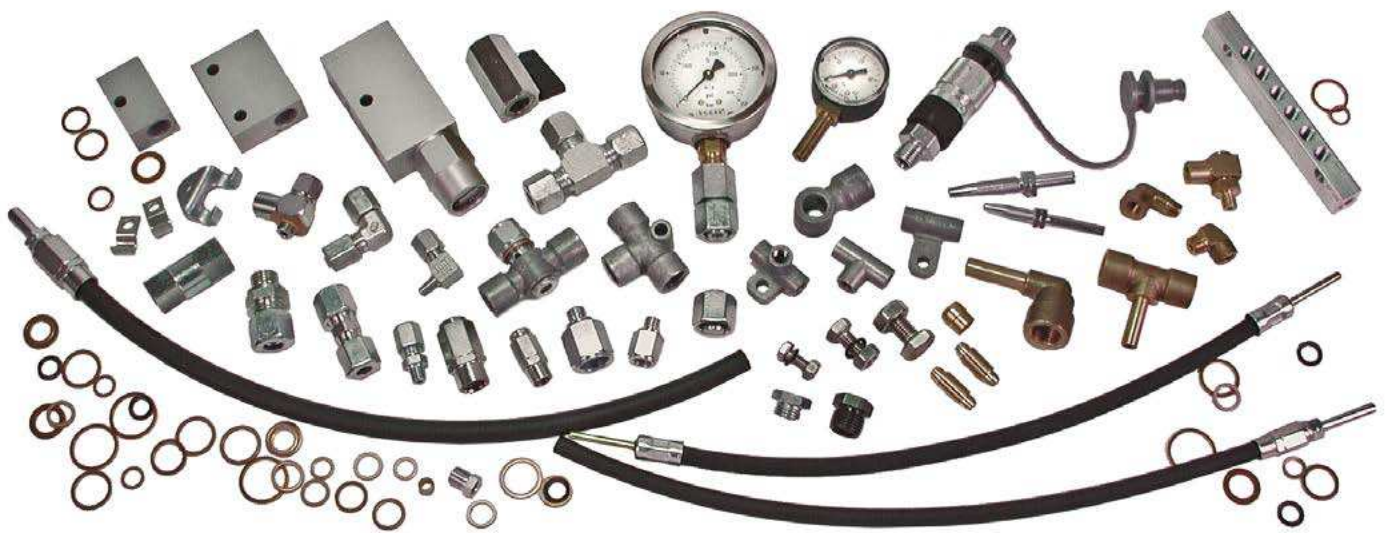


# Fittings and Accessories

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](http://skf-lubrication.partcommunity.com)

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# Accessories for tubes and hoses

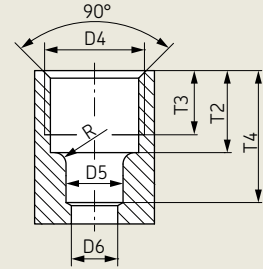
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

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

Specification of counterbores	Tube $\varnothing$	D5 <sup>B11</sup>	D6	D4	T3	T2	T4	R
1102 <sup>1)</sup>	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 $\varnothing$	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

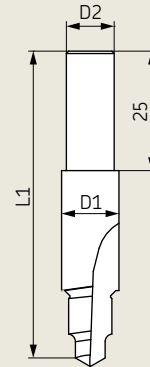
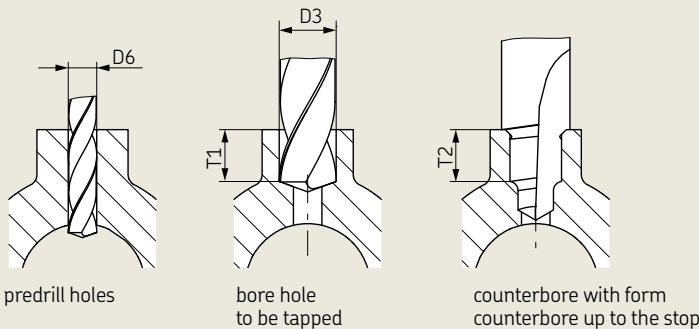


Figure 1

### Provision of counterbore



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  $\varnothing$  D

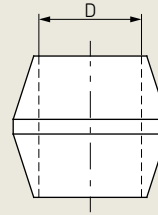
#### Brass

402-001 <sup>1)</sup>	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  $\varnothing$  D1 L1 L2  $\varnothing$  Series

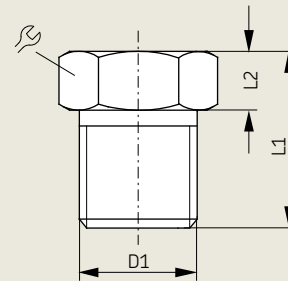
#### Steel, galvanized surface

402-002 <sup>1)</sup>	2,5	M6x0,75	9	3	7	LL
404-002	4	M8x1	12	4	8	
406-002	6	M10x1	13	4	10	
408-202	8	M14x1,5	16	4,5	14	L
410-002	10	M16x1,5	17	5,5	17	
412-002	12	M18x1,5	18	6	19	

#### Stainless steel

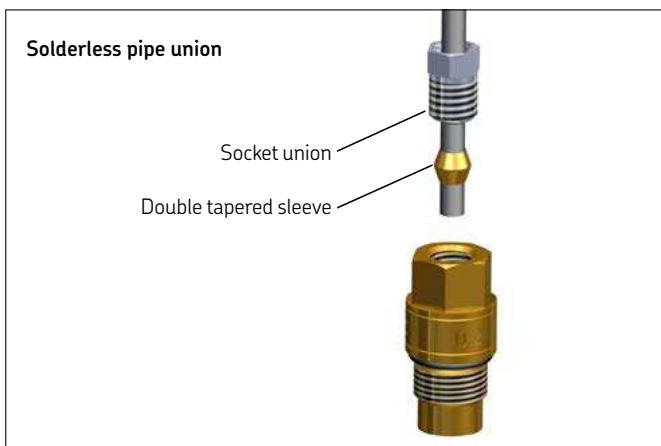
404-002-S3	4	M8x1	12	4	8
406-002-S3	6	M10x1	13	4	10
408-002-S3	8	M14x1,5	16	4,5	14

### Socket unions



1) not shown in DIN standard

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



### 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.

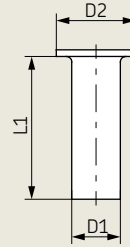
# Accessories for tubes and hoses

## 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
<b>Brass</b>				
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

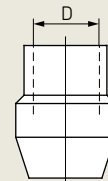
### Reinforcing socket



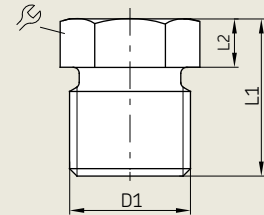
### Tapered sleeves – DIN 3862

Order No.	for tube ø D
<b>Brass</b>	
402-611	2.5
404-611	4
406-611	6
408-611	8
410-611	10
412-611	12

### Tapered sleeve



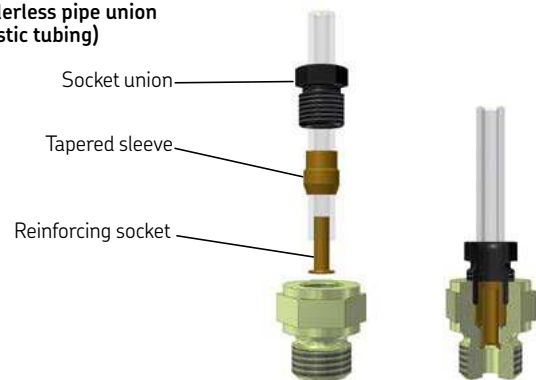
### Socket union



### Socket unions – DIN 3871

Order No.	for tube ø	D1	L1	L2	⚙
<b>Steel, galvanized surface</b>					
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
<b>Brass</b>					
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.

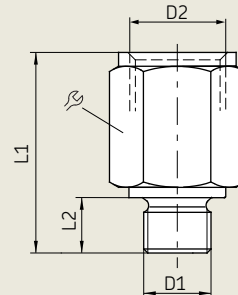
# Accessories for tubes and hoses

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	⌀
<b>Steel, galvanized surface</b>						
402-004	2.5	M6		13	5.5	9
402-003		M6×0.75	M6×0.75	13	5.5	9
402-006		M8×1		15	7.5	11
404-004	4	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		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	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 1/8 A		29	8	17	
408-160	G 1/4 A		30	16	17	
408-162	M12×1		29	9	17	
301-020	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	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 1/4 A		35	10	22	
412-164	M14×1.5		33	9	22	
412-169	G 1/4 A	M18×1.5	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	⌀
<b>Brass</b>						
301-134 <sup>1)</sup>	–	M10×1	G 1/4	23	7.5	17
301-034 <sup>1)</sup>	–	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
<b>Stainless steel</b>						
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

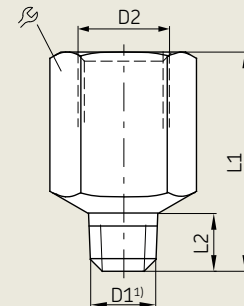
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

### 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 <sup>1)</sup>	D2	L1	L2	⌀
<b>Steel, galvanized surface</b>						
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	1/4 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
<b>Steel, galvanized surface</b>						
843-130-021	M3	M5	22	10	3 <sup>2)</sup>	2
843-130-022	M4					
843-130-023	M5					
406-044-S1	M10×1 tap.	G 1/4	22.5	8	17	3
P-78.01	M12×1	G 1/4	27	8.5	19	
401-013-161	G 3/4 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	
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	
<b>Brass, galvanized surface</b>						
406-024	M10×1	G 1/8	20	8	14	3
<b>Brass</b>						
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	3
267-001.47	G 3/8 A	G 1/4	31	10	22	3
267-001.60		G 1/2	34	10	27	
401-019-132	G 1/2 A	G 1/8	24	27	3	
DZ333		G 1/4	24	27		
401-013-131		G 1/2	40,5	12		27
DZ334		G 3/8	31	27		
267-001.03		G 3/4	40	36		

2) With female threads

Figure 2

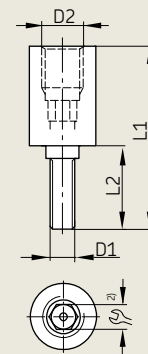
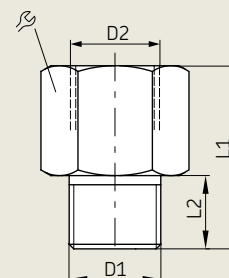


Figure 3





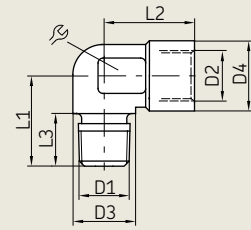
# Accessories for tubes and hoses

## 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 $\varnothing$	D1 <sup>1)</sup>	D2	D3	D4	L1	L2	L3	
<b>Die-cast zinc</b>									
504-510K	4	M10×1 tap.	M8×1	13	13	21	16	10	14
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	
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	

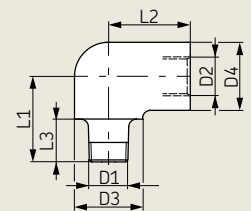
Figure 4



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

Order No.	Tube $\varnothing$	D1 <sup>1)</sup>	D2	D3	D4	L1	L2	L3	
<b>Steel</b>									
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	
<b>Brass</b>									
506-202K	6	M10×1 tap.	M10×1	17	17	22	21	11	

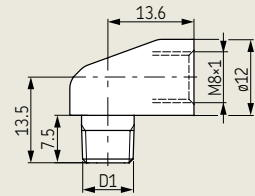
Figure 5



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

Order No.	Tube $\varnothing$	D1 <sup>1)</sup>
<b>Brass</b>		
504-200K		M6 tap.
504-201K		M8×1 tap.
504-202K	4	M10×1 tap.
504-203K		M6×0.75 tap.
514-018K-S1		R 1/8 tap.

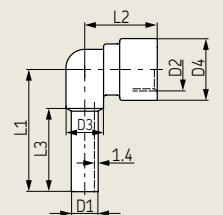
Figure 6



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

Order No.	Tube $\varnothing$	D1	D2	D3	D4	L1	L2	L3	
<b>Brass</b>									
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

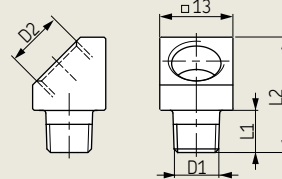


### Elbows

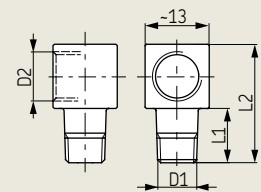
Order No.	D1	D2	L1	L2	Fig.
<b>Steel, galvanized surface</b>					
406-155K	R 1/8 tap.	M10×1	7.5	20.5	a
406-165K	R 1/8 tap.	G 1/8	7.5	20.5	a
406-145K	M8×1 tap.	M10×1	7.5	21	a
406-045K	M10×1 tap.	M10×1	7.5	21	a
406-094K	M8×1.25 tap.	M8×1.25	11	24	b
406-089K	M8×1 tap.	M10×1	11	24	b
406-090K	M10×1 tap.	M10×1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

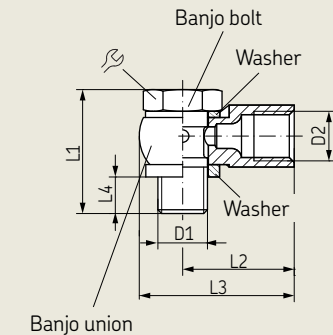
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

### Banjo fittings to DIN 71430 Form A

Elbow										Banjo	
Order No.	Tube ø	D1	D2	L1	L2	L3	L4	$\beta$	bolt 2)	union 3)	
502-161 1)	2.5	M6	M6x0.75	20	13	19	4.5	9	502-056	502-051	
502-101 1)	2.5	M6x0.75	M6x0.75	18	13	19	5	9	502-053	502-051	
502-102 1)	2.5	M8x1	M6x0.75	20	14	21	6.5	11	502-054	502-052	
504-161 1)	4	M6	M8x1	20	17	24	4.1	9	502-056	504-651	
504-162 1)	4	M6x0.75	M8x1	18	17	24	4.5	9	502-053	504-651	
504-411 1)	4	M8	M8x1	23	18	25	7.5	11	502-154	504-851	
504-401 1)	4	M8x1	M8x1	20	18	25	7	11	502-054	504-851	
504-101	4	M8x1	M8x1	26	18	25	6.5	11	504-073	504-072	
504-102	4	M10x1	M8x1	26	19	27.5	6.5	14	504-054	504-052	
504-108	4	G 1/8 A	M8x1	27	19	27.5	6.8	14	504-027	504-052	
506-140	6	M10x1	M10x1	26	21	28.5	6.5	14	504-054	506-033	
506-142	6	M12x1	M10x1	34	25	35.2	7.5	17	558-012	506-030	
506-012	6	M14x1.5	M10x1	34	25	35.2	7.5	17	508-006	506-005	
506-145	6	M16x1.5	M10x1	35	30	41	8.7	19	510-017	506-034	
506-108	6	G 1/8 A	M10x1	27	21	28.5	7	14	504-027	506-033	
506-214	6	G 1/4 A	M10x1	35	25	35.2	8.5	17	508-023	506-005	
508-142	8	M12x1	M14x1.5	34	27	37	7.5	17	558-012	508-030	
508-144	8	M14x1.5	M14x1.5	34	27	37	7.5	17	508-006	508-007	
508-145	8	M16x1.5	M14x1.5	35	30	41	8.7	19	510-017	508-054	
508-024	8	G 1/4 A	M14x1.5	35	27	37	8.5	17	508-023	508-007	
510-142	10	M12x1	M16x1.5	34	30	40	7.5	17	558-012	510-041	
510-145	10	M16x1.5	M16x1.5	35	30	41	10.7	19	510-017	510-044	
510-024	10	G 1/4 A	M16x1.5	35	30	40	7.5	17	508-023	510-023	

