

# Verschraubungen Tube Fittings

Doppelklemmring Edelstahl Messing Serie



System Fit-Lok

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## Features

- ⊙ Leicht zu verbinden und zu lösen - keinen speziellen Werkzeuge erforderlich - einfach festzuziehen
- ⊙ Große Vielfalt von Materialien und Konfigurationen
- ⊙ Besteht aus zwei Klemmrings wobei eine Klemmring dichtet
- ⊙ Jeder Klemmring ist mit Art und Größe markiert

## Technische Daten

- ⊙ Verfügbare Größen: von 1/16 " bis über 1 Zoll metrische Größen: von 3 mm zu 25 mm
- ⊙ Fit-Lok Verschraubungen sind für hohe Arbeitsdrücke ausgelegt, zusammen mit den Fit-Lok Rohr, siehe auch die Fit-Lok Daten auf Seite 6
- ⊙ Die aktiven Temperaturen von Fit-ok Verschraubungen sind unten aufgeführt

Fitting Material	Minimum Temperaturen	Maximum Temperature
316SS	-200C° (-325 ) F °	+426 C ° (+800) F °
Brass	-200C° (-325 ) F °	+204 C ° (+400) F °

Für Edelstahl fittings, kurzzeitig auch intermittierend nutzbar bis 649C<sup>o</sup> ist möglich, jedoch bei längerer Einsatz bei den Temperaturen über 426 C keine Garantie auf solche Anwendungen möglich!

649 C°= 1200 F° 426 C°= 800 F°

## Bestellinformationen

Fügen Sie die Materialkennzeichnung als Präfix zur Grundbestellungs Nummer hinzu für die Vollständige Nummer zum bestellen

### Beispiel

1. Einschrauber mit 1/4" Rohranschluss 1/4 " NPT einschraubgewinde in Edelstahl 316 ( Male connector with 1/4" tube, 1/4"NPT thread and 316 stainless steel

Die Komplette Bezeichnung ist : SSS-CM-FL4-NS4

the complete ordering number is SSS-CM-FL4-NS4

2. Aufschraubadapter mit 12mm Rohr, 1/4"RG Gewinde in Messing, ( Female adapter with 12mm tube, 1/4"RG thread and brass material.)

Die komplette Bezeichnung ist : BM-AF-MT12-RG4

the complete ordering numbers BM-AF-MT12-RG4

Designator	Material
AL	Aluminum
BM	Brass , Messing
C20	Alloy 20
CS	Carbon steel
HC	Alloy C-276
INC	Alloy 600
M	Alloy 400/R-405
NY	Nylon
Ss1	321SS = 1.4878
Ss3	304LSS = 1.4306
Ss4	304SS =1.4301
Ss5	316LSS =1.4435
SSS	316SS= 1.4539
Ss7	347SS = 1.4550
T	PTFE
TI	Titanium

## Installationsanweisungen

1. 1. Lockern Sie die Überwurfmutter
2. Führen Sie das Röhrenende in die Verschraubung ein wobei die Überwurfmutter , Klemmrings; Verschraubung und zu dem Rohr passen muss.
3. stellen Sie sicher dass das Röhrenende fest in die Verschraubung passt, die Überwurfmutter handfest anziehen.
4. Ziehen Sie die Überwurfmutter 11/4 Umdrehungen Fest mit einem Passenden Schlüssel an.

Für klein dimensionierte Verschraubungen bitte dabei das Rohrs vorsichtig fest Halten.

(1/16 , 1/8, 3/16 und 2mm, 3mm, 4mm), ziehen sie die Mutter nochmal um 3/4 umdrehung an

## Vorsicht

1. Wenn System unter Druck ;ist Lockern oder ziehen Sie keine Installationsteile an,
2. Vergewissern Sie sich, dass der Schlauch (das Rohr) fest in die Verschraubung passt und die Klemmrings stramm auf dem Rohr sitzen.
3. Lassen Sie immer genug Länge als Einlaufstrecke Dehnungstrecke von gerader Röhre zu einer Röhrbiegung oder Installation.
4. Verwenden Sie immer richtige Dichtungsmassen oder Teflon Schmiermittel auf Gewindeenden.
5. Drehen Sie den Rohrkörper nie; stattdessen halten Sie den Körper und drehen Sie die Überwurfmutter.
6. Das Material vom Rohr sollte weicher wie die Verschraubung sein, vermeiden Sie rostfreies Stahlrohr mit Messinginstallationen zu verwenden.
7. Extreme änderungen der Rohr Wanddicke sollten immer gegen Minimalanforderungen der Wanddicke abgeglichen werden
8. Die Sauberkeit und Reinheit ist extrem Bedeutend

vermeiden sie unbedingt Druckstellen Kratzer Verunreinigungen auf dem Rohr oder in der Verschraubung

Wenn Rohr,Schlauch und Installationen aus demselben Material gemacht werden, muss das Rohr genau den Anforderungen entsprechen.

Die Dichtheit kommt neben der Sauberkeit auch durch die verwendeten Dichtungen und Ihr Dichtungsmittel

Hinweis: Dimensioniert in mm, wenn nicht anders angegeben, dimensioniert nur für Referenz, sonst in Zoll

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# Gewinde Daten

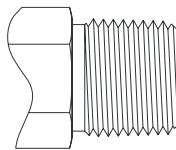
## Gewindeart

NPT Gewinde(NPT->USA->Gewinde)

Gleich wie ASME/ANSI B1.20.1-1983, GB/T 12716-2002

Gewinde Größe(in.)	Gewinde / in.(n)	Abm..als allgemeine Reverenz		
		AußenAbm..	Innen Abm..	Kern. Abm..
1/16	27	7.894	7.142	6.389
1/8	27	10.242	9.489	8.737
1/4	18	13.616	12.487	11.358
3/8	18	17.055	15.926	14.797
1/2	14	21.224	19.772	18.321
3/4	14	26.569	25.117	23.666
1	11.5	33.228	31.461	29.694
1 1/4	11.5	41.985	40.218	38.451
1 1/2	11.5	48.054	46.287	44.520
2	11.5	60.092	58.325	56.558

- ⊙ 60° Flankenwinkel
- ⊙ Abmessungen in Zoll (inch)
- ⊙ Konisches Gewinde Kegelig Form Spitz
- ⊙ Durchmesser zu Länge 1:16
- ⊙ Art der Dichtung: Gewindedichtend;Band o. Dichtmasse



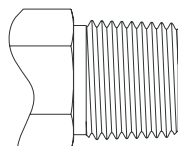
## Rohr oder Rohrzoll Gewinde

BSP Tapered Gewinde(R, R1, R2, Rc, ZG, RT, PT, BSPT)

Gleich wie BS 21-1985, GB/T 7306.2-2000, ISO 7/1-1994, JIS B0203-1999, DIN 2999

Gewinde Größe(in.)	Gewinde / in.(n)	Abm.. at reference plane		
		AußenAbm..	Innen Abm..	Kern. Abm..
1/16	28	7.723	7.142	6.561
1/8	28	9.728	9.147	8.566
1/4	19	13.157	12.301	11.445
3/8	19	16.662	15.806	14.950
1/2	14	20.995	19.793	18.631
3/4	14	26.441	25.279	24.117
1	11	33.249	31.770	30.291
1 1/4	11	41.910	40.431	38.952
1 1/2	11	47.803	46.324	44.845
2	11	59.614	58.135	56.656

- ⊙ 55° Flankenwinkel
- ⊙ Abmessungen in Zoll (inch)
- ⊙ Konisches Gewinde Form Rund Kegelig
- ⊙ Durchmesser zu Länge 1:16
- ⊙ Art der Dichtung: Gewindedichtend;Band o. Dichtmasse



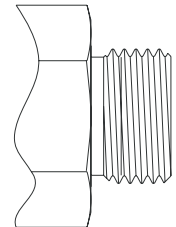
## Gerades oder Parallel Gewinde

BSP Parallel Gewinde(Rp, G, Pf, BSPP)

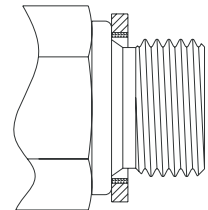
Gleich wie BS 2779, GB/T7307-2001, ISO 228/1, DIN ISO 228/1, JIS B0202-1999, DIN 3852

Gewinde Größe(in.)	Gewinde / in.(n)	Basic Abm..		
		AußenAbm..	Innen Abm..	Kern.Abm..
1/16	28	7.723	7.142	6.561
1/8	28	9.728	9.147	8.566
1/4	19	13.157	12.301	11.445
3/8	19	16.662	15.806	14.950
1/2	14	20.995	19.793	18.631
3/4	14	26.441	25.279	24.117
1	11	33.249	31.770	30.291
1 1/4	11	41.910	40.431	38.952
1 1/2	11	47.803	46.324	44.845
2	11	59.614	58.135	56.656

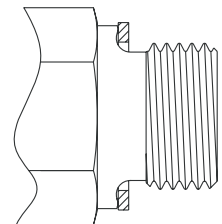
- ⊙ 55° Flankenwinkel
- ⊙ Abmessungen in Metrisch (mm)
- ⊙ Paralleles Gewinde Zylindrisch Form Spitz
- ⊙ Art der Dichtung Front oder Gewindeanlagefläche wie folgt:



