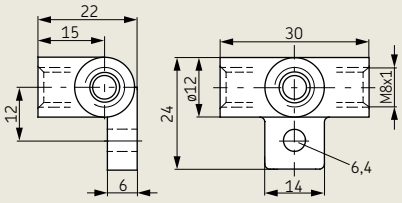
a)



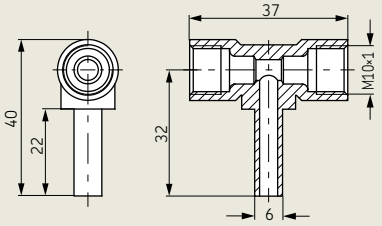

b)



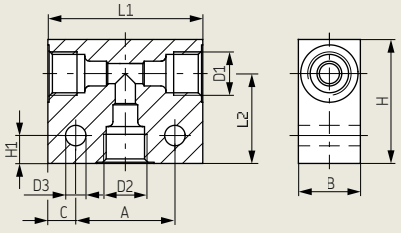

c)



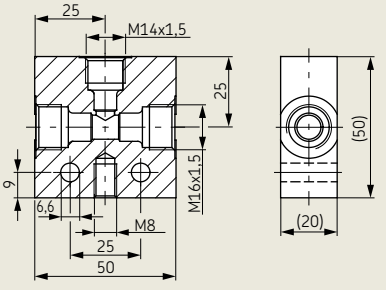

d)




e)




f)



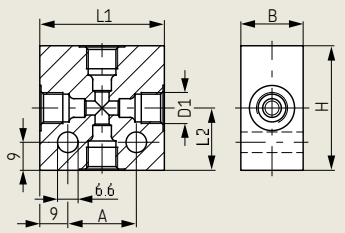
# Accessories for tubes and hoses

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Cross joints**

| Order No. | Tube ø | D1 | A | B | H | L1 | L2 |
|---|---|---|---|---|---|---|---|
| **Aluminum** | | | | | | | |
| **DAK504-S1** | 4/6 | M10×1/ M8×1 | 22 | 20 | 40 | 40 | 20 |
| **DAK506** | 6 | M10×1 | 22 | 20 | 40 | 40 | 20 |
| **DAK508** | 8 | M14×1.5 | 32 | 20 | 50 | 50 | 25 |
| **DAK510** | 10 | M16×1.5 | 25 | 20 | 56 | 50 | 28 |
| **DAK512** | 12 | M18×1.5 | 42 | 25 | 60 | 60 | 30 |

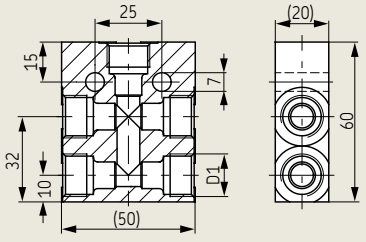
**Cross joint**




**Cross joint**

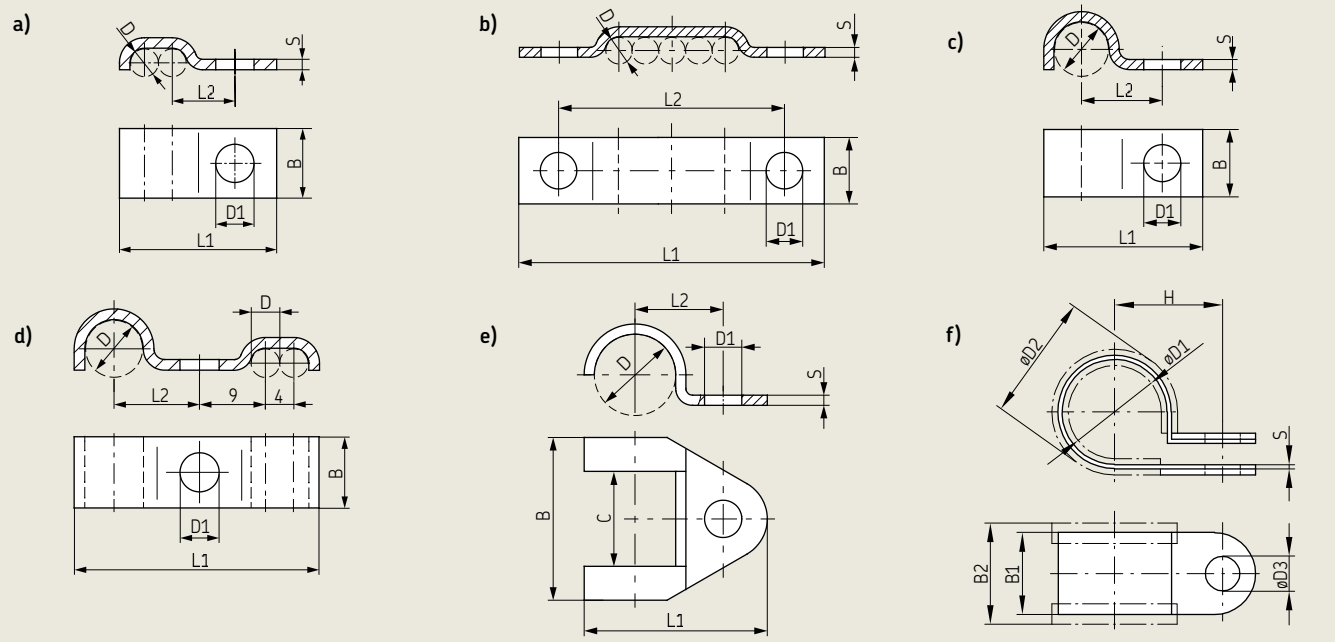
| Order No. | Tube ø | D1 |
|---|---|---|
| **Steel, galvanized surface** | | |
| **DAK510-S1** | 10 | M16×1.5 |

**Cross joint DAK510-S1**



# Accessories for tubes and hoses

**Fixing clips**




**Fixing clips**

| Order No. | for tube øD | for tube | B | D1 | L1 | L2 | S | Fig. |
|---|---|---|---|---|---|---|---|---|
| **Mild steel** | | | | | | | | |
| **602-002** | 2.5 | 2 | | 3.5 | 13.8 | 5 | | |
| **604-002** | 4 | 2 | 10 | 5.5 | 22.6 | 9 | 1.5 | a |
| **604-003** | 4 | 3 | | 5.5 | 26.6 | 9 | | |
| **604-014** | 4 | 4 | | | 42 | 30 | | |
| **604-015** | 4 | 5 | 10 | 5.5 | 46 | 34 | 1.5 | b |
| **604-016** | 4 | 6 | | | 50 | 38 | | |
| **604-018** | 4 | 8 | | | 58 | 46 | | |
| **DIN 72573-2×6-ST** | 6 | 2 | | | 39 | 27 | | |
| **DIN 72573-3×6-ST** | 6 | 3 | | | 45 | 33 | | |
| **DIN 72573-4×6-ST** | 6 | 4 | | | 51 | 39 | | |
| **DIN 72573-5×6-ST** | 6 | 5 | | | 57 | 45 | | |
| **DIN 72573-6×6-ST** | 6 | 6 | | | 64 | 52 | | |
| **DIN 72573-2×8-ST** | 8 | 2 | | | 43 | 31 | | |
| **DIN 72573-3×8-ST** | 8 | 3 | 10 | 4.8 | 51 | 39 | 1 | b |
| **DIN 72573-4×8-ST** | 8 | 4 | | | 59 | 47 | | |
| **DIN 72573-5×8-ST** | 8 | 5 | | | 68 | 56 | | |
| **DIN 72573-6×8-ST** | 8 | 6 | | | 76 | 64 | | |
| **DIN 72573-2×10-ST** | 10 | 2 | | | 45 | 33 | | |
| **DIN 72573-3×10-ST** | 10 | 3 | | | 55 | 43 | | |
| **DIN 72573-4×10-ST** | 10 | 4 | | | 67 | 55 | | |
| **DIN 72573-5×10-ST** | 10 | 5 | | | 77 | 65 | | |
| **Stainless steel** | | | | | | | | |
| **DIN72571-1×6** | 6 | 1 | | | 20.5 | 10 | | |
| **DIN72573-1×6** | 6 | 1 | | | 32 | 20 | | |
| **DIN72573-2×6** | 6 | 2 | | | 38 | 26 | | |
| **DIN72573-3×6** | 6 | 3 | 10 | 4.8 | 45 | 33 | 1 | b |
| **DIN72573-4×6** | 6 | 4 | | | 51 | 39 | | |
| **DIN72573-5×6** | 6 | 5 | | | 57 | 45 | | |
| **DIN72573-6×6** | 6 | 6 | | | 64 | 52 | | |

**Fixing clips**

| Order No. | for tube øD | B | C | D1 | L1 | L2 | S | Fig. |
|---|---|---|---|---|---|---|---|---|
| **Steel** | | | | | | | | |
| **602-001** | 2.5 | | | 3.5 | 11.25 | 5 | | |
| **604-001** | 4 | | | 5.5 | 18.5 | 9 | | |
| **606-010** | 6 | 10 | – | 5.5 | 20.5 | 10 | 1.5 | c |
| **608-001** | 8 | | | 5.5 | 23.5 | 12 | | |
| **610-001** | 10 or 1/8" | | | 5.5 | 25.5 | 13 | | |
| **612-001** | 12 | 20 | – | 6.8 | 35 | 18 | 2 | c |
| **608-003** | 8 / 4 | 10 | – | 5.5 | 34 | 12 | 1.5 | d |
| **604-004** | 12 | 24 | 14 | 5.5 | 27 | 13 | 1.5 | |
| **606-014** | 14 or 1/4" | 30 | 15 | 6.3 | 32.5 | 16 | 2 | e |
| **608-004** | 18 or 3/8" | 36 | 20 | 7 | 40 | 21 | 2 | |
| **610-004** | 20 or 1/2" | 36 | 20 | 7 | 40 | 21 | 2 | |

**Fixing clips**

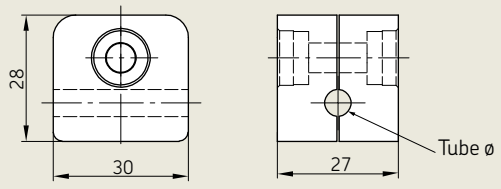
| Order No. | ø D1 | ø D2 | ø D3 | B1 | B2 | H | S | Fig. |
|---|---|---|---|---|---|---|---|---|
| **Steel, galvanized** | | | | | | | | |
| **941-206-104** | 6 | 11.8 | 5.2 | 12 | 15 | 11 | 0.5 | |
| **941-206-108** | 6 | 11.8 | 6.4 | 15 | 18.5 | 4.2 | 0.6 | |
| **941-208-108** | 8 | 15.4 | 6.4 | 15 | 18.5 | 15.2 | 0.6 | |
| **941-209-104** | 9 | 5 | 5.2 | 12 | 5 | 12.5 | 0.5 | |
| **941-209-105** | 9 | 15 | 6.4 | 15 | 18.5 | 15.7 | 0.6 | |
| **941-210-104** | 10 | 17.4 | 6.4 | 15 | 18.5 | 16.2 | 0.6 | |
| **941-212-104** | 12 | 19.4 | 6.4 | 15 | 18.5 | 17.2 | 0.6 | |
| **941-213-104** | 13 | 20.4 | 6.4 | 15 | 18.5 | 7.7 | 0.6 | f |
| **941-215-104** | 15 | 22.4 | 6.4 | 5 | 18.5 | 18.7 | 0.8 | |
| **941-217-104** | 17 | 23 | 5.2 | 12 | 15 | 16.5 | 0.5 | |
| **941-217-105** | 17 | 23 | 6.4 | 15 | 8.5 | 19.7 | 0.8 | |
| **941-218-101** | 18 | 24 | 6.4 | 15 | 8.5 | 20.2 | 0.6 | |
| **941-220-104** | 20 | 27.6 | 6.4 | 15 | 8.5 | 21.2 | 0.8 | |
| **941-222-100** | 22 | 28 | 6.4 | 15 | 18.5 | 22.2 | 0.8 | |
| **941-225-104** | 25 | 31 | 6.4 | 15 | 18.5 | 23.7 | 0.8 | |

# Accessories for tubes and hoses

**Pipe bracket to DIN 3015**

| Order No. | Tube ø |
|---|---|
| **941-606-000** | 6 |
| **941-608-000** | 8 |
| **941-610-000** | 10 |

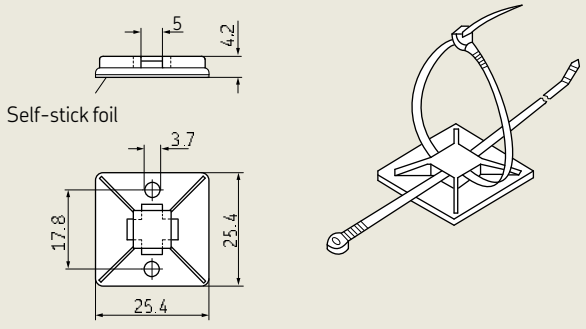
**Pipe bracket 941-606-000**




**Mounting base**

| Order No. |
|---|
| **179-990-186** |

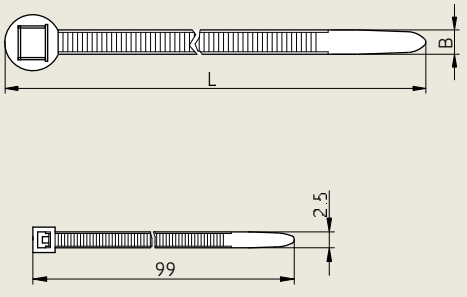
**Mounting base**




**Cable strap**

| Order No. | L | B |
|---|---|---|
| **Polyamide** | | |
| **898-610-000** | 197 | 4.9 |
| **898-710-000** | 302 | 4.9 |
| **898-710-001** | 360 | 7.5 |
| **For automatic pincers:** | | |
| **Polyamide** | | |
| **898-510-000** | | 1 piece |

**Cable strap**



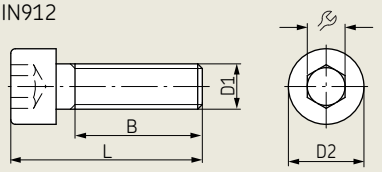
# Accessories for tubes and hoses

## Fixing bolts

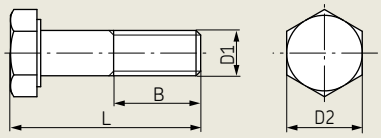
| Order No. | D1 | L | D2 | B | |
|---|---|---|---|---|---|
| **Steel** | | | | | |
| **DIN912-M4×20-8.8** | M4 | 20 | 7 | 14 | 3 |
| **DIN912-M6×16-8.8** | M6 | 16 | 10 | 18 | 5 |
| **DIN912-M6×25-8.8** | M6 | 25 | 10 | 18 | 5 |
| **DIN912-M6×60-8.8** | M6 | 60 | 10 | 18 | 5 |
| **DIN912-M8×16-8.8** | M8 | 16 | 13 | 12 | 6 |
| **DIN931-M6×30-5.8** | M6 | 30 | 10 | 18 | 10 |
| **DIN933-M4×10-8.8** | M4 | 10 | 7 | 14 | – |
| **DIN933-M5×12-8.8** | M5 | 12 | 8 | 16 | – |
| **DIN933-M6×16-8.8** | M6 | 16 | 10 | 18 | – |
| **DIN933-M6×20-8.8** | M6 | 20 | 10 | 18 | – |
| **DIN933-M6×25-8.8** | M6 | 25 | 10 | 18 | – |
| **DIN933-M8×20-8.8** | M8 | 20 | 13 | 22 | – |
| **DIN933-M8×25-8.8** | M8 | 25 | 13 | 22 | – |
| **DIN933-M10×40-8.8** | M10 | 40 | 17 | 26 | – |
| **DIN7513-BM4×20** | M4 | 20 | 7 | – | – |
| **DIN7513-BM4×25** | M4 | 25 | 7 | – | – |
| **DIN7513-BM5×10** | M5 | 10 | 8.5 | – | – |
| **DIN7513-BM6×16** | M6 | 16 | 10 | – | – |
| **DIN7513-BM6×25** | M6 | 25 | 10 | – | – |
| **Stainless steel** | | | | | |
| **DIN912-M3×8-A4** | M3 | 8 | – | – | – |
| **DIN912-M4×12-A4** | M4 | 12 | – | – | – |
| **DIN912-M5×10-A2** | M5 | 10 | – | – | – |

**Fixing bolts**

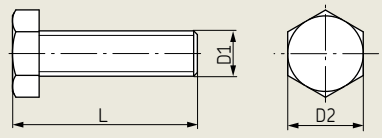
DIN912




DIN931 / DIN933



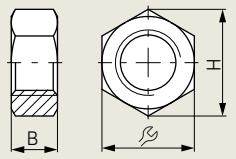

DIN7513




## Hexagon nuts

| Order No. | Thread | B | | H |
|---|---|---|---|---|
| **Steel** | | | | |
| **DIN934-M5-8** | M5 | 4 | 8 | 9.2 |
| **DIN934-M6-8** | M6 | 5 | 10 | 11.5 |
| **DIN936-M14×1.5-5** | M14×1.5 | 8 | 22 | 25.4 |
| **DIN936-M16×1.5-5** | M16×1.5 | 8 | 24 | 27.7 |
| **DIN936-M20×1.5-5** | M20×1.5 | 9 | 30 | 34.6 |
| **DIN985-M3-6** | M3 | 2.7 | 5.5 | 6 |
| **DIN985-M6-6** | M6 | 4.5 | 10 | 11 |
| **DIN985-M8-6** | M8 | 6 | 13 | 14.4 |
| **DIN985-M12-6** | M12 | 9 | 19 | 21 |

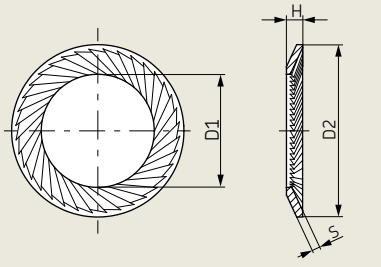
**Hexagon nut**




## Lock washer

| Order No. | for bolt | D1 | D2 | S | H |
|---|---|---|---|---|---|
| **Spring steel** | | | | | |
| **650-050** | M5 | 5.3 | 9 | 0.6 | 0.9 |
| **650-060** | M6 | 6.4 | 10 | 0.7 | 0.9 |
| **650-080** | M8 | 8.4 | 13 | 0.8 | 1.2 |
| **650-100** | M10 | 10.5 | 16 | 1 | 1.5 |
| **650-120** | M12 | 13 | 18 | 1.1 | 1.5 |
| **650-140** | M14 | 15 | 22 | 1.2 | 1.8 |
| **650-160** | M16 | 17 | 24 | 1.3 | 1.9 |
| **650-180** | M18 | 19 | 27 | 1.5 | 2.2 |
| **650-200** | M20 | 21 | 30 | 1.5 | 2.2 |

**Lock washer**



# Distributor manifolds

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Standard manifolds in conjunction with metering units, configurable → pages 21–23 (→ www.skf-lubrication.partcommunity.com)**

**Order code** V L – _ _ _ _ _ _

**Product series**

**Number of ports**

**01** = 1 port **03** = 3 ports **05** = 5 ports **08** = 8 ports
**02** = 2 ports **04** = 4 ports **06** = 6 ports **10** = 10 ports

**Design of outlet thread**

**A** = Normal profile, M8×1 with counterbore for O-ring
**B** = Normal profile, M10×1 with counterbore for O-ring
**C** = Normal profile, M14×1.5 with counterbore for flat washer
**D** = Small profile, M8×1 with counterbore for flat washer (can only be selected for main line connection M3)
**E** = Small profile, M10×1 with counterbore for flat washer (can only be selected for main line connection M3)
**F** = Normal profile, M8×1 with counterbore for flat washer
**G** = Normal profile, M10×1 with counterbore for flat washer

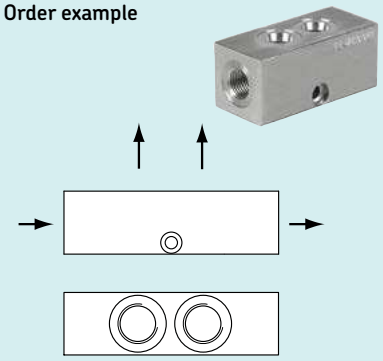
**Material**

**A** = Aluminum; **E** = Stainless steel (only for outlet threads A, B, E, G)

**Design of main line connection**

**G1** = G 1/8 to DIN 3852-2, Form X, small
**G2** = G 1/4 to DIN 3852-2, Form X, small
**M1** = M10×1 to DIN 3852-1, Form X, small
**M2** = M14×1.5 to DIN 3852-1, Form X, small
**M3** = M10×1 with counterbore for solderless pipe connection per DIN 3862
**M4** = M14×1.5 with counterbore for solderless pipe connection per (can only be selected for normal profile)

**Order example**



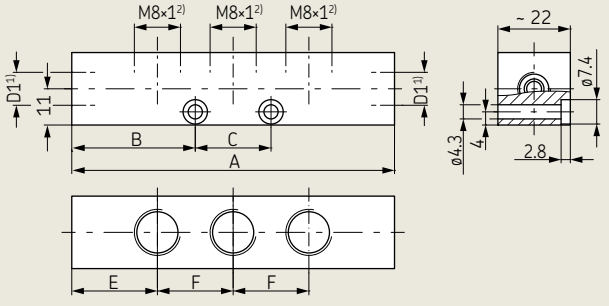
**VL-02AAM3**

- Product series VL
- 2 ports
- Normal profile made of aluminum
- M8×1 internal thread with counterbore for O-ring
- M10×1 main line connection with counterbore for solderless pipe connection per DIN 3862