1) Miniature design, banjo union steel

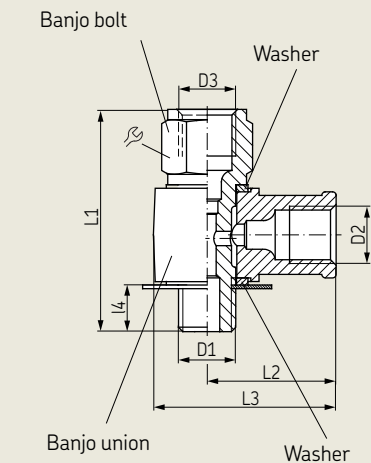
### Banjo fitting Form A



### Banjo fittings to DIN 71430 Form B

L-Form									Banjo		
Order No.	Tube ø	D1	D2	D3	L1	L2	L3	L4	$\beta$	bolt 2)	union 3)
504-114	4	M8x1	M8x1	M8x1	31	18	25.5	6.5	11	504-075	504-072
504-115	4	M10x1	M8x1	M8x1	31	19	27.5	6.5	14	504-056	504-052
504-105	4/6	M10x1	M8x1	M10x1	33	19	27.5	6.5	14	506-006	504-052
405-619-061	4/6	G 1/8 A	M8x1	M10x1	33	19	27.5	6.3	14	402-606-191	504-052
506-114	6	M10x1	M10x1	M10x1	33	21	28.5	6.3	14	506-006	506-033
506-342	6	M12x1	M10x1	M10x1	38	25	35.2	7.5	17	558-612	506-030
506-101	6	M14x1.5	M10x1	M10x1	40	25	35.2	7.5	17	508-303	506-005
586-342	6/8	M12x1	M10x1	M14x1.5	44	25	35.2	7.5	17	558-812	506-030
506-013	6/8	M14x1.5	M10x1	M14x1.5	43	25	35.2	7.5	17	508-008	506-005
506-345	6/10	M12x1	M10x1	M16x1.5	48.5	25	35	7.7	19	558-912	506-030
506-346	6/10	M16x1.5	M10x1	M16x1.5	50	30	41	8.7	19	510-010	506-034
508-342	8	M12x1	M14x1.5	M14x1.5	44	27	37	7.5	17	558-812	508-030
508-012	8	M14x1.5	M14x1.5	M14x1.5	43	27	37	7.5	17	508-008	508-007
508-034	8	G 1/4 A	M14x1.5	M14x1.5	44	27	37	7.5	17	508-033	508-007
568-342	8/6	M12x1	M14x1.5	M10x1	38	27	37	7.5	17	558-612	508-030
508-304	8/6	M14x1.5	M14x1.5	M10x1	40	27	37	7.5	17	508-303	508-007
508-345	8/10	M12x1	M14x1.5	M16x1.5	48.5	27	37	7.7	19	558-912	508-030
508-346	8/10	M16x1.5	M14x1.5	M16x1.5	50	30	41	8.7	19	510-010	508-054
510-342	10	M12x1	M16x1.5	M16x1.5	48.5	30	40	7.5	19	558-912	510-041
510-344	10	M16x1.5	M16x1.5	M16x1.5	50	30	41	8.7	19	510-010	510-044
510-343	10	G 1/4 A	M16x1.5	M16x1.5	48.5	30	40	7.5	19	558-913	510-023
510-346	10/6	M16x1.5	M16x1.5	M10x1	50	30	41	8.7	19	506-018	510-044
510-341	10/8	M12x1	M16x1.5	M14x1.5	44	30	40	7.5	17	558-812	510-041

### Banjo fitting Form B



2) Material banjo bolt: steel, galvanized surface

3) Material banjo union: die-cast zinc

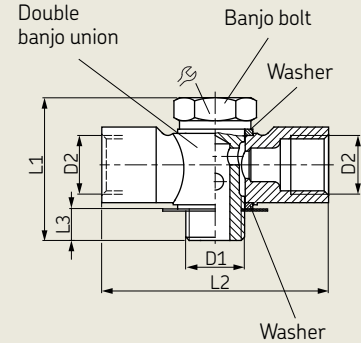
# Accessories for tubes and hoses

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

### Banjo fittings to DIN 71430 Form C

Tee Order No.	Tube $\varnothing$	D1	D2	L1	L2	L3	$\varnothing$	Banjo bolt 1)	Double banjo union 2)
504-109	4	M8x1	M8x1	26	38	6.5	11	504-073	504-071
504-112	4	M10x1	M8x1	26	38	6.5	14	504-054	504-051
506-242	6	M12x1	M10x1	34	48	7.5	17	558-012	506-032
506-025	6	M14x1.5	M10x1	34	48	7.5	17	508-006	506-007
508-242	8	M12x1	M14x1.5	34	54	7.5	17	558-012	508-032
508-013	8	M14x1.5	M14x1.5	34	54	7.5	17	508-006	508-005
508-025	8	G 1/4A	M14x1.5	35	54	7.5	17	508-023	508-005
510-242	10	M12x1	M16x1.5	34	60	7.5	17	558-012	510-042

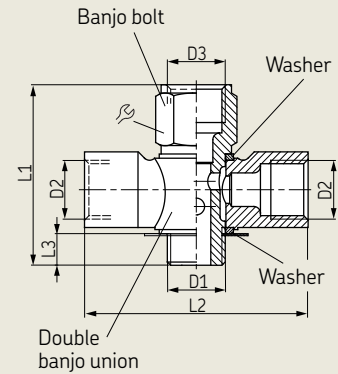
### Banjo fitting Form C



### Banjo fittings to DIN 71430 Form D

Cross Order No.	Tube $\varnothing$	D1	D2	D3	L1	L2	L3	$\varnothing$	Banjo bolt 1)	Double banjo union 2)
504-110	4	M8x1	M8x1	M8x1	31	38	6.5	11	504-071	504-071
504-111	4	M10x1	M8x1	M8x1	31	38	6.5	14	504-056	504-051
504-106	4/6	M10x1	M8x1	M10x1	33	38	6.5	14	506-006	504-051
506-442	6	M12x1	M10x1	M10x1	38	48	7.5	17	558-612	506-032
506-014	6	M14x1.5	M10x1	M10x1	40	48	7.5	17	508-303	506-007
586-442	6/8	M12x1	M10x1	M14x1.5	44	48	7.5	17	558-812	506-032
506-026	6/8	M14x1.5	M10x1	M14x1.5	43	48	7.5	17	508-008	506-007
508-442	8	M12x1	M14x1.5	M14x1.5	44	54	7.5	17	558-812	508-032
508-014	8	M14x1.5	M14x1.5	M14x1.5	43	54	7.5	17	508-008	508-005
568-442	8/6	M12x1	M14x1.5	M10x1	38	54	7.5	17	558-612	508-032
508-305	8/6	M14x1.5	M14x1.5	M10x1	40	54	7.5	17	508-303	508-005
510-442	10	M12x1	M16x1.5	M16x1.5	48.5	60	7.5	19	558-912	210-042

### Banjo fitting Form D

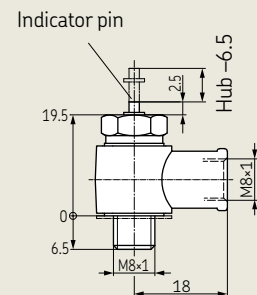


- 1) Material banjo bolt: steel, galvanized surface
- 2) Material banjo union: die-cast zinc

### Banjo fitting with indicator pin for lubricant distributor

Order No.	Tube $\varnothing$
169-200-008	4


### Banjo fitting with indicator pin



# Accessories for tubes and hoses

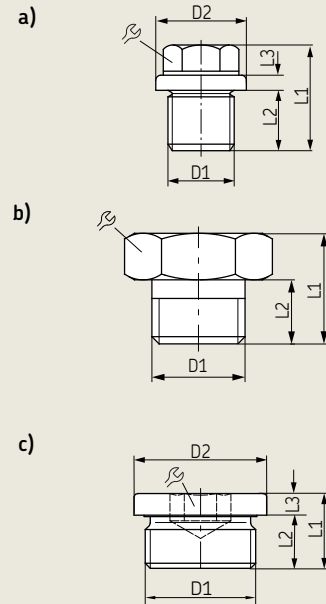
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

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


Order No.	D1	D2	L1	L2	L3		Fig.
<b>Steel, galvanized surface</b>							
DIN910-R1-8-5.8	G 1/8 A	14	17	8	3	11	a
DIN910-R1-4x8-5.8	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	
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	M6x0.75	-	9	5	-	10	b
404-011	M8x1	-	9.5	5.5	-	11	
406-011	M10x1	-	12	7	-	12	
408-211	M12x1	-	12	7	-	17	c
408-011	M14x1.5	-	12	7	-	17	
410-011	M16x1.5	-	14	8	-	19	
412-011	M18x1.5	-	15	10	-	22	c
DIN 908-M10x1-5.8	M10x1	14	11	8	3	5 <sup>1)</sup>	
DIN 908-M12x1.5-5.8	M12x1.5	17	15	12	3	6 <sup>1)</sup>	
DIN 908-M14x1.5-5.8	M14x1.5	19	15	12	3	6 <sup>1)</sup>	
DIN 908-G1-8A-5.8	G 1/8 A	14	11	8	3	5 <sup>1)</sup>	c
DIN 908-G1-4A-5.8	G 1/4 A	18	15	12	3	6 <sup>1)</sup>	
DIN 908-G3-8A-5.8	G 3/8 A	22	15	12	3	8 <sup>1)</sup>	

1) Hexagon socket

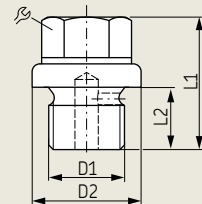
### Screw plugs



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

Order No.	D1	D2	L1	L2	
<b>Steel, galvanized surface</b>					
833-020-022	M8x1	12	13.5	7.5	11
833-330-016	M10x1	14	17	8	11
44-1855-6021	M12x1	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

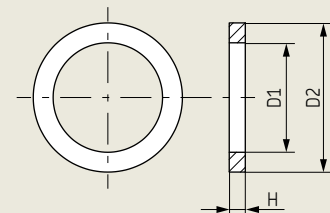
### Vent plug



### Flat washers

Order No.	D1	D2	H	Suitable for thread mm	inches
<b>Aluminum</b>					
504-019-AL	10.2	13.9	1.1	M10	G 1/8
<b>Copper</b>					
DIN7603-A6x10-CU	6.2	9.9	1	M6	-
DIN7603-A8x11.5-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-A12x18-CU	12.2	14.9	1	M12	-
508-108	13.3	17.9	1.5	-	G 1/4
DIN7603-A14x18-CU	14.2	17.9	1.5	M14	-
DIN7603-A16x20-CU	16.2	19.9	1.5	M16	-
DIN7603-A17x21-CU	17.2	20.9	1.5	-	G 3/8
DIN7603-A18x22-CU	18.2	21.9	1.5	M18	-
DIN7603-A20x24-CU	20.2	23.9	1.5	M20	-
DIN7603-A21x26-CU	21.2	25.9	1.5	-	G 1/2
DIN7603-A22x27-CU	22.2	26.9	1.5	M22	-
DIN7603-A27x32-CU	27.3	31.9	2	M27	-
DIN7603-A30x36-CU	30.3	35.9	2	M30	-
DIN7603-A33x39-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	⊂
<b>Steel</b>			
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

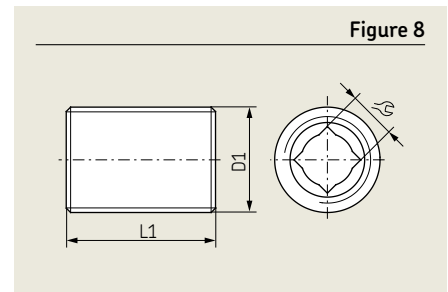


Figure 8

### Threaded sockets

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

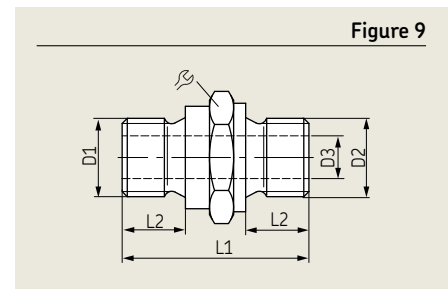
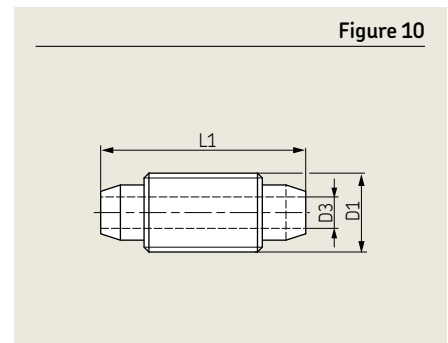


Figure 9

Figure 10



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

Order No.	D1	D2	L1	L2	L3	⊂	Seal
<b>Steel, galvanized surface</b>							
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	

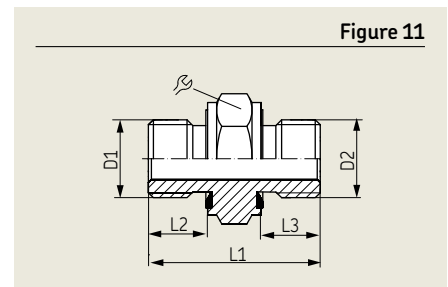


Figure 11

### 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	
<b>Steel, galvanized surface</b>										
995-014-014	G 1/4	G 1/4	26	8	8	4	24	5	NBR	
<b>Brass</b>										
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	FKM	
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	FKM	
995-340-350-S8	M10×1	M12×1	21	6.5	7.2	4	19	5		
995-350-000-S8	M12×1	M12×1	21.5	7	7.2	5	19	5		

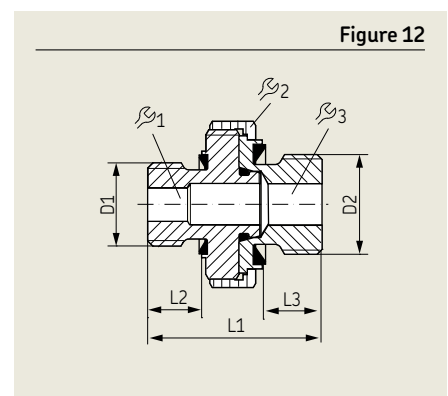


Figure 12

# Accessories for tubes and hoses

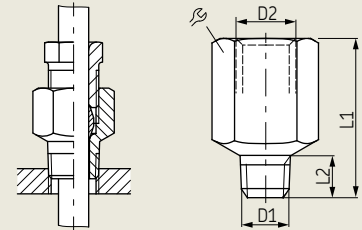
## Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

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

Order No.	Tube $\varnothing$	D1 <sup>1)</sup>	D2	L1	L2	$\varnothing$
<b>Steel, galvanized surface</b>						
404-003DK	4	M8x1 tap.	M8x1	17	7.4	11
404-006DK	4	M10x1 tap.	M8x1	16	7.4	11
406-004DK	6	M10x1 tap.	M10x1	18	7.4	14
301-001DK	8	M14x1.5 tap.	M14x1.5	24	11	17
410-004DK	10	M16x1.5 tap.	M16x1.5	24	11	19

1) Tapered thread according to DIN 158. short

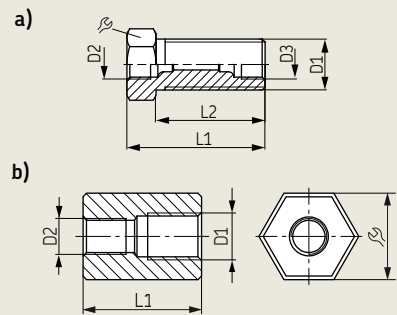
### Bulkhead connector



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

Order No.	Tube $\varnothing$	D1	D2	D3	L1	IL2	$\varnothing$	Fig.
<b>Steel, galvanized surface</b>								
404-008	4	M14x1.5	M8x1	M8x1	27	19	17	
404-009	4	M14x1.5	M8x1	M8x1	38	30	17	
406-008	6	M14x1.5	M10x1	M10x1	30	20	17	
406-005	6 / 8	M16x1.5	M14x1.5	M10x1	35	23	19	a
408-008	8	M20x1.5	M14x1.5	M14x1.5	40	28	24	
410-008	10	M20x1.5	M16x1.5	M16x1.5	42	27	24	
412-008	12	M24x1.5	M18x1.5	M18x1.5	48	33	27	
44-1755-2019	4	G 1/4	M10x1	-	33		24	b

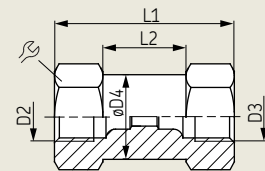
### Straight bulkhead fitting



### Connectors

Order No.	Tube $\varnothing$	D2	D3	$\varnothing$ D4	L1	L2	$\varnothing$
<b>Steel, galvanized surface</b>							
404-010	4	M8x1	M8x1	10.8	27	13	11
406-010	6	M10x1	M10x1	13.8	30	10	14
406-805	6 / 8	M14x1.5	M10x1	16.8	35	11	17
408-010	8	M14x1.5	M14x1.5	16.8	40	14	17
410-010	10	M16x1.5	M16x1.5	18.8	42	13	19
412-010	12	M18x1.5	M18x1.5	21.8	48	18	22

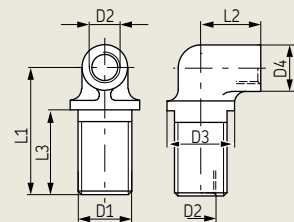
### Connector



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

Order No.	Tube $\varnothing$	D1	D2	D3	D4	L1	L2	L3
<b>Die-cast zinc</b>								
504-003	4	M14x1.5	M8x1	18	12	33	16	22
<b>Brass</b>								
504-103	4	M14x1.5	M8x1	18	12	33	18	22
506-004	6	M14x1.5	M10x1	16.5	14	27	17.5	15

