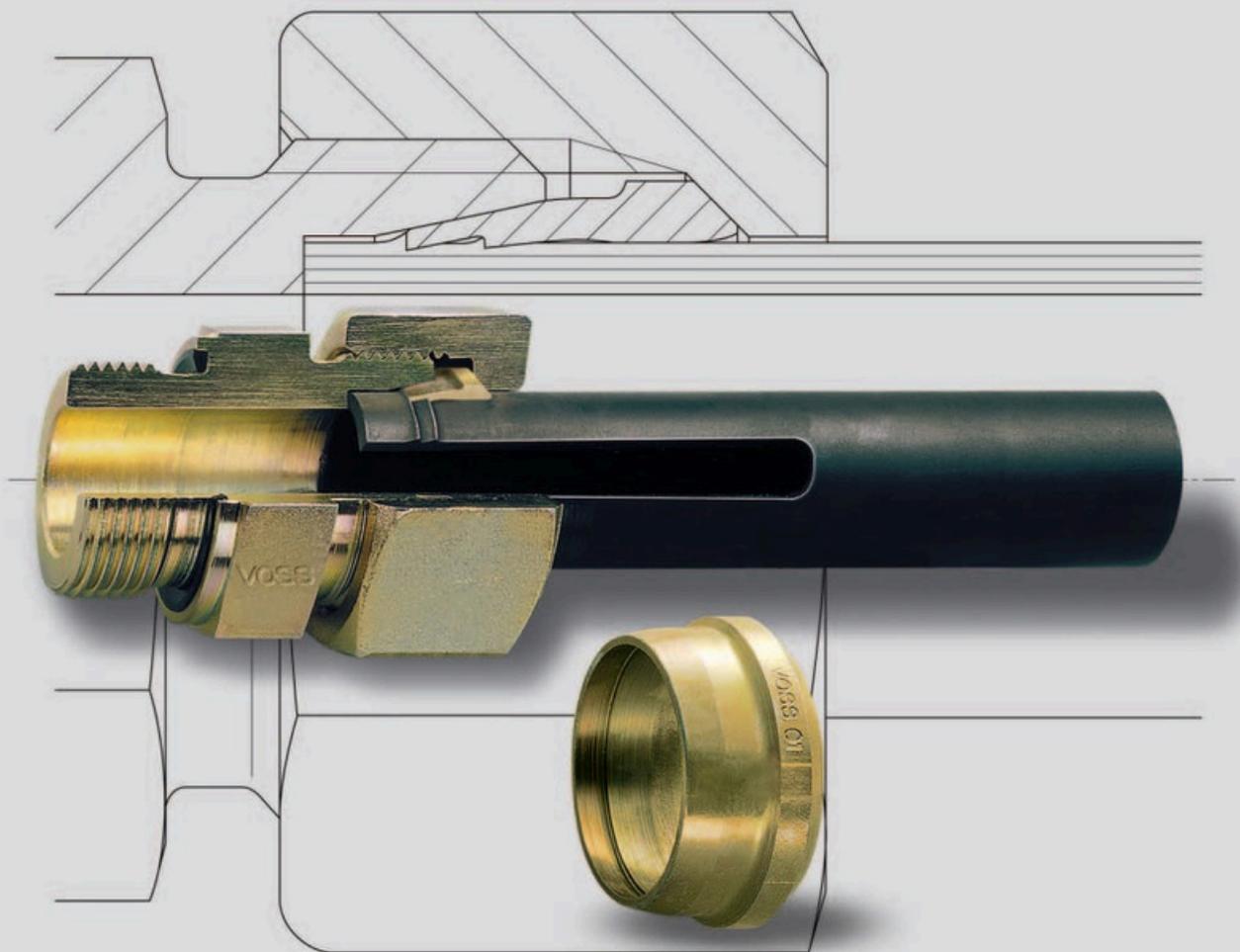


## 2S Cutting Ring Couplings

*The proven, reliable solution*



*Experience plus ideas*

# Contents

# Type/Page

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## Product Information

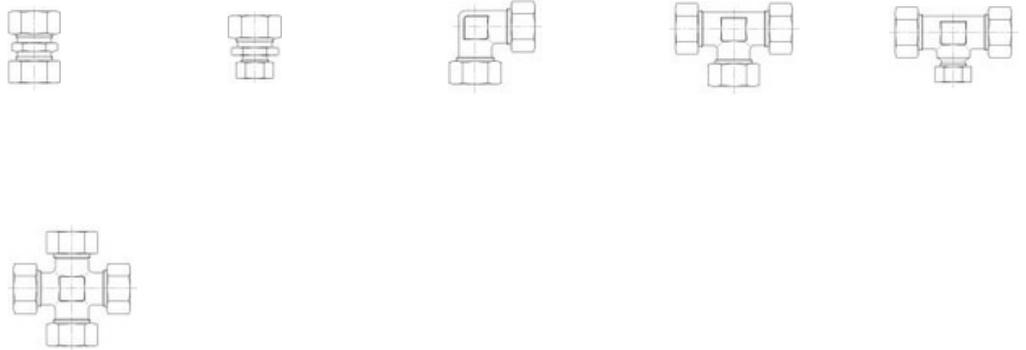
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## Male stud couplings



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## Connecting adapters



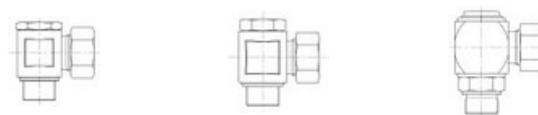
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## Bulkhead couplings



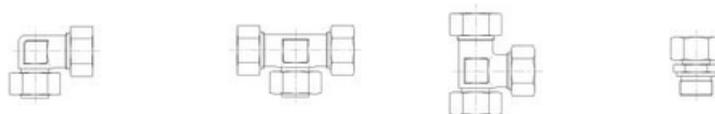
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## Banjo and rotary couplings



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## Adjustable couplings with tube socket male connector



# Contents

# Type/Page

## 24° Taper couplings

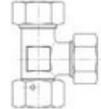
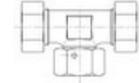
**GZ**

**EW**

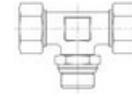
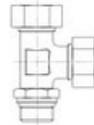
**EV**

**ET**

**EL**



## Adjustable couplings with lock nut



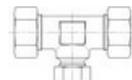
## Welding couplings



## Female stud and gauge couplings



## Reducing couplings



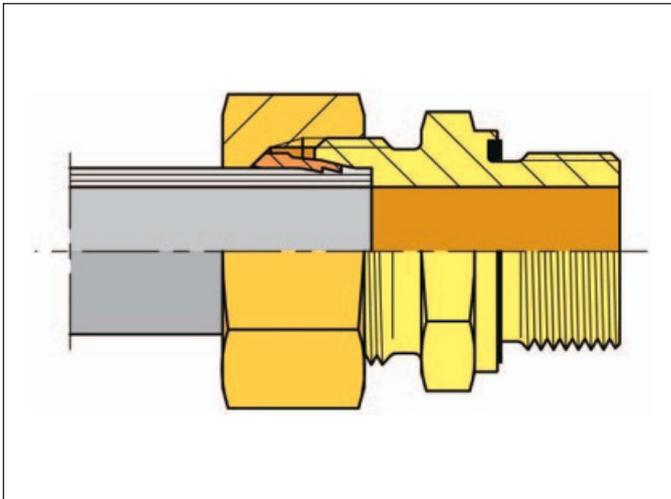
## Component parts



## Product Information 2S Cutting-Ring Tube Couplings

VOSS 2S cutting ring tube couplings comply with the latest standards with regard to design and dimensions. (DIN2353 or ISO 8434-1)

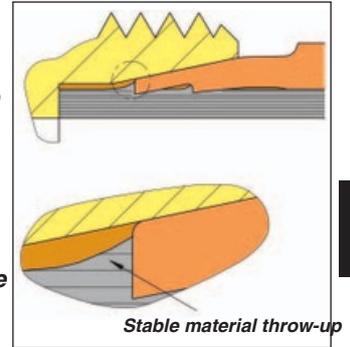
Other advantages from the use of VOSS 2S cutting-ring tube couplings are the broad range of types, the world-wide availability and their wide range of potential uses in the hydraulic and pneumatic sectors.



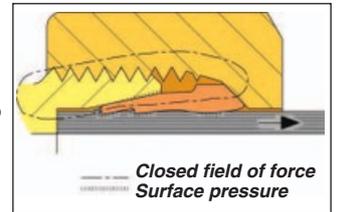
They are designed for use with metric tubes. All dimensions, such as spanner size across flats, through borehole and the connection dimensions are also metrically dimensioned. VOSS 2S cutting ring tube couplings are characterised by their high functional stability and practice-oriented installation behaviour. The spring effect typical of the 2S cutting ring permanently holds the pre-tensioning forces for the connection.

As integrated connection components, tube couplings are to permanently fulfil the function of "holding and sealing". On the screw-in side, a broad range of standardised male threads and assigned sealing options, as well as the corresponding hole patterns for flange connections are available. With tube connections even the smallest detail is also important. For example, the details of the current VOSS 2S cutting ring were created during many years of practice in accompanying development steps. Its special characteristics are:

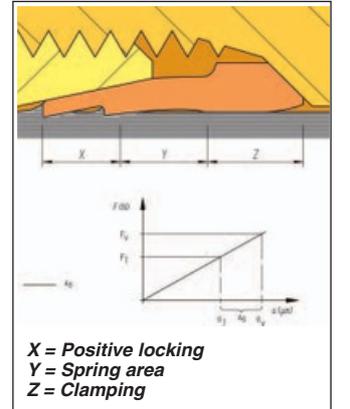
- Optimum incision of both cutting edges. The 2S cutting ring produces the material throw-up decisive for the tube hold with its first cutting edge. The second cutting edge optimises the overall function and ensures additional reliability with a uniform distribution of force over the entire taper.



- Extreme freedom from leaks due to the pre-tensioning forces applied during final assembly. Using state-of-the-art calculation methods, it was possible to match the assembly forces and the surface pressures required for sealing to each other in a function-oriented manner.



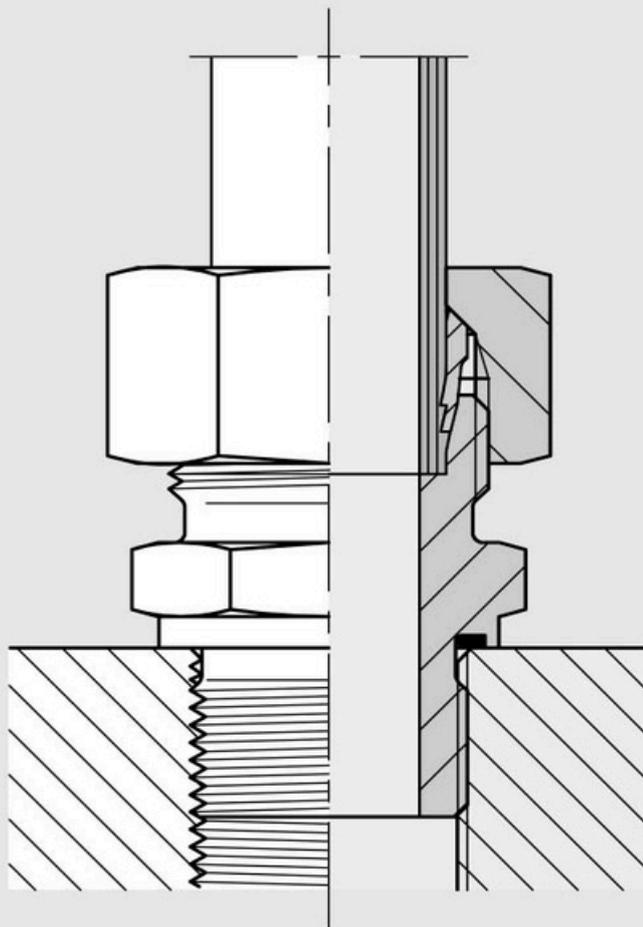
- Elastic behaviour due to the spring effect typical for VOSS cutting rings. This is achieved through the inter-action of geometry and material qualities at the end of assembly. The elastic pre-tensioning compensates all settling phenomenon of the materials under dynamic loads.



X = Positive locking  
Y = Spring area  
Z = Clamping

**General Note**  
In order for the VOSS 2S cutting ring couplings to fulfil their function, it is extremely important that the installation instructions and the note in the technical remarks are followed exactly. Incorrect handling will lead to risks with regard to safety and leaking of the connection.

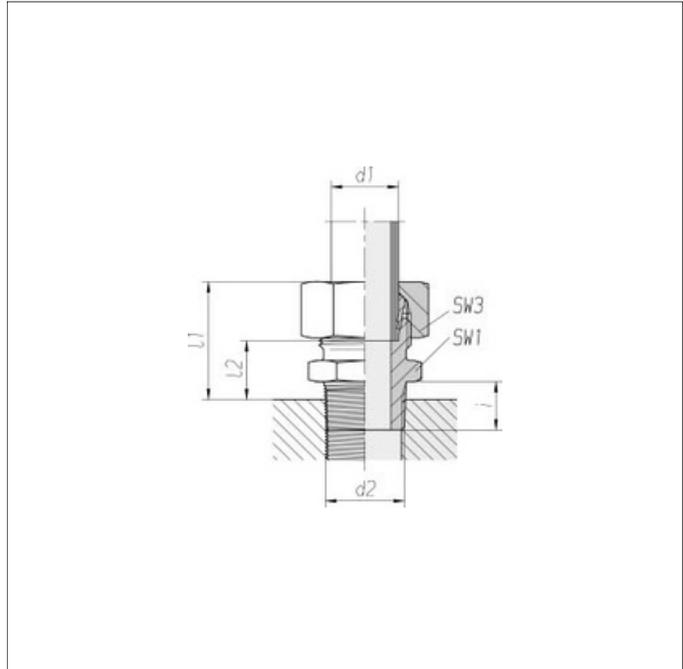
*Male stud couplings*



*Experience plus ideas*

## Straight male stud couplings

Thread:  
metric fine thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2 approx.	i	kg/100 approx.
L	PN 100	4	M 8 x 1 taper	10	10	20	10.5	8	1.4
L	PN 100	6	M 8 x 1 taper	11	12	20.5	9	8	1.8
L	PN 100	6	M 10 x 1 taper	11	12	20.5	9	8	1.6
L	PN 100	8	M 10 x 1 taper	12	14	23.5	11	8	1.8
L									
L	PN 315	6 8	M 10 x 1 taper	14	14	24.5	10	8	2.4
L	PN 315	10	M 12 x 1.5 taper	17	17	27	12	12	3.7
L	PN 315	12	M 14 x 1.5 taper	17	19	28	13	12	4.6
L	PN 315	15	M 16 x 1.5 taper	19	22	28.5	14	12	6.0
L	PN 315	18	M 18 x 1.5 taper	24	27	30	15	12	9.2
L	PN 315		M 22 x 1.5 taper	27	32	32	16	14	13.6
S	PB 630	6	M 12 x 1.5 taper	17	17	30	15	12	4.9
S	PB 630	8	M 14 x 1.5 taper	17	19	32	17	12	5.9
S	PB 630	10	M 16 x 1.5 taper	19	22	32.5	16.5	12	7.6
S	PB 630	12	M 18 x 1.5 taper	22	24	34.5	18.5	12	10.4
S	PB 630	14	M 20 x 1.5 taper	27	27	38.5	20.5	14	14.5
S	PB 400	16	M 22 x 1.5 taper	27	30	38.5	20	14	16.0

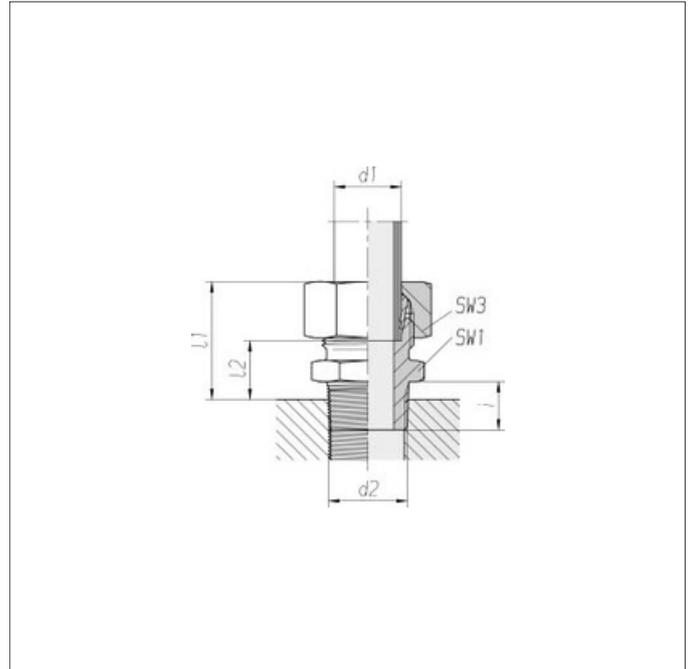
The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
GE04LLMA3C  
DIN 2353-ALL4-St  
Only couplings of the LL series are  
standardised

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
Whitworth pipe thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2 approx.	i	kg/100 approx.
L	PN 100	4	R 1/8	10	10	20	10.5	8	1.3
L	PN 100	5	R 1/8	11	12	21	9.5	8	2.2
L	PN 100	6	R 1/8	11	12	20.5	9 11	8	1.4
L	PN 100	8	R 1/8	12	14	23.5	12.5	8	1.7
L	PN 100	8	R 1/4	14	14	25		12	2.5
L									
L	PN 315	6	R 1/8	14	14	24.5	10	8	2.4
L	PN 315	6	R 1/4	14	14	25.5	11	12	3.4
L	PN 315	8	R 1/8	14	17	26	11	8	3.2
L	PN 315	8	R 1/4	17	17	27	12	12	3.9
L	PN 315	8	R 3/8	19	17	28	13	12	5.1
L	PN 315	10	R 1/4	17	19	28	13	12	4.4
L	PN 315	10	R 3/8	19	19	28	13	12	5.2
L	PN 315	12	R 1/4	19	22	28.5	14	12	5.7
L	PN 315	12	R 3/8	19	22	28.5	14	12	6.1
L	PN 315	12	R 1/2	24	22	29	14.5	14	8.5
L	PN 315	15	R 3/8	24	27	30	15	12	9.0
L	PN 315	15	R 1/2	24	27	30.5	15.5	14	10.5
L	PN 315	18	R 1/2	27	32	32.5	16	14	13.5
L									
L	PB 160	22	R 3/4	32	36	35	18.5	16	18.3
L	PB 160	28	R 1	41	41	37	20.5	18	25.6
S									
S	PB 630	6	R 1/4	17	17	30	15	12	4.9
S	PB 630	8	R 1/4	17	19	32	17	12	5.9
S	PB 630	10	R 3/8	19	22	32.5	16.5	12	7.9
S	PB 630	12	R 3/8	22	24	34.5	18.5	12	9.6
S	PB 630	14	R 1/2	27	27	38.5	20.5	14	14.7
S									
S	PB 400	16	R 1/2	27	30	38.5	20	14	15.6
S	PB 400	20	R 3/4	32	36	44	22.5	16	25.3

The operating pressure PB 630 only applies for threaded bores with tapered threads

\* Sample product code, see: GE04LLRA3C  
DIN 2353-BLL4-St

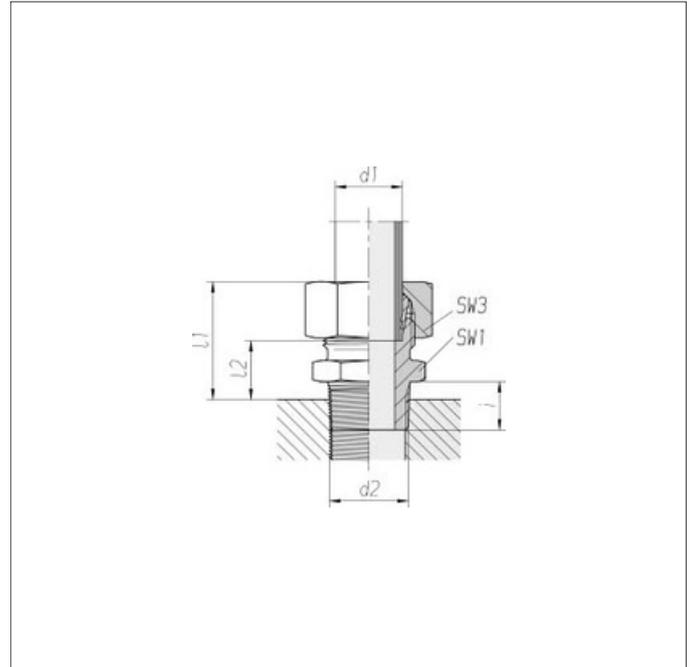
Only couplings of the LL series are standardised

\*\*without union nut and cutting ring



## Straight male stud couplings

Thread:  
NPT (ANSI/ASME B 1  
- 20/01/1983)



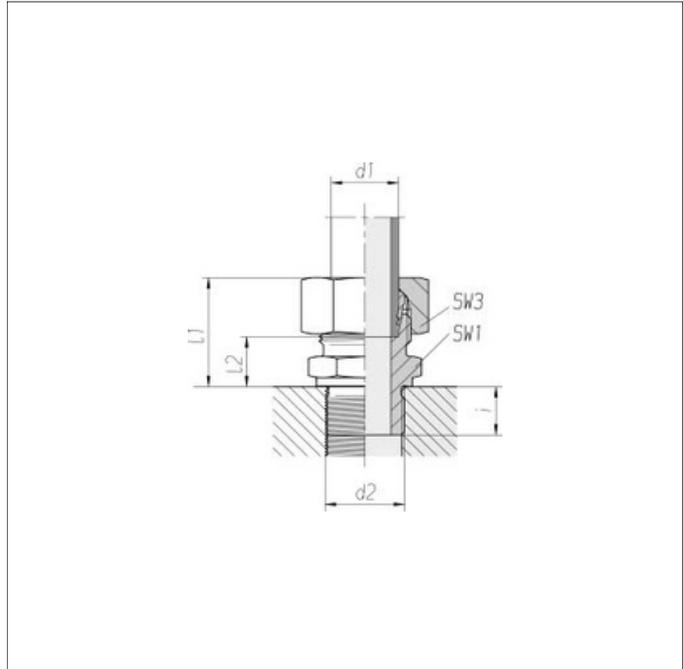
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2 approx.	i	Nm -10 %	kg/100 approx.
S	PN 630	6	1/4 NPT	17	17	31	16	15.1	35	5.1
S	PN 630	8	1/4 NPT	17	19	33	18	15.1	35	6.0
S	PN 630	10	1/4 NPT	19	22	33.5	17.5	15.1	35	7.7
S	PN 630	10	3/8 NPT	19	22	33.5	17.5	15.2	55	8.3
S	PN 630	12	1/4 NPT	22	24	34.5	19.5	15.1	35	9.6
S	PN 630	12	3/8 NPT	22	24	35.5	19.5	15.2	55	10.0
S	PN 630	12	1/2 NPT	24	24	37	21	19.8	110	12.8
S	PN 630	14	3/8 NPT	24	27	39	21	15.2	55	13.0
S	PN 630	14	1/2 NPT	27	27	40.5	22.5	19.8	110	15.9
S	PN 400	16	3/8 NPT	27	30	39	20.5	15.2	55	15.4
S	PN 400	16	1/2 NPT	27	30	40.5	22	19.8	110	16.6
S	PN 400	16	3/4 NPT	30	30	40.5	22	20.1	175	20.3
S	PN 400	20	3/4 NPT	32	36	45.5	24	20.1	175	26.0
S	PN 400	25	3/4 NPT	41	46	50.5	26.5	20.1	175	44.9
S	PN 400	25	1 NPT	41	46	52.5	28.5	25.0	265	48.8
S	PN 400	30	1 1/4 NPT	46	50	56	29.5	25.6	315	62.5
S	PN 315	38	1 1/2 NPT	55	60	63	32	26.0	385	91.2

\* Sample product code, see:  
GE06S1/4NPTA3C

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
metric fine thread,  
straight  
Sealed with seal edge



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
L	PN 100	6	M 8 x 1	12	14	23	8.5	8	-	2.1
L	PN 315	6	M 10 x 1	14	14	23	8.5	8	25	2.5
L	PN 315	6	M 12 x 1.5	17	14	24.5	10	10	35	3.3
L	PN 315	8	M 10 x 1	17	17	24.5	9.5	8	25	3.6
L	PN 315	8	M 12 x 1.5	17	17	25	10	12	35	3.9
L	PN 315	8	M 12 x 1.5	17	17	25	10	11	35	4.3
L	PN 315	8	M 14 x 1.5	19	17	25	10	12	50	4.5
L	PN 315	8	M 16 x 1.5	22	17	26.5	11.5	12	80	5.9
L	PN 315	10	M 10 x 1	17	19	25.5	10.5	8	25	4.2
L	PN 315	10	M 12 x 1.5	17	19	26	11	12	35	4.5
L	PN 315	10	M 14 x 1.5	19	19	26	11	12	50	5.2
L	PN 315	10	M 16 x 1.5	22	19	27.5	12.5	12	80	6.1
L	PN 315	10	M 18 x 1.5	24	19	27.5	12.5	12	100	7.1
L	PN 315	10	M 22 x 1.5	27	19	29	14	14	160	10.2
L	PN 315	12	M 14 x 1.5	19	22	27	12.5	12	50	5.9
L	PN 315	12	M 16 x 1.5	22	22	27	12.5	12	80	6.9
L	PN 315	12	M 18 x 1.5	24	22	27	12.5	12	100	7.6
L	PN 315	12	M 22 x 1.5	27	22	28.5	14	14	160	10.5
L	PN 315	15	M 16 x 1.5	24	27	28	13	12	80	9.7
L	PN 315	15	M 18 x 1.5	24	27	28.5	13.5	12	100	9.8
L	PN 315	15	M 22 x 1.5	27	27	30	15	14	160	12.5
L	PN 315	18	M 18 x 1.5	27	32	30.5	14	12	100	13.6
L	PN 315	18	M 22 x 1.5	27	32	31	14.5	14	160	14.4
L	PN 160	18	M 26 x 1.5	32	32	30	13.5	16	220	17.8
L	PN 160	22	M 22 x 1.5	32	36	33	16.5	14	160	18.2
L	PN 160	22	M 26 x 1.5	32	36	33	16.5	16	220	19.2
L	PN 160	28	M 33 x 2	41	41	34	17.5	18	300	26.5
L	PN 160	35	M 42 x 2	50	50	39	17.5	20	500	42.8
L	PN 160	42	M 48 x 2	55	60	42	19	22	600	57.4

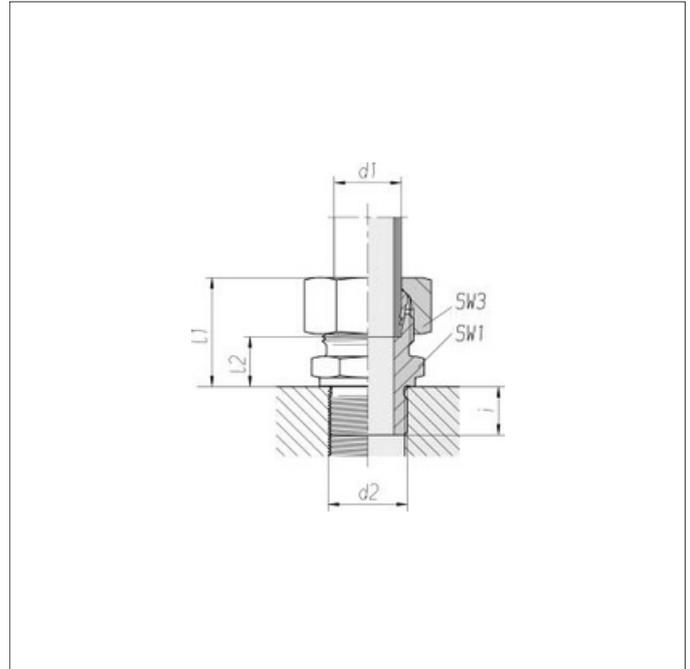
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\* Sample product code, see:  
GE06LM8x1A3C, ISO 8434-1-  
SDSC-L6XM8X1- typeB-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
metric fine thread,  
straight  
Sealed with seal edge



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
S	PB 630	6	M 12 x 1.5	17	17	28	13	12	50	4.9
S	PB 630	8	M 14 x 1.5	19	19	30	15	12	60	6.5
S	PB 630	10	M 16 x 1.5	22	22	31	15	12	100	8.9
S	PB 630	12	M 18 x 1.5	24	24	33	17	12	120	10.8
S	PB 400	12	M 22 x 1.5	27	24	33.5	17.5	14	190	13.8
S	PB 630	14	M 20 x 1.5	27	27	37	19	14	170	15.3
S	PB 400	16	M 18 x 1.5	24	30	36.5	18	12	120	14.8
S	PB 400	16	M 22 x 1.5	27	30	37	18.5	14	190	16.8
S	PB 400	20	M 27 x 2	32	36	42.5	20.5	16	300	26.5
S	PB 400	25	M 33 x 2	41	46	47	23	18	450	47.8
S	PB 250	30	M 42 x 2	50	50	50	23.5	20	600	65.7
S	PB 250	38	M 48 x 2	55	60	57	26	22	700	89.8

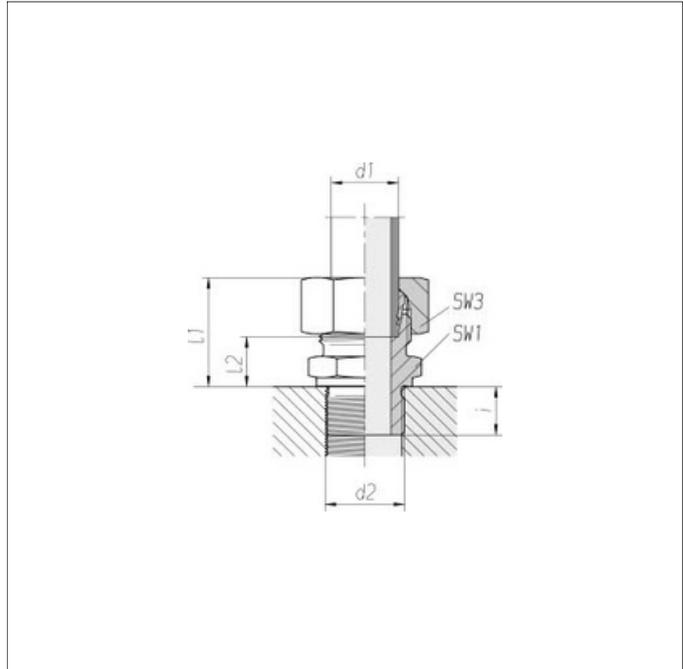
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\* Sample product code, see:  
GE06SMA3C  
ISO 8434-1-  
SDSC-S6XM12X1.5-typeB-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
Whitworth pipe thread,  
straight  
Sealed with seal edge



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
L	PN 315	6	G 1/8 A	14	14	23	8.5	8	25	2.4
L	PN 315	6	G 1/4 A	19	14	23.5	9	12	50	3.5
L	PN 315	6	G 3/8 A	22	14	26	11.5	12	80	5.1
L	PN 315	6	G 1/2 A	27	14	26.5	12	14	170	8.4
L	PN 315	8	G 1/8 A	17	17	24.5	9.5	8	25	3.5
L	PN 315	8	G 1/4 A	19	17	25	10	12	50	4.4
L	PN 315	8	G 3/8 A	22	17	26.5	11.5	12	80	6.1
L	PN 315	8	G 1/2 A	27	17	27	12	14	170	8.9
L	PN 315	10	G 1/8 A	17	19	25.5	10.5	8	25	4.1
L	PN 315	10	G 1/4 A	19	19	26	11	12	50	4.9
L	PN 315	10	G 3/8 A	22	19	27.5	12.5	12	80	6.5
L	PN 315	10	G 1/2 A	27	19	28	13	14	170	9.4
L	PN 315	12	G 1/4 A	19	22	26.5	12	12	50	6.0
L	PN 315	12	G 3/8 A	22	22	27	12.5	12	80	7.1
L	PN 315	12	G 1/2 A	27	22	27.5	13	14	170	10.0
L	PN 315	12	G 3/4 A	32	22	28.5	14	16	240	11.9
L	PN 315	15	G 1/4 A	24	27	28	13	12	50	9.1
L	PN 315	15	G 3/8 A	24	27	28.5	13.5	12	80	10.0
L	PN 315	15	G 1/2 A	27	27	29	14	14	170	12.0
L	PN 315	15	G 3/4 A	32	27	30	15	16	240	16.5
L	PN 315	18	G 3/8 A	27	32	30.5	14	12	80	13.5
L	PN 315	18	G 1/2 A	27	32	31	14.5	14	170	14.0
L	PN 315	18	G 3/4 A	32	32	31	14.5	16	240	18.0

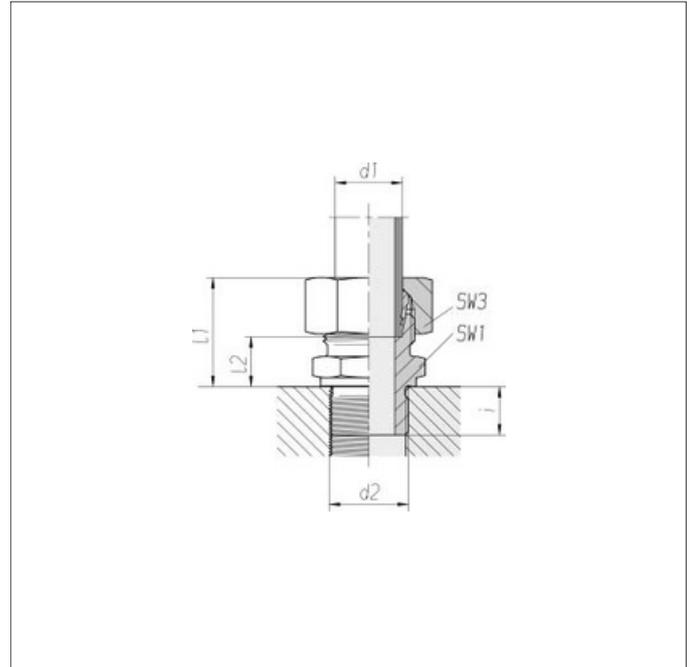
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Order No. 0110 ... in 0108...

\* Sample product code, see:  
GE06LRA3C  
ISO 8434-1-  
SDSC-L6XG1/8A-typeB-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
Whitworth pipe thread,  
straight  
Sealed with seal edge



Continued from Page 24

Series	Pressure	Tube OD $d_1$	$d_2$	SW1	SW3	$l_1$ approx.	$l_2$	$i$	Nm -10 %	kg/100 approx.
L	PN 160	18	G 1 A G	41	32	32	15.5	18	370	27.0
L	PN 160	22	1/2 A G	32	36	33	16.5	14	170	17.9
L	PN 160	22	3/4 A G 1	32	36	33	16.5	16	240	19.3
L	PN 160	22	A G 3/4	41	36	34	17.5	18	370	27.0
L	PN 160	28	A G 1 A	41	41	34	17.5	16	240	24.1
L	PN 160	28	G 1 1/4 A	41	41	34	17.5	18	370	26.3
L	PN 160	28	G 1 A G	50	41	35	18.5	20	600	35.6
L	PN 160	35	1 1/4 A G	50	50	39	17.5	18	370	39.9
L	PN 160	35	1 1/2 A	50	50	39	17.5	20	600	42.6
L	PN 160	42		55	60	42	19	22	700	58.3

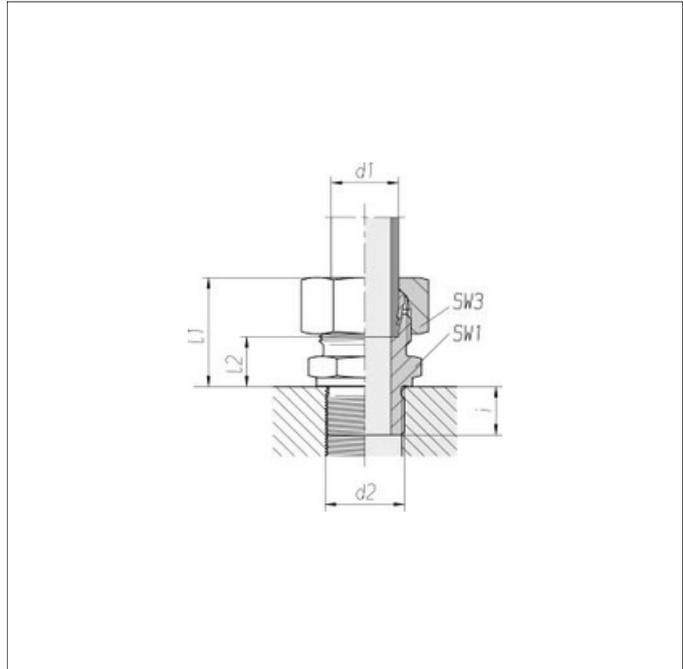
Sealed with sealing surface  
Order No. 0110 ... in 0108...

\* Sample product code, see:  
GE18LR1A3C  
ISO 8434-1-  
SDSC-L18XG1A-typeB-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
Whitworth pipe thread,  
straight  
Sealed with seal edge



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
S	PB 630	6	G 1/4 A	19	17	28	13	12	60	5.5
S	PB 630	6	G 3/8 A	22	17	30.5	15.5	12	110	7.2
S	PB 630	6	G 1/2 A	27	17	29	14	14	200	8.5
S	PB 630	8	G 1/4 A	19	19	30	15	12	60	6.3
S	PB 630	8	G 3/8 A	22	19	30.5	15.5	12	110	7.8
S	PB 630	8	G 1/2 A	27	19	33	18	14	200	11.1
S	PB 630	10	G 1/4 A	19	22	30.5	14.5	12	60	7.7
S	PB 630	10	G 3/8 A	22	22	31	15	12	110	9.0
S	PB 630	10	G 1/2 A	27	22	29.5	13.5	14	200	11.2
S	PB 630	12	G 1/4 A	22	24	32.5	16.5	12	60	9.5
S	PB 630	12	G 3/8 A	22	24	33	17	12	110	10.1
S	PB 630	12	G 1/2 A	27	24	34	17.5	14	200	13.6
S	PB 630	14	G 3/8 A	24	27	37	19	12	110	22.0
S	PB 630	14	G 1/2 A	27	27	37	19	14	200	15.5
S	PB 400	16	G 3/8 A	27	30	36.5	18	12	110	15.5
S	PB 400	16	G 1/2 A	27	30	37	18.5	14	200	16.4
S	PB 400	16	G 3/4 A	32	30	39	20.5	16	320	22.8
S	PB 400	20	G 1/2 A	32	36	42	20.5	14	200	24.3
S	PB 400	20	G 3/4 A	32	36	42	20.5	16	320	26.1
S	PB 400	20	G 1 A	41	36	44	22.5	18	500	38.6
S	PB 400	25	G 3/4 A	41	46	47	23	16	320	45.0
S	PB 400	25	G 1 A	41	46	47	23	18	500	47.6
S	PB 250	25	G 1 1/4 A	50	46	47	23	20	600	64.9
S	PB 250	30	G 3/4 A	46	50	50	23.5	16	320	53.1
S	PB 250	30	G 1 A	46	50	50	23.5	18	500	56.4
S	PB 250	30	G 1 1/4 A	50	50	50	23.5	20	600	65.5
S	PB 250	38	G 1 1/4 A	55	60	57	26	20	600	89.5
S	PB 250	38	G 1 1/2 A	55	60	57	26	22	800	90.3

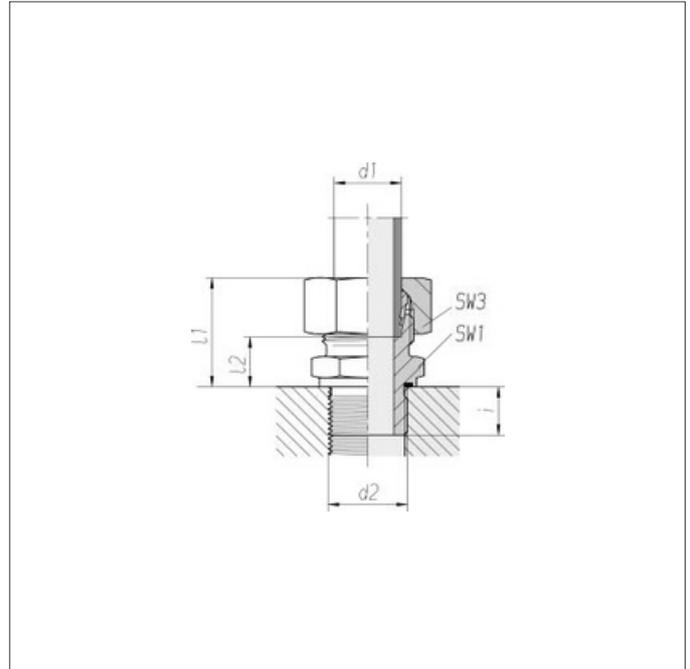
Sealed with sealing surface  
Order No. 0110 ... in 0108...