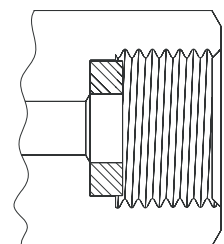
1.RS Verschraubung und RS Dichtung



2.RP Verschraubung und RP Dichtung  
Anm.: Die RP Dichtung kann auch mit einer RS Verschraubung Verwendet werden, bzw. erfordert



3.RG Verschraubung und RG Dichtung



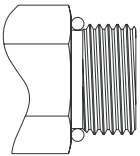
# Gewinde Daten

SAE/MS Gewinde(UN, UNJ) auch UNF (->USA->Gewinde)  
 Gleich wie ASME/ANSI B1.1-1989(R 2001), SAE J1926, MS16142

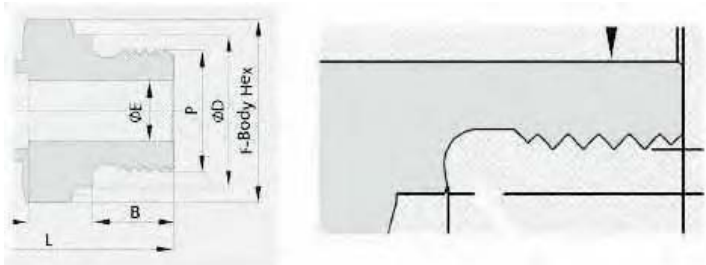
Metrisches Gewinde(M)  
 Gleich wie GB/T196-2003, ISO 261-1998

Gewinde Größen	Gewinde / in.(n)	Grund Abmessung.		
		AußenAbm..	Innen Abm..	Kern. Abm..
5/16-24	24	7.938	7.249	6.792
7/16-20	20	11.113	10.287	9.738
1/2-20	20	12.700	11.875	11.325
9/16-18	18	14.288	13.325	12.559
3/4-16	16	19.050	18.019	17.331
1 1/16-12	12	26.988	25.613	24.695
1 5/16-12	12	33.338	31.963	31.046

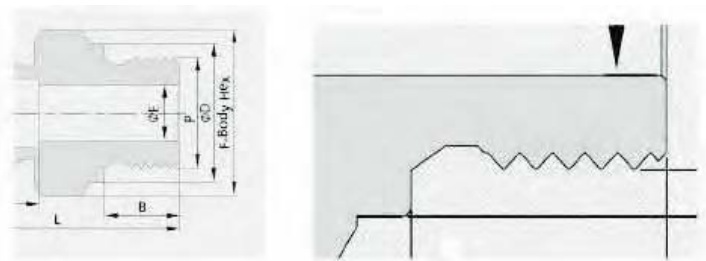
- ⊙ 60° Flankenwinkel
- ⊙ Abmessungen in Zoll (inch)
- ⊙ Paralleles Gewinde Zylindrisch Form Spitz
- ⊙ Dichtungsart: O-Ring hinter dem Gewinde



## RP

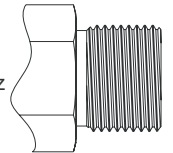


## RS

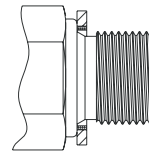


Gewinde Größen	Steigung	Grund Abmessung.		
		AußenAbm..	Innen Abm..	Kern. Abm..
M6x1	1	6.000	5.350	4.917
M8x1		8.000	7.350	6.917
M10x1		10.000	9.350	8.917
M12x1.5	1.5	12.000	11.026	10.376
M14x1.5		14.000	13.026	12.376
M16x1.5		16.000	15.026	14.376
M18x1.5		18.000	17.026	16.376
M20x1.5		20.000	19.026	18.376
M22x1.5		22.000	21.026	20.376
M24x1.5	2	24.000	23.026	22.376
M27x2		27.000	25.701	24.835
M30x2		30.000	28.701	27.835
M33x2		33.000	31.701	30.835
M36x2		36.000	34.701	33.835
M39x2		39.000	37.701	36.835
M42x2		42.000	40.701	39.835
M45x2		45.000	43.701	42.835
M48x2	48.000	46.701	45.835	

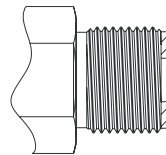
- ⊙ 60° Flankenwinkel
- ⊙ Abmessungen metrisch d in mm
- ⊙ Paralleles Gewinde Zylindrisch Form Spitz
- ⊙ Dichtungsart wie folgt:



1. RS Dichtung Hinten für Einschrauber



2. RG Dichtung Vorne für Einschrauber



## Druck Bereiche

### Rohr Ende (NPT and ISO 7 DIN ISO 228/1) Druck Bereiche

NPT/ISO Rohr Abm.(in.)	316SS and Carbon Steel				Brass			
	Schraube		Mutter		Schraube		Mutter	
	psig	bar	psig	bar	psig	bar	psig	bar
1/16	11000	759	6700	462	5500	379	3300	228
1/8	10000	690	6500	448	5000	345	3200	221
1/4	8000	552	6600	455	4000	276	3300	228
3/8	7800	538	5300	366	3900	269	2600	179
1/2	7700	531	4900	338	3800	262	2400	166
3/4	7300	503	4600	317	3600	248	2300	159
1	5300	366	4400	303	2800	193	2200	152
1 1/4	6000	414	5000	345	3000	207	2500	172
1 1/2	5000	345	4600	317	2500	172	2300	159
2	3900	269	3900	269	1900	131	1900	131

Anmerkung: Berechnung basiert auf ASME/ANSI B31.3 für Prozess Rohre

### SAE/MS Druck Bereiche

SAE/MS Gewinde Abm.	316SS and Carbon Steel			
	Nonpositionable		Positionable	
	psig	bar	psig	bar
5/16-24	4568	315	4568	315
7/16-20			3626	250
1/2-20				
9/16-18 3/4-16				
7/8-14	3626	250	2900	200
1 1/16-12	2900	200	2320	160
13/16-12				
15/16-12	2320	160	1813	125
1 5/8-12				
1 7/8-12	1813	125	1450	100
2 1/2-12				

Anmerkung: Druck Bereiche von SAE J1926/3

### Metrische Druck Bereiche

Metric Gewinde Abm.	316SS and Carbon Steel			
	Schraube		Mutter	
	psig	bar	psig	bar
M6x1	12000	825	6900	476
M8x1	11000	759	6700	462
M10x1	10000	690	6500	448
M12x1.5	9000	621	6500	448
M14x1.5	8000	552	6600	455
M16x1.5	7800	538	5800	400
M18x1.5	7800	538	5300	366
M20x1.5	7700	531	5000	345
M22x1.5	7700	531	4900	338
M24x1.5	7400	510	4700	324
M27x2	7300	503	4600	317
M30x2	6100	421	4500	310
M33x2	5300	366	4400	303
M36x2	5100	352	4000	276
M39x2	5000	345	3900	269
M42x2	6000	414	5000	345
M45x2	5400	372	4700	324
M48x2	5000	345	4600	317



## Rohr Dimensionen (mm)

Rohr Größen(φ) Abmessung	Außen Abmessung	Rohr Ausführungen																80S & E.H.	DBL E.H.													
		5S	5	10S	10	20	+	30	40S & STD	40	+	60	80	100	120	140	160															
1/8	10.287		0.889	1.245	1.245								1.727	1.727								2.413	2.413									
1/4	13.716		1.245	1.651	1.651								2.235	2.235									3.023	3.023								
3/8	17.145		1.245	1.651	1.651								2.311	2.311									3.200	3.200								
1/2	21.336	1.651	1.651	2.108	2.108								2.769	2.769									3.734	3.734					4.750	4.750	7.468	
3/4	26.670	1.651	1.651	2.108	2.108								2.870	2.870									3.912	3.912					5.537	5.537	7.823	
1	33.401	1.651	1.651	2.769	2.769								3.378	3.378									4.547	4.547					6.350	6.350	9.093	
1 1/4	42.164	1.651	1.651	2.769	2.769								3.556	3.556									4.851	4.851					6.350	6.350	9.703	
1 1/2	48.260	1.651	1.651	2.769	2.769								3.683	3.683									5.080	5.080					7.137	7.137	10.160	
2	60.325	1.651	1.651	2.769	2.769								3.912	3.912									5.537	5.537					8.738	8.738	11.074	
2 1/2	73.025	2.108	2.108	3.048	3.048								5.156	5.156									7.010	7.010					9.525	9.525	14.021	
3	88.900	2.108	2.108	3.048	3.048								5.486	5.486									7.620	7.620					11.125	11.125	15.240	
3 1/2	101.600	2.108	2.108	3.048	3.048								5.740	5.740									8.077	8.077					16.154	16.154		
4	114.300	2.108	2.108	3.048	3.048								6.020	6.020									8.560	8.560			11.125	11.125	13.487	13.487	17.120	
4 1/2	127.000												6.274	6.274									9.017	9.017								
5	141.300	2.769	2.769	3.404	3.404								6.553	6.553									9.525	9.525					15.875	15.875	19.050	
6	168.275	2.769	2.769	3.404	3.404								7.112	7.112									10.973	10.973					18.263	18.263	21.946	
7	193.675												7.645	7.645									12.700	12.700							22.225	
8	219.075	2.769	2.769	3.759	3.759								8.179	8.179									12.700	12.700			15.088	15.088	20.625	20.625	22.225	
9	244.475												8.687	8.687									12.700	12.700								
10	273.050	3.404	3.404	4.191	4.191								9.271	9.271									12.700	12.700			18.263	18.263	21.438	21.438	25.400	
11	298.450												9.525	9.525									12.700	12.700								
12	323.850	3.962	3.962	4.572	4.572								9.525	9.525									12.700	12.700			21.438	21.438	25.400	25.400		
14	355.600	3.962	3.962	4.775	4.775								9.525	9.525									12.700	12.700			23.825	23.825	27.788	27.788		
16	406.400	4.191	4.191	4.775	4.775								9.525	9.525									12.700	12.700			26.187	26.187	30.963	30.963		
18	457.200	4.191	4.191	4.775	4.775								9.525	9.525									12.700	12.700			29.362	29.362	34.925	34.925		
20	508.000	4.775	4.775	5.537	5.537								9.525	9.525									12.700	12.700			32.537	32.537	38.100	38.100		
24	609.600	5.537	5.537	6.350	6.350								9.525	9.525									12.700	12.700			38.887	38.887	46.025	46.025		
26	660.400												9.525	9.525									12.700	12.700								
28	711.200												15.875	15.875																		
30	762.000	6.350	6.350	7.925	7.925								9.525	9.525									12.700	12.700			15.875	15.875	17.475	17.475		
32	812.800												15.875	15.875																		
34	863.600												15.875	15.875																		
36	914.400												15.875	15.875																		