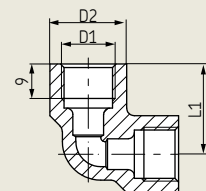
### Elbow bulkhead fitting



### Elbows to DIN 71433 Form C

Order No.	Tube $\varnothing$	D1	D2	L1
<b>Die-cast zinc</b>				
408-013	8	M14x1.5	20	23.5
410-013	10	M16x1.5	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 $\phi$	Fig.
<b>Die-cast zinc</b> 504-004	4	a
<b>Brass</b> 506-010	6	b

**Bracketed connectors**

Order No.	Tube $\phi$	D1	B	H	L1	Fig.
<b>Aluminum</b> DAR506	6	M10x1	15	20	12	c
DAR508	8	M14x1.5	20	25	15	

**Bracketed connectors**

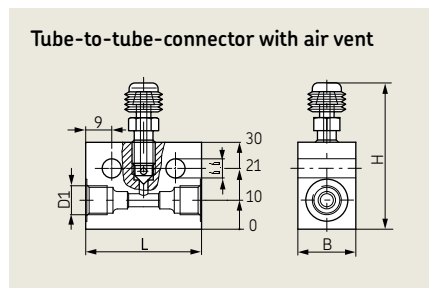
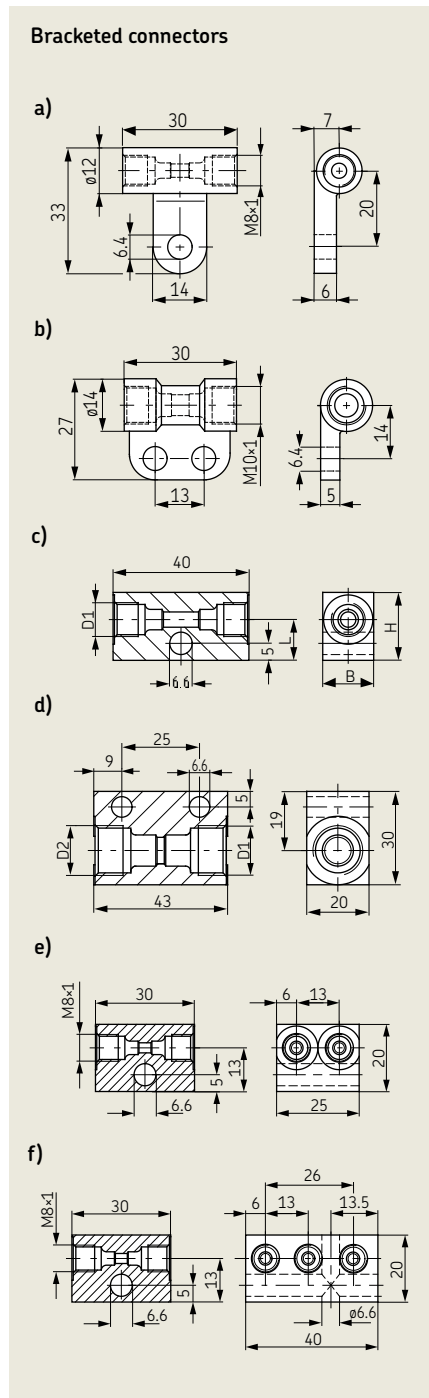
Order No.	Tube $\phi$	D1	D2	Fig.
<b>Steel, galvanized surface</b> DAR510	10	M16x1.5	M16x1.5	d
DAR510-S1	8 / 10	M14x1.5	M16x1.5	

**Bracketed connectors**

Order No.	Tube $\phi$	Fig.
<b>Steel, galvanized surface</b> DAR524	4	e
DAR534	4	

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

Order No.	Tube $\phi$	D1	B	H	L1
<b>Aluminum</b> 995-001-104	4	M8x1	20	50	40
995-001-106	6	M10x1			



# 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 $\varnothing$	D1	D2	D3	L1	L2	Fig.
<b>Die-cast zinc</b>							
<b>Form A</b>							
504-008	4	M8x1	M8x1	12	15	30.5	a
506-008	6	M10x1	M10x1	14	18	36	
510-102	10	M16x1.5	M16x1.5	20	25	50	
<b>Form B</b>							
506-408	6/4	M10x1	M8x1	14	18	36	

### Tee connectors to DIN 71433

Order No.	Tube $\varnothing$	D2	Fig.
<b>Die-cast zinc</b>			
<b>Form B</b>			
508-602-2	8/6	M10x1	b
<b>Form A</b>			
508-002-2	8	M14x1.5	

### Tee connectors to DIN 71433 Form A

Order No.	Tube $\varnothing$	Fig.
<b>Die-cast zinc</b>		
504-045	4	c
<b>Brass</b>		
DY964	6	d

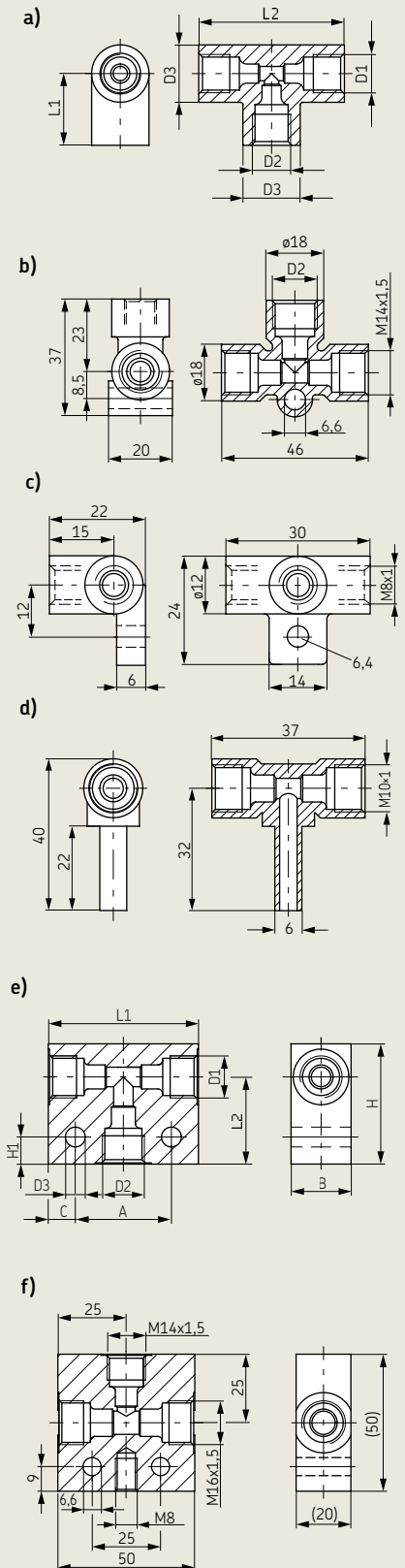
### Tee connectors to DIN 71433

Order No.	Tube $\varnothing$	D1	D2	D3	A	B	C	H	H1	L1	L2	Fig.
<b>Aluminum</b>												
<b>Form A</b>												
DAT506	6	M10x1	M10x1	6.6	22	20	9	30	9	40	20	e
DAT508	8	M14x1.5	M14x1.5	6.6	32	20	9	40	9	50	29	
DAT512	12	M18x1.5	M18x1.5	6.6	42	25	9	40	9	60	29	
<b>Form B</b>												
DAT510-S5	6	M16x1.5	M10x1	7	25	25	13.5	40	15	52	29	
<b>Steel, galvanized surface</b>												
<b>Form A</b>												
DAT510	10	M16x1.5	M16x1.5	7	25	20	13.5	40	15	52	29	e

### Tee connectors to DIN 71433 Form B

Order No.	Tube $\varnothing$	Fig.
<b>Steel, galvanized surface</b>		
DAT510-S1	8 (1x) 10 (2x)	f

### Tee connectors





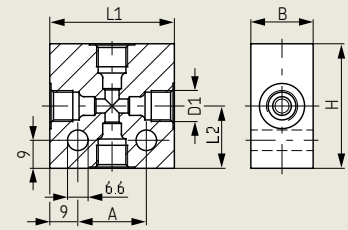
# Accessories for tubes and hoses

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

## Cross joints

Order No.	Tube $\varnothing$	D1	A	B	H	L1	L2
<b>Aluminum</b>							
DAK504-S1	4/6	M10x1/ M8x1	22	20	40	40	20
DAK506	6	M10x1	22	20	40	40	20
DAK508	8	M14x1.5	32	20	50	50	25
DAK510	10	M16x1.5	25	20	56	50	28
DAK512	12	M18x1.5	42	25	60	60	30

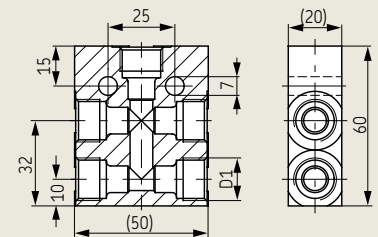
## Cross joint



## Cross joint

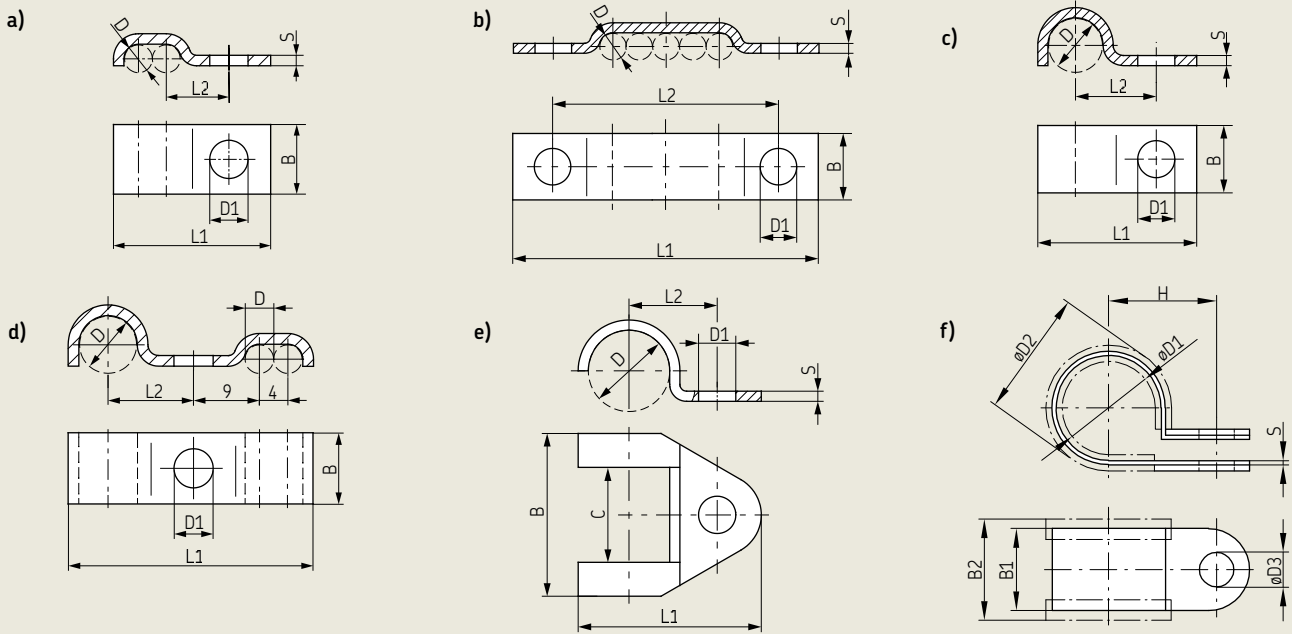
Order No.	Tube $\varnothing$	D1
<b>Steel, galvanized surface</b>		
DAK510-S1	10	M16x1.5

## 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.
<b>Mild steel</b>								
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			46	34		
604-016	4	6	10	5.5	50	38	1.5	b
604-018	4	8			58	46		
DIN 72573-2x6-ST	6	2			39	27		
DIN 72573-3x6-ST	6	3			45	33		
DIN 72573-4x6-ST	6	4			51	39		
DIN 72573-5x6-ST	6	5			57	45		
DIN 72573-6x6-ST	6	6			64	52		
DIN 72573-2x8-ST	8	2			43	31		
DIN 72573-3x8-ST	8	3	10	4.8	51	39	1	b
DIN 72573-4x8-ST	8	4			59	47		
DIN 72573-5x8-ST	8	5			68	56		
DIN 72573-6x8-ST	8	6			76	64		
DIN 72573-2x10-ST	10	2			45	33		
DIN 72573-3x10-ST	10	3			55	43		
DIN 72573-4x10-ST	10	4			67	55		
DIN 72573-5x10-ST	10	5			77	65		
<b>Stainless steel</b>								
DIN72571-1x6	6	1			20.5	10		
DIN72573-1x6	6	1			32	20		
DIN72573-2x6	6	2			38	26		
DIN72573-3x6	6	3	10	4.8	45	33	1	b
DIN72573-4x6	6	4			51	39		
DIN72573-5x6	6	5			57	45		
DIN72573-6x6	6	6			64	52		

## Fixing clips

Order No.	for tube øD	B	C	D1	L1	L2	S	Fig.
<b>Steel</b>								
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

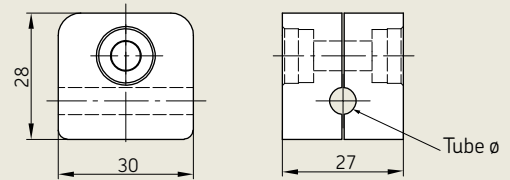
Order No.	ø D1	ø D2	ø D3	B1	B2	H	S	Fig.
<b>Steel, galvanized</b>								
941-206-104	6	11.8	5.2	12	15	11	0.5	
941-206-108	6	11.8	6.4	15	18.5	4.2	0.6	
941-208-108	8	15.4	6.4	15	18.5	15.2	0.6	
941-209-104	9	5	5.2	12	5	12.5	0.5	
941-209-105	9	15	6.4	15	18.5	15.7	0.6	
941-210-104	10	17.4	6.4	15	18.5	16.2	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 $\varnothing$
941-606-000	6
941-608-000	8
941-610-000	10

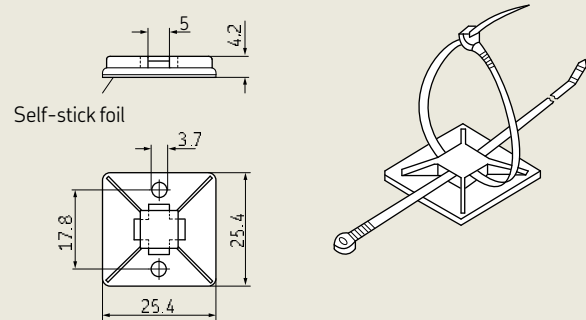
## Pipe bracket 941-606-000



## Mounting base

Order No.
179-990-186

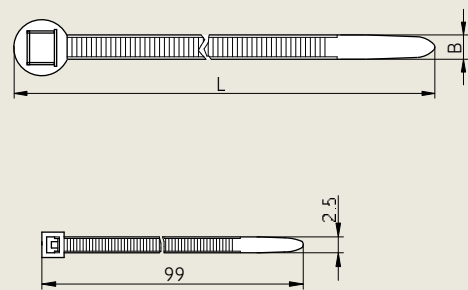
## Mounting base



## Cable strap

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

## Cable strap



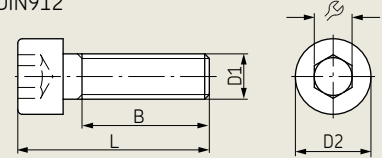
# Accessories for tubes and hoses

## Fixing bolts

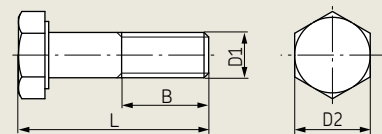
Order No.	D1	L	D2	B	⌀
<b>Steel</b>					
DIN912-M4×20-8.8	M4	20	7	14	3
DIN912-M6×16-8.8	M6	16	10	18	5
DIN912-M6×25-8.8	M6	25	10	18	5
DIN912-M6×60-8.8	M6	60	10	18	5
DIN912-M8×16-8.8	M8	16	13	12	6
DIN931-M6×30-5.8	M6	30	10	18	10
DIN933-M4×10-8.8	M4	10	7	14	-
DIN933-M5×12-8.8	M5	12	8	16	-
DIN933-M6×16-8.8	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	-	-
<b>Stainless steel</b>					
DIN912-M3×8-A4	M3	8	-	-	-
DIN912-M4×12-A4	M4	12	-	-	-
DIN912-M5×10-A2	M5	10	-	-	-