\* Sample product code, see:  
GE06SRA3C  
ISO 8434-1-  
SDSC-S6XG1/4A-typeB-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
L	PN 315	6	M 10 x 1	14	14	23	8.5	8	15	2.4
L	PN 315	8	M 12 x 1.5	17	17	25	10	12	25	3.8
L	PN 315	10	M 12 x 1.5	17	19	26	11	12	25	4.4
L	PN 315	10	M 14 x 1.5	19	19	26	11	12	50	4.5
L	PN 315	10	M 16 x 1.5	22	19	27.5	12.5	12	70	6.3
L	PN 315	10	M 18 x 1.5	24	19	27.5	12.5	12	90	7.0
L	PN 315	12	M 14 x 1.5	19	22	25.5	11	12	50	5.8
L	PN 315	12	M 16 x 1.5	22	22	27	12.5	12	70	6.9
L	PN 315	12	M 18 x 1.5	24	22	27	12.5	12	90	7.3
L	PN 315	12	M 22 x 1.5	27	22	28.5	14	14	130	9.4
L	PN 315	15	M 16 x 1.5	24	27	28	13	12	70	9.7
L	PN 315	15	M 18 x 1.5	24	27	28.5	13.5	12	90	9.8
L	PN 315	15	M 22 x 1.5	27	27	30	15	14	130	11.8
L	PN 315	18	M 18 x 1.5	27	32	30.5	14	12	90	13.6
L	PN 315	18	M 22 x 1.5	27	32	31	14.5	14	130	14.5
L	PN 160	22	M 22 x 1.5	32	36	33	16.5	14	130	18.1
L	PN 160	22	M 26 x 1.5	32	36	33	16.5	16	180	18.9
L	PN 160	28	M 33 x 2	41	41	34	17.5	18	230	26.9
L	PN 160	35	M 42 x 2	50	50	39	17.5	20	330	44.0
L	PN 160	42	M 48 x 2	55	60	42	19	22	500	59.7

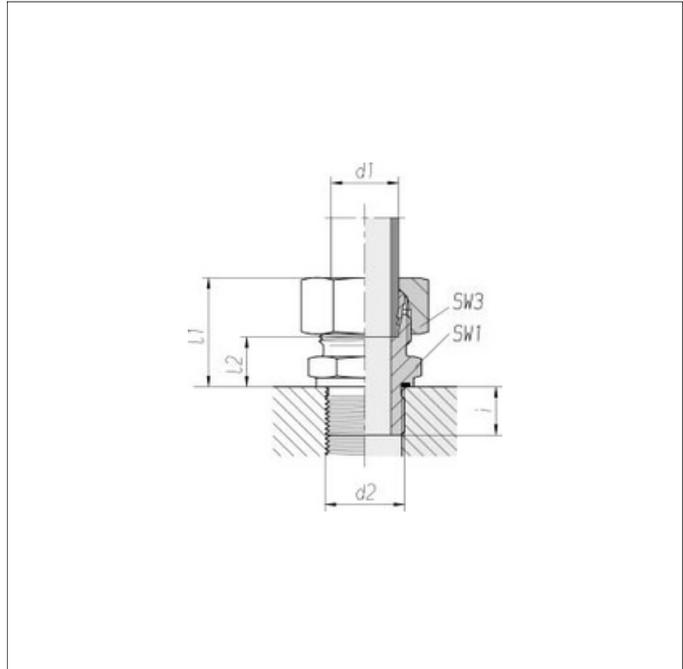
\* Sample product code, see:  
GE06LMEDA3C

ISO 8434-1-  
SDSC-L6XM10X1-typeE-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal



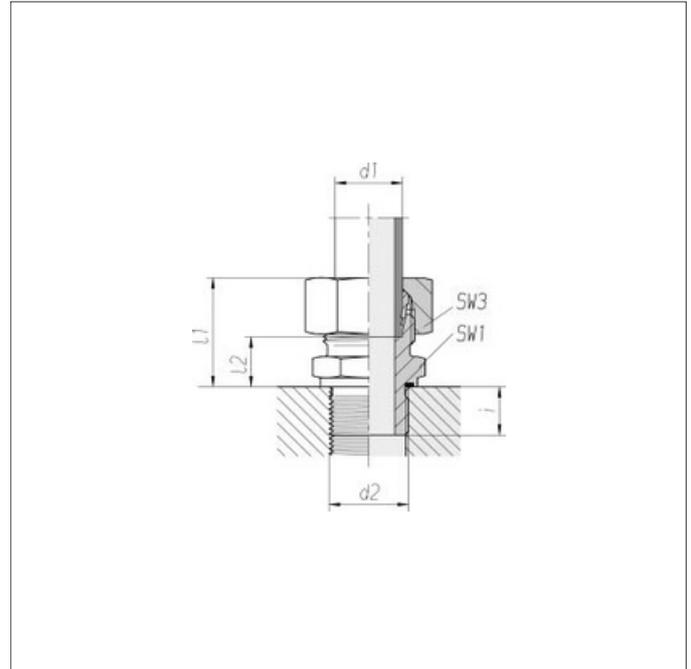
Series	Pressure	Tube OD $d_1$	$d_2$	SW1	SW3	$l_1$ approx.	$l_2$	$i$	Nm -10 %	kg/100 approx.
S	PN 630	6	M 12 x 1.5	17	17	28	13	12	50	4.8
S	PN 630	8	M 14 x 1.5	19	19	30	15	12	60	6.4
S	PN 630	10	M 16 x 1.5	22	22	31	15	12	80	8.8
S	PN 630	12	M 18 x 1.5	24	24	33	17	12	90	10.8
S	PN 630	12	M 22 x 1.5	27	24	33.5	17.5	14	130	15.0
S	PN 630	14	M 20 x 1.5	27	27	37	19	14	130	15.3
S	PN 400	16	M 22 x 1.5	27	30	37	18.5	14	130	16.4
S	PN 400	20	M 27 x 2	32	36	42.5	20.5	16	200	26.4
S	PN 400	25	M 33 x 2	41	46	47	23	18	250	48.7
S	PN 400	30	M 42 x 2	50	50	50	23.5	20	500	66.1
S	PN 315	38	M 48 x 2	55	60	57	26	22	600	92.1

\* Sample product code, see:  
GE06SMEDA3C  
ISO 8434-1  
SDSC-S6XM12X1.5-typeE-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
Whitworth pipe thread,  
straight  
Sealed with PEFLEX seal



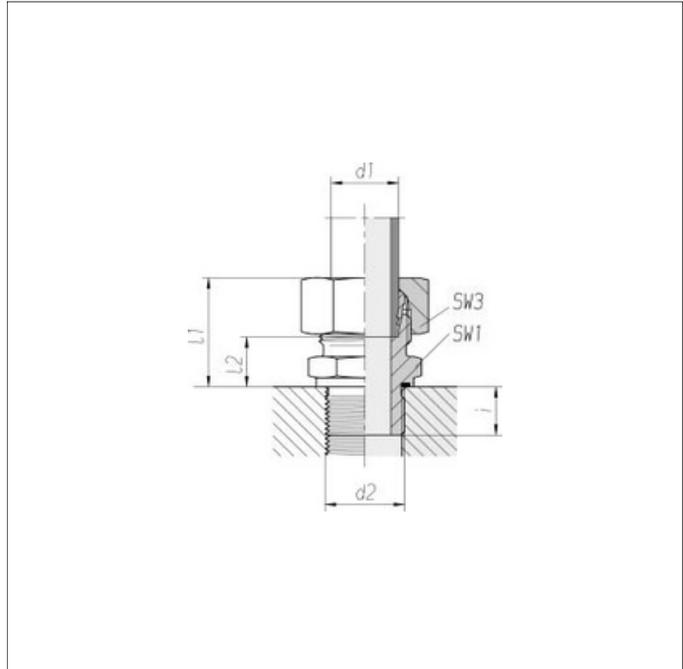
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
L	PN 315	6	G 1/8 A	14	14	23	8.5	8	20	2.4
L	PN 315	6	G 1/4 A	19	14	24.5	10	12	50	3.9
L	PN 315	6	G 3/8 A	22	14	26	11.5	12	80	5.2
L	PN 315	8	G 1/8 A	14	17	24.5	9.5	8	20	3.2
L	PN 315	8	G 1/4 A	19	17	25	10	12	50	4.3
L	PN 315	8	G 3/8 A	22	17	26.5	11.5	12	80	6.1
L	PN 315	10	G 1/8 A	17	19	25.5	10.5	8	20	4.1
L	PN 315	10	G 1/4 A	19	19	26	11	12	50	4.8
L	PN 315	10	G 3/8 A	22	19	27.5	12.5	12	80	6.3
L	PN 315	10	G 1/2 A	27	19	28	13	14	100	8.4
L	PN 315	12	G 1/4 A	19	22	27	12.5	12	50	6.1
L	PN 315	12	G 3/8 A	22	22	27	12.5	12	80	7.1
L	PN 315	12	G 1/2 A	27	22	27.5	13	14	100	9.4
L	PN 315	12	G 3/4 A	32	22	28.5	14	16	180	14.4
L	PN 315	15	G 3/8 A	24	27	28.5	13.5	12	80	9.9
L	PN 315	15	G 1/2 A	27	27	29	14	14	100	11.8
L	PN 315	15	G 3/4 A	32	27	30	15	16	180	13.8
L	PN 315	18	G 1/2 A	27	32	31	14.5	14	100	13.9
L	PN 315	18	G 3/4 A	32	32	31	14.5	16	180	18.0
L	PN 160	22	G 1/2 A	32	36	33	16.5	14	100	17.6
L	PN 160	22	G 3/4 A	32	36	33	16.5	16	180	19.3
L	PN 160	22	G 1 A G	41	36	34	17.5	18	230	27.0
L	PN 160	28	3/4 A G 1	41	41	34	17.5	16	180	24.4
L	PN 160	28	A G 1 A	41	41	34	17.5	18	230	26.4
L	PN 160	35	G 1 1/4 A	50	50	39	17.5	18	230	38.7
L	PN 160	35	G 1 1/2 A	50	50	39	17.5	20	330	43.3
L	PN 160	42		55	60	42	19	22	500	59.4

\* Sample product code, see:  
GE06LREDA3C  
ISO 8434-1-  
SDSC-L6XG1/8A-typeE-St

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
Whitworth pipe thread,  
straight  
Sealed with PEFLEX seal



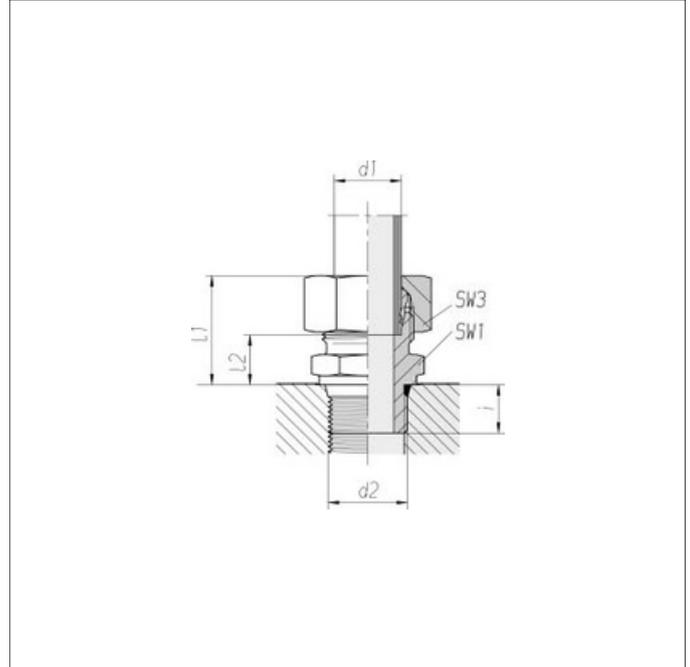
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
S	PN 630	6	G 1/4 A	19	17	28	13	12	60	5.4
S	PN 630	8	G 1/4 A	19	19	30	15	12	60	6.3
S	PN 630	8	G 3/8 A	22	19	30.5	15.5	12	90	7.9
S	PN 630	10	G 1/4 A	19	22	30.5	14.5	12	60	7.5
S	PN 630	10	G 3/8 A	22	22	31	15	12	90	9.0
S	PN 630	10	G 1/2 A	27	22	33.5	17.5	14	150	12.4
S	PN 630	12	G 1/4 A	22	24	32.5	16.5	12	60	9.5
S	PN 630	12	G 3/8 A	22	24	33	17	12	90	10.0
S	PN 630	12	G 1/2 A	27	24	33.5	17.5	14	150	13.4
S	PN 630	14	G 1/2 A	27	27	37	19	14	150	15.5
S	PN 400	16	G 3/8 A	27	30	36.5	18	12	90	15.6
S	PN 400	16	G 1/2 A	27	30	37	18.5	14	150	16.4
S	PN 400	16	G 3/4 A	32	30	39	20.5	16	200	21.0
S	PN 400	20	G 3/4 A	32	36	42	20.5	16	200	26.0
S	PN 400	25	G 3/4 A	41	46	47	23	16	200	45.8
S	PN 400	25	G 1 A G	41	46	47	23	18	250	48.3
S	PN 400	30	1 A G 1	46	50	50	23.5	18	250	56.8
S	PN 400	30	1/4 A	50	50	50	23.5	20	500	66.2
S	PN 315	38	G 1 1/2 A	55	60	57	26	22	600	91.7

\* Sample product code, see:  
GE06SREDA3C  
ISO 8434-1-  
SDSC-S6XG1/4A-typeE-St

\*\*without union nut and cutting ring

# Straight male stud couplings

Thread:  
 UN/UNF  
 ISO 11926-2/3  
 SAE J 514  
 Sealed with O-ring



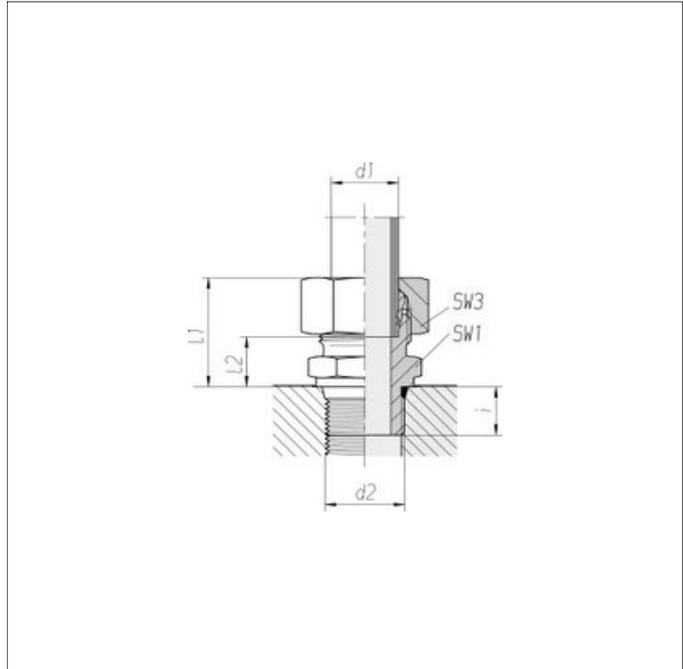
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %approx.	kg/100
L	PN 315	6	7/16-20 UNF-2A	17	14	23.5	9	9.2	18	2.9
L	PN 315	8	7/16-20 UNF-2A	17	17	25	10	9.2	18	3.8
L	PN 315	8	1/2 -20 UNF-2A	17	17	25	10	9.2	28	3.9
L	PN 315	8	9/16-18 UNF-2A	19	17	25	10	10	30	4.5
L	PN 315	10	7/16-20 UNF-2A	17	19	27	12	9.2	18	4.5
L	PN 315	10	9/16-18 UNF-2A	19	19	26	11	10	30	5.0
L	PN 315	12	9/16-18 UNF-2A	19	22	27	12.5	10	30	6.1
L	PN 315	12	3/4 -16 UNF-2A	24	22	27	12.5	11.2	50	7.4
L	PN 315	12	7/8 -14 UNF-2A	27	22	27.5	13	12.7	60	9.9
L	PN 315	15	9/16-18 UNF-2A	24	27	29	14	10	30	9.5
L	PN 315	15	3/4 -16 UNF-2A	24	27	29	14	11.2	50	10.2
L	PN 315	15	7/8 -14 UNF-2A	27	27	29	14	12.7	60	12.3
L	PN 315	18	3/4 -16 UNF-2A	27	32	31	14.5	11.2	50	13.6
L	PN 315	18	7/8 -14 UNF-2A	27	32	31	14.5	12.7	60	14.5
L	PN 315	18	1 1/16-12 UN -2A	32	32	31	14.5	15	95	16.7
L	PN 160	22	7/8 -14 UNF-2A	32	36	33	16.5	12.7	60	18.8
L	PN 160	22	1 1/16-12 UN -2A	32	36	33	16.5	15	95	19.4
L	PN 160	22	1 5/16-12 UN -2A	41	36	33	16.5	15	150	26.2
L	PN 160	28	7/8 -14 UNF-2A	41	41	34	17.5	12.7	60	23.6
L	PN 160	28	1 1/16-12 UN -2A	41	41	34	17.5	15	95	24.7
L	PN 160	28	1 5/16-12 UN -2A	41	41	34	17.5	15	150	26.2
L	PN 160	28	1 5/8 -12 UN -2A	50	41	34	17.5	15	200	36.0
L	PN 160	35	1 3/16-12 UN -2A	46	50	39	17.5	15	120	33.2
L	PN 160	35	1 5/16-12 UN -2A	46	50	39	17.5	15	150	37.6
L	PN 160	35	1 5/8 -12 UN -2A	50	50	39	17.5	15	200	41.3
L	PN 160	42	1 5/8 -12 UN -2A	55	60	42	19	15	200	55.5
L	PN 160	42	1 7/8 -12 UN -2A	55	60	42	19	15	260	81.6

\* Sample product code, see:  
 GE06L7/16UNFA3C

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
UN/UNF  
ISO 11926-2/3  
SAE J 514  
Sealed with O-ring



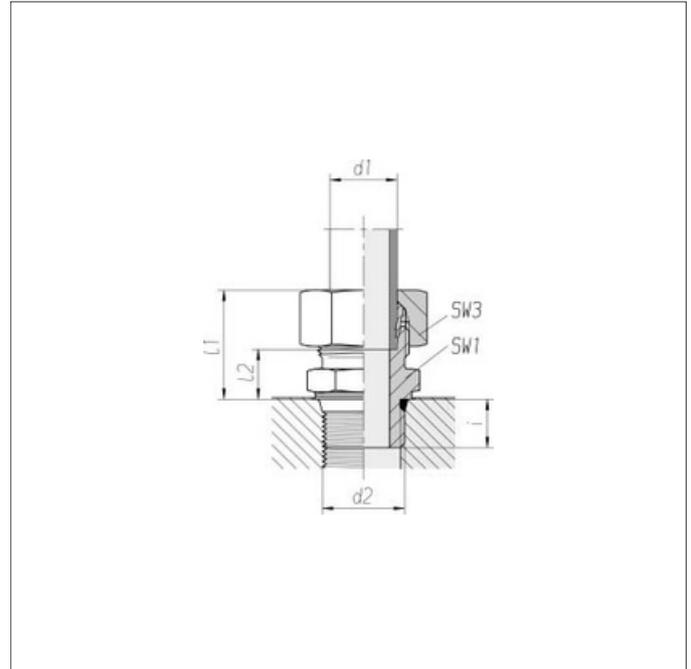
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %approx.	kg/100
S	PN 630	6	7/16-20 UNF-2A	17	17	28	13	9.2	20	4.6
S	PN 630	8	7/16-20 UNF-2A	17	19	30	15	9.2	20	5.5
S	PN 630	8	1/2 -20 UNF-2A	17	19	30	15	9.2	30	5.5
S	PN 630	10	9/16-18 UNF-2A	19	22	31	15	10	35	7.5
S	PN 630	10	3/4 -16 UNF-2A	24	22	31	15	11.2	70	10.0
S	PN 630	12	3/4 -16 UNF-2A	24	24	33.5	17.5	11.2	70	11.2
S	PN 630	12	7/8 -14 UNF-2A	27	24	32.5	16.5	12.7	100	13.6
S	PN 630	14	9/16-18 UNF-2A	24	27	37	19	10	35	11.3
S	PN 630	14	3/4 -16 UNF-2A	24	27	37	19	11.2	70	12.7
S	PN 400	16	3/4 -16 UNF-2A	27	30	37	18.5	11.2	70	15.3
S	PN 400	16	7/8 -14 UNF-2A	30	30	33.5	15	14	100	15.9
S	PN 400	16	1 1/16-12 UN -2A	32	30	37	18.5	15	170	21.7
S	PN 400	20	3/4 -16 UNF-2A	32	36	42	20.5	11.2	70	24.1
S	PN 400	20	7/8 -14 UNF-2A	32	36	42	20.5	12.7	100	25.2
S	PN 400	20	1 1/16-12 UN -2A	32	36	42	20.5	15	170	26.3
S	PN 400	25	1 1/16-12 UN -2A	41	46	47	23	15	170	45.9
S	PN 400	25	1 5/16-12 UN -2A	41	46	47	23	15	270	47.7
S	PN 400	30	1 1/16-12 UN -2A	46	50	50	23.5	15	170	52.6
S	PN 400	30	1 5/16-12 UN -2A	46	50	50	23.5	15	270	54.9
S	PN 400	30	1 5/8 -12 UN -2A	50	50	50	23.5	15	285	62.6
S	PN 315	38	1 5/8 -12 UN -2A	55	60	57	26	15	285	86.0
S	PN 315	38	1 7/8 -12 UN -2A	55	60	57	26	15	325	87.8

\* Sample product code, see:  
GE06S7/16UNFA3C

\*\*without union nut and cutting ring

## Straight male stud couplings

Thread:  
metric fine thread,  
ISO 6149  
straight  
Sealed with O-ring



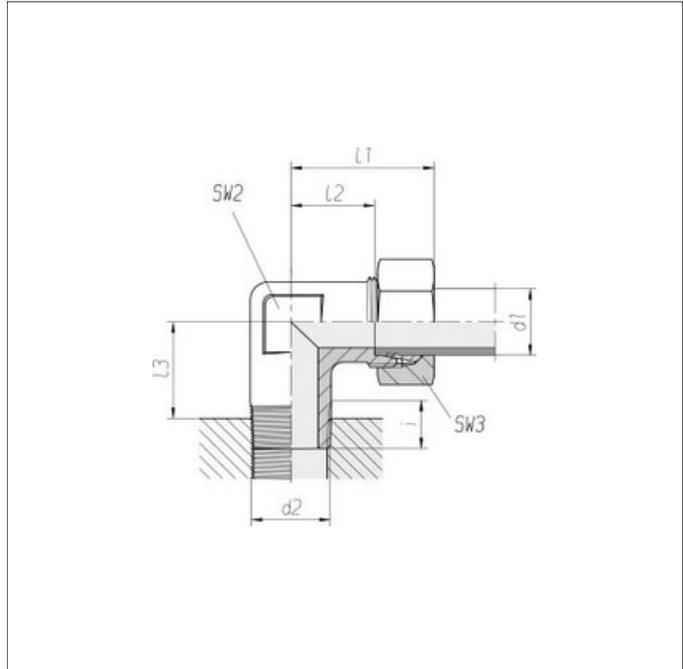
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	Nm -10 %	kg/100 approx.
L	PN 315	6	M 10 x 1	14	14	24	9.5	8.5	15	2.8
L	PN 315	8	M 12 x 1.5	17	17	25	10	11	25	4.3
L	PN 315	10	M 14 x 1.5	19	19	26	11	11	35	4.8
L	PN 315	10	M 22 x 1.5	27	19	29	14	13	60	8.3
L	PN 315	12	M 16 x 1.5	22	22	27	12.5	11.5	40	6.2
L	PN 315	15	M 18 x 1.5	24	27	29	13.5	12.5	45	10.7
L	PN 315	18	M 22 x 1.5	27	32	31	14.5	13	60	14.0
L	PN 160	22	M 27 x 2	32	36	33	16.5	16	100	20.9
L	PN 160	28	M 33 x 2	41	41	34	17.5	16	160	29.0
L	PN 160	35	M 42 x 2	50	50	39	17.5	16	210	47.8
L	PN 160	42	M 48 x 2	55	60	42	19	17.5	260	64.9
S	PN 630	6	M 12 x 1.5	17	17	28	13	11	35	5.3
S	PN 630	8	M 14 x 1.5	19	19	30	15	11	40	6.4
S	PN 630	10	M 16 x 1.5	22	22	31	15	12.5	55	9.9
S	PN 630	12	M 16 x 1.5	22	24	31.5	15.5	12.5	55	9.6
S	PN 630	12	M 18 x 1.5	24	24	33	17	14	70	11.4
S	PN 400	16	M 22 x 1.5	27	30	37	18.5	15	100	19.0
S	PN 400	20	M 27 x 2	32	36	42	20.5	18.5	170	30.3
S	PN 400	25	M 33 x 2	41	46	47	23	18.5	310	54.3
S	PN 400	30	M 42 x 2	50	50	50	23.5	19	330	73.7
S	PN 315	38	M 48 x 2	55	60	57	26	21.5	420	103.2

\* Sample product code, see:  
GEO06LMA3C  
ISO 8434-1-  
SDSC-L6XM10X1typeF-St

\*\*without union nut and cutting ring

## Elbow male stud couplings

Thread:  
metric fine thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2 approx.	l3 approx.	i	kg/100 approx.
L	PN 100	4	M 8 x 1 taper	9	10	21	11	12	8	1.8
L	PN 100	6	M 8 x 1 taper	11	12	21	9.5	12	8	2.1
L	PN 100	6	M 10 x 1 taper	11	12	21	9.5	12	8	2.4
L	PN 100	8	M 10 x 1 taper	12	14	23	11.5	15	8	3.1
L										
L	PN 315	6	M 10 x 1 taper	12	14	27	12	15	8	4.0
L	PN 315	8	M 12 x 1.5 taper	14	17	29	14	18	12	6.1
L	PN 315	10	M 14 x 1.5 taper	17	19	30	15	19	12	8.1
L	PN 315	12	M 16 x 1.5 taper	19	22	32	17	20	12	11.5
L	PN 315	15	M 18 x 1.5 taper	19	27	36	21	24	12	13.2
L	PN 315	18	M 22 x 1.5 taper	24	32	40	23.5	26.5	14	17.9
S	PB 630	6	M 12 x 1.5 taper	14	17	31	16	18	12	7.2
S	PB 630	8	M 14 x 1.5 taper	17	19	32	17	19	12	9.6
S	PB 630	10	M 16 x 1.5 taper	19	22	34	17.5	20	12	13.4
S	PB 630	12	M 18 x 1.5 taper	22	24	38	21.5	20	12	16.5
S	PB 630	14	M 20 x 1.5 taper	19	27	40	22	22.5	14	16.0
S	PB 400	16	M 22 x 1.5 taper	24	30	43	24.5	22.5	14	19.8

Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

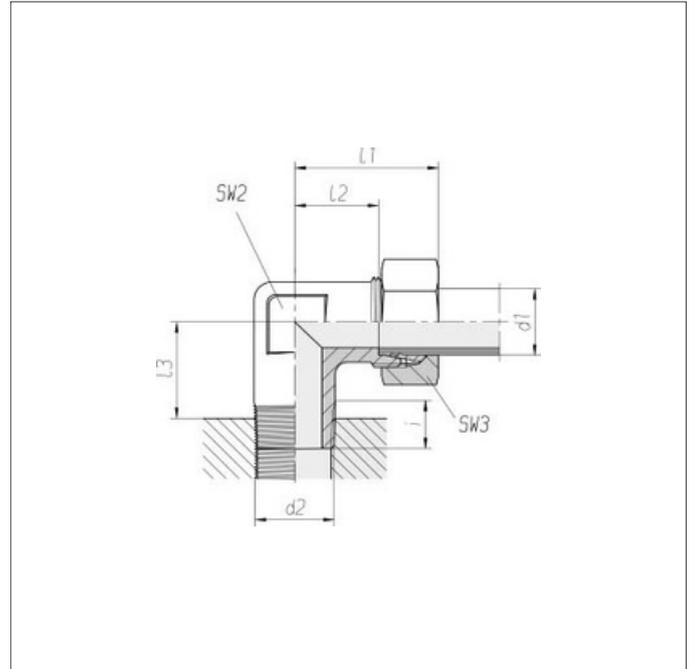
The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
WE04LLMA3C  
DIN 2353-FLL4-St

\*\*without union nut and cutting ring

## Elbow male stud couplings

Thread:  
Whitworth pipe thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2	l3 approx.	i	kg/100 approx.
L	PN 100	4	R 1/8	11	10	21	11	12	8	2.1
L	PN 100	6	R 1/8	11	12	21	9.5	12	8	2.4
L	PN 100	8	R 1/8	12	14	23	11.5	15	8	3.1
L	PN 315	6	R 1/8	12	14	27	12	15	8	4.0
L	PN 315	6	R 1/4	14	14	29	14	18	12	5.5
L	PN 315	6	R 3/8	17	14	32	17	19	12	7.9
L	PN 315	8	R 1/8	14	17	29	14	21	8	6.2
L	PN 315	8	R 1/4	14	17	29	14	18	12	6.4
L	PN 315	8	R 3/8	19	17	30	15	20	15	10.5
L	PN 315	10	R 1/8	17	19	30	15	20	8	7.1
L	PN 315	10	R 1/4	17	19	30	15	19	12	8.3
L	PN 315	10	R 3/8	19	19	31	16	20	15	11.8
L	PN 315	10	R 1/2	19	19	35	20	24	10	10.9
L	PN 315	12	R 1/4	19	22	32	17	20	12	11.4
L	PN 315	12	R 3/8	19	22	32	17	20	12	11.7
L	PN 315	12	R 1/2	19	22	35	20	24	14	12.5
L	PN 315	15	R 3/8	19	27	36	21	24	12	13.1
L	PN 315	15	R 1/2	19	27	36	21	24	14	13.2
L	PN 315	18	R 1/2	24	32	40	23.5	26.5	14	19.5
L	PN 160	22	R 3/4	27	36	44	27.5	31	16	25.7

Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

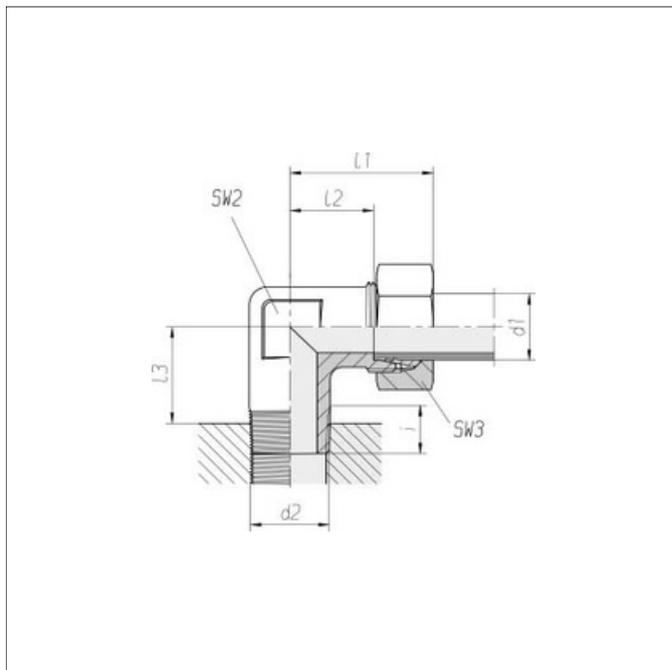
The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
WE04LLRA3C  
DIN 2353-GLL4-St

\*\*without union nut and cutting ring

## Elbow male stud couplings

Thread:  
Whitworth pipe thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2	l3 approx.	i	kg/100 approx.
S	PB 630	6	R 1/4	14	17	31	16	18	12	7.4
S	PB 630	8	R 1/4	17	19	32	17	19	12	9.3
S	PB 630	10	R 3/8	19	22	34	17.5	20	12	13.6
S	PB 630	12	R 3/8	22	24	38	21.5	20	12	16.2
S	PB 630	12	R 1/2	19	24	38	21.5	24	14	13.6
S	PB 630	14	R 1/4	19	27	40	22	22	12	14.5
S	PB 630	14	R 3/8	19	27	40	22	22	12	14.9
S	PB 630	14	R 1/2	19	27	40	22	22.5	14	15.6
S	PB 400	16	R 1/2	24	30	43	24.5	22.5	14	19.4
S	PB 400	20	R 1/2	27	36	48	26.5	30	14	31.2
S	PB 400	20	R 3/4	27	36	48	26.5	31	16	30.4

Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

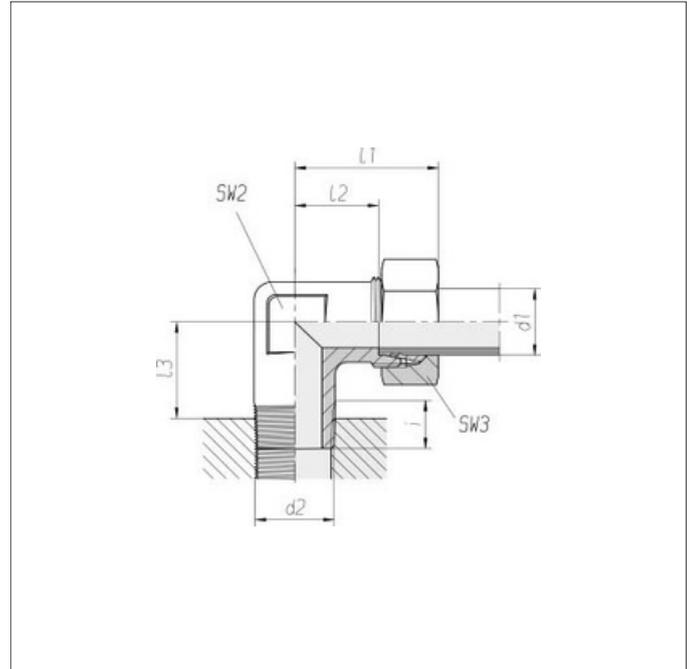
The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
WE06SRA3C  
DIN 2353-GS6-St

\*\*without union nut and cutting ring

## Elbow male stud couplings

Thread:  
NPT (ANSI/ASME B 1  
-20.01/01/1983)



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2	l3 approx.	i	Nm -10 %	kg/100 approx.
L	PN 100	4	1/8 NPT	11	10	21	11	11.5	9.9	15	2.3
L	PN 100	6	1/8 NPT	11	12	21	9.5	11.5	9.9	15	2.4
L	PN 100	8	1/8 NPT	12	14	23	11.5	15.9	9.9	15	3.2
L	PN 315	6	1/8 NPT	12	14	27	12	15.9	9.9	15	4.1
L	PN 315	6	1/4 NPT	14	14	29	14	20.2	15.1	35	6.1
L	PN 315	8	1/4 NPT	14	17	29	14	20.2	15.1	35	6.4
L	PN 315	10	1/4 NPT	17	19	30	15	21.2	15.1	35	8.2
L	PN 315	12	1/4 NPT	19	22	32	17	22.2	15.1	35	11.5
L	PN 315	12	3/8 NPT	19	22	32	17	21.9	15.2	55	11.8
L	PN 315	12	1/2 NPT	24	22	36	21	19.5	19.8	110	15.1
L	PN 315	15	1/2 NPT	24	27	39	24	22.5	19.8	110	18.0
L	PN 315	18	1/2 NPT	24	32	40	23.5	23.5	19.8	110	19.9
L	PN 160	22	3/4 NPT	27	36	44	27.5	28.5	20.1	175	25.5
L	PN 160	28	1 NPT	36	41	47	30.5	32.5	25.0	265	39.0
L	PN 160	35	1 1/4 NPT	41	50	56	34.5	37.0	25.6	315	60.0
L	PN 160	42	1 1/2 NPT	50	60	63	40	44.0	26	385	88.4
S	PN 630	6	1/4 NPT	14	17	31	16	20.2	15.1	35	7.3
S	PN 630	8	1/4 NPT	17	19	32	17	21.2	15.1	35	9.5
S	PN 630	10	3/8 NPT	19	22	34	17.5	21.9	15.2	55	13.4
S	PN 630	12	3/8 NPT	22	24	38	21.5	22.9	15.2	55	16.4
S	PN 630	14	1/2 NPT	24	27	43	25	19.5	19.8	110	15.5
S	PN 400	16	1/2 NPT	24	30	43	24.5	19.5	19.8	110	20.5
S	PN 400	20	3/4 NPT	27	36	48	26.5	28.5	20.1	175	31.0
S	PN 400	25	1 NPT	36	46	54	30	32.5	25.0	265	58.0
S	PN 400	30	1 1/4 NPT	41	50	62	35.5	37.0	25.6	315	82.5
S	PN 315	38	1 1/2 NPT	50	60	72	41	44.0	26.0	385	118.0

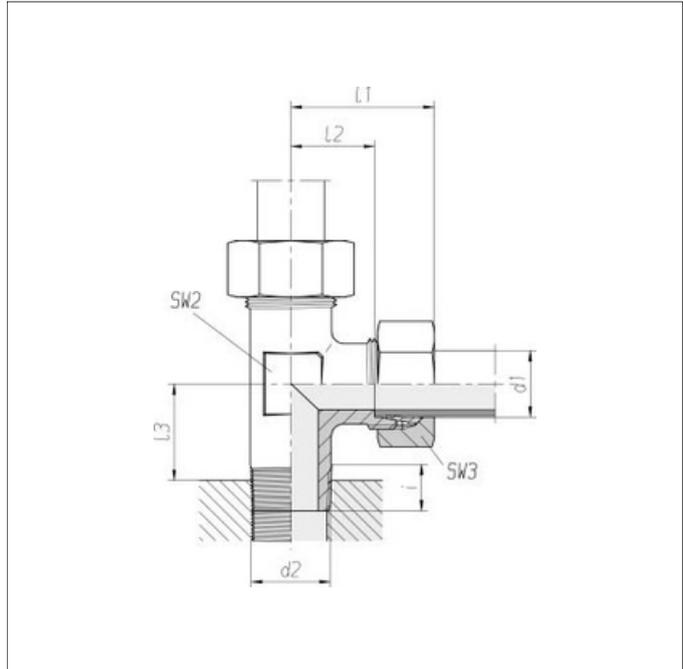
Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

\* Sample product code, see:  
WE04LL1/8NPTA3C

\*\*without union nut and cutting ring

## Male stud barrel tees

Thread:  
metric fine thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2 approx.	l3 approx.	i	kg/100 approx.
L	PN 100	4	M 8 x 1 taper	9	10	21	11	12	8	2.5
L	PN 100	6	M 10 x 1 taper	9	12	21	9.5	12	8	3.3
L	PN 100	8	M 10 x 1 taper	12	14	23	11.5	15	8	4.2
L	PN 315	6	M 10 x 1 taper	12	14	27	12	15	8	5.9
L	PN 315	8	M 12 x 1.5 taper	14	17	29	14	18	12	8.7
L	PN 315	10	M 14 x 1.5 taper	17	19	30	15	19	12	11.4
L	PN 315	12	M 16 x 1.5 taper	19	22	32	17	20	12	15.7
L	PN 315	15	M 18 x 1.5 taper	19	27	36	21	24	12	20.2
L	PN 315	18	M 22 x 1.5 taper	24	32	40	23.5	26.5	14	30.0
S	PB 630	6	M 12 x 1.5 taper	14	17	31	16	18	12	10.8
S	PB 630	8	M 14 x 1.5 taper	17	19	32	17	19	12	13.5
S	PB 630	10	M 16 x 1.5 taper	19	22	34	17.5	20	12	14.5
S	PB 630	12	M 18 x 1.5 taper	22	24	38	21.5	20	12	23.2
S	PB 630	14	M 20 x 1.5 taper	19	27	40	22	22.5	14	23.2
S	PB 400	16	M 22 x 1.5 taper	24	30	43	24.5	22.5	14	30.5

Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

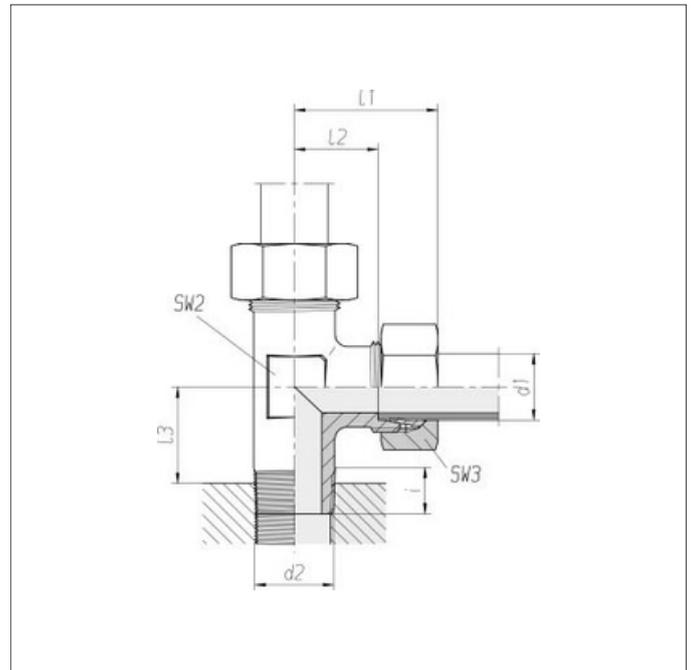
The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
LE04LLMA3C  
DIN 2353-AALL4-St

\*\*without union nut and cutting ring

## Male stud barrel tees

Thread:  
Whitworth pipe thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2	l3 approx.	i	kg/100 approx.
L	PN 100	4	R 1/8	9	10	21	11	12	8	3.0
L	PN 100	6	R 1/8	9	12	21	9.5	12	8	3.3
L	PN 100	8	R 1/8	12	14	23	11.5	15	8	4.4
L	PN 315	6	R 1/8	12	14	27	12	15	8	5.9
L	PN 315	8	R 1/4	14	17	29	14	18	12	9.0
L	PN 315	10	R 1/4	17	19	30	15	19	12	11.2
L	PN 315	12	R 3/8	19	22	32	17	20	12	15.9
L	PN 315	15	R 1/2	19	27	36	21	24	14	20.6
L	PN 315	18	R 1/2	24	32	40	23.5	26.5	14	29.5
S	PB 630	6	R 1/4	14	17	31	16	18	12	10.8
S	PB 630	8	R 1/4	17	19	32	17	19	12	13.5
S	PB 630	10	R 3/8	19	22	34	17.5	20	12	18.7
S	PB 630	12	R 3/8	22	24	38	21.5	20	12	23.7
S	PB 630	14	R 1/2	19	27	40	22	22.5	14	25.1
S	PB 400	16	R 1/2	24	30	43	24.5	22.5	14	30.3

Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

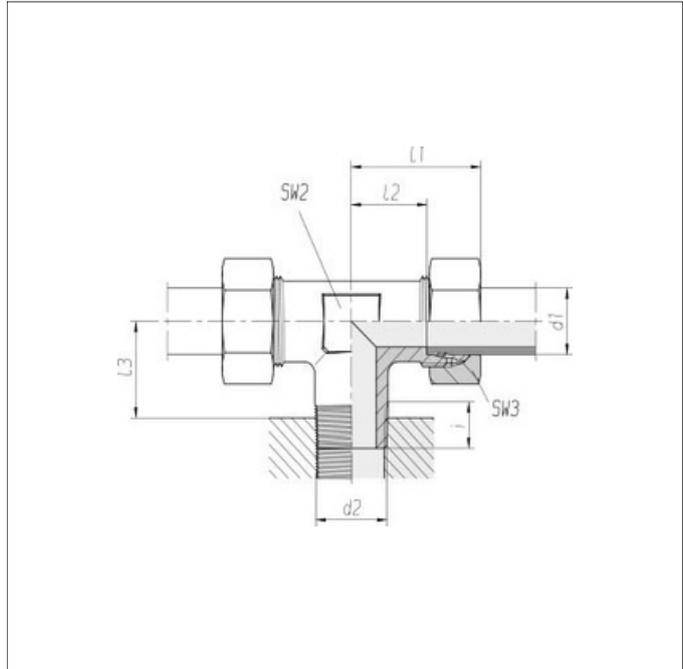
The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
LE04LLRA3C  
DIN 2353-ABLL4-St

\*\*without union nut and cutting ring

## Male stud branch tees

Thread:  
metric fine thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2 approx.	l3 approx.	i	kg/100 approx.
L	PN 100	4	M 8 x 1 taper	9	10	21	11	12	8	2.5
L	PN 100	6	M 10 x 1 taper	9	12	21	9.5	12	8	3.2
L	PN 100	8	M 10 x 1 taper	12	14	23	11.5	15	8	4.5
L	PN 315	6	M 10 x 1 taper	12	14	27	12	15	8	5.9
L	PN 315	8	M 12 x 1.5 taper	14	17	29	14	18	12	9.0
L	PN 315	10	M 14 x 1.5 taper	17	19	30	15	19	12	11.3
L	PN 315	12	M 16 x 1.5 taper	19	22	32	17	20	12	15.4
L	PN 315	15	M 18 x 1.5 taper	19	27	36	21	24	12	19.8
L	PN 315	18	M 22 x 1.5 taper	24	32	40	23.5	26.5	14	30.0
S	PB 630	6	M 12 x 1.5 taper	14	17	31	16	18	12	10.8
S	PB 630	8	M 14 x 1.5 taper	17	19	32	17	19	12	13.6
S	PB 630	10	M 16 x 1.5 taper	19	22	34	17.5	20	12	18.7
S	PB 630	12	M 18 x 1.5 taper	22	24	38	21.5	20	12	23.9
S	PB 630	14	M 20 x 1.5 taper	19	27	40	22	22.5	14	23.4
S	PB 400	16	M 22 x 1.5 taper	24	30	43	24.5	22.5	14	30.4

Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

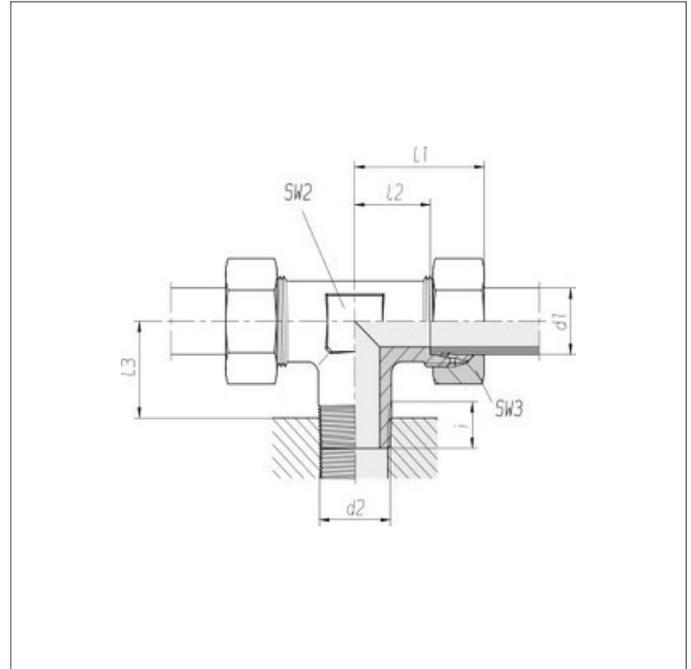
The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
TE04LLMA3C  
DIN 2353-MLL4-St

\*\*without union nut and cutting ring

## Male stud branch tees

Thread:  
Whitworth pipe thread,  
tapered



Series	Pressure	Tube OD d1	d2	SW2	SW3	l1 approx.	l2	l3 approx.	i	kg/100 approx.
L	PN 100	4	R 1/8	9	10	21	11	12	8	2.9
L	PN 100	6	R 1/8	9	12	21	9.5	12	8	3.3
L	PN 100	8	R 1/8	12	14	23	11.5	15	8	4.4
L	PN 315	6	R 1/8	12	14	27	12	15	8	5.9
L	PN 315	8	R 1/4	14	17	29	14	18	12	9.1
L	PN 315	10	R 1/4	17	19	30	15	19	12	11.2
L	PN 315	12	R 3/8	19	22	32	17	20	12	15.7
L	PN 315	15	R 1/2	19	27	36	21	24	14	20.3
L	PN 315	18	R 1/2	24	32	40	23.5	26.5	14	29.3
S	PB 630	6	R 1/4	14	17	31	16	18	12	11.0
S	PB 630	8	R 1/4	17	19	32	17	19	12	13.8
S	PB 630	10	R 3/8	19	22	34	17.5	20	12	19.0
S	PB 630	12	R 3/8	22	24	38	21.5	20	12	23.9
S	PB 630	14	R 1/2	19	27	40	22	22.5	14	25.2
S	PB 400	16	R 1/2	24	30	43	24.5	22.5	14	31.8

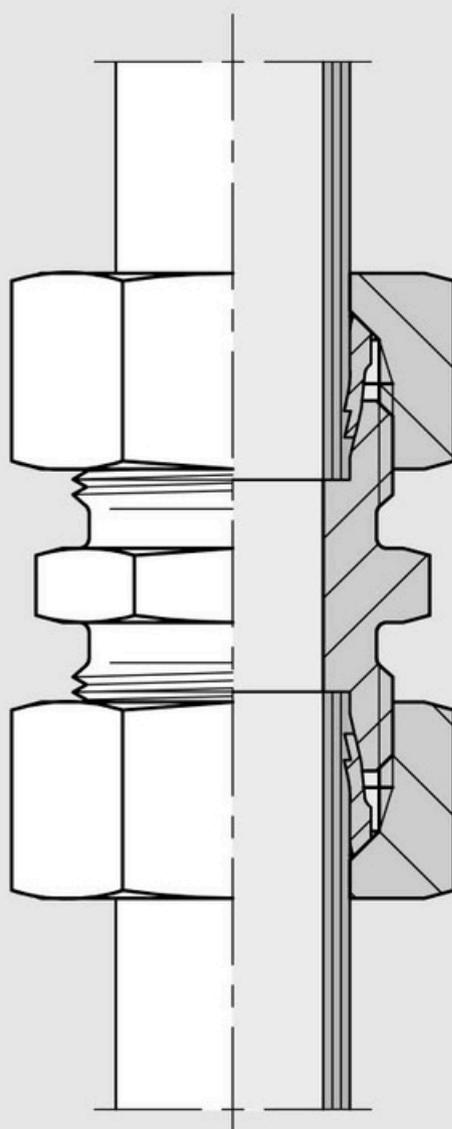
Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

The operating pressure PB 630 only  
applies for threaded bores with tapered  
threads

\* Sample product code, see:  
TE04LLRA3C  
DIN 2353-NLL4-St

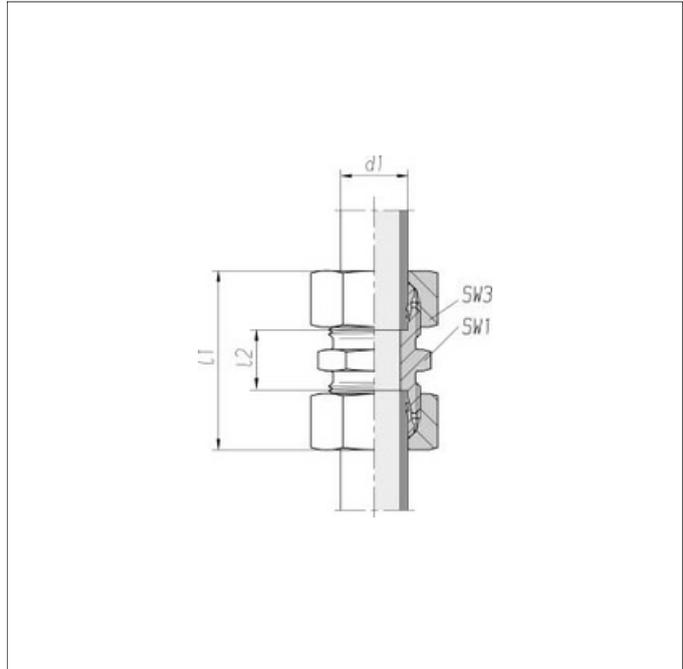
\*\*without union nut and cutting ring

*Connecting adapters*



*Experience plus ideas*

## Straight couplings



Series	Pressure	Tube OD $d1$	SW1	SW3	$l1$ approx.	$l2$	kg/100 approx.
L	PN 100	4	9	10	31	12	1.4
L	PN 100	6	11	12	32	9	2.0
L	PN 100	8	12	14	35	12	2.7
L	PN 315	6	12	14	39	10	3.4
L	PN 315	8	14	17	40	11	5.0
L	PN 315	10	17	19	42	13	6.5
L	PN 315	12	19	22	43	14	8.6
L	PN 315	15	24	27	46	16	14.4
L	PN 315	18	27	32	48	16	20.6
L	PN 160	22	32	36	52	20	26.6
L	PN 160	28	41	41	54	21	33.7
L	PN 160	35	46	50	63	20	53.7
L	PN 160	42	55	60	66	21	78.5
S	PN 630	6	14	17	45	16	6.3
S	PN 630	8	17	19	47	18	8.2
S	PN 630	10	19	22	49	17	11.1
S	PN 630	12	22	24	51	19	13.4
S	PN 630	14	24	27	57	22	19.4
S	PN 400	16	27	30	57	21	23.1
S	PN 400	20	32	36	66	23	36.8
S	PN 400	25	41	46	74	26	68.9
S	PN 400	30	46	50	80	27	81.8
S	PN 315	38	55	60	90	29	124.9