Anmerkung

Rohre, des Typs Edelstahl für Prozesse

: 5S, 10S, 40S, 80S Typen und der Güten von Edelstahl  
STD, E.H., DBL E.H. der Typen und Güten von API Rohren

# FIT-LOK Edelstahl Rohre und Verschraubungen

## Features

- ⊙ Rohre gefinnischt voll gegläht
- ⊙ Rohre surface finish is free from nicks or scratches
- ⊙ Marked to indicate size, material, specifications

## Rohre Standards

Grade	ASTM
316(316L)	A213
304(304L)	
321	

## Erlaubter Arbeits Druck für Zoll Edelstahl Rohre und Verschraubungen

Rohr	Rohr Dicke in(Zoll-inch)												
	0.010	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
A.D.	Arbeits Druck(psig)												
inch	Anmerkung: Für Gas Anwendungen, wählen Sie nach Außenabmessungen												
1/16	5660	6870	8180	9490	12100								
1/8						8580	11000						
3/16						5450	7070	10300					
1/4						4040	5150	7570	10300				
5/16							4040	5860	8080				
3/8							3330	4850	5860				
1/2							2420	3530	4750	6260			
5/8								2930	4040	5250	6060		
3/4								2420	3330	4240	4950	5860	
7/8								2020	2830	3640	4240	4850	
1									2420	3130	3640	4240	4750

## Erlaubter Arbeits Druck für Metrische Rohre und Verschraubungen

Rohr	Rohr Wall Thickness(mm)										
	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	
A.D.	Arbeits Druck(bar)										
mm	Anmerkung: Für Gas Anwendungen, wählen Sie nach Außenabmessungen										
3	677										
6	313	424	545	717							
8		313	394	525							
10		242	303	404	515	586					
12		202	252	333	414	475					
14		162	202	273	343	384	434				
15		151	192	252	313	364	404				
16			172	232	293	333	374	404			
18			151	202	263	293	323	374			
20			141	182	232	263	293	333	384		
22			121	162	202	232	263	303	343		
25					182	202	232		263	293	323

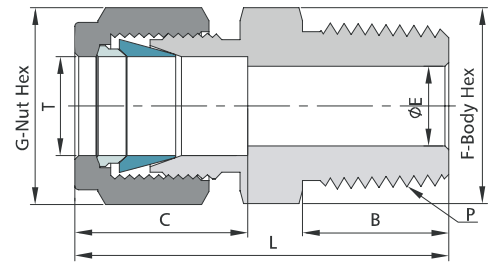


Verschraubung Zoll Fractional Rohr

NPT Thread

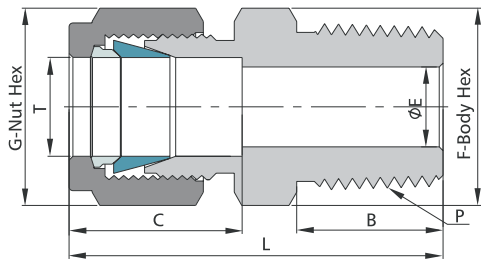
Einschrauber Connector

T-Rohr A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
1/16	1/16	-CM-FL1-NS1	23.9	9.7	8.6	1.3	7.9	7.9
1/16	1/8	-CM-FL1-NS2	26.2	9.7	8.6	1.3	7.9	11.1
1/16	1/4	-CM-FL1-NS4	31.0	14.2	8.6	1.3	7.9	14.3
1/8	1/16	-CM-FL2-NS1	29.7	9.7	12.7	2.3	11.1	11.1
1/8	1/8	-CM-FL2-NS2	30.5	9.7	12.7	2.3	11.1	11.1
1/8	1/4	-CM-FL2-NS4	35.6	14.2	12.7	2.3	11.1	14.3
1/8	3/8	-CM-FL2-NS6	35.8	14.2	12.7	2.3	11.1	17.5
1/8	1/2	-CM-FL2-NS8	42.2	19.1	12.7	2.3	11.1	22.2
3/16	1/16	-CM-FL3-NS1	31.2	9.7	13.7	2.3	12.7	11.1
3/16	1/8	-CM-FL3-NS2	31.2	9.7	13.7	3.0	12.7	11.1
3/16	1/4	-CM-FL3-NS4	36.3	14.2	13.7	3.0	12.7	14.3
1/4	1/16	-CM-FL4-NS1	32.8	9.7	15.2	3.0	14.3	12.7
1/4	1/8	-CM-FL4-NS2	32.8	9.7	15.2	4.8	14.3	12.7
1/4	1/4	-CM-FL4-NS4	37.8	14.2	15.2	4.8	14.3	14.3
1/4	3/8	-CM-FL4-NS6	38.4	14.2	15.2	4.8	14.3	17.5
1/4	1/2	-CM-FL4-NS8	44.7	19.1	15.2	4.8	14.3	22.2
1/4	3/4	-CM-FL4-NS12	46.2	19.1	15.2	4.8	14.3	27.0
5/16	1/8	-CM-FL5-NS2	34.0	9.7	16.3	4.8	15.9	14.3
5/16	1/4	-CM-FL5-NS4	38.6	9.7	16.3	6.4	15.9	14.3
5/16	3/8	-CM-FL5-NS6	39.1	14.2	16.3	6.4	15.9	17.5
5/16	1/2	-CM-FL5-NS8	45.5	19.1	16.3	6.4	15.9	22.2
3/8	1/8	-CM-FL6-NS2	35.3	9.7	16.8	4.8	17.5	15.9
3/8	1/4	-CM-FL6-NS4	39.9	14.2	16.8	7.1	17.5	15.9
3/8	3/8	-CM-FL6-NS6	39.9	14.2	16.8	7.1	17.5	17.5
3/8	1/2	-CM-FL6-NS8	46.2	19.1	16.8	7.1	17.5	22.2
3/8	3/4	-CM-FL6-NS12	47.8	19.1	16.8	7.1	17.5	27.0
1/2	1/8	-CM-FL8-NS2	38.9	9.7	22.9	4.8	22.2	20.6
1/2	1/4	-CM-FL8-NS4	43.4	14.2	22.9	7.1	22.2	20.6
1/2	3/8	-CM-FL8-NS6	43.4	14.2	22.9	9.7	22.2	20.6
1/2	1/2	-CM-FL8-NS8	49.0	19.1	22.9	10.4	22.2	22.2
1/2	3/4	-CM-FL8-NS12	50.5	19.1	22.9	10.4	22.2	27.0
1/2	1	-CM-FL8-NS16	57.2	23.9	22.9	10.4	22.2	34.9
5/8	3/8	-CM-FL10-NS6	44.2	14.2	24.4	9.7	25.4	23.8
5/8	1/2	-CM-FL10-NS8	49.0	19.1	24.4	11.9	25.4	23.8
5/8	3/4	-CM-FL10-NS12	50.5	19.1	24.4	12.7	25.4	27.0
3/4	1/2	-CM-FL12-NS8	50.5	19.1	24.4	11.9	28.6	27.0
3/4	3/4	-CM-FL12-NS12	50.5	19.1	24.4	15.7	28.6	27.0
3/4	1	-CM-FL12-NS16	57.2	23.9	24.4	15.7	28.6	34.9
7/8	3/4	-CM-FL14-NS12	50.5	19.1	25.9	15.7	31.8	30.2
7/8	1	-CM-FL14-NS16	57.2	23.9	25.9	18.3	31.8	34.9
1	1/2	-CM-FL16-NS8	57.4	19.1	31.2	11.9	38.1	34.9
1	3/4	-CM-FL16-NS12	57.4	19.1	31.2	15.7	38.1	34.9
1	1	-CM-FL16-NS16	62.2	23.9	31.2	22.4	38.1	34.9
1 1/4	1 1/4	-CM-FL20-NS20	77.2	23.9	41.1	27.7	47.6	44.5
1 1/2	1 1/2	-CM-FL24-NS24	88.9	26.2	50.0	34.0	57.2	54.0
2	2	-CM-FL32-NS32	113.5	26.9	67.6	46.0	76.2	69.9