**Distributor manifold, normal profile A/F**

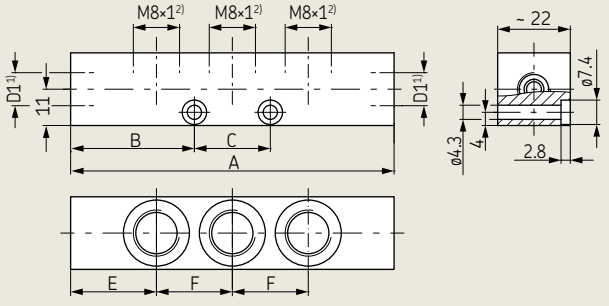
| Main line connection D1 | Number of ports | Dimensions [mm] A | B | C | E | F |
|---|---|---|---|---|---|---|
| M10×1 (M3) | 1 | 40 | 20 | – | 20 | – |
| | 2 | 55 | 27.5 | – | 20 | 1x15 |
| | 3 | 70 | 27.5 | 15 | 20 | 2x15 |
| | 4 | 85 | 27.5 | 30 | 20 | 3x15 |
| | 5 | 100 | 27.5 | 45 | 20 | 4x15 |
| | 6 | 115 | 27.5 | 60 | 20 | 5x15 |
| | 8 | 145 | 27.5 | 90 | 20 | 7x15 |
| | 10 | 175 | 27.5 | 120 | 20 | 9x15 |
| M10×1 (M1) G 1/8 (G1) | 1 | 34 | 17 | – | 17 | – |
| | 2 | 49 | 24.5 | – | 17 | 1x15 |
| | 3 | 64 | 24.5 | 15 | 17 | 2x15 |
| | 4 | 79 | 24.5 | 30 | 17 | 3x15 |
| | 5 | 94 | 24.5 | 45 | 17 | 4x15 |
| | 6 | 109 | 24.5 | 60 | 17 | 5x15 |
| | 8 | 139 | 24.5 | 90 | 17 | 7x15 |
| | 10 | 169 | 24.5 | 120 | 17 | 9x15 |
| M14×1.5 (M4) | 1 | 48 | 24 | – | 24 | – |
| | 2 | 63 | 31.5 | – | 24 | 1x15 |
| | 3 | 78 | 31.5 | 15 | 24 | 2x15 |
| | 4 | 93 | 31.5 | 30 | 24 | 3x15 |
| | 5 | 108 | 31.5 | 45 | 24 | 4x15 |
| | 6 | 123 | 31.5 | 60 | 24 | 5x15 |
| | 8 | 153 | 31.5 | 90 | 24 | 7x15 |
| | 10 | 183 | 31.5 | 120 | 24 | 9x15 |
| M14×1.5 (M2) G 1/4 (G2) | 1 | 46 | 23 | – | 23 | – |
| | 2 | 61 | 30.5 | – | 23 | 1x15 |
| | 3 | 76 | 30.5 | 15 | 23 | 2x15 |
| | 4 | 91 | 30.5 | 30 | 23 | 3x15 |
| | 5 | 106 | 30.5 | 45 | 23 | 4x15 |
| | 6 | 121 | 30.5 | 60 | 23 | 5x15 |
| | 8 | 151 | 30.5 | 90 | 23 | 7x15 |
| | 10 | 181 | 30.5 | 120 | 23 | 9x15 |

**Distributor manifold, normal profile A**




1) For solderless pipe connection per DIN 3862
2) DIN 3852-3 Form W

**Distributor manifold, normal profile F**




1) For solderless pipe connection per DIN 3862
2) DIN 3852-1 Form XK

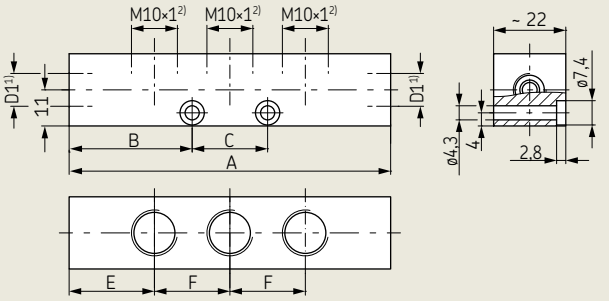
# Distributor manifolds

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Distributor manifold, normal profile B/G**

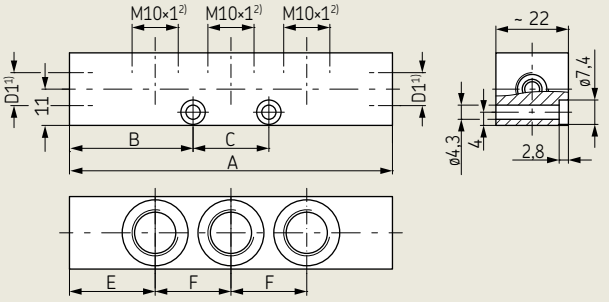
| Main line connection D1 | Number of ports | Dimensions [mm] A | B | C | E | F |
|---|---|---|---|---|---|---|
| M10×1 (M3) | 1 | 40 | 20 | – | 20 | – |
| | 2 | 57 | 28.5 | – | 20 | 1x17 |
| | 3 | 74 | 28.5 | 17 | 20 | 2x17 |
| | 4 | 91 | 28.5 | 34 | 20 | 3x17 |
| | 5 | 108 | 28.5 | 51 | 20 | 4x17 |
| | 6 | 125 | 28.5 | 68 | 20 | 5x17 |
| | 8 | 159 | 28.5 | 102 | 20 | 7x17 |
| | 10 | 193 | 28.5 | 136 | 20 | 9x17 |
| M10×1 (M1)<br>G 1/8 (G1) | 1 | 34 | 17 | – | 17 | – |
| | 2 | 51 | 25.5 | – | 17 | 1x17 |
| | 3 | 68 | 25.5 | 17 | 17 | 2x17 |
| | 4 | 85 | 25.5 | 34 | 17 | 3x17 |
| | 5 | 102 | 25.5 | 51 | 17 | 4x17 |
| | 6 | 119 | 25.5 | 68 | 17 | 5x17 |
| | 8 | 153 | 25.5 | 102 | 17 | 7x17 |
| | 10 | 187 | 25.5 | 136 | 17 | 9x17 |
| M14×1.5 (M4) | 1 | 52 | 26 | – | 26 | – |
| | 2 | 69 | 34.5 | – | 26 | 1x17 |
| | 3 | 86 | 34.5 | 17 | 26 | 2x17 |
| | 4 | 103 | 34.5 | 34 | 26 | 3x17 |
| | 5 | 120 | 34.5 | 51 | 26 | 4x17 |
| | 6 | 137 | 34.5 | 68 | 26 | 5x17 |
| | 8 | 171 | 34.5 | 102 | 26 | 7x17 |
| | 10 | 205 | 34.5 | 136 | 26 | 9x17 |
| M14×1.5 (M2)<br>G 1/4 (G2) | 1 | 46 | 23 | – | 23 | – |
| | 2 | 63 | 31.5 | – | 23 | 1x17 |
| | 3 | 80 | 31.5 | 17 | 23 | 2x17 |
| | 4 | 97 | 31.5 | 34 | 23 | 3x17 |
| | 5 | 114 | 31.5 | 51 | 23 | 4x17 |
| | 6 | 131 | 31.5 | 68 | 23 | 5x17 |
| | 8 | 165 | 31.5 | 102 | 23 | 7x17 |
| | 10 | 199 | 31.5 | 136 | 23 | 9x17 |

**Distributor manifold, normal profile B**




1) For solderless pipe connection per DIN 3862
2) DIN 3852-3 Form W, small

**Distributor manifold, normal profile G**

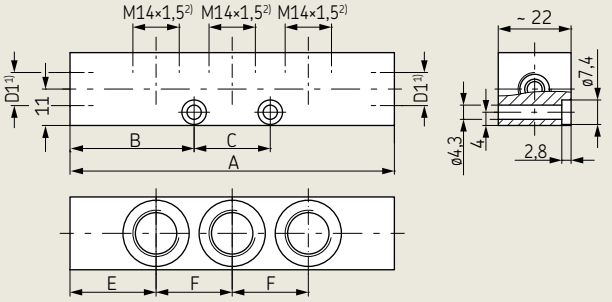



1) For solderless pipe connection per DIN 3862
2) DIN 3852-1 Form XK, small

**Distributor manifold, normal profile C**

| Main line connection D1 | Number of ports | Dimensions [mm] A | B | C | E | F |
|---|---|---|---|---|---|---|
| M10×1 (M3) | 1 | 60 | 18 | 24 | 30 | – |
| | 2 | 70 | 35 | – | 23 | 1x24 |
| | 3 | 94 | 35 | 24 | 23 | 2x24 |
| | 4 | 118 | 35 | 48 | 23 | 3x24 |
| | 5 | 142 | 35 | 72 | 23 | 4x24 |
| | 6 | 166 | 35 | 96 | 23 | 5x24 |
| | 8 | 214 | 35 | 144 | 23 | 7x24 |
| | 10 | 262 | 35 | 192 | 23 | 9x24 |
| M14×1.5 (M4) | 1 | 68 | 22 | 24 | 34 | – |
| | 2 | 78 | 39 | – | 27 | 1x24 |
| | 3 | 102 | 39 | 24 | 27 | 2x24 |
| | 4 | 126 | 39 | 48 | 27 | 3x24 |
| | 5 | 150 | 39 | 72 | 27 | 4x24 |
| | 6 | 174 | 39 | 96 | 27 | 5x24 |
| | 8 | 222 | 39 | 144 | 27 | 7x24 |
| | 10 | 270 | 39 | 192 | 27 | 9x24 |

**Distributor manifold, normal profile C**




1) For solderless pipe connection per DIN 3862
2) DIN 3852-1 Form XK, small

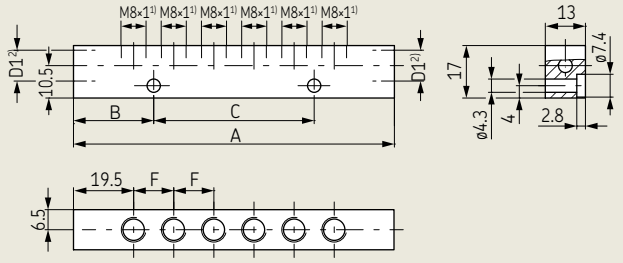
# Distributor manifolds

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Distributor manifold, small profile D**

| Main line connection D1 | Number of ports | Dimensions [mm] A | B | C | F |
|---|---|---|---|---|---|
| M10×1 (M3) | 1 | 39 | 19,5 | – | – |
| | 2 | 52 | 26 | – | 1x13 |
| | 3 | 65 | 32,5 | – | 2x13 |
| | 4 | 78 | 39 | – | 3x13 |
| | 5 | 91 | 45,5 | – | 4x13 |
| | 6 | 104 | 26 | 52 | 5x13 |
| | 8 | 130 | 39 | 52 | 7x13 |
| | 10 | 156 | 39 | 78 | 9x13 |

**Distributor manifold, small profile D**

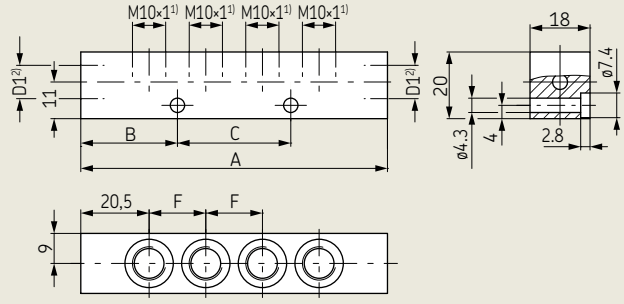



1) Depth 5.5 mm with surface suitable for flat washers
2) DIN 3852-3 Form W

**Distributor manifold, small profile E**

| Main line connection D1 | Number of ports | Dimensions [mm] A | B | C | F |
|---|---|---|---|---|---|
| M10×1 (M3) | 1 | 41 | 20,5 | – | – |
| | 2 | 58 | 26 | – | 1x17 |
| | 3 | 75 | 37,5 | – | 2x17 |
| | 4 | 92 | 29 | 34 | 3x17 |
| | 5 | 109 | 29 | 51 | 4x17 |
| | 6 | 126 | 29 | 68 | 5x17 |
| | 8 | 160 | 29 | 102 | 7x17 |
| | 10 | 194 | 29 | 136 | 9x17 |

**Distributor manifold, small profile E**



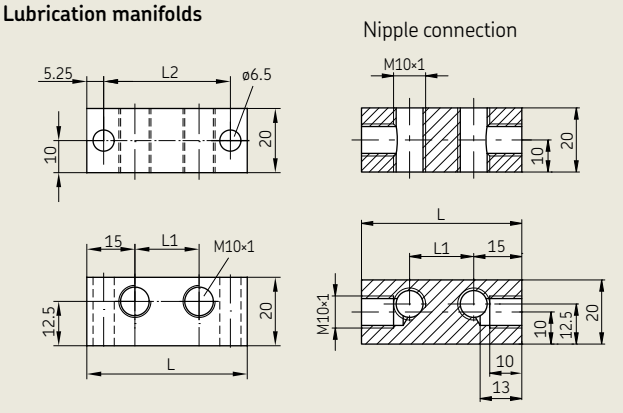

1) Depth 8 mm
2) For solderless pipe connection per DIN 3862

**Lubrication manifolds**

| Order No. | L | L1 | L2 | Number of threaded holes |
|---|---|---|---|---|
| **Steel, galvanized surface** | | | | |
| **871-340-006** | 30 | – | 19,5 | 1 |
| **871-340-008** 1) | 30 | – | 19,5 | 1 |
| **871-360-006** | 50 | 20 | 39,5 | 2 |
| **871-360-008** 1) | 50 | 20 | 39,5 | 2 |
| **871-380-006** | 70 | 40 | 59,5 | 3 |
| **871-390-020** | 210 | 20 | 199,5 | 10 |
| **871-390-023** | 270 | 20 | 200 | 13 |

1) Nipple connection; corresponding conical grease nipple with valve, order no. 996-001-890

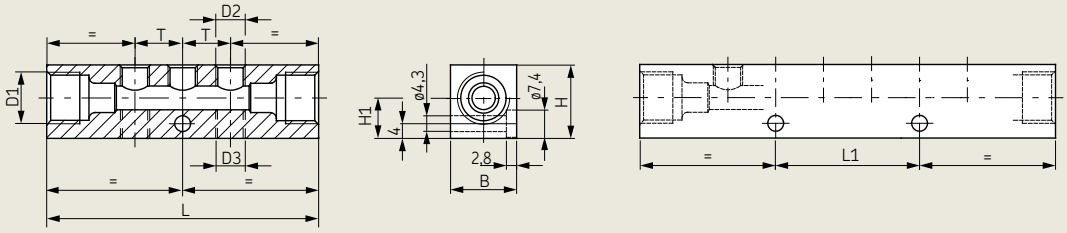
**Lubrication manifolds**



# Distributor manifolds

## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

**Distributor manifold**




**Distributor manifolds**

| Main tube port tube ø | Order No. | Number-of port | D1 | D2 | | D3 | | L | L1 | H | H1 | B | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum alloy | | | | | | | | | | | | | |
| | **VL-322-541** | 2 | M8×1 | 2x | M8×1 | – | | 49 | – | 17 | 10.5 | 13 | 13 |
| 4 | **VL-323-541** | 3 | M8×1 | 3x | M8×1 | – | | 62 | – | 17 | 10.5 | 13 | 13 |
| | **324-581** | 4 | M8×1 | 4x | M8×1 | | | | | | | | |
| | **VL-01EAM3** | 1 | M10×1 | | M10×1 | – | | 41 | – | 20 | 11 | 18 | – |
| | **VL-02EAM3** | 2 | M10×1 | 2x | M10×1 | – | | 58 | – | 20 | 11 | 18 | 17 |
| | **VL-03EAM3** | 3 | M10×1 | 3x | M10×1 | – | | 75 | – | 20 | 11 | 18 | 17 |
| | **VL-04EAM3** | 4 | M10×1 | 4x | M10×1 | – | | 92 | 34 | 20 | 11 | 18 | 17 |
| | **VL-05EAM3** | 5 | M10×1 | 5x | M10×1 | – | | 109 | 51 | 20 | 11 | 18 | 17 |
| 6 | **VL-06EAM3** | 6 | M10×1 | 6x | M10×1 | – | | 126 | 68 | 20 | 11 | 18 | 17 |
| | **VL-08EAM3** | 8 | M10×1 | 8x | M10×1 | – | | 160 | 52 | 20 | 11 | 18 | 17 |
| | **VL-329-761** | 9 | M10×1 | 9x | M10×1 | – | | 177 | 119 | 20 | 11 | 18 | 17 |
| | **VL-10EAM3** | 10 | M10×1 | 10x | M10×1 | – | | 194 | 136 | 20 | 11 | 18 | 17 |
| | **331-761** | 11 | M10×1 | 11x | M10×1 | – | | 211 | 153 | 20 | 11 | 18 | 17 |
| | **332-761** | 12 | M10×1 | 12x | M10×1 | – | | 228 | 170 | 20 | 11 | 18 | 17 |
| | | | | (above) | | (below) | | | | | | | |
| | **325-561** | | M10×1 | | | | | | | | | | |
| | **322-861** | 2 | M10×1 | 1x | M10×1 | 1x | M10×1 | 41 | | 20 | 11 | 18 | – |
| | **324-861** | 4 | M10×1 | 2x | M10×1 | 2x | M10×1 | 58 | – | 20 | 11 | 18 | 18 |
| | **326-663** | 6 | M10×1 | 3x | M10×1 | 3x | M10×1 | 77 | 52 | 17 | 11 | 18 | 18 |
| | **328-861** | 8 | M10×1 | 4x | M10×1 | 4x | M10×1 | 92 | 34 | 20 | 11 | 18 | 18 |
| 6 | **330-861** | 10 | M10×1 | 5x | M10×1 | 5x | M10×1 | 109 | 51 | 20 | 11 | 18 | 18 |
| | **332-861** | 12 | M10×1 | 6x | M10×1 | 6x | M10×1 | 126 | 68 | 20 | 11 | 18 | 18 |
| | **334-861** | 14 | M10×1 | 7x | M10×1 | 7x | M10×1 | 143 | 85 | 20 | 11 | 18 | 18 |
| | **336-861** | 16 | M10×1 | 8x | M10×1 | 8x | M10×1 | 160 | 102 | 20 | 11 | 18 | 18 |
| | **338-861** | 18 | M10×1 | 9x | M10×1 | 9x | M10×1 | 177 | 119 | 20 | 11 | 18 | 18 |
| | **340-861** | 20 | M10×1 | 10x | M10×1 | 10x | M10×1 | 194 | 136 | 20 | 11 | 18 | 18 |
| | **VL-02DAM3** | 2 | M10×1 | 2x | M8×1 | – | | 52 | – | 17 | 10.5 | 13 | 13 |
| | **VL-03DAM3** | 3 | M10×1 | 3x | M8×1 | – | | 65 | – | 17 | 10.5 | 13 | 13 |
| | **VL-04DAM3** | 4 | M10×1 | 4x | M8×1 | – | | 78 | – | 17 | 10.5 | 13 | 13 |
| | **VL-05DAM3** | 5 | M10×1 | 5x | M8×1 | – | | 91 | – | 17 | 10.5 | 13 | 13 |
| 6 | **VL-06DAM3** | 6 | M10×1 | 6x | M8×1 | – | | 104 | 52 | 20 | 11 | 18 | 13 |
| | **VL-07DAM3** | 7 | M10×1 | 7x | M8×1 | – | | 117 | 39 | 20 | 11 | 18 | 13 |
| | **VL-08DAM3** | 8 | M10×1 | 8x | M8×1 | – | | 130 | 52 | 17 | 10.5 | 13 | 13 |
| | **VL-10DAM3** | 10 | M10×1 | 10x | M8×1 | – | | 156 | 78 | 17 | 10.5 | 13 | 13 |
| | **321-581** | 1 | M14×1.5 | 1x | M8×1 | – | | 48 | – | 20 | | 18 | – |
| | **322-581** | 2 | M14×1.5 | 2x | M8×1 | – | | 61 | – | 20 | 11 | 18 | 13 |
| | **323-581** | 3 | M14×1.5 | 3x | M8×1 | – | | 74 | – | 20 | 11 | 18 | 13 |
| | **323-661-S1** | 3 | M14×1.5 | 3x | M10×1 | – | | 94 | – | 20 | 11 | 18 | 22 |
| | **324-581** | 4 | M14×1.5 | 4x | M8×1 | – | | 87 | – | 20 | 11 | 18 | 13 |
| | **325-581** | 5 | M14×1.5 | 5x | M8×1 | – | | 74 | | 20 | 11 | 18 | 13 |
| 8 | **326-581** | 6 | M14×1.5 | 6x | M8×1 | – | | 113 | 39 | 20 | 11 | 18 | 13 |
| | **328-581** | 8 | M14×1.5 | 8x | M8×1 | – | | 139 | 65 | 20 | 11 | 18 | 13 |
| | **329-581** | 9 | M14×1.5 | 9x | M8×1 | – | | 152 | 78 | 20 | 11 | 18 | 17 |
| | **330-581** | 10 | M14×1.5 | 10x | M8×1 | – | | 165 | 91 | 20 | 11 | 18 | 13 |
| | **330-581-S1** | 10 | M14×1.5 | 10x | M8×1 | – | | 201 | 85 | 20 | 11 | 18 | 17 |
| | **331-581** | 11 | M14×1.5 | 11x | M8×1 | – | | 178 | 104 | 20 | 11 | 18 | 13 |
| | **332-581** | 12 | M14×1.5 | 12x | M8×1 | – | | 191 | 117 | 20 | 11 | 18 | 13 |

# SKF Quick Connectors for oil and grease

## For pressures up to 300 bar, 3-O-ring

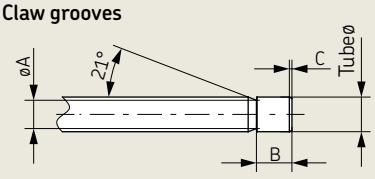
**Insertion depth for plastic and stell tubing**

| for tube ø | Insertion depth [mm] |
|---|---|
| 3-O-ring quick connector (→ page 25–27) | |
| 4 | 19 |
| 6 | 22 |
| 8 | 24 |
| 1-O-ring quick connector (→ page 28–29) | |
| 6 | 16 |