## Fixing bolts

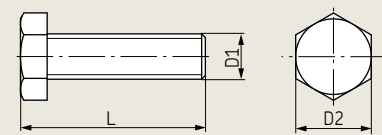
### DIN912



### DIN931 / DIN933



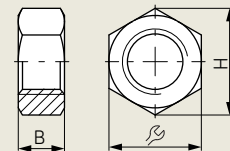
### DIN7513



## Hexagon nuts

Order No.	Thread	B	⌀	H
<b>Steel</b>				
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

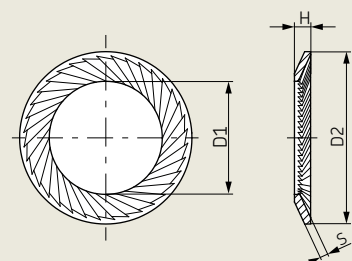
## Hexagon nut



## Lock washer

Order No.	for bolt	D1	D2	S	H
<b>Spring steel</b>					
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](http://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

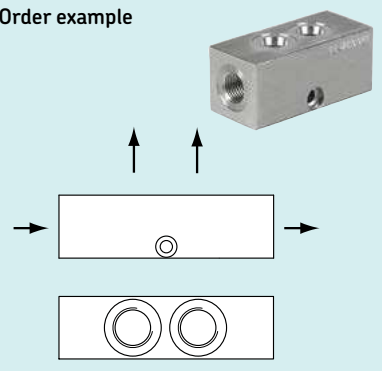
**Material**

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)

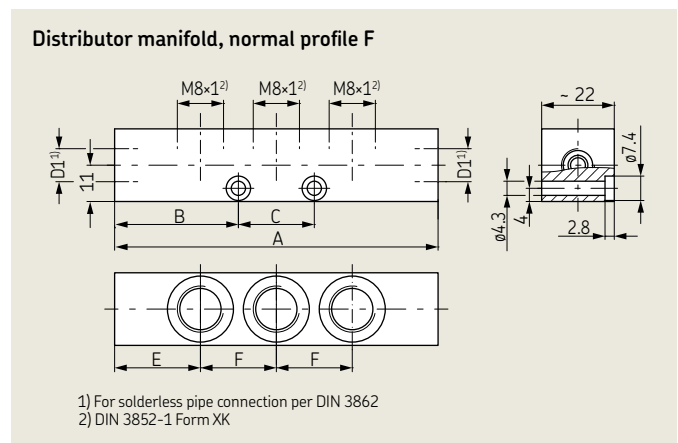
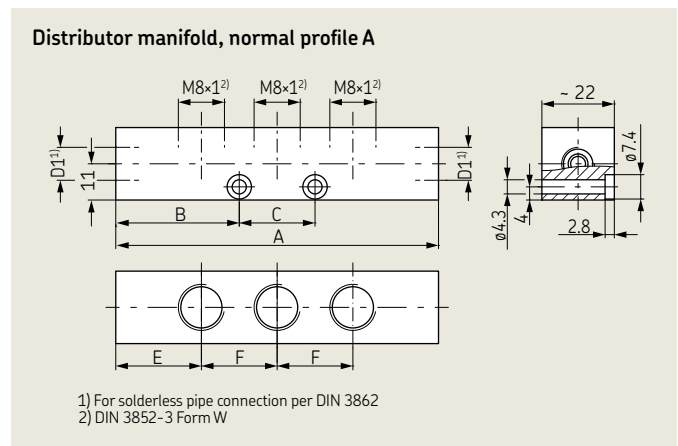
**Order example**



**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]			E	F
		A	B	C		
M10×1 (M3)	1	40	20	–	20	–
	2	55	27.5	–	20	1x 15
	3	70	27.5	15	20	2x 15
	4	85	27.5	30	20	3x 15
	5	100	27.5	45	20	4x 15
	6	115	27.5	60	20	5x 15
M10×1 (M1) G 1/8 (G1)	8	145	27.5	90	20	7x 15
	10	175	27.5	120	20	9x 15
	1	34	17	–	17	–
	2	49	24.5	–	17	1x 15
	3	64	24.5	15	17	2x 15
	4	79	24.5	30	17	3x 15
M14×1.5 (M4)	5	94	24.5	45	17	4x 15
	6	109	24.5	60	17	5x 15
	8	139	24.5	90	17	7x 15
	10	169	24.5	120	17	9x 15
	1	46	23	–	23	–
	2	61	30.5	–	23	1x 15
M14×1.5 (M2) G 1/4 (G2)	3	76	30.5	15	23	2x 15
	4	91	30.5	30	23	3x 15
	5	106	30.5	45	23	4x 15
	6	121	30.5	60	23	5x 15
	8	151	30.5	90	23	7x 15
	10	181	30.5	120	23	9x 15



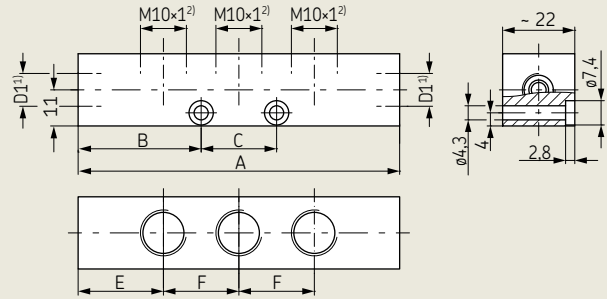
# Distributor manifolds

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

## Distributor manifold, normal profile B/G

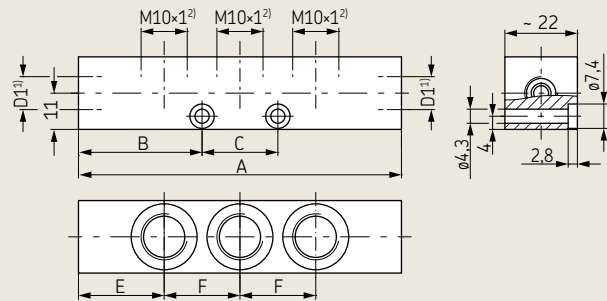
Main line connection D1	Number of ports	Dimensions [mm]			E	F
		A	B	C		
M10×1 (M3)	1	40	20	–	20	–
	2	57	28.5	–	20	1x17
	3	74	28.5	17	20	2x17
	4	91	28.5	34	20	3x17
	5	108	28.5	51	20	4x17
	6	125	28.5	68	20	5x17
	8	159	28.5	102	20	7x17
10	193	28.5	136	20	9x17	
M10×1 (M1) G 1/8 (G1)	1	34	17	–	17	–
	2	51	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) 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

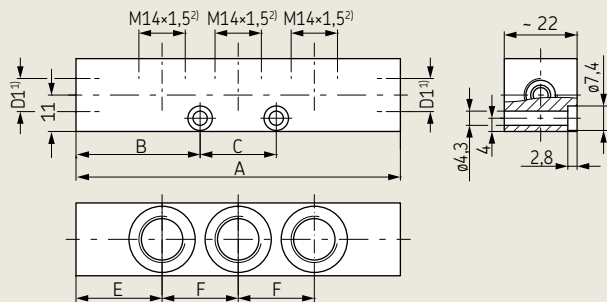


- 1) For solderless pipe connection per DIN 3862
- 2) DIN 3852-1 Form XK, small

## Distributor manifold, normal profile C

Main line connection D1	Number of ports	Dimensions [mm]			E	F
		A	B	C		
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

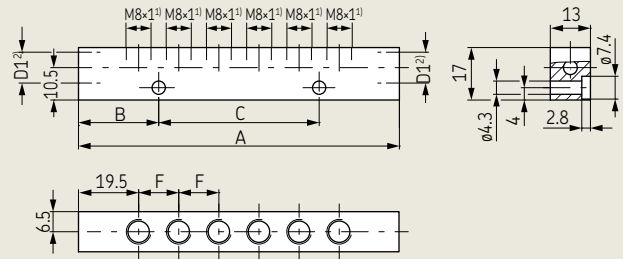
# Distributor manifolds

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
M10x1 (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

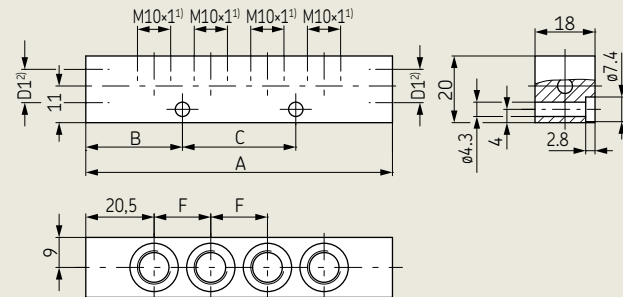


- 1) Depth 5.5 mm with surface suitable for flat washers
- 2) DIN 3852-3 Form W

## Distributor manifold, small profile E

Main line connection D1	Number of ports	Dimensions [mm]			
		A	B	C	F
M10x1 (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



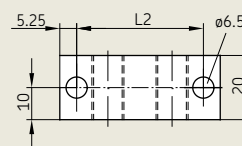
- 1) Depth 8 mm
- 2) For solderless pipe connection per DIN 3862

## Lubrication manifolds

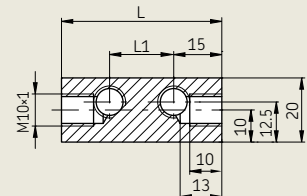
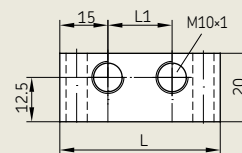
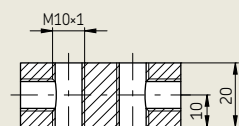
Order No.	L	L1	L2	Number of threaded holes
871-340-006	30	-	19,5	1
871-340-008 1)	30	-	19,5	1
871-360-006	50	20	39,5	2
871-360-008 1)	50	20	39,5	2
871-380-006	70	40	59,5	3
871-390-020	210	20	199,5	10
871-390-023	270	20	200	13

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

## Lubrication manifolds



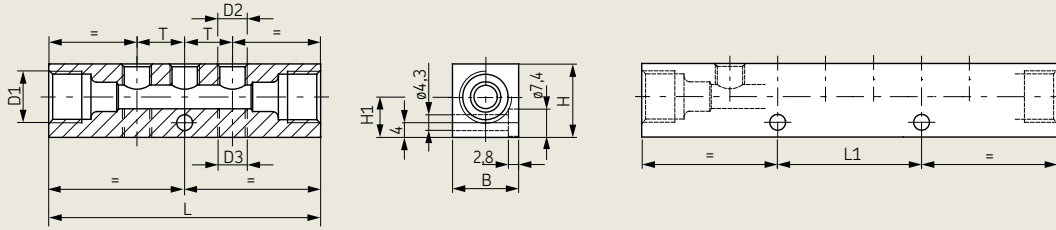
## Nipple connection



# 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 $\varnothing$	Order No.	Number-of port	D1	D2	D3	L	L1	H	H1	B	T
Aluminum alloy											
4	VL-322-541	2	M8x1	2x M8x1	-	49	-	17	10.5	13	13
	VL-323-541	3	M8x1	3x M8x1	-	62	-	17	10.5	13	13
	324-581	4	M8x1	4x M8x1	-						
6	VL-01EAM3	1	M10x1	M10x1	-	41	-	20	11	18	-
	VL-02EAM3	2	M10x1	2x M10x1	-	58	-	20	11	18	17
	VL-03EAM3	3	M10x1	3x M10x1	-	75	-	20	11	18	17
	VL-04EAM3	4	M10x1	4x M10x1	-	92	34	20	11	18	17
	VL-05EAM3	5	M10x1	5x M10x1	-	109	51	20	11	18	17
	VL-06EAM3	6	M10x1	6x M10x1	-	126	68	20	11	18	17
	VL-08EAM3	8	M10x1	8x M10x1	-	160	52	20	11	18	17
	VL-329-761	9	M10x1	9x M10x1	-	177	119	20	11	18	17
	VL-10EAM3	10	M10x1	10x M10x1	-	194	136	20	11	18	17
	331-761	11	M10x1	11x M10x1	-	211	153	20	11	18	17
	332-761	12	M10x1	12x M10x1	-	228	170	20	11	18	17
				(above)	(below)						
6	325-561		M10x1								
	322-861	2	M10x1	1x M10x1	1x M10x1	41	-	20	11	18	-
	324-861	4	M10x1	2x M10x1	2x M10x1	58	-	20	11	18	18
	326-663	6	M10x1	3x M10x1	3x M10x1	77	52	17	11	18	18
	328-861	8	M10x1	4x M10x1	4x M10x1	92	34	20	11	18	18
	330-861	10	M10x1	5x M10x1	5x M10x1	109	51	20	11	18	18
	332-861	12	M10x1	6x M10x1	6x M10x1	126	68	20	11	18	18
	334-861	14	M10x1	7x M10x1	7x M10x1	143	85	20	11	18	18
	336-861	16	M10x1	8x M10x1	8x M10x1	160	102	20	11	18	18
	338-861	18	M10x1	9x M10x1	9x M10x1	177	119	20	11	18	18
	340-861	20	M10x1	10x M10x1	10x M10x1	194	136	20	11	18	18
	VL-02DAM3	2	M10x1	2x M8x1	-	52	-	17	10.5	13	13
	VL-03DAM3	3	M10x1	3x M8x1	-	65	-	17	10.5	13	13
	VL-04DAM3	4	M10x1	4x M8x1	-	78	-	17	10.5	13	13
VL-05DAM3	5	M10x1	5x M8x1	-	91	-	17	10.5	13	13	
VL-06DAM3	6	M10x1	6x M8x1	-	104	52	20	11	18	13	
VL-07DAM3	7	M10x1	7x M8x1	-	117	39	20	11	18	13	
VL-08DAM3	8	M10x1	8x M8x1	-	130	52	17	10.5	13	13	
VL-10DAM3	10	M10x1	10x M8x1	-	156	78	17	10.5	13	13	
8	321-581	1	M14x1.5	1x M8x1	-	48	-	20		18	-
	322-581	2	M14x1.5	2x M8x1	-	61	-	20	11	18	13
	323-581	3	M14x1.5	3x M8x1	-	74	-	20	11	18	13
	323-661-S1	3	M14x1.5	3x M10x1	-	94	-	20	11	18	22
	324-581	4	M14x1.5	4x M8x1	-	87	-	20	11	18	13
	325-581	5	M14x1.5	5x M8x1	-	74	-	20	11	18	13
	326-581	6	M14x1.5	6x M8x1	-	113	39	20	11	18	13
	328-581	8	M14x1.5	8x M8x1	-	139	65	20	11	18	13
	329-581	9	M14x1.5	9x M8x1	-	152	78	20	11	18	17
	330-581	10	M14x1.5	10x M8x1	-	165	91	20	11	18	13
	330-581-S1	10	M14x1.5	10x M8x1	-	201	85	20	11	18	17
	331-581	11	M14x1.5	11x M8x1	-	178	104	20	11	18	13
332-581	12	M14x1.5	12x M8x1	-	191	117	20	11	18	13	

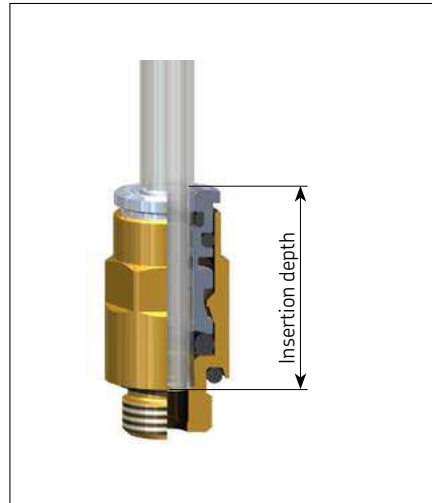


# SKF Quick Connectors for oil and grease

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

## Insertion depth for plastic and stell tubing

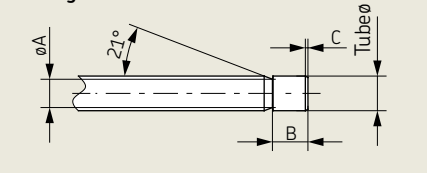
for tube $\varnothing$	Insertion depth [mm]
3-O-ring quick connector (→ page 25–27)	
4	19
6	22
8	24
1-O-ring quick connector (→ page 28–29)	
6	16



## Claw grooves

for tube $\varnothing$	A $+0.3$	B $\pm 0.2$	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