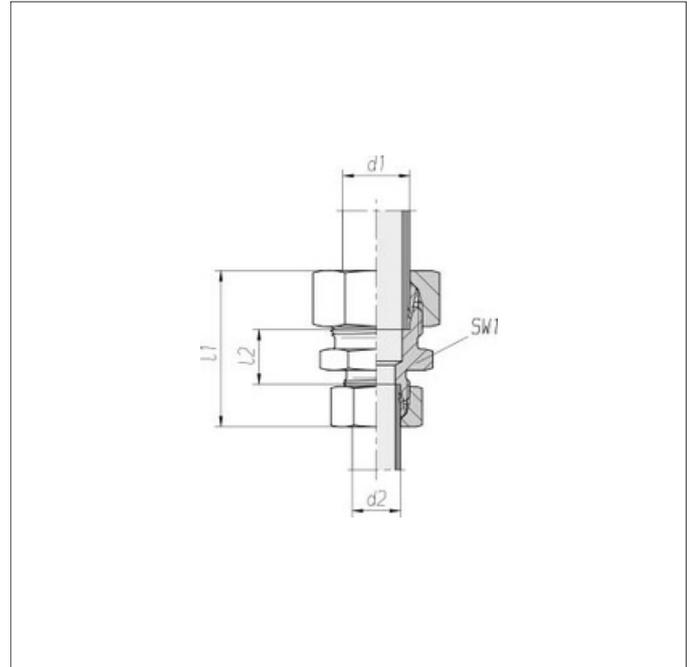
\* Sample product code, see:  
G04LLA3C  
DIN 2353-ELL4-St

\*\*Sample product code, see:  
G06LA3C  
ISO 8434-1-SC-L6-St

\*\*\*without union nut and cutting ring

## Straight reducing couplings

For tube-to-tube connection  
according to  
DIN 2353 / ISO 8434-1



Series	Pressure	Tube OD d1	Tube OD d2	SW1	l1 approx.	l2	kg/100 approx.
L	PN 100	6	4	11	31.5	10.5	1.8
L	PN 100	8	4	12	34.5	12.5	2.2
L							
L	PN 315	8	6	14	40.5	11	4.3
L	PN 315	10	6	17	41.5	12	5.4
L	PN 315	10	8	17	42	12	5.9
L	PN 315	12	6	19	42	13	6.4
L	PN 315	12	8	19	42.5	13	7.1
L	PN 315	12	10	19	43.5	14	7.7
L	PN 315	15	8	24	44	14	10.4
L	PN 315	15	10	24	45	15	11.0
L	PN 315	15	12	24	44.5	15	11.6
L	PN 315	18	10	27	47	15.5	14.4
L	PN 315	18	12	27	46.5	15.5	16.2
L	PN 315	18	15	27	48	16.5	17.9
L							
L	PN 160	22	12	32	48.5	17.5	19.3
L	PN 160	22	15	32	50	18.5	21.3
L	PN 160	22	18	32	51	18	24.5
L	PN 160	28	18	41	52	19	29.5
L	PN 160	28	22	41	54	21	32.0
L	PN 160	35	22	46	59	21	42.4
L	PN 160	35	28	46	59	21	43.9

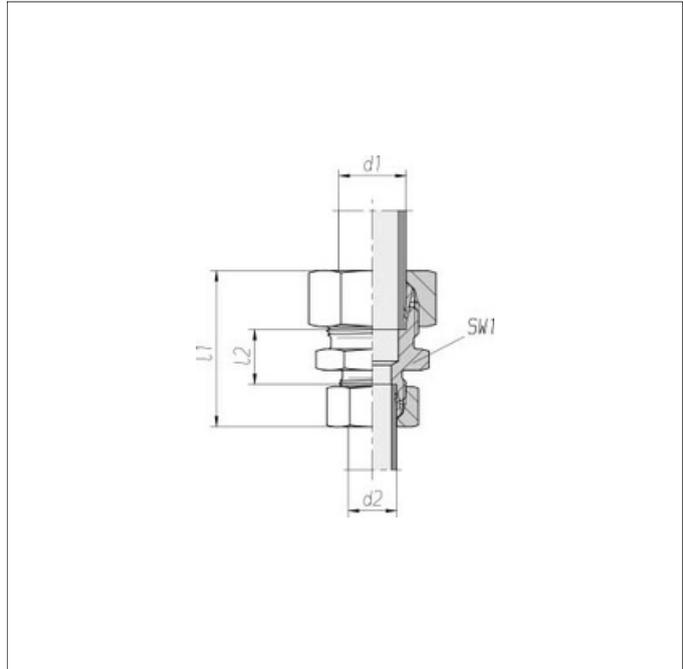
Other diameter combinations on request

\* Sample product code, see:  
GR08/06LA3C  
ISO 8434-1-RES-L8XL6-St

\*\*without union nut and cutting ring

## Straight reducing couplings

For tube-to-tube connection  
according to  
DIN 2353 / ISO 8434-1



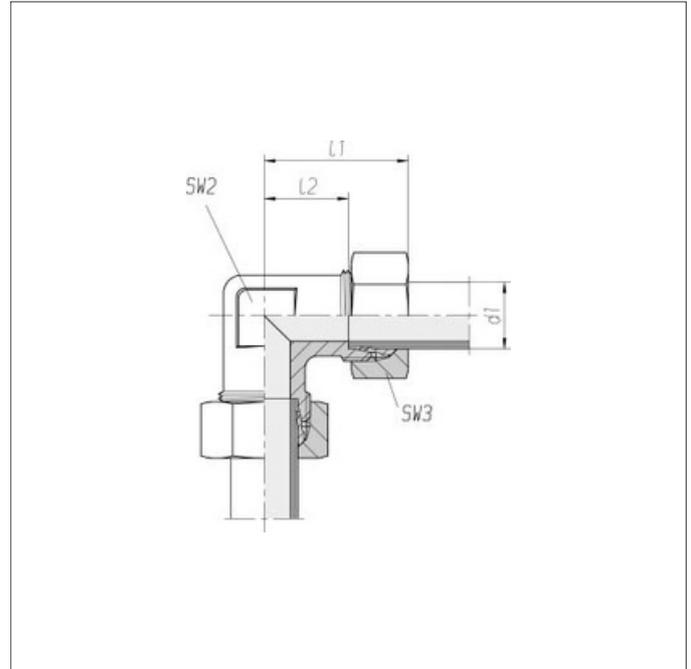
Series	Pressure	Tube OD d1	Tube OD d2	SW1	l1 approx.	l2	kg/100 approx.
S	PN 630	8	6	17	48	18	7.8
S	PN 630	10	6	19	48.5	17.5	9.3
S	PN 630	10	8	19	48.5	17.5	9.8
S	PN 630	12	6	22	50.5	19.5	11.2
S	PN 630	12	8	22	50.5	19.5	12.1
S	PN 630	12	10	22	51	19	12.9
S	PN 630	14	10	24	54.5	20.5	16.0
S	PN 630	14	12	24	54.6	20.5	16.7
S	PN 400	16	12	27	54.6	20	19.0
S	PN 400	16	14	27	58	21.5	21.3
S	PN 400	20	10	32	56.5	22	27.2
S	PN 400	20	12	32	56.5	22	28.6
S	PN 400	20	16	32	60	23	31.2
S	PN 400	25	16	41	68	26.5	50.1
S	PN 400	25	20	41	68	25.5	55.2
S	PN 400	30	20	46	71	26	63.0
S	PN 400	30	25	46	77	26.5	75.3
S	PN 315	38	30	55	87	29.5	106.8

Other diameter combinations on request

\* Sample product code, see:  
GR08/06SA3C  
ISO 8434-1-RES-S8XS6-St

\*\*without union nut and cutting ring

## Elbow couplings



Series	Pressure	Tube OD d1	SW2	SW3	l1 approx.	l2	kg/100 approx.
L	PN 100	4	9	10	21	11	2.2
L	PN 100	6	11	12	21	9.5	2.8
L	PN 100	8	12	14	23	11.5	3.9
L							
L	PN 315	6	12	14	27	12	5.1
L	PN 315	8	14	17	29	14	7.6
L	PN 315	10	17	19	30	15	9.8
L	PN 315	12	19	22	32	17	13.8
L	PN 315	15	19	27	36	21	17.2
L	PN 315	18	24	32	40	23.5	26.6
L							
L	PN 160	22	27	36	44	27.5	33.1
L	PN 160	28	36	41	47	30.5	44.9
L	PN 160	35	41	50	56	34.5	76.6
L	PN 160	42	50	60	63	40	102.2
S							
S	PN 630	6	14	17	31	16	9.0
S	PN 630	8	17	19	32	17	11.7
S	PN 630	10	19	22	34	17.5	17.1
S	PN 630	12	22	24	38	21.5	21.3
S	PN 630	14	19	27	40	22	21.6
S							
S	PN 400	16	24	30	43	24.5	27.5
S	PN 400	20	27	36	48	26.5	42.7
S	PN 400	25	36	46	54	30	79.0
S	PN 400	30	41	50	62	35.5	107.8
S							
S	PN 315	38	50	60	72	41	165.7

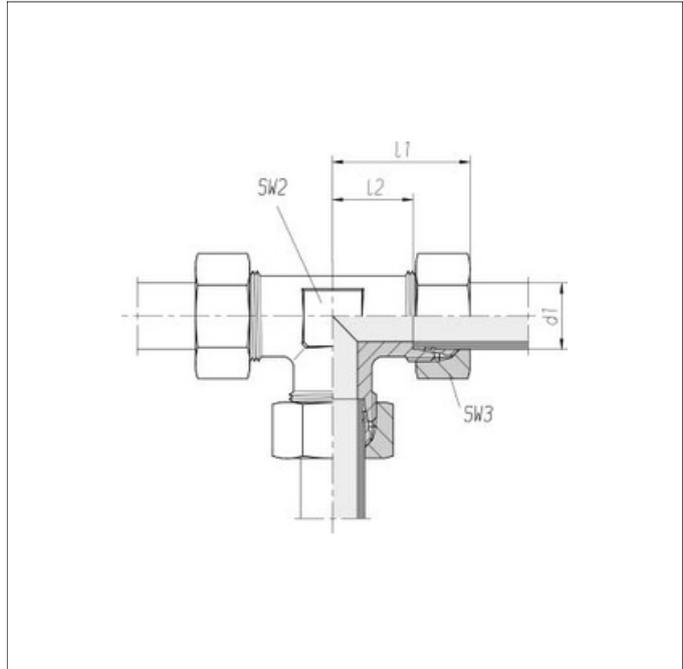
Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

\* Sample product code, see:  
W04LLA3C  
DIN 2353-KLL4-St

\*\*Sample product code, see:  
W06LA3C  
ISO 8434-1-EC-L6-St

\*\*\*without union nut and cutting ring

## Stud branch tees



Series	Pressure	Tube OD d1	SW2	SW3	l1 approx.	l2	kg/100 approx.
L	PN 100	4	9	10	21	11	2.9
L	PN 100	6	9	12	21	9.5	3.7
L	PN 100	8	12	14	23	11.5	5.2
L	PN 315	6	12	14	27	12	6.9
L	PN 315	8	14	17	29	14	10.3
L	PN 315	10	17	19	30	15	12.9
L	PN 315	12	19	22	32	17	18.1
L	PN 315	15	19	27	36	21	24.4
L	PN 315	18	24	32	40	23.5	36.3
L	PN 160	22	27	36	44	27.5	46.1
L	PN 160	28	36	41	47	30.5	62.9
L	PN 160	35	41	50	56	34.5	102.1
L	PN 160	42	50	60	63	40	154.3
S	PN 630	6	14	17	31	16	12.3
S	PN 630	8	17	19	32	17	16.0
S	PN 630	10	19	22	34	17.5	21.8
S	PN 630	12	22	24	38	21.5	28.5
S	PN 630	14	19	27	40	22	30.9
S	PN 400	16	24	30	43	24.5	38.7
S	PN 400	20	27	36	48	26.5	60.0
S	PN 400	25	36	46	54	30	111.7
S	PN 400	30	41	50	62	35.5	146.8
S	PN 315	38	50	60	72	41	223.4

Connecting piece of profile material  
L + S series from 6 – 12 mm tube  
outside dia. (OD)

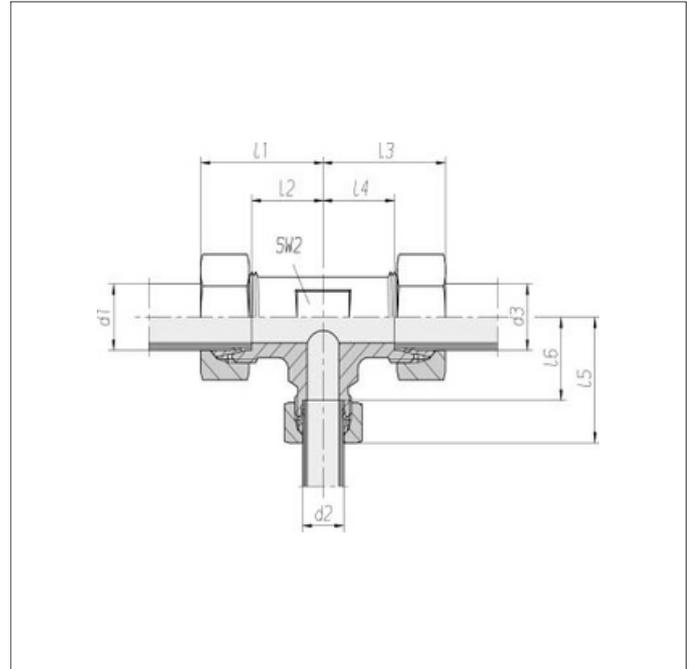
\* Sample product code, see:  
T04LLA3C  
DIN 2353-QLL4-St

\*\*Sample product code, see:  
T06LA3C  
ISO 8434-1-TC-L6-St

\*\*\*without union nut and cutting ring

## Branch reducing tees

Three-sided tube connection  
according to  
DIN 2353 / ISO 8434-1



Series	Pressure	Tube OD d1	d2	d3	SW2	l1 approx.	l2 approx.	l3 approx.	l4	l5 approx.	l6	kg/100 approx.
LL	PN 100	4	8	4	12	22.5	13	22.5	13	24	11.5	4.3
L	PN 315	6	8	6	14	28.5	14	28.5	14	29	14	8.9
L	PN 315	8	6	8	14	29	14	29	14	28.5	14	9.7
L	PN 315	6	10	6	17	29.5	15	29.5	15	30	15	11.0
L	PN 315	8	10	8	17	30	15	30	15	30	15	12.2
L	PN 315	10	6	10	17	30	15	30	15	29.5	15	12.0
L	PN 315	10	8	10	17	30	15	30	15	30	15	13.1
L	PN 315	10	10	6	17	30	15	29.5	15	30	15	11.1
L	PN 315	8	12	8	19	32	17	32	17	31.5	17	15.9
L	PN 315	12	6	12	19	31.5	17	31.5	17	31.5	17	12.1
L	PN 315	12	8	8	19	31.5	17	32	17	32	17	15.4
L	PN 315	12	8	12	19	31.5	17	31.5	17	32	17	16.7
L	PN 315	12	10	10	19	31.5	17	32	17	32	17	17.1
L	PN 315	12	10	12	19	31.5	17	31.5	17	32	17	17.5
L	PN 315	12	12	10	19	31.5	17	32	17	31.5	17	16.9
L	PN 315	10	15	10	19	36	21	36	21	36	21	19.6
L	PN 315	12	15	12	19	35.5	21	35.5	21	36	21	19.6
L	PN 315	15	6	15	19	36	21	36	21	36	21	21.0
L	PN 315	15	10	15	19	36	21	36	21	36	21	21.8
L	PN 315	15	12	12	19	36	21	35.5	21	35.5	21	20.1
L	PN 315	15	12	15	19	36	21	36	21	35.5	21	22.5
L	PN 315	15	15	12	19	36	21	35.5	21	36	21	21.4
L	PN 315	12	18	12	24	38.5	24	38.5	24	40	23.5	28.4
L	PN 315	18	10	10	24	40	23.5	39	24	39	24	26.1
L	PN 315	18	10	18	24	40	23.5	40	23.5	39	24	31.2
L	PN 315	18	12	18	24	40	23.5	40	23.5	38.5	24	31.7

Sample product code, see:

\* TR10/06/10LA3C  
ISO 8434-1-REBT-L10/L8/L10-St

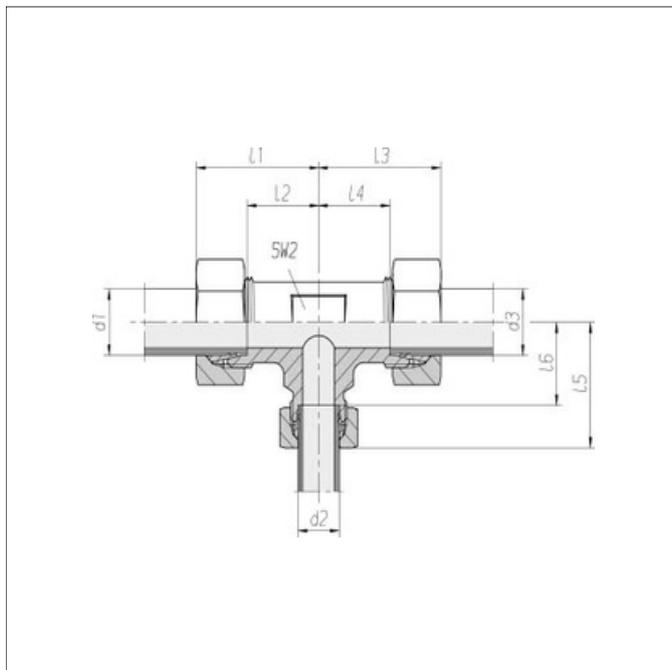
\*\* TR10/10/06LA3C  
ISO 8434-1-RERT-L10/L10/L6-St

\*\*\*without union nut and cutting ring

Other diameter combinations  
on request

## Branch reducing tees

Three-sided tube connection  
according to  
DIN 2353 / ISO 8434-1



Continued from Page 49

Series	Pressure	Tube OD $d1$	$d2$	$d3$	SW2	$l1$ approx.	$l2$	$l3$ approx.	$l4$	$l5$ approx.	$l6$	kg/100 approx.
L	PN 315	18	15	18	24	40	23.5	40	23.5	39	24	33.9
L	PN 315	18	18	10	24	40	23.5	39	24	40	23.5	28.6
L	PN 160	22	10	22	27	44	27.5	44	27.5	43	28	40.3
L	PN 160	22	12	22	27	44	27.5	44	27.5	42.5	28	41.4
L	PN 160	22	15	15	27	44	28	43	27.5	43	28	38.1
L	PN 160	22	15	22	27	44	27.5	44	27.5	43	28	43.0
L	PN 160	22	18	18	27	44	27.5	44	27.5	44	27.5	42.3
L	PN 160	22	18	22	27	44	27.5	44	27.5	44	27.5	43.0
L	PN 160	22	22	18	27	44	27.5	44	27.5	44	27.5	43.4
L	PN 160	28	10	28	36	47	30.5	47	30.5	46	31	53.3
L	PN 160	28	12	28	36	47	30.5	47	30.5	45.5	31	55.6
L	PN 160	28	15	28	36	47	30.5	47	30.5	46	31	56.4
L	PN 160	28	18	28	36	47	30.5	47	30.5	47	30.5	61.5
L	PN 160	28	22	22	36	47	30.5	47	30.5	47	30.5	60.6
L	PN 160	28	22	28	36	47	30.5	47	30.5	47	30.5	60.2

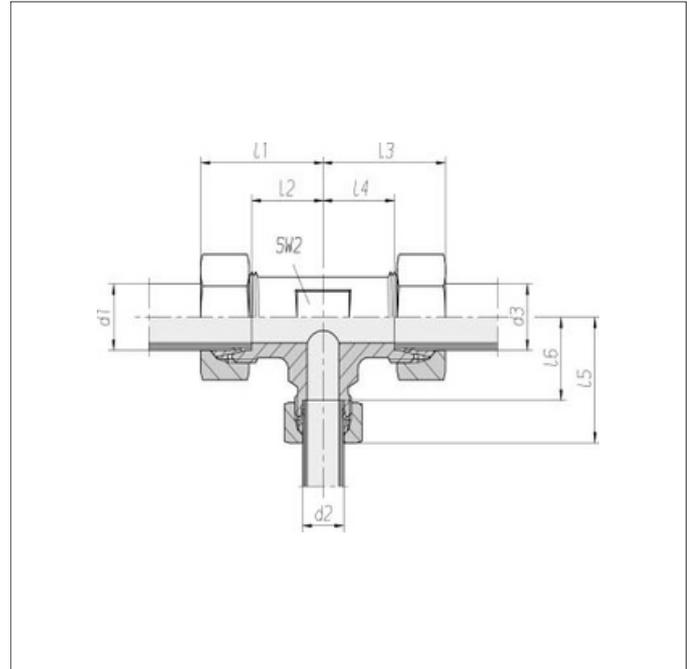
\* Sample product code, see:  
TR18/15/18LA3C  
ISO 8434-1-RERT-L18/L15/L18-ST

\*\*\*without union nut and cutting ring

Other diameter combinations on  
request

## Branch reducing tees

Three-sided tube connection  
according to  
DIN 2353 / ISO 8434-1



Series	Pressure	Tube OD $d_1$	$d_2$	$d_3$	SW2	$l_1$ approx.	$l_2$ approx.	$l_3$ approx.	$l_4$	$l_5$ approx.	$l_6$	kg/100 approx.
S	PN 630	10	6	10	19	33.5	17.5	33.6	17.6	33	18	20.4
S	PN 630	12	8	8	22	37.5	21.5	37	22	37	22	24.3
S	PN 630	12	8	12	22	37.5	21.5	37.5	21.5	37	22	27.5
S	PN 630	12	10	12	22	37.5	21.5	37.5	21.5	37.5	21.5	28.2
S	PN 400	12	16	12	24	41.6	25.5	41.5	25.4	43	24.5	33.3
S	PN 400	16	6	16	24	43	24.5	43	24.5	41	26	32.7
S	PN 400	16	8	16	24	43	24.5	43	24.5	41	26	33.3
S	PN 400	16	10	16	24	43	24.5	43	24.5	41.5	25.5	34.8
S	PN 400	16	12	16	24	43	24.5	43	24.5	41.5	25.5	35.6
S	PN 400	16	20	16	27	47	28.5	47	28.5	45	26.5	50.3
S	PN 400	20	10	20	27	45	26.5	45	26.5	45.5	29.5	51.0
S	PN 400	20	12	20	27	45	26.5	45	26.5	45.5	29.5	53.0
S	PN 400	20	16	20	27	45	26.5	45	26.5	47	28.5	55.8
S	PN 400	20	25	20	36	50	31.5	50	31.5	54	30	89.4
S	PN 400	25	16	25	36	54	30	54	30	52	33.5	93.8
S	PN 400	25	20	25	36	54	30	54	30	50	31.5	97.2
S	PN 400	25	30	25	41	61	37	61	37	62	35.5	138.0

Sample product code, see:

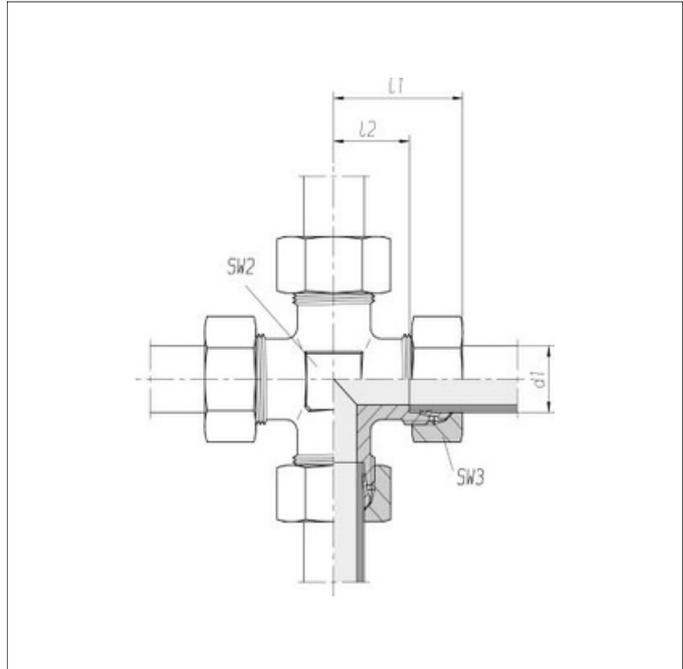
\* TR10/06/10SA3C  
ISO 8434-1-REBT-S10XS6XS10-St

\*\* TR12/08/08SA3C  
ISO 8434-1-REBT-S12XS8XS8-St

\*\*\*without union nut and cutting ring

Other diameter combinations on  
request

## Cross couplings



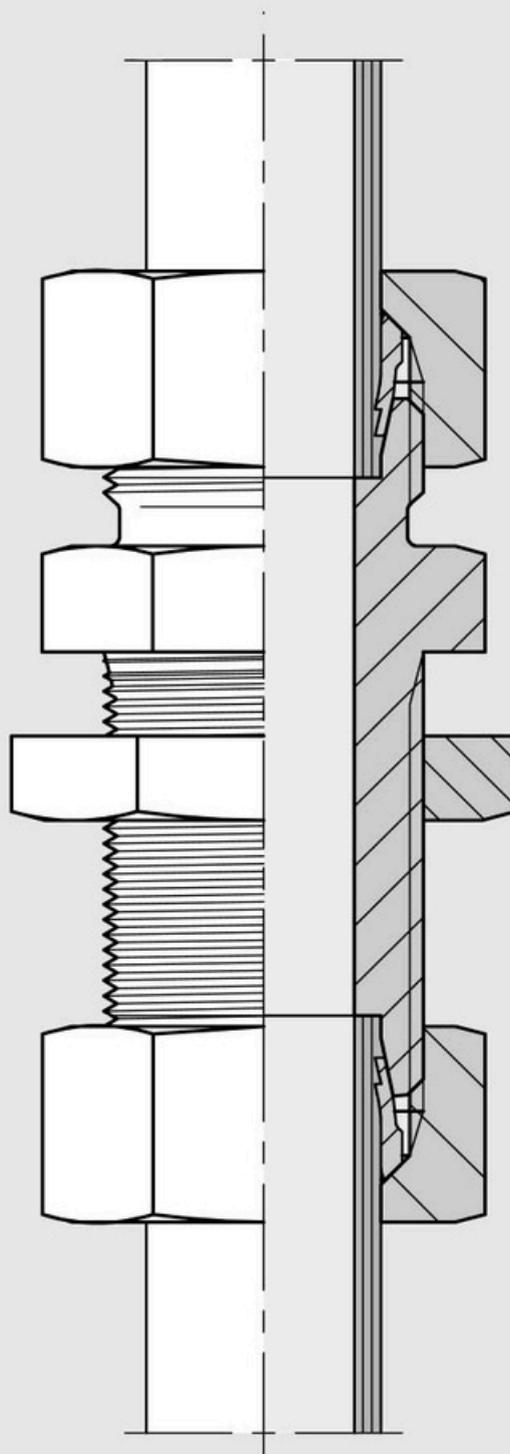
Series	Pressure	Tube OD d1	SW2	SW3	l1 approx.	l2	kg/100 approx.
L	PN 100	4	7	10	21	11	4.0
L	PN 100	6	9	12	21	9.5	5.0
L	PN 100	8	12	14	23	11.5	6.1
L	PN 315	6	12	14	27	12	7.5
L	PN 315	8	12	17	29	14	11.3
L	PN 315	10	14	19	30	15	13.8
L	PN 315	12	17	22	32	17	19.3
L	PN 315	15	19	27	36	21	31.4
L	PN 315	18	24	32	40	23.5	40.9
L	PN 160	22	27	36	44	27.5	57.1
L	PN 160	28	36	41	47	30.5	67.5
L	PN 160	35	41	50	56	34.5	125.4
L	PN 160	42	50	60	63	40	186.3
S	PN 630	6	12	17	31	16	14.2
S	PN 630	8	14	19	32	17	17.1
S	PN 630	10	17	22	34	17.5	24.4
S	PN 630	12	17	24	38	21.5	29.9
S	PN 630	14	19	27	40	22	39.6
S	PN 400	16	24	30	43	24.5	52.3
S	PN 400	20	27	36	48	26.5	75.9
S	PN 400	25	36	46	54	30	141.9
S	PN 400	30	41	50	62	35.5	183.9
S	PN 315	38	50	60	72	41	274.6

\* Sample product code, see:  
K04LLA3C  
DIN 2353-ZLL4-St

\*\*Sample product code, see:  
K06LA3C  
ISO 8434-1-KC-L6-St

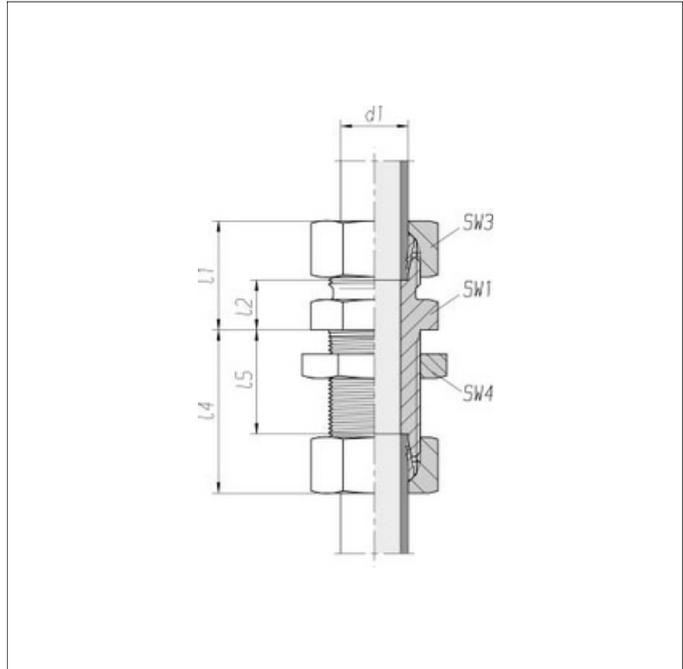
\*\*\*without union nut and cutting ring

***Bulkhead couplings***



***Experience plus ideas***

## Straight bulkhead couplings

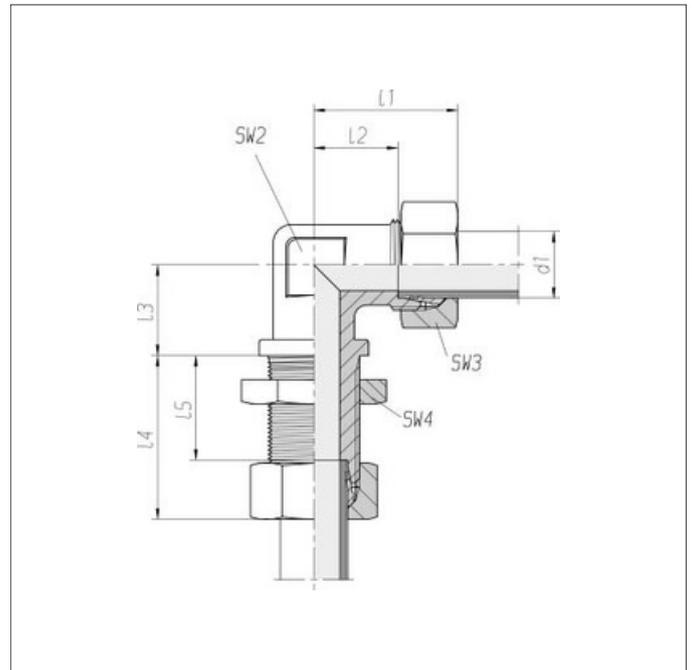


Series	Pressure	Tube OD d1	SW1	SW3	SW4	l1 approx.	l2	l4 approx.	l5	kg/100 approx.
L	PN 315	6	17	14	17	22	7 8	42	27	6.0
L	PN 315	8	19	17	19	23	10	42	27	8.3
L	PN 315	10	22	19	22	25	10	43	28	10.9
L	PN 315	12	24	22	24	25	12	44	29	13.8
L	PN 315	15	27	27	30	27	13.5	46	31	22.4
L	PN 315	18	32	32	36	30		49	32.5	33.6
L	PN 160	22	36	36	41	33	16.5	51	34.5	42.8
L	PN 160	28	41	41	46	35	18.5	52	35.5	53.8
L	PN 160	35	50	50	55	40	18.5	58	36.5	87.6
L	PN 160	42	60	60	65	42	19	59	36	124.6
S	PN 630	6	19	17	19	27	12	44	29	10.2
S	PN 630	8	22	19	22	28	13	44	29	13.3
S	PN 630	10	24	22	24	31	14.5	46	29.5	18.1
S	PN 630	12	27	24	27	31	14.5	47	30.5	21.4
S	PN 630	14	30	27	30	35	17	50	32	29.8
S	PN 400	16	32	30	32	35	16.5	50	31.5	34.4
S	PN 400	20	41	36	41	39	17.5	55	33.5	56.8
S	PN 400	25	46	46	46	44	20	59	35	93.2
S	PN 400	30	50	50	50	48	21.5	64	37.5	112.7
S	PN 315	38	65	60	65	53	22	68	37	179.4

\* Sample product code, see:  
SV06LA3C  
ISO 8434-1-BHC-L6-St

\*\*without union nut and cutting ring

## Elbow bulkhead couplings

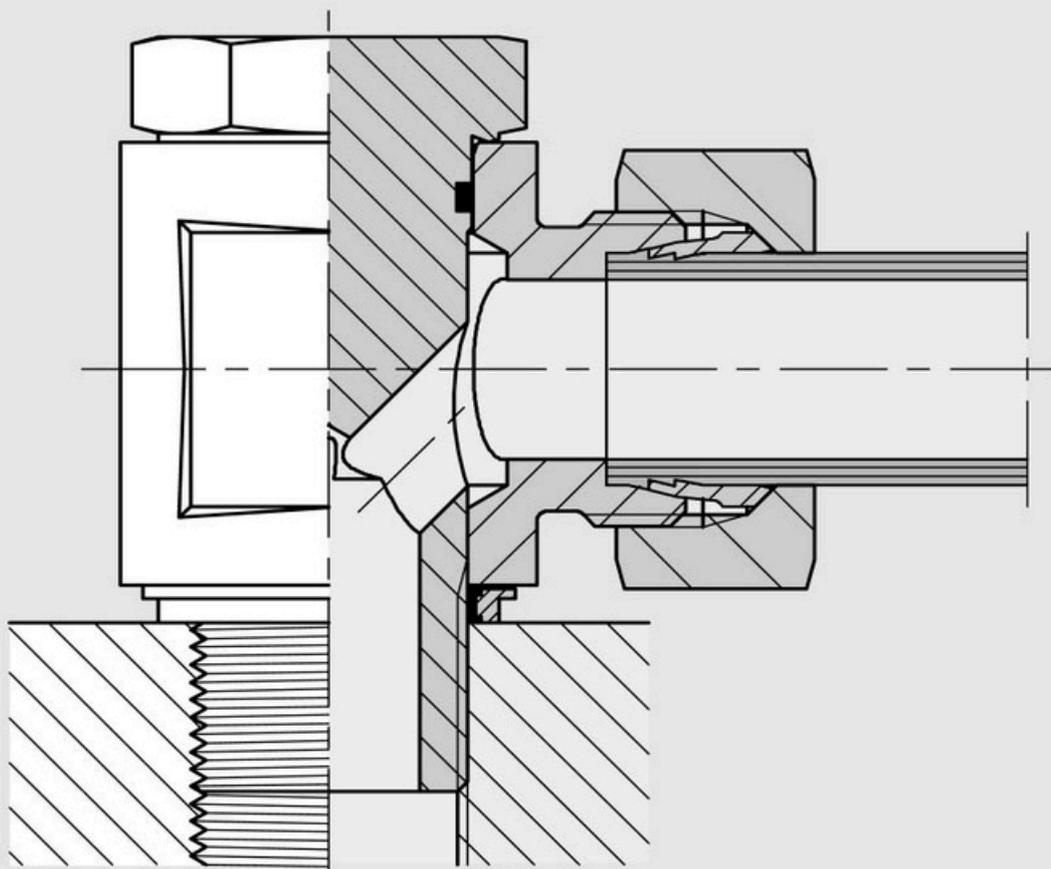


Series	Pressure	Tube OD d1	SW2	SW3	SW4	l1 approx.	l2	l3	l4	l5 approx.	kg/100 approx.
L	PN 315	6	12	14	17	27	1214		42	27	6.9
L	PN 315	8	12	17	19	29	1417		42	27	9.5
L	PN 315	10	14	19	22	30	1518		43	28	12.0
L	PN 315	12	17	22	24	32	1720		44	29	15.7
L	PN 315	15	19	27	30	36	2123		46	31	26.4
L	PN 315	18	24	32	36	40	23.5 24		49	32.5	38.8
L	PN 160	22	27	36	41	44	27.5 30		51	34.5	49.9
L	PN 160	28	36	41	46	47	30.5 34		52	35.5	66.9
L	PN 160	35	41	50	55	56	34.5 39		58	36.5	104.5
L	PN 160	42	50	60	65	63	4043		59	36	162.1
S	PN 630	6	12	17	19	31	1617		44	29	10.9
S	PN 630	8	14	19	22	32	1718		44	29	14.4
S	PN 630	10	17	22	24	34	17.5 20		46	29.5	19.9
S	PN 630	12	17	24	27	38	21.5 21		47	30.5	23.0
S	PN 630	14	19	27	30	40	2223		50	32	31.3
S	PN 400	16	24	30	32	43	24.5 24		50	31.5	38.3
S	PN 400	20	27	36	41	48	26.5 30		55	33.5	62.8
S	PN 400	25	36	46	46	54	3034		59	35	106.2
S	PN 400	30	41	50	50	62	35.5 39		64	37.5	136.5
S	PN 315	38	50	60	65	72	4143		68	37	217.2

\* Sample product code, see:  
WSV06LA3C  
ISO 8434-1-BHEC-L6-St

\*\*without union nut and cutting ring

*Banjo and rotary couplings*



*Experience plus ideas*

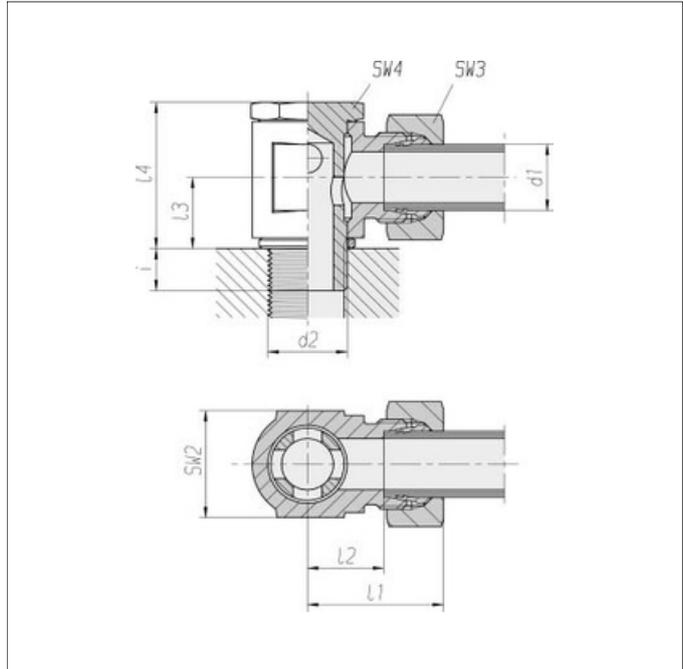
## Banjo couplings

Standard design

Thread:  
metric fine thread,  
straight

With metallic seal-edge ring  
for DIN 3852 / ISO 9974

d4 narrow swivel angle \*\*\*



Series	Pressure	Tube OD	d2	SW2	SW3	SW4	l1	l2	l3	l4	i	Nm	kg/100
		d1					approx.					-10 %	approx.
L	PB 100	4	M 8 x 1	12	10	12	21	10.5	8	18.5	6	10	2.4
L	PB 100	6	M 10 x 1	14	12	14	22	10	9	20.5	6	15	3.3
L	PB 100	8	M 10 x 1	14	14	14	23	11	10	22.5	6	15	3.9
L	PB 250	6	M 10 x 1	14	14	14	25	10.5	10	23.5	6	20	4.7
L	PB 250	8	M 12 x 1.5	17	17	17	28	13	12	279	289	30	7.1
L	PB 250	10	M 14 x 1.5	19	19	19	29	14	13	339	389	45	8.7
L	PB 250	12	M 16 x 1.5	22	22	22	30	15.5	15	389		65	12.6
L	PB 250	12	M 18 x 1.5	24	22	24	31	16.5	18.5			90	16.8
L	PB 250	15	M 18 x 1.5	24	27	24	33	17.5	18.5			90	18.0
L	PB 160	18	M 22 x 1.5	30	32	27	36.5	20	22	4411		100	27.8
L	PB 160	22	M 26 x 1.5	36	36	32	41.5	25	24.5	4813		150	40.4
S	PB 250	6	M 12 x 1.5	17	17	17	29	14	12	279	289	30	8.0
S	PB 250	8	M 14 x 1.5	19	19	19	30	15	13	339	359	45	9.8
S	PB 250	10	M 16 x 1.5	22	22	22	32	16	15	3911		70	14.3
S	PB 250	12	M 18 x 1.5	24	24	24	33	17	16.5			90	17.8
S	PB 250	14	M 20 x 1.5	27	27	27	38	20	18.5			110	23.0
S	PB 160	16	M 22 x 1.5	30	30	27	40	21	20.5	4211		100	29.7
S	PB 160	20	M 27 x 2	36	36	32	46	24	23.5	4813		150	46.0

\* Sample product code, see:  
SWVE04LLMA3C

\*\*without union nut and cutting ring

\*\*\*with elastomer seal ring (KDS) on  
thread for DIN 3852 / ISO 9974  
d4 narrow swivel angle on request

## Banjo couplings

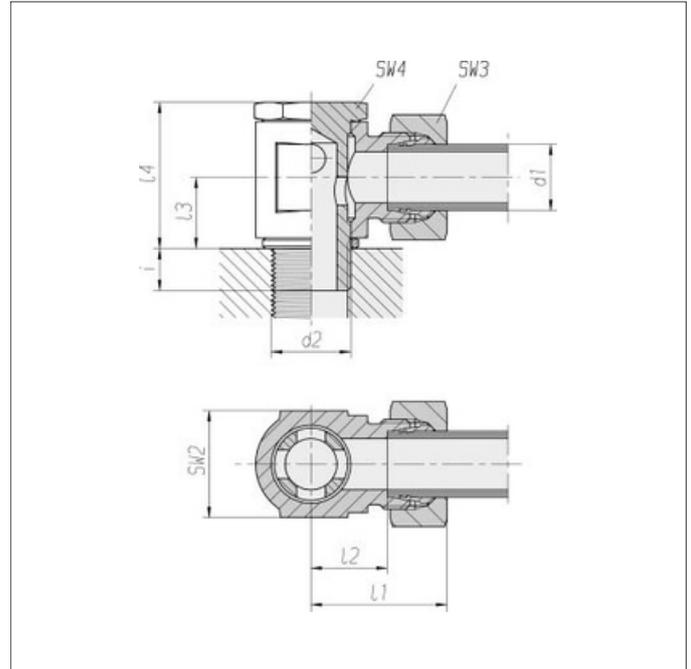
Standard design

Thread:

Whitworth pipe thread,  
straight

With metallic seal-edge ring  
for DIN 3852 / ISO 1179

d4 narrow swivel angle \*\*\*



Series	Pressure	Tube OD	d2		SW2	SW3	SW4	I1 approx.	I2	I3	I4	i	Nm -10 %	kg/100 approx.
L	PB 100	4	G 1/8 A	14	10	14	22	11.5	8	18.5	6	15	3.0	
L	PB 100	6	G 1/8 A	14	12	14	22	10	9	20.5	6	15	3.3	
L	PB 100	8	G 1/8 A	14	14	14	23	11	10	22.5	6	15	4.0	
L	PB 250	6	G 1/8 A	14	14	14	25	10.5	10	23.5	6	20	4.7	
L	PB 250	8	G 1/4 A	19	17	19	28	13	12	279	289	45	8.0	
L	PB 250	10	G 1/4 A	19	19	19	29	14	13	339		50	8.5	
L	PB 250	12	G 3/8 A	22	22	22	30	15.5	15.5	3811		75	12.8	
L	PB250	12	G 1/2 A	27	22	27	32.5	18	19	3811		110	19.8	
L	PB 250	15	G 1/2 A	27	27	27	34.5	19	19			110	21.5	
L	PB160	18	G 1/2 A	30	32	27	36.5	20	22	4411		100	28.0	
L	PB 160	22	G 3/4 A	36	36	32	41.5	25	24	4813		150	40.6	
S	PB 250	6	G 1/4 A	19	17	19	30	15	12	279	289	45	9.1	
S	PB 250	8	G 1/4 A	19	19	19	30	15	13	339	369	50	9.7	
S	PB 250	10	G 3/8 A	22	22	22	32	16	15.5	38.5	11	70	14.7	
S	PB 250	12	G 3/8 A	22	24	22	32	16	16.5			70	17.7	
S	PB 250	14	G 1/2 A	27	27	27	38	20	19			115	24.5	
S	PB 160	16	G 1/2 A	30	30	27	39.5	21	20.5	4211		100	29.1	
S	PB 160	20	G 3/4 A	36	36	32	45.5	24	24	4813		150	45.4	

\* Sample product code, see:  
SWVE04LLRA3C

\*\*without union nut and cutting ring

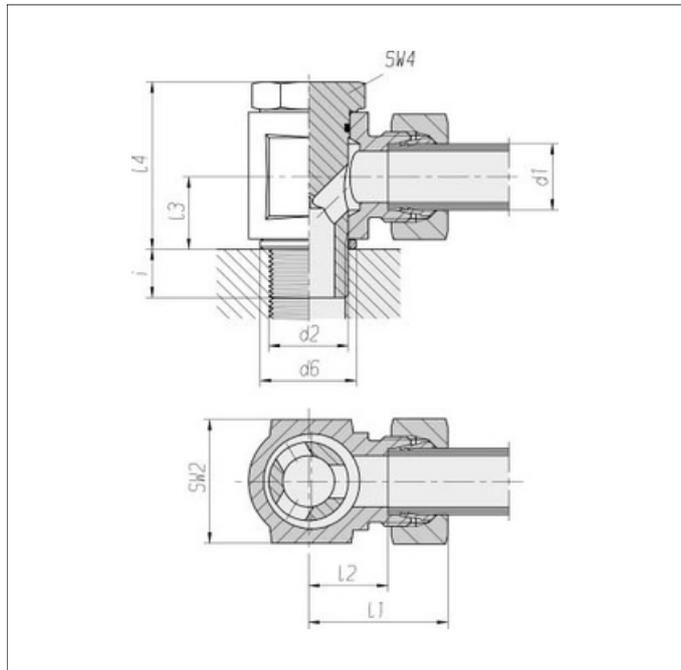
\*\*\*with elastomer seal ring (KDS) on  
thread for DIN 3852 / ISO 9974 d4  
narrow swivel angle on request