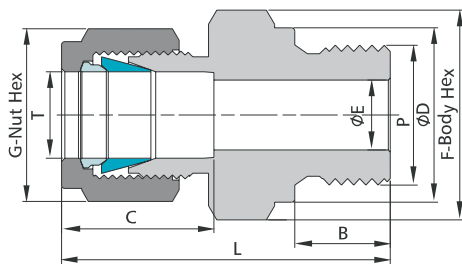


# Einschrauber Male Connector

# Zoll Rohr Fractional Tube BSP Gewinde (RT)

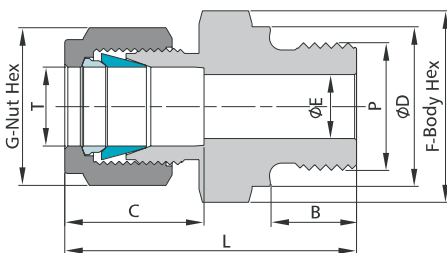


T-Tube A.D. (in.)	P-RT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
1/8	1/8	-CM-FL2-RT2	30.5	9.7	12.7	2.3	11.1	11.1
1/8	1/4	-CM-FL2-RT4	35.6	14.2	12.7	2.3	11.1	14.3
1/4	1/8	-CM-FL4-RT2	32.8	9.7	15.2	4.8	14.3	12.7
1/4	1/4	-CM-FL4-RT4	37.8	14.2	15.2	4.8	14.3	14.3
1/4	3/8	-CM-FL4-RT6	38.4	14.2	15.2	4.8	14.3	17.5
1/4	1/2	-CM-FL4-RT8	44.7	19.1	15.2	4.8	14.3	22.2
5/16	1/8	-CM-FL5-RT2	34.0	9.7	16.3	4.8	15.9	14.3
5/16	1/4	-CM-FL5-RT4	38.6	9.7	16.3	6.4	15.9	14.3
3/8	1/8	-CM-FL6-RT2	35.3	9.7	16.8	4.8	17.5	15.9
3/8	1/4	-CM-FL6-RT4	39.9	14.2	16.8	7.1	17.5	15.9
3/8	3/8	-CM-FL6-RT6	39.9	14.2	16.8	7.1	17.5	17.5
3/8	1/2	-CM-FL6-RT8	46.2	19.1	16.8	7.1	17.5	22.2
1/2	3/8	-CM-FL8-RT6	43.4	14.2	22.9	9.7	22.2	20.6
1/2	1/2	-CM-FL8-RT8	49.0	19.1	22.9	10.4	22.2	22.2
1/2	3/4	-CM-FL8-RT12	50.5	19.1	22.9	10.4	22.2	27.0



# Fractional Tube BSP Parallel Thread (RS)

T-Tube A.D. (in.)	P-RS Rohr Größe (in.)	Basic Ordering Nummer	L	B	C	E Minimum Öffnung	G	F	D
1/8	1/8	-CM-FL2-RS2	30.0	7.1	12.7	2.4	11.1	14.3	13.7
1/8	1/4	-CM-FL2-RS4	32.3	11.2	12.7	2.4	11.1	19.1	18.0
1/8	3/8	-CM-FL2-RS6	37.1	11.2	12.7	2.4	11.1	22.2	21.6
1/4	1/8	-CM-FL4-RS2	32.5	7.1	15.2	4.8	14.3	14.3	13.7
1/4	1/4	-CM-FL4-RS4	37.8	11.2	15.2	4.8	14.3	19.1	18.0
1/4	3/8	-CM-FL4-RS6	39.4	11.2	15.2	4.8	14.3	22.2	21.6
1/4	1/2	-CM-FL4-RS8	45.0	14.2	15.2	4.8	14.3	27.0	25.9
3/8	1/8	-CM-FL6-RS2	34.3	7.1	16.8	4.8	17.5	15.9	13.7
3/8	1/4	-CM-FL6-RS4	39.1	11.2	16.8	7.1	17.5	19.1	18.0
3/8	3/8	-CM-FL6-RS6	39.9	11.2	16.8	7.1	17.5	22.2	21.6
3/8	1/2	-CM-FL6-RS8	46.2	14.2	16.8	7.1	17.5	27.0	25.9
1/2	1/4	-CM-FL8-RS4	42.2	11.2	22.9	7.1	22.2	20.6	18.0
1/2	3/8	-CM-FL8-RS6	42.9	11.2	22.9	9.7	22.2	22.2	21.6
1/2	1/2	-CM-FL8-RS8	48.5	14.2	22.9	9.7	22.2	27.0	25.9
3/4	1/2	-CM-FL12-RS8	49.0	14.2	24.4	11.9	28.6	27.0	25.9
3/4	3/4	-CM-FL12-RS12	52.6	15.7	24.4	15.7	28.6	34.9	32.0
1	1/2	-CM-FL16-RS8	55.5	14.2	31.2	11.9	38.1	34.9	25.9
1	1	-CM-FL16-RS16	59.7	18.3	31.2	22.4	38.1	41.3	38.9

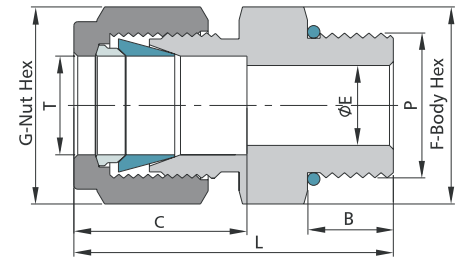


# Fractional Tube BSP Parallel Thread (RP)

T-Tube A.D. (in.)	P-RP Rohr Größe (in.)	Basic Ordering Nummer	L	B	C	E Minimum Öffnung	G	F	D
1/8	1/8	-CM-FL2-RP2	33.3	7.1	12.7	2.3	11.1	14.3	13.8
1/8	1/8	-CM-FL2-RP4	38.1	11.2	12.7	2.3	11.1	19.1	18.0
1/4	1/4	-CM-FL4-RP2	35.6	7.1	15.2	4.1	14.3	14.3	13.8
1/4	1/4	-CM-FL4-RP4	40.4	11.2	15.2	4.8	14.3	19.1	18.0
1/2	1/2	-CM-FL8-RP8	47.5	14.2	22.9	10.4	22.2	27.0	26.0

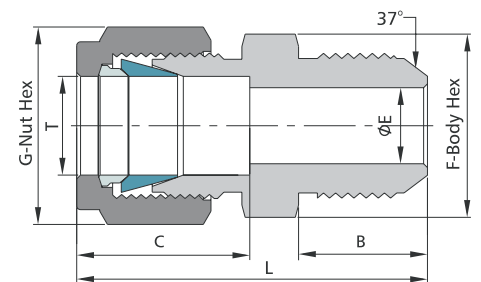
## Zoll Verschraubung Fractional Tube SAE/MS Straight Gewinde Einschrauber Male Connector

T-Tube A.D. (in.)	P-SAE/MS Gewinde Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
1/16	5/16-24	-CM-FL1-ST5	23.4	7.6	8.6	1.3	7.9	11.1
1/8	5/16-24	-CM-FL2-ST5	30.0	7.6	12.7	2.3	11.1	11.1
1/8	9/16-18	-CM-FL2-ST9	34.3	9.9	12.7	2.3	11.1	17.5
3/16	3/8-24	-CM-FL3-ST6	30.5	7.6	13.7	3.0	12.7	12.7
1/4	7/16-20	-CM-FL4-ST7	34.0	9.1	15.2	4.8	14.3	14.3
1/4	9/16-18	-CM-FL4-ST9	35.6	9.9	15.2	4.8	14.3	17.5
1/4	3/4-16	-CM-FL4-ST12	37.6	11.2	15.2	4.8	14.3	22.2
1/4	7/8-14	-CM-FL4-ST14	40.6	12.7	15.2	4.8	14.3	25.4
5/16	1/2-20	-CM-FL5-ST8	34.8	9.1	16.3	6.4	15.9	15.9
3/8	7/16-20	-CM-FL6-ST7	35.6	9.1	16.8	5.1	17.5	15.9
3/8	9/16-18	-CM-FL6-ST9	37.1	9.9	16.8	7.1	17.5	17.5
3/8	3/4-16	-CM-FL6-ST12	39.1	11.2	16.8	7.1	17.5	22.2
3/8	7/8-14	-CM-FL6-ST14	42.2	12.7	16.8	7.1	17.5	25.4
1/2	9/16-18	-CM-FL8-ST9	39.1	9.9	22.9	7.1	22.2	20.6
1/2	3/4-16	-CM-FL8-ST12	41.9	11.2	22.9	10.4	22.2	22.2
1/2	7/8-14	-CM-FL8-ST14	45.0	12.7	22.9	10.4	22.2	25.4
1/2	1 1/16-12	-CM-FL8-ST17	49.0	15.0	22.9	10.4	22.2	31.8
5/8	3/4-16	-CM-FL10-ST12	41.9	11.2	24.4	10.7	25.4	23.8
5/8	7/8-14	-CM-FL10-ST14	45.2	12.7	24.4	12.7	25.4	25.4
3/4	3/4-16	-CM-FL12-ST12	46.0	11.2	24.4	10.7	28.6	27.0
3/4	1 1/16-12	-CM-FL12-ST17	49.0	15.0	24.4	15.7	28.6	31.8
7/8	1 3/16-12	-CM-FL14-ST19	49.0	15.0	25.9	18.3	31.8	34.9
1	1 1/16-12	-CM-FL16-ST17	53.3	15.0	31.2	16.8	38.1	34.9
1	1 5/16-12	-CM-FL16-ST21	54.4	15.0	31.2	22.4	38.1	38.1
1 1/4	1 5/8-12	-CM-FL20-ST26	68.3	15.0	41.1	27.7	47.6	47.6
1 1/2	1 7/8-12	-CM-FL24-ST30	77.7	15.0	50.0	34.0	57.2	54.0
2	2 1/2-12	-CM-FL32-ST40	101.6	15.0	67.6	46.0	76.2	70.0