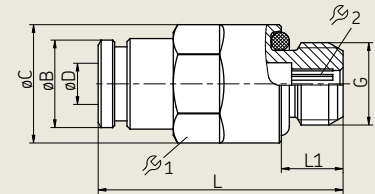
## Claw grooves



## Adaptors with cylindrical thread (→ Figure 13)

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	$\varnothing$ C	L	$\varnothing$ 1	$\varnothing$ 2	Seal
451-004-260-VS	4	M6	4.5	8.8	11.5	25	10	2.5	NBR
404-073-VS	4	M6x0.75	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	M8x1	6	8.8	11.5	23.8	10	2.5	NBR
404-003-S8-VS	4	M8x1	6	8.8	11.5	23.8	10	2.5	FPM
404-006-VS	4	M10x1	6	8.8	13.5	23.8	12	2.5	NBR
404-006-S8-VS	4	M10x1	6	8.8	13.5	23.8	12	2.5	FPM
404-040-VS	4	G1/8	6	8.8	13.5	23.8	12	2.5	NBR
406-158-VS	6	M8x1	6	11.7	13.2	30.5	12	3	NBR
406-004-VS	6	M10x1	6	11.7	13.5	27	12	4	NBR
406-004-S8-VS	6	M10x1	6	11.7	13.5	27	12	4	FPM
456-004-VS	6	G1/8	6	11.7	13.5	27	12	4	NBR
456-004-S8-VS	6	G1/8	6	11.7	13.5	27	12	4	FPM
406-054-VS	6	G1/4	7	11.7	16.4	28	12	4	NBR
406-162-VS	6	M12x1	7	11.7	15.4	28	14	4	NBR
406-162-S8-VS	6	M12x1	7	11.7	15.4	28	14	4	FPM
408-004-VS	8	M10x1	6	13.9	15.2	32.3	14	5	NBR
408-004-S8-VS	8	M10x1	6	13.9	15.2	32.3	14	5	FPM
408-162-VS	8	M12x1	7	13.9	15.2	32.8	14	6	NBR
408-162-S8-VS	8	M12x1	7	13.9	15.2	32.8	14	6	FPM
408-054-VS	8	G1/4	7	13.9	16.4	30.8	15	6	NBR

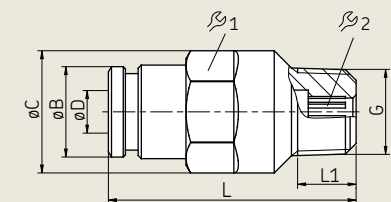
Figure 13



## Adaptors with tapered thread (→ Figure 14)

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	$\varnothing$ C	L	$\varnothing$ 1	$\varnothing$ 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	M6x0.75 tap.	5.5	8.8	11.5	25.8	10	2.5	NBR
451-004-498-VS	4	M8x1 tap.	5.5	8.8	11.5	23.3	10	2.5	NBR
451-004-518-VS	4	M10x1 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	M8x1 tap.	5.5	11.7	13.5	29.5	12	4	NBR
451-006-518-VS	6	M10x1 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



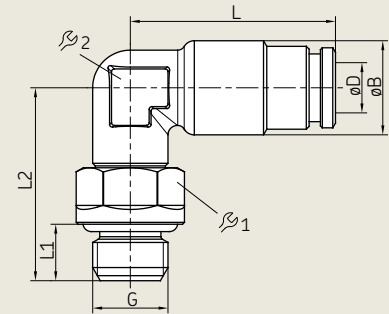
# SKF Quick Connectors for oil and grease

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

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

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	L2	$\mathcal{R}$ 1	$\mathcal{R}$ 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

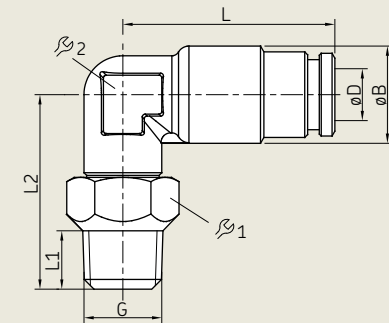
Figure 15



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

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	L2	$\mathcal{R}$ 1	$\mathcal{R}$ 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

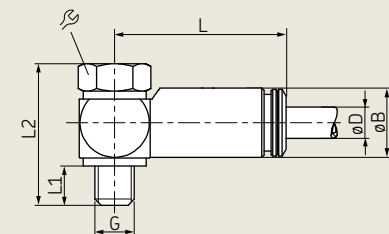
Figure 16



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

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	L2	$\mathcal{R}$	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



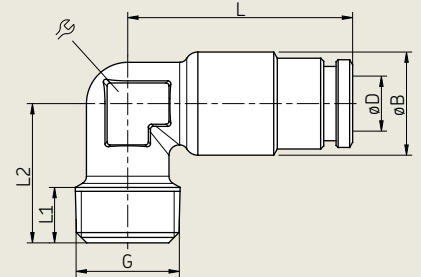
# SKF Quick Connectors for oil and grease

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

## Elbows, with tapered thread

Order No.	Tube øD	G	L1	øB	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

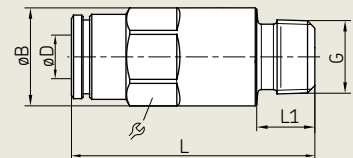
## Elbow



## Check valves

Order No.	Tube øD	G	Opening pressure [bar]	Pressure, max. [bar]	L1	øB	L	L2	☞	Seal
VPKG-RV4-VS	4	R 1/8	3±1	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

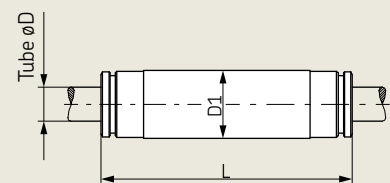
## Check valve



## 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

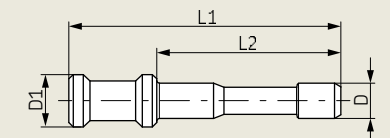
## Connector



## 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

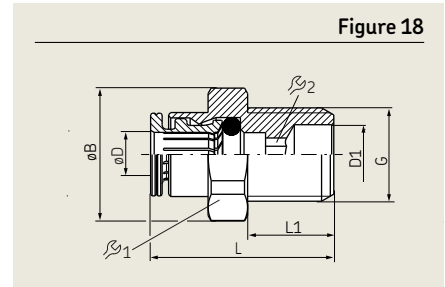


# SKF Quick Connectors for grease

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

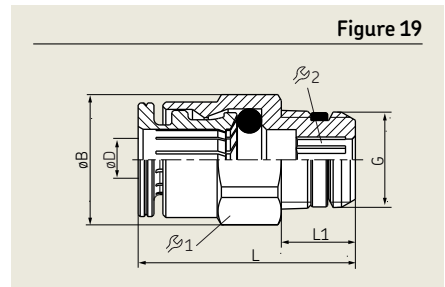
## Straight screw-in connectors (→ Figure 18)

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	$\beta$ 1	$\beta$ 2	Seal
226-14139-1	6	G 1/4	12	18.5	25.5	17	4	NBR



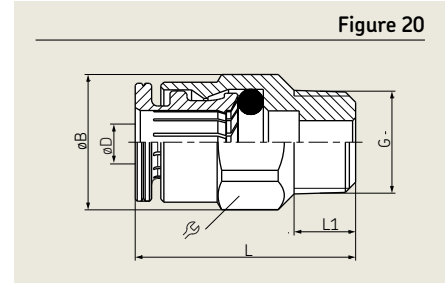
## Straight screw-in connectors with PTFE threaded seal (→ Figure 19)

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	$\beta$ 1	$\beta$ 2	Seal
226-14111-1	6	R 1/8	7.5	13.2	22	12	4	NBR



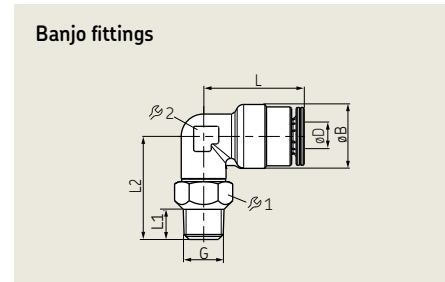
## Adaptors with tapered thread (→ Figure 20)

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	$\beta$	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



## Banjo fittings with tapered thread

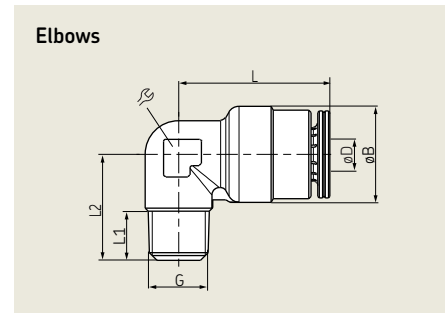
Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	L2	$\beta$ 1	$\beta$ 2	Seal
226-14157-3	6	M6×1 tap.	6	12.7	20	20.5	10	9	NBR
226-14157-1	6	M8×1 tap.	6	12.7	20	20.5	10	9	NBR
226-14157-2	6	M10×1 tap.	6	12.7	20	20.5	12	9	NBR
226-13756-9	6	R 1/8	7.5	12.7	20	21	12	9	NBR



## Elbows with tapered thread

Order No.	Tube $\varnothing$ D	G	L1	$\varnothing$ B	L	L2	$\beta$	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



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

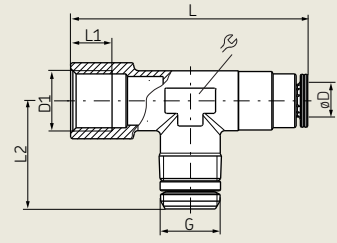
# SKF Quick Connectors for grease

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

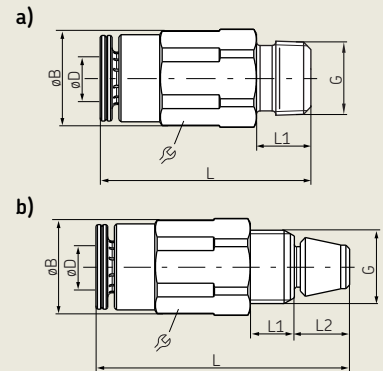
## T-Tee screw-in connector



## 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

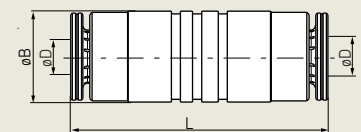
## Check valves



## Connector

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

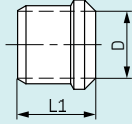
## Connector



# Fittings

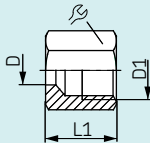
## Solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

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



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

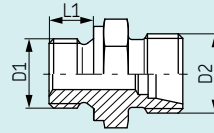
### Union nuts to DIN 3861/ISO 8434-1



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

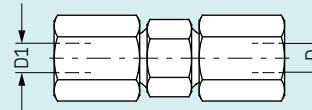
### Straight screw-in glands

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
<b>Steel, galvanized surface (Cr-6-free)</b>					
406-303	6	M10×1	M12×1.5	8	L
406-323	6	M10×1 tap.	M10×1	–	
406-333	6	M8×1 tap.	M10×1	–	
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		Series
			Order No.	Tube ø D, D1	
<b>Steel, galvanized surface (Cr-6-free)</b>					
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
			508-413	15	8
			510-412	15	10
			512-410	15	12
			510-413	18	10
			512-412	18	12
			515-410	18	15
<b>Stainless steel</b>					
406-406-S3	6	L			
408-408-S3	8				
410-410-S3	10				
415-415-S3	15				

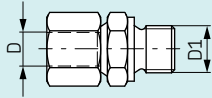
LL-series = extra light version  
L-series = light version  
S-series = heavy duty version

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

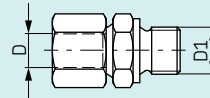


Order No.	Tube $\varnothing$ D	D1	Series
<b>Steel, galvanized surface (Cr-6-free)</b>			
<b>Form C</b>			
406-403	6	M10x1	
406-413	6	M14x1.5	
408-403	8	M12x1.5	
410-403	10	M14x1.5	
410-463	10	M18x1.5	
412-423	12	M14x1.5	
412-403	12	M16x1.5	
412-433	12	M18x1.5	
415-403	15	M18x1.5	L
415-413	15	M22x1.5	
418-403	18	M22x1.5	
96-0319-0058	18	M18x1.5	
96-0322-0058	22	M26x1.5	
96-0328-0058	28	M33x2	
96-0335-0058	35	M42x2	
96-0342-0058	42	M48x2	
<b>Form A</b>			
96-1206-0058	6	M12x1.5	
408-413	8	M14x1.5	
410-413	10	M16x1.5	
412-453	12	M18x1.5	
96-1212-0058	12	M18x1.5	S
96-1214-0058	14	M20x1.5	
96-1216-0058	16	M22x1.5	
96-1220-0058	20	M27x1.5	
96-6002-0058	4	M6x1 tap.	
404-413	4	M8x1 tap.	
404-403	4	M10x1 tap.	
406-443	6	M6 tap.	LL
406-433	6	M8x1 tap.	
406-423	6	M10x1 tap.	
406-446 <sup>1)</sup>	6	M6 tap.	
441-008-511	8	M10x1 tap.	
410-443	10	M10x1 tap.	L
<b>Stainless steel</b>			
406-443-S3	6	M6 tap.	
406-433-S3	6	M8x1 tap.	
406-403-S3	6	M10x1	LL
406-423-S3	6	M10x1 tap.	
410-443-S3	6	M10x1 tap.	
441-008-511-S3	8	M10x1 tap.	
410-403-S3	10	M14x1.5	L

1) kurzes Zapfengewinde

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

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

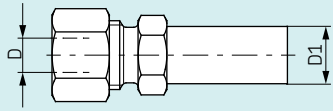


Order No.	Tube $\varnothing$ D	D1	Series
<b>Steel, galvanized surface (Cr-6-free)</b>			
<b>Form D</b>			
44-2573-6330	4	G 1/4 A	
406-403W	6	G 1/8 A	
96-0204-0058	6	G 1/4 A	
406-463W	6	G 3/8 A	
96-0203-0058	8	G 1/8 A	
408-403W	8	R 1/4	
408-413W	8	G 3/8 A	
408-453W	8	G 1/2 A	
410-403W	10	G 1/4 A	
410-413W	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	
<b>Form B</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.	
<b>Stainless steel</b>			
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	

# Fittings

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

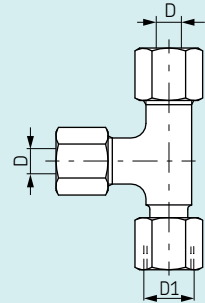
## Reducing connectors



Order No.	Tube $\phi$ D	$\phi$ 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

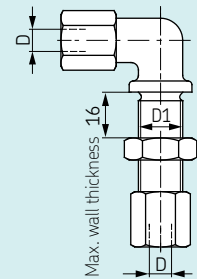
## L-screw-in connectors, directionally adjustable

Order No.	Tube $\phi$		Series
	D	D1	
443-406-061	6	M12x1.5	L
443-408-081	8	M14x1.5	
443-410-101	10	M16x1.5	
443-412-121	12	M18x1.5	
443-415-151	15	M22x1.5	
443-418-181	18	M26x1.5	S
443-406-351	6	M14x1.5	
443-408-083	8	M16x1.5	
96-3010-0060	10	M18x1.5	
96-3012-0060	12	M20x1.5	
96-3014-0060	14	M22x1.5	S
96-3016-0060	16	M24x1.5	
443-410-211	10	G 3/8 A	S
443-410-161	10	G 1/4 A	L

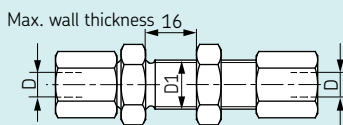


## Elbow bulkhead connectors

Order No.	Tube $\phi$	
	D	$\phi$ 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



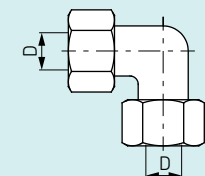
## Straight bulkhead connectors



Order No.	Tube $\phi$ D	$\phi$ 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

## Elbow connectors

Order No.	Tube $\phi$ D
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

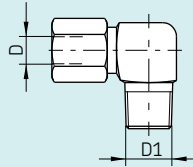


# Fittings

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

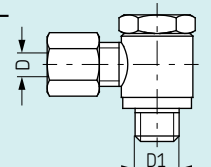
### Elbow screw-in connectors with metrical thread

Order No.	Tube $\varnothing$		Series
	D	D1	
<b>Steel, galvanized surface (Cr-6-free)</b>			
<b>Form F</b>			
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
<b>Stainless steel</b>			
404-405-S3	4	M8×1 tap.	
406-435-S3	6	M8×1 tap.	LL
406-445-S3	6	M6 tap.	