**Claw grooves**

| for tube ø | A +0.3 | B ±0.2 | C |
|---|---|---|---|
| 4 | 3.1 | 5 | 0.3 ... 0.7 |
| 6 | 4.9 | 6.2 | 0.4 ... 0.9 |
| 8 | 6.9 | 6.2 | 0.5 ... 0.9 |

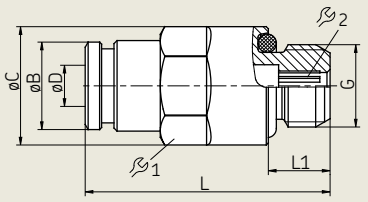
**Claw grooves**




**Adaptors with cylindrical thread (→ Figure 13)**

| Order No. | Tube øD | G | L1 | ø B | ø C | L | 1 | 2 | Seal |
|---|---|---|---|---|---|---|---|---|---|
| **451-004-260-VS** | 4 | M6 | 4.5 | 8.8 | 11.5 | 25 | 10 | 2.5 | NBR |
| **404-073-VS** | 4 | M6×0.75 | 4.5 | 8.8 | 11.5 | 25.3 | 10 | 2.5 | NBR |
| **404-063-VS** | 4 | M8 | 6 | 8.8 | 11.5 | 23.8 | 10 | 2.5 | NBR |
| **404-003-VS** | 4 | M8×1 | 6 | 8.8 | 11.5 | 23.8 | 10 | 2.5 | NBR |
| **404-003-S8-VS** | 4 | M8×1 | 6 | 8.8 | 11.5 | 23.8 | 10 | 2.5 | FPM |
| **404-006-VS** | 4 | M10×1 | 6 | 8.8 | 13.5 | 23.8 | 12 | 2.5 | NBR |
| **404-006-S8-VS** | 4 | M10×1 | 6 | 8.8 | 13.5 | 23.8 | 12 | 2.5 | FPM |
| **404-040-VS** | 4 | G 1/8 | 6 | 8.8 | 13.5 | 23.8 | 12 | 2.5 | NBR |
| **406-158-VS** | 6 | M8×1 | 6 | 11.7 | 13.2 | 30.5 | 12 | 3 | NBR |
| **406-004-VS** | 6 | M10×1 | 6 | 11.7 | 13.5 | 27 | 12 | 4 | NBR |
| **406-004-S8-VS** | 6 | M10×1 | 6 | 11.7 | 13.5 | 27 | 12 | 4 | FPM |
| **456-004-VS** | 6 | G 1/8 | 6 | 11.7 | 13.5 | 27 | 12 | 4 | NBR |
| **456-004-S8-VS** | 6 | G 1/8 | 6 | 11.7 | 13.5 | 27 | 12 | 4 | FPM |
| **406-054-VS** | 6 | G 1/4 | 7 | 11.7 | 16.4 | 28 | 12 | 4 | NBR |
| **406-162-VS** | 6 | M12×1 | 7 | 11.7 | 15.4 | 28 | 14 | 4 | NBR |
| **406-162-S8-VS** | 6 | M12×1 | 7 | 11.7 | 15.4 | 28 | 14 | 4 | FPM |
| **408-004-VS** | 8 | M10×1 | 6 | 13.9 | 15.2 | 32.3 | 14 | 5 | NBR |
| **408-004-S8-VS** | 8 | M10×1 | 6 | 13.9 | 15.2 | 32.3 | 14 | 5 | FPM |
| **408-162-VS** | 8 | M12×1 | 7 | 13.9 | 15.2 | 32.8 | 14 | 6 | NBR |
| **408-162-S8-VS** | 8 | M12×1 | 7 | 13.9 | 15.2 | 32.8 | 14 | 6 | FPM |
| **408-054-VS** | 8 | G 1/4 | 7 | 13.9 | 16.4 | 30.8 | 15 | 6 | NBR |

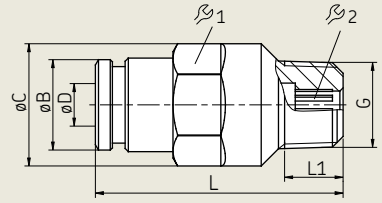
**Figure 13**




**Adaptors with tapered thread (→ Figure 14)**

| Order No. | Tube øD | G | L1 | ø B | ø C | L | 1 | 2 | Seal |
|---|---|---|---|---|---|---|---|---|---|
| **451-004-462-VS** | 4 | M6 tap. | 5.5 | 8.8 | 11.5 | 25.8 | 10 | 2.5 | NBR |
| **451-004-471-VS** | 4 | M6×0.75 tap. | 5.5 | 8.8 | 11.5 | 25.8 | 10 | 2.5 | NBR |
| **451-004-498-VS** | 4 | M8×1 tap. | 5.5 | 8.8 | 11.5 | 23.3 | 10 | 2.5 | NBR |
| **451-004-518-VS** | 4 | M10×1 tap. | 5.5 | 8.8 | 11.5 | 22.8 | 10 | 2.5 | NBR |
| **404-673K-V1-VS** | 4 | 1/4-28 SAE LT | 5.1 | 8.8 | 11.5 | 26.3 | 10 | 2.5 | NBR |
| **404-040K-V1-VS** | 4 | 1/8 NPTF | 8 | 8.8 | 11.5 | 24.8 | 10 | 2.5 | NBR |
| **451-006-468-VS** | 6 | M6 tap. | 5.5 | 11.7 | 13.5 | 30 | 12 | 2.5 | NBR |
| **451-006-498-VS** | 6 | M8×1 tap. | 5.5 | 11.7 | 13.5 | 29.5 | 12 | 4 | NBR |
| **451-006-518-VS** | 6 | M10×1 tap. | 5.5 | 11.7 | 13.5 | 27 | 12 | 4 | NBR |
| **406-423W-VS** | 6 | R 1/8 | 6.5 | 11.7 | 13.5 | 28.5 | 12 | 4 | NBR |
| **406-423N-VS** | 6 | 1/8 NPT | 7.5 | 11.7 | 13.5 | 28.5 | 12 | 4 | NBR |

**Figure 14**



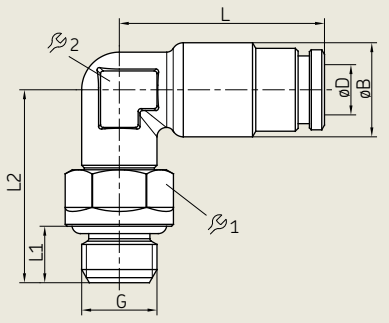
# SKF Quick Connectors for oil and grease

## For pressures up to 300 bar, 3-O-ring

**Banjo fittings with with cylindrical thread (→ Figure 15)**

| Order No. | Tube øD | G | L1 | ø B | L | L2 | 1 | 2 | Seal |
|---|---|---|---|---|---|---|---|---|---|
| **504-100-VS** | 4 | M6×1 | 4.5 | 10 | 21.8 | 17.5 | 9 | 9 | NBR |
| **504-101-VS** | 4 | M8×1 | 6 | 10 | 21.8 | 20.5 | 10 | 9 | NBR |
| **504-101-S8-VS** | 4 | M8×1 | 6 | 10 | 21.8 | 20.5 | 10 | 9 | FPM |
| **504-102-VS** | 4 | M10×1 | 6 | 10 | 21.8 | 20.5 | 12 | 9 | NBR |
| **504-102-S8-VS** | 4 | M10×1 | 6 | 10 | 21.8 | 20.5 | 12 | 9 | FPM |
| **504-108-VS** | 4 | G 1/8 | 6 | 10 | 21.8 | 20.5 | 12 | 9 | NBR |
| **504-108-S8-VS** | 4 | G 1/8 | 6 | 10 | 21.8 | 20.5 | 12 | 9 | FPM |
| **506-139-VS** | 6 | M8×1 | 6 | 12.5 | 26 | 21 | 10 | 10 | NBR |
| **506-139-S8-VS** | 6 | M8×1 | 6 | 12.5 | 26 | 21 | 10 | 10 | FPM |
| **506-140-VS** | 6 | M10×1 | 6 | 12.5 | 26 | 21 | 12 | 10 | NBR |
| **506-140-S8-VS** | 6 | M10×1 | 6 | 12.5 | 26 | 21 | 12 | 10 | FPM |
| **506-108-VS** | 6 | G 1/8 | 6 | 12.5 | 26 | 21 | 12 | 10 | NBR |
| **506-108-S8-VS** | 6 | G 1/8 | 6 | 12.5 | 26 | 21 | 12 | 10 | FPM |
| **506-142-VS** | 6 | M12×1 | 7 | 12.5 | 26 | 23 | 14 | 10 | NBR |
| **506-142-S8-VS** | 6 | M12×1 | 7 | 12.5 | 26 | 23 | 14 | 10 | FPM |
| **506-143-VS** | 6 | G 1/4 | 7 | 12.5 | 26 | 23 | 15 | 10 | NBR |
| **508-142-VS** | 8 | M12×1 | 7 | 14.5 | 28.8 | 23 | 14 | 12 | NBR |
| **508-142-S8-VS** | 8 | M12×1 | 7 | 14.5 | 28.8 | 23 | 14 | 12 | FPM |

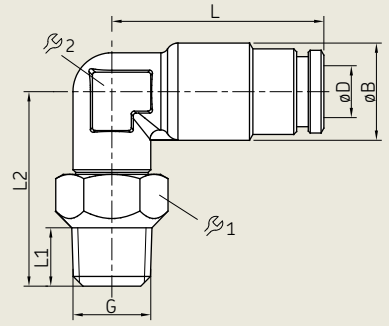
**Figure 15**




**Banjo fittings with tapered thread (→ Figure 16)**

| Order No. | Tube øD | G | L1 | ø B | L | L2 | 1 | 2 | Seal |
|---|---|---|---|---|---|---|---|---|---|
| **455-546-048-VS** | 4 | M6 tap. | 6 | 10 | 21.8 | 20 | 10 | 9 | NBR |
| **455-546-048-S8-VS** | 4 | M6 tap. | 6 | 10 | 21.8 | 20 | 10 | 9 | FPM |
| **455-529-048-VS** | 4 | M8×1 tap. | 6 | 10 | 21.8 | 20 | 10 | 9 | NBR |
| **455-529-048-S8-VS** | 4 | M8×1 tap. | 6 | 10 | 21.8 | 20 | 10 | 9 | FPM |
| **455-531-048-VS** | 4 | M10×1 tap. | 6 | 10 | 21.8 | 20 | 12 | 9 | NBR |
| **455-531-048-S8-VS** | 4 | M10×1 tap. | 6 | 10 | 21.8 | 20 | 12 | 9 | FPM |
| **455-569-048-VS** | 4 | R 1/8 | 7.5 | 10 | 21.8 | 20.5 | 12 | 9 | NBR |
| **455-529-068-VS** | 6 | M8×1 tap. | 6 | 12.5 | 26 | 20,5 | 10 | 10 | NBR |
| **455-529-068-S8-VS** | 6 | M8×1 tap. | 6 | 12.5 | 26 | 20,5 | 10 | 10 | FPM |
| **455-531-068-VS** | 6 | M10×1 tap. | 6 | 12.5 | 26 | 20.5 | 12 | 10 | NBR |
| **455-531-068-S8-VS** | 6 | M10×1 tap. | 6 | 12.5 | 26 | 20.5 | 12 | 10 | FPM |
| **455-546-068-VS** | 6 | M6×1 tap. | 6 | 12.5 | 26 | 20.5 | 10 | 10 | NBR |
| **455-565-068-VS** | 6 | R 1/4 | 11 | 12.5 | 26 | 24.5 | 14 | 10 | NBR |

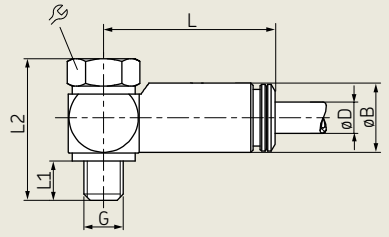
**Figure 16**




**Banjo fittings with banjo bolt and cylindrical thread (→ Figure 17)**

| Order No. | Tube øD | G | L1 | ø B | L | L2 | | Seal |
|---|---|---|---|---|---|---|---|---|
| **504-161-VS** | 4 | M6 | 5 | 8.8 | 22.3 | 19.5 | 9 | NBR |
| **504-401-S1-VS** | 4 | M5 | 5 | 8.8 | 21.8 | 18 | 8 | NBR |
| **504-411-VS** | 4 | M8 | 7 | 8.8 | 23.8 | 20 | 12 | NBR |
| **504-401-VS** | 4 | M8×1 | 7 | 8.8 | 23.8 | 20 | 12 | NBR |
| **504-103-VS** | 4 | M10×1 | 7 | 8.8 | 24.8 | 22.5 | 14 | NBR |
| **445-519-041-VS** | 4 | G 1/8 | 7 | 8.8 | 24.8 | 22.5 | 14 | NBR |

**Figure 17**



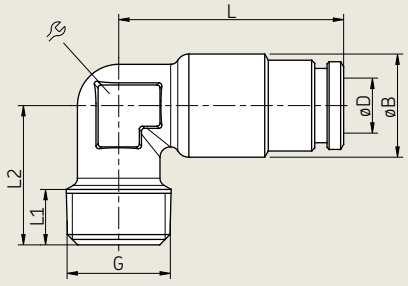
# SKF Quick Connectors for oil and grease

## For pressures up to 300 bar, 3-O-ring

### Elbows, with tapered thread

| Order No. | Tube øD | G | L1 | ø B | L | L2 | | Seal |
|---|---|---|---|---|---|---|---|---|
| **453-004-471-VS** | 4 | M6 tap. | 6 | 10 | 21.8 | 14 | 9 | NBR |
| **453-004-471-S8-VS** | 4 | M6 tap. | 6 | 10 | 21.8 | 14 | 9 | FPM |
| **504-201-VS** | 4 | M8×1 tap. | 6 | 10 | 21.8 | 13.5 | 9 | NBR |
| **504-201-S8-VS** | 4 | M8×1 tap. | 6 | 10 | 21.8 | 13.5 | 9 | FPM |
| **504-202-VS** | 4 | M10×1 tap. | 6 | 10 | 21.8 | 13.5 | 9 | NBR |
| **504-202-S8-VS** | 4 | M10×1 tap. | 6 | 10 | 21.8 | 13.5 | 9 | FPM |
| **514-018-VS** | 4 | R 1/8 | 7.5 | 10 | 21.8 | 15 | 9 | NBR |
| **514-018-S8-VS** | 4 | R 1/8 | 7.5 | 10 | 21.8 | 15 | 9 | FPM |
| **504-200K-V1-VS** | 4 | 1/4-28 SAE LT | 5.1 | 10 | 21.8 | 15.5 | 9 | NBR |
| **514-018K-V1-VS** | 4 | 1/8 NPTF | 7 | 10 | 21.8 | 15 | 9 | NBR |
| **453-006-468-VS** | 6 | M6 tap. | 6 | 12.5 | 26 | 15 | 10 | NBR |
| **453-006-468-S8-VS** | 6 | M6 tap. | 6 | 12.5 | 26 | 15 | 10 | FPM |
| **506-508-VS** | 6 | M8×1 tap. | 6.5 | 12.5 | 26 | 14 | 10 | NBR |
| **506-508-S8-VS** | 6 | M8×1 tap. | 6.5 | 12.5 | 26 | 14 | 10 | FPM |
| **506-510-VS** | 6 | M10×1 tap. | 6 | 12.5 | 26 | 14 | 10 | NBR |
| **506-510-S8-VS** | 6 | M10×1 tap. | 6 | 12.5 | 26 | 14 | 10 | FPM |
| **506-511-VS** | 6 | R 1/8 | 8.5 | 12.5 | 26 | 16.5 | 10 | NBR |
| **506-511-S8-VS** | 6 | R 1/8 | 8.5 | 12.5 | 26 | 16.5 | 10 | FPM |
| **506-511K-V1-VS** | 6 | 1/8 NPT | 8.5 | 12.5 | 26 | 16.5 | 10 | NBR |
| **506-512-VS** | 6 | M12×1 tap. | 7 | 12.5 | 26 | 15 | 10 | NBR |
| **453-006-651-VS** | 6 | R 1/4 | 11.5 | 12.5 | 26 | 19.5 | 10 | NBR |

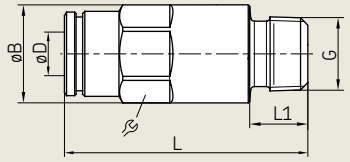
**Elbow**




### Check valves

| Order No. | Tube øD | G | Opening pressure [bar] | Pressure, max. [bar] | L1 | ø B | L | L2 | | Seal |
|---|---|---|---|---|---|---|---|---|---|---|
| **VPKG-RV4-VS** | 4 | R 1/8 | $3^{\pm1}$ | 300 | 7.9 | 10 | 32.3 | – | 9 | NBR |
| **VPKM-RV-VS** | 6 | M10×1 tap. | $3^{+2}$ | 300 | 8 | 13.5 | 33.5 | – | 12 | NBR |
| **VPKG-RV-VS** | 6 | R 1/8 | $3^{+2}$ | 300 | 8 | 13.5 | 33.5 | – | 12 | NBR |

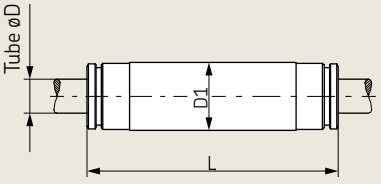
**Check valve**




### Connectors

| Order No. | Tube øD | D1 | L | Seal |
|---|---|---|---|---|
| **454-504-041-VS** | 4 | 10 | 38.5 | NBR |
| **406-426-VS** | 6 | 12 | 44.5 | NBR |

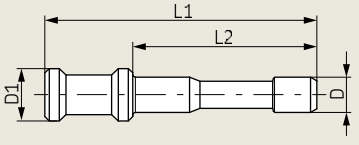
**Connector**




### Locking pin

| Order No. | Tube øD | D1 | L1 | L2 |
|---|---|---|---|---|
| **450-204-002** | 4 | 6 | 31 | 21 |
| **450-206-002** | 6 | 8 | 37 | 25 |

**Locking pin**



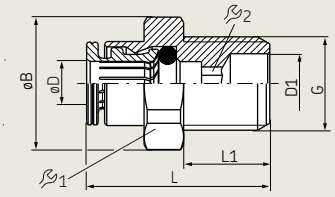
# SKF Quick Connectors for grease

## For pressures up to 350 bar, 1-O-ring

**Straight screw-in connectors (→ Figure 18)**

| Order No. | Tube øD | G | L1 | ø B | L | 1 | 2 | Seal |
|---|---|---|---|---|---|---|---|---|
| **226-14139-1** | 6 | G 1/4 | 12 | 18.5 | 25.5 | 17 | 4 | NBR |

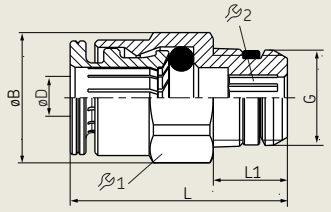
**Figure 18**




**Straight screw-in connectors with PTFE threaded seal (→ Figure 19)**

| Order No. | Tube øD | G | L1 | ø B | L | 1 | 2 | Seal |
|---|---|---|---|---|---|---|---|---|
| **226-14111-1** | 6 | R 1/8 | 7.5 | 13.2 | 22 | 12 | 4 | NBR |

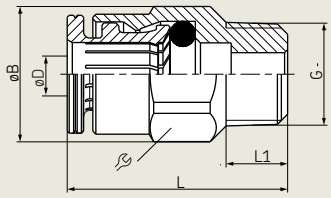
**Figure 19**




**Adaptors with tapered thread (→ Figure 20)**

| Order No. | Tube øD | G | L1 | ø B | L | | Seal |
|---|---|---|---|---|---|---|---|
| **226-14111-4** | 6 | M6×1 tap. | 6 | 13.2 | 24 | 12 | NBR |
| **226-14111-2** | 6 | M8×1 tap. | 6 | 13.2 | 23 | 12 | NBR |
| **226-14111-3** | 6 | M10×1 tap. | 6 | 13.2 | 21.5 | 12 | NBR |
| **226-10622-8** | 6 | R 1/8 | 7.5 | 13.2 | 22 | 12 | NBR |

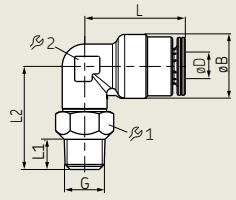
**Figure 20**




**Banjo fittings with tapered thread**

| Order No. | Tube øD | G | L1 | ø B | L | L2 | 1 | 2 | Seal |
|---|---|---|---|---|---|---|---|---|---|
| **226-14157-3** | 6 | M6×1 tap. | 6 | 12.7 | 20 | 20.5 | 10 | 9 | NBR |
| **226-14157-1** | 6 | M8×1 tap. | 6 | 12.7 | 20 | 20.5 | 10 | 9 | NBR |
| **226-14157-2** | 6 | M10×1 tap. | 6 | 12.7 | 20 | 20.5 | 12 | 9 | NBR |
| **226-13756-9** | 6 | R 1/8 | 7.5 | 12.7 | 20 | 21 | 12 | 9 | NBR |