## Banjo couplings

Low-restrictive design with eccentric flow channel

Thread: metric fine thread, straight

With seal-edge ring for DIN 3852 / ISO 9974  
d4 narrow swivel angle



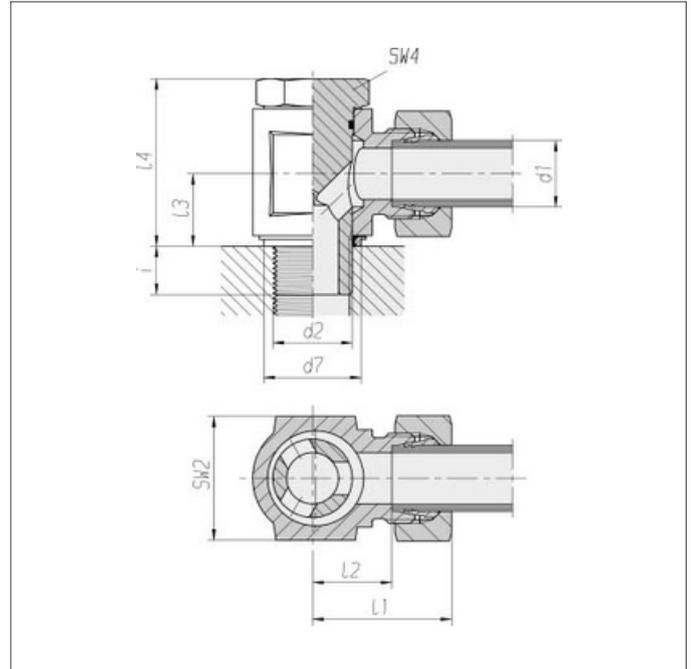
Series	Pressure	Tube OD	d2	d6	SW2	SW4	I1	I2	I3	I4	i	Nm	kg/100
		d1					approx.					-10 %approx.	
L	PB 500	6	M 10 x 1	14	19	14	27	12	10.5	25.3	8	30	6.2
L	PB 400	8	M 12 x 1.5	17	22	17	29.5	14.5	14	31.5	12	42	11.0
L	PB 350	10	M 14 x 1.5	19	22	19	30.5	15.5	14	33	12	42	12.0
L	PB 350	12	M 16 x 1.5	21	27	22	16.5	38.5	12			60	19.1
L	PB 315	12	M 18 x 1.5	23	30	24	35	20	18.5	42.5	12	70	24.8
L	PB 315	15	M 18 x 1.5	23	30	24	18.5	42.5	12	37	22	70	26.3
L	PB 315	15	M 22 x 1.5	27	36	27	47.5	14	38	21.5	21.5	160	36.8
L	PB 315	18	M 22 x 1.5	27	36	27	14					160	37.1
L	PB200	22	M 26 x 1.5	31	41	32	42.5	26	24	55.5	16	140	56.0
L	PB200	28	M 33 x 2	39	50	41	30.5	68	18	57	35.5	350	96.0
L	PB200	35	M 42 x 2	49	60	50	20	63	40	40.5	88.5	500	160.0
L	PB 200	42	M 48 x 2	55	70	60						600	240.1
S	PB 500	6	M 12 x 1.5	17	22	17	31.5	16.5	14	30.5	12	57	11.7
S	PB 450	8	M 14 x 1.5	19	22	19	31.5	16.5	14	31	12	90	13.2
S	PB 400	10	M 16 x 1.5	21	27	22	35	18.5	16.5	37	12	100	20.5
S	PB 400	12	M 18 x 1.5	23	30	24	18.5	40	12	41	23	130	26.9
S	PB 400	14	M 20 x 1.5	25	32	27	41	22.5	21.5	47	14	160	37.5
S	PB 400	16	M 22 x 1.5	27	36	27	24	55	16			180	40.1
S	PB 400	20	M 27 x 2	32	46	36						300	72.2
S	PB 250	25	M 33 x 2	39	50	41	55	31	30.5	66.5	18	380	115.3
S	PB 250	30	M 42 x 2	49	60	50	35.5	75.5	20	72	41	600	180.1
S	PB 250	38	M 48 x 2	55	70	60	86.5	22				750	265.6

\* Sample product code, see: WH06LMA3C

\*\*without union nut and cutting ring

## Banjo couplings

**Non-restrictive design  
with eccentric flow channel**  
Thread:  
metric fine thread,  
straight  
With soft seal  
for DIN 3852 /  
ISO 9974 d4 narrow  
swivel angle



Series	Pressure	Tube ODd2 d1		d7	SW2	SW4	I1	I2	I3	I4	i	Nm -10% approx.	kg/100		
L	PB 500	6	M 10 x 1	14.9	19	14	27	12	10.5	25.3	8	30	6.2		
L	PB 400	8	M 12 x 1.5	17	22	17	29.5	14.5	14	31.5	12	42	11.0		
L	PB 350	10	M 14 x 1.5	18.9	22	19	30.5	15.5	14	33	12	33	12.0		
L	PB 350	12	M 16 x 1.5	21.9	27	22	16.5	38.5	12			60	19.1		
L	PB 315	12	M 18 x 1.5	-	30	24	35	20	18.5	42.5	12	36	21	70	24.8
L	PB 315	15	M 18 x 1.5	23.9	30	24	18.5	42.5	12	37	22	21.5	70	26.3	
L	PB 315	15	M 22 x 1.5	-	36	27	47.5	14	38	21.5	21.5	47.5	160	36.8	
L	PB 315	18	M 22 x 1.5	26.9	36	27	14					160	37.1		
L	PB 200	22	M 26 x 1.5	31.9	41	32	42.5	26	24	55.5	16	48	31.5	140	56.0
L	PB 200	28	M 33 x 2	39.9	50	41	30.5	68	18	57	35.5	35.5	78	350	96.0
L	PB 200	35	M 42 x 2	49.9	60	50	20	63	40	40.5	88.5	22	500	160.0	
L	PB 200	42	M 48 x 2	55.9	70	60							600	240.1	
S	PB 500	6	M 12 x 1.5	17	22	17	31.5	16.5	14	30.5	12	57	11.7		
S	PB 450	8	M 14 x 1.5	18.9	22	19	31.5	16.5	14	31	12	90	13.2		
S	PB 400	10	M 16 x 1.5	21.9	27	22	35	18.5	16.5	37	12	37	20.5	100	20.5
S	PB 400	12	M 18 x 1.5	23.9	30	24	18.5	40	12	41	23	20	43	130	26.9
S	PB 400	14	M 20 x 1.5	-	32	27	41	22.5	21.5	47	14	49	27.5	160	37.5
S	PB 400	16	M 22 x 1.5	26.9	36	27	24	55	16			180	40.1		
S	PB 400	20	M 27 x 2	32.9	46	36						300	72.2		
S	PB 250	25	M 33 x 2	39.9	50	41	55	31	30.5	66.5	18	63	36.5	380	115.3
S	PB 250	30	M 42 x 2	49.9	60	50	35.5	75.5	20	72	41	40.5	600	180.1	
S	PB 250	38	M 48 x 2	55.9	70	60	86.5	22				750	265.6		

\* Sample product code, see:  
WH06LMKDSA3C

\*\*without union nut and cutting ring

## Banjo couplings

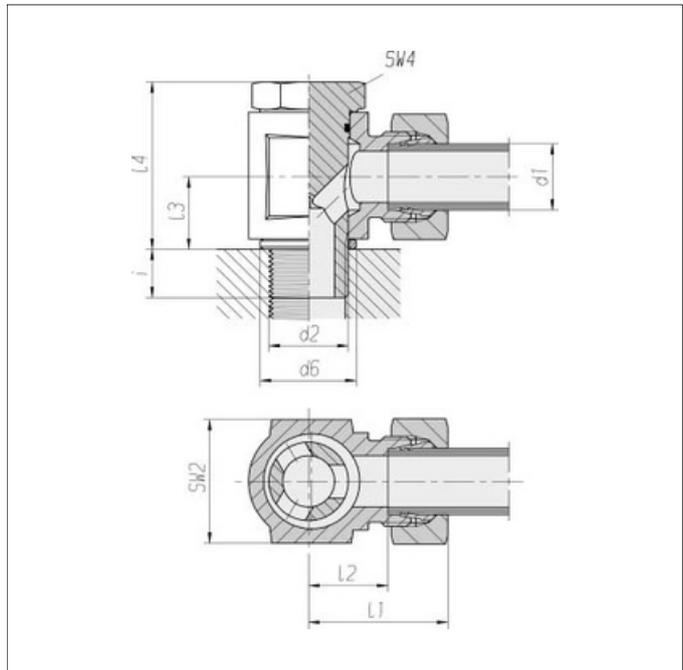
Low-restrictive design with eccentric flow channel

Thread:

Whitworth pipe thread, straight

With seal-edge ring for DIN 3852 / ISO 1179

d4 narrow swivel angle



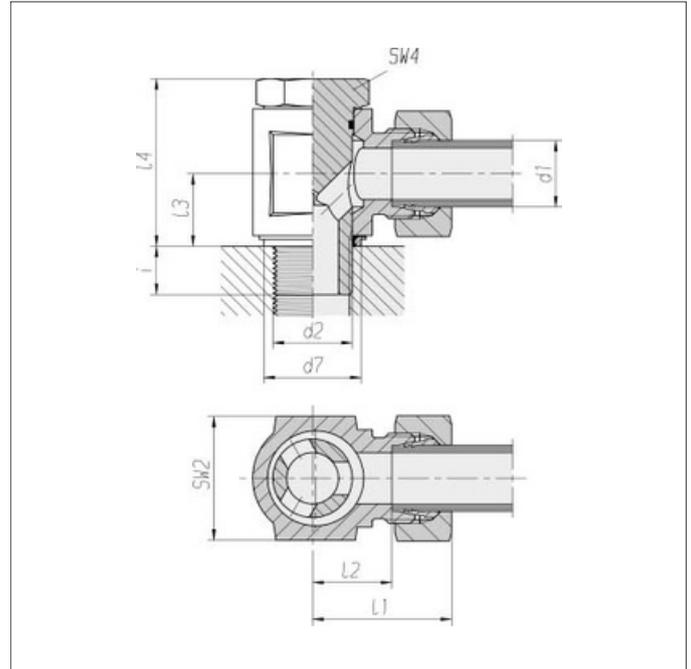
Series	Pressure	Tube OD	d2	d6	SW2	SW4	I1	I2	I3	I4	i	Nm	kg/100		
		d1					approx.					-10% approx.			
L	PB 500	6	G 1/8 A	14	19	14	27	12	10.5	25.3	8	25	6.1		
L	PB 400	8	G 1/4 A	18	22	19	29.5	14.5	14	31.5	12	40	11.7		
L	PB 35010		G 1/4 A	18	22	19	30.5	15.5	14	33	12	38	12.5		
L	PB 350	12	G 3/8 A	22	27	22	16.5	38.5	12			75	19.3		
L	PB 315	12	G 1/2 A	26	32	27	37	22	21.5	45.5	14	37	22	110	32.3
L	PB 315	15	G 1/2 A	26	32	27	21.5	45.5	14	38	21.5	110	33.3		
L	PB 315	18	G 1/2 A	26	36	27	47.5	14				110	36.7		
L	PB 200	22	G 3/4 A	32	46	36	45	28.5	24	56.5	16	48	31.5	160	66.5
L	PB 200	28	G 1 A	39	50	41	30.5	68	18	57	35.5	78	270	97.7	
L	PB 200	35	G 1 1/4 A	49	60	50	20	63	40	40.5	88.5	22	500	162.7	
L	PB 200	42	G 1 1/2 A	55	70	60							600	238.7	
S	PB 500	6	G 1/4 A	18	22	19	31.5	16.5	14	30.5	12	53	12.3		
S	PB 450	8	G 1/4 A	18	22	19	31.5	16.5	14	31	12	53	12.8		
S	PB 400	10	G 3/8 A	22	27	22	35	18.5	16.5	37	12	35	18.5	120	20.7
S	PB 400	12	G 3/8 A	22	27	22	16.5	37.5	12	41	23	21.5	43	120	21.1
S	PB 400	14	G 1/2 A	26	32	27	14	41	22.5	21.5	47	14	49	160	35.0
S	PB 400	16	G 1/2 A	26	36	27	27.5	24	55	16			160	39.2	
S	PB 400	20	G 3/4 A	32	46	36							330	71.7	
S	PB 250	25	G 1 A	39	50	41	55	31	30.5	66.5	18	63	36.5	380	116.0
S	PB 250	30	G 1 1/4 A	49	60	50	35.5	75.5	20	72	41	40.5	600	180.3	
S	PB 250	38	G 1 1/2 A	55	70	60	86.5	22					800	266.0	

\* Sample product code, see: WH06LRA3C

\*\*without union nut and cutting ring

## Banjo couplings

Low-restrictive design with  
eccentric flow channel  
Thread:  
Whitworth pipe thread,  
straight  
With soft seal  
for DIN 3852 / ISO 1179  
d4 narrow  
swivel angle



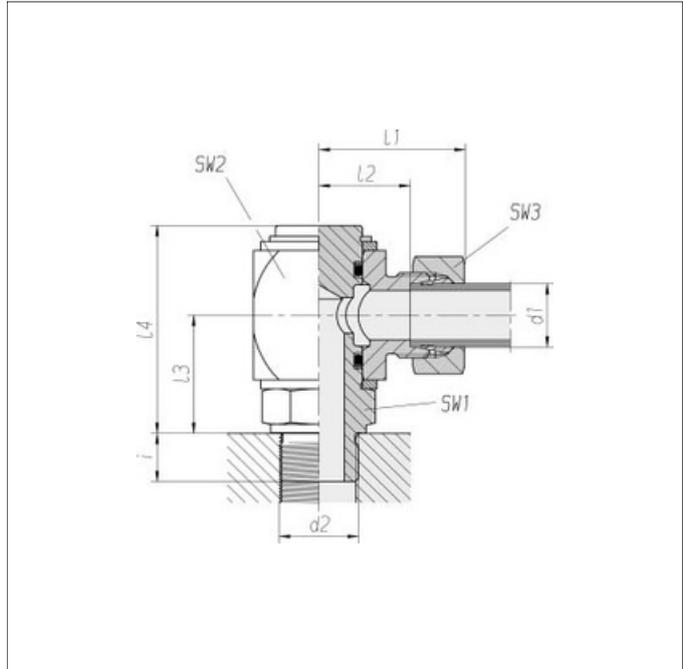
Series	Pressure	Tube OD	d2	d1	d7	SW2	SW4	I1	I2	I3	I4	i	Nm	kg/100
				-10 % approx.										
				approx.										
L	PB 500	6	G 1/8 A		14.9	19	14	27	12	10.5	25.3	8	25	6.1
L	PB 400	8	G 1/4 A		18.9	22	19	29.5	14.5	14	31.5	12	40	11.7
L	PB 350	10	G 1/4 A		18.9	22	19	30.5	15.5	14	33	12	33	12.5
L	PB 350	12	G 3/8 A		21.9	27	22	16.5	38.5	12			75	19.3
L	PB 315	12	G 1/2 A	-		32	27	37	22	21.5	45.5	14	37	22
L	PB 315	15	G 1/2 A		26.9	32	27	21.5	45.5	14	38	21.5	110	33.3
L	PB 315	18	G 1/2 A		26.9	36	27	47.5	14				110	36.7
L	PB 200	22	G 3/4 A		32.9	46	36	45	28.5	24	56.5	16	48	31.5
L	PB 200	28	G 1 A		39.9	50	41	30.5	68	18	57	35.5	35.5	78
L	PB 200	35	G 1 1/4 A		49.9	60	50	20	63	40	40.5	88.5	22	500
L	PB 200	42	G 1 1/2 A		55.9	70	60							600
S	PB 500	6	G 1/4 A		18.9	22	19	31.5	16.5	14	30.5	12	53	12.3
S	PB 450	8	G 1/4 A		18.9	22	19	31.5	16.5	14	31	12	53	12.8
S	PB 400	10	G 3/8 A		21.9	27	22	35	18.5	16.5	37	12	35	18.5
S	PB 400	12	G 3/8 A		21.9	27	22	16.5	37.5	12	41	23	21.5	43
S	PB 400	14	G 1/2 A		26.9	32	27	14	41	22.5	21.5	47	14	49
S	PB 400	16	G 1/2 A		26.9	36	27	27.5	24	55	16			160
S	PB 400	20	G 3/4 A		32.9	46	36							330
S	PB 250	25	G 1 A		39.9	50	41	55	31	30.5	66.5	18	63	36.5
S	PB 250	30	G 1 1/4 A		49.9	60	50	35.5	75.5	20	72	41	40.5	600
S	PB 250	38	G 1 1/2 A		55.9	70	60	86.5	22					800

\* Sample product code, see:  
WH06LRKDSA3C

\*\*without union nut and cutting ring

## Rotary couplings

**Thread:**  
metric fine thread,  
straight  
**Sealed with seal edge**  
**Design:**  
of square bar steel



Series	Pressure	Tube OD	d2	SW1	SW2	SW3	l1	l2	l3	l4	i	Nm	kg/100
				approx.									
L	PB 100	6	M 10 x 1	22	27	14	31	16.5	26.5	478		25	19.2
L	PB 100	8	M 12 x 1.5	22	27	17	31	16.5	26.5	4712		35	20.1
L	PB 100	10	M 14 x 1.5	22	27	19	32	17.5	26.5	4712		50	21.4
L	PB 100	12	M 16 x 1.5	22	27	22	31.5	17.5	26.5	4712		80	21.8
L	PB 100	12	M 16 x 1.5	22	27	22	31.5	17.5	26.5	4712		80	21.8
L	PB 100	15	M 18 x 1.5	27	36	27	38.5	23.5	33.5	58.5	12	100	45.5
L	PB 100	15	M 22 x 1.5	27	36	27	38.5	23.5	33.5	58.5	14	160	46.0
L	PB 100	18	M 22 x 1.5	27	36	32	39	23	33.5	58.5	14	160	47.8
L	PB 100	22	M 26 x 1.5	32	41	36	43	27	38	65.5	16	220	63.0
L	PB 100	28	M 33 x 2	41	46	41	46	29.5	42.5	7218		300	88.3
S	PB 400	6	M 12 x 1.5	22	27	17	33	18.5	26.5	4712		50	21.9
S	PB 400	8	M 14 x 1.5	22	27	19	33	18.5	26.5	4712		60	22.5
S	PB 400	10	M 16 x 1.5	22	27	22	34	18	26.5	4712		100	23.7
S	PB 400	12	M 18 x 1.5	27	36	24	39	23	33.5	58.5	12	120	46.5
S	PB 400	14	M 20 x 1.5	27	36	27	42.5	25	33.5	58.5	14	170	49.0
S	PB 400	16	M 22 x 1.5	27	36	30	42.5	24.5	33.5	58.5	14	190	50.0
S	PB 400	16	M 22 x 1.5	27	36	30	42.5	24.5	33.5	58.5	14	190	50.0
S	PB 400	20	M 27 x 2	32	41	36	47.5	26	38	65.5	16	300	68.0
S	PB 250	25	M 33 x 2	41	46	46	53	29	42.5	7218		450	100.0

These couplings are intended for slow rotating and swivelling movements with a swivelling angle of up to 360° and temperatures of up to 70°C

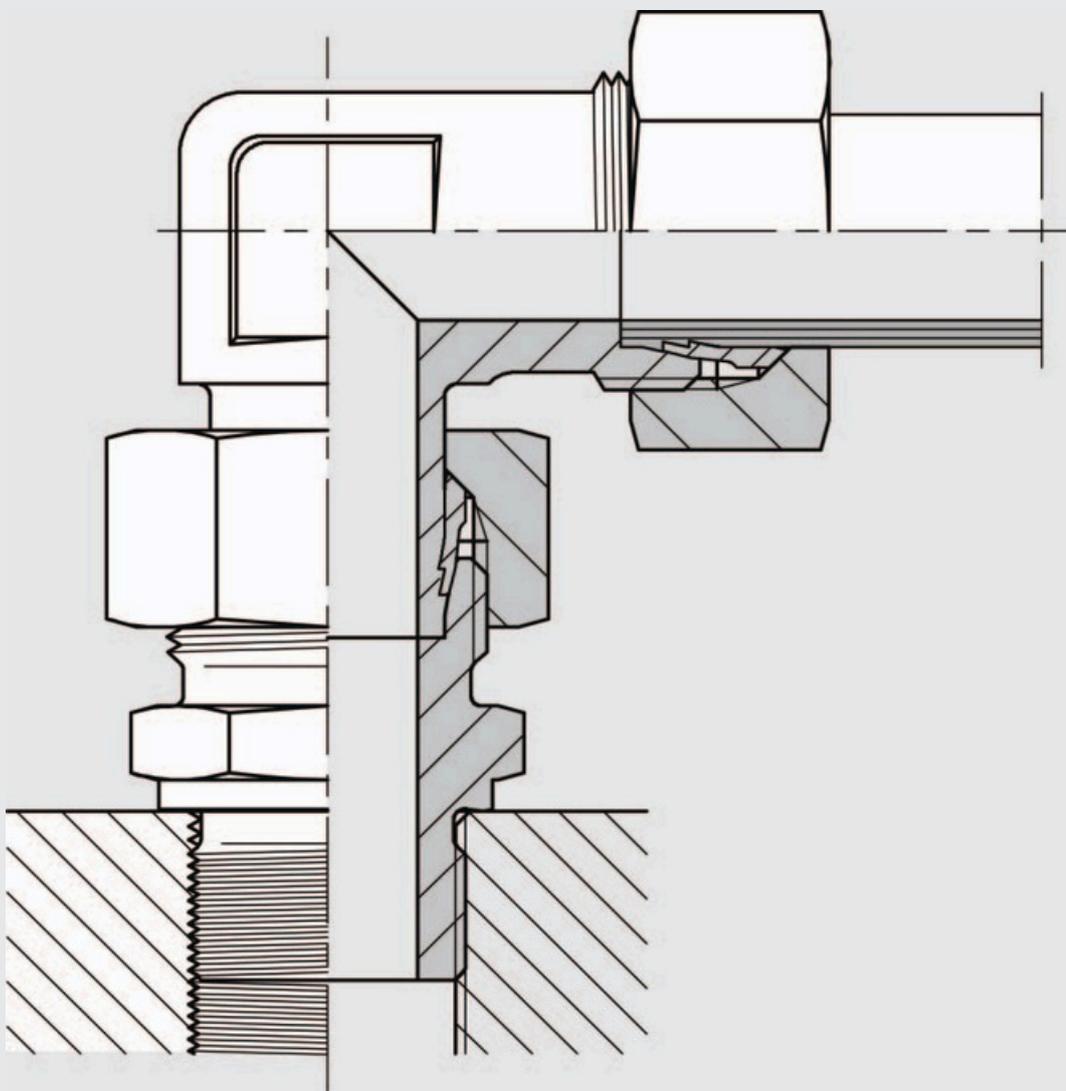
\* Sample product code, see:  
DVWE06LMA3C

\*\*Sealed with PEFLEX seal

\*\*\*without union nut and cutting ring



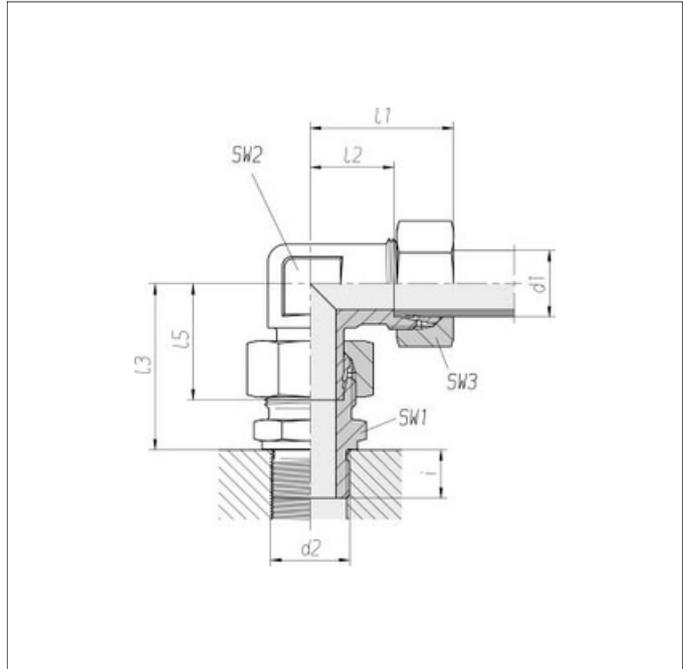
***Adjustable stud couplings  
with tube socket  
male connector***



***Experience plus ideas***

## Adjustable stud elbows

**Male connector**  
**Thread:**  
**metric fine thread,**  
**straight**  
**Sealed with seal edge**



Series	Pressure	Tube ODd2 d1	SW1	SW2	SW3	l1 approx.	l2	l3	l5	i	kg/100 approx.
L	PN 315	6	M 10 x 1.14	12	14	27	12	34.5	26	8	5.2
L	PN 315	8	M 12 x 1.517	12	17	29	14	37.5	27.5	12	7.6
L	PN 315	10	M 14 x 1.519	14	19	30	15	40	29	12	10.0
L	PN 315	12	M 16 x 1.522	17	22	32	17	42	29.5	12	13.0
L	PN 315	15	M 18 x 1.524	19	27	36	21	46	32.5	12	21.3
L	PN 315	18	M 22 x 1.527	24	32	40	23.5	50	35.5	14	32.3
L	PN 160	22	M 26 x 1.532	27	36	44	27.5	55	38.5	16	41.6
L	PN 160	28	M 33 x 241	36	41	47	30.5	59	41.5	18	59.7
L	PN 160	35	M 42 x 250	41	50	56	34.5	68.5	51	20	100.0
L	PN 160	42	M 48 x 255	50	60	63	40	75	56	22	135.0
S	PB 630*	6	M 12 x 1.517	12	17	31	16	40	27	12	9.2
S	PB 630*	8	M 14 x 1.519	14	19	32	17	42.5	27.5	12	10.1
S	PB 630*	10	M 16 x 1.522	17	22	34	17.5	45	30	12	16.8
S	PB 630*	12	M 18 x 1.524	17	24	38	21.5	48	31	12	21.1
S	PB 630*	14	M 20 x 1.527	19	27	40	22	54	35	14	29.6
S	PB 400	16	M 22 x 1.527	24	30	43	24.5	55	36.5	14	35.0
S	PB 400	20	M 27 x 232	27	36	48	26.5	65	44.5	16	55.7
S	PB 400	25	M 33 x 241	36	46	54	30	73	50	18	100.1
S	PB 250	30	M 42 x 250	41	50	62	35.5	78.5	55	20	112.0
S	PB 250	38	M 48 x 255	50	60	72	41	89	63	22	200.0

\* Safety factor 2.0

\*\*Sample product code, see:  
 EVW06LMA3C

\*\*\*without union nut and cutting ring

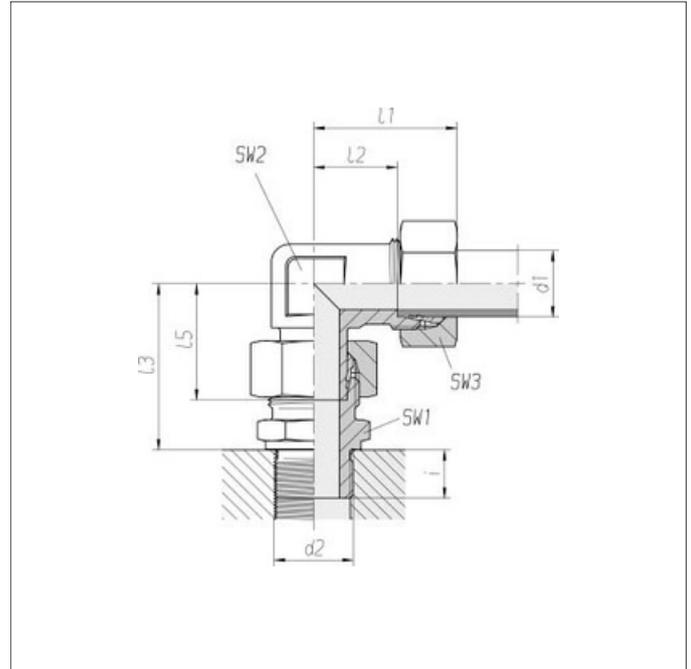
## Adjustable stud elbows

Male connector

Thread:

Whitworth pipe thread,  
straight

Sealed with seal edge



Series	Pressure	Tube OD	d2		SW1	SW2	SW3	I1 approx.	I2	I3	I5	i	kg/100 approx.
L	PN 315	6	G 1/8 A	14	12	14	27	12	34.5	26	8	5.3	
L	PN 315	8	G 1/4 A	19	12	17	29	14	37.5	27.5	12	8.1	
L	PN 315	10	G 1/4 A	19	14	19	30	15	40	29	12	10.0	
L	PN 315	12	G 3/8 A	22	17	22	32	17	42	29.5	12	13.7	
L	PN 315	15	G 1/2 A	27	19	27	36	21	46.5	32.5	14	23.5	
L	PN 315	18	G 1/2 A	27	24	32	40	23.5	50	35.5	14	31.6	
L	PN 160	22	G 3/4 A	32	27	36	44	27.5	55	38.5	16	42.7	
L	PN 160	28	G 1 A G	41	36	41	47	30.5	59	41.5	18	59.2	
L	PN 160	35	1 1/4 A G	50	41	50	56	34.5	68.5	51	20	99.6	
L	PN 160	42	1 1/2 A	55	50	60	63	40	75	56	22	142.0	
S	PB 630	6	G 1/4 A	19	12	17	31	16	40	27	12	9.6	
S	PB 630	8	G 1/4 A	19	14	19	32	17	42.5	27.5	12	12.0	
S	PB 630	10	G 3/8 A	22	17	22	34	17.5	45	30	12	16.8	
S	PB 630	12	G 3/8 A	22	17	24	38	21.5	48	31	12	20.6	
S	PB 630	14	G 1/2 A	27	19	27	40	22	54	35	14	29.8	
S	PB 400	16	G 1/2 A	27	24	30	43	24.5	55	36.5	14	36.6	
S	PB 400	20	G 3/4 A	32	27	36	48	26.5	65	44.5	16	54.4	
S	PB 400	25	G 1 A	41	36	46	54	30	73	50	18	100.0	
S	PB250	30	G 1 1/4 A	50	41	50	62	35.5	78.5	55	20	142.0	
S	PB 250	38	G 1 1/2 A	55	50	60	72	41	89	63	22	200.0	

\* Sample product code, see:  
EVW06LRA3C

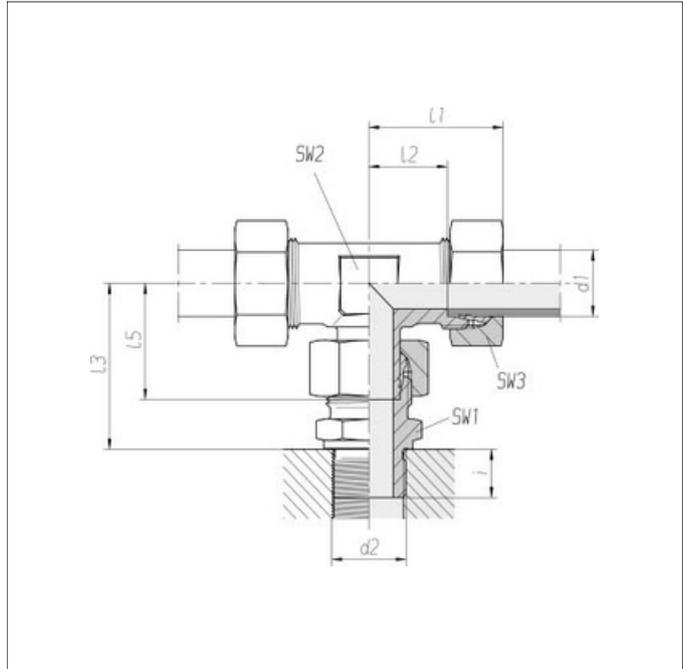
\*\*without union nut and cutting ring

## Adjustable stud branch tees

Male connector

Thread:  
metric fine thread,  
straight

Sealed with seal edge



Series	Pressure	Tube OD	d2	SW1	SW2	SW3	l1 approx.	l2	l3	l5	i	kg/100 approx.
L	PN 315	6	M 10 x 114	12	14	27	12	34.5	26	8	7.2	
L	PN 315	8	M 12 x 1.517	12	17	29	14	37.5	27.5	12	10.3	
L	PN 315	10	M 14 x 1.519	14	19	30	15	40	29	12	12.8	
L	PN 315	12	M 16 x 1.522	17	22	32	17	42	29.5	12	17.6	
L	PN 315	15	M 18 x 1.524	19	27	36	21	46	32.5	12	28.2	
L	PN 315	18	M 22 x 1.527	24	32	40	23.5	50	35.5	14	40.6	
L	PN 160	22	M 26 x 1.532	27	36	44	27.5	55	38.5	16	53.0	
L	PN 160	28	M 33 x 241	36	41	47	30.5	59	41.5	18	54.7	
L	PN 160	35	M 42 x 250	41	50	56	34.5	68.5	51	20	118.0	
L	PN 160	42	M 48 x 255	50	60	63	40	75	56	22	232.0	
S	PB 630*	6	M 12 x 1.517	12	17	31	16	40	27	12	14.2	
S	PB 630*	8	M 14 x 1.519	14	19	32	17	42.5	27.5	12	16.0	
S	PB 630*	10	M 16 x 1.522	17	22	34	17.5	45	30	12	22.0	
S	PB 630*	12	M 18 x 1.524	17	24	38	21.5	48	31	12	27.5	
S	PB 630*	14	M 20 x 1.527	19	27	40	22	54	35	14	26.3	
S	PB400	16	M 22 x 1.527	24	30	43	24.5	55	36.5	14	45.8	
S	PB400	20	M 27 x 232	27	36	48	26.5	65	44.5	16	70.0	
S	PB 400	25	M 33 x 241	36	46	54	30	73	50	18	131.0	
S	PB250	30	M 42 x 250	41	50	62	35.5	78.5	55	20	128.0	
S	PB 250	38	M 48 x 255	50	60	72	41	89	63	22	257.0	

\* Safety factor 2.0

\*\*Sample product code, see:  
EVT06LMA3C

\*\*\*without union nut and cutting ring

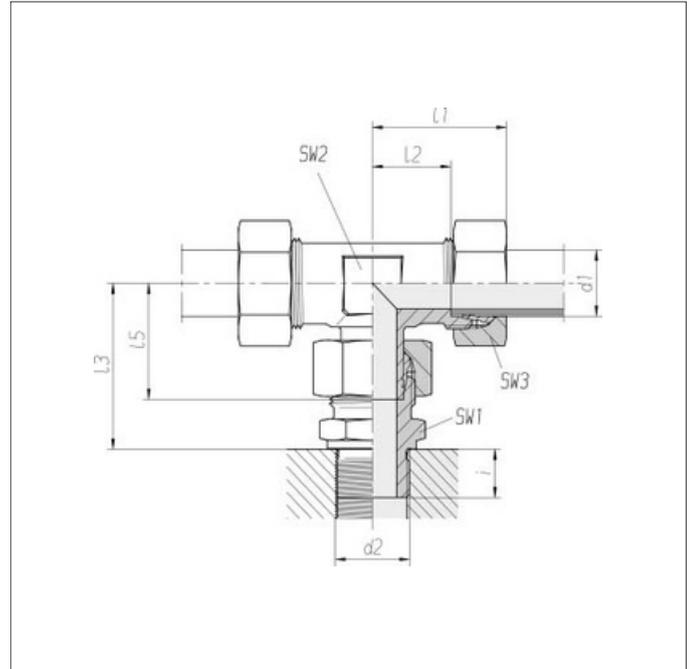
## Adjustable stud branch tees

Male connector

Thread:

Whitworth pipe thread,  
straight

Sealed with seal edge



Series	Pressure	Tube OD	d2	d1	SW1	SW2	SW3	I1 approx.	I2	I3	I5	i	kg/100 approx.
L	PN 315	6	G 1/8 A	14	12	14	27	12	34.5	26	8	7.2	
L	PN 315	8	G 1/4 A	19	12	17	29	14	37.5	27.5	12	10.0	
L	PN 315	10	G 1/4 A	19	14	19	30	15	40	29	12	12.7	
L	PN 315	12	G 3/8 A	22	17	22	32	17	42	29.5	12	17.2	
L	PN 315	15	G 1/2 A	27	19	27	36	21	46.5	32.5	14	30.7	
L	PN 315	18	G 1/2 A	27	24	32	40	23.5	50	35.5	14	40.0	
L	PN 160	22	G 3/4 A	32	27	36	44	27.5	55	38.5	16	53.2	
L	PN 160	28	G 1 A	41	36	41	47	30.5	59	41.5	18	75.3	
L	PN 160	35	1 1/4 A	50	41	50	56	34.5	68.5	51	20	118.0	
L	PN 160	42	1 1/2 A	55	50	60	63	40	75	56	22	231.0	
S	PB 630	6	G 1/4 A	19	12	17	31	16	40	27	12	13.0	
S	PB 630	8	G 1/4 A	19	14	19	32	17	42.5	27.5	12	15.8	
S	PB 630	10	G 3/8 A	22	17	22	34	17.5	45	30	12	22.1	
S	PB 630	12	G 3/8 A	22	17	24	38	21.5	48	31	12	27.2	
S	PB 630	14	G 1/2 A	27	19	27	40	22	54	35	14	38.7	
S	PB 400	16	G 1/2 A	27	24	30	43	24.5	55	36.5	14	45.5	
S	PB 400	20	G 3/4 A	32	27	36	48	26.5	65	44.5	16	70.0	
S	PB 400	25	G 1 A	41	36	46	54	30	73	50	18	132.0	
S	PB 250	30	G 1 1/4 A	50	41	50	62	35.5	78.5	55	20	175.0	
S	PB 250	38	G 1 1/2 A	55	50	60	72	41	89	63	22	257.0	

\* Sample product code, see:  
EVT06LRA3C

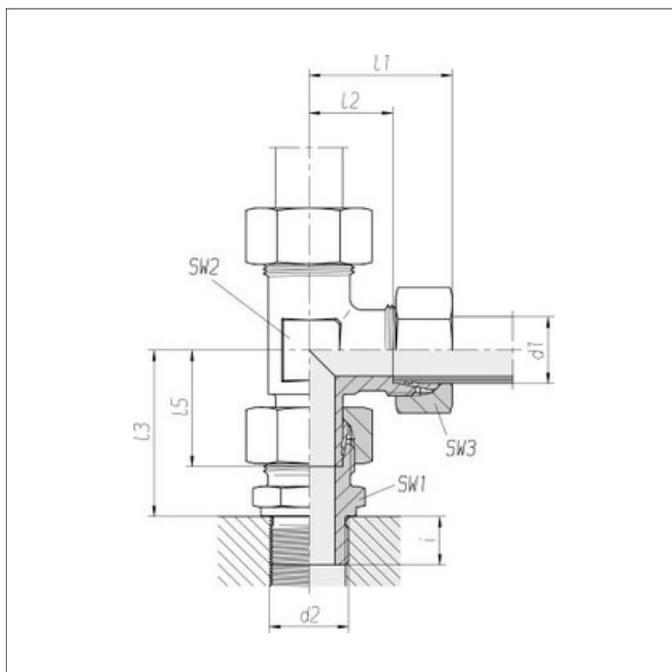
\*\*without union nut and cutting ring

## Adjustable stud barrel tees

Male connector

Thread:  
metric fine thread,  
straight

Sealed with seal edge



Series	Pressure	Tube OD	d2	SW1	SW2	SW3	l1 approx.	l2	l3	l5	i	kg/100 approx.
L	PN 315	6	M 10 x 114	12	14	27	12	34.5	26	8	7.1	
L	PN 315	8	M 12 x 1.517	12	17	29	14	37.5	27.5	12	10.0	
L	PN 315	10	M 14 x 1.519	14	19	30	15	40	29	12	12.8	
L	PN 315	12	M 16 x 1.522	17	22	32	17	42	29.5	12	17.2	
L	PN 315	15	M 18 x 1.524	19	27	36	21	46	32.5	12	28.0	
L	PN 315	18	M 22 x 1.527	24	32	40	23.5	50	35.5	14	40.3	
L	PN 160	22	M 26 x 1.532	27	36	44	27.5	55	38.5	16	54.0	
L	PN 160	28	M 33 x 241	36	41	47	30.5	59	41.5	18	75.4	
L	PN 160	35	M 42 x 250	41	50	56	34.5	68.5	51	20	118.0	
L	PN 160	42	M 48 x 255	50	60	63	40	75	56	22	165.0	
S	PB630*	6	M 12 x 1.517	12	17	31	16	40	27	12	12.4	
S	PB630*	8	M 14 x 1.519	14	19	32	17	42.5	27.5	12	16.9	
S	PB630*	10	M 16 x 1.522	17	22	34	17.5	45	30	12	22.0	
S	PB630*	12	M 18 x 1.524	17	24	38	21.5	48	31	12	28.0	
S	PB 630*	14	M 20 x 1.527	19	27	40	22	54	35	14	37.0	
S	PB400	16	M 22 x 1.527	24	30	43	24.5	55	36.5	14	45.5	
S	PB400	20	M 27 x 232	27	36	48	26.5	65	44.5	16	70.9	
S	PB400	25	M 33 x 241	36	46	54	30	73	50	18	75.0	
S	PB 250	30	M 42 x 250	41	50	62	35.5	78.5	55	20	172.0	
S	PB 250	38	M 48 x 255	50	60	72	41	89	63	22	256.0	

\* Safety factor 2.0

\*\*Sample product code, see:  
EVL06LMA3C

\*\*\*without union nut and cutting ring

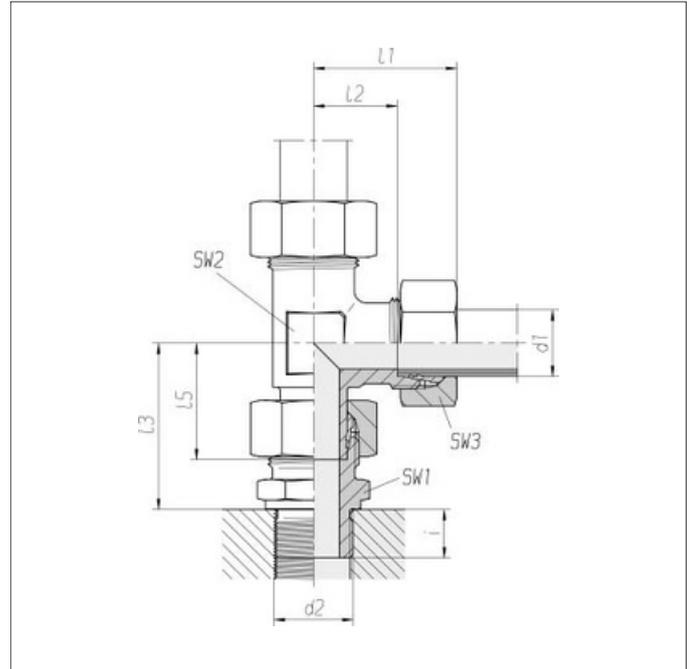
## Adjustable stud barrel tees

Male connector

Thread:

Whitworth pipe thread,  
straight

Sealed with seal edge



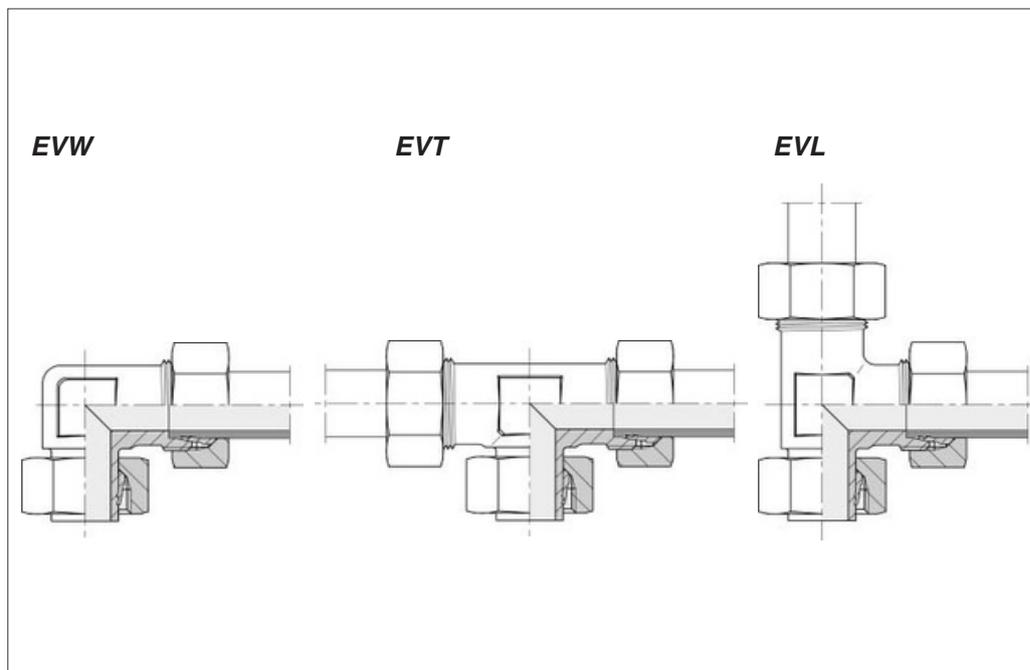
Series	Pressure	Tube OD	d2	d1	SW1	SW2	SW3	I1 approx.	I2	I3	I5	i	kg/100 approx.
L	PN 315	6	G 1/8 A	14	12	14	27	12	34.5	26	8	7.0	
L	PN 315	8	G 1/4 A	19	12	17	29	14	37.5	27.5	12	10.8	
L	PN 315	10	G 1/4 A	19	14	19	30	15	40	29	12	12.8	
L	PN 315	12	G 3/8 A	22	17	22	32	17	42	29.5	12	18.0	
L	PN 315	15	G 1/2 A	27	19	27	36	21	46.5	32.5	14	30.0	
L	PN 315	18	G 1/2 A	27	24	32	40	23.5	50	35.5	14	39.5	
L	PN 160	22	G 3/4 A	32	27	36	44	27.5	55	38.5	16	54.0	
L	PN 160	28	G 1 A G	41	36	41	47	30.5	59	41.5	18	73.1	
L	PN 160	35	1 1/4 A G	50	41	50	56	34.5	68.5	51	20	118.0	
L	PN 160	42	1 1/2 A	55	50	60	63	40	75	56	22	183.0	
S	PB 630	6	G 1/4 A	19	12	17	31	16	40	27	12	12.8	
S	PB 630	8	G 1/4 A	19	14	19	32	17	42.5	27.5	12	16.1	
S	PB 630	10	G 3/8 A	22	17	22	34	17.5	45	30	12	22.1	
S	PB 630	12	G 3/8 A	22	17	24	38	21.5	48	31	12	26.3	
S	PB 630	14	G 1/2 A	27	19	27	40	22	54	35	14	38.0	
S	PB400	16	G 1/2 A	27	24	30	43	24.5	55	36.5	14	45.4	
S	PB400	20	G 3/4 A	32	27	36	48	26.5	65	44.5	16	71.0	
S	PB400	25	G 1 A	41	36	46	54	30	73	50	18	130.0	
S	PB250	30	G 1 1/4 A	50	41	50	62	35.5	78.5	55	20	177.0	
S	PB 250	38	G 1 1/2 A	55	50	60	72	41	89	63	22	255.0	