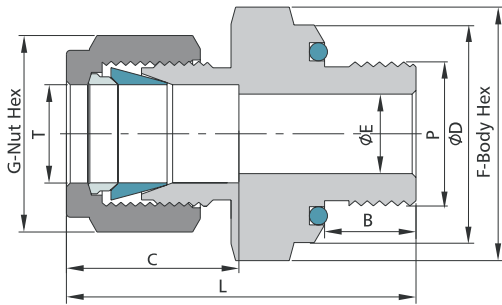


## Zoll Verschraubung Fractional Tube Einschrauber

T-Tube A.D. (in.)	AN Tube Flare Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
1/16	1/8	-CM-FL1-AN2	27.2	11.4	8.6	1.3	7.9	1.1
1/8	1/8	-CM-FL2-AN2	31.5	11.4	12.7	1.5	11.1	11.1
1/8	1/4	-CM-FL2-AN4	35.1	14.0	12.7	2.3	11.1	12.7
3/16	3/16	-CM-FL3-AN3	33.5	12.2	13.7	2.3	12.7	11.1
1/4	1/4	-CM-FL4-AN4	37.6	14.0	15.2	4.3	14.3	12.7
5/16	5/16	-CM-FL5-AN5	38.4	14.0	16.2	5.8	15.9	14.3
3/8	1/4	-CM-FL6-AN4	39.6	14.0	16.8	4.3	17.5	15.9
3/8	3/8	-CM-FL6-AN6	39.6	14.2	16.8	7.1	17.5	15.9
1/2	1/2	-CM-FL8-AN8	46.0	16.8	22.8	9.9	22.2	20.6
5/8	5/8	-CM-FL10-AN10	49.0	19.3	24.5	12.3	25.4	23.8
3/4	3/4	-CM-FL12-AN12	53.3	21.8	24.4	15.5	28.6	28.6
1	1	-CM-FL16-AN16	61.5	23.1	31.2	21.3	38.1	34.9

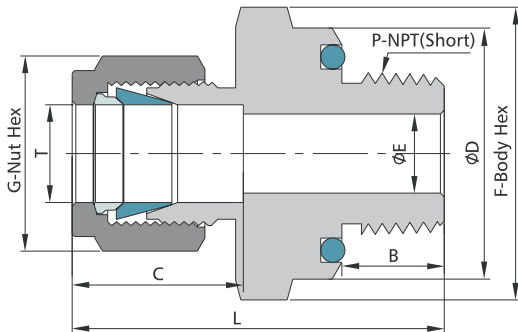


# Einschrauber Male Connector



## Zoll Verschraubung Fractional Tube O-Seal with SAE/MS Straight Thread

T-Tube A.D. (in.)	P-SAE/MS Thread Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	D
1/16	5/16-24	-CM-FL1-OST5	26.7	8.6	8.6	1.3	7.9	14.3	14.0
1/8	5/16-24	-CM-FL2-OST5	32.8	8.6	12.7	2.3	11.1	14.3	14.0
3/16	3/8-24	-CM-FL3-OST6	34.3	9.7	13.7	3.0	12.7	15.9	15.7
1/4	7/16-20	-CM-FL4-OST7	38.4	10.4	15.2	4.8	14.3	19.1	18.8
5/16	1/2-20	-CM-FL5-OST8	40.6	11.2	16.3	6.4	15.9	22.2	21.8
3/8	9/16-18	-CM-FL6-OST9	42.4	11.9	16.8	7.1	17.5	23.8	23.6
1/2	3/4-16	-CM-FL8-OST12	46.0	11.9	22.9	10.4	22.2	28.6	28.4
3/4	1 1/16-12	-CM-FL12-OST17	52.3	14.2	24.4	15.7	28.6	38.1	37.8
1	1 5/16-12	-CM-FL16-OST21	58.2	14.2	31.2	22.4	38.1	44.5	44.2

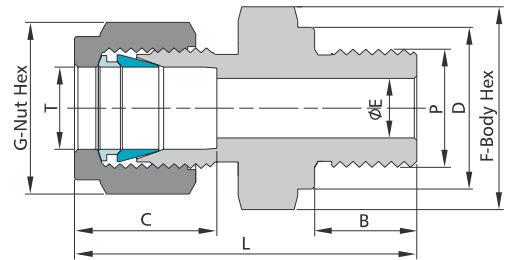


## Zoll Verschraubung Fractional Tube O-Seal with NPT Thread

T-Tube A.D. (in.)	P-NPT RohrGröße (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	D
1/8	1/8	-CM-FL2-ONS2	32.8	7.1	8.6	2.3	11.1	19.1	18.8
1/4	1/8	-CM-FL4-ONS2	35.1	7.1	15.2	4.8	14.3	19.1	18.8
1/4	1/4	-CM-FL4-ONS4	38.4	9.7	15.2	4.8	14.3	23.8	23.6
3/8	1/4	-CM-FL6-ONS4	39.9	9.7	16.8	7.1	17.5	23.8	23.6
3/8	3/8	-CM-FL6-ONS6	41.4	10.4	16.8	7.1	17.5	28.6	28.4
3/8	1/2	-CM-FL6-ONS8	47.0	13.5	16.8	7.1	17.5	33.3	33.0
1/2	1/2	-CM-FL8-ONS8	49.8	13.5	22.9	10.4	22.2	33.3	33.0

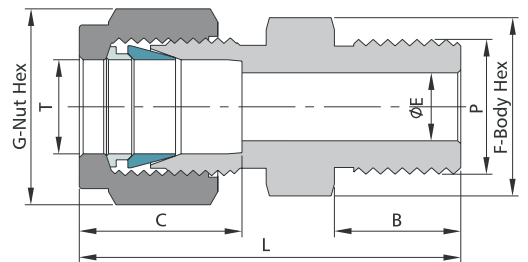
## Zoll Verschraubung Fractional Tube Metrisches Gewinde(MRS) Einschrauber Male Connector

T-Tube A.D. (in.)	P-Metric Gewinde Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	D
1/8	M14X1.5	-CM-FL2-MRS14	38.8	12	12.7	2.4	11.1	20.6	19
1/8	M16X1.5	-CM-FL2-MRS16	39.6	12	12.7	2.4	11.1	22.2	21
1/8	M18X1.5	-CM-FL2-MRS18	40.4	12	12.7	2.4	11.1	23.8	23
1/8	M20X1.5	-CM-FL2-MRS20	41.1	14	12.7	2.4	11.1	25.4	25
1/4	M14X1.5	-CM-FL4-MRS14	41.0	12	15.2	4.8	14.3	20.6	19
1/4	M16X1.5	-CM-FL4-MRS16	41.9	12	15.2	4.8	14.3	22.2	21
1/4	M18X1.5	-CM-FL4-MRS18	42.8	12	15.2	4.8	14.3	23.8	23
1/4	M20X1.5	-CM-FL4-MRS20	43.6	14	15.2	4.8	14.3	25.4	25
3/8	M14X1.5	-CM-FL6-MRS14	43.1	12	16.8	4.8	17.5	20.6	19
3/8	M16X1.5	-CM-FL6-MRS16	43.8	12	16.8	7.1	17.5	22.2	21
3/8	M18X1.5	-CM-FL6-MRS18	44.5	12	16.8	7.1	17.5	23.8	23
3/8	M20X1.5	-CM-FL6-MRS20	45.1	14	16.8	7.1	17.5	25.4	25
1/2	M16X1.5	-CM-FL8-MRS16	46.4	12	22.9	7.1	22.2	22.2	21
1/2	M18X1.5	-CM-FL8-MRS18	47.2	12	22.9	9.7	22.2	23.8	23
1/2	M20X1.5	-CM-FL8-MRS20	47.9	14	22.9	9.7	22.2	25.4	25
1/2	M22X1.5	-CM-FL8-MRS22	48.5	14	22.9	9.7	22.2	28.6	27