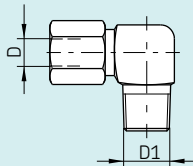
### Banjo fittings with metrical thread

Order No.	Tube $\varnothing$		Series
	d	d1	
<b>Steel, galvanized surface (Cr-6-free)</b>			
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



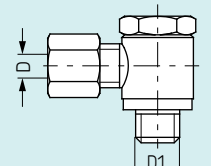
### Elbow screw-in connectors with Whitworth pipe thread

Order No.	Tube $\varnothing$		Series
	D	D1	
<b>Steel, galvanized surface (Cr-6-free)</b>			
<b>Form G</b>			
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 $\varnothing$		Series
	D	D1	
<b>Steel, galvanized surface (Cr-6-free)</b>			
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	
96-7008-0058	8	G 1/8 A	LL

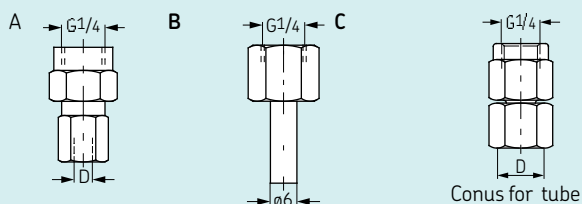


LL-series = extra light version; L-series = light version; S-series = heavy duty version

# Fittings

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

### Connectors for pressure gauges

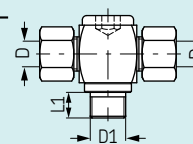


Order No.	Tube ø D	Series	Order No.	Tube ø D	Series
<b>Version A</b>			<b>Version B</b>		
406-411	6		248-610.01	6	L
408-411	8		<b>Version C</b>		
410-411	10	L	96-8804-0058	4	
412-411	12		441-106-162	6	
96-0406-0060	6		96-0308-0060	8	L
441-108-132	8		441-110-163	10	
96-0410-0060	10	S	441-112-162	12	
96-0412-0060	12		96-8906-0058	6	
			96-8910-0058	10	S
			96-8912-0058	12	

Pressure gauge → page 47

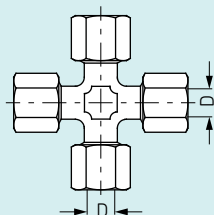
### Tee screw-in connectors with metrical thread

Order No.	Tube ø D	D1	L1 Series
96-6404-0058	4	M8×1 tap.	
96-6406-0058	6	M10×1 tap.	8 LL
96-6408-0058	8	M10×1 tap.	
96-0906-0058	6	M10×1 tap.	8 L
96-0908-0058	8	M12×1.5 tap.	
445-910-551	10	M14×1.5 tap.	12 L
96-0912-0058	12	M16×1.5 tap.	
96-0915-0058	15	M18×1.5 tap.	
96-1806-0058	6	M12×1.5 tap.	
96-1808-0058	8	M14×1.5 tap.	12 S
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



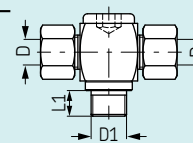
### Four-way connectors

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



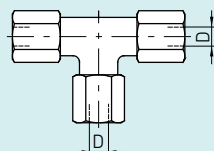
### Tee screw-in connectors with Whitworth pipe thread

Order No.	Tube ø D	D1	L1 Series
96-6304-0058	4	R 1/8 tap.	
96-6306-0058	6	R 1/8 tap.	8 LL
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.	
96-0810-0058	10	R 1/4 tap.	12 L
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.	
96-1708-0058	8	R 1/4 tap.	12 S
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	



### Tee connectors

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

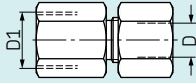


LL-series = extra light version; L-series = light version; S-series = heavy duty version

# Fittings

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

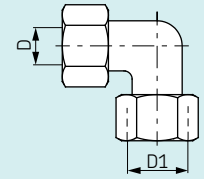
### Straight screw-in fitting



Order No.	Tube $\varnothing D$	D1	Series
96-0506-0060	6	M10x1	
96-0508-0060	8	M12x1.5	
96-0510-0060	10	M14x1.5	
96-0512-0060	12	M16x1.5	L
96-0515-0060	15	M18x1.5	
96-0518-0060	18	M22x1.5	
96-0522-0060	22	M26x1.5	
96-0606-0060	6	M12x1.5	
96-0608-0060	8	M14x1.5	
96-0610-0060	10	M16x1.5	
96-0612-0060	12	M18x1.5	S
96-0614-0060	14	M20x1.5	
96-0616-0060	16	M22x1.5	
96-0620-0060	20	M27x2	
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	
96-0712-0060	12	G 3/8 A	L
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

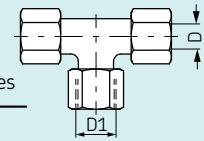
Order No.	Tube $\varnothing D$	D1
443-306-341	6	M12x1.5
443-306-343	6	M14x1.5
443-308-351	8	M14x1.5



### Tee female thread unions

directionally adjustable

Order No.	Tube $\varnothing D$	D1	Series
96-3106-0060	6	M12x1.5	
445-808-351	8	M14x1.5	
445-810-371	10	M16x1.5	
96-3112-0060	12	M18x1.5	L
96-3115-0060	15	M22x1.5	
96-3118-0060	18	M26x1.5	
96-3122-0060	22	M30x1.5	
445-806-351	6	M14x1.5	
96-3208-0060	8	M16x1.5	
96-3210-0060	10	M18x1.5	
96-3212-0060	12	M20x1.5	S
96-3214-0060	14	M22x1.5	
96-3216-0060	16	M24x1.5	
96-3220-0060	20	M30x1.5	

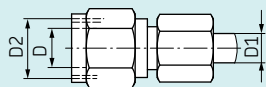


LL-series = extra light version  
 L-series = light version  
 S-series = heavy duty version

# Fittings

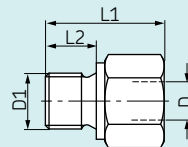
solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

## Reducing connections



Order No.	Tube $\phi$ D	Tube $\phi$ D1	D2	Series
96-1406-0060	6	4	M10x1	
96-1408-0060	8	4	M12x1	LL
96-1410-0060	8	6	M12x1	
96-1508-0060	8	6	M14x1.5	
96-1511-0060	10	6	M16x1.5	
96-1523-0060	12	10	M18x1.5	
96-1532-0060	15	8	M22x1.5	
96-1533-0060	15	10	M22x1.5	
96-1541-0060	18	6	M26x1.5	L
96-1542-0060	18	8	M26x1.5	
96-1543-0060	18	10	M26x1.5	
96-1545-0060	18	15	M26x1.5	
96-1551-0060	22	6	M30x2	
96-1555-0060	22	15	M30x2	
96-1556-0060	22	18	M30x2	
96-1610-0060	8	6	M16x1.5	
96-1611-0060	10	6	M18x1.5	
96-1612-0060	10	8	M18x1.5	
96-1621-0060	12	6	M20x1.5	
96-1622-0060	12	8	M20x1.5	
96-1623-0060	12	10	M20x1.5	
96-1631-0060	14	6	M22x1.5	S
96-1632-0060	14	8	M22x1.5	
96-1633-0060	14	10	M22x1.5	
96-1634-0060	14	12	M22x1.5	
96-1641-0060	16	6	M24x1.5	
96-1642-0060	16	8	M24x1.5	
96-1643-0060	16	10	M24x1.5	
96-1644-0060	16	12	M24x1.5	
96-1645-0060	16	14	M24x1.5	
96-1651-0060	20	6	M30x2	
96-1652-0060	20	8	M30x2	
96-1653-0060	20	10	M30x2	
96-1654-0060	20	12	M30x2	
96-1655-0060	20	14	M30x2	
96-1656-0060	20	16	M30x2	

## Reducing connections, sealing by sealing edge



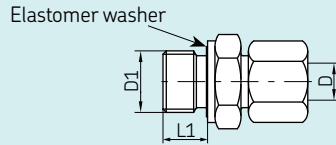
Order No.	D1	Tube $\phi$ D	L1	L2
401-016-191	G 1/8 A	G 1/4	31	8
96-3116-0058	G 1/4 A	G 1/8	28	12
96-3117-0058	G 1/4 A	G 3/8 A	36	12
96-3118-0058	G 1/4 A	G 1/2	40	12
96-3101-0058	G 3/8 A	G 1/8	22,5	12
96-3120-0058	G 3/8 A	G 1/4	36	12
96-3121-0058	G 3/8 A	G 1/2	41	12
96-3122-0058	G 3/8 A	G 3/4	44	12
401-016-132	G 1/2 A	G 1/4	24	14
96-3120-0058	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

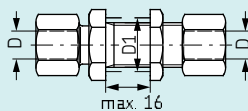
## Straight screw-in connectors with elastomer washer and E02 function nut



Order No.	Tube $\varnothing$ D	D1	L1	3
471-004-191 <sup>1)</sup>	4	G 1/8 A	16	
471-004-311 <sup>1)</sup>		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	12	
471-012-391		M18×1.5		
471-015-131	15	G 1/2 A	14	

<sup>1)</sup> LL-series (extra light version)

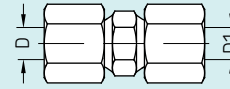
## Straight bulkhead connectors with E02 function nut



Order No.	Tube $\varnothing$ D	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

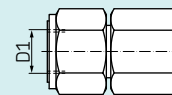
Max. operating pressure 315 bars

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



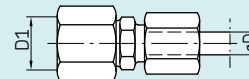
Order No.	Tube $\varnothing$ D, D1
474-506-061	6
474-508-081	8
474-510-101	10
474-512-121	12
474-515-151	15
474-518-181	18

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



Order No.	Tube $\varnothing$ D	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 $\varnothing$ D	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 <sup>1)</sup>	10	

<sup>1)</sup> S-series (heavy duty version)

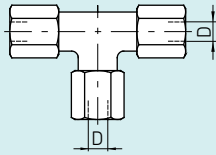
The cutting sleeve screw unions shown correspond to the L-series (light version).

# Fittings

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

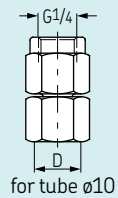
## Tee connectors with E02 function nut

Order No.	Tube $\phi D$
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 $\phi D$
471-106-163	6
471-108-163	8
471-110-163	10
471-112-163	12



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

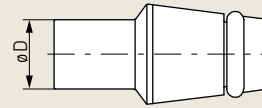
# Accessories

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

### Cone plugs

Order No.	Tube $\varnothing$ D
460-706-001	6
460-708-001	8
460-710-001	10
460-712-001	12

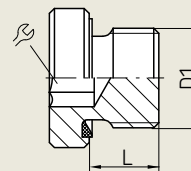
### Cone plug



### Screw plugs with elastomer seal

Order No.	D1	L	$\varnothing$
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	M18x1.5	12	8

### Screw plug



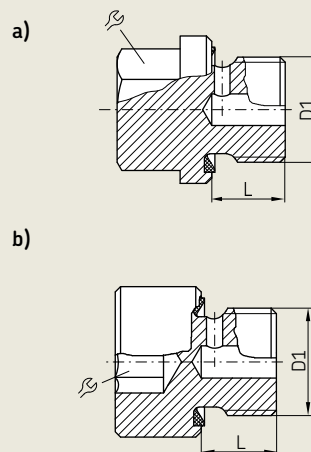
### Screw plugs with profile seal according to DIN 3869

Order No.	D1	L	$\varnothing$
466-419-001	G 1/8 A	8	5
466-429-001	M8x1	8	4
466-431-001	M10x1	8	5

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

Order No.	D1	L	$\varnothing$	Fig.
466-431-006	M10x1	7	10	a
466-431-005	M10x1	7	5	b
466-431-009	G 1/8 A			

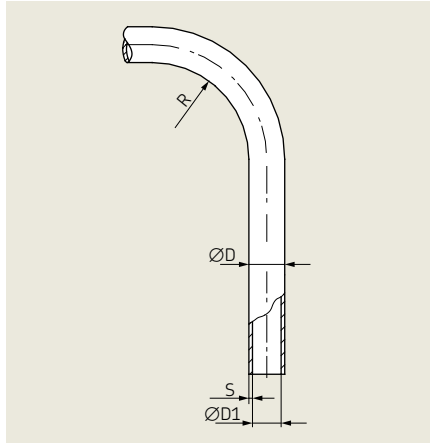
### Vent plug



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 <sup>1)</sup> [mm]	Permissible operating pressure <sup>2)</sup> [bar]	Burst pressure [bar]
<b>Steel tubing, galvanized surface (Cr-6 free)</b>						
WV-R06x0.7 VERZI	6 ±0.05	0.7	4.6 ±0.11	12	320	850
WV-R08x0.7 VERZI	8 ±0.05	0.7	6.6 ±0.11	19	230	675
WV-R010x0.7 VERZI	10 ±0.05	0.7	8.6 ±0.13	27	180	550
<b>Steel tubing nach EN10305-4, verzinkt, Cr-6-frei</b>						
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
<b>Stainless steel (material 1.4301/1.4306)</b>						
D1127R02.5x0.5+A46	2,5 ±0.03	0.5	1,5 ±0.05	7,5	386	1664
DIN2462-R04x1+A46	4 ±0.1	1	2 ±0.2	12	466	2080
DIN2462-R06x1+A46	6 ±0.1	1	4 ±0.2	18	347	1473
DIN2462-R08x1+A46	8 ±0.1	1	6 ±0.2	24	269	1105
DIN2462-R010x1+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

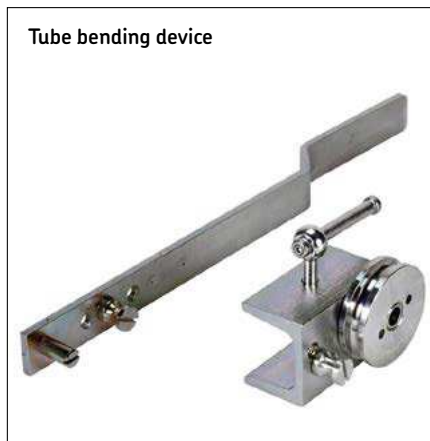
### Tube bending device

Ø steel pipeline [mm]	Order No.
4, 6, 8, 10	<b>248-803.20</b>
12 (special grooved disk) <sup>3)</sup>	<b>248-803.17</b>
4 (retro fitting set) <sup>4)</sup>	<b>248-803.16</b>

<sup>3)</sup> 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**.

<sup>4)</sup> 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](http://skf-lubrication.partcommunity.com)



Technical data			
<b>Plastic tubing</b>			
semirigid (without plasticizer)	PA12H (natural) polyamide 12, semirigid, unplasticized as per DIN 73378, stabilized against heat and ageing	PA12HL (black tubing) polyamide 12, semirigid, unplasticized as per DIN 73378, stabilized against light, heat and ageing, lowest moisture absorption	PA6.12 (black tubing) <sup>1)</sup> 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) polyamide 12, flexible, containing plasticizer as per DIN 73378, stabilized against heat and ageing	PA12PHL (black tubing) 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	
<b>High pressure hose</b>			
NW4 (tube outside Ø 8,6 mm) NW6 (tube outside Ø 11,3 mm)	PUR (black tubing)	Inner hose Pressure reinforcement Sheathing	polyamide, soft polyester high strength polyurethane
Material code	D		
Temperature range	-40 to + 70 °C		
NW8 (tube outside Ø 16,5 mm)	BUNA (black)	Inner hose and sheathing	synthetic rubber
Material code	E		
Temperature range	-40 to + 100 °C		

<sup>1)</sup> 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

**Order code** H B

**Tube type**  
 → **Table 1**  
 Tube type includes:  
 Tube type (H = High pressure hose)  
 Tubediameter (06, 08, 10)  
 Material (D = PUR; E = BUNA)  
 Wall thickness (H, J, M)  
 Colour (B = black)

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

**Threaded joint**  
 → **Table 2** (→ page 43)

**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**  
 → **Table 3** (→ page 43)

Threaded joint 1  
 Threaded joint 2

**Tabelle 1**

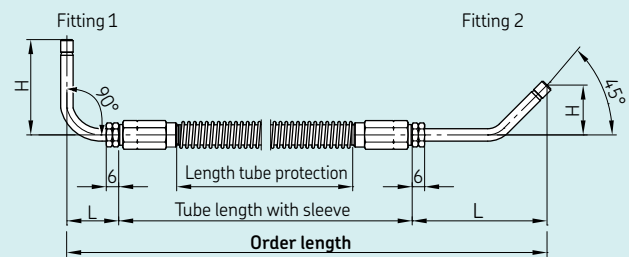
Tube type	Tube outside Ø [mm]	Wall thickness [mm]	Min. bending radius <sup>1)</sup> [mm]	Burst pressure <sup>2)</sup> [bar]	Length 50 m Order No.
<b>H 06 D H B</b>	8,6	2,3	35	840	982-750-091 111-35114-1
<b>H 08 D J B</b>	11	2,5	45	840	982-750-111 111-35301-4
<b>H 10 E M B</b>	16,5	4,5	55	520	WVN711-10

<sup>1)</sup> without bending device

<sup>2)</sup> 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 Ø 8,6 mm (NW 4)
- Material PUR
- Wall thickness 2.3 mm
- Black tubing
- Tube length 2500 mm
- Tube stud Ø6 mm, 90° angle
- Tube stud Ø6 mm, 45° angle
- SKF standard grease
- Corrugated hose NW10

→ Online configurable on [skf-lubrication.partcommunity.com](https://skf-lubrication.partcommunity.com)