**Banjo fittings**

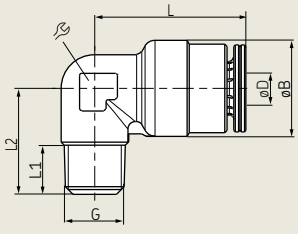



**Elbows with tapered thread**

| Order No. | Tube øD | G | L1 | ø B | L | L2 | | Seal |
|---|---|---|---|---|---|---|---|---|
| **226-14123-4** | 6 | M6×1 tap. | 6 | 12.7 | 20 | 15 | 9 | NBR |
| **226-14123-2** | 6 | M8×1 tap. | 6.5 | 12.7 | 20 | 14 | 9 | NBR |
| **226-14123-3** | 6 | M10×1 tap. | 6 | 12.7 | 20 | 14 | 9 | NBR |
| **226-14123-5** | 6 | R 1/8 | 7.5 | 12.7 | 20 | 15.5 | 9 | NBR |
| **226-13753-9** [1] | 6 | R 1/8 | 7.5 | 12.7 | 20 | 15.5 | 9 | NBR |

1) with threaded seal

**Elbows**




Insertion depth for 1-O-ring quick connector → page 25

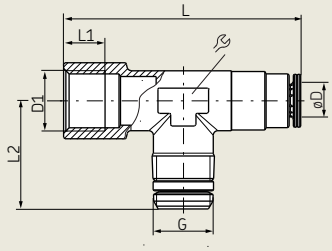
# SKF Quick Connectors for grease

## For pressures up to 350 bar, 1-O-ring

**Tee screw-in connector**

| Order No. | Tube øD | G | D1 | L1 | L | L2 | | Seal |
|---|---|---|---|---|---|---|---|---|
| **226-14097-5** | 6 | R 1/4 | G 1/4 | 9 | 51.5 | 23.5 | 14 | NBR |

**T-Tee screw-in connector**

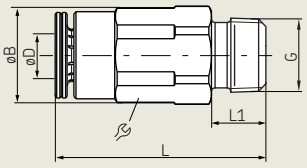



**Check valves for progressiv distributors**

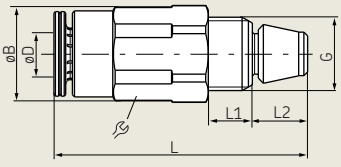
| Order No. | Tube øD | G | L1 | ø B | L | L2 | | Seal | Fig. |
|---|---|---|---|---|---|---|---|---|---|
| **226-10337-3** | 6 | M10×1 tap. | 8 | 11.7 | 27.5 | – | 12 | NBR | a |
| **226-14091-4** | 6 | M10×1 | 6 | 12.8 | 34.5 | 7.5 | 12 | NBR | b |
| **226-10328-4** | 6 | M10×1 | 6 | 12.8 | 34.5 | 7.5 | 12 | FKM | b |

**Check valves**

a)



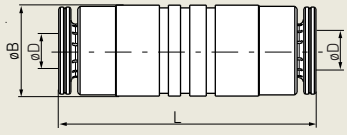

b)




**Connector**

| Order No. | Tube øD | ø B | L | Seal |
|---|---|---|---|---|
| **226-13773-4** | 6 | 12 | 34 | NBR |

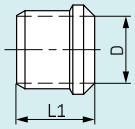
**Connector**



# Fittings

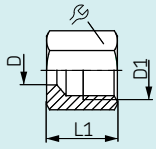
## Solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

### Cutting sleeves to DIN 3861/ISO 8434-1




| Order No. | D (Tube ø) | L1 | Pressure [bar] | Series |
|---|---|---|---|---|
| **Steel. galvanized surface (Cr-6-free)** | | | | |
| **Form A** | | | | |
| **404-301** | 4 | 6 | | |
| **406-331** | 6 | 7 | 100 | LL |
| **96-5708-0058** | 8 | 7 | | |
| **96-5710-0058** | 10 | 7 | | |
| **406-301** | 6 | 9.5 | | |
| **408-301** | 8 | 10 | 250 | AS (L) [1] |
| **410-301** | 10 | 10 | | |
| **412-301** | 12 | 10.5 | | |
| **415-301** | 15 | 10 | 160 | L |
| **418-301** | 18 | 10.5 | | |
| **Stainless steel** | | | | |
| **99-5704-0058** | 4 | 6 | | LL |
| **406-301-S3** | 6 | 9.5 | 100 | L |
| **406-331-S3** | 6 | 7 | | LL |
| **99-2712-0058** | 12 | 10 | | L |
| **Zinc-nickel, Cr-6-free** | | | | |
| **406-351** | 6 | 7 | 100 | LL |
| **408-351** | 8 | 7 | | |
| **406-361** | 6 | 11.5 | 250 | L |
| **408-361** | 8 | 11.5 | | |

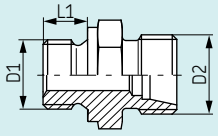
### Union nuts to DIN 3861/ISO 8434-1




| Order No. | D (Tube ø) | D1 | L1 | | Pressure [bar] | Series |
|---|---|---|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | | | | |
| **404-302** | 4 | M8×1 | 11 | 10 | | |
| **406-332** | 6 | M10×1 | 12 | 12 | 100 | LL |
| **96-5608-0058** | 8 | M12×1 | 12 | 14 | | |
| **96-5610-0058** | 10 | M14×1 | 12.5 | 17 | | |
| **406-302** | 6 | M12×1.5 | 14.5 | 14 | 250 | L |
| **408-302** | 8 | M14×1.5 | 14.5 | 17 | 250 | L |
| **410-302** | 10 | M16×1.5 | 16 | 19 | | |
| **412-302** | 12 | M18×1.5 | 16 | 22 | | |
| **415-302** | 15 | M22×1.5 | 18 | 27 | 250 | L |
| **418-302** | 18 | M26×1.5 | 18 | 32 | | |
| **Stainless steel** | | | | | | |
| **99-5604-0058** | 4 | M8×1 | 11.5 | 10 | 100 | LL |
| **406-332-S3** | 6 | M10×1 | 12 | 12 | | |
| **406-302-S3** | 6 | M12×1.5 | 14.5 | 14 | 100 | L |
| **99-5612-0058** | 12 | M18×1.5 | 16 | 22 | 250 | L |
| **Zinc-nickel, Cr-6-free** | | | | | | |
| **406-352** | 6 | M10×1 | 11,5 | 12 | 100 | **LL** |
| **408-352** | 8 | M12×1 | 12 | 14 | | |
| **406-362** | 6 | M12×1,5 | 14,5 | 14 | 250 | **L** |
| **408-362** | 8 | M14×1,5 | 14,5 | 17 | | |

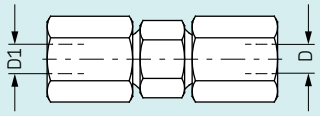
### Straight screw-in glands

with short threaded end for screw into thread
for use with a counterbore acc. to DIN 3854 / DIN 3862
for solderless pipe union




| Order No. | Tube øD | D1 | D2 | L1 | Series |
|---|---|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | | | |
| **406-303** | 6 | M10×1 | M12×1.5 | 8 | |
| **406-323** | 6 | M10×1 tap. | M10×1 | – | |
| **406-333** | 6 | M8×1 tap. | M10×1 | – | L |
| **408-313** | 8 | M14×1.5 | M14×1.5 | 9 | |
| **410-313** | 10 | M16×1.5 | M16×1.5 | 9 | |
| **410-323** | 10 | M14×1.5 | M16×1.5 | 9 | |

### Straight connectors (tube to tube)




| Order No. | Tube ø D, D1 | Series | Reducing connectors Order No. | Tube ø D | Tube ø D1 | Series |
|---|---|---|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | | | | |
| **404-404** | 4 | LL | **504-410** | 6 | 4 | |
| | | | **504-412** | 8 | 4 | |
| **406-406** | 6 | | **506-410** | 8 | 6 | |
| **408-408** | 8 | | **506-412** | 10 | 6 | |
| **410-410** | 10 | L | **508-410** | 10 | 8 | |
| **412-412** | 12 | | **506-413** | 12 | 6 | |
| **415-415** | 15 | | **508-412** | 12 | 8 | |
| **418-418** | 18 | | **510-410** | 12 | 10 | L |
| | | | **508-413** | 15 | 8 | |
| | | | **510-412** | 15 | 10 | |
| | | | **512-410** | 15 | 12 | |
| | | | **510-413** | 18 | 10 | |
| | | | **512-412** | 18 | 12 | |
| | | | **515-410** | 18 | 15 | |
| **Stainless steel** | | | | | | |
| **406-406-S3** | 6 | | | | | |
| **408-408-S3** | 8 | L | | | | |
| **410-410-S3** | 10 | | | | | |
| **415-415-S3** | 15 | | | | | |

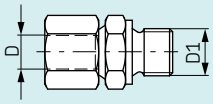
LL-series = extra light version
L-series = light version
S-series = heavy duty version

1) Construction identical to heavy series S.

# Fittings

## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

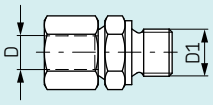
### Straight screw-in connectors to DIN 2353 with metrical thread




| Order No. | Tube øD | D1 | Series |
|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | |
| **Form C** | | | |
| **406-403** | 6 | M10×1 | |
| **406-413** | 6 | M14×1.5 | |
| **408-403** | 8 | M12×1.5 | |
| **410-403** | 10 | M14×1.5 | |
| **410-463** | 10 | M18×1.5 | |
| **412-423** | 12 | M14×1.5 | |
| **412-403** | 12 | M16×1.5 | |
| **412-433** | 12 | M18×1.5 | |
| **415-403** | 15 | M18×1.5 | L |
| **415-413** | 15 | M22×1.5 | |
| **418-403** | 18 | M22×1.5 | |
| **96-0319-0058** | 18 | M18×1.5 | |
| **96-0322-0058** | 22 | M26×1.5 | |
| **96-0328-0058** | 28 | M33×2 | |
| **96-0335-0058** | 35 | M42×2 | |
| **96-0342-0058** | 42 | M48×2 | |
| **Form A** | | | |
| **96-1206-0058** | 6 | M12×1.5 | |
| **408-413** | 8 | M14×1.5 | |
| **410-413** | 10 | M16×1.5 | |
| **412-453** | 12 | M18×1.5 | |
| **96-1212-0058** | 12 | M18×1.5 | S |
| **96-1214-0058** | 14 | M20×1.5 | |
| **96-1216-0058** | 16 | M22×1.5 | |
| **96-1220-0058** | 20 | M27×1.5 | |
| **96-6002-0058** | 4 | M6×1 tap. | |
| **404-413** | 4 | M8×1 tap. | |
| **404-403** | 4 | M10×1 tap. | |
| **406-443** | 6 | M6 tap. | |
| **406-433** | 6 | M8×1 tap. | LL |
| **406-423** | 6 | M10×1 tap. | |
| **406-446** [1] | 6 | M6 tap. | |
| **441-008-511** | 8 | M10×1 tap. | |
| **410-443** | 10 | M10×1 tap. | L |
| **Stainless steel** | | | |
| **406-443-S3** | 6 | M6 tap. | |
| **406-433-S3** | 6 | M8×1 tap. | |
| **406-403-S3** | 6 | M10×1 | |
| **406-423-S3** | 6 | M10×1 tap. | LL |
| **410-443-S3** | 6 | M10×1 tap. | |
| **441-008-511-S3** | 8 | M10×1 tap. | |
| **410-403-S3** | 10 | M14×1.5 | L |

1) kurzes Zapfengewinde

### Straight screw-in connectors to DIN 2353 with Whitworth pipe thread



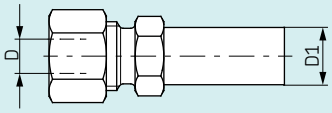

| Order No. | Tube øD | D1 | Series |
|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | |
| **Form D** | | | |
| **44-2573-6330** | 4 | G 1/4 A | |
| **406-403W** | 6 | G 1/8 A | |
| **96-0204-0058** | 6 | G 1/4 A | |
| **406-463W** | 6 | G 3/8 A | |
| **96-0203-0058** | 8 | G 1/8 A | |
| **408-403W** | 8 | R 1/4 | |
| **408-413W** | 8 | G 3/8 A | |
| **408-453W** | 8 | G 1/2 A | |
| **410-403W** | 10 | G 1/4 A | |
| **410-413W** | 10 | G 3/8 A | |
| **410-433W** | 10 | G 1/2 A | |
| **412-423W** | 12 | G 1/4 A | L |
| **412-403W** | 12 | G 3/8 A | |
| **412-453W** | 12 | G 1/2 A | |
| **415-443W** | 15 | G 3/4 A | |
| **415-403W** | 15 | G 1/2 A | |
| **415-433W** | 15 | G 3/8 A | |
| **418-403W** | 18 | G 1/2 A | |
| **418-413W** | 18 | G 3/4 A | |
| **96-0223-0058** | 22 | G 1/2 A | |
| **96-0222-0058** | 22 | G 3/4 A | |
| **428-413W** | 28 | G 3/4 A | |
| **428-403W** | 28 | G 1 A | |
| **96-1108-0058** | 8 | G 1/4 A | |
| **96-1109-0058** | 8 | G 3/8 A | |
| **96-1111-0058** | 10 | G 1/4 A | |
| **96-1110-0058** | 10 | G 3/8 A | |
| **96-1112-0058** | 12 | G 3/8 A | |
| **96-1113-0058** | 12 | G 1/2 A | S |
| **96-1114-0058** | 14 | G 1/2 A | |
| **96-1117-0058** | 16 | G 3/8 A | |
| **96-1116-0058** | 16 | G 1/2 A | |
| **96-1121-0058** | 20 | G 1/2 A | |
| **96-1120-0058** | 20 | G 3/4 A | |
| **Form B** | | | |
| **404-403W** | 4 | R 1/8 tap. | |
| **406-423W** | 6 | R 1/8 tap. | |
| **408-423W** | 8 | R 1/8 tap. | |
| **96-5909-0058** | 8 | R 1/4 tap. | LL |
| **96-5911-0058** | 10 | G 1/4 tap. | |
| **96-5912-0058** | 11 | G 1/8 tap. | |
| **96-5913-0058** | 12 | G 3/8 tap. | |
| **Stainless steel** | | | |
| **406-403W-S3** | 6 | G 1/8 A | |
| **406-413W-S3** | 6 | G 1/4 A | |
| **99-0204-0058** | 6 | G 1/4 A | |
| **410-403W-S3** | 10 | G 1/4 A | |
| **99-0215-0058** | 15 | G 1/2 A | L |
| **99-0217-0058** | 15 | G 3/8 A | |
| **418-403W-S3** | 18 | G 1/2 A | |
| **99-0222-0058** | 22 | G 3/4 A | |
| **99-0228-0058** | 28 | G 1 A | |
| **406-423W-S3** | 6 | G 1/8 A | LL |
| **408-423W-S3** | 8 | R 1/8 K | |

LL-series = extra light version
L-series = light version
S-series = heavy duty version

# Fittings

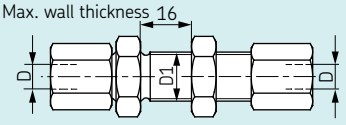
## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

### Reducing connectors




| Order No. | Tube øD | ø D1 |
|---|---|---|
| **408-406** | 6 | 8 |
| **410-406** | 6 | 10 |
| **443-706-121** | 6 | 12 |
| **443-706-151** | 6 | 15 |
| **443-706-181** | 6 | 18 |
| **410-408** | 8 | 10 |
| **443-708-121** | 8 | 12 |
| **443-708-151** | 8 | 15 |
| **443-708-181** | 8 | 18 |
| **443-710-061** | 10 | 8 |
| **412-410** | 10 | 12 |
| **415-410** | 10 | 15 |
| **443-710-181** | 10 | 18 |
| **443-712-151** | 12 | 15 |
| **418-412** | 12 | 18 |
| **422-412** | 12 | 22 |
| **443-715-181** | 15 | 18 |

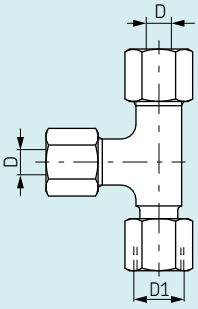
### Straight bulkhead connectors




| Order No. | Tube øD | ø D1 |
|---|---|---|
| **406-416** | 6 | 12.5 |
| **408-416** | 8 | 14.5 |
| **410-416** | 10 | 16.5 |
| **412-416** | 12 | 18.5 |
| **415-416** | 15 | 22.5 |
| **418-416** | 18 | 26.5 |
| **422-416** | 22 | 30.5 |

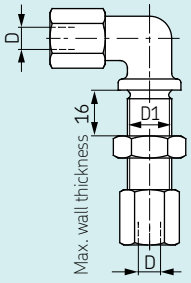
### L-screw-in connectors, directionally adjustable

| Order No. | Tube ø D | D1 | Series |
|---|---|---|---|
| **443-406-061** | 6 | M12×1.5 | L |
| **443-408-081** | 8 | M14×1.5 | |
| **443-410-101** | 10 | M16×1.5 | |
| **443-412-121** | 12 | M18×1.5 | |
| **443-415-151** | 15 | M22×1.5 | |
| **443-418-181** | 18 | M26×1.5 | |
| **443-406-351** | 6 | M14×1.5 | S |
| **443-408-083** | 8 | M16×1.5 | |
| **96-3010-0060** | 10 | M18×1.5 | |
| **96-3012-0060** | 12 | M20×1.5 | |
| **96-3014-0060** | 14 | M22×1.5 | |
| **96-3016-0060** | 16 | M24×1.5 | |
| **443-410-211** | 10 | G 3/8 A | S |
| **443-410-161** | 10 | G 1/4 A | L |



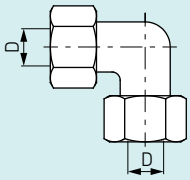

### Elbow bulkhead connectors

| Order No. | Tube ø D | ø D1 |
|---|---|---|
| **406-409** | 6 | 12.5 |
| **408-409** | 8 | 14.5 |
| **410-409** | 10 | 16.5 |
| **412-409** | 12 | 18.5 |
| **415-409** | 15 | 22.5 |
| **418-409** | 18 | 26.5 |
| **443-190-901** | 22 | 30.5 |




### Elbow connectors

| Order No. | Tube øD |
|---|---|
| **406-404** | 6 |
| **96-0408-0058** | 8 |
| **410-404** | 10 |
| **412-404** | 12 |
| **443-215-001** | 15 |
| **443-218-001** | 18 |
| **443-290-001** | 22 |



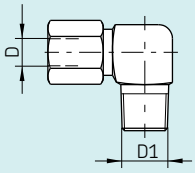

L-series = light version
S-series = heavy duty version

# Fittings

## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

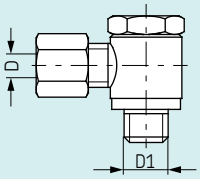
### Elbow screw-in connectors with metrical thread

| Order No. | Tube ø D | D1 | Series |
|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | |
| **Form F** | | | |
| **96-6202-0058** | 4 | M6 tap. | |
| **404-425** | 4 | M10×1 tap. | |
| **406-445** | 6 | M6 tap. | |
| **406-435** | 6 | M8×1 tap. | LL |
| **406-425** | 6 | M10×1 tap. | |
| **408-425** | 8 | M10×1 tap. | |
| **406-405** | 6 | M10×1 tap. | |
| **408-405** | 8 | M12×1.5 tap. | |
| **410-405** | 10 | M14×1.5 tap. | L |
| **412-405** | 12 | M16×1.5 tap. | |
| **415-405** | 15 | M18×1.5 tap. | |
| **410-425** | 10 | M16×1.5 tap. | S |
| **Stainless steel** | | | |
| **404-405-S3** | 4 | M8×1 tap. | |
| **406-435-S3** | 6 | M8×1 tap. | LL |
| **406-445-S3** | 6 | M6 tap. | |



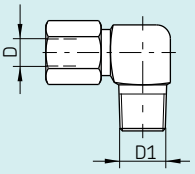

### Banjo fittings with metrical thread

| Order No. | Tube ø d | d1 | Series |
|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | |
| **445-529-041** | 4 | M8×1 | |
| **96-7104-0158** | 4 | M10×1 | LL |
| **445-531-061** | 6 | M10×1 | |
| **96-7808-0058** | 8 | M12×1.5 | |
| **445-535-101** | 10 | M14×1.5 | |
| **96-7812-0058** | 12 | M16×1.5 | L |
| **96-7815-0058** | 15 | M18×1.5 | |
| **96-7818-0058** | 18 | M22×1.5 | |
| **96-7822-0058** | 22 | M26×1.5 | |
| **96-8006-0058** | 6 | M12×1.5 | |
| **96-8008-0058** | 8 | M14×1.5 | |
| **96-8010-0058** | 10 | M16×1.5 | |
| **96-8012-0058** | 12 | M18×1.5 | S |
| **96-8014-0058** | 14 | M20×1.5 | |
| **96-8016-0058** | 16 | M22×1.5 | |
| **96-8020-0058** | 20 | M27×1.5 | |
| **96-7106-0058** | 6 | M10×1 | |
| **96-7108-0058** | 8 | M10×1 | LL |



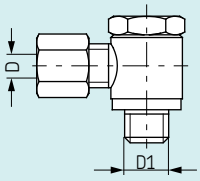

### Elbow screw-in connectors with Whitworth pipe thread

| Order No. | Tube ø D | D1 | Series |
|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | |
| **Form G** | | | |
| **404-405W** | 4 | R 1/8 tap. | |
| **96-6110-0058** | 10 | R 1/4 tap. | LL |
| **96-6112-0058** | 12 | R 1/4 tap. | |
| **406-405W** | 6 | R 1/8 tap. | |
| **406-515W** | 6 | R 1/4 tap. | |
| **408-425W** | 8 | R 1/8 tap. | |
| **408-405W** | 8 | R 1/4 tap. | |
| **410-405W** | 10 | R 1/4 tap. | L |
| **412-405W** | 12 | R 3/8 tap. | |
| **415-405W** | 15 | R 1/2 tap. | |
| **418-405W** | 18 | R 1/2 tap. | |
| **96-1412-0058** | 12 | R 3/8 tap. | S |
| **96-1414-0058** | 14 | R 1/2 tap. | |