\* Sample product code, see:  
EVL06LRA3C

\*\*without union nut and cutting ring

## Adjustable stud couplings

Male connector  
 Component parts  
 Tube socket pre-assembled  
 Cutting ring connection  
 at tube end

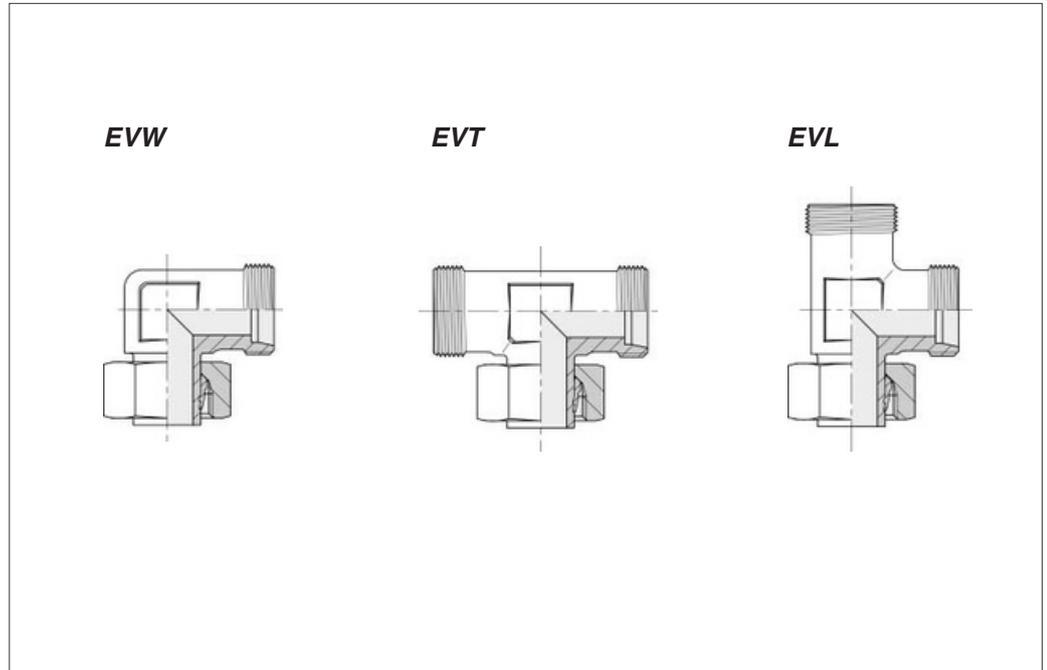


Series	Pressure	Tube OD d1	kg/100 approx.	Order No. EVW	kg/100 approx.	Order No. EVT	kg/100 approx.
L	PN 315	6	3.9	0 1 58 02 20 07*	6.0	0 1 60 02 20 07*	5.7
L	PN 315	8	5.5	0 1 58 07 20 07	8.0	0 1 60 07 20 07	8.0
L	PN 315	10	7.0	0 1 58 12 20 07	10.0	0 1 60 12 20 07	10.1
L	PN 315	12	9.5	0 1 58 17 20 07	13.2	0 1 60 17 20 07	13.2
L	PN 315	15	16.5	0 1 58 22 20 07	23.5	0 1 60 22 20 07	23.2
L	PN 315	18	24.7	0 1 58 27 20 07	34.7	0 1 60 27 20 07	34.9
L	PN 160	22	32.6	0 1 58 32 20 07	42.3	0 1 60 32 20 07	43.7
L	PN 160	28	43.0	0 1 58 37 20 07	58.6	0 1 60 37 20 07	59.5
L	PN 160	35	66.2	0 1 58 42 20 07	90.3	0 1 60 42 20 07	90.8
L	PN 160	42	100.0	0 1 58 47 20 07	146.0	0 1 60 47 20 07	148.0
S	PN 630	6	6.5	0 1 58 52 20 07	9.6	0 1 60 52 20 07	9.6
S	PN 630	8	8.0	0 1 58 57 20 07	12.0	0 1 60 57 20 07	12.0
S	PN 630	10	11.7	0 1 58 62 20 07	17.2	0 1 60 62 20 07	17.1
S	PN 630	12	14.6	0 1 58 67 20 07	20.4	0 1 60 67 20 07	21.0
S	PN 630	14	20.0	0 1 58 72 20 07	28.2	0 1 60 72 20 07	29.1
S	PN 400	16	25.2	0 1 58 77 20 07	36.2	0 1 60 77 20 07	37.3
S	PN 400	20	38.2	0 1 58 82 20 07	55.0	0 1 60 82 20 07	57.2
S	PN 400	25	75.0	0 1 58 87 20 07	105.0	0 1 60 87 20 07	105.0
S	PN 400	30	93.0	0 1 58 92 20 07	130.0	0 1 60 92 20 07	130.0
S	PN 315	38	140.0	0 1 58 97 20 07	193.0	0 1 60 97 20 07	196.0

\* Sample product code, see:  
 EVW06L  
 ISO8434-1-SWEC-L6-St  
 EVT06L  
 ISO8434-1-SWBTC-L6-St  
 EVL06L  
 ISO8434-1-SWRTC-L6-St

# Adjustable stud couplings

Male connector  
Component parts  
Tube socket pre-assembled

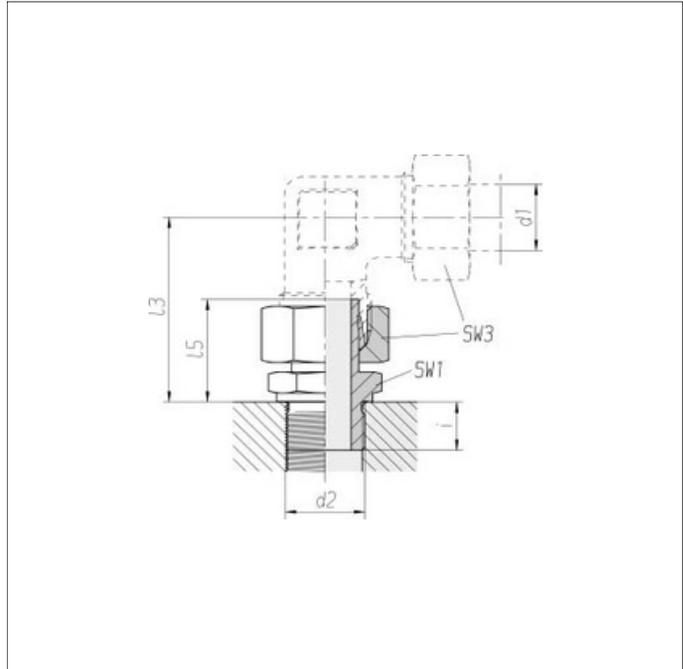


Series	Pressure	Tube OD d1	kg/100 approx.	Order No. EVW	kg/100 approx.	Order No. EVT	kg/100 approx.
L	PN 315	6	2.8	0 1 58 03 20 07*	3.7	0 1 60 03 20 07*	3.4
L	PN 315	8	3.8	0 1 58 08 20 07	4.8	0 1 60 08 20 07	4.7
L	PN 315	10	5.1	0 1 58 13 20 07	5.9	0 1 60 13 20 07	6.0
L	PN 315	12	6.6	0 1 58 18 20 07	7.8	0 1 60 18 20 07	7.7
L	PN 315	15	11.5	0 1 58 23 20 07	14.2	0 1 60 23 20 07	13.7
L	PN 315	18	17.8	0 1 58 28 20 07	20.9	0 1 60 28 20 07	21.2
L	PN 160	22	23.5	0 1 58 33 20 07	26.9	0 1 60 33 20 07	27.0
L	PN 160	28	33.8	0 1 58 38 20 07	38.8	0 1 60 38 20 07	38.9
L	PN 160	35	57.8	0 1 58 43 20 07	66.0	0 1 60 43 20 07	66.1
L	PN 160	42	86.7	0 1 58 48 20 07	99.5	0 1 60 48 20 07	100.0
S	PN 630	6	4.6	0 1 58 53 20 07	5.7	0 1 60 53 20 07	5.6
S	PN 630	8	5.9	0 1 58 58 20 07	7.4	0 1 60 58 20 07	7.5
S	PN 630	10	8.2	0 1 58 63 20 07	10.0	0 1 60 63 20 07	9.9
S	PN 630	12	10.7	0 1 58 68 20 07	13.5	0 1 60 68 20 07	13.4
S	PN 630	14	13.9	0 1 58 73 20 07	17.2	0 1 60 73 20 07	17.0
S	PN 400	16	20.0	0 1 58 78 20 07	24.0	0 1 60 78 20 07	22.7
S	PN 400	20	29.4	0 1 58 83 20 07	34.8	0 1 60 83 20 07	34.8
S	PN 400	25	54.3	0 1 58 88 20 07	63.0	0 1 60 88 20 07	61.6
S	PN 400	30	76.6	0 1 58 93 20 07	86.2	0 1 60 93 20 07	91.4
S	PN 315	38	101.0	0 1 58 98 20 07	125.0	0 1 60 98 20 07	130.0

\* Sample product code, see:  
EVW06L  
ISO8434-1-SWE-L6-St  
EVT06L  
ISO8434-1-SWBT-L6-St  
EVL06L  
ISO8434-1-SWRT-L6-St

## Straight stud standpipe adapters

Thread:  
metric fine thread,  
straight  
Sealed with seal edge  
Tube socket pre-assembled



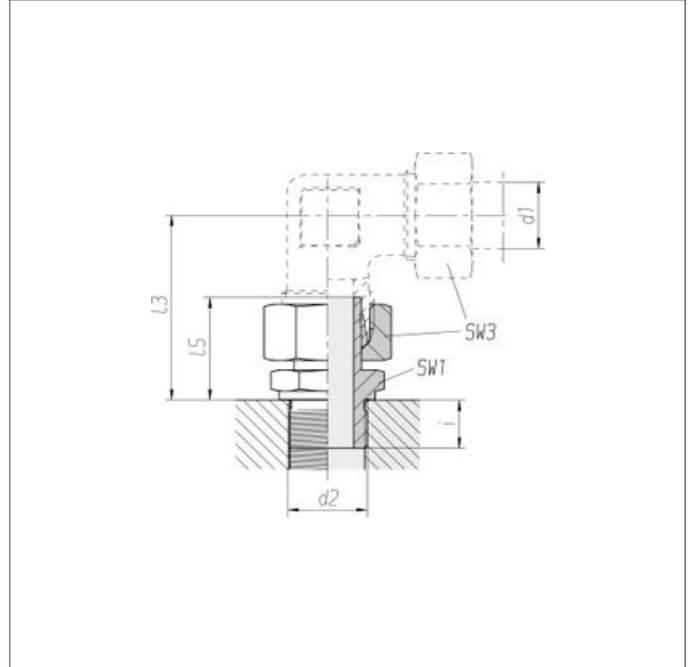
Series	Pressure	Tube OD d1	d2	SW1	SW3	l3	l5	i	Nm -10 %	kg/100 approx.
L	PN 315	6	M 10 x 1	14	14	36.5	24.5	8	25	2.4
L	PN 315	8	M 12 x 1.5	17	17	40.5	26.5	12	35	3.9
L	PN 315	10	M 14 x 1.5	19	19	42.5	27.5	12	50	4.9
L	PN 315	12	M 16 x 1.5	22	22	47.5	30.5	12	80	6.9
L	PN 315	15	M 18 x 1.5	24	27	52.5	31.5	12	100	9.7
L	PN 315	18	M 22 x 1.5	27	32	55	31.5	14	160	13.6
L	PN 160	22	M 26 x 1.5	32	36	60	32.5	16	220	18.7
L	PN 160	28	M 33 x 2	41	41	65.5	35	18	300	26.9
L	PN 160	35	M 42 x 2	50	50	77	42.5	20	500	45.7
L	PN 160	42	M 48 x 2	55	60	86.5	46.5	22	600	60.7
S	PB 630*	6	M 12 x 1.5	17	17	43	27	12	50	4.4
S	PB 630*	8	M 14 x 1.5	19	19	46.5	29.5	12	60	5.9
S	PB 630*	10	M 16 x 1.5	22	22	49.5	32	12	100	8.3
S	PB 630*	12	M 18 x 1.5	24	24	55.5	34	12	120	10.5
S	PB 630*	14	M 20 x 1.5	27	27	58.5	36.5	14	170	14.7
S	PB 400	16	M 22 x 1.5	27	30	61.5	37	14	190	17.0
S	PB 400	20	M 27 x 2	32	36	69.5	43	16	300	25.3
S	PB 400	25	M 33 x 2	41	46	78	48	18	450	48.8
S	PB 250	30	M 42 x 2	50	50	86.5	51	20	600	65.9
S	PB 250	38	M 48 x 2	55	60	101	60	22	700	90.0

\* Safety factor 2.0

\*\*Sample product code, see:  
EVGE06LMA3C  
ISO8434-1-  
SW-L6XM10X1-typeB-St

## Straight stud standpipe adapters

Thread:  
Whitworth pipe thread,  
straight  
Sealed with seal edge  
Tube socket pre-assembled

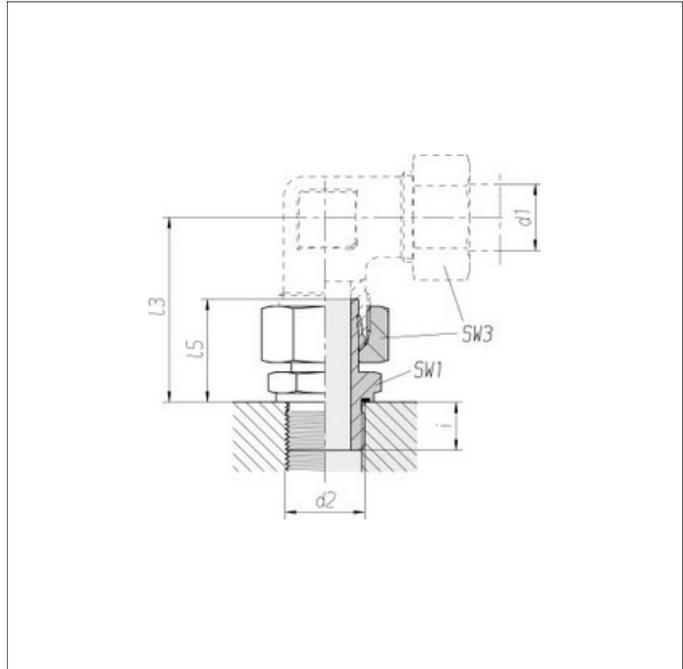


Series	Pressure	Tube OD d1	d2	SW1	SW3	I3	I5	i	Nm -10 %	kg/100 approx.
L	PN 315	6	G 1/8 A	14	14	36.5	24.5	8	25	2.4
L	PN 315	8	G 1/4 A	19	17	43.5	29.5	12	50	4.6
L	PN 315	10	G 1/4 A	19	19	42.5	27.5	12	50	4.7
L	PN 315	12	G 1/4 A	19	22	50.5	33.5	12	50	7.8
L	PN 315	12	G 3/8 A	22	22	51	34	12	80	8.1
L	PN 315	12	G 1/2 A	27	22	51.5	34.5	14	170	10.2
L	PN 315	15	G 3/8 A	22	27	52.5	31.5	12	80	10.2
L	PN 315	15	G 1/2 A	27	27	53	32	14	170	11.8
L	PN 315	18	G 1/2 A	27	32	55	31.5	14	170	13.4
L	PN 160	22	G 3/4 A	32	36	60	32.5	16	240	18.7
L	PN 160	28	G 1 A G	41	41	65.5	35	18	370	27.1
L	PN 160	35	1 1/4 A G	50	50	77	42.5	20	600	42.6
L	PN 160	42	1 1/2 A	55	60	86.5	46.5	22	700	60.7
S	PB 630	6	G 1/4 A	19	17	43	27	12	60	4.9
S	PB 630	8	G 1/4 A	19	19	46.5	29.5	12	60	5.8
S	PB 630	10	G 3/8 A	22	22	49.5	32	12	110	8.7
S	PB 630	12	G 1/4 A	19	24	55	33.5	12	60	9.2
S	PB 630	12	G 3/8 A	22	24	55.5	34	12	110	10.0
S	PB 630	14	G 1/2 A	27	27	58.5	36.5	14	200	15.3
S	PB	16	G 1/2 A	27	30	61.5	37	14	200	16.1
S	400	20	G 3/4 A	32	36	69.5	43	16	320	26.1
S	PB	25	G 1 A	41	46	78	48	18	500	48.5
S	PB	30	G 1 1/4 A	50	50	86.5	51	20	600	67.2
S	400	38	G 1 1/2 A	55	60	101	60	22	800	96.0
	PB	250								

\* Sample product code, see:  
EVGE06LRA3C  
ISO8434-1-SW-L6XG1/8A-typeB-St

## Straight stud standpipe adapters

Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal  
Tube socket pre-assembled

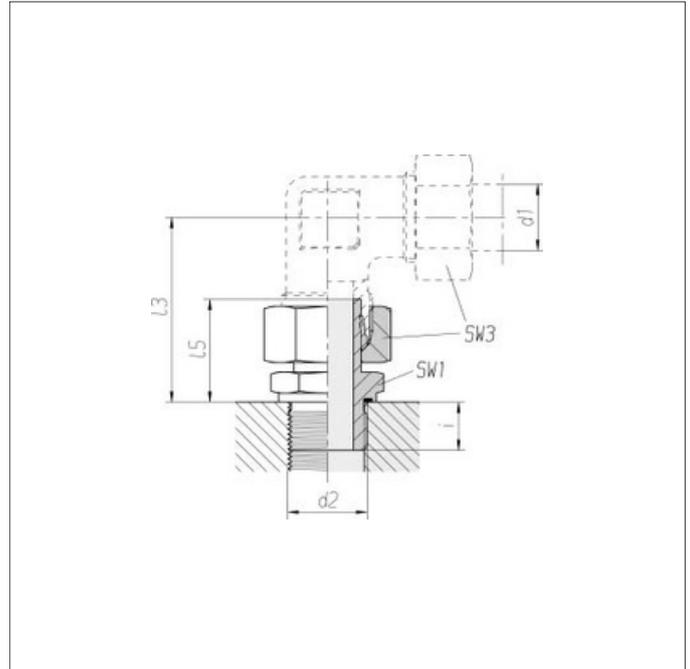


Series	Pressure	Tube OD d1	d2	SW1	SW3	l3	l5	i	Nm -10 %	kg/100 approx.
L	PN 315	6	M 10 x 1	14	14	36.5	24.5	8	15	2.3
L	PN 315	8	M 12 x 1.5	17	17	40.5	26.5	12	25	3.9
L	PN 315	10	M 14 x 1.5	19	19	42.5	27.5	12	50	4.9
L	PN 315	12	M 16 x 1.5	22	22	47.5	30.5	12	70	6.9
L	PN 315	15	M 18 x 1.5	24	27	52.5	31.5	12	90	9.8
L	PN 315	18	M 22 x 1.5	27	32	55	31.5	14	130	14.0
L	PN 160	22	M 26 x 1.5	32	36	60	32.5	16	180	19.5
L	PN 160	28	M 33 x 2	41	41	65.5	35	18	230	27.0
L	PN 160	35	M 42 x 2	50	50	77	42.5	20	330	45.3
L	PN 160	42	M 48 x 2	55	60	86.5	46.5	22	500	64.1
S	PN 630	6	M 12 x 1.5	17	17	43	27	12	50	4.3
S	PN 630	8	M 14 x 1.5	19	19	46.5	29.5	12	60	6.0
S	PN 630	10	M 16 x 1.5	22	22	49.5	32	12	80	8.6
S	PN 630	12	M 18 x 1.5	24	24	55.5	34	12	90	10.9
S	PN 630	14	M 20 x 1.5	27	27	58.5	36.5	14	130	14.6
S	PN 400	16	M 22 x 1.5	27	30	61.5	37	14	130	16.5
S	PN 400	20	M 27 x 2	32	36	69.5	43	16	200	25.4
S	PN 400	25	M 33 x 2	41	46	78	48	18	250	48.6
S	PN 400	30	M 42 x 2	50	50	86.5	51	20	500	66.2
S	PN 315	38	M 48 x 2	55	60	101	60	22	600	93.3

\*Sample product code, see:  
EVGE06LMEDA3C  
ISO8434-1-SW-L6XM10X1-typeE-St

## Straight stud standpipe adapters

Thread:  
Whitworth pipe thread,  
straight  
Sealed with PEFLEX seal  
Tube socket pre-assembled

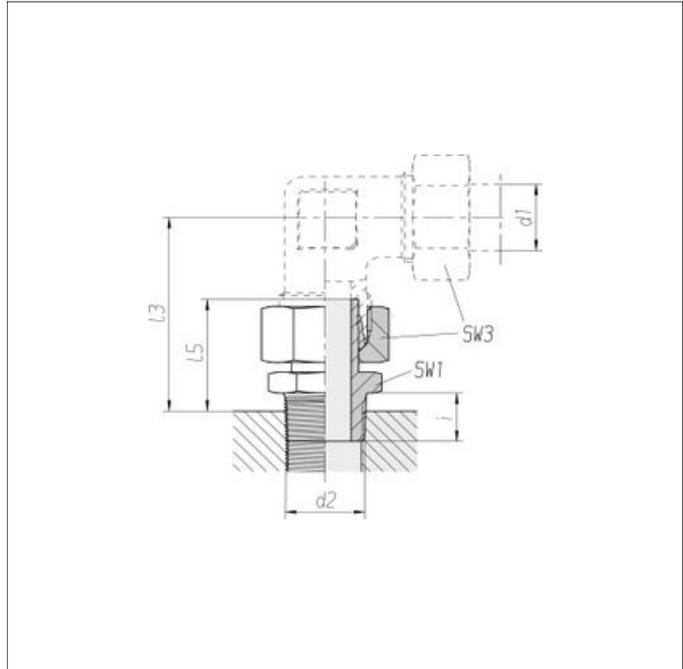


Series	Pressure	Tube OD d1	d2	SW1	SW3	l3	l5	i	Nm -10 %	kg/100 approx.
L	PN 315	6	G 1/8 A	14	14	36.5	24.5	8	20	2.3
L	PN 315	8	G 1/4 A	19	17	43.5	29.5	12	50	4.6
L	PN 315	10	G 1/4 A	19	19	42.5	27.5	12	50	4.6
L	PN 315	12	G 1/4 A	19	22	50.5	33.5	12	50	7.1
L	PN 315	12	G 3/8 A	22	22	51	34	12	80	8.1
L	PN 315	12	G 1/2 A	27	22	51.5	34.5	14	100	9.9
L	PN 315	15	G 1/2 A	27	27	53	32	14	100	11.7
L	PN 315	18	G 1/2 A	27	32	55	31.5	14	100	13.5
L	PN 160	22	G 1/2 A	27	36	60	32.5	14	100	17.2
L	PN 160	22	G 3/4 A	32	36	60	32.5	16	180	18.4
L	PN 160	28	G 1 A G	41	41	65.5	35	18	230	26.9
L	PN 160	35	1 1/4 A G	50	50	77	42.5	20	330	43.9
L	PN 160	42	1 1/2 A	55	60	86.5	46.5	22	500	62.3
S	PN 630	6	G 1/4 A	19	17	43	27	12	60	4.8
S	PN 630	8	G 1/4 A	19	19	46.5	29.5	12	60	5.7
S	PN 630	10	G 3/8 A	22	22	49.5	32	12	90	8.7
S	PN 630	12	G 3/8 A	22	24	55.5	34	12	90	9.9
S	PN 630	12	G 1/2 A	27	24	56	34.5	14	150	12.4
S	PN 630	14	G 1/2 A	27	27	58.5	36.5	14	150	15.3
S	PN 400	16	G 1/2 A	27	30	61.5	37	14	150	16.2
S	PN 400	20	G 3/4 A	32	36	69.5	43	16	200	25.8
S	PN 400	25	G 1 A G	41	46	78	48	18	250	48.8
S	PN 400	30	1 1/4 A	50	50	86.5	51	20	500	66.7
S	PN 315	38	G 1 1/2 A	55	60	101	60	22	600	95.3

\* Sample product code, see:  
EVGE06LREDA3C  
ISO8434-1-SW-L6XG1/8A-typeE-St

## Straight stud standpipe adapters

Thread:  
NPT (ANSI/ASME B 1  
-20.01/01/1983)  
Tube socket pre-assembled

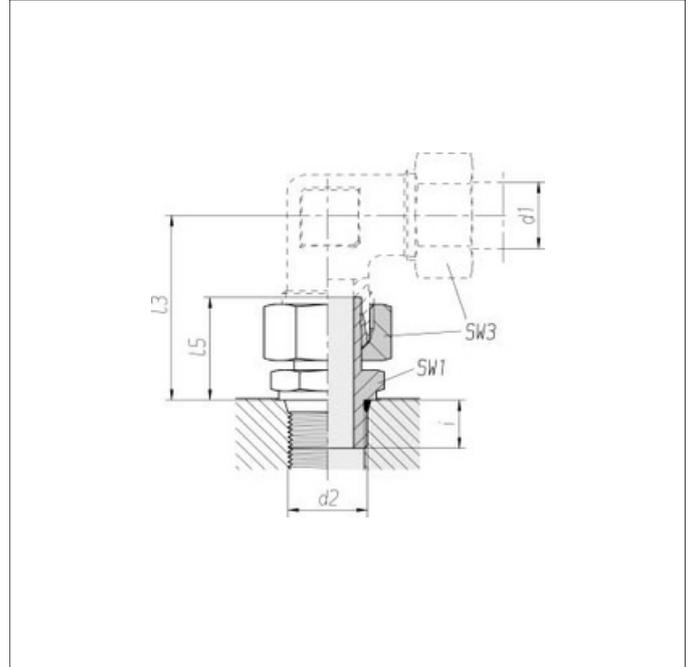


Series	Pressure	Tube OD d1	d2	SW1	SW3	l3 approx.	l5 approx.	i	Nm -10 %	kg/100 approx.
L	PN 315	6	1/8 NPT	11	14	38.5	26.5	9.9	15	2.1
L	PN 315	8	1/4 NPT	14	17	43.5	29.5	15.1	35	4.0
L	PN 315	10	1/4 NPT	14	19	45.5	30.5	15.1	35	4.3
L	PN 315	12	3/8 NPT	19	22	50	33	15.2	55	6.8
L	PN 315	15	1/2 NPT	22	27	56.5	35.5	19.8	110	11.4
L	PN 315	18	1/2 NPT	22	32	58.5	35	19.8	110	13.0
L	PN 160	22	3/4 NPT	27	36	63.5	36	20.1	175	17.6
L	PN 160	28	1 NPT	36	41	71	40.5	25	265	26.8
L	PN 160	35	1 1/4 NPT	46	50	83	48.5	25.6	315	42.8
L	PN 160	42	1 1/2 NPT	50	60	92.5	52.5	26	385	57.5
S	PN 630	6	1/4 NPT	14	17	46	30	15.1	35	4.3
S	PN 630	8	1/4 NPT	14	19	49.9	32.5	15.1	35	4.8
S	PN 630	10	3/8 NPT	19	22	52	34.5	15.2	55	8.0
S	PN 630	12	3/8 NPT	19	24	58	36.5	15.2	55	9.0
S	PN 630	14	1/2 NPT	22	27	62	40	19.8	110	13.7
S	PN 400	16	1/2 NPT	22	30	65	40.5	19.8	110	15.2
S	PN 400	20	3/4 NPT	27	36	73	46.5	20.1	175	23.9
S	PN 400	25	1 NPT	36	46	83.5	53.5	25	265	46.0
S	PN 400	30	1 1/4 NPT	46	50	92.5	57	25.6	315	65.1
S	PN 315	38	1 1/2 NPT	50	60	107	66	26	385	86.4

\* Sample product code, see:  
EVGE06L1/8NPTA3C

## Straight stud standpipe adapters

Thread:  
UN/UNF  
ISO 11926-2/3  
SAE J 514  
Sealed with O-ring  
Tube socket pre-assembled

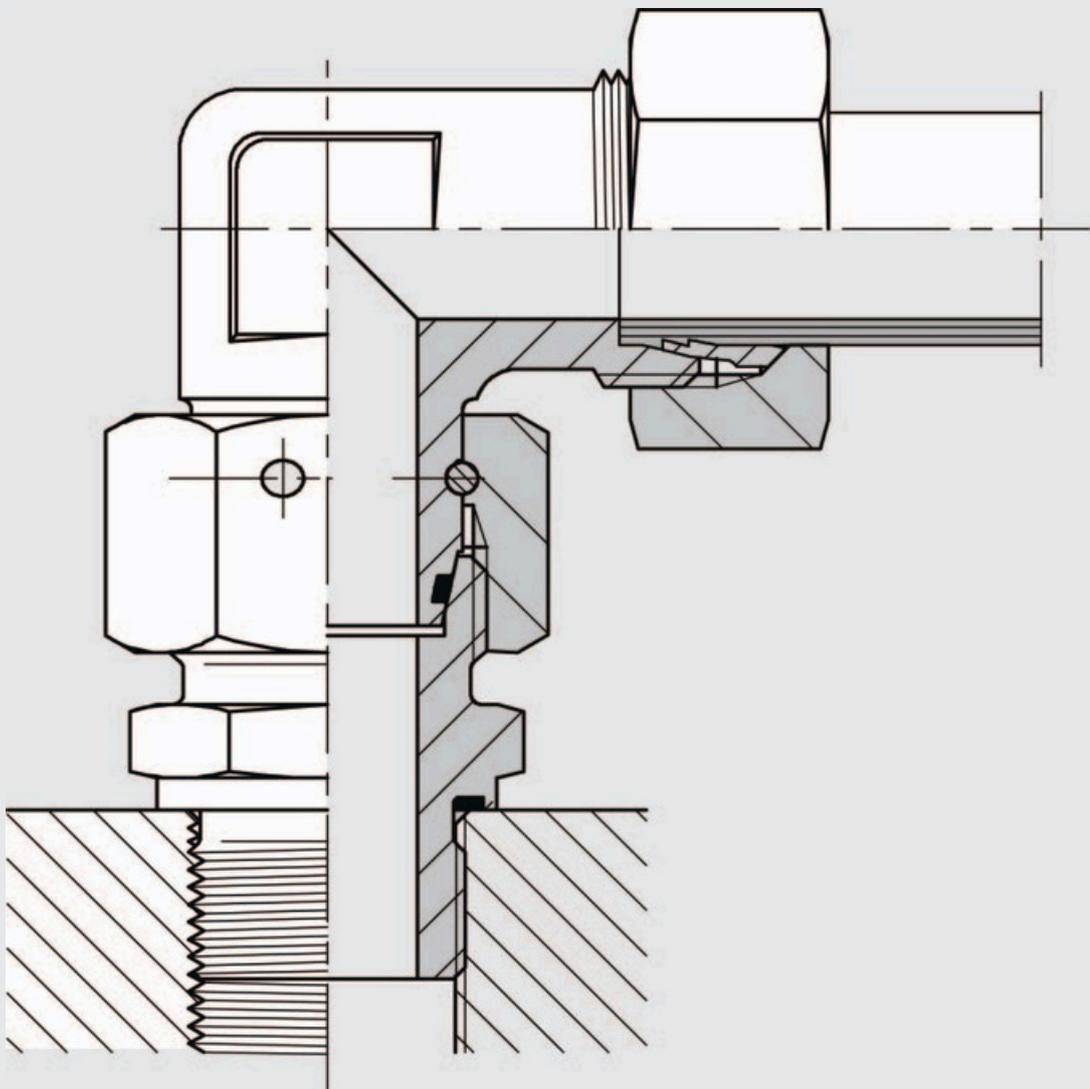


Series	Pressure	Tube OD d1	d2	SW1	SW3	l3	l5	i	Nm -10 %	kg/100 approx.
L	PN 315	8	7/16-20 UNF-2A	17	17	41.5	27.5	9.2	18	3.9
L	PN 315	10	9/16-18 UNF-2A	19	19	43	28	10.0	30	7.6
L	PN 315	12	3/4 -16 UNF-2A	24	22	52.5	31.5	11.2	50	10.0
L	PN 315	15	3/4 -16 UNF-2A	24	27	53.5	32.5	11.2	50	10.0
L	PN 315	18	3/4 -16 UNF-2A	24	32	55.5	32	11.2	50	12.3
L	PN 315	18	7/8 -14 UNF-2A	27	32	55.5	32	12.7	60	14.1
L	PN 160	22	7/8 -14 UNF-2A	27	36	60	32.5	12.7	60	15.4
L	PN 160	22	1 1/16-12 UN -2A	36	36	60	32.5	15.0	95	27.6
L	PN 160	28	1 5/16-12 UN -2A	41	41	65.5	35	15.0	150	**
S	PN 630	8	7/16-20 UNF-2A	17	19	54	37	9.2	20	**
S	PN 630	10	9/16-18 UNF-2A	19	22	49.5	32	10.0	35	9.3
S	PN 630	10	3/4 -16 UNF-2A	24	22	50	32.5	11.2	70	10.0
S	PN 630	12	7/16-20 UNF-2A	17	24	50.5	29	9.2	20	8.1
S	PN 630	12	3/4 -16 UNF-2A	24	24	54	32.5	11.2	70	10.0
S	PN 630	14	3/4 -16 UNF-2A	24	27	58.5	36.5	11.2	70	13.6
S	PN 400	16	3/4 -16 UNF-2A	24	30	56.5	32	11.2	70	17.1
S	PN 400	16	7/8 -14 UNF-2A	27	30	59.5	35	12.7	100	14.9
S	PN 400	20	7/8 -14 UNF-2A	30	36	68.5	42	12.7	100	**
S	PN 400	20	1 1/16-12 UN -2A	36	36	68.5	42	15.0	170	21.0
S	PN 400	20	1 5/8 -12 UN -2A	50	36	71.5	45	15.0	285	** **
S	PN 400	25	1 1/16-12 UN -2A	32	46	78	48	15.0	170	** **
S	PN 400	25	1 5/16-12 UN -2A	41	46	77	47	15.0	270	
S	PN 400	30	1 5/8 -12 UN -2A	50	50	86.5	51	15.0	285	

\* Sample product code, see:  
EVGE08L7/16UNFA3C

\*\*On request

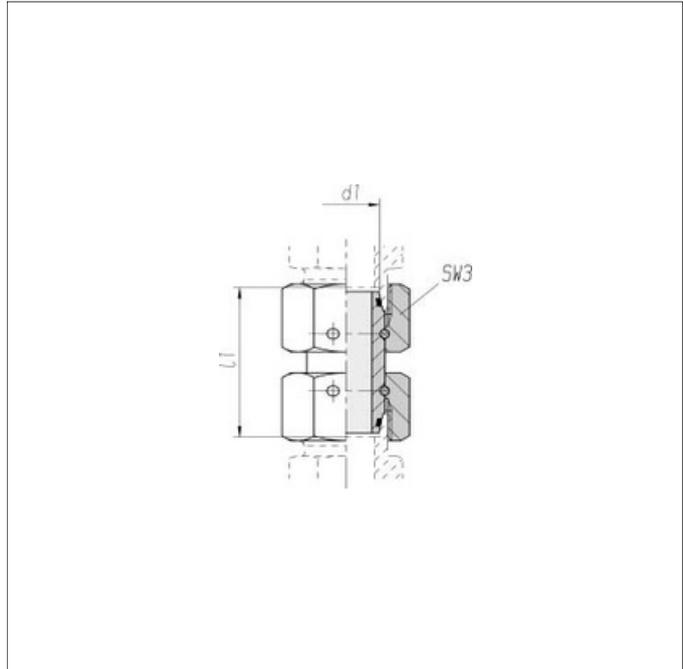
*24° taper couplings*



*Experience plus ideas*

## Straight couplings

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1

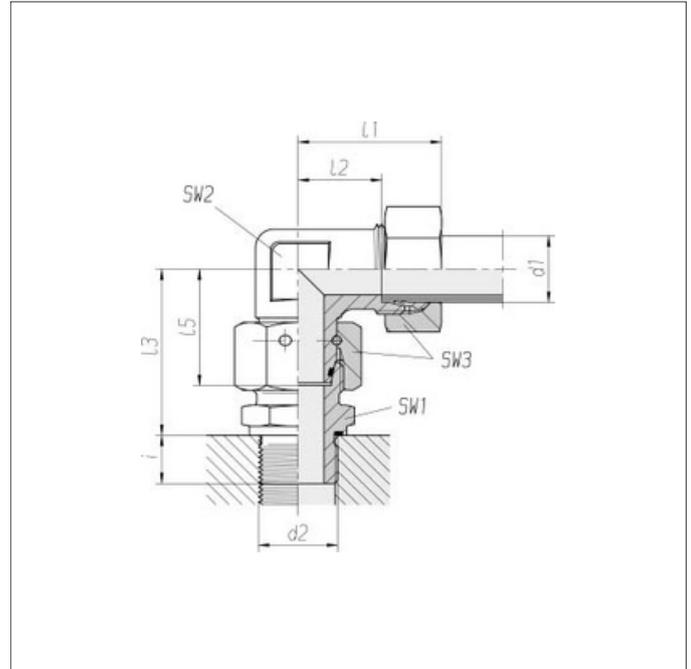


Series	Pressure	Tube OD d1	SW3	l1	kg/100 approx.
L	PN 315	6	14	39	3.1
L	PN 315	8	17	39.5	4.5
L	PN 315	10	19	39.5	5.7
L	PN 315	12	22	39.5	7.8
L	PN 315	15	27	42.5	14.4
L	PN 315	18	32	45	17.7
L	PN 160	22	36	49.5	23.3
L	PN 160	28	41	51.5	29.1
L	PN 160	35	50	61	45.9
L	PN 160	42	60	62.5	75.6
S	PN 630	6	17	40.5	4.9
S	PN 630	8	19	40.5	6.1
S	PN 630	10	22	43.5	8.4
S	PN 630	12	24	44	10.1
S	PN 630	14	27	48.5	14.8
S	PN 400	16	30	49	18.0
S	PN 400	20	36	60.5	28.2
S	PN 400	25	46	67.5	52.8
S	PN 400	30	50	72.5	63.2
S	PN 315	38	60	83	93.2

\* Sample product code, see:  
GZ06LA3C

## Adjustable stud elbows

With taper and O-ring  
Cutting ring connection  
at tube end  
Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube OD	d2	SW1	SW2	SW3	l1	l2	l3	l5	i	kg/100
		d1					approx.					approx.
L	PN 315	6	M 10 x 1	14	12	14	27	12	34.5	26	8	6.6
L	PN 315	8	M 12 x 1.5	17	14	17	29	14	37.5	27.5	12	9.8
L	PN 315	10	M 14 x 1.5	19	14	19	30	15	40	29	12	13.7
L	PN 315	12	M 16 x 1.5	22	19	22	32	17	42	29.5	12	17.4
L	PN 315	15	M 18 x 1.5	24	19	27	36	21	46	32.5	12	22.3
L	PN 315	18	M 22 x 1.5	27	24	32	40	23.5	50	35.5	14	31.3
L	PN 160	22	M 26 x 1.5	32	27	36	44	27.5	55	38.5	16	42.6
L	PN 160	28	M 33 x 2	41	36	41	47	30.5	59	41.5	18	60.1
L	PN 160	35	M 42 x 2	50	41	50	56	34.5	68.5	51	20	100.1
L	PN 160	42	M 48 x 2	55	50	60	63	40	75	56	22	148.6
S	PN 630	6	M 12 x 1.5	17	14	17	31	16	40	27	12	11.2
S	PN 630	8	M 14 x 1.5	19	17	19	32	17	42.5	27.5	12	12.9
S	PN 630	10	M 16 x 1.5	22	19	22	34	17.5	45	30	12	17.0
S	PN 630	12	M 18 x 1.5	24	17	24	38	21.5	48	31	12	20.9
S	PN 630	14	M 20 x 1.5	27	19	27	40	22	54	35	14	29.3
S	PN 400	16	M 22 x 1.5	27	24	30	43	24.5	55	36.5	14	34.8
S	PN 400	20	M 27 x 2	32	27	36	48	26.5	65	44.5	16	55.7
S	PN 400	25	M 33 x 2	41	36	46	54	30	73	50	18	102.4
S	PN 400	30	M 42 x 2	50	41	50	62	35.5	78.5	55	20	140.5
S	PN 315	38	M 48 x 2	55	50	60	72	41	89	63	22	208.5

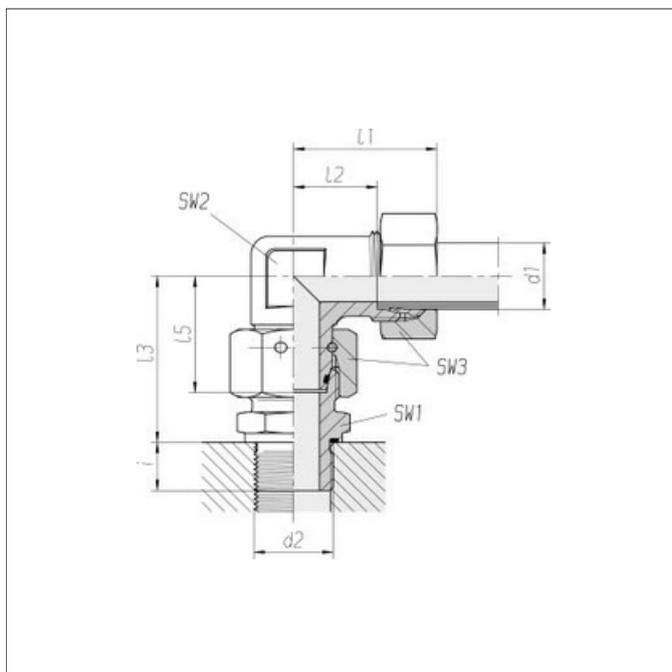
\* Sample product code, see:  
EW06LMEDA3C

\*\*without union nut and cutting ring

## Adjustable stud elbows

With taper and O-ring  
Cutting ring connection  
at tube end

Thread:  
Whitworth pipe thread,  
straight  
Sealed with PEFLEX seal



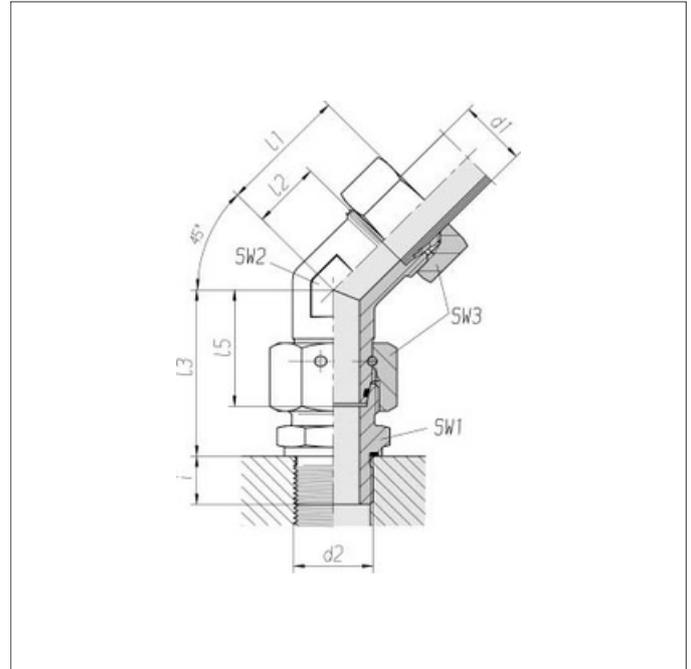
Series	Pressure	Tube OD	d2		SW1	SW2	SW3	l1	l2	l3	l5	i	kg/100
				d1									
					approx.								
L	PN 315	6	G 1/8 A	14	12	14	27	12	34.5	26	8	6.6	
L	PN 315	8	G 1/4 A	19	14	17	29	14	37.5	27.5	12	10.3	
L	PN 315	10	G 1/4 A	19	14	19	30	15	40	29	12	13.6	
L	PN 315	12	G 3/8 A	22	19	22	32	17	42	29.5	12	17.6	
L	PN 315	15	G 1/2 A	27	19	27	36	21	46.5	32.5	14	24.3	
L	PN 315	18	G 1/2 A	27	24	32	40	23.5	50	35.5	14	30.8	
L	PN 160	22	G 3/4 A	32	27	36	44	27.5	55	38.5	16	43.1	
L	PN 160	28	G 1 A G	41	36	41	47	30.5	59	41.5	18	60.3	
L	PN 160	35	1 1/4 A G	50	41	50	56	34.5	68.5	51	20	99.5	
L	PN 160	42	1 1/2 A	55	50	60	63	40	75	56	22	148.3	
S	PN 630	6	G 1/4 A	19	14	17	31	16	40	27	12	11.8	
S	PN 630	8	G 1/4 A	19	17	19	32	17	42.5	27.5	12	12.8	
S	PN 630	10	G 3/8 A	22	19	22	34	17.5	45	30	12	17.2	
S	PN 630	12	G 3/8 A	22	17	24	38	21.5	48	31	12	20.0	
S	PN 630	14	G 1/2 A	27	19	27	40	22	54	35	14	29.4	
S	PN 400	16	G 1/2 A	27	24	30	43	24.5	55	36.5	14	34.7	
S	PN 400	20	G 3/4 A	32	27	36	48	26.5	65	44.5	16	55.3	
S	PN 400	25	G 1 A G	41	36	46	54	30	73	50	18	102.0	
S	PN 400	30	1 1/4 A	50	41	50	62	35.5	78.5	55	20	140.5	
S	PN 315	38	G 1 1/2 A	55	50	60	72	41	89	63	22	207.7	