# Tubes and hoses

## Threaded joint, tube protection

Table 2

### Threaded joint for high pressure hoses H06, H08, H10

Tube stud	L [mm]	H [mm]	Tube ØD [mm]	Order No. 1)	Code	
<b>Stainless steel</b>						
BEL	straight	36	6	855-380-002	CA	
	90° abgewinkelt	19	21	855-380-003	CB	
VS	straight	39	6	855-380-002-VS	CC	
	90° abgewinkelt	19	35	855-380-003-VS	CD	
<b>Zinc-nickel, Cr-6-free</b>						
VS	straight	32	6	853-370-002-VS	AA	
	straight	39	6	853-380-002-VS	AB	
	90° angle	19	35	853-380-003-VS	AC	
	45° angle	40	23	853-380-004-VS	AD	
	45° angle	65	18	853-380-007-VS	AE	
	straight	75	6	853-390-002-VS	AF	
	90° angle	30	50	853-390-003-VS	AG	
	45° angle	65	24	853-390-004-VS	AH	
	30° angle	70	17	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	853-380-003	BC	
45° angle		23	11	853-380-004	BD	
straight		75	6	853-390-002	BE	
90° angle		30	50	853-390-003	BF	
90° angle		30	36	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	406-708-008	ED	
45° angle		43	26	406-708-009	EE	
LL	straight	35	10	406-710-002	FA	
	straight	26	6	853-370-002	PA	
	straight	36	6	853-380-002	PB	
	90° angle	19	22	853-380-003	PC	
	45° angle	23	11	853-380-004	PD	
	straight	75	6	853-390-002	PE	
	90° angle	30	50	853-390-003	PF	
	90° angle	30	36	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	406-708-008	PM	
45° angle	43	26	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	853-390-003	SF	
	90° angle	30	36	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	406-708-008	SM	
	45° angle	43	26	406-708-009	SN	

VS = quick connector

BEL = for solderless pipe union with cutting-sleeve

LL = extra light version 2) 3)

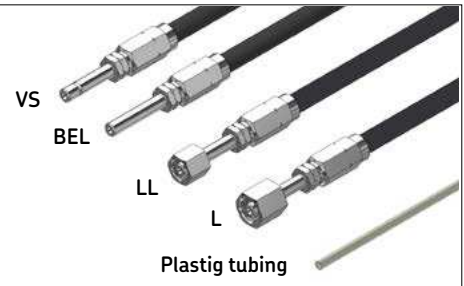
L = light version 2) 3)

1) incl. sleeve → table 4

2) EO, metallic sealing

3) cutting sleeves and union nuts → page 30

Fitting version



Tube protection

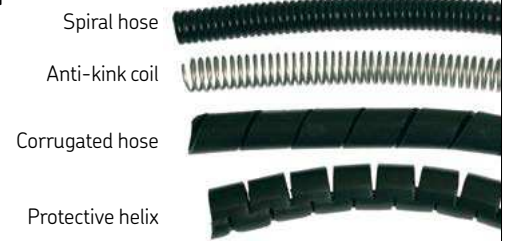


Table 3

Tube protection

Designation	Ø [mm]	Tube type	order No.	Code
without				X
<b>Polypropylene</b>				
Spiral hose	6-9	T06, T08, H06	982-760-102	A
Spiral hose	10-16	T10, H08, H10	982-760-172	A
<b>Polyethylene, black colour</b>				
Protective helix	5-20	T06, T08	113-35075-2	B
Protective helix	9-30	T10, H08, H06, H10	113-35075-3	B
<b>Stainless steel</b>				
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
<b>Polyamide 6, black colour</b>				
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]
<b>Stainless steel</b>			
432-23676-1	6	28	17
<b>Zinc-nickel, Cr-6-free</b>			
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.



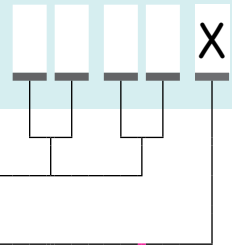
# Tubes and hoses

## Threaded 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**

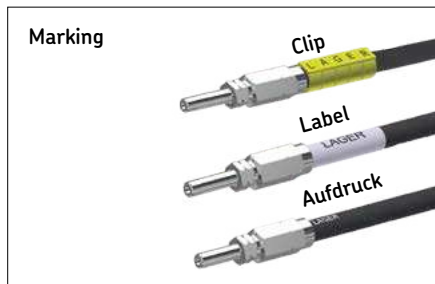


**Marking**

→ Table 6

**Torsion angle** (on request)

<sup>1)</sup> The customer-specific design has a 23-digit order code; the customer-specific order number has 18 digits.



### Example for customized version with marking

Order code: H06DHB02500BCBDZAXAAAAX

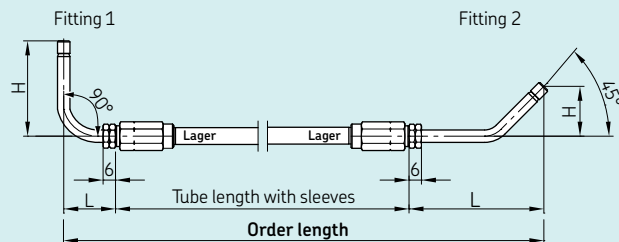
Customized order No. **H06DHB02500-000001**

- High pressure hose
- Tube outside  $\varnothing$  8,6 mm (NW 4)
- Material PUR
- Wall thickness 2.3 mm
- Black tubing
- Tube length 2500 mm
- Tube stud  $\varnothing$  6 mm, 90° angle
- Tube stud  $\varnothing$  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)

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



## Self-installation of high pressure hoses

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

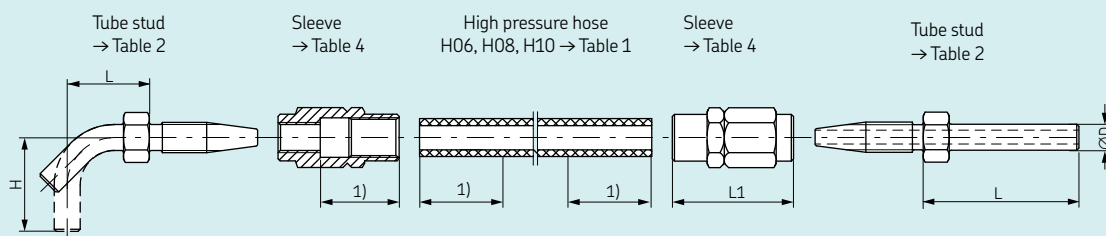
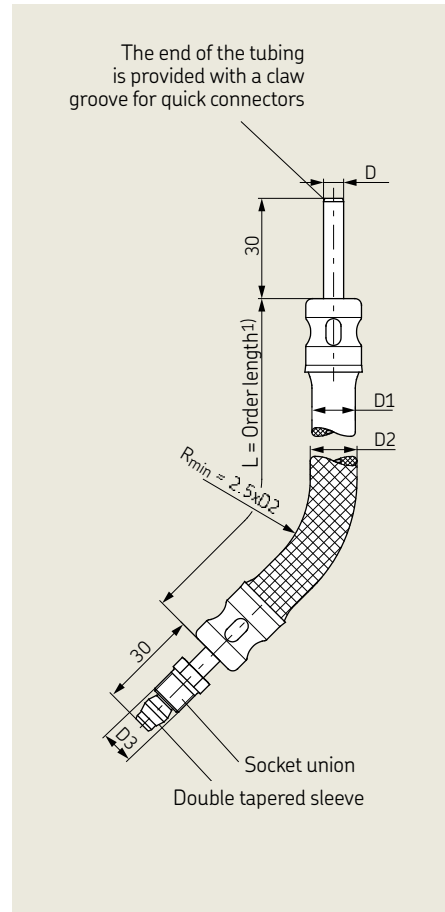


Table 1 → page 42  
Table 2, 4 → page 43

<sup>1)</sup> 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]
<b>Standard</b>						
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
<b>Metal-braided</b>						
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	②		③		Increase in volume at -40 bars [cm <sup>3</sup> /m]	
	Male body Order No.	Shell Order No.	Hose Order No. 1)	Hose D1			
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

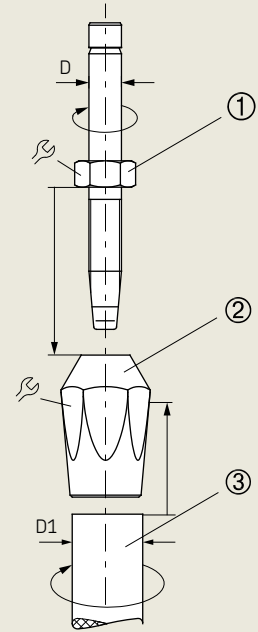
Material: Hose: Perbunan, resistant to mineral oils, with two layers of braided rayon  
Male body: steel, galvanized  
Shell: brass

Permissible operating pressure: -40 to +100 °C

#### Installation instructions

- Apply thin film of oil to thread and inside of hose of parts ③ ② ① to be connected.
- Clamp shell ② in vise and screw in hose ③ by turning it to the left up to the stop.
- 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 $\varnothing$	D1 <sup>1)</sup>	L2	Durchfluss- richtung
207-168-2	6	M10x1	65	beliebig
207-188-2	8	M14x1,5	71,5	

#### Outer coupling member

Order No.	Tube $\varnothing$	L1
207-168.U7	6	51,5
207-188.U11	8	58

#### Inner coupling member

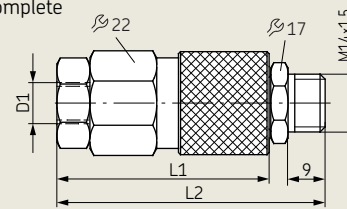
##### Order No. 207-168.U2

Both coupling members are shut off when disconnected!

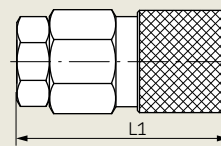
1) Ports tapped for solderless tube connection

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

#### Coupling, complete



#### Outer coupling member



#### Inner coupling member

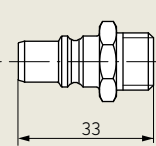
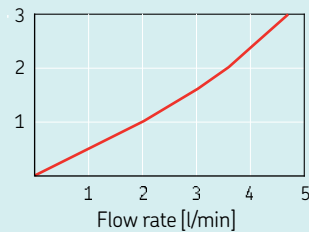


Diagram 1

Pressure loss  $\Delta p$  [bar]

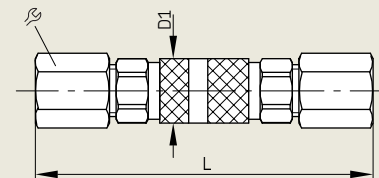


Pressure loss as a function of the flow rate based on an operating oil viscosity of 140 mm<sup>2</sup>/s

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

Order No.	Tube $\varnothing$	L	D1	$\varnothing$
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 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



# Accessories

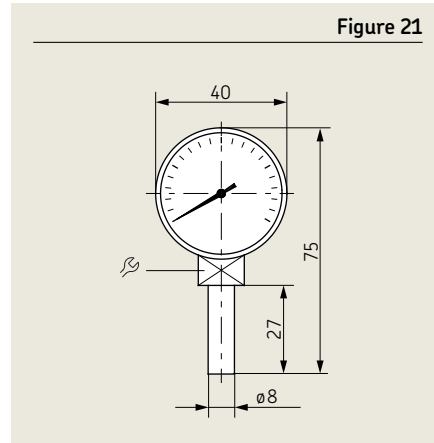
## Pressure gauges

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

Order No.	Indication range	⌀	Restrictor
<b>Steel housing, black</b>			
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	–
169-104-008 1)	0–40 bars	4kt 14	0.4
<b>ABS housing</b>			
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

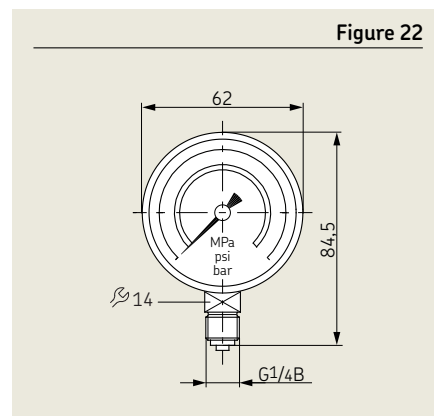


### Pressure gauges (→ Figure 22)

Order No.	Indication range
<b>ABS housing</b>	
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.

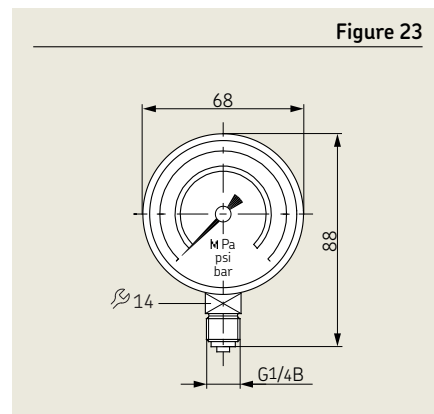
2) Associated connecting pieces → page 7



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

Order No.	Indication range	Mounting position
<b>Stainless steel housing</b>		
169-102-015	0–25 bars / 0–363 psi / 0–2,5 Mpa	vertically
169-104-015	0–40 bars / 0–580 psi / 0–4 Mpa	
169-106-015	0–60 bars / 0–870 psi / 0–6 Mpa	
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	

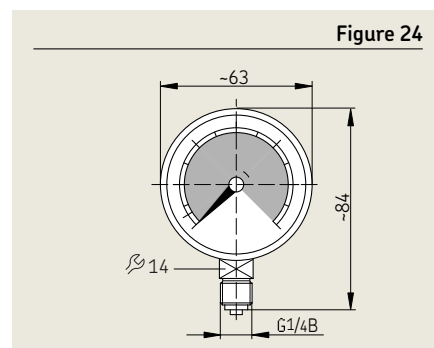
Washer, order No. 248-610.02, must be ordered separately for every pressure gauge.



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

Order No.	Indication range	Mounting position
<b>Stainless steel housing</b>		
169-101-607	0–16 bars / 0–1.6 MPa	vertically
169-104-011	0–40 bars / 0–4 MPa	
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.



# Accessories

## Rotating joints, Banjo fittings

### Rotating joints

Order No.	Tube $\varnothing$	D1	D2 <sup>1)</sup>	Max. speed [min <sup>-1</sup> ]	Max. pressure oil [bar]	Max. pressure air [bar]
401-504-192	4	G 1/8	M8x1	100	30	8
401-504-292	4	M8x1	M8x1			
401-506-313	6	M10x1	M10x1			

Flow media: mineral oils, oiled compressed air

1) Ports tapped for solderless tube connection

### Banjo fitting, rotatable

Order No.	Tube $\varnothing$	D1	Fig.
405-549-049	4	M8x1 tap.	a
405-551-049	4	M10x1 tap.	

### Banjo fitting, rotatable

Order No.	Tube $\varnothing$	D1	Max. speed [min <sup>-1</sup> ]	Max. pressure oil [bar]	Max. pressure air [bar]	Fig.
DLY930-2 DLY931	8	G 1/4 A R 1/8 tap.	1400	20 <sup>2)</sup>	8	b

Flow media: mineral oils, oiled compressed air

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

### Banjo fitting, rotatable

Order No.	Tube $\varnothing$	Max. speed [min <sup>-1</sup> ]	Max. pressure [bar]	Fig.
DLY932	6	1400	5	c

Flow media: mineral oils

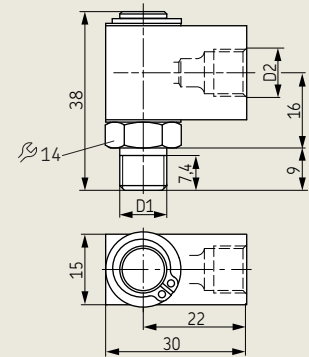
### Banjo fitting, rotatable

Order No.	Tube $\varnothing$	Remark	Max. speed [min <sup>-1</sup> ]	Max. pressure [bar]	Fig.
408-120	8	Part <b>a</b> rotating in part <b>b</b>	20	10	d

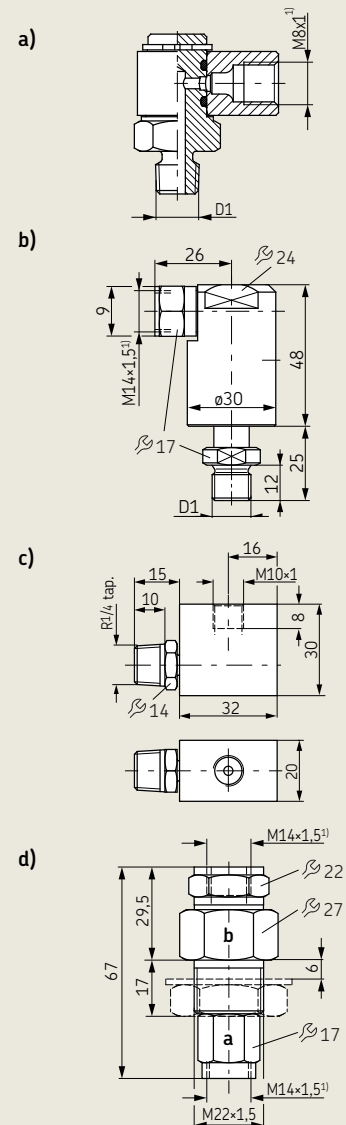
Flow media: mineral oils

The rotating joint is also available with nut DIN936-M22x1.5 and spring washer DIN137-B22.