### Banjo fittings with Whitworth pipe thread

| Order No. | Tube ø D | D1 | Series |
|---|---|---|---|
| **Steel, galvanized surface (Cr-6-free)** | | | |
| **96-7004-0058** | 4 | G 1/8 A | LL |
| **445-519-041** | 4 | G 1/8 A | |
| **445-519-061** | 6 | G 1/8 A | |
| **445-516-061** | 6 | G 1/4 A | |
| **445-516-081** | 8 | G 1/4 A | |
| **445-516-101** | 10 | G 1/4 A | L |
| **445-521-122** | 12 | G 3/8 A | |
| **445-513-181** | 18 | G 1/2 A | |
| **445-517-222** | 22 | G 3/4 A | |
| **96-7906-0058** | 6 | G 1/4 A | |
| **96-7908-0058** | 8 | G 1/4 A | |
| **96-7910-0058** | 10 | G 3/8 A | |
| **96-7912-0058** | 12 | G 3/8 A | S |
| **96-7914-0058** | 14 | G 1/2 A | |
| **96-7916-0058** | 16 | G 1/2 A | |
| **96-7920-0058** | 20 | G 3/4 A | |
| **96-7006-0058** | 6 | G 1/8 A | LL |
| **96-7008-0058** | 8 | G 1/8 A | |



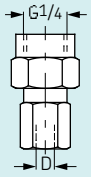

LL-series = extra light version; L-series = light version; S-series = heavy duty version

# Fittings

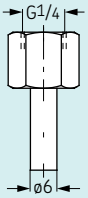
## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

### Connectors for pressure gauges

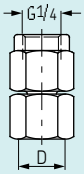
A




B




C




Conus for tube

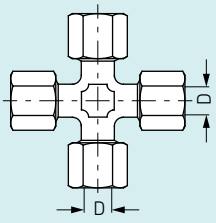
| Order No. | Tube ø D | Series |
|---|---|---|
| **Version A** | | |
| **406-411** | 6 | L |
| **408-411** | 8 | |
| **410-411** | 10 | |
| **412-411** | 12 | |
| **96-0406-0060** | 6 | S |
| **441-108-132** | 8 | |
| **96-0410-0060** | 10 | |
| **96-0412-0060** | 12 | |

| Order No. | Tube ø D | Series |
|---|---|---|
| **Version B** | | |
| **248-610.01** | 6 | L |
| **Version C** | | |
| **96-8804-0058** | 4 | S |
| **441-106-162** | 6 | |
| **96-0308-0060** | 8 | L |
| **441-110-163** | 10 | |
| **441-112-162** | 12 | |
| **96-8906-0058** | 6 | S |
| **96-8910-0058** | 10 | |
| **96-8912-0058** | 12 | |

Pressure gauge → page 47

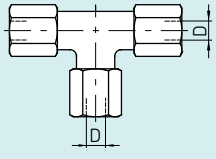
### Four-way connectors

| Order No. | Tube ø D | Series |
|---|---|---|
| **96-2106-0058** | 6 | LL |
| **446-308-001** | 8 | |
| **446-310-001** | 10 | |
| **446-312-001** | 12 | |
| **446-315-001** | 15 | |
| **96-2118-0058** | 18 | |
| **96-2122-0058** | 22 | |



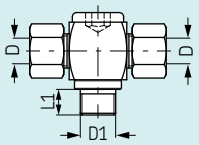

### Tee connectors

| Order No. | Tube ø D | Series |
|---|---|---|
| **96-6904-0058** | 4 | LL |
| **406-407** | 6 | L |
| **408-407** | 8 | |
| **410-407** | 10 | |
| **412-407** | 12 | |
| **415-407** | 15 | |
| **418-407** | 18 | |
| **422-407** | 22 | |



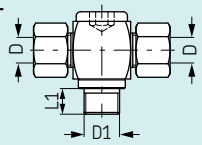

### Tee screw-in connectors with metrical thread

| Order No. | Tube ø D | D1 | L1 | Series |
|---|---|---|---|---|
| **96-6404-0058** | 4 | M8×1 tap. | 8 | LL |
| **96-6406-0058** | 6 | M10×1 tap. | | |
| **96-6408-0058** | 8 | M10×1 tap. | | |
| **96-0906-0058** | 6 | M10×1 tap. | 8 | L |
| **96-0908-0058** | 8 | M12×1.5 tap. | 12 | L |
| **445-910-551** | 10 | M14×1.5 tap. | | |
| **96-0912-0058** | 12 | M16×1.5 tap. | | |
| **96-0915-0058** | 15 | M18×1.5 tap. | | |
| **96-1806-0058** | 6 | M12×1.5 tap. | 12 | S |
| **96-1808-0058** | 8 | M14×1.5 tap. | | |
| **96-1810-0058** | 10 | M16×1.5 tap. | | |
| **96-1812-0058** | 12 | M18×1.5 tap. | | |
| **96-1814-0058** | 14 | M20×1.5 tap. | 11 | S |
| **96-1816-0058** | 16 | M22×1.5 tap. | | |
| **445-735-101** | 10 | M14×1.5 | 12 | L |
| **445-739-151** | 15 | M18×1.5 | 14 | |




### Tee screw-in connectors with Whitworth pipe thread

| Order No. | Tube ø D | D1 | L1 | Series |
|---|---|---|---|---|
| **96-6304-0058** | 4 | R 1/8 tap. | 8 | LL |
| **96-6306-0058** | 6 | R 1/8 tap. | | |
| **96-6308-0058** | 8 | R 1/8 tap. | | |
| **96-0806-0058** | 6 | R 1/8 tap. | 8 | L |
| **96-0808-0058** | 8 | R 1/4 tap. | 12 | L |
| **96-0810-0058** | 10 | R 1/4 tap. | | |
| **96-0812-0058** | 12 | R 3/8 tap. | | |
| **96-0815-0058** | 15 | R 1/2 tap. | | |
| **96-0818-0058** | 18 | R 1/2 tap. | 14 | L |
| **96-1706-0058** | 6 | R 1/4 tap. | 12 | S |
| **96-1708-0058** | 8 | R 1/4 tap. | | |
| **96-1710-0058** | 10 | R 3/8 tap. | | |
| **96-1712-0058** | 12 | R 3/8 tap. | | |
| **96-1714-0058** | 14 | R 1/2 tap. | 14 | S |
| **96-1716-0058** | 16 | R 1/2 tap. | | |
| **445-721-121** | 12 | G 3/8 A | 12 | L |
| **445-713-151** | 15 | G 1/2 A | 14 | L |
| **445-717-221** | 22 | G 3/4 A | | |

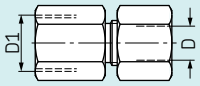



LL-series = extra light version; L-series = light version; S-series = heavy duty version

# Fittings

## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

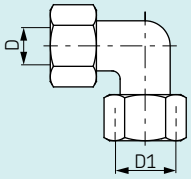
### Straight screw-in fitting




| Order No. | Tube øD | D1 | Series |
|---|---|---|---|
| **96-0506-0060** | 6 | M10×1 | |
| **96-0508-0060** | 8 | M12×1.5 | |
| **96-0510-0060** | 10 | M14×1.5 | |
| **96-0512-0060** | 12 | M16×1.5 | L |
| **96-0515-0060** | 15 | M18×1.5 | |
| **96-0518-0060** | 18 | M22×1.5 | |
| **96-0522-0060** | 22 | M26×1.5 | |
| **96-0606-0060** | 6 | M12×1.5 | |
| **96-0608-0060** | 8 | M14×1.5 | |
| **96-0610-0060** | 10 | M16×1.5 | |
| **96-0612-0060** | 12 | M18×1.5 | S |
| **96-0614-0060** | 14 | M20×1.5 | |
| **96-0616-0060** | 16 | M22×1.5 | |
| **96-0620-0060** | 20 | M27×2 | |
| **96-0706-0060** | 6 | G 1/8 A | |
| **96-0708-0060** | 8 | G 1/4 A | |
| **96-0709-0060** | 8 | G 3/8 A | |
| **96-0710-0060** | 10 | G 1/4 A | |
| **96-0711-0060** | 10 | G 3/8 A | L |
| **96-0712-0060** | 12 | G 3/8 A | |
| **96-0713-0060** | 12 | G 1/2 A | |
| **96-0715-0060** | 15 | G 1/2 A | |
| **96-0718-0060** | 18 | G 1/2 A | |
| **96-0722-0060** | 22 | G 3/4 A | |

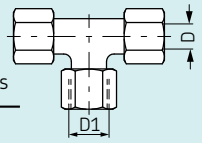
### Elbow female thread unions

| Order No. | Tube øD | D1 |
|---|---|---|
| **443-306-341** | 6 | M12×1.5 |
| **443-306-343** | 6 | M14×1.5 |
| **443-308-351** | 8 | M14×1.5 |




### Tee female thread unions

directionally adjustable



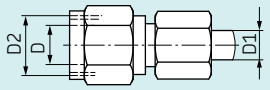

| Order No. | Tube øD | D1 | Series |
|---|---|---|---|
| **96-3106-0060** | 6 | M12×1.5 | |
| **445-808-351** | 8 | M14×1.5 | |
| **445-810-371** | 10 | M16×1.5 | |
| **96-3112-0060** | 12 | M18×1.5 | L |
| **96-3115-0060** | 15 | M22×1.5 | |
| **96-3118-0060** | 18 | M26×1.5 | |
| **96-3122-0060** | 22 | M30×1.5 | |
| **445-806-351** | 6 | M14×1.5 | |
| **96-3208-0060** | 8 | M16×1.5 | |
| **96-3210-0060** | 10 | M18×1.5 | |
| **96-3212-0060** | 12 | M20×1.5 | S |
| **96-3214-0060** | 14 | M22×1.5 | |
| **96-3216-0060** | 16 | M24×1.5 | |
| **96-3220-0060** | 20 | M30×1.5 | |

LL-series = extra light version
L-series = light version
S-series = heavy duty version

# Fittings

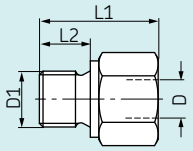
## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

### Reducing connections




| Order No. | Tube øD | Tube øD1 | D2 | Series |
|---|---|---|---|---|
| **96-1406-0060** | 6 | 4 | M10×1 | |
| **96-1408-0060** | 8 | 4 | M12×1 | LL |
| **96-1410-0060** | 8 | 6 | M12×1 | |
| **96-1508-0060** | 8 | 6 | M14×1.5 | |
| **96-1511-0060** | 10 | 6 | M16×1.5 | |
| **96-1523-0060** | 12 | 10 | M18×1.5 | |
| **96-1532-0060** | 15 | 8 | M22×1.5 | |
| **96-1533-0060** | 15 | 10 | M22×1.5 | |
| **96-1541-0060** | 18 | 6 | M26×1.5 | |
| **96-1542-0060** | 18 | 8 | M26×1.5 | L |
| **96-1543-0060** | 18 | 10 | M26×1.5 | |
| **96-1545-0060** | 18 | 15 | M26×1.5 | |
| **96-1551-0060** | 22 | 6 | M30×2 | |
| **96-1555-0060** | 22 | 15 | M30×2 | |
| **96-1556-0060** | 22 | 18 | M30×2 | |
| **96-1610-0060** | 8 | 6 | M16×1.5 | |
| **96-1611-0060** | 10 | 6 | M18×1.5 | |
| **96-1612-0060** | 10 | 8 | M18×1.5 | |
| **96-1621-0060** | 12 | 6 | M20×1.5 | |
| **96-1622-0060** | 12 | 8 | M20×1.5 | |
| **96-1623-0060** | 12 | 10 | M20×1.5 | |
| **96-1631-0060** | 14 | 6 | M22×1.5 | |
| **96-1632-0060** | 14 | 8 | M22×1.5 | |
| **96-1633-0060** | 14 | 10 | M22×1.5 | |
| **96-1634-0060** | 14 | 12 | M22×1.5 | |
| **96-1641-0060** | 16 | 6 | M24×1.5 | S |
| **96-1642-0060** | 16 | 8 | M24×1.5 | |
| **96-1643-0060** | 16 | 10 | M24×1.5 | |
| **96-1644-0060** | 16 | 12 | M24×1.5 | |
| **96-1645-0060** | 16 | 14 | M24×1.5 | |
| **96-1651-0060** | 20 | 6 | M30×2 | |
| **96-1652-0060** | 20 | 8 | M30×2 | |
| **96-1653-0060** | 20 | 10 | M30×2 | |
| **96-1654-0060** | 20 | 12 | M30×2 | |
| **96-1655-0060** | 20 | 14 | M30×2 | |
| **96-1656-0060** | 20 | 16 | M30×2 | |

### Reducing connections, sealing by sealing edge



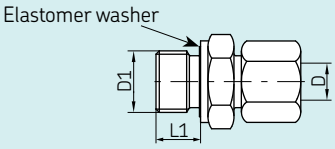

| Order No. | D1 | Tube øD | L1 | L2 |
|---|---|---|---|---|
| **401-016-191** | G 1/8 A | G 1/4 | 31 | 8 |
| **96-3116-0058** | G 1/4 A | G 1/8 | 28 | 12 |
| **96-3117-0058** | G 1/4 A | G 3/8 A | 36 | 12 |
| **96-3118-0058** | G 1/4 A | G 1/2 | 40 | 12 |
| **96-3101-0058** | G 3/8 A | G 1/8 | 22,5 | 12 |
| **96-3120-0058** | G 3/8 A | G 1/4 | 36 | 12 |
| **96-3121-0058** | G 3/8 A | G 1/2 | 41 | 12 |
| **96-3122-0058** | G 3/8 A | G 3/4 | 44 | 12 |
| **401-016-132** | G 1/2 A | G 1/4 | 24 | 14 |
| **96-3102-0058** | G 1/2 A | G 1/8 | 24 | 14 |
| **96-3123-0058** | G 1/2 A | G 3/8 | 36 | 14 |
| **96-3124-0058** | G 1/2 A | G 3/4 | 46 | 14 |
| **96-3125-0058** | G 1/2 A | G 1 | 49 | 14 |
| **96-3126-0058** | G 1/2 A | G 1 1/4 | 53 | 14 |
| **401-016-171** | G 3/4 A | G 1/4 | 26 | 16 |
| **96-3105-0058** | G 3/4 A | G 3/8 | 26 | 16 |
| **96-3127-0058** | G 3/4 A | G 1/2 | 41 | 16 |
| **96-3128-0058** | G 3/4 A | G 1 | 51 | 16 |
| **96-3129-0058** | G 3/4 A | G 1 1/4 | 55 | 16 |
| **401-013-111** | R 1 A | R 1/2 | 29 | 18 |
| **401-021-111** | G 1 A | G 3/8 | 29 | 18 |
| **96-3106-0058** | G 1 A | G 1/4 | 29 | 18 |
| **96-3131-0058** | G 1 A | G 3/4 | 47 | 18 |
| **96-3132-0058** | G 1 A | G 1 1/4 | 57 | 18 |
| **96-3133-0058** | G 1 A | G 1 1/2 | 59 | 18 |
| **96-3109-0058** | G 1 1/4 A | G 1/2 | 32 | 20 |
| **96-3110-0058** | G 1 1/4 A | G 3/4 | 32 | 20 |
| **96-3134-0058** | G 1 1/4 A | G 1 | 52 | 20 |
| **96-3111-0058** | G 1 1/2 A | G 1/2 | 36 | 22 |
| **96-3112-0058** | G 1 1/2 A | G 3/4 | 36 | 22 |
| **96-3113-0058** | G 1 1/2 A | G 1 | 36 | 22 |
| **96-3136-0058** | G 1 1/2 A | G 1 1/4 | 58 | 22 |
| **96-3137-0058** | G 2 A | G 1 1/2 | 62 | 24 |

LL-series = extra light version
L-series = light version
S-series = heavy duty version

# Fittings

## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 9974-1/DIN 2353 and elastomer washer

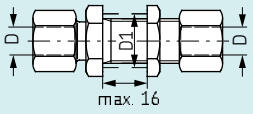
### Straight screw-in connectors with elastomer washer and E02 function nut




| Order No. | Tube øD | D1 | L1 | 3 |
|---|---|---|---|---|
| **471-004-191** [1] | 4 | G 1/8 A | 16 | |
| **471-004-311** [1] | | M10×1 | | |
| **471-006-192** | 6 | G 1/8 A | 8 | |
| **471-006-161** | | G 1/4 A | 12 | |
| **471-006-311** | | M10×1 | 8 | |
| **471-006-351** | | M14×1.5 | 8 | |
| **471-008-130** | 8 | G 1/8 | 8 | |
| **471-008-161** | | G 1/4 A | 12 | |
| **471-008-131** | | G 1/2 | 14 | |
| **471-008-211** | | G 3/8 A | 12 | |
| **471-008-314** | | M10×1 | 14 | |
| **471-008-345** | | M12×1.5 | 12 | |
| **471-008-351** | | M14×1.5 | 12 | |
| **471-008-391** | | M18×1.5 | 11 | |
| **471-010-161** | 10 | G 1/4 A | 12 | |
| **471-010-211** | | G 3/8 A | 12 | |
| **471-010-312** | | M10×1 | 15 | |
| **471-010-351** | | M14×1.5 | 12 | |
| **471-010-391** | | M18×1.5 | 11 | |
| **471-012-161** | 12 | G 1/4 A | 12 | |
| **471-012-211** | | G 3/8 A | | |
| **471-012-391** | | M18×1.5 | | |
| **471-015-131** | 15 | G 1/2 A | 14 | |

[1] LL-series (extra light version)

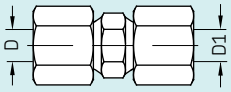
### Straight bulkhead connectors with E02 function nut




| Order No. | Tube øD | D1 |
|---|---|---|
| **474-606-331** | 6 | 12.5 |
| **474-608-351** | 8 | 14.5 |
| **474-610-351** | 10 | 16.5 |
| **474-612-391** | 12 | 18.5 |
| **474-615-431** | 15 | 22.5 |
| **474-618-441** | 18 | 26.5 |

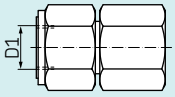
Max. operating pressure 315 bars

### Straight connectors (tube to tube) with E02 function nut



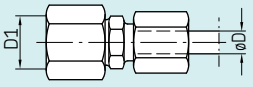

| Order No. | Tube øD, D1 |
|---|---|
| **474-506-061** | 6 |
| **474-508-081** | 8 |
| **474-510-101** | 10 |
| **474-512-121** | 12 |
| **474-515-151** | 15 |
| **474-518-181** | 18 |

### Straight connectors using a threaded pin and E02 function nut




| Order No. | Tube øD | D1 | Threaded pin |
|---|---|---|---|
| **471-106-311** | 6 | | |
| **471-108-311** | 8 | M10×1 | **406-243-B** |
| **471-110-311** | 10 | | |
| **471-106-331** | 6 | | |
| **471-108-331** | 8 | M12×1 | **408-243-B** |
| **471-110-331** | 10 | | |

### Reducing connectors with E02 function nut




| Order No. | Tube øD | D1 |
|---|---|---|
| **473-806-351** | 6 | M14×1.5 |
| **473-806-391** | 6 | M20×1.5 |
| **473-808-371** | 8 | M16×1.5 |
| **473-808-392** | 8 | |
| **473-810-391** | 10 | M18×1.5 |
| **473-810-371** [1] | 10 | |

[1] S-series (heavy duty version)

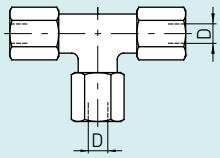
The cutting sleeve screw unions shown correspond to the L-series (light version).

# Fittings

## solderless pipe union with cutting-sleeve acc. to DIN EN ISO 9974-1/DIN 2353 and elastomer washer

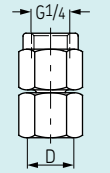
**Tee connectors**
**with E02 function nut**

| Order No. | Tube øD |
|---|---|
| **476-006-001** | 6 |
| **476-008-001** | 8 |
| **476-010-001** | 10 |
| **476-012-001** | 12 |
| **476-015-001** | 15 |




**Connectors for pressure gauges**
**with E02 function nut**

| Order No. | Tube øD |
|---|---|
| **471-106-163** | 6 |
| **471-108-163** | 8 |
| **471-110-163** | 10 |
| **471-112-163** | 12 |



for tube ø10

The cutting sleeve screw unions shown correspond to the L-series (light version).