\* Sample product code, see:  
EW06LREDA3C

\*\*without union nut and cutting ring

## Adjustable 45° stud elbows

With taper and O-ring  
Cutting ring connection  
at tube end  
Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube OD	d2	d1	SW1	SW2	SW3	I1 approx.	I2	I3	I5	i	kg/100 approx.
L	PN 315	6	M 10 x 1	14	19	14	29	14	34.5	26	8	*	
L	PN 315	8	M 12 x 1.5	17	19	17	30	15	37.5	27.5	12	*	
L	PN 315	10	M 14 x 1.5	19	19	19	31	16	40	29	12	*	
L	PN 315	12	M 16 x 1.5	22	19	22	32	17	42	29.5	12	*	
L	PN 315	15	M 18 x 1.5	24	19	27	32	17	46	32.5	12	*	
L	PN 315	18	M 22 x 1.5	27	24	32	35.5	19	50	35.5	14	*	
L	PN 160	22	M 26 x 1.5	32	27	36	39	22.5	55	38.5	16	*	
L	PN 160	28	M 33 x 2	41	36	41	41	24.5	59	41.5	18	*	
L	PN 160	35	M 42 x 2	50	41	50	48.5	27	68.5	51	20	*	
L	PN 160	42	M 48 x 2	55	50	60	49	26	75	56	22	*	
S	PN 630	6	M 12 x 1.5	17	19	17	31	16	40	27	12	*	
S	PN 630	8	M 14 x 1.5	19	19	19	31	16	42.5	27.5	12	*	
S	PN 630	10	M 16 x 1.5	22	19	22	33	16.5	45	30	12	*	
S	PN 630	12	M 18 x 1.5	24	19	24	33.5	17	48	31	12	*	
S	PN 630	14	M 20 x 1.5	27	19	27	35	17	54	35	14	*	
S	PN 400	16	M 22 x 1.5	27	24	30	37.5	19	55	36.5	14	*	
S	PN 400	20	M 27 x 2	32	27	36	43	21.5	65	44.5	16	*	
S	PN 400	25	M 33 x 2	41	36	46	47	23	73	50	18	*	
S	PN 400	30	M 42 x 2	50	41	50	50.5	24	78.5	55	20	*	
S	PN 315	38	M 48 x 2	55	50	60	52	21	89	63	22	**	

\* Sample product code, see:  
EV06LMEDA3C

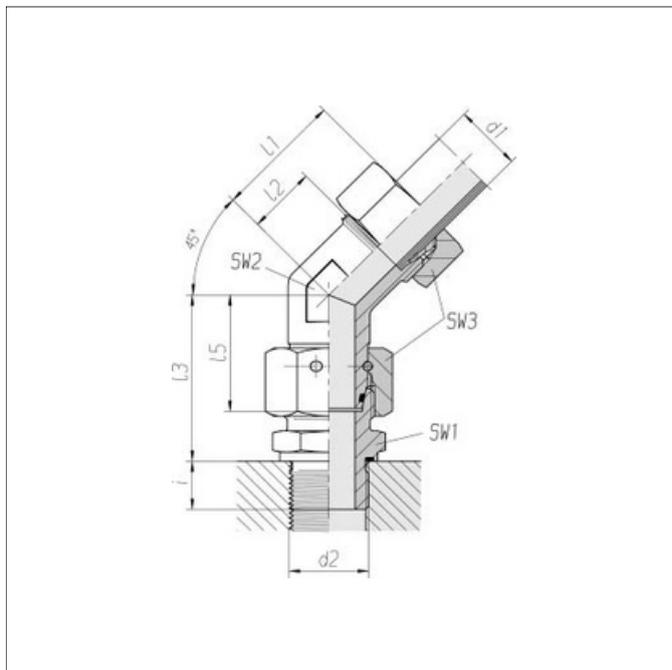
\*\*On request

\*\*\*without union nut and cutting ring

## Adjustable 45° stud elbows

With taper and O-ring  
Cutting ring connection  
at tube end

Thread:  
Whitworth pipe thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube OD	d2		SW1	SW2	SW3	l1	l2	l3	l5	i	kg/100	
				d1										approx.
L	PN 315	6	G 1/8 A	14	19	14	29	14	34.5	26	8	*		
L	PN 315	8	G 1/4 A	17	19	17	30	15	37.5	27.5	12	*		
L	PN 315	10	G 1/4 A	19	19	19	31	16	40	29	12	*		
L	PN 315	12	G 3/8 A	22	19	22	32	17	42	29.5	12	*		
L	PN 315	15	G 1/2 A	24	19	27	32	17	46	32.5	14	*		
L	PN 315	18	G 1/2 A	27	24	32	35.5	19	50	35.5	14	*		
*														
L	PN 160	22	G 3/4 A	32	27	36	39	22.5	55	38.5	16	*		
L	PN 160	28	G 1 A G	41	36	41	41	24.5	59	41.5	18	*		
L	PN 160	35	1 1/4 A G	50	41	50	48.5	27	68.5	51	20	*		
L	PN 160	42	1 1/2 A	55	50	60	49	26	75	56	22	*		
*														
S	PN 630	6	G 1/4 A	17	19	17	31	16	40	27	12	*		
S	PN 630	8	G 1/4 A	19	19	19	31	16	42.5	27.5	12	*		
S	PN 630	10	G 3/8 A	22	19	22	33	16.5	45	30	12	*		
S	PN 630	12	G 3/8 A	24	19	24	33.5	17	48	31	12	*		
S	PN 630	14	G 1/2 A	27	19	27	35	17	54	35	14	*		
*														
S	PN 400	16	G 1/2 A	27	24	30	37.5	19	55	36.5	14	*		
S	PN 400	20	G 3/4 A	32	27	36	43	21.5	65	44.5	16	*		
S	PN 400	25	G 1 A G	41	36	46	47	23	73	50	18	*		
S	PN 400	30	1 1/4 A	50	41	50	50.5	24	78.5	55	20	*		
*														
S	PN 315	38	G 1 1/2 A	55	50	60	52	21	89	63	22	**		
*														
*														

\* Sample product code, see:  
EV06LREDA3C

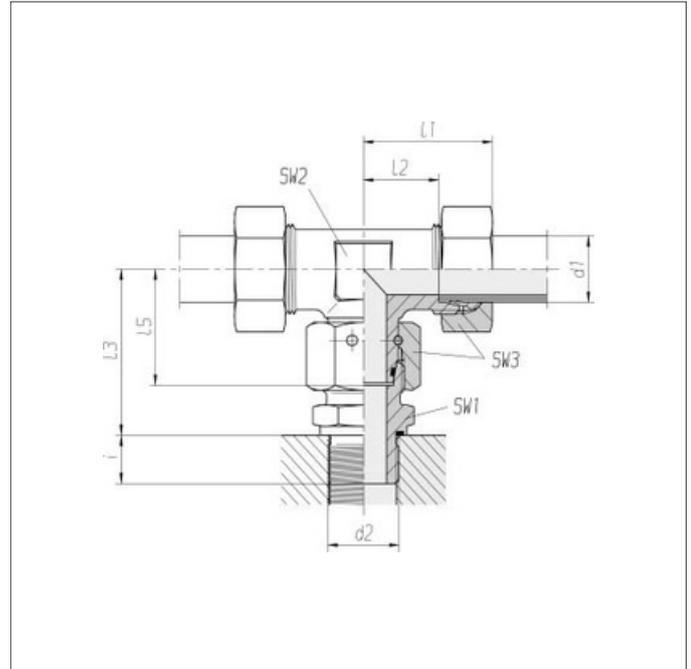
\*\*On request

\*\*\*without union nut and cutting ring

## Adjustable stud branch tees

With taper and O-ring  
Cutting ring connection  
at tube end

Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube ODd2 d1		SW1	SW2	SW3	I1 approx.	I2	I3	I5	i	kg/100 approx.
L	PN 315	6	M 10 x 1	14	12	14	27	12	34.5	26	8	8.2
L	PN 315	8	M 12 x 1.5	17	14	17	29	14	37.5	27.5	12	12.3
L	PN 315	10	M 14 x 1.5	19	17	19	30	15	40	29	12	16.5
L	PN 315	12	M 16 x 1.5	22	19	22	32	17	42	29.5	12	21.7
L	PN 315	15	M 18 x 1.5	24	19	27	36	21	46	32.5	12	29.2
L	PN 315	18	M 22 x 1.5	27	24	32	40	23.5	50	35.5	14	40.9
L	PN 160	22	M 26 x 1.5	32	27	36	44	27.5	55	38.5	16	55.2
L	PN 160	28	M 33 x 2	41	36	41	47	30.5	59	41.5	18	67.3
L	PN 160	35	M 42 x 2	50	41	50	56	34.5	68.5	51	20	123.0
L	PN 160	42	M 48 x 2	55	50	60	63	40	75	56	22	183.4
S	PN 630	6	M 12 x 1.5	17	14	17	31	16	40	27	12	14.5
S	PN 630	8	M 14 x 1.5	19	17	19	32	17	42.5	27.5	12	19.3
S	PN 630	10	M 16 x 1.5	22	19	22	34	17.5	45	30	12	25.8
S	PN 630	12	M 18 x 1.5	24	17	24	38	21.5	48	31	12	31.8
S	PN 630	14	M 20 x 1.5	27	19	27	40	22	54	35	14	38.8
S	PN 400	16	M 22 x 1.5	27	24	30	43	24.5	55	36.5	14	46.1
S	PN 400	20	M 27 x 2	32	27	36	48	26.5	65	44.5	16	72.1
S	PN 400	25	M 33 x 2	41	36	46	54	30	73	50	18	133.5
S	PN 400	30	M 42 x 2	50	41	50	62	35.5	78.5	55	20	178.9
S	PN 315	38	M 48 x 2	55	50	60	72	41	89	63	22	263.5

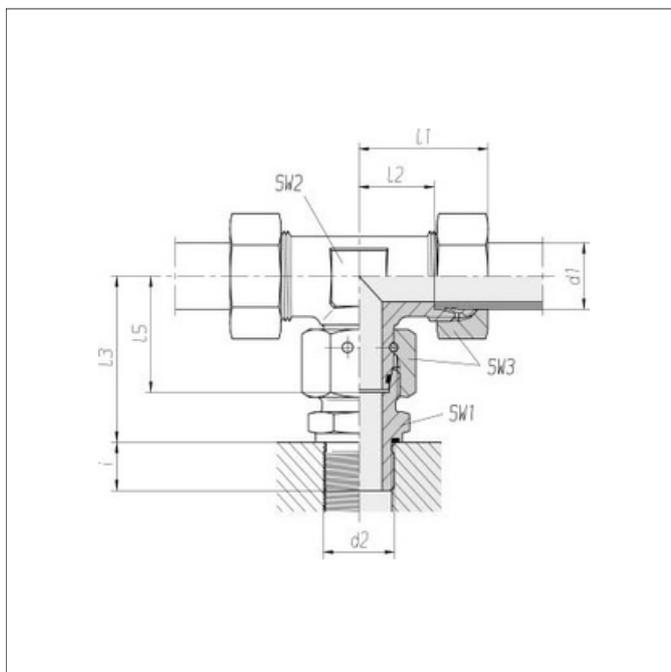
\* Sample product code, see:  
ET06LMEDA3C

\*\*without union nut and cutting ring

## Adjustable stud branch tees

With taper and O-ring  
Cutting ring connection  
at tube end

Thread:  
Whitworth pipe thread,  
straight  
Sealed with PEFLEX seal



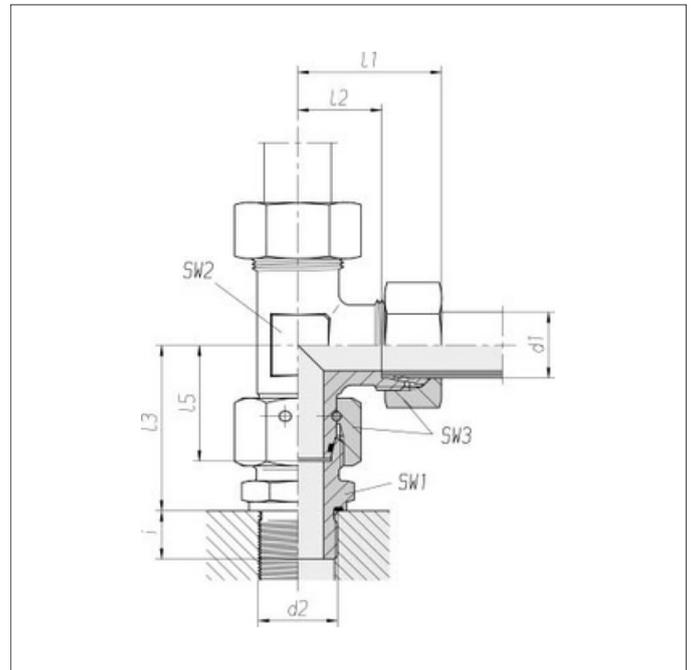
Series	Pressure	Tube ODd2 d1		SW1	SW2	SW3	I1 approx.	I2	I3	I5	i	kg/100 approx.
L	PN 315	6	G 1/8 A	14	12	14	27	12	34.5	26	8	8.2
L	PN 315	8	G 1/4 A	19	14	17	29	14	37.5	27.5	12	12.8
L	PN 315	10	G 1/4 A	19	17	19	30	15	40	29	12	16.4
L	PN 315	12	G 3/8 A	22	19	22	32	17	42	29.5	12	21.9
L	PN 315	15	G 1/2 A	27	19	27	36	21	46.5	32.5	14	31.2
L	PN 315	18	G 1/2 A	27	24	32	40	23.5	50	35.5	14	40.4
L	PN 160	22	G 3/4 A	32	27	36	44	27.5	55	38.5	16	55.4
L	PN 160	28	G 1 A G	41	36	41	47	30.5	59	41.5	18	67.2
L	PN 160	35	1 1/4 A G	50	41	50	56	34.5	68.5	51	20	122.3
L	PN 160	42	1 1/2 A	55	50	60	63	40	75	56	22	183.1
S	PN 630	6	G 1/4 A	19	14	17	31	16	40	27	12	15.1
S	PN 630	8	G 1/4 A	19	17	19	32	17	42.5	27.5	12	19.2
S	PN 630	10	G 3/8 A	22	19	22	34	17.5	45	30	12	26.1
S	PN 630	12	G 3/8 A	22	17	24	38	21.5	48	31	12	31.0
S	PN 630	14	G 1/2 A	27	19	27	40	22	54	35	14	38.9
S	PN 400	16	G 1/2 A	27	24	30	43	24.5	55	36.5	14	46.1
S	PN 400	20	G 3/4 A	32	27	36	48	26.5	65	44.5	16	71.7
S	PN 400	25	G 1 A G	41	36	46	54	30	73	50	18	133.2
S	PN 400	30	1 1/4 A	50	41	50	62	35.5	78.5	55	20	178.9
S	PN 315	38	G 1 1/2 A	55	50	60	72	41	89	63	22	263.2

\* Sample product code, see:  
ET06LREDA3C

\*\*without union nut and cutting ring

## Adjustable stud barrel tees

With taper and O-ring  
Cutting ring connection at  
tube end  
Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube ODd2 d1		SW1	SW2	SW3	I1 approx.	I2	I3	I5	i	kg/100 approx.
L	PN 315	6	M 10 x 1	14	12	14	27	12	34.5	26	8	8.4
L	PN 315	8	M 12 x 1.5	17	14	17	29	14	37.5	27.5	12	12.5
L	PN 315	10	M 14 x 1.5	19	17	19	30	15	40	29	12	16.4
L	PN 315	12	M 16 x 1.5	22	19	22	32	17	42	29.5	12	21.6
L	PN 315	15	M 18 x 1.5	24	19	27	36	21	46	32.5	12	29.0
L	PN 315	18	M 22 x 1.5	27	24	32	40	23.5	50	35.5	14	41.3
L	PN 160	22	M 26 x 1.5	32	27	36	44	27.5	55	38.5	16	53.9
L	PN 160	28	M 33 x 2	41	36	41	47	30.5	59	41.5	18	74.8
L	PN 160	35	M 42 x 2	50	41	50	56	34.5	68.5	51	20	123.5
L	PN 160	42	M 48 x 2	55	50	60	63	40	75	56	22	182.7
S	PN 630	6	M 12 x 1.5	19	14	17	31	16	40	27	12	14.4
S	PN 630	8	M 14 x 1.5	19	17	19	32	17	42.5	27.5	12	19.0
S	PN 630	10	M 16 x 1.5	22	19	22	34	17.5	45	30	12	25.9
S	PN 630	12	M 18 x 1.5	24	17	24	38	21.5	48	31	12	32.2
S	PN 630	14	M 20 x 1.5	27	19	27	40	22	54	35	14	38.4
S	PN 400	16	M 22 x 1.5	27	24	30	43	24.5	55	36.5	14	45.9
S	PN 400	20	M 27 x 2	32	27	36	48	26.5	65	44.5	16	71.8
S	PN 400	25	M 33 x 2	41	36	46	54	30	73	50	18	132.2
S	PN 400	30	M 42 x 2	50	41	50	62	35.5	78.5	55	20	178.7
S	PN 315	38	M 48 x 2	55	50	60	72	41	89	63	22	216.6

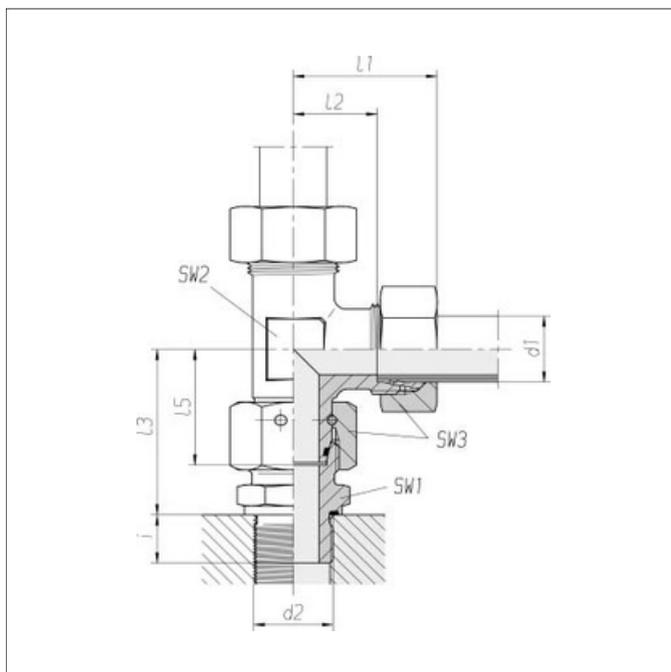
\* Sample product code, see:  
EL06LMEDA3C

\*\*without union nut and cutting ring

## Adjustable stud barrel tees

With taper and O-ring  
Cutting ring connection  
at tube end

Thread:  
Whitworth pipe thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube OD	d2		SW1	SW2	SW3	l1	l2	l3	l5	i	kg/100
				d1									
					approx.								
L	PN 315	6	G 1/8 A	14	12	14	27	12	34.5	26	8	8.4	
L	PN 315	8	G 1/4 A	19	14	17	29	14	37.5	27.5	12	13.0	
L	PN 315	10	G 1/4 A	19	17	19	30	15	40	29	12	16.3	
L	PN 315	12	G 3/8 A	22	19	22	32	17	42	29.5	12	21.8	
L	PN 315	15	G 1/2 A	27	19	27	36	21	46.5	32.5	14	31.0	
L	PN 315	18	G 1/2 A	27	24	32	40	23.5	50	35.5	14	40.8	
L	PN 160	22	G 3/4 A	32	27	36	44	27.5	55	38.5	16	54.0	
L	PN 160	28	G 1 A G	41	36	41	47	30.5	59	41.5	18	74.7	
L	PN 160	35	1 1/4 A G	50	41	50	56	34.5	68.5	51	20	122.9	
L	PN 160	42	1 1/2 A	55	50	60	63	40	75	56	22	182.4	
S	PN 630	6	G 1/4 A	19	14	17	31	16	40	27	12	15.0	
S	PN 630	8	G 1/4 A	19	17	19	32	17	42.5	27.5	12	18.9	
S	PN 630	10	G 3/8 A	22	19	22	34	17.5	45	30	12	26.1	
S	PN 630	12	G 3/8 A	22	17	24	38	21.5	48	31	12	31.3	
S	PN 630	14	G 1/2 A	27	19	27	40	22	54	35	14	38.5	
S	PN 400	16	G 1/2 A	27	24	30	43	24.5	55	36.5	14	45.9	
S	PN 400	20	G 3/4 A	32	27	36	48	26.5	65	44.5	16	71.4	
S	PN 400	25	G 1 A G	41	36	46	54	30	73	50	18	131.8	
S	PN 400	30	1 1/4 A	50	41	50	62	35.5	78.5	55	20	178.7	
S	PN 315	38	G 1 1/2 A	55	50	60	72	41	89	63	22	261.3	

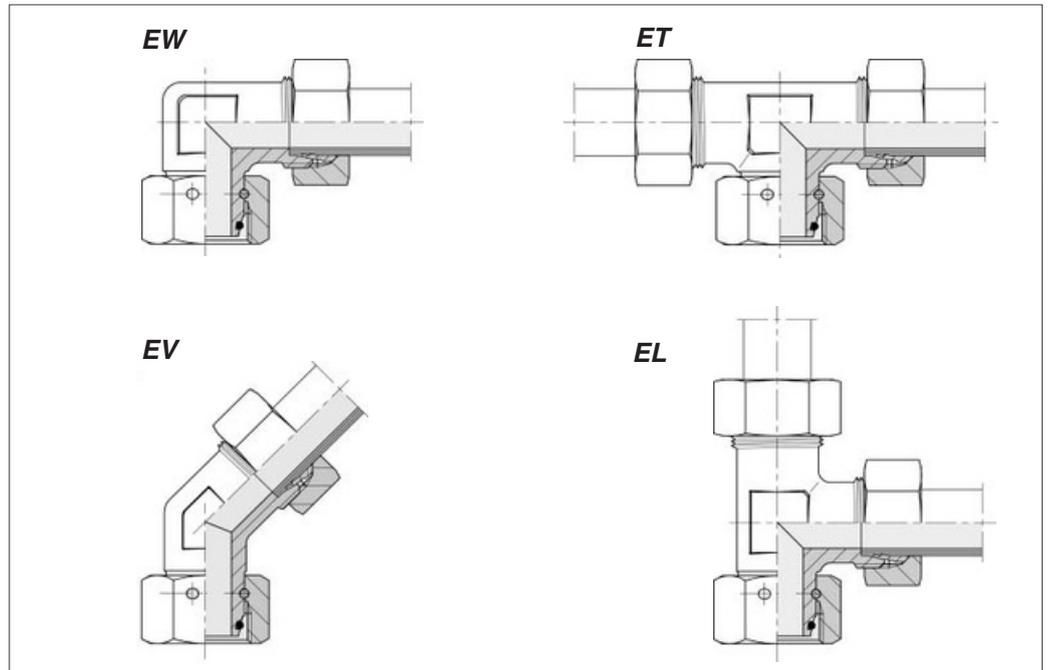
\* Sample product code, see:  
EL06LREDA3C

\*\*without union nut and cutting ring

## Adjustable stud couplings

With taper and O-ring  
Cutting ring connection  
at tube end

Component parts



Series	Pressure	Tube OD d1	kg/100 approx.	Order No. EW	kg/100 approx.	Order No. EV	kg/100 approx.	Order No. ET	kg/100 approx.
L	PN 315	6	5.3	1 1 58 02 20 07*	*	1 1 70 02 20 07*	6.9	1 1 60 02 20 07*	7.1
L	PN 315	8	7.7	1 1 58 07 20 07	*	1 1 70 07 20 07	10.2	1 1 60 07 20 07	10.4
L	PN 315	10	10.9	1 1 58 12 20 07	*	1 1 70 12 20 07	13.7	1 1 60 12 20 07	13.6
L	PN 315	12	13.5	1 1 58 17 20 07	*	1 1 70 17 20 07	17.8	1 1 60 17 20 07	17.7
L	PN 315	15	17.3	1 1 58 22 20 07	*	1 1 70 22 20 07	24.2	1 1 60 22 20 07	24.0
L	PN 315	18	23.9	1 1 58 27 20 07	*	1 1 70 27 20 07	33.5	1 1 60 27 20 07	33.9
					*				
L	PN 160	22	32.6	1 1 58 32 20 07	*	1 1 70 32 20 07	45.2	1 1 60 32 20 07	43.9
L	PN 160	28	43.8	1 1 58 37 20 07	*	1 1 70 37 20 07	51.0	1 1 60 37 20 07	58.5
L	PN 160	35	72.6	1 1 58 42 20 07	*	1 1 70 42 20 07	95.4	1 1 60 42 20 07	96.0
L	PN 160	42	113.6	1 1 58 47 20 07	*	1 1 70 47 20 07	148.4	1 1 60 47 20 07	147.7
					*				
S	PN 630	6	8.3	1 1 58 52 20 07	*	1 1 70 52 20 07	11.6	1 1 60 52 20 07	11.5
S	PN 630	8	8.8	1 1 58 57 20 07	*	1 1 70 57 20 07	15.2	1 1 60 57 20 07	14.9
S	PN 630	10	11.6	1 1 58 62 20 07	*	1 1 70 62 20 07	20.5	1 1 60 62 20 07	20.5
S	PN 630	12	13.8	1 1 58 67 20 07	*	1 1 70 67 20 07	24.8	1 1 60 67 20 07	25.2
S	PN 630	14	19.9	1 1 58 72 20 07	*	1 1 70 72 20 07	29.4	1 1 60 72 20 07	29.0
					*				
S	PN 400	16	25.6	1 1 58 77 20 07	*	1 1 70 77 20 07	37.0	1 1 60 77 20 07	36.8
S	PN 400	20	40.7	1 1 58 82 20 07	*	1 1 70 82 20 07	57.1	1 1 60 82 20 07	56.8
S	PN 400	25	75.8	1 1 58 87 20 07	*	1 1 70 87 20 07	105.3	1 1 60 87 20 07	105.6
S	PN 400	30	98.8	1 1 58 92 20 07	*	1 1 70 92 20 07	137.2	1 1 60 92 20 07	137.0
					*				
S	PN 315	38	151.6	1 1 58 97 20 07	**	1 1 70 97 20 07	207.1	1 1 60 97 20 07	205.2
					*				
					*				

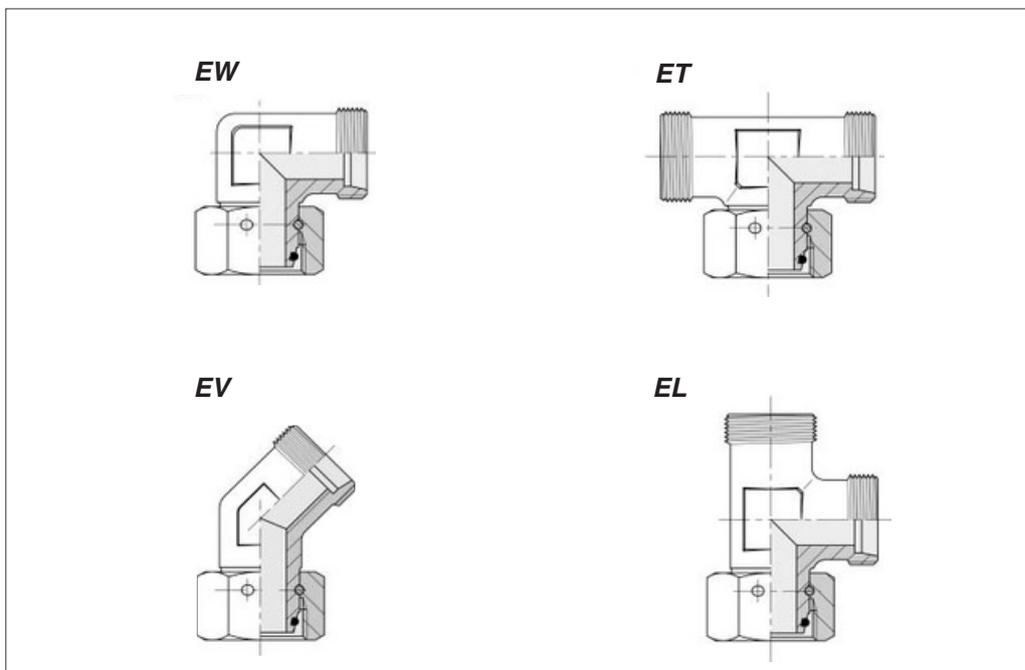
\* Sample product code,  
see: EW06LA3C  
ISO 8434-4-SWE-L6-St  
EV06LA3C  
ET06LA3C  
ISO 8434-4-SWBT-L6-St  
EL06LA3C  
ISO 8434-4-SWRT-L6-St

\*\*On request

# Adjustable stud couplings

With taper and O-ring

Component parts



Series	Pressure	Tube OD d1	kg/100 approx.	Order No. EW	kg/100 approx.	Order No. EV	kg/100 approx.	Order No. ET	kg/100 approx.
L	PN 315	6	4.2	1 1 58 03 20 00*	*	1 1 70 03 20 00*	4.7	1 1 60 03 20 00*	4.8
L	PN 315	8	6.0	1 1 58 08 20 00	*	1 1 70 08 20 00	6.8	1 1 60 08 20 00	7.0
L	PN 315	10	8.8	1 1 58 13 20 00	*	1 1 70 13 20 00	9.6	1 1 60 13 20 00	9.4
L	PN 315	12	10.5	1 1 58 18 20 00	*	1 1 70 18 20 00	11.8	1 1 60 18 20 00	11.7
L	PN 315	15	12.7	1 1 58 23 20 00*	*	1 1 70 23 20 00	15.0	1 1 60 23 20 00	14.8
L	PN 315	18	16.9	1 1 58 28 20 00	*	1 1 70 28 20 00	19.5	1 1 60 28 20 00	19.9
					*				
L	PN 160	22	23.8	1 1 58 33 20 00	*	1 1 70 33 20 00	27.6	1 1 60 33 20 00	26.3
L	PN 160	28	34.1	1 1 58 38 20 00	*	1 1 70 38 20 00	31.6	1 1 60 38 20 00	39.1
L	PN 160	35	57.5	1 1 58 43 20 00	*	1 1 70 43 20 00	65.3	1 1 60 43 20 00	65.8
L	PN 160	42	90.0	1 1 58 48 20 00	*	1 1 70 48 20 00	101.2	1 1 60 48 20 00	100.5
					*				
S	PN 630	6	6.4	1 1 58 53 20 00	*	1 1 70 53 20 00	7.8	1 1 60 53 20 00	7.7
S	PN 630	8	6.5	1 1 58 58 20 00	*	1 1 70 58 20 00	10.6	1 1 60 58 20 00	10.3
S	PN 630	10	8.3	1 1 58 63 20 00	*	1 1 70 63 20 00	13.7	1 1 60 63 20 00	13.7
S	PN 630	12	9.9	1 1 58 68 20 00	*	1 1 70 68 20 00	17.0	1 1 60 68 20 00	17.4
S	PN 630	14	14.1	1 1 58 73 20 00	*	1 1 70 73 20 00	17.8	1 1 60 73 20 00	17.6
					*				
S	PN 400	16	18.6	1 1 58 78 20 00	*	1 1 70 78 20 00	23.0	1 1 60 78 20 00	22.8
S	PN 400	20	29.7	1 1 58 83 20 00	*	1 1 70 83 20 00	35.1	1 1 60 83 20 00	34.8
S	PN 400	25	54.8	1 1 58 88 20 00	*	1 1 70 88 20 00	63.3	1 1 60 88 20 00	63.6
S	PN 400	30	75.2	1 1 58 93 20 00	*	1 1 70 93 20 00	90.0	1 1 60 93 20 00	89.8
					*				
S	PN 315	38	117.1	1 1 58 98 20 00	**	1 1 70 98 20 00	138.1	1 1 60 98 20 00	136.2
					*				
					*				

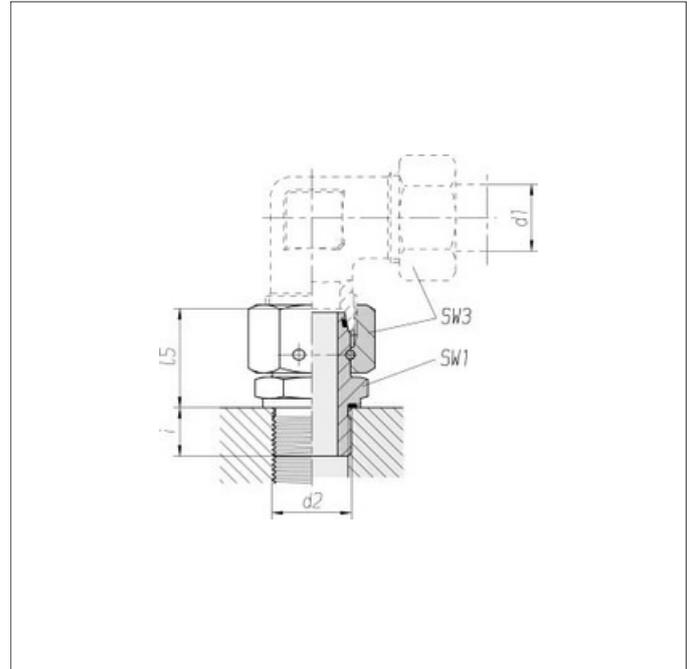
Sample product code, see:

EW06LA3C  
EV06LA3C  
ET06LA3C  
EL06LA3C

\*\*On request

## Straight stud standpipe adapters

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1  
Thread:  
metric fine thread,  
straight  
Sealed with PEFLEX seal



Series	Pressure	Tube OD d1	d2	SW1	SW3	l5	i	Nm -10 %	kg/100 approx.
L	PN 315	6	M 10 x 1	14	14	24.5	8	15	2.6
L	PN 315	8	M 12 x 1.5	17	17	26.5	12	25	4.2
L	PN 315	10	M 14 x 1.5	19	19	27.5	12	50	5.6
L	PN 315	12	M 16 x 1.5	22	22	30.5	12	70	8.2
L	PN 315	15	M 18 x 1.5	24	27	31.5	12	90	11.5
L	PN 315	15	M 22 x 1.5	27	27	32.5	14	130	14.3
L	PN 315	18	M 22 x 1.5	27	32	31.5	14	130	15.4
L	PN 160	22	M 26 x 1.5	32	36	32.5	16	180	20.1
L	PN 160	28	M 33 x 2	41	41	35	18	230	29.5
L	PN 160	35	M 42 x 2	50	50	42.5	20	330	49.9
L	PN 160	42	M 48 x 2	55	60	46.5	22	500	71.5
S	PN 630	6	M 12 x 1.5	17	17	27	12	50	4.7
S	PN 630	8	M 14 x 1.5	19	19	29.5	12	60	6.4
S	PN 630	10	M 16 x 1.5	22	22	32	12	80	9.0
S	PN 630	12	M 18 x 1.5	24	24	34	12	90	11.5
S	PN 630	14	M 20 x 1.5	27	27	36.5	14	130	15.7
S	PN 400	16	M 22 x 1.5	27	30	37	14	130	17.6
S	PN 400	20	M 27 x 2	32	36	43	16	200	27.4
S	PN 400	25	M 33 x 2	41	46	48	18	250	50.4
S	PN 400	30	M 42 x 2	50	50	51	20	500	69.7
S	PN 315	38	M 48 x 2	55	60	60	22	600	101.9

\* Sample product code, see:  
EGE06LMEDA3C  
ISO8434-4-  
SWSDS-L6XM10X1-typeE-St

## Straight stud standpipe adapters

With taper and O-ring

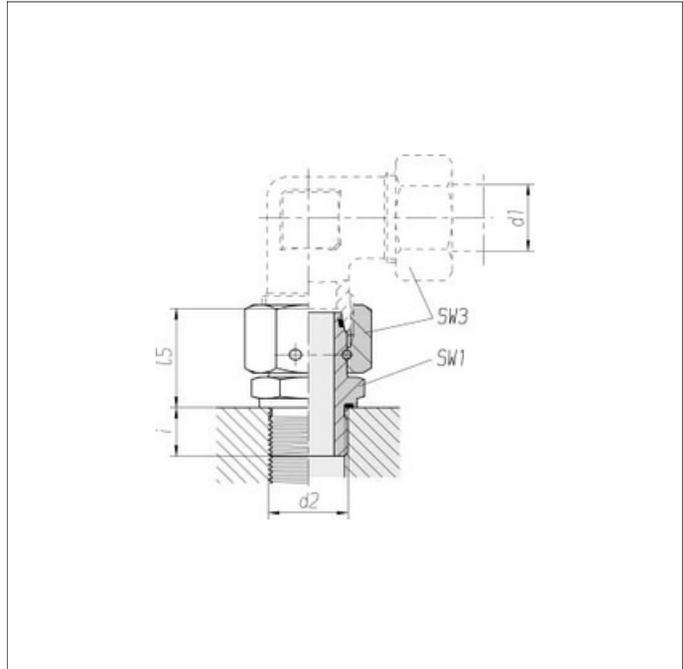
fit in bore type

W DIN 3861 / ISO 8434-1

Thread:

Whitworth pipe thread,  
straight

Sealed with PEFLEX seal



Series	Pressure	Tube OD d1	d2	SW1	SW3	l5	i	Nm -10 %	kg/100 approx.
L	PN 315	6	G 1/8 A	14	14	24.5	8	20	2.6
L	PN 315	8	G 1/4 A	19	17	29.5	12	50	5.3
L	PN 315	10	G 1/4 A	19	19	27.5	12	50	5.4
L	PN 315	10	G 1/2 A	27	19	28.5	14	100	10.6
L	PN 315	12	G 3/8 A	22	22	34	12	80	9.2
L	PN 315	12	G 1/2 A	27	22	32	14	100	12.8
L	PN 315	15	G 3/8 A	22	27	32.5	12	80	12.7
L	PN 315	15	G 1/2 A	27	27	32	14	100	13.8
L	PN 315	18	G 1/2 A	27	32	31.5	14	100	14.8
L	PN 315	18	G 3/4 A	32	32	31	16	180	18.4
L	PN 160	22	G 1/2 A	27	36	32	14	100	18.7
L	PN 160	22	G 3/4 A	32	36	32.5	16	180	19.3
L	PN 160	28	G 1 A G	41	41	35	18	230	28.5
L	PN 160	35	1 1/4 A G	50	50	42.5	20	330	48.2
L	PN 160	42	1 1/2 A	55	60	46.5	22	500	69.7
S	PN 630	6	G 1/4 A	19	17	27	12	60	5.2
S	PN 630	8	G 1/4 A	19	19	29.5	12	60	6.4
S	PN 630	10	G 3/8 A	22	22	32	12	90	9.4
S	PN 630	12	G 1/4 A	19	24	30	12	60	7.2
S	PN 630	12	G 3/8 A	22	24	34	12	90	10.5
S	PN 630	12	G 1/2 A	27	24	35.5	14	150	14.8
S	PN 630	14	G 1/2 A	27	27	36.5	14	150	15.9
S	PN 400	16	G 1/2 A	27	30	37	14	150	16.9
S	PN 400	20	G 1/2 A	27	36	43	14	150	24.3
S	PN 400	20	G 3/4 A	32	36	43	16	200	27.1
S	PN 400	25	G 1 A G	41	46	48	18	250	49.4
S	PN 400	30	1 1/4 A	50	50	51	20	500	66.9
S	PN 315	38	G 1 1/2 A	55	60	60	22	600	93.4

\*Sample product code, see:

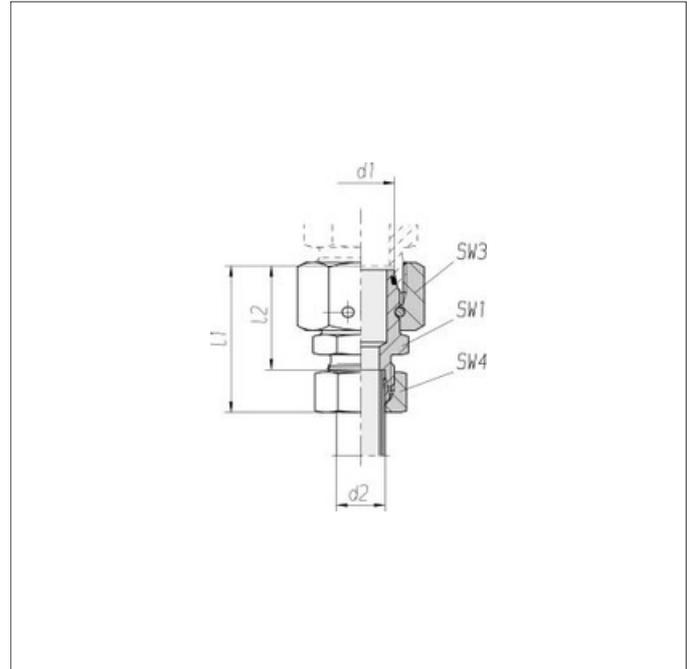
EGE06LREDA3C

ISO 8434-4-

SWSDS-L6XG1/8A-typeE-St

## Reducing couplings

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1  
With union nut and cutting ring  
at tube end



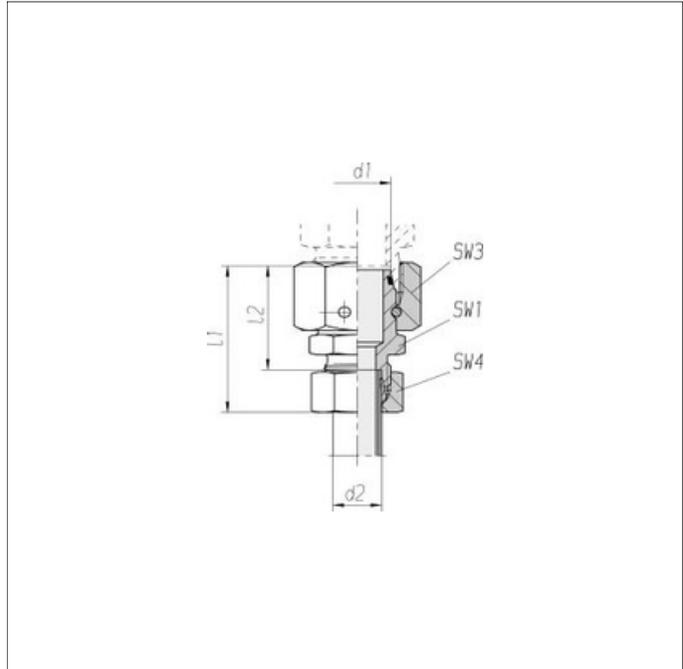
Series	Pressure	Tube OD d1	Tube OD d2	SW1	SW3	SW4	l1 approx.	l2	kg/100 approx.
L	PN 315	8	6	12	17	14	38	23.5	4.1
L	PN 315	10	6	14	19	14	39.5	25	4.9 25
L	PN 315	10	8	14	19	17	39.5	5.6	25 6.1
L	PN 315	12	6	17	22	14	39.5	25	6.7 26
L	PN 315	12	8	17	22	17	39.5	7.3	28 9.7
L	PN 315	12	10	17	22	19	40.5	28	10.3 29
L	PN 315	15	6	19	27	14	42.5	10.8	29
L	PN 315	15	8	19	27	17	42.5	11.7	28
L	PN 315	15	10	19	27	19	43.5	11.9	28
L	PN 315	15	12	19	27	22	43.5	12.6	29
L	PN 315	18	6	24	32	14	42.5	13.1	29
L	PN 315	18	8	24	32	17	42.5	14.0	30
L	PN 315	18	10	24	32	19	43.5	16.4	33
L	PN 315	18	12	24	32	22	43.5	17.2	33
L	PN 315	18	15	24	32	27	45	18.0	34
L	PN 160	22	10	27	36	19	47.5	20.5	33.5
L	PN 160	22	12	27	36	22	47.5	23.1	34
L	PN 160	22	15	27	36	27	49	21.2	35
L	PN 160	22	18	27	36	32	49.5	21.8	35
L	PN 160	28	8	32	41	17	48.5	22.4	36
L	PN 160	28	10	32	41	19	49.5	24.8	35.5
L	PN 160	28	12	32	41	22	49.5	27.3	37.5
L	PN 160	28	15	32	41	27	51	29.5	38
L	PN 160	28	18	32	41	32	51.5	32.1	39
L	PN 160	28	22	32	41	36	53.5	34.9	38.5
L	PN 160	35	10	41	50	19	52.5	37.7	40.5
L	PN 160	35	15	41	50	27	54	39.5	40.5
L	PN 160	35	18	41	50	32	54.5	41.0	42
L	PN 160	35	22	41	50	36	56.5	57.4	44
L	PN 160	35	28	41	50	41	57	59.1	44
L	PN 160	42	18	50	60	32	58	60.6	43
L	PN 160	42	22	50	60	36	60	68.4	
L	PN 160	42	28	50	60	41	60.5		
L	PN 160	42	35	50	60	50	64.5		

\* Sample product code, see:  
RED08/06LA3C

\*\*without union nut and cutting ring at  
tube end

## Reducing couplings

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1  
With union nut and cutting ring  
at tube end



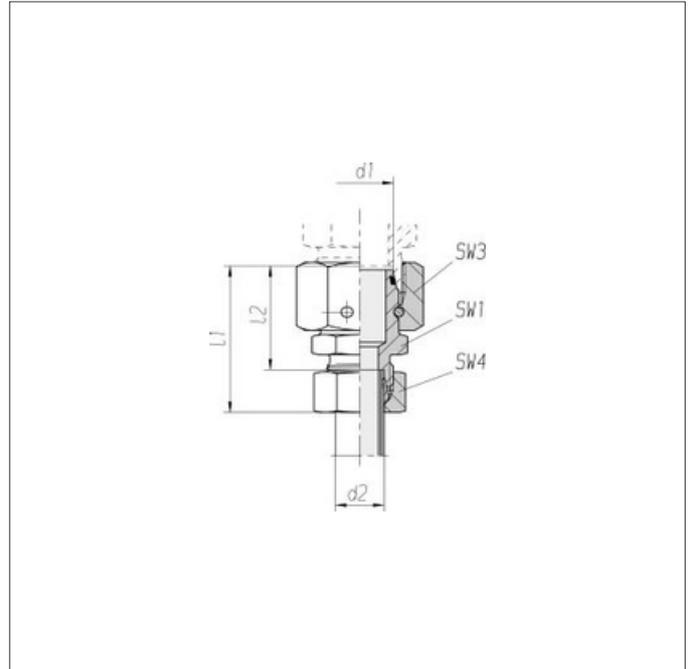
Series	Pressure	Tube OD d1	Tube OD d2	SW1	SW3	SW4	l1 approx.	l2	kg/100 approx.
S	PN 630	8	6	14	19	17	41.5	27	6.4
S	PN 630	10	6	17	22	17	42	27.5	7.7
S	PN 630	10	8	17	22	19	42	27.5	8.4
S	PN 630	12	6	19	24	17	44.5	30	9.1 30
S	PN 630	12	8	19	24	19	44.5	9.8	29.5
S	PN 630	12	10	19	24	22	45.5	10.9	
S	PN 400	16	6	22	30	17	46.5	32	13.3 32
S	PN 400	16	8	22	30	19	46.5	14.0	31.5
S	PN 400	16	10	22	30	22	47.5	15.2	31.5
S	PN 400	16	12	22	30	24	47.5	15.6	31.5
S	PN 400	16	14	24	30	27	49.5	16.1	36
S	PN 400	20	6	27	36	17	50.5	18.1	36
S	PN 400	20	8	27	36	19	50.5	18.6	35.5
S	PN 400	20	10	27	36	22	51.5	19.9	35.5
S	PN 400	20	12	27	36	24	51.5	20.5	36.5
S	PN 400	20	16	27	36	30	54.5	24.6	

\* Sample product code, see:  
RED08/06SA3C

\*\*without union nut and cutting ring at  
tube end

## Reducing couplings

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1  
With union nut and cutting ring  
at tube end