## Zoll Verschraubung Fractional Tube Metrisches Gewinde

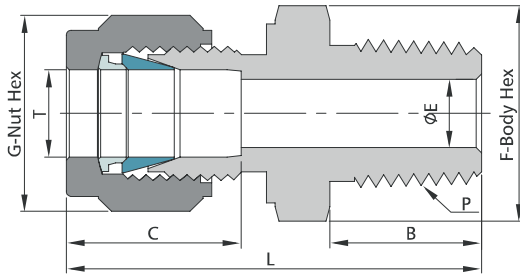
T-Tube A.D. (in.)	P-Metric Pipe Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
1/8	M14X1.5	-CM-FL2-MS14	36.8	13	12.7	2.4	11.1	15.9
1/8	M16X1.5	-CM-FL2-MS16	37.6	14	12.7	2.4	11.1	17.5
1/8	M18X1.5	-CM-FL2-MS18	38.4	15	12.7	2.4	11.1	19.1
1/8	M20X1.5	-CM-FL2-MS20	39.1	16	12.7	2.4	11.1	22.2
1/4	M14X1.5	-CM-FL4-MS14	39.0	13	15.2	4.8	14.3	15.9
1/4	M16X1.5	-CM-FL4-MS16	39.9	14	15.2	4.8	14.3	17.5
1/4	M18X1.5	-CM-FL4-MS18	40.8	15	15.2	4.8	14.3	19.1
1/4	M20X1.5	-CM-FL4-MS20	41.6	16	15.2	4.8	14.3	22.2
3/8	M14X1.5	-CM-FL6-MS14	41.1	13	16.8	4.8	17.5	15.9
3/8	M16X1.5	-CM-FL6-MS16	41.8	14	16.8	7.1	17.5	17.5
3/8	M18X1.5	-CM-FL6-MS18	42.5	15	16.8	7.1	17.5	19.1
3/8	M20X1.5	-CM-FL6-MS20	43.1	16	16.8	7.1	17.5	22.2
1/2	M16X1.5	-CM-FL8-MS16	44.4	14	22.9	7.1	22.2	17.5
1/2	M18X1.5	-CM-FL8-MS18	45.2	15	22.9	9.7	22.2	19.1
1/2	M20X1.5	-CM-FL8-MS20	45.9	16	22.9	9.7	22.2	22.2
1/2	M22X1.5	-CM-FL8-MS22	46.5	17	22.9	9.7	22.2	23.8



# Einschrauber Male Connector

## Metrische Rohre

## NPT Gewinde



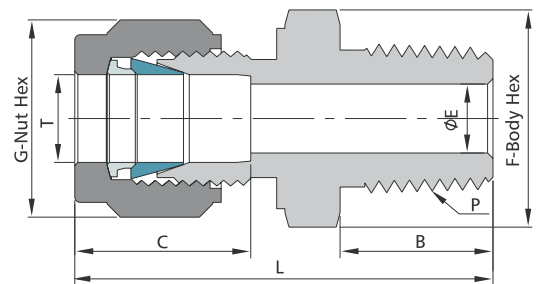
T-Rohr A.D.	P-NPT Rohr Size (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
3	1/8	-CM-ML3-NS2	29.7	9.7	12.9	2.4	12	12
3	1/4	-CM-ML3-NS4	35.6	14.2	12.9	2.4	12	14
4	1/8	-CM-ML4-NS2	30.7	9.7	13.7	2.4	12	12
4	1/4	-CM-ML4-NS4	36.1	14.2	13.7	2.4	12	14
6	1/8	-CM-ML6-NS2	32.8	9.7	15.3	4.8	14	14
6	1/4	-CM-ML6-NS4	37.6	14.2	15.3	4.8	14	14
6	3/8	-CM-ML6-NS6	38.4	14.2	15.3	4.8	14	18
6	1/2	-CM-ML6-NS8	44.0	19.1	15.3	4.8	14	22
8	1/8	-CM-ML8-NS2	34.2	9.7	16.2	4.8	16	15
8	1/4	-CM-ML8-NS4	38.7	14.2	16.2	6.4	16	15
8	3/8	-CM-ML8-NS6	39.2	14.2	16.2	6.4	16	18
8	1/2	-CM-ML8-NS8	44.8	19.1	16.2	6.4	16	22
10	1/8	-CM-ML10-NS2	36.0	9.7	17.2	4.8	19	18
10	1/4	-CM-ML10-NS4	40.9	14.2	17.2	7.9	19	18
10	3/8	-CM-ML10-NS6	40.9	14.2	17.2	7.9	19	18
10	1/2	-CM-ML10-NS8	45.7	19.1	17.2	7.9	19	22
10	3/4	-CM-ML10-NS12	46.4	19.1	17.2	7.9	19	27
10	1	-CM-ML10-NS16	55.0	23.9	17.2	7.9	19	35
12	1/8	-CM-ML12-NS2	38.8	9.7	22.8	4.8	22	22
12	1/4	-CM-ML12-NS4	43.4	14.2	22.8	7.9	22	18
12	3/8	-CM-ML12-NS6	43.4	14.2	22.8	9.5	22	18
12	1/2	-CM-ML12-NS8	48.2	19.1	22.8	9.5	22	18
12	3/4	-CM-ML12-NS12	49.0	19.1	22.8	9.5	22	27
14	1/8	-CM-ML14-NS2	38.8	9.7	24.4	4.8	25	24
14	1/4	-CM-ML14-NS4	44.1	14.2	24.4	7.9	25	24
14	3/8	-CM-ML14-NS6	44.1	14.2	24.4	9.5	25	24
14	1/2	-CM-ML14-NS8	49.0	19.1	24.4	11.1	25	24
14	3/4	-CM-ML14-NS12	49.0	19.1	24.4	11.1	25	24
15	1/2	-CM-ML15-NS8	49.0	19.1	24.4	11.9	25	24
15	3/4	-CM-ML15-NS12	49.0	19.1	24.4	11.9	25	27
15	1	-CM-ML15-NS16	47.1	23.9	24.4	11.9	25	35
16	1/4	-CM-ML16-NS4	44.1	14.2	24.4	7.9	25	24
16	3/8	-CM-ML16-NS6	44.1	14.2	24.4	9.5	25	24
16	1/2	-CM-ML16-NS8	49.0	19.1	24.4	11.9	25	24
16	3/4	-CM-ML16-NS12	49.0	19.1	24.4	12.7	25	27
18	3/8	-CM-ML18-NS6	43.9	14.2	24.4	9.5	30	27
18	1/2	-CM-ML18-NS8	50.5	19.1	24.4	11.9	30	27
18	3/4	-CM-ML18-NS12	50.5	19.1	24.4	15.1	30	27
20	1/2	-CM-ML20-NS8	52.3	19.1	26.0	11.9	32	30
20	3/4	-CM-ML20-NS12	52.3	19.1	26.0	15.9	32	30
20	1	-CM-ML20-NS16	57.7	23.9	26.0	15.9	32	35
22	1/2	-CM-ML22-NS8	52.3	19.1	26.0	11.9	32	30
22	3/4	-CM-ML22-NS12	52.3	19.1	26.0	15.9	32	30
22	1	-CM-ML22-NS16	57.9	23.9	26.0	18.3	32	35
25	1/2	-CM-ML25-NS8	57.5	19.1	31.3	11.9	40	35
25	3/4	-CM-ML25-NS12	57.5	19.1	31.3	15.9	40	35
25	1	-CM-ML25-NS16	62.3	23.9	31.3	21.8	40	35
32	1 1/4	-CM-ML32-NS20	78.4	23.9	42.3	27.7	47.6	45

Metrische Rohre

BSP Konisches Gewinde (RT)

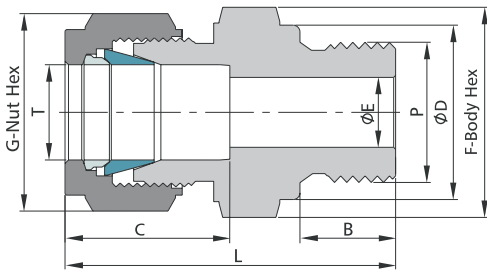
Einschrauber Male Connector

T-Tube A.D.	P-RT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
3	1/8	-CM-ML3-RT2	29.7	9.7	12.9	2.4	12	12
3	1/4	-CM-ML3-RT4	35.6	14.2	12.9	2.4	12	14
4	1/8	-CM-ML4-RT2	30.7	9.7	13.7	2.4	12	12
4	1/4	-CM-ML4-RT4	36.1	14.2	13.7	2.4	12	14
6	1/8	-CM-ML6-RT2	32.8	9.7	15.3	4.8	14	14
6	1/4	-CM-ML6-RT4	37.6	14.2	15.3	4.8	14	14
6	3/8	-CM-ML6-RT6	38.4	14.2	15.3	4.8	14	18
6	1/2	-CM-ML6-RT8	44.0	19.1	15.3	4.8	14	22
8	1/8	-CM-ML8-RT2	34.2	9.7	16.2	4.8	16	15
8	1/4	-CM-ML8-RT4	38.7	14.2	16.2	6.4	16	15
8	3/8	-CM-ML8-RT6	39.2	14.2	16.2	6.4	16	18
8	1/2	-CM-ML8-RT8	44.8	19.1	16.2	6.4	16	22
10	1/8	-CM-ML10-RT2	36.0	9.7	17.2	4.8	19	18
10	1/4	-CM-ML10-RT4	40.9	14.2	17.2	7.9	19	18
10	3/8	-CM-ML10-RT6	40.9	14.2	17.2	7.9	19	18
10	1/2	-CM-ML10-RT8	45.7	19.1	17.2	7.9	19	22
12	1/4	-CM-ML12-RT4	43.4	14.2	22.8	7.9	22	18
12	3/8	-CM-ML12-RT6	43.4	14.2	22.8	9.5	22	18
12	1/2	-CM-ML12-RT8	48.2	19.1	22.8	9.5	22	18
12	3/4	-CM-ML12-RT12	49.0	19.1	22.8	9.5	22	27
14	1/8	-CM-ML14-RT2	38.8	9.7	24.4	4.8	25	24
14	1/4	-CM-ML14-RT4	44.1	14.2	24.4	7.9	25	24
14	1/2	-CM-ML14-RT8	49.0	19.1	24.4	11.1	25	24
14	3/4	-CM-ML14-RT12	49.0	19.1	24.4	11.1	25	24
15	1/2	-CM-ML15-RT8	49.0	19.1	24.4	11.9	25	24
16	1/4	-CM-ML16-RT4	44.1	14.2	24.4	7.9	25	24
16	3/8	-CM-ML16-RT6	44.1	14.2	24.4	9.5	25	24
16	1/2	-CM-ML16-RT8	49.0	19.1	24.4	11.9	25	24
16	3/4	-CM-ML16-RT12	49.0	19.1	24.4	12.7	25	27
18	1/2	-CM-ML18-RT8	50.5	19.1	24.4	11.9	30	27
18	3/4	-CM-ML18-RT12	50.5	19.1	24.4	15.1	30	27
20	1/2	-CM-ML20-RT8	52.3	19.1	26.0	11.9	32	30
20	3/4	-CM-ML20-RT12	52.3	19.1	26.0	15.9	32	30
22	3/4	-CM-ML22-RT12	52.3	19.1	26.0	15.9	32	30
22	1	-CM-ML22-RT16	57.9	23.9	26.0	18.3	32	35
25	3/4	-CM-ML25-RT12	57.5	19.1	31.3	15.9	40	35
25	1	-CM-ML25-RT16	62.3	23.9	31.3	21.8	40	35