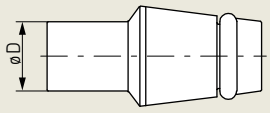
# Accessories

## Solderless pipe union with cutting-sleeve according to DIN EN ISO 9974-1 and DIN 2353

### Cone plugs

| Order No. | Tube ø D |
|---|---|
| **460-706-001** | 6 |
| **460-708-001** | 8 |
| **460-710-001** | 10 |
| **460-712-001** | 12 |

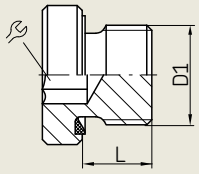
### Cone plug




### Screw plugs with elastomer seal

| Order No. | D1 | L | |
|---|---|---|---|
| **466-411-001** | G 1 A | 16 | 17 |
| **466-413-001** | G 1/2 A | 14 | 10 |
| **466-416-001** | G 1/4 A | 12 | 6 |
| **466-418-001** | G 3/4 A | 16 | 12 |
| **466-439-001** | M18×1.5 | 12 | 8 |

### Screw plug




### Screw plugs with profile seal according to DIN 3869

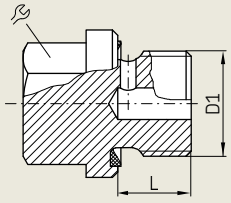
| Order No. | D1 | L | |
|---|---|---|---|
| **466-419-001** | G 1/8 A | 8 | 5 |
| **466-429-001** | M8×1 | 8 | 4 |
| **466-431-001** | M10×1 | 8 | 5 |

### Vent plugs with profile seal according to DIN 3869

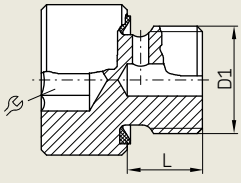
| Order No. | D1 | L | | Fig. |
|---|---|---|---|---|
| **466-431-006** | M10×1 | 7 | 10 | a |
| **466-431-005**<br>**466-431-009** | M10×1<br>G 1/8 A | 7 | 5 | b |

### Vent plug

**a)**



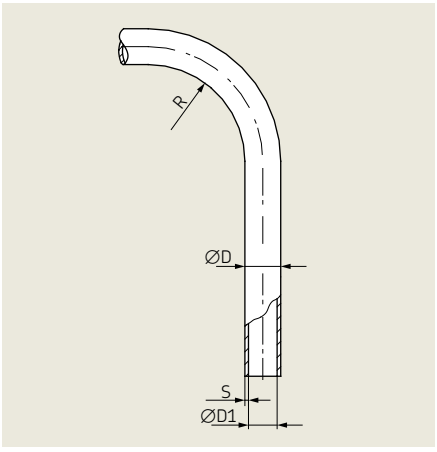

**b)**




More screw plugs → page 12

# Tubes and hoses

## Steel tubing




**Steel tubing**

| Order No. | ø D [mm] | S [mm] | ø D1 [mm] | Minimum bending radius R [1] [mm] | Permissible operating pressure [2] [bar] | Burst pressure [bar] |
|---|---|---|---|---|---|---|
| **Steel tubing, galvanized surface (Cr-6 free)** | | | | | | |
| **WV-R06×0.7 VERZI** | 6 ±0.05 | 0.7 | 4.6 ±0.11 | 12 | 320 | 850 |
| **WV-R08×0.7 VERZI** | 8 ±0.05 | 0.7 | 6.6 ±0.11 | 19 | 230 | 675 |
| **WV-R010×0.7 VERZI** | 10 ±0.05 | 0.7 | 8.6 ±0.13 | 27 | 180 | 550 |
| **Steel tubing nach EN10305-4, verzinkt, Cr-6-frei** | | | | | | |
| **982-120-041** | 4 ±0.05 | 0.7 | 2.6 ±0.10 | 12 | 368 | 952 |
| **982-120-040** | 4 ±0.08 | 1.0 | 2 ±0.15 | 12 | 500 | 1360 |
| **982-120-060** | 6 ±0.08 | 1.0 | 4 ±0.12 | 18 | 372 | 963 |
| **982-120-080** | 8 ±0.08 | 1.0 | 6 ±0.10 | 24 | 288 | 723 |
| **982-120-100** | 10 ±0.08 | 1.0 | 8 ±0.08 | 30 | 248 | 612 |
| **982-120-120** | 12 ±0.08 | 1.5 | 9 ±0.10 | 36 | 303 | 765 |
| **982-120-150** | 15 ±0.08 | 1.5 | 12 ±0.08 | 45 | 248 | 612 |
| **982-120-180** | 18 ±0.08 | 1.5 | 15 ±0.08 | 54 | 209 | 510 |
| **Stainless steel (material 1.4301/1.4306)** | | | | | | |
| **D1127R02.5x0.5+A46** | 2,5 ±0.03 | 0.5 | 1.5 +0.05 | 7,5 | 386 | 1664 |
| **DIN2462-R04×1+A46** | 4 ±0.1 | 1 | 2 ±0.2 | 12 | 466 | 2080 |
| **DIN2462-R06×1+A46** | 6 ±0.1 | 1 | 4 ±0.2 | 18 | 347 | 1473 |
| **DIN2462-R08×1+A46** | 8 ±0.1 | 1 | 6 ±0.2 | 24 | 269 | 1105 |
| **DIN2462-R010×1+A46** | 10 ±0.1 | 1 | 8 ±0.2 | 30 | 231 | 936 |

Temperature range –25 to +80 °C

1) For cold bending with bending device or by hand with grooved disk.
2) Dynamic load according to DIN 2413

**Tube bending device**

| ø steel pipeline [mm] | Order No. |
|---|---|
| 4, 6, 8, 10 | **248-803.20** |
| 12 (special grooved disk) [3] | **248-803.17** |
| 4 (retro fitting set) [4] | **248-803.16** |

3) To bend pipes with 12 mm diameter, the special grooved disk **248-803.17** must be ordered in addition to pipe bending device **248-803.20**.

4) Retro fitting set with grooved disk for older pipe bending devices **248-803.20**.

**Tube bending device**

# Tubes and hoses

## Technical data

### How to use the configurator

Please be aware of the following:
- Both accessories should have the same coating.
- The minimum order length is 230 mm.
- For customer-specific versions, the labels must be specified manually.
- Customer-specific markings can be made by labels, imprint or with clips (→ example page 45).
- 3-D models and order code are online configurable on **skf-lubrication.partcommunity.com**

**Technical data**

**Plastic tubing**

| | | | |
|---|---|---|---|
| semirigid (without plasticizer) | **PA12H (natural)**<br>**polyamide 12, semirigid, unplasticized as per DIN 73378, stabilized against heat and ageing** | **PA12HL (black tubing)**<br>**polyamide 12, semirigid, unplasticized as per DIN 73378, stabilized against light, heat and ageing,** lowest moisture absorption | **PA6.12 (black tubing)** [1]<br>**polyamide**, semi-rigid, high impact resistance, low moisture absorption, heat stabilized |
| Material code | A | A | C |
| Temperature range | –60 to +80 °C | –60 to +80 °C | –60 to +110 °C |
| flexible (containing plasticizer) | **PA12PH (natural)**<br>**polyamide 12, flexible, containing plasticizer as per DIN 73378, stabilized against heat and ageing** | **PA12PHL (black tubing)**<br>**polyamide 12, flexible, containing plasticizer as per DIN 73378, stabilized against light, heat, and ageing** | |
| Material code | B | B | |
| Temperature range | –60 to +80 °C | –60 to +80 °C | |

**High pressure hose**

| | | | |
|---|---|---|---|
| **NW4** (tube outside ∅ 8,6 mm)<br>**NW6** (tube outside ∅ 11,3 mm) | **PUR** (black tubing) | Inner hose<br>Pressure reinforcement<br>Sheathing | polyamide, soft<br>polyester high strength<br>polyurethane |
| Material code | D | | |
| Temperature range | –40 to + 70 °C | | |
| **NW8** (tube outside ∅ 16,5 mm) | **BUNA (black)** | Inner hose and sheathing | synthetic rubber |
| Material code | E | | |
| Temperature range | –40 to + 100 °C | | |

1) alternative PA6.10 or PA12HL possible

**Pressure utilization factor**

| Temperature up to [°C] | 23 | 30 | 40 | 50 | 60 | 70 | 80 |
|---|---|---|---|---|---|---|---|
| Pressure efficiency [%] | 100 | 83 | 72 | 64 | 57 | 52 | 47 |

The pressure utilization factor indicates the percentage utilization of effective stress available in the specified temperature ranges, based on 23 °C.

# Tubes and hoses

## Configurator high pressure hose

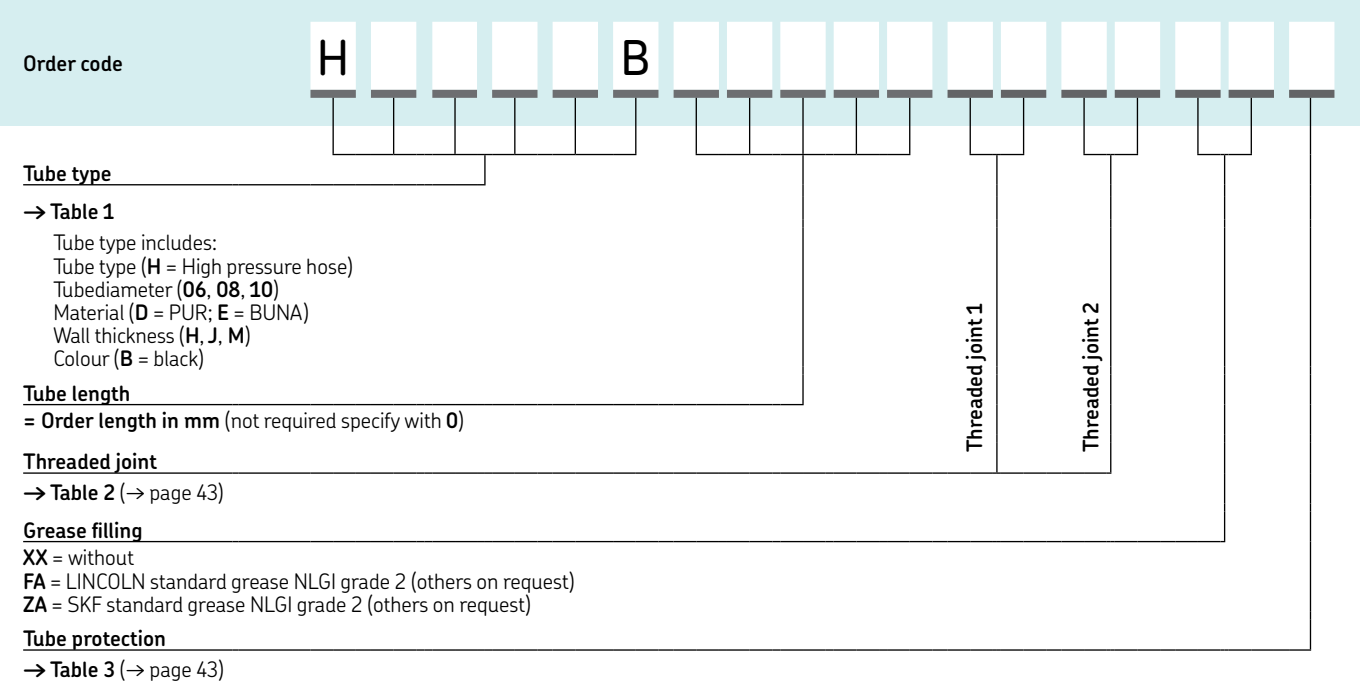



**Tabelle 1**

Tube type

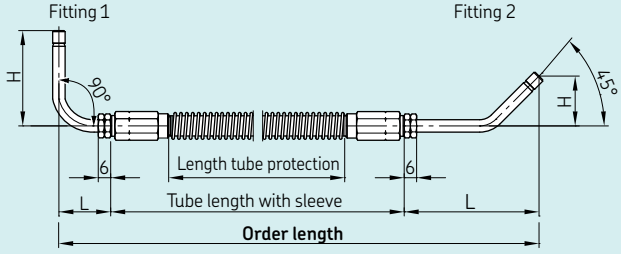
| Tube type<br>Tube∅<br>Material<br>Wall thickness<br>Colour | Tube outside ∅ [mm] | Wall thick-ness [mm] | Min. bending radius [1] [mm] | Burst pres-sure [2] [bar] | Length 50 m Order No. |
|---|---|---|---|---|---|
| Code | | | | | |
| **H 06 D H B** | 8,6 | 2,3 | 35 | 840 | 982-750-091<br>111-35114-1 |
| **H 08 D J B** | 11 | 2,5 | 45 | 840 | 982-750-111<br>111-35301-4 |
| **H 10 E M B** | 16,5 | 4,5 | 55 | 520 | WVN711-10 |

[1] without bending device

[2] The permissible burst pressure is lower at higher temperatures (→ pressure utilization factor table, page 41).

**Order example high pressure hose**

Order code: **H06DHB02500BCBDZADXXXXX**




- High pressure hose
- Tube outside ∅ 8,6 mm (NW 4)
- Material PUR
- Wall thickness 2.3 mm
- Black tubing
- Tube length 2500 mm
- Tube stud ∅6 mm, 90° angle
- Tube stud ∅6 mm, 45° angle
- SKF standard grease
- Corrugated hose NW10

→ Online configurable on **skf-lubrication.partcommunity.com**

# Tubes and hoses

## Threated joint, tube protection

Table 2

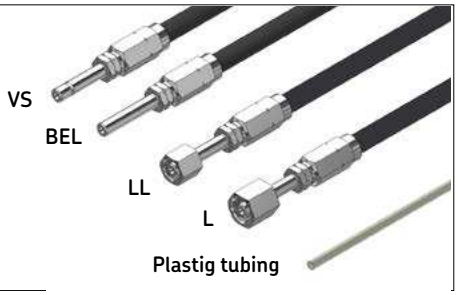
**Threated joint for high pressure hoses H06, H08, H10**

| | Tube stud | L [mm] | H [mm] | Tube ØD [mm] | Order No. [1] | Code |
|---|---|---|---|---|---|---|
| **Stainless steel** | | | | | | |
| BEL | straight | 36 | | 6 | 855-380-002 | **CA** |
| | 90° abgewinkelt | 19 | 21 | 6 | 855-380-003 | **CB** |
| VS | straight | 39 | | 6 | 855-380-002-VS | **CC** |
| | 90° abgewinkelt | 19 | 35 | 6 | 855-380-003-VS | **CD** |
| **Zinc-nickel, Cr-6-free** | | | | | | |
| VS | straight | 32 | | 6 | 853-370-002-VS | **AA** |
| | straight | 39 | | 6 | 853-380-002-VS | **AB** |
| | 90° angle | 19 | 35 | 6 | 853-380-003-VS | **AC** |
| | 45° angle | 40 | 23 | 6 | 853-380-004-VS | **AD** |
| | 45° angle | 65 | 18 | 6 | 853-380-007-VS | **AE** |
| | straight | 75 | | 6 | 853-390-002-VS | **AF** |
| | 90° angle | 30 | 50 | 6 | 853-390-003-VS | **AG** |
| | 45° angle | 65 | 24 | 6 | 853-390-004-VS | **AH** |
| | 30° angle | 70 | 17 | 6 | 853-390-005-VS | **AJ** |
| | straight | 39 | | 8 | 406-708-005-VS | **DA** |
| BEL | straight | 26 | | 6 | 853-370-002 | **BA** |
| | straight | 36 | | 6 | 853-380-002 | **BB** |
| | 90° angle | 19 | 21 | 6 | 853-380-003 | **BC** |
| | 45 angle | 23 | 11 | 6 | 853-380-004 | **BD** |
| | straight | 75 | | 6 | 853-390-002 | **BE** |
| | 90° angle | 30 | 50 | 6 | 853-390-003 | **BF** |
| | 90° angle | 30 | 36 | 6 | 853-390-004 | **BG** |
| | straight | 26 | | 8 | 406-708-005 | **EA** |
| | straight | 32 | | 8 | 406-708-006 | **EB** |
| | straight | 53 | | 8 | 406-708-007 | **EC** |
| | 90° angle | 25 | 34 | 8 | 406-708-008 | **ED** |
| | 45° angle | 43 | 26 | 8 | 406-708-009 | **EE** |
| | straight | 35 | | 10 | 406-710-002 | **FA** |
| LL | straight | 26 | | 6 | 853-370-002 | **PA** |
| | straight | 36 | | 6 | 853-380-002 | **PB** |
| | 90° angle | 19 | 22 | 6 | 853-380-003 | **PC** |
| | 45° angle | 23 | 11 | 6 | 853-380-004 | **PD** |
| | straight | 75 | | 6 | 853-390-002 | **PE** |
| | 90° angle | 30 | 50 | 6 | 853-390-003 | **PF** |
| | 90° angle | 30 | 36 | 6 | 853-390-004 | **PG** |
| | straight | 26 | | 8 | 406-708-005 | **PJ** |
| | straight | 32 | | 8 | 406-708-006 | **PK** |
| | straight | 53 | | 8 | 406-708-007 | **PL** |
| | 90° angle | 25 | 34 | 8 | 406-708-008 | **PM** |
| | 45° angle | 43 | 26 | 8 | 406-708-009 | **PN** |
| L | straight | 26 | | 6 | 853-370-002 | **SA** |
| | straight | 36 | | 6 | 853-380-002 | **SB** |
| | straight | 75 | | 6 | 853-390-002 | **SE** |
| | 90° angle | 30 | 50 | 6 | 853-390-003 | **SF** |
| | 90° angle | 30 | 36 | 6 | 853-390-004 | **SG** |
| | straight | 26 | | 8 | 406-708-005 | **SJ** |
| | straight | 32 | | 8 | 406-708-006 | **SK** |
| | straight | 53 | | 8 | 406-708-007 | **SL** |
| | 90° angle | 25 | 34 | 8 | 406-708-008 | **SM** |
| | 45° angle | 43 | 26 | 8 | 406-708-009 | **SN** |

VS = quick connector
BEL = for solderless pipe union with cutting-sleeve
LL = extra light version [2] [3]
L = light version [2] [3]

[1] incl. sleeve → table 4
[2] EO, metallic sealing
[3] utting sleeves and union nuts → page 30

**Fitting version**




**Tube protection**


Table 3

**Tube protection**

| Designation | Ø [mm] | Tube type | order No. | Code |
|---|---|---|---|---|
| without | | | | **X** |
| **Polypropylene** | | | | |
| Spiral hose | 6–9 | T06, T08, H06 | 982-760-102 | **A** |
| Spiral hose | 10–16 | T10, H08, H10 | 982-760-172 | **A** |
| **Polyethylene, black colour** | | | | |
| Protective helix | 5–20 | T06, T08 | 113-35075-2 | **B** |
| Protective helix | 9–30 | T10, H08, H06, H10 | 113-35075-3 | **B** |
| **Stainless steel** | | | | |
| Anti-kink coil | 6.1 | T06 | 982-760-122 | **C** |
| Anti-kink coil | 10.6 | T08, T10, H06 | 982-760-132 | **C** |
| Anti-kink coil | 12.5 | H08 | 982-760-142 | **C** |
| Anti-kink coil | 17 | H10 | 111-35306-5 | **C** |
| **Polyamide 6, black colour** | | | | |
| Corrugated hose NW8 | 8.4 | T06, T08 | 982-760-120 | **D** |
| Corrugated hose NW10 | 10 | T10, H06 | 982-760-130 | **D** |
| Corrugated hose NW12 | 12.3 | H08 | 982-760-160 | **D** |

Table 4

**Sleeve for high pressure hoses H06, H08, H10**

| Bestell-Nr. | Tube Ø [mm] | L1 [mm] | Length of engaged thread [1] [mm] |
|---|---|---|---|
| **Stainless steel** | | | |
| 432-23676-1 | 6 | 28 | 17 |
| **Zinc-nickel, Cr-6-free** | | | |
| 853-540-010 | 6 | 28 | 17 |
| 406-808-005 | 8 | 35 | 23 |
| 406-810-002 | 10 | 41 | 32 |

[1] Take length of engaged thread and double it when determining the length of the hose.

# Tubes and hoses

## Configurator plastic tubing

**Bestellcode**

T | | | | | | | | | | | X X X X | | |

**Tube type**

→ **Table 5**

Tube type includes:
Tube type (**T** = Plastic tubing)
Tubediameter (**02**, **04**, **06**, **08**, **10**)
Material (**A** = PA12H(L), **B** = PA12PH(L), **C** = PA6.12 [1])
Wall thickness (**A**, **C**, **D**, **E**, **F**)
Colour (**B** = black, **T** = nature)

**Tube length**

**= Order length in mm** (not required specify with **0**)

**Grease filling**

**XX** = without
**FA** = LINCOLN standard grease NLGI grade 2 (others on request)
**ZA** = SKF standard grease NLGI grade 2 (others on request)

**Tube protection** (fixed on pipe)

→ **Table 3** (→ page 43)

[1] alternative PA6.10 or PA12HL possible

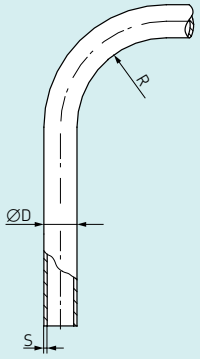
**Tabelle 1**

| Tube type<br>Tube type | Tube∅ | Material | Wall thickness | Colour | Tube outside ØD [mm] | Wall thickness S [mm] | Min. bending radius [2] R [mm] | Burst pressure [3] [bar] | Length 50 m Order No. |
|---|---|---|---|---|---|---|---|---|---|
| Code | | | | | | | | | |
| Plastic tubing semirigid (without plasticizer) | | | | | | | | | |
| **T** | **02** | **A** | **A** | **T** | 2,5 | 0,5 | 25 | 198 | WVN715-R02.5x0.5 |
| **T** | **04** | **A** | **C** | **T** | 4 | 0,85 | 38 | 216 | WVN715-R04x0.85 |
| **T** | **04** | **A** | **C** | **B** | 4 | 0,85 | 38 | 216 | WVN715R04x0.85+A89 |
| **T** | **04** | **A** | **D** | **B** | 4 | 1 | 30 | 267 | WVN715-R04x1+A89<br>112-35127-7 |
| **T** | **04** | **A** | **D** | **T** | 4 | 1 | 30 | 267 | 112-35127-5 |
| **T** | **06** | **A** | **D** | **T** | 6 | 1 | 63 | 159 | WVN715-R06x1 |
| **T** | **06** | **A** | **E** | **T** | 6 | 1,25 | 63 | 210 | WVN715-R06x1.25 |
| **T** | **06** | **A** | **E** | **B** | 6 | 1,25 | 63 | 210 | WVN715R06x1.25+A89 |
| **T** | **06** | **A** | **F** | **B** | 6 | 1,5 | 40 | 267 | WVN715-R06x1.5+A89 |
| **T** | **06** | **C** | **F** | **B** | 6 | 1,5 | 40 | 267 | 112-35127-2 |
| **T** | **08** | **A** | **E** | **T** | 8 | 1,25 | 76 | 147 | WVN715-R08x1.25 |
| **T** | **10** | **A** | **F** | **T** | 10 | 1,5 | 89 | 141 | WVN715-R010x1.5 |
| **T** | **10** | **A** | **F** | **B** | 10 | 1,5 | 89 | 141 | WVN715R010x1.5+A89 |
| Plastic tubing flexible (containing plasticizer) | | | | | | | | | |
| **T** | **04** | **B** | **C** | **T** | 4 | 0,85 | 38 | 108 | WVN716-R04x0.85 |
| **T** | **04** | **B** | **C** | **B** | 4 | 0,85 | 38 | 108 | WVN716R04x0.85+A89 |
| **T** | **04** | **B** | **D** | **B** | 4 | 1 | 27 | 132 | 112-35225-4 |
| **T** | **06** | **B** | **E** | **T** | 6 | 1,25 | 63 | 105 | WVN716-R06x1.25 |
| **T** | **06** | **B** | **E** | **B** | 6 | 1,25 | 63 | 105 | WVN716R06x1.25+A89 |
| **T** | **08** | **B** | **E** | **T** | 8 | 1,25 | 80 | 75 | WVN716-R08x1.25 |

[2] without bending device
[3] The permissible burst pressure is lower at higher temperatures (→ pressure utilization factor table, page 41).