### Rotating joint



### Banjo fitting



1) Ports tapped for solderless tube connection

# Accessories

## Relief valves

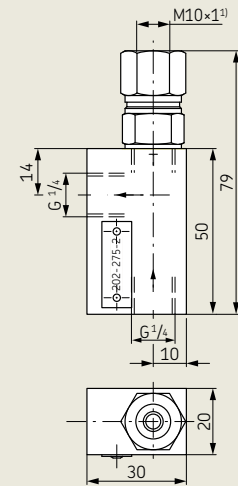
These valves are installed in distributor systems fitted with a pump without pressure relief equipment, mainly in the main line downstream from the pump.

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

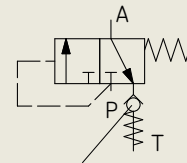
Order No. 202-275-2

### 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

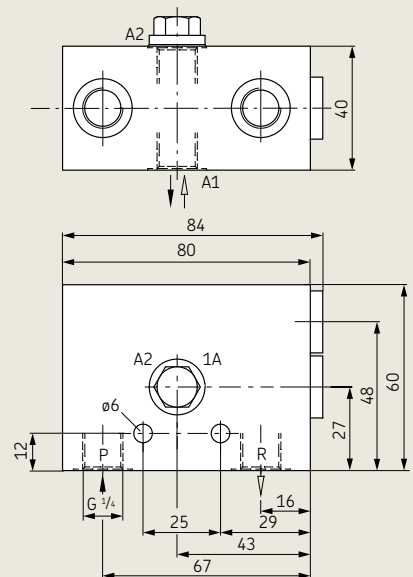
### Relief valve with bleed valve and safety valve

Order No. 202-175-30

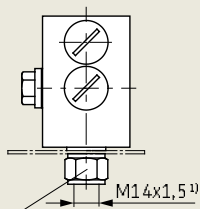
Adaptors <sup>1)</sup> for tube  $\varnothing 6$ : Order No. 406-054  
for tube  $\varnothing 8$ : Order No. 301-020  
for tube  $\varnothing 10$ : Order No. 410-163

1) Ports tapped for solderless tube connection

### Relief valve 202-175-30



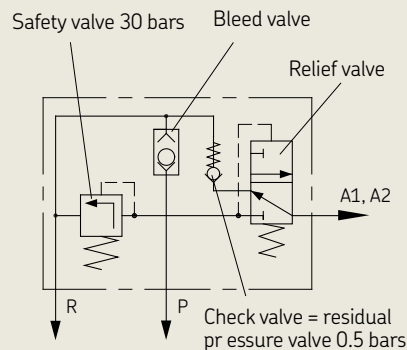
### Fitted to reservoir



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

1) Ports tapped for solderless tube connection

### Relief valve circuit diagram



# Accessories

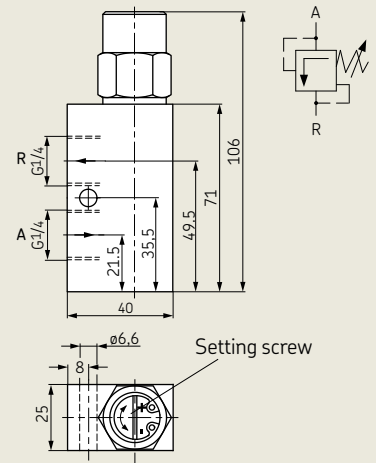
## Safety valves, Check valves

### 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 [mm <sup>2</sup> /s]	Seal
WVN200-10E6		1 to 6	40			NBR
WVN200-10E12		3 to 12	40			NBR
WVN200-10E12-S8		3 to 12	40			FPM
WVN200-10E25	→ Dia-gram 2	4 to 25	40	80	20 to 1000	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



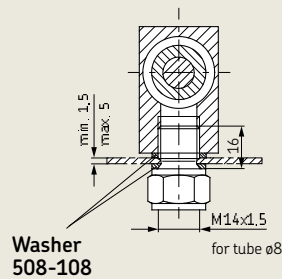
### Adaptors for valves <sup>1)</sup>

	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 adaptors with long tube ends  
**408-160**

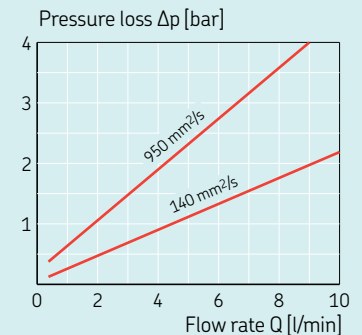
<sup>1)</sup> Ports tapped for solderless tube connection

### 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	R 1/8 tap.	10	315	L	a
VPM-RV4	4	M10x1 tap.	10	100	LL	a
VPM-RV6	6	M10x1 tap.	10	315	L	a
VPM-RV8	8	M10x1 tap.	10	315	L	a
VPM-RV10	10	M10x1 tap.	10	315	L	a

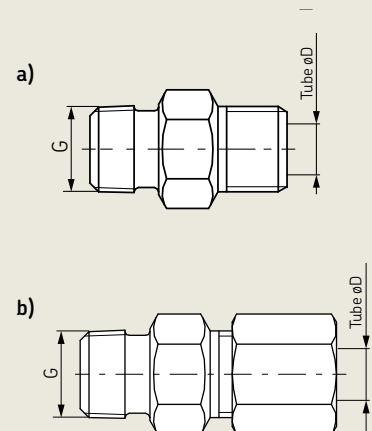
With cutting sleeve and union nut

VPKG-RV	6	R 1/8 tap.	3	100	LL	b
VPKM-RV-S3 <sup>2)</sup>	6	M10x1 tap.	3	100	LL	b
VPKM-RV-S4	6	M10x1 tap.	2	100	LL	b

<sup>2)</sup> stainless steel

Check valves for quick connectors → pages 27, 29. LL series = extra light version, L-series = light version

### Check valve



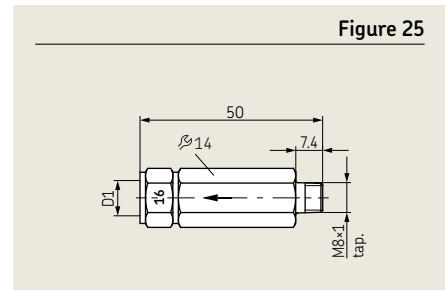
# Accessories

## Safety valves


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

Order No.	Tube $\varnothing$	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

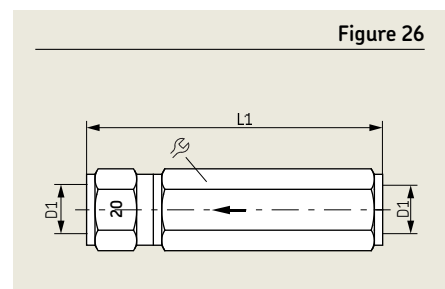


### Safety valves (ball valves), for flow rates from 0.5–2 l/min (→ Figure 26)

Order No.	Tube $\varnothing$	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	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	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

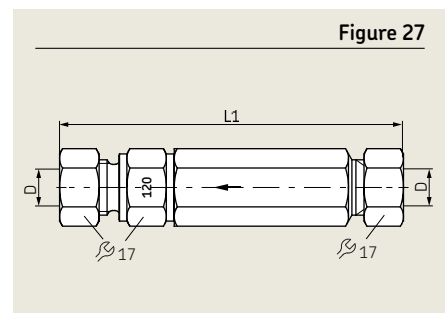
2) This valve is designed as a plunger valve. Because of this design it can also be used for regulating tasks, whereas the ball valves should be used as safety valves.



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

Order No.	Tube $\varnothing$	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



# Accessories

## Shut-off valves

### Shut-off valve

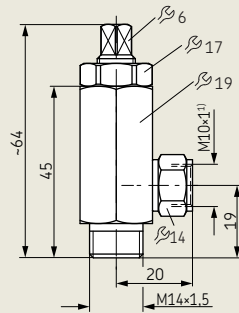
Order No.	p max. [bar]	Max. temperature [°C]	Spindleway
202-085-S	60	80	max. 3 revs.

Direction of flow optional

### Shut-off valves

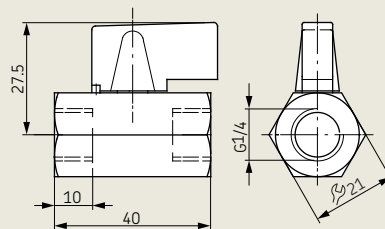
Order No.	p max. [bar]	Max. temperature [°C]
161-600-036	16	90
UFZ.0097	10	90

Shut-off valve 202-085-S

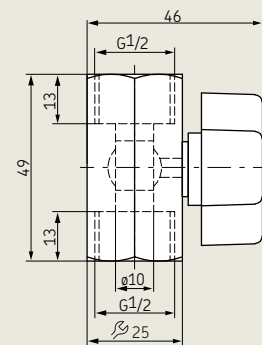


1) Ports tapped for solderless tube connection

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	15			
169-000-012	10			
169-000-016	20	NLGI 1,2	manually operated	no
169-000-056	25			
169-000-082	25 / 50	00/000	manually operated	yes
169-000-084	25			
169-000-042	25	NLGI 1,2	manually operated	yes
169-000-054	50			
169-000-342	25	NLGI 1,2	manually operated	no
169-000-018	25	00 bis 2	pneum. operated	yes

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

Topping-up pump 169-000-042



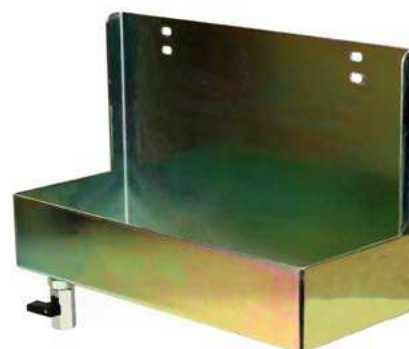
Topping-up pump 169-000-342



### 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





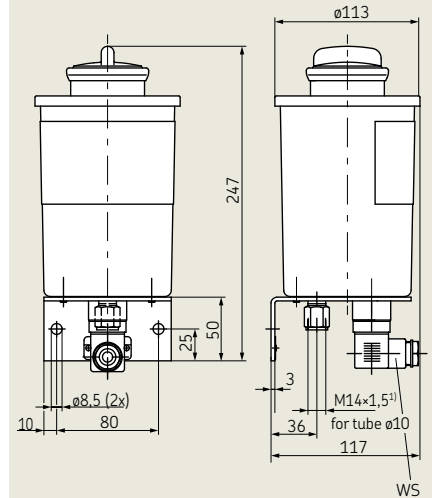
# Reservoirs

## Oil reservoirs – plastic

### Plastic reservoirs

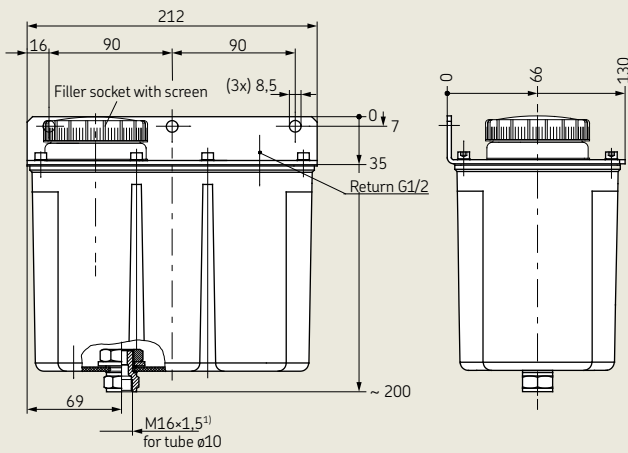
Order No.	Reservoir capacity [liters]	Level indicator WS	Type of contact	Seal material
<b>K1</b>		–	–	
<b>KW1</b>	1	for min. filling level	NO	NBR
<b>KW1-S2</b>		for min. filling level	NC	
<b>K3-S2</b>	3	–	–	
<b>KW3-S1</b>		for min. filling level	changeover	NBR
<b>K6-S5</b>		–	–	
<b>KW6-S1</b>	6	for min.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

### Plastic reservoir, 1 liter



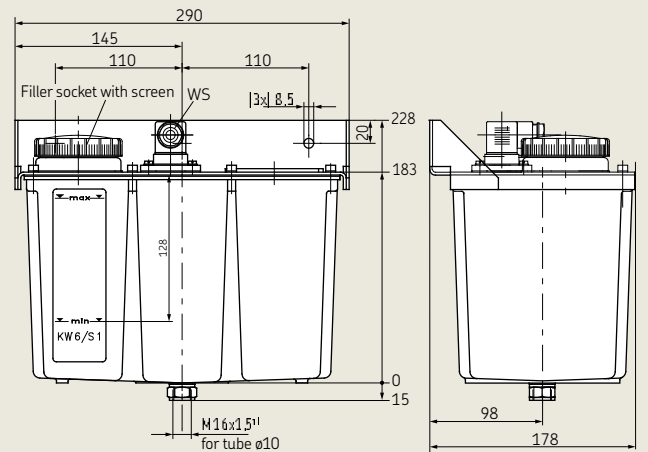
1) Ports tapped for solderless tube connection

### Plastic reservoir, 3 liter



1) Ports tapped for solderless tube connection

### Plastic reservoir, 6 liter



1) Ports tapped for solderless tube connection

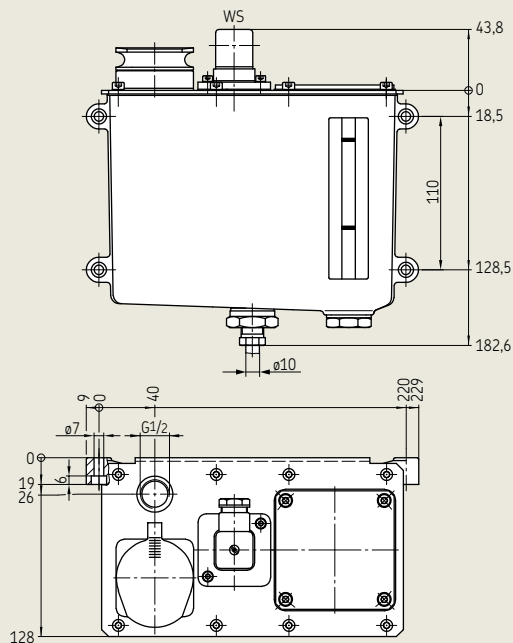
# Reservoirs

## Oil reservoirs – metal

### Metal reservoirs

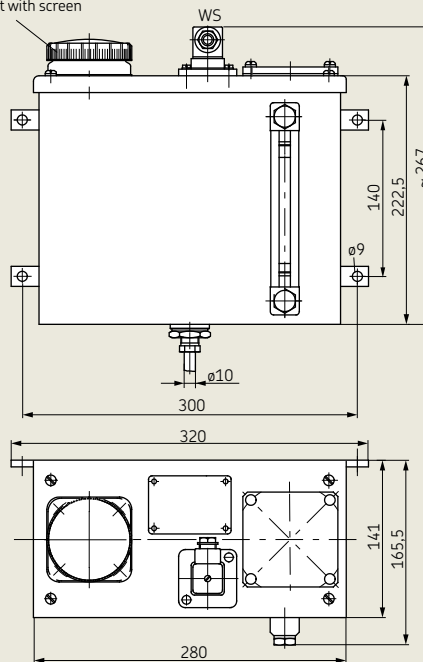
Order No.	Reservoir capacity [liters]	Level indicator WS	Type of contact	Seal material
<b>BW3-2-S1</b>	3	for min. filling level	changeover	NBR
<b>B7</b>		–	–	NBR
<b>BW7-S6</b>		for min. and max. filling level	2 NCs	NBR
<b>BW7-S7</b>		for min. filling level with advance warning	2 NCs	NBR
<b>BW7-S8</b>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

### Metal reservoir, 3 liter



### Metal reservoir, 6 liter

Filler socket with screen

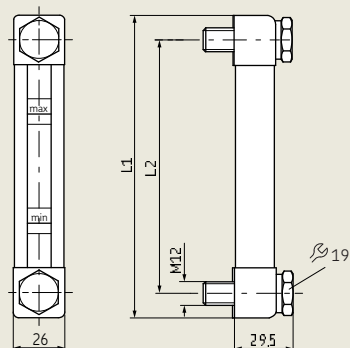


### Oil level gauges for metal reservoir

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

Type: NBR, FKM (FPM) on request

### Oil level gauge



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161-212-054.....	54	267-001.47.....	8	404-003-VS.....	25
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**! 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.