Continued from Page 98

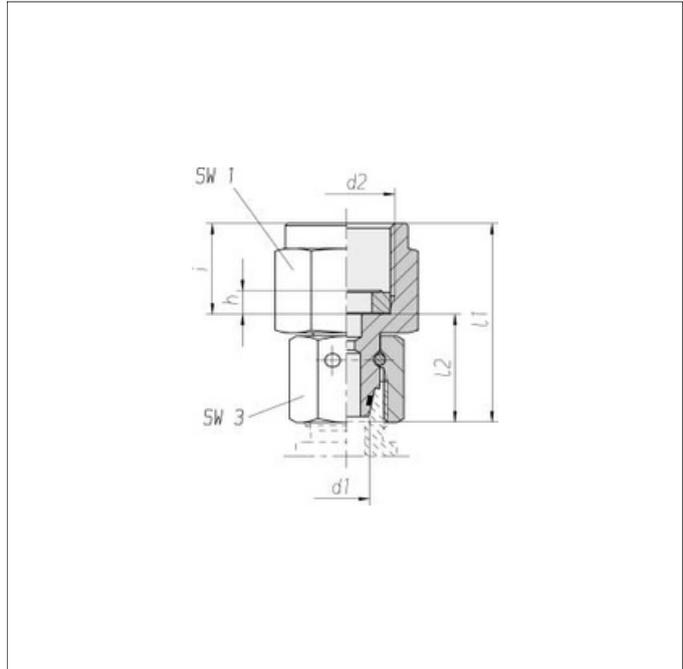
Series	Pressure	Tube OD d1	Tube OD d2	SW1	SW3	SW4	l1 approx.	l2	kg/100 approx.
S	PN 400	25	8	32	41	19	50.5	36	30.2 38
S	PN 400	25	10	32	41	22	54	33.9	38
S	PN 400	25	12	32	41	24	54	34.3	39
S	PN 400	25	16	32	41	30	57	38.6	39
S	PN 400	25	20	32	41	36	60.5	43.9	43.5
S	PN 400	30	10	41	50	22	59.5	42.0	43.5
S	PN 400	30	12	41	50	24	59.5	42.9	44.5
S	PN 400	30	16	41	50	30	62.5	46.7	44.5
S	PN 400	30	20	41	50	36	66	52.1	45
S	PN 400	30	25	41	50	46	69	64.7	
S	PN 315	38	16	50	60	30	66	48	64.6 48
S	PN 315	38	20	50	60	36	69.5	69.7	48.5
S	PN 315	38	25	50	60	46	72.5	82.3	49
S	PN 315	38	30	50	60	50	75.5	86.5	

\* Sample product code, see:  
RED25/08SA3C

\*\*without union nut and cutting ring at  
tube end

## Gauge couplings

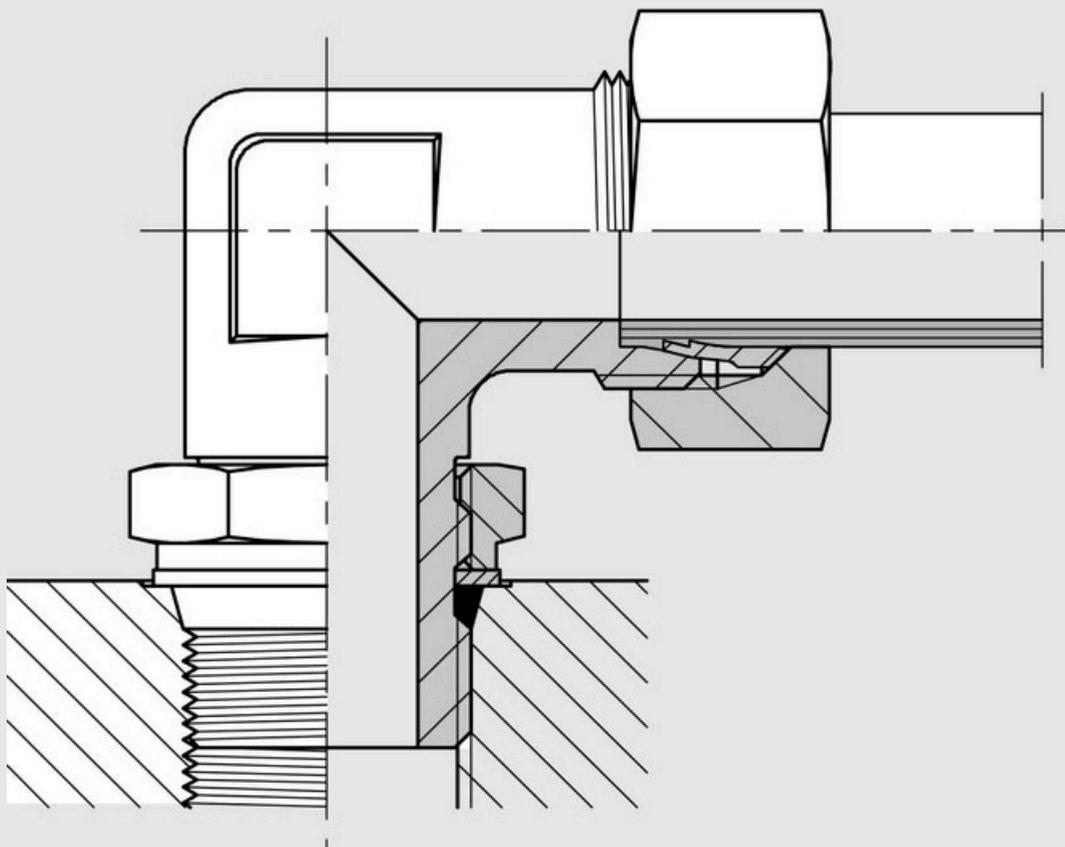
Female thread:  
Whitworth pipe thread  
Male connector  
with taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	h	kg/100 approx.
L	PN 315	6	G 1/4	19	14	37.5	23	14.5	4.6	5.1
L	PN 315	8	G 1/4	19	17	37.5	23	14.5	4.6	6.1
L	PN 315	10	G 1/4	19	19	36	21.5	14.5	4.6	6.2
L	PN 315	12	G 1/4	19	22	36	21.5	14.5	4.6	7.6
L	PN 315	15	G 1/2	27	22	44.5	24.5	20	5.2	13.0
S	PN 630	6	G 1/2	27	17	44.5	24.5	20	5.2	20
S	PN 630	8	G 1/2	27	19	44.5	24.5	5.2	20	12.1
S	PN 630	10	G 1/2	27	22	43.5	23.5	5.2	14.5	12.2
S	PN 630	12	G 1/4	19	24	38.5	24	4.6	20	13.0
S	PN 630	12	G 1/2	27	24	45	25	5.2		10.2
										14.4

\* Sample product code, see:  
MAVE06LRA3C

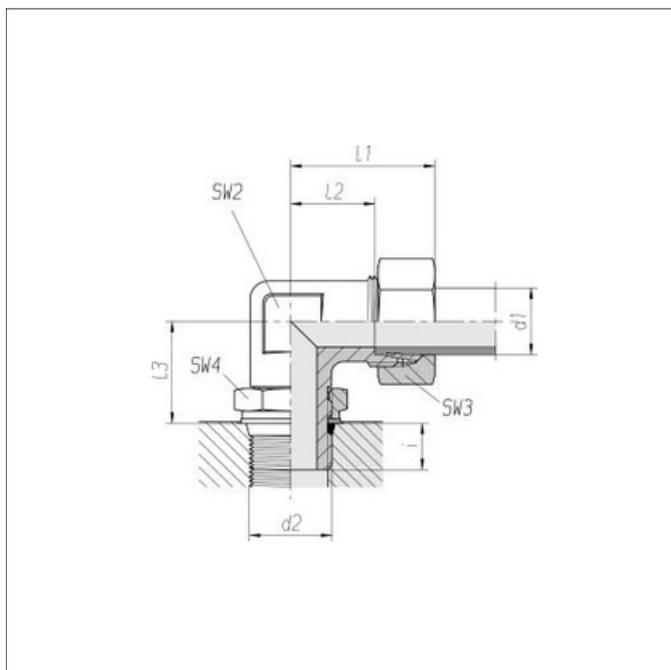
***Adjustable couplings  
with lock nut***



***Experience plus ideas***

## Adjustable elbow couplings with lock nut

Thread:  
metric fine thread,  
ISO 6149  
straight  
Sealed with O-ring



Series	Pressure	Tube OD d1	d2	SW2	SW3	SW4	l1 approx.	l2	l3	i	Nm -10%	kg/100 approx. complete
L	PN 315	6	M 10 x 1	12	14	14	27	12	20	7	15	*
L	PN 315	8	M 12 x 1.5	12	17	17	29	14	22	10	25	*
L	PN 315	10	M 14 x 1.5	14	19	19	30	15	25	10	35	*
L	PN 315	12	M 16 x 1.5	17	22	22	32	17	26	10	40	*
L	PN 315	15	M 18 x 1.5	19	27	24	36	21	30	11	45	*
L	PN 315	18	M 22 x 1.5	24	32	27	40	23.5	33	12	60	*
L	PN 160	22	M 27 x 2	27	36	32	44	27.5	35	14	100	**
L	PN 160	28	M 33 x 2	36	41	41	47	30.5	38	14	160	**
L	PN 160	35	M 42 x 2	41	50	50	58	34.5	48	14	210	**
L	PN 160	42	M 48 x 2	50	60	55	63	40	49	16	260	**
S	PN 400	6	M 12 x 1.5	12	17	17	31	16	22	10	35	*
S	PN 400	8	M 14 x 1.5	14	19	19	32	17	26	10	45	*
S	PN 400	10	M 16 x 1.5	17	22	22	34	17.5	27	11	55	*
S	PN 400	12	M 18 x 1.5	17	24	24	38	21.5	31	12	70	*
S	PN 400	16	M 22 x 1.5	24	30	27	43	24.5	35	14	100	*
S	PN 400	20	M 27 x 2	27	36	32	48	26.5	39	16	170	*
S	PN 315	25	M 33 x 2	36	46	41	54	30	44	16	310	**
S	PN 250	30	M 42 x 2	41	50	50	62	35.5	51	17	330	**
S	PN 200	38	M 48 x 2	50	60	55	72	41	54	19	420	**

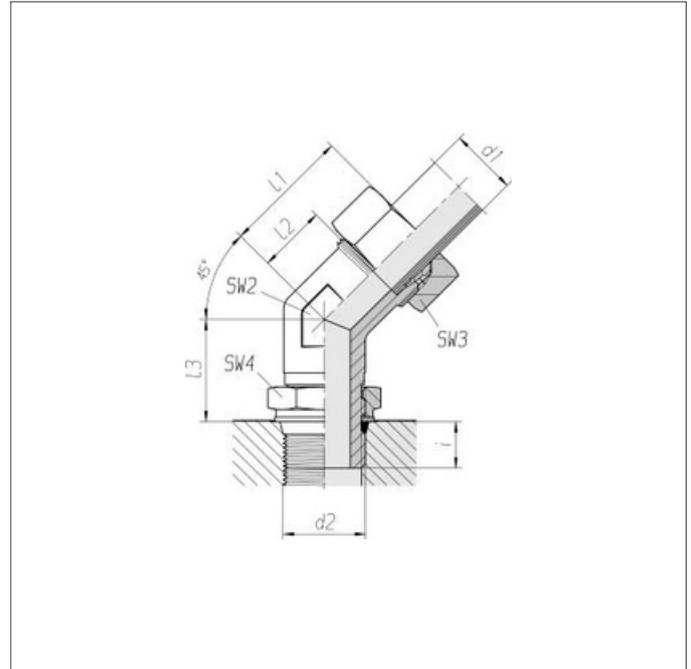
\* Sample product code, see:  
WEE06LMORA3C

\*\*On request

\*\*\*without union nut and cutting ring

## Adjustable 45° stud elbows with lock nut

Thread:  
metric fine thread,  
ISO 6149  
straight  
Sealed with O-ring



Series	Pressure	Tube OD d1	d2	SW2	SW3	SW4	l1 approx.	l2	l3	i	Nm -10%	kg/100 approx. complete
L	PN 315	6	M 10 x 1	19	14	14	29	14	20	7	15	*
L	PN 315	8	M 12 x 1.5	19	17	17	31	16	22	10	25	*
L	PN 315	10	M 14 x 1.5	19	19	19	32	17	25	10	35	*
L	PN 315	12	M 16 x 1.5	19	22	22	34	19	26	10	40	*
L	PN 315	15	M 18 x 1.5	19	27	24	36	21	30	11	45	*
L	PN 315	18	M 22 x 1.5	24	32	27	40	23.5	33	12	60	*
L	PN 160	22	M 27 x 2	27	36	32	44	27.5	35	14	100	*
L	PN 160	28	M 33 x 2	36	41	41	47	30.5	38	14	160	*
L	PN 160	35	M 42 x 2	41	50	50	58	34.5	48	14	210	*
L	PN 160	42	M 48 x 2	50	60	55	63	40	49	16	260	*
S	PN 400	6	M 12 x 1.5	19	17	17	31	16	22	10	35	*
S	PN 400	8	M 14 x 1.5	19	19	19	32	17	26	10	45	*
S	PN 400	10	M 16 x 1.5	19	22	22	34.5	18	27	11	55	*
S	PN 400	12	M 18 x 1.5	19	24	24	38	21.5	31	12	70	*
S	PN 400	16	M 22 x 1.5	24	30	27	43	24.5	35	14	100	*
S	PN 400	20	M 27 x 2	27	36	32	48	26.5	39	16	170	*
S	PN 315	25	M 33 x 2	36	46	41	54	30	44	16	310	**
S	PN 250	30	M 42 x 2	41	50	50	62	35.5	51	17	330	**
S	PN 200	38	M 48 x 2	50	60	55	72	41	54	19	420	**

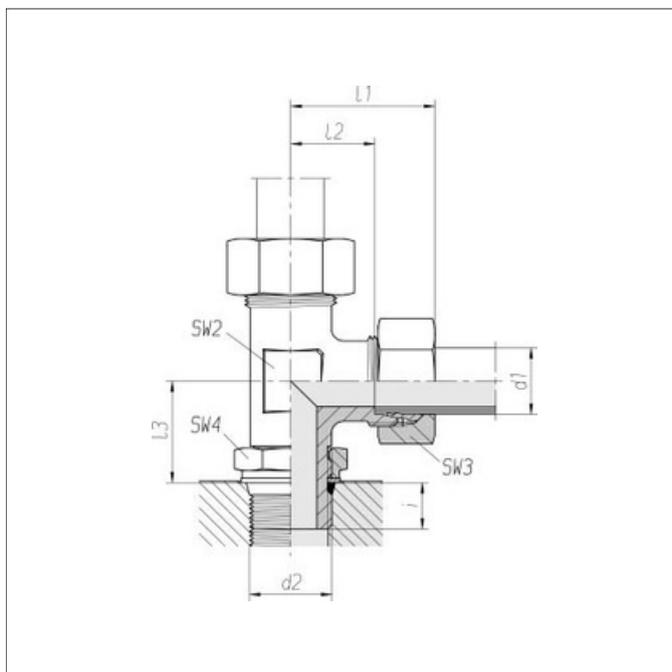
\* Sample product code, see:  
VEE06LMORA3C

\*\*On request

\*\*\*without union nut and cutting ring

## Adjustable L-couplings with lock nut

Thread:  
metric fine thread,  
ISO 6149  
straight  
Sealed with O-ring



Series	Pressure	Tube OD d1	d2	SW2	SW3	SW4	l1 approx.	l2	l3	i	Nm -10%	kg/100 approx. complete
L	PN 315	6	M 10 x 1	14	14	14	29	14	20	7	15	*
L	PN 315	8	M 12 x 1.5	17	17	17	31	16	22	10	25	*
L	PN 315	10	M 14 x 1.5	17	19	19	32	17	25	10	35	*
L	PN 315	12	M 16 x 1.5	19	22	22	34	19	26	10	40	*
L	PN 315	15	M 18 x 1.5	19	27	24	36	21	30	11	45	*
L	PN 315	18	M 22 x 1.5	27	32	27	43	26.5	33	12	60	*
L	PN 160	22	M 27 x 2	27	36	32	44	27.5	35	14	100	**
L	PN 160	28	M 33 x 2	36	41	41	47	30.5	38	14	160	**
L	PN 160	35	M 42 x 2	41	50	50	58	34.5	48	14	210	**
L	PN 160	42	M 48 x 2	50	60	55	63	40	49	16	260	**
S	PN 400	6	M 12 x 1.5	17	17	17	31	16	22	10	35	*
S	PN 400	8	M 14 x 1.5	17	19	19	32	17	26	10	45	*
S	PN 400	10	M 16 x 1.5	19	22	22	36	19.5	27	11	55	*
S	PN 400	12	M 18 x 1.5	27	24	24	41	24.5	31	12	70	*
S	PN 400	16	M 22 x 1.5	22	30	27	43	24.5	35	14	100	*
S	PN 400	20	M 27 x 2	27	36	32	48	26.5	39	16	170	*
S	PN 315	25	M 33 x 2	36	46	41	54	30	44	16	310	**
S	PN 250	30	M 42 x 2	41	50	50	62	35.5	51	17	330	**
S	PN 200	38	M 48 x 2	50	60	55	72	41	54	19	420	**

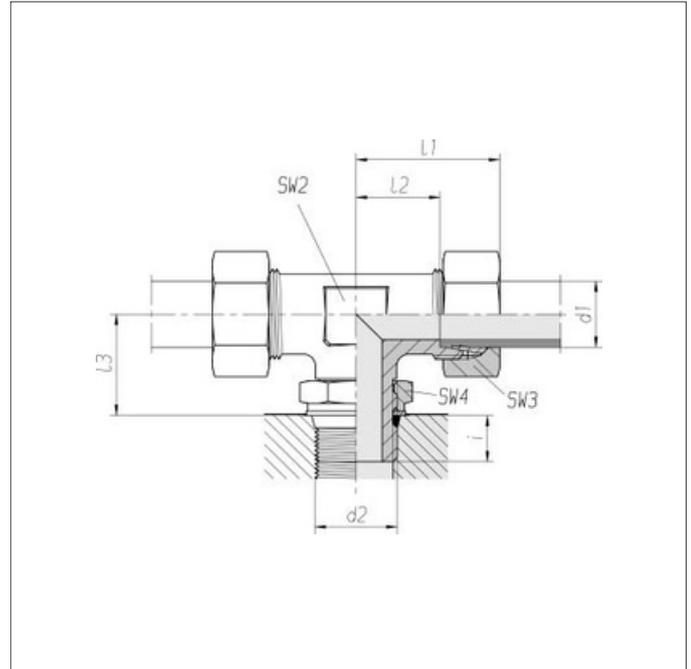
\* Sample product code, see:  
LEE06LMORA3C

\*\*On request

\*\*\*without union nut and cutting ring

## Adjustable stud branch tees with lock nut

Thread:  
metric fine thread,  
ISO 6149  
straight  
Sealed with O-ring



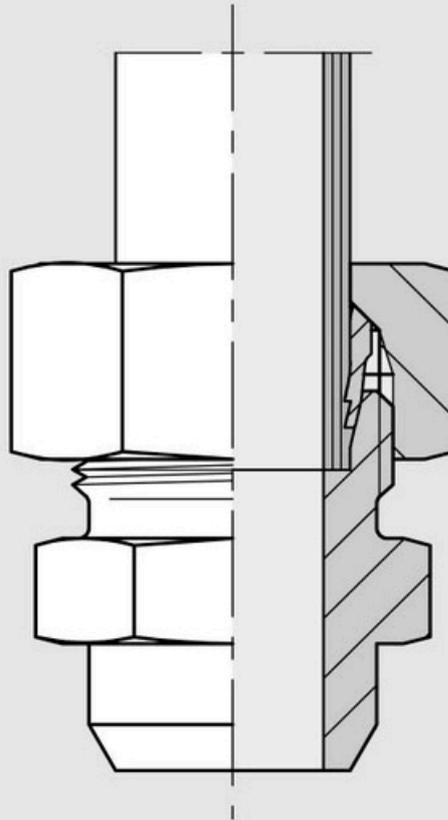
Series	Pressure	Tube OD d1	d2	SW2	SW3	SW4	l1 approx.	l2	l3	i	Nm -10%	kg/100 approx. complete
L	PN 315	6	M 10 x 1	14	14	14	30	15	20	7	15	*
L	PN 315	8	M 12 x 1.5	14	17	17	30	15	22	10	25	*
L	PN 315	10	M 14 x 1.5	17	19	19	32.5	17.5	25	10	35	*
L	PN 315	12	M 16 x 1.5	19	22	22	35	20	26	10	40	*
L	PN 315	15	M 18 x 1.5	22	27	24	36	21	30	11	45	*
L	PN 315	18	M 22 x 1.5	27	32	27	42	25.5	33	12	60	*
L	PN 160	22	M 27 x 2	27	36	32	44	27.5	35	14	100	*
L	PN 160	28	M 33 x 2	36	41	41	47	30.5	38	14	160	*
L	PN 160	35	M 42 x 2	41	50	50	58	34.5	48	14	210	*
L	PN 160	42	M 48 x 2	50	60	55	63	40	49	16	260	*
S	PN 400	6	M 12 x 1.5	17	17	17	30	15	22	10	35	*
S	PN 400	8	M 14 x 1.5	19	19	19	35	20	26	10	45	*
S	PN 400	10	M 16 x 1.5	19	22	22	36.5	20	27	11	55	*
S	PN 400	12	M 18 x 1.5	22	24	24	38	21.5	31	12	70	*
S	PN 400	16	M 22 x 1.5	22	30	27	43	24.5	35	14	100	*
S	PN 400	20	M 27 x 2	27	36	32	48	26.5	39	16	170	*
S	PN 315	25	M 33 x 2	36	46	41	54	30	44	16	310	**
S	PN 250	30	M 42 x 2	41	50	50	62	35.5	51	17	330	**
S	PN 200	38	M 48 x 2	50	60	55	72	41	54	19	420	**

\*Sample product code, see:  
TEE06LMORA3C

\*\*On request

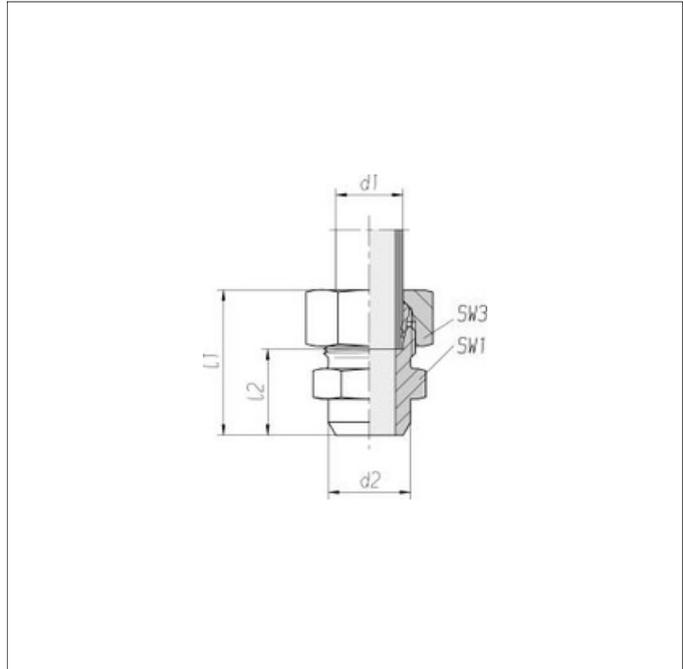
\*\*\*without union nut and cutting ring

*Welding couplings*



*Experience plus ideas*

## Welding bosses

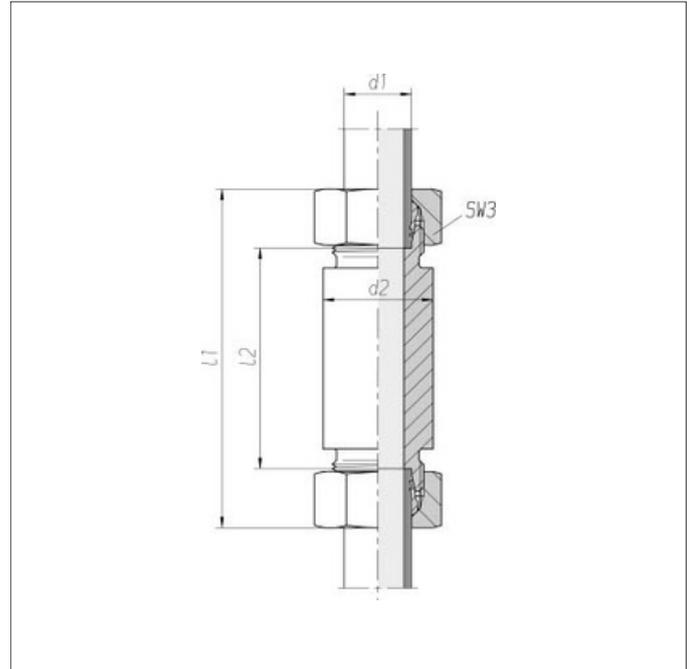


Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	kg/100 approx.
L	PN 315	6	10	12	14	29	14	2.5
L	PN 315	8	12	14	17	31	16	3.2
L	PN 315	10	14	17	19	33	18	4.3
L	PN 315	12	16	19	22	33	18	5.6
L	PN 315	15	19	22	27	37	22	9.1
L	PN 315	18	22	27	32	40	23.5	13.6
L	PN 160	22	27	32	36	45	28.5	19.9
L	PN 160	28	32	41	41	47	30.5	26.3
L	PN 160	35	40	46	50	54	32.5	39.8
L	PN 160	42	46	55	60	58	35	57.4
S	PN 630	6	11	14	17	34	19	4.0
S	PN 630	8	13	17	19	36	21	5.4
S	PN 630	10	15	19	22	39	22.5	7.6
S	PN 630	12	17	22	24	41	24.5	9.4
S	PN 630	14	19	24	27	45	27	12.9
S	PN 400	16	21	27	30	45	26.5	15.6
S	PN 400	20	26	32	36	51	29.5	24.1
S	PN 400	25	31	41	46	56	32	44.1
S	PN 400	30	36	46	50	62	35.5	53.9
S	PN 315	38	44	55	60	69	38	81.3

\* Sample product code, see:  
AS06L  
ISO 8434-1-WDSC-L6-St

\*\*without union nut and cutting ring

## Welding bulkhead couplings

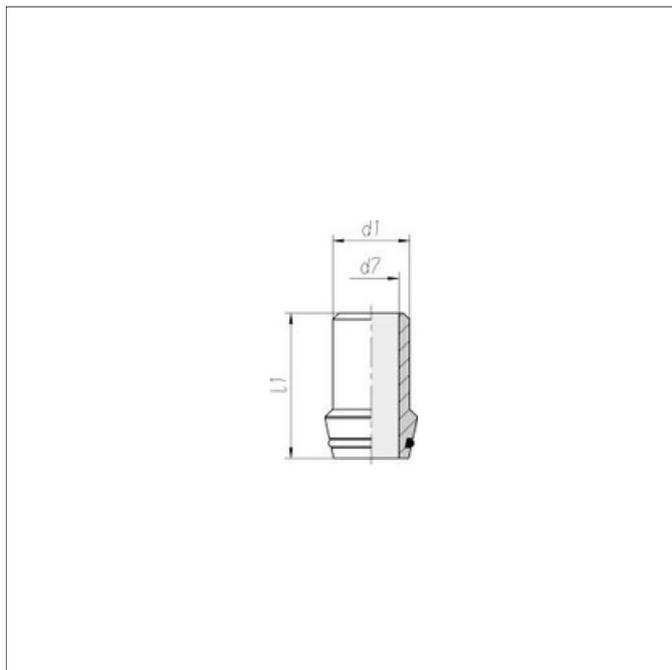


Series	Pressure	Tube OD d1	d2	SW3	l1 approx.	l2	kg/100 approx.
L	PN 315	6	18	14	85	56	12.5
L	PN 315	8	20	17	85	56	15.6
L	PN 315	10	22	19	87	58	18.6
L	PN 315	12	25	22	87	58	23.6
L	PN 315	15	28	27	100	70	35.5
L	PN 315	18	32	32	101	69	47.4
L	PN 160	22	36	36	105	73	57.8
L	PN 160	28	40	41	106	73	65.8
L	PN 160	35	50	50	114	71	105.2
L	PN 160	42	60	60	115	70	149.8
S	PN 630	6	20	17	89	60	17.3
S	PN 630	8	22	19	89	60	20.7
S	PN 630	10	25	22	91	59	27.1
S	PN 630	12	28	24	91	59	32.6
S	PN 630	14	30	27	107	72	45.6
S	PN 400	16	35	30	107	71	58.9
S	PN 400	20	38	36	114	71	74.2
S	PN 400	25	45	46	120	72	116.3
S	PN 400	30	50	50	126	73	136.2
S	PN 315	38	60	60	133	72	196.4

\* Sample product code, see:  
ESV06L  
ISO 8434-1-WDBHC-L6-St

\*\*without union nut and cutting ring

**Welding  
nipples with  
O-ring seal**  
Welding end without  
tube centring

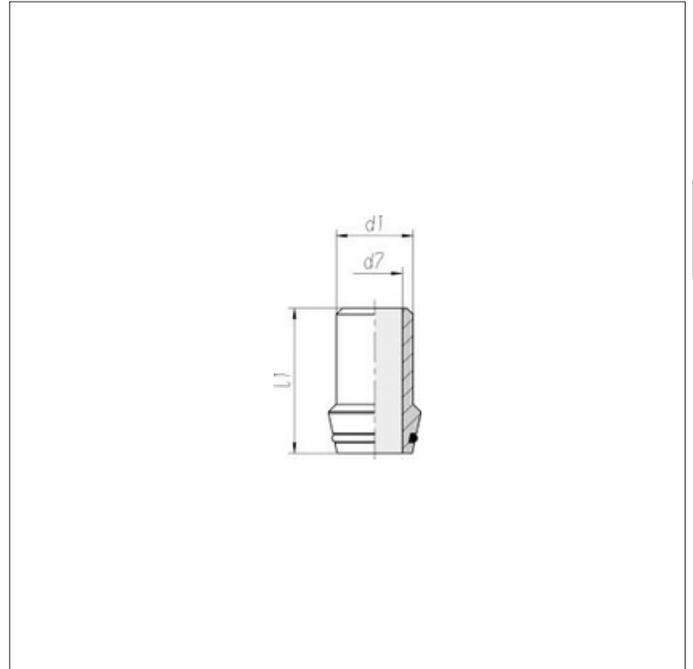


Pressure	d1	d7	for tube	l1	kg/100 approx.	Dim. O-ring
PN 400	6	3.4	6 x 1.5	30	0.8	4 x 1.5
PN 400	8	4	8 x 1.5	30.5	1.1	6 x 1.5
PN 400	8	6.5	8 x 2	30.5	1.1	6 x 1.5
PN 400	10	5	10 x 1.5	33	1.5	7 x 1.5
PN 400	10	4.5	10 x 2	33	1.7	7 x 1.5
PN 400	10	7.5	10 x 2.5	33	3.5	7 x 1.5
PN 400	12	7.6	12 x 1.5	33.5	2.1	9 x 1.5
PN 400	12	8.8	12 x 2	33.5	2.2	9 x 1.5
PN 400	12	8	12 x 2.5	33.5	2.5	9 x 1.5
PN 400	14		14 x 2	38	3.0	10 x 2
PN 400	14		14 x 2.5	38	3.5	10 x 2
PN 315	16	11.8	16 x 2	40	3.2	12 x 2
PN 400	16	10	16 x 2.5	40	4.1	12 x 2
PN 400	16	9.5	16 x 3	40	4.4	12 x 2
PN 315	20	14.5	20 x 2	44.5	5.8	16.3 x 2.4
PN 315	20	14.5	20 x 2.5	44.5	5.8	16.3 x 2.4

\* Sample product code, see:  
SKA06X1.5

## Weldings nipples with O-ring seal

Welding end without  
tube centring

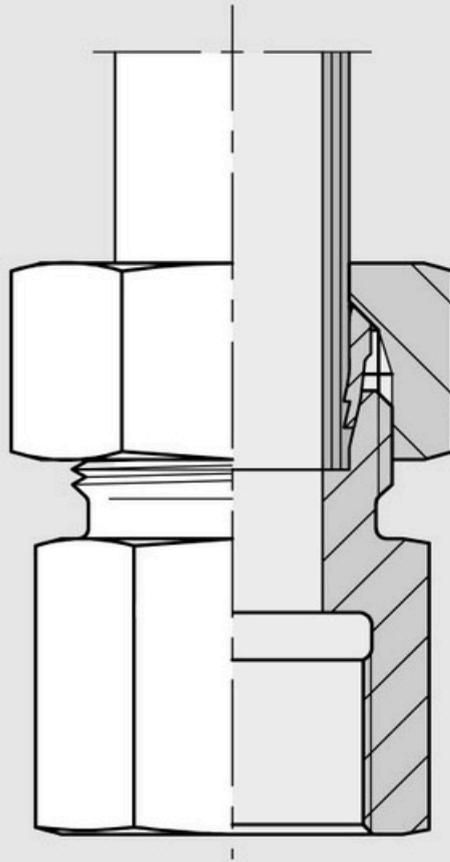


Continued from Page 110

Pressure	d1	d7	for tube	l1	kg/100 approx.	Dim. O-ring
PN 400	20	13	20 x 3	44.5	6.9	16.3 x 2.4
PN 400	20	12	20 x 4	44.5	7.5	16.3 x 2.4
PN 250	25	19	25 x 2.5	48	8.5	20.3 x 2.4
PN 400	25	18	25 x 3	48	9.5	20.3 x 2.4
PN 400	25	16.5	25 x 4	48	10.9	20.3 x 2.4
PN 400	25	15	25 x 5	48	12.3	20.3 x 2.4
PN 315	30	22	30 x 3	55	14.9	25.3 x 2.4
PN 315	30	22	30 x 4	55	14.7	25.3 x 2.4
PN 400	30	20	30 x 5	55	17.6	25.3 x 2.4
PN 315	38	29	38 x 4	58.5	24.5	33.3 x 2.4
PN 315	38	28	38 x 5	58.5	24.7	33.3 x 2.4
PN 315	38	26	38 x 6	58.5	28.0	33.3 x 2.4

\* Sample product code, see:  
SKA06X1.5

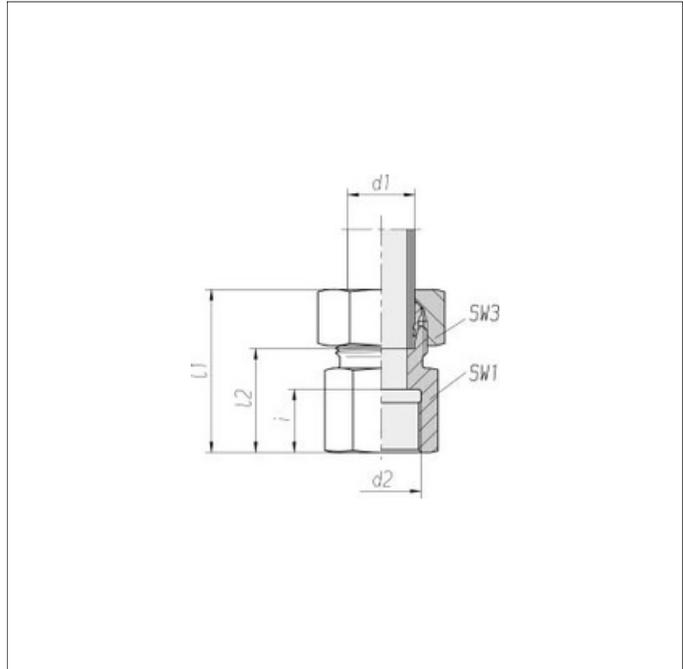
***Female stud and  
gauge couplings***



***Experience plus ideas***

## Straight female stud couplings

Female thread:  
metric fine thread



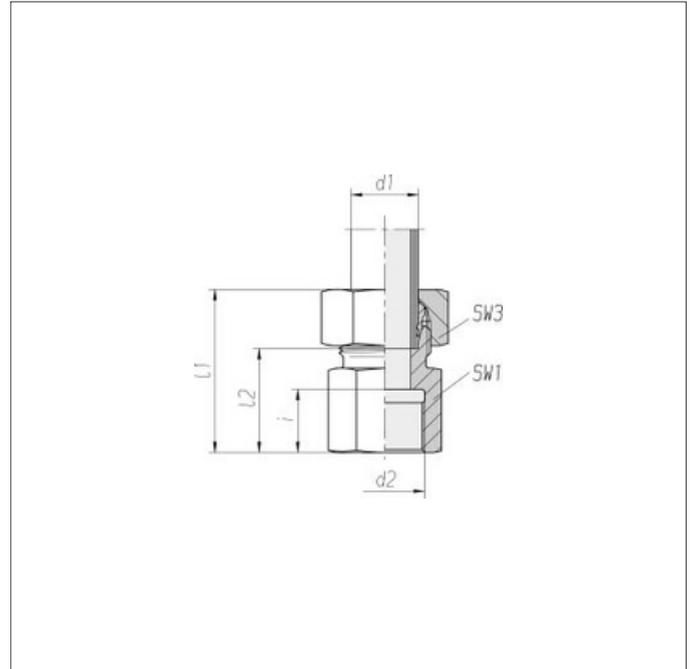
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	kg/100 approx.
L	PN 315	6	M 10 x 1	14	14	34.5	19.5	12.5	2.9 17
L	PN 315	8	M 12 x 1.5	17	17	39	24	4.8	17 5.8
L	PN 315	10	M 14 x 1.5	19	19	40	25	17	8.0 17
L	PN 315	12	M 16 x 1.5	22	22	41	26	11.3	19
L	PN 315	15	M 18 x 1.5	24	27	43	28		17.9
L	PN 315	18	M 22 x 1.5	30	32	46	29.5		
L	PN 160	22	M 26 x 1.5	32	36	51	34.5	21	21.0 24
L	PN 160	28	M 33 x 2	41	41	54	37.5	31.0	26
L	PN 160	35	M 42 x 2	55	50	62	40.5	61.6	28
L	PN 160	42	M 48 x 2	60	60	65	42	76.2	
S	PB 630	6	M 12 x 1.5	17	17	41	26	17	5.4 17
S	PB 630	8	M 14 x 1.5	19	19	41	26	6.5	17 9.1
S	PB 630	10	M 16 x 1.5	22	22	43	26.5	17	10.7 19
S	PB 630	12	M 18 x 1.5	24	24	44	27.5	15.5	
S	PB 630	14	M 20 x 1.5	27	27	49	31		
S	PB 400	16	M 22 x 1.5	30	30	49	30.5	19	18.8 22
S	PB 400	20	M 27 x 2	36	36	56	34.5	30.0	24
S	PB 400	25	M 33 x 2	41	46	61	37	46.0	26
S	PB 400	30	M 42 x 2	55	50	68	41.5	73.7	
S	PB 315	38	M 48 x 2	60	60	74	43	28	117.6

\* Sample product code, see:  
GAI06LMA3C

\*\*without union nut and cutting ring

## Straight female stud couplings

Female thread:  
Whitworth pipe thread



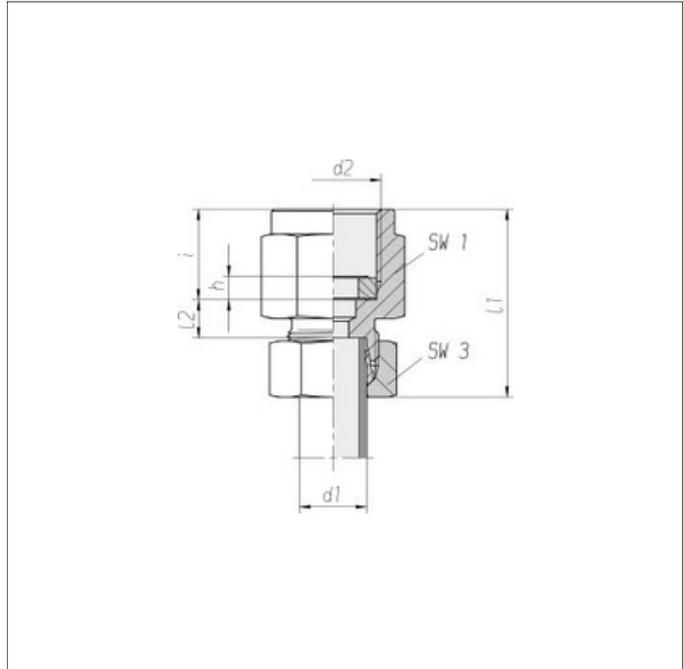
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	kg/100 approx.
L	PN 315	6	G 1/8	14	14	34	19	12	2.9 17
L	PN 315	8	G 1/4	19	17	39	24	5.5	17 7.9
L	PN 315	8	G 3/8	24	17	40	25	17	6.1 17
L	PN 315	10	G 1/4	19	19	40	25	8.4	20
L	PN 315	10	G 3/8	24	19	41	26	10.3	17
L	PN 315	10	G 1/2	27	19	45	30	7.0	17 9.2
L	PN 315	12	G 1/4	19	22	40	25	20	11.3 20
L	PN 315	12	G 3/8	24	22	41	26	13.4	20
L	PN 315	12	G 1/2	27	22	45.5	31	15.7	
L	PN 315	15	G 1/2	27	27	46	31		
L	PN 315	18	G 1/2	27	32	47	30.5		
L	PN 160	22	G 3/4	36	36	52	35.5	22	26.2
L	PN 160	28	G 1	41	41	54.5	38	24.5	31.0
L	PN 160	35	G 1 1/4	55	50	62.5	41	26.5	62.2
L	PN 160	42	G 1 1/2	60	60	65.5	42.5	28.5	77.5
S	PB 630	6	G 1/4	19	17	41	26	17	6.1 12
S	PB 630	6	G 1/4	19	17	35.5	21	5.3	17 6.7
S	PB 630	8	G 1/4	19	19	41	26	17	10.2 17
S	PB 630	10	G 3/8	24	22	43	26.5	10.8	20
S	PB 630	12	G 3/8	24	24	43	26.5	15.3	
S	PB 630	14	G 1/2	27	27	50	32		
S	PB 400	16	G 1/2	27	30	50	31.5	20	16.6 22
S	PB 400	20	G 3/4	36	36	56	34.5	30.2	24.5
S	PB 400	25	G 1	41	46	61.5	37.5	46.0	26.5
S	PB 400	30	G 1.1/4	55	50	68.5	42	74.6	
S	PB 315	38	G 1 1/2	60	60	74.5	43.5	28.5	97.1

\* Sample product code, see:  
GAI06LRA3C

\*\*without union nut and cutting ring

## Gauge couplings

Female thread:  
Whitworth pipe thread  
Standard coupling



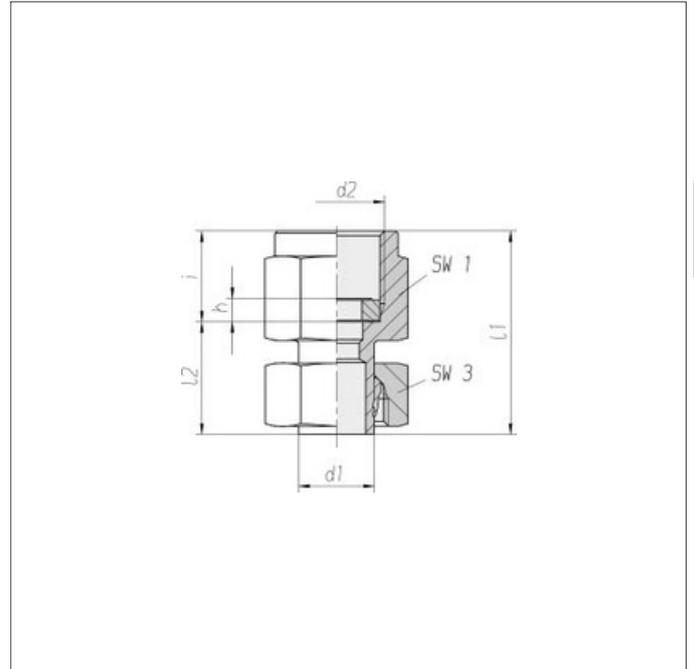
Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	h	kg/100 approx.
L	PN 315	6	G 1/4	19	14	37	7.5	14.5	4.6	4.7
L	PN 315	8	G 1/4	19	17	37	7.5	14.5	4.6	5.5
L	PN 315	10	G 1/4	19	19	38	8.5	14.5	4.6	6.2
L	PN 315	12	G 1/4	19	22	38	8.5	14.5	4.6	7.5
S	PN 630	6	G 1/2	27	17	46	11	20	5.2	10.7
S	PN 630	8	G 1/4	19	19	39	9.5	14.5	4.6	6.8
S	PN 630	8	G 1/2	27	19	46	11	20	5.2	11.3
S	PN 630	10	G 1/2	27	22	47	10.5	20	5.2	12.8
S	PN 630	12	G 1/2	27	24	47	10.5	20	5.2	13.4

\* Sample product code, see:  
MAV06LRA3C

\*\*without union nut and cutting ring

## Gauge couplings

Female thread:  
Whitworth pipe thread  
Male version  
pre-assembled

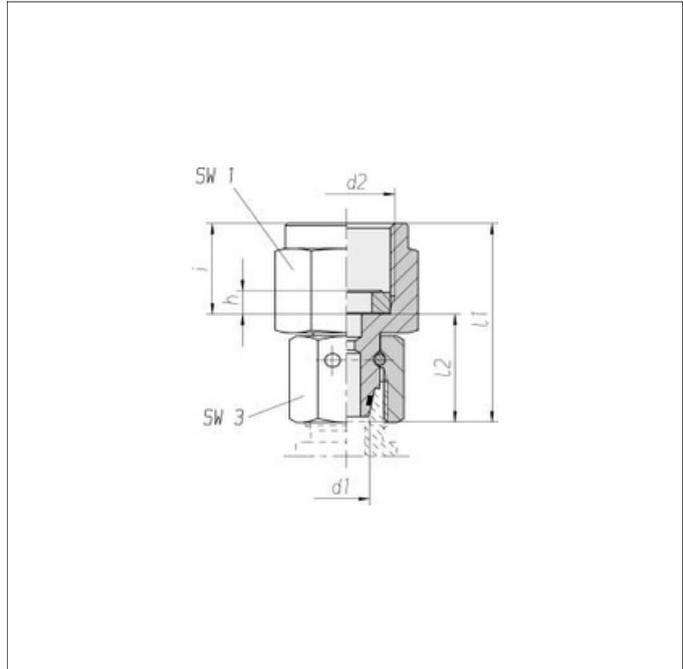


Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2 approx.	i	h	kg/100
L	PN 315	6	G 1/8	19	14	38	23.5	14.5	<sup>1)</sup> 4.5	5.1
L	PN 315	6	G 1/4	19	14	38	23.5	14.5	4.5	4.8
L	PN 315	8	G 1/4	19	17	38	23.5	14.5	4.5	5.5
L	PN 315	10	G 1/4	19	19	39.5	25	14.5	4.5	6.1
L	PN 315	12	G 1/4	19	22	40.5	26	14.5	4.5	7.3
S	PN 630	6	G 1/2	27	17	45	25	20	5	9.8
S	PN 630	8	G 1/2	27	19	45	25	20	5	10.4
S	PN 630	10	G 1/2	27	22	47	27	20	5	11.9
S	PN 630	12	G 1/2	27	24	47.5	27.5	20	5	12.9