**Order example plastic tubing**

Order code: **T06CFB02500XXXXFAX**




- Plastic tubing
- Tube outside ∅ 6 mm
- Material PA6.12
- Wall thickness 1.5 mm
- Black tubing
- Tube length 2500 mm
- Lincoln standard grease
- without tube protection

→ Online configurable on **skf-lubrication.partcommunity.com**

# Tubes and hoses

## Threated joint, tube protection

Customer-specific markings can be made by labels, imprint or with clips. They are part of the customer-specific order number, which consists of the first 11 digits of the order code (→ page 42), a hyphen, and a 6-digit counting number

**Order code** [1] H06DHB02500BCBDZAX _ _ _ _ X

**Marking**
→ **Table 6**

**Torsion angle** (on request)

[1] The customer-specific design has a 23-digit order code; the customer-specific order number has 18 digits.

**Marking**


**Table 6**

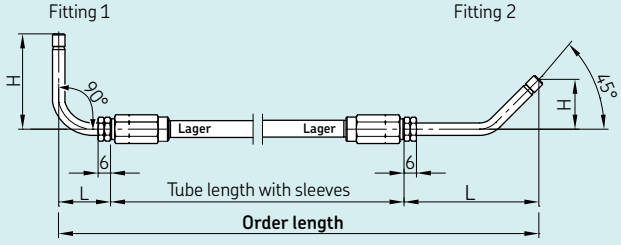
**Marking**

| Display | Code |
|---|---|
| without | **XX** |
| Imprint | **AA** |
| Label 1-line | **L1** |
| Label 2-line | **L2** |
| Label 3-line | **L3** |
| CLIP 1-digit | **C1** |
| CLIP 2-digit | **C2** |
| CLIP 3-digit | **C3** |
| CLIP 4-digit | **C4** |
| CLIP 5-digit | **C5** |

**Example for customized version with marking**

Order code: H06DHB02500BCBDZAXAAAAX
Customized order No. **H06DHB02500-000001**

- High pressure hose
- Tube outside ∅ 8,6 mm (NW 4)
- Material PUR
- Wall thickness 2.3 mm
- Black tubing
- Tube length 2500 mm
- Tube stud ∅ 6 mm, 90° angle
- Tube stud ∅ 6 mm, 45° angle
- SKF standard grease
- without tube protection
- with imprint
- without torsion angle (only for use on pressed tube sleeves, only on request)




## Self-installation of high pressure hoses

**Example for self-installation of high pressure hoses**

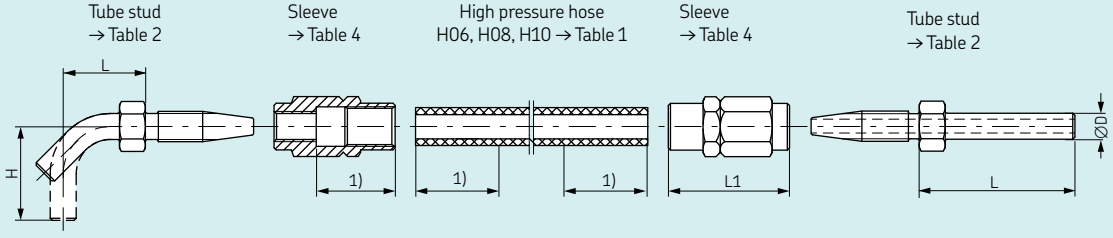
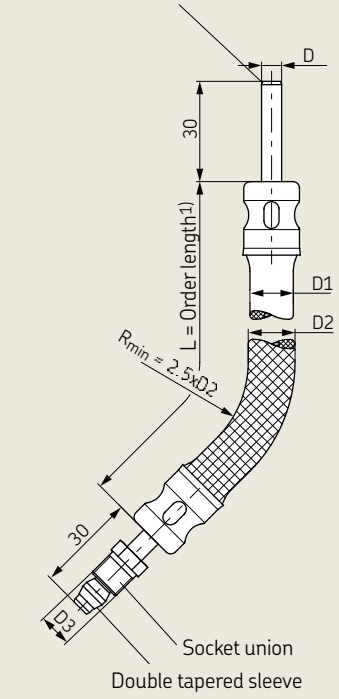



Table 1 → page 42
Table 2, 4 → page 43

1) Take length of engaged thread and double it when determining the length of the hose.

# Tubes and hoses

## Hoses




**Hoses for main lines, operating pressure 45 bar** (for short time only)

| Order No. 1) 2) | With tapered sleeve and socket union on both ends Order No. 1) | Tube ø D | Thread D3 | Rubber ø D1 | Metal-braided D2 | Max. increase in volume at ~ 80 bar [cm³/m] |
|---|---|---|---|---|---|---|
| **Standard** | | | | | | |
| **714-...(-VS)** | **714-...-K** | 4 | M8×1 | 11 | 12 ±0.5 | 2.5 |
| **716-...(-VS)** | **716-...-K** | 6 | M10×1 | 13 | 14 ±0.8 | 3.6 |
| **718-...(-VS)** | **718-...-K** | 8 | M14×1.5 | 15 | 16 ±0.8 | 4.4 |
| **Metal-braided** | | | | | | |
| **714-...-M(-VS)** | **714-...-MK** | 4 | M8×1 | 11 | 12 ±0.5 | 2.5 |
| **716-...-M(-VS)** | **716-...-MK** | 6 | M10×1 | 13 | 14 ±0.8 | 3.6 |
| **718-...-M(-VS)** | **718-...-MK** | 8 | M14×1.5 | 15 | 16 ±0.8 | 4.4 |

Material: Hose: mineraloilresistant CR rubber inside; 2 layers of braided rayon; outside rubber conditionally oilresistant, resistant to light cracks and ozone. Metal braid: galvanized steel wire; tube ends: galvanized steel tubing.

**Hoses for secondary lines, operating pressure 15 bars** (for short time only)

| Order No. 1) | With claw groove for quick connectors Order No. 1) 2) | With tapered sleeve and socket union on both ends Order No. 1) | Tube ø D | Thread D3 | Rubber D1 |
|---|---|---|---|---|---|
| **734-... 3)** | **734-...-VS 3)** | **734-...-K 3)** | 4 | M8×1 | 8.8 |

Material: Hose: oilproof rubber inside and outside with a layer of braided rayon
Tube ends: steel tubing
The ends of the tubing are bonded to the hose and cannot be detached.

1) Order length in mm; other lengths available. Standardized lengths ±5 mm with ø 4 tubing: 180, 220, 260, 300, 380, 420, 450, 500, 580
with ø 6 tubing: 220, 300, 340, 380, 420, 500, 580
with ø 8 tubing: 340, 450, 580

2) For Version with claw groove on ends of tubing for quick connectors, Order No.: ...-VS → page 25.

3) **Important note:** To avoid damages do not use these hoses as main lines but only to connect distributors to lube points.

Permissible operating temperature: –30 °C to +70 °C

Order examples:
Standard with socket unions and tapered sleeves, ø4 tubing, 300 mm long, order No.: **714-300-K**
Standard, ø4 tubing with claw groove for quick connectors, 300 mm long, order No.: **714-300-VS**
Metal-braided, ø6 tubing, 420 mm long, order No.: **716-420-M**
Metal-braided, ø8 tubing with claw groove for quick connectors 450 mm long, order No.: **718-450-M-VS**

# Tubes and hoses

## Hoses

**Hoses suitable for self-installation, operating pressure 45 bars**

| Tube ø D | ① Male body Order No. | | ② Shell Order No. | | ③ Hose Order No. [1] | Hose D1 | Increase in volume at ~40 bars [cm³/m] |
|---|---|---|---|---|---|---|---|
| 4 | **406-704-001 (-VS) [2]** | 8 | **406-804-001** | 14 | **WVN701-4** | 11 | 1 |
| 6 | **406-706-001 (-VS) [2]** | 10 | **406-806-001** | 17 | **WVN701-6** | 13 | 1.4 |
| 8 | **406-708-001 (-VS) [2]** | 13 | **406-808-001** | 19 | **WVN701-8** | 15 | 1.4 |

1) Please quote length when ordering. Max. length available 20 m.
2) For version with claw groove on ends of tubing for quick connectors, order No.: ...-VS

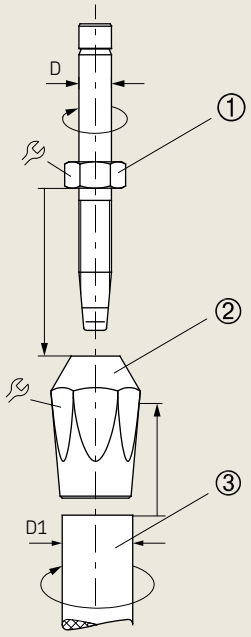
Material: Hose: Perbunan, resistant to mineral oils, with two layers of braided rayon
Male body: steel, galvanized
Shell: brass

Permissible operating pressure: –40 to +100 °C

**Installation instructions**

a) Apply thin film of oil to thread and inside of hose of parts ③ ② ① to be connected.
b) Clamp shell ② in vise and screw in hose ③ by turning it to the left up to the stop.
c) **Important note**: To avoid damages screw in male body ① with a wrench up to the stop. **Do not tighten!**

**Hose**



# Accessories

## Quick-disconnect couplings

**Quick-disconnect couplings, operating pressure 45 bars**

**Coupling, complete**

| Order No. | Tube ø | D1 [1)] | L2 | Durchfluss-richtung |
|---|---|---|---|---|
| **207-168-2** | 6 | M10×1 | 65 | beliebig |
| **207-188-2** | 8 | M14×1,5 | 71,5 | |

**Outer coupling member**

| Order No. | Tube ø | L1 |
|---|---|---|
| **207-168.U7** | 6 | 51,5 |
| **207-188.U11** | 8 | 58 |

**Inner coupling member**

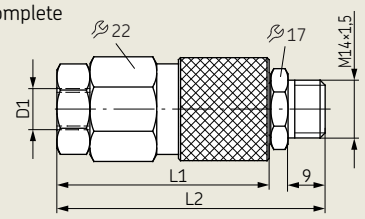
**Order No. 207-168.U2**

Both coupling members are shut off when disconnected!

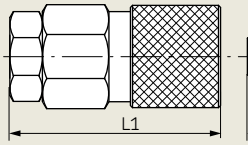
1) Ports tapped for solderless tube connection

**Quick-disconnect couplings, operating pressure 45 bars**

Coupling, complete




Outer coupling member




Inner coupling member

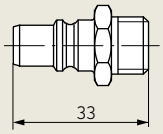
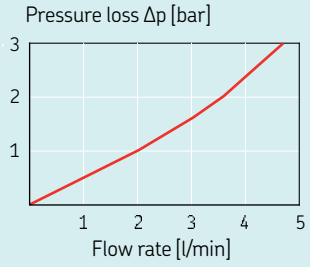



**Diagram 1**

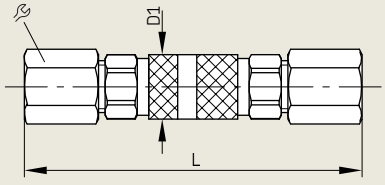



Pressure loss as a function of the flow rate based on an operating oil viscosity of 140 mm²/s

**Quick-disconnect couplings, operating pressure 100 bars**

| Order No. | Tube ø | L | D1 | |
|---|---|---|---|---|
| **995-001-525** | 4 | 68 | 10 | 10 |
| **995-001-526** | 6 | 80 | 15 | 12 |

**Quick-disconnect couplings, operating pressure 100 bars**



# Accessories

## Filler coupling for oil and fluid grease

**Coupling plugs**

| Order No. | øA | L | Respective dust cover Order No. | Respective coupling socket Order No. |
|---|---|---|---|---|
| **995-001-096** | G1/4 | 39 | **995-001-235** | **–** |
| **995-001-501** | G1/4 | 57.5 | **995-001-503** | **995-002-073** |
| **995-001-502** | G1/2 | 82 | **995-001-504** | **995-001-950** |
| **995-000-705** | G1/4 | – | **–** | **995-001-500** |
| **995-001-260** | G1/2 | 83 | **–** | **–** |

**Coupling plug 995-001-096**

**Coupling plug 995-001-501**

**Coupling plug 995-000-705**

**Coupling plug 995-001-260**

**Coupling socket 995-001-950**
**incl. coupling plug and dust cover**

**Coupling socket 995-001-500**

**Coupling socket with return flow port**

| Order No. | Respective coupling plug Order No. | Respective stub Order No. | Respective dust cover Order No. |
|---|---|---|---|
| **995-001-620** | **995-001-621** | **995-001-622** | **995-001-623** |

**Coupling socket 995-001-620**

**Coupling plug 995-001-621**

# Accessories

## Pressure gauges

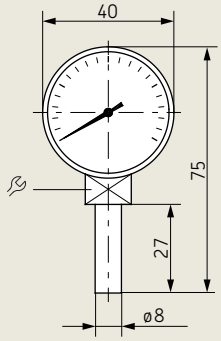
**Pressure gauges (→ Figure 21)**
**Damped design with restrictor**

| Order No. | Indication range | | Restrictor | |
|---|---|---|---|---|
| **Steel housing, black** | | | | |
| **248-602.25** | 0–10 bars | 4kt 12 | – | |
| **169-102-506** 1) | 0–25 bars / 0–360 psi | 12 | 0.4 | |
| **248-602.20** | 0–40 bars | 12 | – | for grease |
| **169-104-008** 1) | 0–40 bars | 4kt 14 | 0.4 | for oil |
| **ABS housing** | | | | |
| **169-106-004** | 0–60 bars | 4kt 14 | – | |

Fixed by means of a double tapered sleeve and socket union (solderless tube connection) in counterbore acc. to DIN 3854/DIN 3862.

1) damped design

**Figure 21**



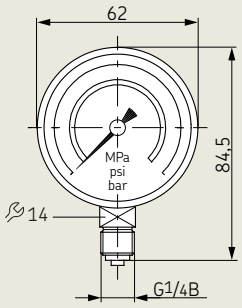

**Pressure gauges (→ Figure 22)**

| Order No. | Indication range |
|---|---|
| **ABS housing** | |
| **169-101-004** | 0–10 bars |
| **169-102-020** 2) | 0–25 bars / 0–363 psi / 0-2,5 Mpa |
| **169-104-020** 2) | 0–40 bars / 0–580 psi / 0-4 Mpa |
| **169-106-020** 2) | 0–60 bars / 0–870 psi / 0-6 Mpa |
| **169-110-020** 2) | 0–100 bars / 0–1450 psi / 0-10 Mpa |
| **169-116-000** | 0–160 bars |
| **169-125-020** 2) | 0–250 bars / 0–3625 psi / 0-25 Mpa |

Washer, order No. **248-610.02**, must be ordered separately for every pressure gauge.

2) Associated connecting pieces → page 7

**Figure 22**

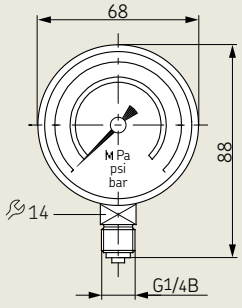



**Pressure gauges (→ Figure 23)**
**Damped version with glycerine filling**

| Order No. | Indication range | Mounting position |
|---|---|---|
| **Stainless steel housing** | | |
| **169-102-015** | 0–25 bars / 0–363 psi / 0-2,5 Mpa | |
| **169-104-015** | 0–40 bars / 0–580 psi / 0-4 Mpa | |
| **169-106-015** | 0–60 bars / 0–870 psi / 0-6 Mpa | vertically |
| **169-110-015** | 0–100 bars / 0–1450 psi / 0-10 Mpa | |
| **169-125-015** | 0–250 bars / 0–3625 psi / 0-25 Mpa | |
| **169-140-001** | 0–400 bars | |

**Washer, order No. 248-610.02, must be ordered separately for every pressure gauge.**

**Figure 23**

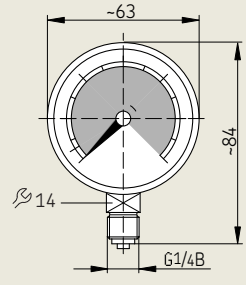



**Pressure gauges (→ Figure 24)**
**Damped design with glycerin filling and visualization in red/green**

| Order No. | Indication range | Mounting position |
|---|---|---|
| **Stainless steel housing** | | |
| **169-101-607** | 0–16 bars / 0–1.6 MPa | |
| **169-104-011** | 0–40 bars / 0–4 MPa | vertically |
| **169-106-011** | 0–60 bars / 0–6 MPa | |
| **169-110-010** | 0–100 bars / 0–10 MPa | |

Washer, order No. **248-610.02**, must be ordered separately for every pressure gauge.

**Figure 24**



# Accessories

## Rotating joints, Banjo fittings

**Rotating joints**

| Order No. | Tube ø | D1 | D2 [1] | Max. speed [min$^{-1}$] | Max. pressure oil [bar] | Max. pressure air [bar] |
|---|---|---|---|---|---|---|
| **401-504-192** | 4 | G 1/8 | M8×1 | | | |
| **401-504-292** | 4 | M8×1 | M8×1 | 100 | 30 | 8 |
| **401-506-313** | 6 | M10×1 | M10×1 | | | |

Flow media: mineral oils, oiled compressed air

1) Ports tapped for solderless tube connection

**Banjo fitting, rotable**

| Order No. | Tube ø | D1 | Fig. |
|---|---|---|---|
| **405-549-049** | 4 | M8×1 tap. | a |
| **405-551-049** | 4 | M10×1tap. | |

**Banjo fitting, rotable**

| Order No. | Tube ø | D1 | Max. speed [min$^{-1}$] | Max. pressure oil [bar] | Max. pressure air [bar] | Fig. |
|---|---|---|---|---|---|---|
| **DLY930-2** **DLY931** | 8 | G 1/4 A R 1/8 tap. | 1400 | 20 [2] | 8 | b |

Flow media: mineral oils, oiled compressed air

2) 30 bars in single-line centralized lubrication systems for a short time.

**Banjo fitting, rotable**

| Order No. | Tube ø | Max. speed [min$^{-1}$] | Max. pressure [bar] | Fig. |
|---|---|---|---|---|
| **DLY932** | 6 | 1400 | 5 | c |

Flow media: mineral oils

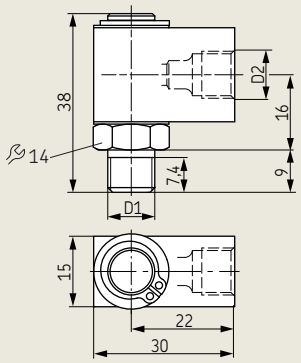
**Banjo fitting, rotable**

| Order No. | Tube ø | Remark | Max. speed [min$^{-1}$] | Max. pressure [bar] | Fig. |
|---|---|---|---|---|---|
| **408-120** | 8 | Part **a** rotating in part **b** | 20 | 10 | d |

Flow media: mineral oils

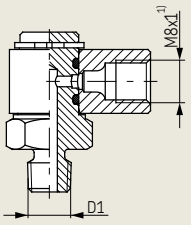
The rotating joint is also available with nut DIN936-M22×1.5 and spring washer DIN137-B22.

**Rotating joint**

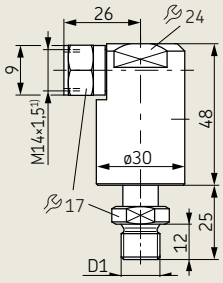



**Banjo fitting**

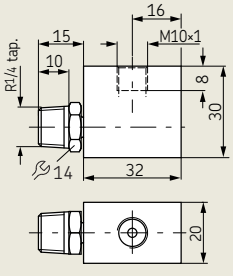
a)



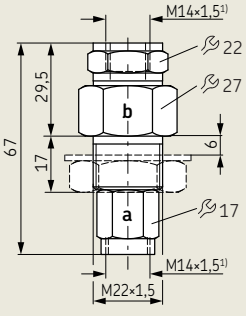

b)




c)




d)




1) Ports tapped for solderless tube connection

# Accessories

## Relief valves

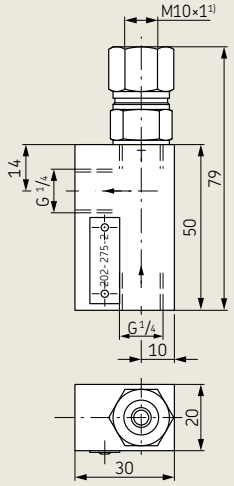
These valves are installed in distributor systems fitted with a pump without pressure relief equipment, mainly in the main line downstream from the pump.

With longer main lines and high viscosity oils, the pressure relief time, which influences the reversing of the distributors, can become too long. The installation of the second relief valve at a suitable position in the main line, e.g. at half the main line length, may remedy this problem.