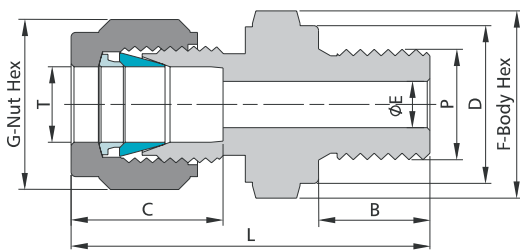
# Einschrauber Male Connector



## Metrisches Rohr

## BSP Parallel Gewinde(RS)

T-Tube A.D.	P-RS Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	D
3	1/8	-CM-ML3-RS2	30.0	7.1	12.9	2.4	12	14	13.7
3	1/4	-CM-ML3-RS4	35.3	11.2	12.9	2.4	12	19	18.0
4	1/8	-CM-ML4-RS2	30.7	7.1	13.7	2.4	12	14	13.7
4	1/4	-CM-ML4-RS4	36.0	11.2	13.7	2.4	12	19	18.0
6	1/8	-CM-ML6-RS2	32.3	7.1	15.3	4.0	14	14	13.7
6	1/4	-CM-ML6-RS4	37.6	11.2	15.3	4.8	14	19	18.0
6	3/8	-CM-ML6-RS6	38.9	11.2	15.3	4.8	14	22	21.6
6	1/2	-CM-ML6-RS8	44.7	14.2	15.3	4.8	14	27	25.9
8	1/8	-CM-ML8-RS2	33.2	7.1	16.2	4.0	16	15	14.5
8	1/4	-CM-ML8-RS4	38.5	11.2	16.2	6.4	16	19	18.0
8	3/8	-CM-ML8-RS6	39.8	11.2	16.2	6.4	16	22	21.6
8	1/2	-CM-ML8-RS8	45.6	14.2	16.2	6.4	16	27	25.9
8	3/4	-CM-ML8-RS12	49.5	15.7	16.2	6.5	16	35	32.0
10	1/4	-CM-ML10-RS4	39.4	11.2	17.2	5.9	19	19	18.0
10	3/8	-CM-ML10-RS6	40.6	11.2	17.2	7.9	19	22	21.6
10	1/2	-CM-ML10-RS8	46.5	14.2	17.2	7.9	19	27	25.9
12	1/4	-CM-ML12-RS4	42.6	11.2	22.8	5.9	22	22	21.6
12	3/8	-CM-ML12-RS6	43.1	11.2	22.8	7.9	22	22	21.6
12	1/2	-CM-ML12-RS8	49.0	14.2	22.8	9.5	22	27	25.9
12	3/4	-CM-ML12-RS12	52.8	15.7	22.8	9.5	22	35	32.0
14	1/2	-CM-ML14-RS8	49.0	14.2	24.4	7.9	25	27	25.9
14	3/4	-CM-ML14-RS12	52.8	15.7	24.4	11.1	25	35	32.0
16	3/8	-CM-ML16-RS6	43.9	11.2	24.4	7.9	25	24	21.6
16	1/2	-CM-ML16-RS8	49.0	14.2	24.4	11.9	25	27	25.9
18	1/2	-CM-ML18-RS8	49.0	14.2	24.4	11.9	30	27	25.9
18	3/4	-CM-ML18-RS12	52.8	15.7	24.4	15.1	30	35	32.0
20	1/2	-CM-ML20-RS8	50.5	14.2	26.0	11.9	32	30	25.9
20	3/4	-CM-ML20-RS12	52.8	15.7	26.0	15.9	32	35	32.0
22	3/4	-CM-ML22-RS12	52.8	15.7	26.0	15.9	32	35	32.0
22	1	-CM-ML22-RS16	55.3	18.3	26.0	18.3	32	40	38.9
25	3/4	-CM-ML25-RS12	57.5	15.7	31.3	15.9	40	35	32.0
25	1	-CM-ML25-RS16	60.1	18.3	31.3	19.8	40	40	38.9



## Metric Tube

## Metric Gewinde(MRS)

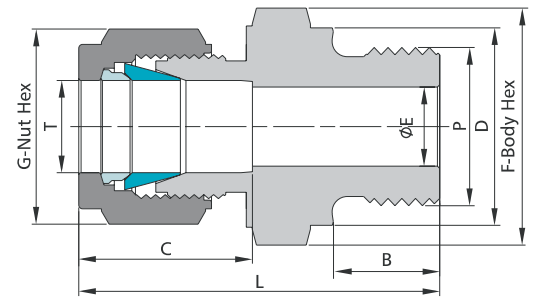
T-Tube A.D.	P-Metric Gewinde Größe	Basic Bestell Nummer	L	B	C	E	G	F	D
6	M6X1	-CM-ML6-MRS6	32.2	8	15.3	1.3	14	11.1	
6	M10X1	-CM-ML6-MRS10	35.1	8	15.3	4.0	14	14.3	14
6	M12X1.5	-CM-ML6-MRS12	37.1	12	15.3	4.8	14	17.6	17
6	M14X1.5	-CM-ML6-MRS14	40.7	12	15.3	4.8	14	20.6	19
8	M8X1	-CM-ML8-MRS8	35.5	8	16.2	3.2	16	12.7	12
8	M10X1	-CM-ML8-MRS10	36.7	8	16.2	4.0	16	14.3	14
8	M12X1.5	-CM-ML8-MRS12	37.7	12	16.2	5.0	16	17.6	17
8	M14X1.5	-CM-ML8-MRS14	38.7	12	16.2	6.0	16	20.6	19
10	M14X1.5	-CM-ML10-MRS14	43.9	12	24.4	7.9	25	20.6	19
12	M16X1.5	-CM-ML12-MRS16	50.3	12	22.8	9.5	22	22.2	21
12	M20X1.5	-CM-ML12-MRS20	52.3	14	22.8	9.5	22	25.4	25
14	M14X1.5	-CM-ML14-MRS14	44.9	12	24.4	7.9	25	20.6	19
14	M20X1.5	-CM-ML14-MRS20	54.1	14	24.4	11.9	25	25.4	25
16	M20X1.5	-CM-ML16-MRS20	54.1	14	24.4	11.9	25	25.4	25
18	M20X1.5	-CM-ML18-MRS20	55.6	14	24.4	15.1	30	27.0	25
20	M20X1.5	-CM-ML20-MRS20	58.4	14	26.0	15.9	32	30.0	27
22	M24X1.5	-CM-ML22-MRS24	57.4	14	26.0	18.3	32	35.0	32
25	M27X2	-CM-ML25-MRS27	63.6	16	31.3	19.8	40	36.5	35

Metrisches Rohr

BSP Parallel Gewinde(RP)