\* Sample product code, see:  
MAVE06LRA3C  
<sup>1)</sup> without seal-edge ring

## Gauge couplings

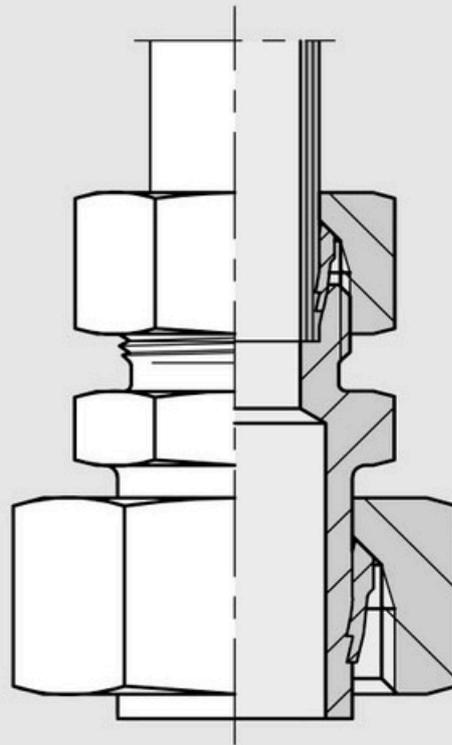
Female thread:  
Whitworth pipe thread  
Male connector  
with taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1



Series	Pressure	Tube OD d1	d2	SW1	SW3	l1 approx.	l2	i	h	kg/100 approx.
L	PN 315	6	G 1/4	19	14	37.5	23	14.5	4.6	5.1
L	PN 315	8	G 1/4	19	17	37.5	23	14.5	4.6	6.1
L	PN 315	10	G 1/4	19	19	36	21.5	14.5	4.6	6.2
L	PN 315	12	G 1/4	19	22	36	21.5	14.5	4.6	7.6
L	PN 315	15	G 1/2	27	22	44.5	24.5	20	5.2	13.0
S	PN 630	6	G 1/2	27	17	44.5	24.5	20	5.2	20
S	PN 630	8	G 1/2	27	19	44.5	24.5	5.2	20	12.2
S	PN 630	10	G 1/2	27	22	43.5	23.5	5.2	14.5	13.0
S	PN 630	12	G 1/4	19	24	38.5	24	4.6	20	10.2
S	PN 630	12	G 1/2	27	24	45	25	5.2		14.4

\* Sample product code, see:  
MAVE06LRA3C

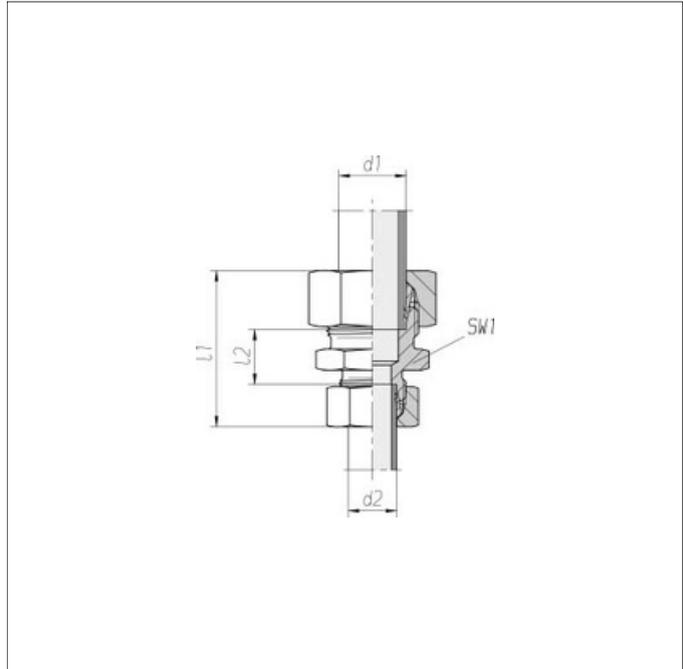
*Reducing couplings*



*Experience plus ideas*

## Straight reducing couplings

For tube-to-tube connection  
according to  
DIN 2353 / ISO 8434-1



Series	Pressure	Tube OD d1	Tube OD d2	SW1	l1 approx.	l2	kg/100 approx.
L	PN 100	6	4	11	31.5	10.5	1.8
L	PN 100	8	4	12	34.5	12.5	2.2
L							
L	PN 315	8	6	14	40.5	11	4.3
L	PN 315	10	6	17	41.5	12	5.4
L	PN 315	10	8	17	42	12	5.9
L	PN 315	12	6	19	42	13	6.4
L	PN 315	12	8	19	42.5	13	7.1
L	PN 315	12	10	19	43.5	14	7.7
L	PN 315	15	8	24	44	14	10.4
L	PN 315	15	10	24	45	15	11.0
L	PN 315	15	12	24	44.5	15	11.6
L	PN 315	18	10	27	47	15.5	14.4
L	PN 315	18	12	27	46.5	15.5	16.2
L	PN 315	18	15	27	48	16.5	17.9
L							
L	PN 160	22	12	32	48.5	17.5	19.3
L	PN 160	22	15	32	50	18.5	21.3
L	PN 160	22	18	32	51	18	24.5
L	PN 160	28	18	41	52	19	29.5
L	PN 160	28	22	41	54	21	32.0
L	PN 160	35	22	46	59	21	42.4
L	PN 160	35	28	46	59	21	43.9

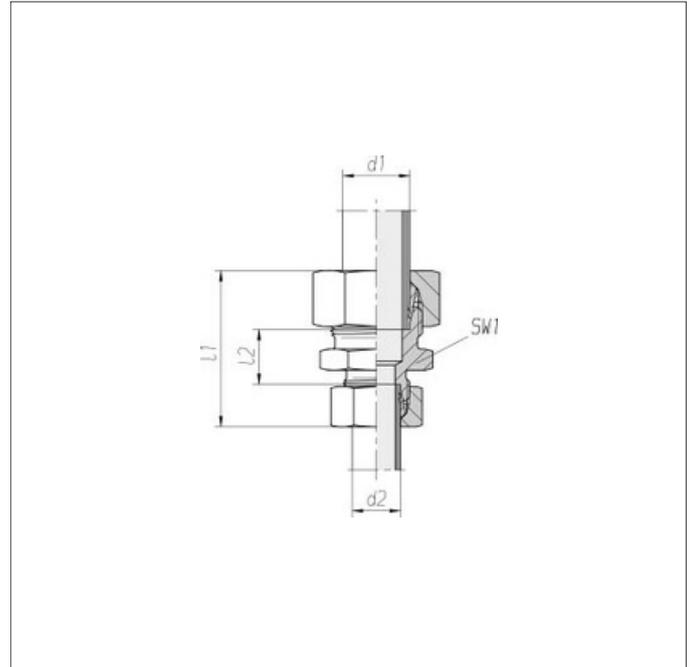
Other diameter combinations on request

\* Sample product code, see:  
GR08/06LA3C  
ISO 8434-1-RES-L8XL6-St

\*\*without union nut and cutting ring

## Straight reducing couplings

For tube-to-tube connection  
according to  
DIN 2353 / ISO 8434-1



Series	Pressure	Tube OD d1	Tube OD d2	SW1	l1 approx.	l2	kg/100 approx.
S	PN 630	8	6	17	48	18	7.8
S	PN 630	10	6	19	48.5	17.5	9.3
S	PN 630	10	8	19	48.5	17.5	9.8
S	PN 630	12	6	22	50.5	19.5	11.2
S	PN 630	12	8	22	50.5	19.5	12.1
S	PN 630	12	10	22	51	19	12.9
S	PN 630	14	10	24	54.5	20.5	16.0
S	PN 630	14	12	24	54.6	20.5	16.7
S	PN 400	16	12	27	54.6	20	19.0
S	PN 400	16	14	27	58	21.5	21.3
S	PN 400	20	10	32	56.5	22	27.2
S	PN 400	20	12	32	56.5	22	28.6
S	PN 400	20	16	32	60	23	31.2
S	PN 400	25	16	41	68	26.5	50.1
S	PN 400	25	20	41	68	25.5	55.2
S	PN 400	30	20	46	71	26	63.0
S	PN 400	30	25	46	77	26.5	75.3
S	PN 315	38	30	55	87	29.5	106.8

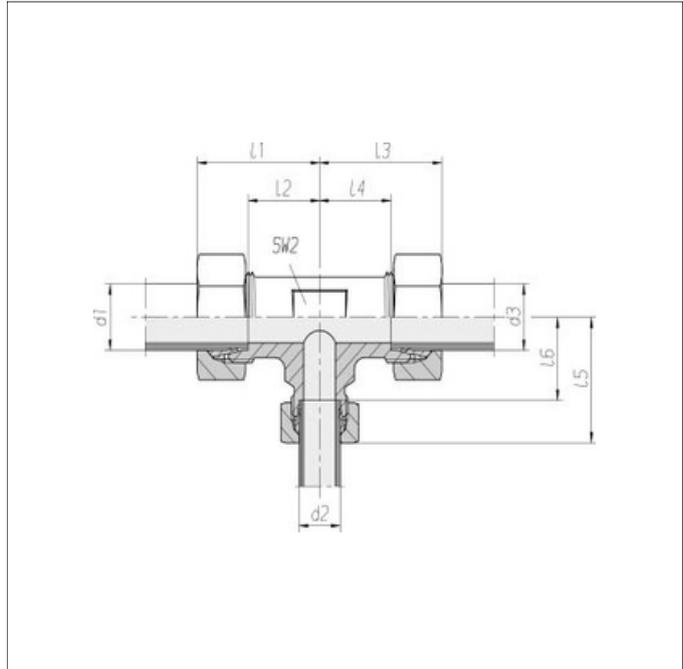
Other diameter combinations on request

\* Sample product code, see:  
GR08/06SA3C  
ISO 8434-1-RES-S8XS6-St

\*\*without union nut and cutting ring

## Branch reducing tees

Three-sided tube connection  
according to  
DIN 2353 / ISO 8434-1



Series	Pressure	Tube OD $d1$	$d2$	$d3$	SW2	$l1$ approx.	$l2$	$l3$ approx.	$l4$	$l5$ approx.	$l6$	kg/100 approx.
LL	PN 100	4	8	4	12	22.5	13	22.5	13	24	11.5	4.3
L	PN 315	6	8	6	14	28.5	14	28.5	14	29	14	8.9
L	PN 315	8	6	8	14	29	14	29	14	28.5	14	9.7
L	PN 315	6	10	6	17	29.5	15	29.5	15	30	15	11.0
L	PN 315	8	10	8	17	30	15	30	15	30	15	12.2
L	PN 315	10	6	10	17	30	15	30	15	29.5	15	12.0
L	PN 315	10	8	10	17	30	15	30	15	30	15	13.1
L	PN 315	10	10	6	17	30	15	29.5	15	30	15	11.1
L	PN 315	8	12	8	19	32	17	32	17	31.5	17	15.9
L	PN 315	12	6	12	19	31.5	17	31.5	17	31.5	17	12.1
L	PN 315	12	8	8	19	31.5	17	32	17	32	17	15.4
L	PN 315	12	8	12	19	31.5	17	31.5	17	32	17	16.7
L	PN 315	12	10	10	19	31.5	17	32	17	32	17	17.1
L	PN 315	12	10	12	19	31.5	17	31.5	17	32	17	17.5
L	PN 315	12	12	10	19	31.5	17	32	17	31.5	17	16.9
L	PN 315	10	15	10	19	36	21	36	21	36	21	19.6
L	PN 315	12	15	12	19	35.5	21	35.5	21	36	21	19.6
L	PN 315	15	6	15	19	36	21	36	21	36	21	21.0
L	PN 315	15	10	15	19	36	21	36	21	36	21	21.8
L	PN 315	15	12	12	19	36	21	35.5	21	35.5	21	20.1
L	PN 315	15	12	15	19	36	21	36	21	35.5	21	22.5
L	PN 315	15	15	12	19	36	21	35.5	21	36	21	21.4

Sample product code, see:

\* TR10/06/10LA3C  
ISO 8434-1-REBT-L10/L6/L10-St

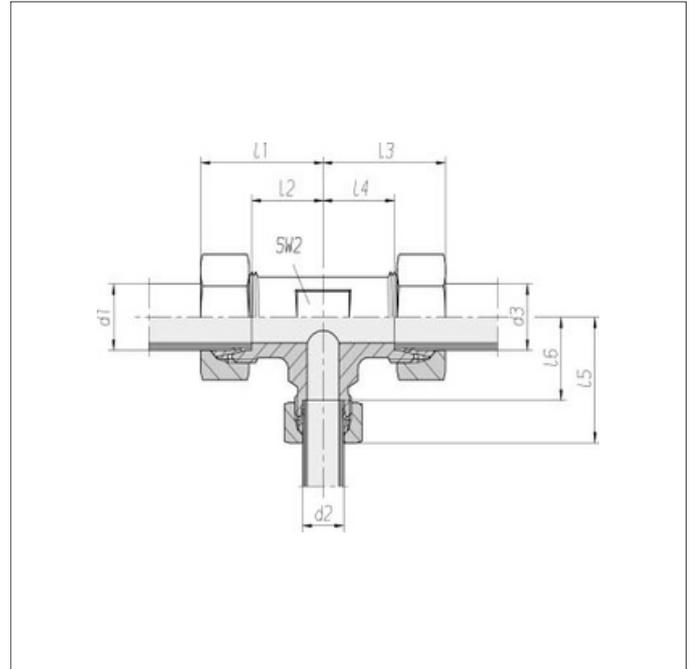
\*\* TR10/10/06LA3C  
ISO 8434-1-RERT-L10/L10/L6-St

\*\*\*without union nut and cutting ring

Other diameter combinations on  
request

## Branch reducing tees

Three-sided tube connection  
according to  
DIN 2353 / ISO 8434-1



Continued from Page 122

Series	Pressure	Tube OD $d1$	$d2$	$d3$	SW2	$l1$ approx.	$l2$ approx.	$l3$ approx.	$l4$	$l5$ approx.	$l6$	kg/100 approx.
L	PN 315	12	18	12	24	38.5	24	38.5	24	40	23.5	28.4
L	PN 315	18	10	10	24	40	23.5	39	24	39	24	26.1
L	PN 315	18	10	18	24	40	23.5	40	23.5	39	24	31.2
L	PN 315	18	12	18	24	40	23.5	40	23.5	38.5	24	31.7
L	PN 315	18	15	18	24	40	23.5	40	23.5	39	24	33.9
L	PN 315	18	18	10	24	40	23.5	39	24	40	23.5	28.6
L	PN 160	22	10	22	27	44	27.5	44	27.5	43	28	40.3
L	PN 160	22	12	22	27	44	27.5	44	27.5	42.5	28	41.4
L	PN 160	22	15	15	27	44	28	43	27.5	43	28	38.1
L	PN 160	22	15	22	27	44	27.5	44	27.5	43	28	43.0
L	PN 160	22	18	18	27	44	27.5	44	27.5	44	27.5	42.3
L	PN 160	22	18	22	27	44	27.5	44	27.5	44	27.5	43.0
L	PN 160	22	22	18	27	44	27.5	44	27.5	44	27.5	43.4
L	PN 160	28	10	28	36	47	30.5	47	30.5	46	31	53.3
L	PN 160	28	12	28	36	47	30.5	47	30.5	45.5	31	55.6
L	PN 160	28	15	28	36	47	30.5	47	30.5	46	31	56.4
L	PN 160	28	18	28	36	47	30.5	47	30.5	47	30.5	61.5
L	PN 160	28	22	22	36	47	30.5	47	30.5	47	30.5	60.6
L	PN 160	28	22	28	36	47	30.5	47	30.5	47	30.5	60.2

Sample product code, see:

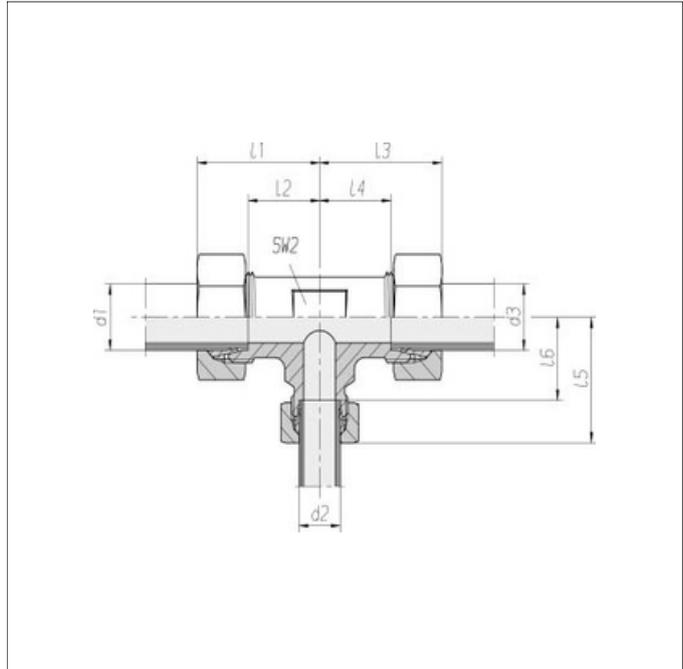
\* TR10/06/10LA3C  
ISO 8434-1-REBT-L12/18/12/L10-St

\*\*\*without union nut and cutting ring

Other diameter combinations on  
request

## Branch reducing tees

Three-sided tube connection  
according to  
DIN 2353 / ISO 8434-1



Series	Pressure	Tube OD d1	d2	d3	SW2	l1 approx.	l2 approx.	l3 approx.	l4	l5 approx.	l6	kg/100 approx.
S	PN 630	10	6	10	19	33.5	17.5	33.6	17.6	33	18	20.4
S	PN 630	12	8	8	22	37.5	21.5	37	22	37	22	24.3
S	PN 630	12	8	12	22	37.5	21.5	37.5	21.5	37	22	27.5
S	PN 630	12	10	12	22	37.5	21.5	37.5	21.5	37.5	21.5	28.2
S	PN 400	12	16	12	24	41.6	25.5	41.5	25.4	43	24.5	33.3
S	PN 400	16	6	16	24	43	24.5	43	24.5	41	26	32.7
S	PN 400	16	8	16	24	43	24.5	43	24.5	41	26	33.3
S	PN 400	16	10	16	24	43	24.5	43	24.5	41.5	25.5	34.8
S	PN 400	16	12	16	24	43	24.5	43	24.5	41.5	25.5	35.6
S	PN 400	16	20	16	27	47	28.5	47	28.5	45	26.5	50.3
S	PN 400	20	10	20	27	45	26.5	45	26.5	45.5	29.5	51.0
S	PN 400	20	12	20	27	45	26.5	45	26.5	45.5	29.5	53.0
S	PN 400	20	16	20	27	45	26.5	45	26.5	47	28.5	55.8
S	PN 400	20	25	20	36	50	31.5	50	31.5	54	30	89.4
S	PN 400	25	16	25	36	54	30	54	30	52	33.5	93.8
S	PN 400	25	20	25	36	54	30	54	30	50	31.5	97.2
S	PN 400	25	30	25	41	61	37	61	37	62	35.5	138.0

Other diameter combinations on  
request

Sample product code, see:

\* TR10/06/10SA3C

ISO 8434-1-REBT-S10XS6XS10-St

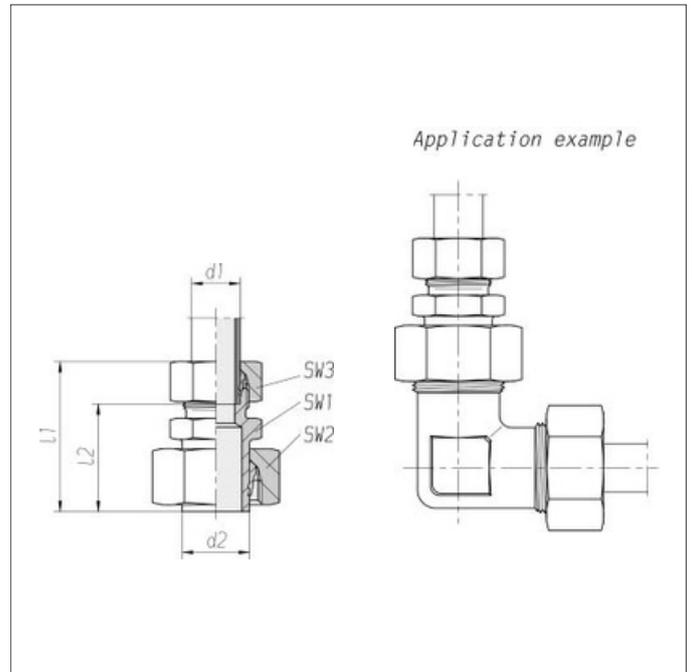
\*\* TR12/08/08SA3C

ISO 8434-1-RERT-S12XS8XS8-St

\*\*\*without union nut and cutting ring

## Reducing inserts

With hexagon for locking  
Tube socket pre-assembled



Series	Pressure	Tube socket d2	Tube OD d1	SW1	SW2	SW3	l1 approx.	l2	kg/100 approx.
L	PN 315	8	6	12	17	14	40.5	26	4.0 28
L	PN 315	10	8	14	19	17	42.5	5.4	27 4.6
L	PN 315	10	6	12	19	14	41.5	31	7.3 30
L	PN 315	12	10	17	22	19	45.5	6.4	30 5.8
L	PN 315	12	8	14	22	17	44.5	33	11.1 32
L	PN 315	12	6	14	22	14	44.5	9.7	31 9.0
L	PN 315	15	12	19	27	22	48	31	8.8
L	PN 315	15	10	17	27	19	47	32.5	16.6
L	PN 315	15	8	17	27	17	46	31.5	13.3
L	PN 315	15	6	17	27	14	46	31.5	12.4
L	PN 315	18	15	24	32	27	47.5	30.5	12.0
L	PN 315	18	12	19	32	22	46.5	30.5	11.4
L	PN 315	18	10	19	32	19	46.5	34	23.3
L	PN 315	18	8	19	32	17	45.5	33.5	19.5
L	PN 315	18	6	19	32	14	45.5	32.5	17.0
L	PN 160	22	18	27	36	32	50.5	32.5	16.1
L	PN 160	22	15	24	36	27	48.5	31.5	15.6
L	PN 160	22	12	24	36	22	47.5	37.5	28.5
L	PN 160	22	10	24	36	19	47.5	35.5	25.5
L	PN 160	22	8	24	36	17	46.5	35	22.5 34
L	PN 160	28	22	32	41	36	54	20.7	34
L	PN 160	28	18	30	41	32	52	19.6	45
L	PN 160	28	15	30	41	27	50	42.2	44
L	PN 160	28	12	30	41	22	49	38.4	42
L	PN 160	28	10	30	41	19	49	35.0	41.5
L	PN 160	35	28	41	50	41	61.5	33.6	47.5
L	PN 160	35	22	36	50	36	60.5	63.3	47.5
L	PN 160	35	18	36	50	32	58.5	54.4	46.5
L	PN 160	35	15	36	50	27	56.5	53.0	44.5
L	PN 160	42	35	46	60	50	69	51.4	45
L	PN 160	42	28	46	60	41	64	49.4	
L	PN 160	42	22	46	60	36	63		
L	PN 160	42	18	46	60	32	61		
L	PN 160	42	15	46	60	27	60		

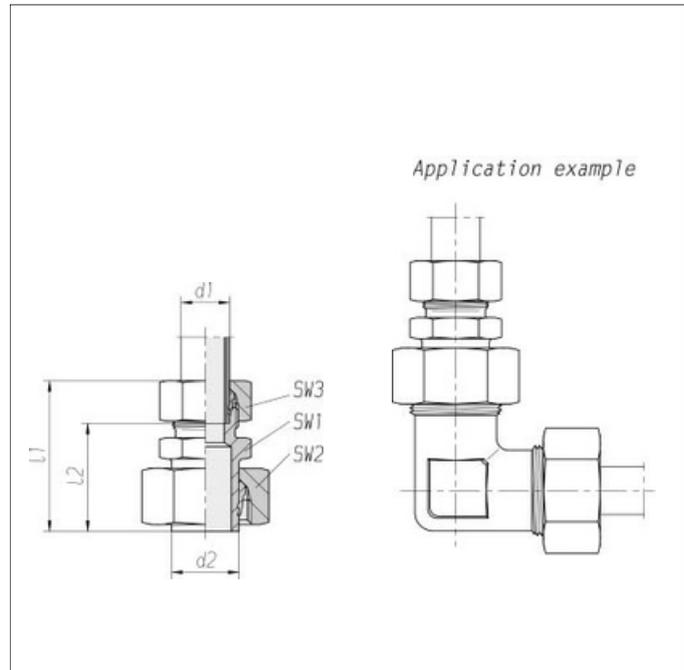
Other diameter combinations on request

\* Sample product code, see: KOR08/06LA3C

\*\*without union nut and cutting ring at tube end

## Reducing inserts

With hexagon for locking  
Tube socket pre-assembled



Series	Pressure	Tube socket d2	Tube OD d1	SW1	SW2	SW3	l1 approx.	l2	kg/100 approx.
S	PN 630	8	6	14	19	17	45	30	6.3 34
S	PN 630	10	8	17	22	19	49	8.9	32 7.7
S	PN 630	10	6	14	22	17	47	33.5	11.3
S	PN 630	12	10	19	24	22	50	34	9.7 32
S	PN 630	12	8	17	24	19	49	8.5	38.5
S	PN 630	12	6	14	24	17	47	15.8	36.5
S	PN 630	14	12	22	27	24	55	13.9	37
S	PN 630	14	10	19	27	22	53	12.2	35
S	PN 630	14	8	17	27	19	52	11.4	
S	PN 630	14	6	17	27	17	50		
S	PN 400	16	14	24	30	27	58	40	20.3
S	PN 400	16	12	22	30	24	55	38.5	17.1
S	PN 400	16	10	19	30	22	53	36.5	15.2
S	PN 400	16	8	17	30	19	52	37	14.0 35
S	PN 400	16	6	17	30	17	50	12.7	43.5
S	PN 400	20	16	27	36	30	62	27.3	44
S	PN 400	20	14	24	36	27	62	24.8	42.5
S	PN 400	20	12	22	36	24	59	21.8	40.5
S	PN 400	20	10	22	36	22	57	20.7	41
S	PN 400	20	8	22	36	19	56	19.5	40
S	PN 400	20	6	22	36	17	55	18.5	48.5
S	PN 400	25	20	32	46	36	70	47.7	46.5
S	PN 400	25	16	27	46	30	65	39.7	47
S	PN 400	25	14	27	46	27	65	38.3	45.5
S	PN 400	25	12	27	46	24	62	35.6	43.5
S	PN 400	25	10	27	46	22	60	34.8	44
S	PN 400	25	8	27	46	19	59	33.3	54
S	PN 400	30	25	41	50	46	78	70.2	51.5
S	PN 400	30	20	32	50	36	73	54.6	

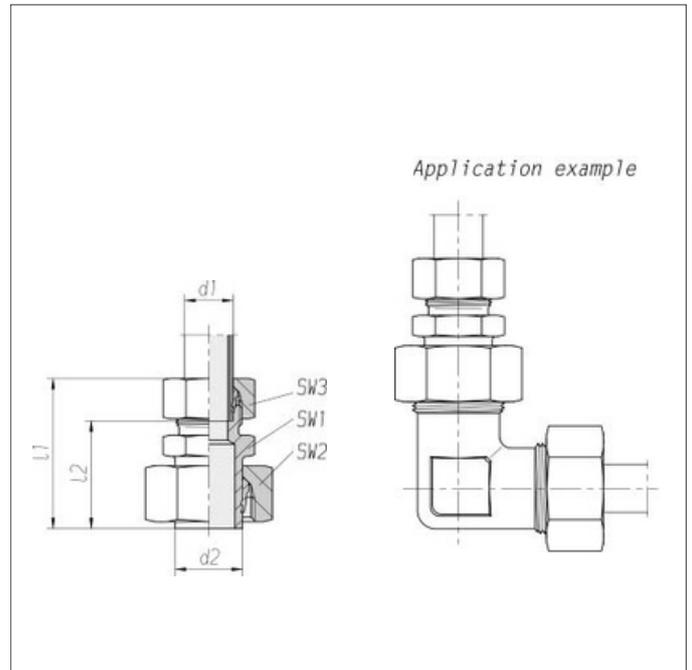
Other diameter combinations on request

\* Sample product code, see: KOR08/06SA3C

\*\* without union nut and cutting ring at tube end

## Reducing inserts

With hexagon for locking  
Tube socket pre-assembled



Continued from Page 126

Series	Pressure	Tube socket d2	Tube OD d1	SW1	SW2	SW3	l1 approx.	l2	kg/100 approx.
S	PN 400	30	16	32	50	30	68	49.5	48.8
S	PN 400	30	14	32	50	27	68	50	44.0
S	PN 400	30	12	32	50	24	65	48.5	40.7
S	PN 315	38	30	46	60	50	87	60.5	94.4
S	PN 315	38	25	41	60	46	84	60	86.0
S	PN 315	38	20	41	60	36	79	57.5	76.0
S	PN 315	38	16	41	60	30	74	55.5	71.5
S	PN 315	38	10	41	60	22	71	54.5	67.0

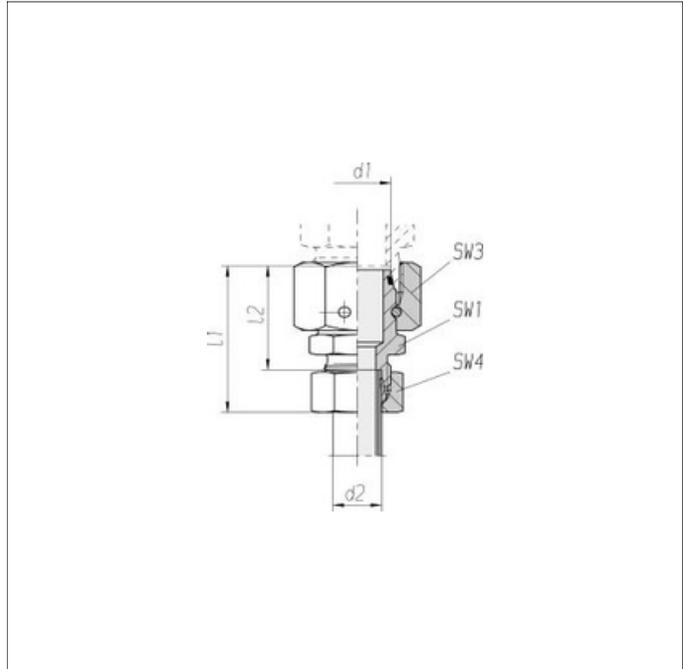
Other diameter combinations on request

\* Sample product code, see:  
KOR30/16SABC

\*\*without union nut and cutting ring  
at tube end

## Reducing couplings

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1  
With union nut and cutting ring  
at tube end



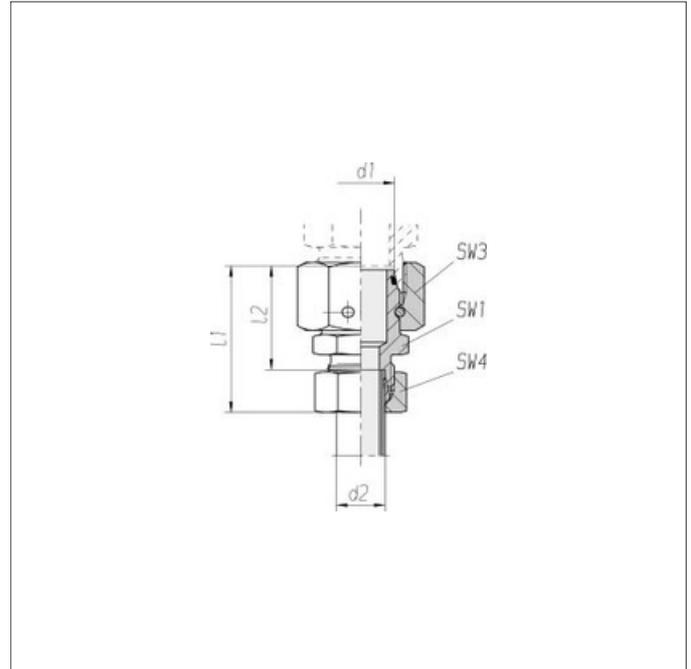
Series	Pressure	Tube OD d1	Tube OD d2	SW1	SW3	SW4	l1 approx.	l2	kg/100 approx.
L	PN 315	8	6	12	17	14	38	23.5	4.1
L	PN 315	10	6	14	19	14	39.5	25	4.9 25
L	PN 315	10	8	14	19	17	39.5	5.6 25	6.1
L	PN 315	12	6	17	22	14	39.5	25	6.7 26
L	PN 315	12	8	17	22	17	39.5	7.3 28	9.7
L	PN 315	12	10	17	22	19	40.5	28	10.3 29
L	PN 315	15	6	19	27	14	42.5	10.8	29
L	PN 315	15	8	19	27	17	42.5	11.7	28
L	PN 315	15	10	19	27	19	43.5	11.9	28
L	PN 315	15	12	19	27	22	43.5	12.6	29
L	PN 315	18	6	24	32	14	42.5	13.1	29
L	PN 315	18	8	24	32	17	42.5	14.0	30
L	PN 315	18	10	24	32	19	43.5	16.4	33
L	PN 315	18	12	24	32	22	43.5	17.2	33
L	PN 315	18	15	24	32	27	45	18.0	34
L	PN 160	22	10	27	36	19	47.5	20.5	33.5
L	PN 160	22	12	27	36	22	47.5	23.1	34
L	PN 160	22	15	27	36	27	49	21.2	35
L	PN 160	22	18	27	36	32	49.5	21.8	35
L	PN 160	28	8	32	41	17	48.5	22.4	36
L	PN 160	28	10	32	41	19	49.5	24.8	35.5
L	PN 160	28	12	32	41	22	49.5	27.3	37.5
L	PN 160	28	15	32	41	27	51	29.5	38
L	PN 160	28	18	32	41	32	51.5	32.1	39
L	PN 160	28	22	32	41	36	53.5	34.9	38.5
L	PN 160	35	10	41	50	19	52.5	37.7	40.5
L	PN 160	35	15	41	50	27	54	39.5	40.5
L	PN 160	35	18	41	50	32	54.5	41.0	42
L	PN 160	35	22	41	50	36	56.5	57.4	44
L	PN 160	35	28	41	50	41	57	59.1	44
L	PN 160	42	18	50	60	32	58	60.6	43
L	PN 160	42	22	50	60	36	60	68.4	
L	PN 160	42	28	50	60	41	60.5		
L	PN 160	42	35	50	60	50	64.5		

\* Sample product code, see:  
RED08/06LA3C

\*\*without union nut and cutting ring at  
tube end

## Reducing couplings

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1  
With union nut and cutting ring  
at tube end



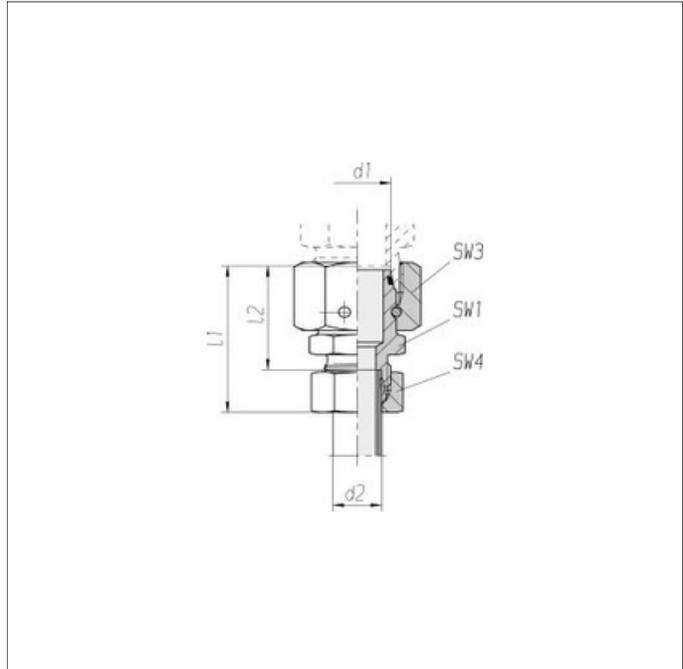
Series	Pressure	Tube OD d1	Tube OD d2	SW1	SW3	SW4	l1 approx.	l2	kg/100 approx.
S	PN 630	8	6	14	19	17	41.5	27	6.4
S	PN 630	10	6	17	22	17	42	27.5	7.7
S	PN 630	10	8	17	22	19	42	27.5	8.4
S	PN 630	12	6	19	24	17	44.5	30	9.1 30
S	PN 630	12	8	19	24	19	44.5	9.8	29.5
S	PN 630	12	10	19	24	22	45.5	10.9	
S	PN 400	16	6	22	30	17	46.5	32	13.3 32
S	PN 400	16	8	22	30	19	46.5	14.0	31.5
S	PN 400	16	10	22	30	22	47.5	15.2	31.5
S	PN 400	16	12	22	30	24	47.5	15.6	31.5
S	PN 400	16	14	24	30	27	49.5	16.1	36
S	PN 400	20	6	27	36	17	50.5	18.1	36
S	PN 400	20	8	27	36	19	50.5	18.6	35.5
S	PN 400	20	10	27	36	22	51.5	19.9	35.5
S	PN 400	20	12	27	36	24	51.5	20.5	36.5
S	PN 400	20	16	27	36	30	54.5	24.6	

\* Sample product code, see:  
RED08/06SA3C

\*\*without union nut and cutting ring at  
tube end

## Reducing couplings

With taper and O-ring  
fit in bore type  
W DIN 3861 / ISO 8434-1  
With union nut and cutting ring  
at tube end



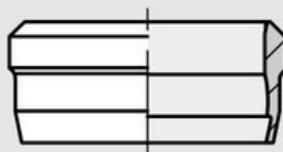
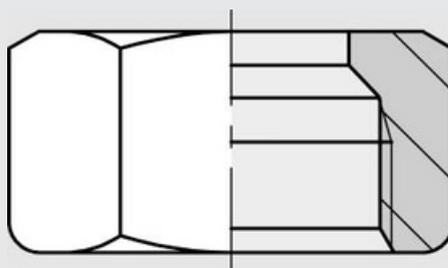
Continued from Page 129

Series	Pressure	Tube OD d1	Tube OD d2	SW1	SW3	SW4	l1 approx.	l2	kg/100 approx.
S	PN 400	25	8	32	41	19	50.5	36	30.2 38
S	PN 400	25	10	32	41	22	54	33.9	38
S	PN 400	25	12	32	41	24	54	34.3	39
S	PN 400	25	16	32	41	30	57	38.6	39
S	PN 400	25	20	32	41	36	60.5	43.9	43.5
S	PN 400	30	10	41	50	22	59.5	42.0	43.5
S	PN 400	30	12	41	50	24	59.5	42.9	44.5
S	PN 400	30	16	41	50	30	62.5	46.7	44.5
S	PN 400	30	20	41	50	36	66	52.1	45
S	PN 400	30	25	41	50	46	69	64.7	
S	PN 315	38	16	50	60	30	66	48	64.6 48
S	PN 315	38	20	50	60	36	69.5	69.7	48.5
S	PN 315	38	25	50	60	46	72.5	82.3	49
S	PN 315	38	30	50	60	50	75.5	86.5	

\* Sample product code, see:  
RED25/08SA3C

\*\*without union nut and cutting ring at  
tube end

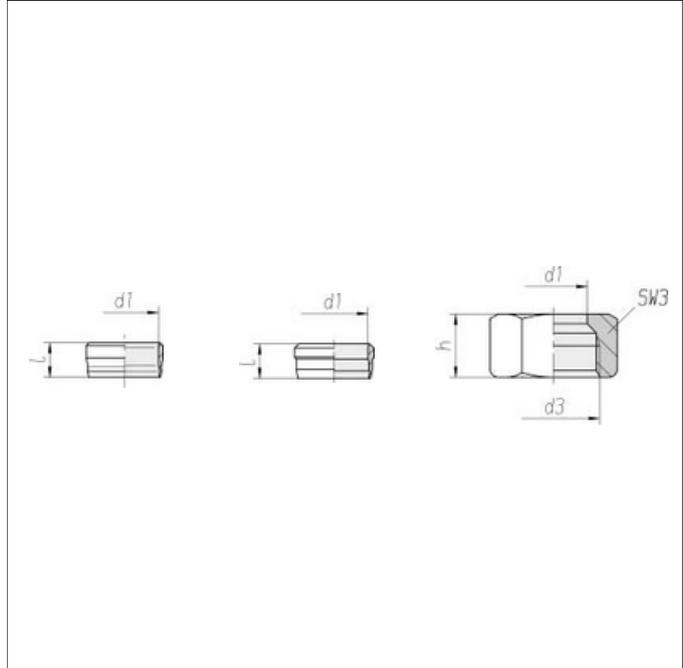
***Component parts***



***Experience plus ideas***

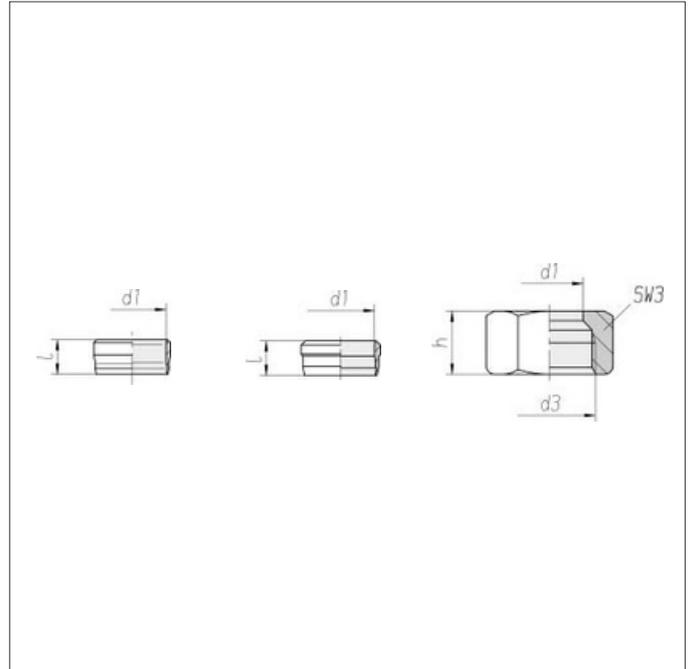
## Cutting rings

## Union nuts



Series	Pressure	Tube OD d1	d3	SW3	l	h
L	PN 100	4	M 8 x 1	10	6.5	11
L	PN 100	5	M 10 x 1	12	7.5	11.5
L	PN 100	6	M 10 x 1	12	7.5	11.5
L	PN 100	8	M 12 x 1	14	7.5	12
L						
L	PN 315	6	M 12 x 1.5	14	8.5	14.5
L	PN 315	8	M 14 x 1.5	17	8.5	14.5
L	PN 315	10	M 16 x 1.5	19	9.5	15.5
L	PN 315	12	M 18 x 1.5	22	9.5	15.5
L	PN 315	15	M 22 x 1.5	27	10	17
L	PN 315	18	M 26 x 1.5	32	10	18
L						
L	PN 160	22	M 30 x 2	36	11.5	20
L	PN 160	28	M 36 x 2	41	11.5	21
L	PN 160	35	M 45 x 2	50	13.5	24
L	PN 160	42	M 52 x 2	60	13.5	24

# Cutting rings Union nuts



Series	Pressure	Tube OD d1	d3	SW3	l	h
S	PN 630	6	M 14 x 1.5	17	8.5	16.5
S	PN 630	8	M 16 x 1.5	19	8.5	16.5
S	PN 630	10	M 18 x 1.5	22	9.5	17.5
S	PN 630	12	M 20 x 1.5	24	9.5	17.5
S	PN 630	14	M 22 x 1.5	27	10	20.5
S	PN 400	16	M 24 x 1.5	30	10	20.5
S	PN 400	20	M 30 x 2	36	11.5	24
S	PN 400	25	M 36 x 2	46	11.5	27
S	PN 400	30	M 42 x 2	50	13.5	29
S	PN 315	38	M 52 x 2	60	13.5	32.5

Cutting rings of tube OD 6 – 12 mm are identical in L + S series

Sample product code, see:

\*\*\* DPR06SX

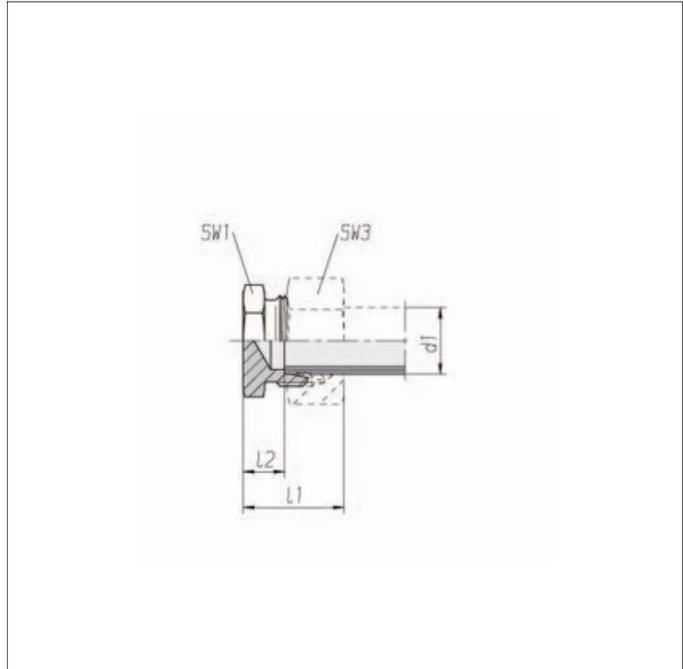
ISO 8434-1-CR-S6-St

The union nuts are coated with sliding wax to reduce assembly forces

\*\*\*\*\* M06SA3CX

ISO 8434-1-N-S6-St

## Tube blanking screws



Series	Pressure	Tube OD d1	SW1	SW3	l1 approx.	l2	kg/100 approx.
L	PN 315	6	12	14	22	7.0	2.1
L	PN 315	8	14	17	23	8.0	3.0
L	PN 315	10	17	19	24	9.0	4.0
L	PN 315	12	19	22	25	10.0	5.3
L	PN 315	15	24	27	26	11.0	8.7
L	PN 315	18	27	32	28	11.5	12.8
L	PN 160	22	32	36	30	13.5	17.4
L	PN 160	28	41	41	31	14.5	23.7
L	PN 160	35	46	50	36	14.5	35.1
L	PN 160	42	55	60	39	16.0	55.7
S	PN 630	6	14	17	26	11.0	3.6
S	PN 630	8	17	19	28	13.0	4.5
S	PN 630	10	19	22	29	12.5	6.9
S	PN 630	12	22	24	31	14.5	8.7
S	PN 630	14	24	27	34	16.0	12.0
S	PN 400	16	27	30	34	15.5	15.1
S	PN 400	20	32	36	39	17.5	23.9
S	PN 400	25	41	46	44	20.0	45.3
S	PN 400	30	46	50	47	20.5	54.8
S	PN 315	38	55	60	54	23.0	86.9

\* Sample product code, see:  
ROV06LA3CX

\*\*without union nut and cutting ring