**Relief valve**

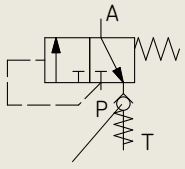
**Order No. 202-275-2**

**Relief valve 202-275-2**




1) Ports tapped for solderless tube connection

**Connection diagram**




Check valve = residual pressure valve 0.5 bar

A = Outlet
P = Inlet
T (R) = Return

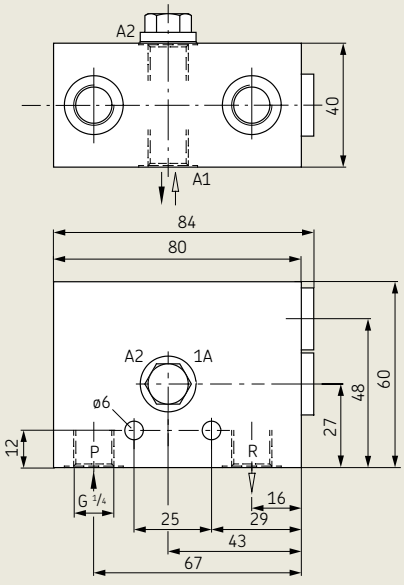
**Relief valve with bleed valve and safety valve**

**Order No. 202-175-30**

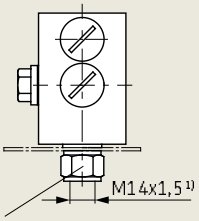
**Adaptors 1) for tube ø6: Order No. 406-054**
**for tube ø8: Order No. 301-020**
**for tube ø10: Order No. 410-163**

1) Ports tapped for solderless tube connection

**Relief valve 202-175-30**



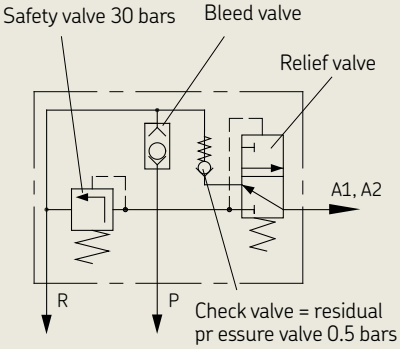

**Fitted to reservoir**




For P and R
2 adapters each 408-160
washers 508-108

1) Ports tapped for solderless tube connection

**Relief valve circuit diagram**




Check valve = residual pr essure valve 0.5 bars

# Accessories

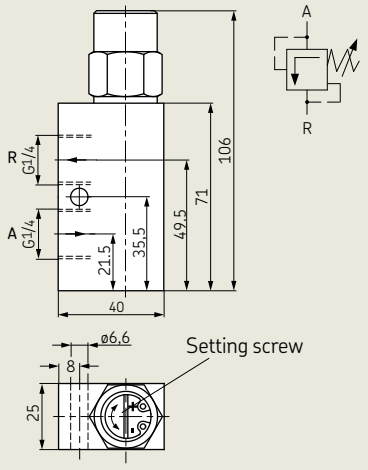
## Safety valves, Check valves

### Safety valves, adjustable (poppet valve)

| Order No. | Rated flow rate [l/min] | Adjustable pres. range [bar] | Operating pres. max. [bar] | Oil temperature max. [°C] | Viscosity range [mm²/s] | Seal |
|---|---|---|---|---|---|---|
| **WVN200-10E6** | → Diagram 2 | 1 to 6 | 40 | 80 | 20 to 1000 | NBR |
| **WVN200-10E12** | | 3 to 12 | 40 | | | NBR |
| **WVN200-10E12-S8** | | 3 to 12 | 40 | | | FPM |
| **WVN200-10E25** | | 4 to 25 | 40 | | | NBR |
| **WVN200-10E25-S8** | | 4 to 25 | 40 | | | FPM |
| **WVN200-10E35** | | 4 to 35 | 40 | | | NBR |
| **WVN200-10E60** | | 12 to 60 | 70 | | | NBR |
| **WVN200-10E60-S8** | | 12 to 60 | 70 | | | FPM |

General characteristics
Design: poppet valve with hydraulic cushioning directly controlled
Lubricant: oil
Connecting thread: G 1/4
Mounting position: optional

**Safety valve**




### Adaptors for valves [1)]

| | Order No. |
|---|---|
| Valves WVN200-10E6 to WVN200-10E35 | |
| for tube ø8 | **301-020** |
| for tube ø10 | **410-163** |
| for tube ø12 | **412-163** |
| Washer | **508-108** |
| Valves WVN200-10E60 | |
| for tube ø8 | **408-403W** |
| for tube ø10 | **410-403W** |
| Washer | **508-108** |
| If installed on a reservoir Two special adapters with long tube ends | **408-160** |

1) Ports tapped for solderless tube connection

**Fitted to reservoir**

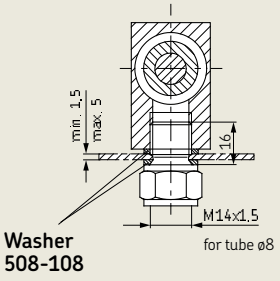
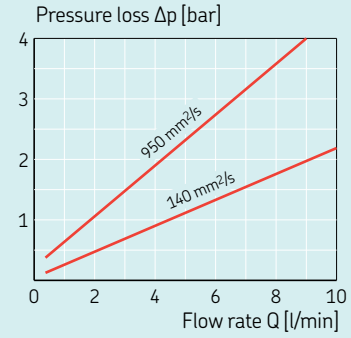



**Diagram 2**

**Pressure loss parameter**




With increasing flow rate, the pressure upstream from the valve will also rise in accordance with the curves.

### Check valves (ball valves)

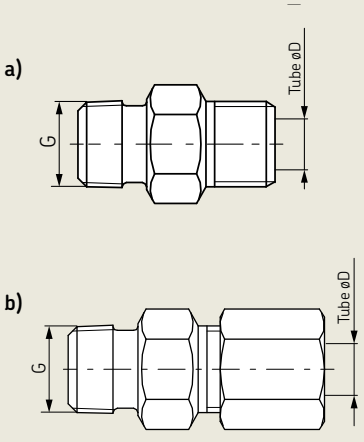
| Order No. | Tube ø D | G | Opening pressure [bar] | Max. pressure [bar] | Series | Fig. |
|---|---|---|---|---|---|---|
| **VPG-RV** | 4 | R 1/8 tap. | 10 | 100 | LL | a |
| **VPG-RV6** | 6 | R 1/8 tap. | 10 | 315 | L | a |
| **VPG-RV8** | 8 | | | | | |
| **VPM-RV4** | 4 | M10×1 tap. | 10 | 100 | LL | a |
| **VPM-RV** | 6 | | | | | |
| **VPM-RV8** | 8 | M10×1 tap. | 10 | 315 | L | a |
| **VPM-RV10** | 10 | | | | | |
| With cutting sleeve and union nut | | | | | | |
| **VPKG-RV** | 6 | R 1/8 tap. | 3 | 100 | LL | b |
| **VPKM-RV-S3** [2)] | 6 | M10×1 tap. | 3 | 100 | LL | b |
| **VPKM-RV-S4** | 6 | M10×1 tap. | 2 | | | |

2) stainless steel

Check valves for quick connectors → pages 27, 29.

LL series = extra light version, L-series = light version

**Check valve**



# Accessories

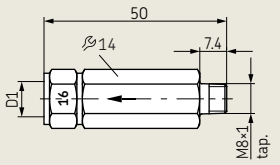
## Safety valves

**Safety valves (ball valves), for flow rates from 0.5–2 l/min (→ Figure 25)**

| Order No. | Tube ø | Opening pressure [bar] | Marking | D1 [1] |
|---|---|---|---|---|
| **WVN200-4A0.4** | 4 | 0.4 | 04 | M8×1 |
| **WVN200-4A5** | | 5 | 5 | |
| **WVN200-4A8** | | 8 | 8 | |
| **WVN200-4A12** | | 12 | 12 | |
| **WVN200-4A16** | | 16 | 16 | |
| **WVN200-4A25** | | 25 | 25 | |
| **WVN200-4A0.4-S1** | 6 | 0.4 | 04 | M10×1 |

1) Ports tapped for solderless tube connection

**Figure 25**

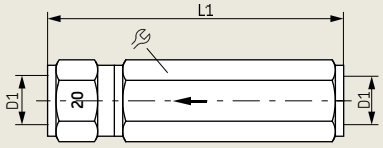



**Safety valves (ball valves), for flow rates from 0.5–2 l/min (→ Figure 26)**

| Order No. | Tube ø | Opening pressure [bar] | Marking | D1 [1] | L1 | |
|---|---|---|---|---|---|---|
| **WVN200-6B0.5** | 6 | 0.5 | 05 | M10×1 | 61 | 14 |
| **WVN200-6B3** | | 3 | 3 | | | |
| **WVN200-6B8** | | 8 | 8 | | | |
| **WVN200-6B12** | | 12 | 12 | | | |
| **WVN200-6B16** | | 16 | 16 | | | |
| **WVN200-6B20** | | 20 | 20 | | | |
| **WVN200-6B40** | | 40 | 40 | | | |
| **WVN200-8B0** | 8 | 0.04 | 0 | M14×1.5 | 71 | 17 |
| **WVN200-8B3** | | 3 | 3 | | | |
| **WVN200-8B5** | | 5 | 5 | | | |
| **WVN200-8B12** | | 12 | 12 | | | |
| **WVN200-8B16** | | 16 | 16 | | | |
| **WVN200-8B20** | | 20 | 20 | | | |
| **WVN200-8B32** | | 32 | 32 | | | |
| **WVN200-10B0** | 10 | 0.04 | 0 | M16×1.5 | 80 | 19 |
| **WVN200-10B0.5** | | 0.5 | 05 | | | |
| **WVN200-10B1** | | 1.2 | 12 | | | |
| **WVN200-10B32** | | 32 | 32 | | | |
| **161-212-054** [2] | 8 | 20 | 20 | M14×1.5 | 84.5 | 17 |

1) Ports tapped for solderless tube connection
2) This valve is designed as a plunger valve. Because of this design it can also be used for regulating tasks. whereas the ball valves should be used as safety valves.

**Figure 26**

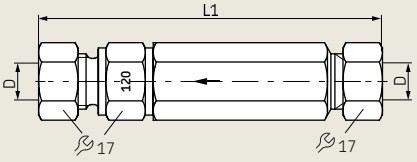



**Safety valves (ball valves), for flow rates from 0.5–2 l/min (→ Figure 27)**

| Order No. | Tube ø | Opening pressure [bar] | Marking | L1 |
|---|---|---|---|---|
| **WVN200-8D50** | 8 | 50 | 50 | 84 |
| **WVN200-8D75** | | 75 | 75 | |
| **WVN200-8D120** | | 120 | 120 | |
| **WVN200-8D220** | | 220 | 220 | |
| **WVN200-10D120-S1** | 10 | 120 | 120 | 87 |
| **WVN200-10D160-S1** | | 60 | 160 | |
| **WVN200-10D220-S1** | | 220 | 220 | |

Cutting sleeve screw unions according to DIN 2353

**Figure 27**



# Accessories

## Shut-off valves

**Shut-off valve**

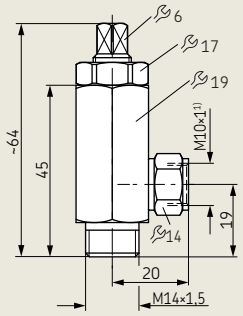
| Order No. | p max. [bar] | Max. temperature [°C] | Spindleway |
|---|---|---|---|
| **202-085-S** | 60 | 80 | max. 3 revs. |

Direction of flow optional

**Shut-off valves**

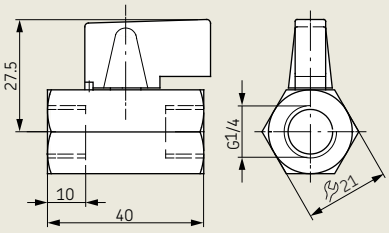
| Order No. | p max. [bar] | Max. temperature [°C] |
|---|---|---|
| **161-600-036** | 16 | 90 |
| **UFZ.0097** | 10 | 90 |

**Shut-off valve 202-085-S**

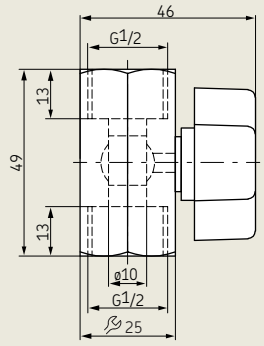



1) Ports tapped for solderless tube connection

**Shut-off valve 161-600-036**




**Shut-off valve UFZ.0097**



# Accessories

## Topping-up pumps, oil trough

**Topping-up pumps**

| Order No. | Drum [kg] | Medium | Operation | Trolley |
|---|---|---|---|---|
| **169-000-004**<br>**169-000-012**<br>**169-000-016**<br>**169-000-056** | 15<br>10<br>20<br>25 | NLGI 1,2 | manually operated | no |
| **169-000-082**<br>**169-000-084** | 25 / 50<br>25 | 00/000 | manually operated | yes |
| **169-000-042**<br>**169-000-054** | 25<br>50 | NLGI 1,2 | manually operated | yes |
| **169-000-342**<br>**169-000-018** | 25<br>25 | NLGI 1,2<br>00 bis 2 | manually operated<br>pneum. operated | no<br>yes |

For drums with a maximum inner diameter of 350 mm and maximum height of 450 mm

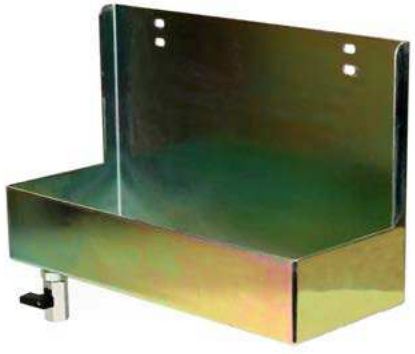
**Topping-up pump 169-000-042**

**Topping-up pump 169-000-342**

**Oil trough with shut-off valve**

| Order No. | Reservoir capacity [l] | B | H | T |
|---|---|---|---|---|
| **B3.U21** | 3 | 350 | 280 | 140 |
| **B7.U271** | 6 | 400 | 380 | 190 |

**Oil trough**



**Lever-type grease gun**
for checking of feeders in the installed system

| Order No. | Tube ø | Connection thread |
|---|---|---|
| **169-000-143** | 6 | M12×1.5 |

**Lever-type grease gun**

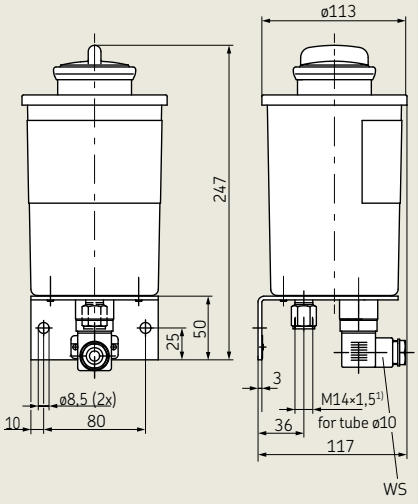
# Reservoirs

## Oil reservoirs – plastic

**Plastic reservoirs**

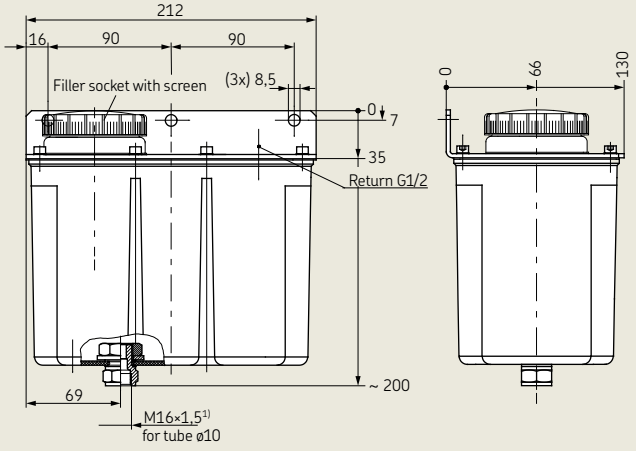
| Order No. | Reservoir capacity [liters] | Level indicator WS | Type of contact | Seal material |
|---|---|---|---|---|
| **K1** | | – | – | |
| **KW1** | 1 | for min. filling level | NO | NBR |
| **KW1-S2** | | for min. filling level | NC | |
| **K3-S2** | 3 | – | – | NBR |
| **KW3-S1** | | for min. filling level | changeover | |
| **K6-S5** | | – | – | NBR |
| **KW6-S1** | | for min. filling level | changeover | NBR |
| **KW6-S2** | 6 | for min. level with advance warning | 2 NCs | NBR |
| **KW6-S81** | | for min. filling level | changeover | FPM |
| **KW6-V57** | | for min. level with advance warning | 2 NCs | NBR |

**Plastic reservoir, 1 liter**



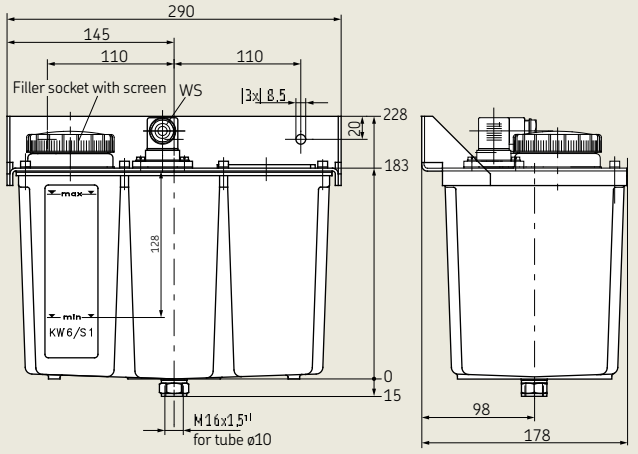

1) Ports tapped for solderless tube connection

**Plastic reservoir, 3 liter**




1) Ports tapped for solderless tube connection

**Plastic reservoir, 6 liter**




1) Ports tapped for solderless tube connection

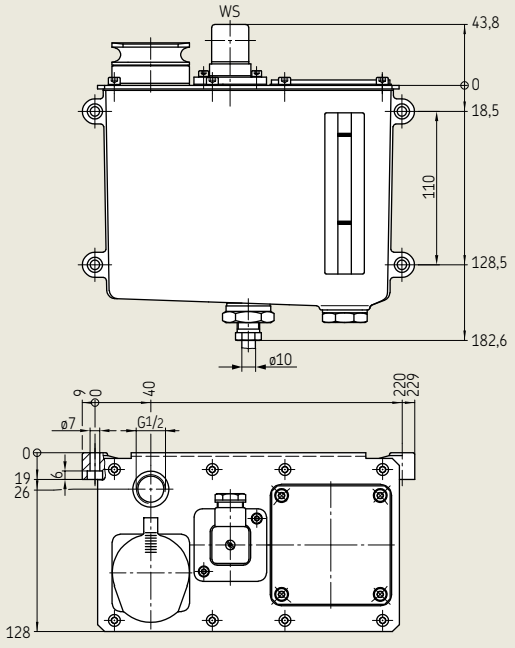
# Reservoirs

## Oil reservoirs – metal

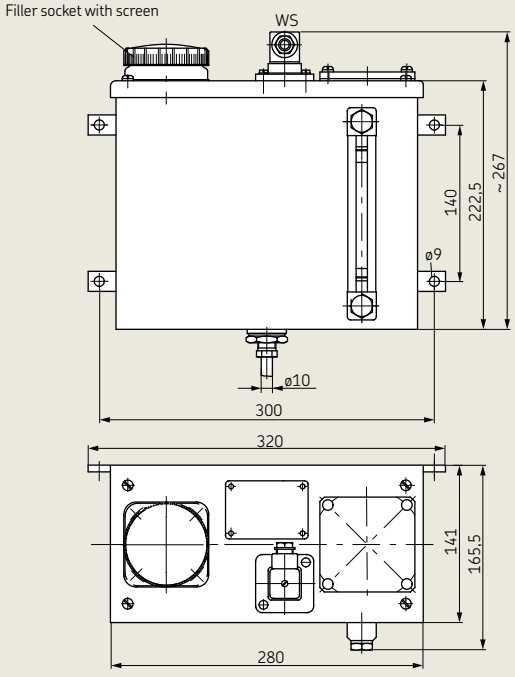
**Metal reservoirs**

| Order No. | Reservoir capacity [liters] | Level indicator WS | Type of contact | Seal material |
|---|---|---|---|---|
| **BW3-2-S1** | 3 | for min. filling level | changeover | NBR |
| **B7** | | – | – | NBR |
| **BW7-S6** | | for min. and max. filling level | 2 NCs | NBR |
| **BW7-S7** | | for min. filling level with advance warning | 2 NCs | NBR |
| **BW7-S8** | 6 | for min. filling level | changeover | FPM |
| **BW7-S11** | | for min. filling level with advance warning | 1 NO, 1 NC | NBR |
| **BW7-S12** | | for min. filling level with advance warning | 1 NO, 1 NC | NBR |
| **162-310-005** | | for min. filling level | changeover | NBR |

**Metal reservoir, 3 liter**




**Metal reservoir, 6 liter**

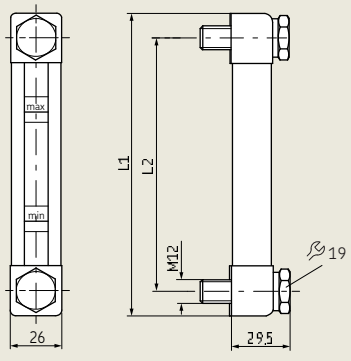



**Oil level gauges for metal reservoir**

| Order No. | Reservoir capacity [Liter] | L1 | L2 |
|---|---|---|---|
| **995-003-044** | 6 | 152 | 127 |
| **995-003-040** | 6 | 190 | 165 |
| **995-003-041** | 15 und 30 | 215 | 190 |
| **995-003-042** | 50 | 279 | 254 |
| **995-003-043** | 100 | 305 | 280 |

Type: NBR, FKM (FPM) on request

**Oil level gauge**



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# Notes

**Important information on product usage**
SKF and Lincoln lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1 013 mbar) by more than 0,5 bar at their maximum permissible temperature.

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