Einschrauber Male Connector

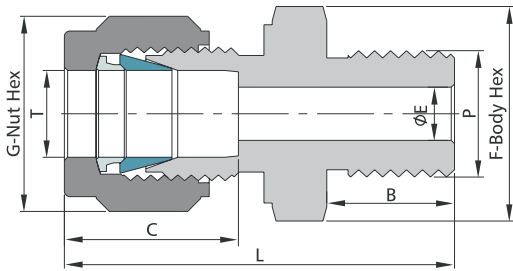
T-Tube A.D.	P-RP Rohr Size (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	D
3	1/8	-CM-ML3-RP2	33.3	7.1	12.9	2.4	12	14	13.8
3	1/4	-CM-ML3-RP4	38.1	11.2	12.9	2.4	12	19	18.0
4	1/8	-CM-ML4-RP2	34.0	7.1	13.7	2.4	12	14	13.8
6	1/8	-CM-ML6-RP2	35.6	7.1	15.3	4.0	14	14	13.8
6	1/4	-CM-ML6-RP4	40.4	11.2	15.3	4.8	14	19	18.0
6	3/8	-CM-ML6-RP6	41.2	11.2	15.3	4.8	14	22	21.8
6	1/2	-CM-ML6-RP8	43.2	14.2	15.3	4.8	14	27	26.0
8	1/8	-CM-ML8-RP2	36.5	7.1	16.2	4.0	16	15	13.8
8	1/4	-CM-ML8-RP4	41.3	11.2	16.2	5.9	16	19	18.0
8	3/8	-CM-ML8-RP6	41.9	11.2	16.2	6.4	16	22	21.8
8	1/2	-CM-ML8-RP8	44.1	14.2	16.2	6.4	16	27	26.0
10	1/4	-CM-ML10-RP4	42.2	11.2	17.2	5.9	19	19	18.0
10	3/8	-CM-ML10-RP6	42.9	11.2	17.2	7.9	19	22	21.8
10	1/2	-CM-ML10-RP8	45.0	14.2	17.2	7.9	19	27	26.0
12	1/4	-CM-ML12-RP4	45.4	11.2	22.8	5.9	22	22	18.0
12	3/8	-CM-ML12-RP6	45.4	11.2	22.8	7.9	22	22	21.8
12	1/2	-CM-ML12-RP8	47.5	14.2	22.8	9.5	22	27	26.0
12	3/4	-CM-ML12-RP12	52.3	15.7	22.8	9.5	22	35	32.0
15	1/2	-CM-ML15-RP8	47.5	14.2	24.4	11.9	25	27	26.0
16	3/8	-CM-ML16-RP6	45.4	11.2	24.4	7.9	25	24	21.8
16	1/2	-CM-ML16-RP8	47.5	14.2	24.4	11.9	25	27	26.0
18	1/2	-CM-ML18-RP8	49.0	14.2	24.4	11.9	25	27	26.0
18	3/4	-CM-ML18-RP12	52.3	15.7	24.4	15.1	30	35	32.0
20	1/2	-CM-ML20-RP8	50.5	14.2	26.0	11.9	32	30	26.0
20	3/4	-CM-ML20-RP12	52.5	15.7	26.0	15.1	32	35	32.0
22	3/4	-CM-ML22-RP12	52.8	15.7	26.0	15.9	32	35	32.0
22	1	-CM-ML22-RP16	54.5	18.3	26.0	18.3	32	41	39.0
25	3/4	-CM-ML25-RP12	57.8	15.7	31.3	15.9	40	35	32.0
25	1	-CM-ML25-RP16	59.8	18.3	31.3	19.8	40	41	39.0



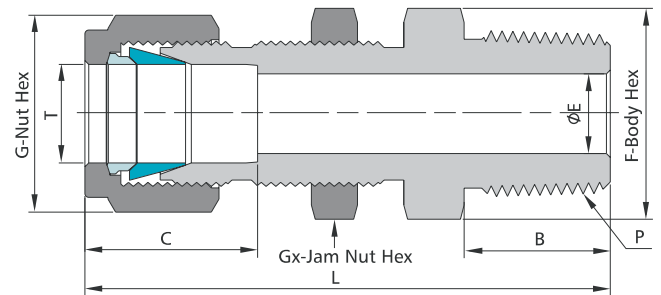
# Einschrauber Male Connector

## Metrisches Rohr

## Metrisches Gewinde(MS)

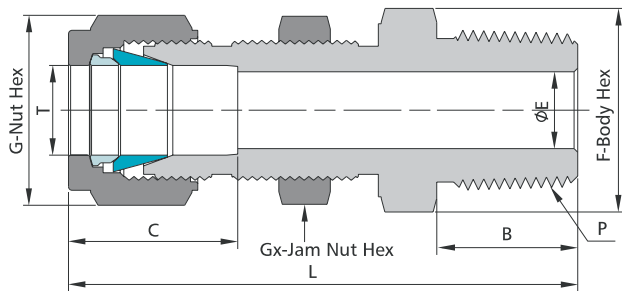


T-Tube A.D.	P-Metric Gewinde Größe	Basic Bestell Nummer	L	B	C	E	G	F
6	M6X1	-CM-ML6-MS6	31.2	8	15.3	1.3	14	14
6	M10X1	-CM-ML6-MS10	34.1	11	15.3	4.0	14	14
6	M12X1.5	-CM-ML6-MS12	35.1	12	15.3	4.8	14	14
6	M14X1.5	-CM-ML6-MS14	39.7	13	15.3	4.8	14	19
6	M20X1.5	-CM-ML6-MS20	47.1	16	15.3	4.8	14	22
8	M8X1	-CM-ML8-MS8	34.5	9	16.2	3.2	16	14
8	M10X1	-CM-ML8-MS10	36.7	11	16.2	4.0	16	14
8	M12X1.5	-CM-ML8-MS12	36.7	12	16.2	5.0	16	14
8	M14X1.5	-CM-ML8-MS14	37.7	13	16.2	6.0	16	19
8	M20X1.5	-CM-ML8-MS20	42.7	16	16.2	6.4	16	22
10	M20X1.5	-CM-ML10-MS20	48.8	16	17.2	7.9	19	22
12	M16X1.5	-CM-ML12-MS16	49.3	14	22.8	9.5	22	22
12	M20X1.5	-CM-ML12-MS20	51.3	16	22.8	9.5	22	22
14	M14X1.5	-CM-ML14-MS14	42.9	13	24.4	7.9	25	24
14	M20X1.5	-CM-ML14-MS20	52.1	16	24.4	11.9	25	24
16	M20X1.5	-CM-ML16-MS20	52.1	16	24.4	11.9	25	24
18	M20X1.5	-CM-ML18-MS20	53.6	16	24.4	15.1	30	27
20	M20X1.5	-CM-ML20-MS20	55.4	16	26.0	15.9	32	30
22	M24X1.5	-CM-ML22-MS24	55.4	18	26.0	18.3	32	35
25	M27X2	-CM-ML25-MS27	60.6	18	31.3	19.8	40	35



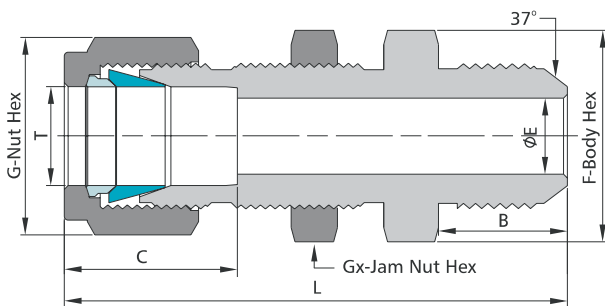
Zoll Gewinde Fractional Tube			NPT Gewinde									
T-Tube A.D. (in.)	P-NPT RohrGröße (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Gx	Tafel Loch Bohrer Größe	Max. Tafel Dicke	
1/16	1/16	-BCM-FL1-NS1	30.2	9.7	8.6	1.3	7.9	7.9	7.9	5.2	6.4	
1/16	1/8	-BCM-FL1-NS2	32.3	9.7	8.6	1.3	7.9	11.1	11.1	5.2	6.4	
1/8	1/8	-BCM-FL2-NS2	46.5	9.7	12.7	2.3	11.1	11.1	11.1	8.3	12.7	
3/16	1/8	-BCM-FL3-NS2	48.0	9.7	13.7	3.0	12.7	11.1	11.1	9.9	12.7	
1/4	1/8	-BCM-FL4-NS2	49.5	9.7	15.2	4.8	14.3	12.7	12.7	11.5	10.2	
1/4	1/4	-BCM-FL4-NS4	53.3	14.2	15.2	4.8	14.3	14.3	14.3	11.5	10.2	
1/4	3/8	-BCM-FL4-NS6	54.9	14.2	15.2	4.8	14.3	17.5	17.5	11.5	10.2	
1/4	1/2	-BCM-FL4-NS8	60.3	19.1	15.2	4.8	14.3	22.2	22.2	11.5	10.2	
5/16	1/8	-BCM-FL5-NS2	52.8	9.7	16.3	4.8	15.9	14.3	14.3	13.1	11.2	
5/16	1/4	-BCM-FL5-NS4	57.7	14.2	16.3	6.4	15.9	14.3	14.3	13.1	11.2	
3/8	1/8	-BCM-FL6-NS2	52.8	9.7	16.8	4.8	17.5	15.9	15.9	14.7	11.2	
3/8	1/4	-BCM-FL6-NS4	57.5	14.2	16.8	7.1	17.5	15.9	15.9	14.7	11.2	
3/8	3/8	-BCM-FL6-NS6	57.5	14.2	16.8	7.1	17.5	17.5	17.5	14.7	11.2	
3/8	1/2	-BCM-FL6-NS8	63.0	19.1	16.8	7.1	17.5	22.2	22.2	14.7	11.2	
1/2	1/8	-BCM-FL8-NS2	63.3	9.7	22.9	4.8	22.2	20.6	20.6	19.4	12.7	
1/2	1/4	-BCM-FL8-NS4	63.3	14.2	22.9	7.1	22.2	20.6	20.6	19.4	12.7	
1/2	3/8	-BCM-FL8-NS6	63.2	14.2	22.9	9.7	22.2	20.6	20.6	19.4	12.7	
1/2	1/2	-BCM-FL8-NS8	68.8	19.1	22.9	10.4	22.2	22.2	22.2	19.4	12.7	
5/8	3/8	-BCM-FL10-NS6	66.7	14.2	24.4	9.7	25.4	23.8	23.8	22.6	15.1	
5/8	1/2	-BCM-FL10-NS8	71.5	19.1	24.4	11.9	25.4	23.8	23.8	22.6	15.1	
3/4	1/2	-BCM-FL12-NS8	76.2	19.1	24.4	11.9	28.6	27.0	27.0	25.8	19.8	
3/4	3/4	-BCM-FL12-NS12	76.2	19.1	24.4	15.7	28.6	27.0	27.0	25.8	19.8	
7/8	3/4	-BCM-FL14-NS12	84.1	19.1	25.9	15.7	31.8	30.2	30.2	29.0	23.8	
1	3/4	-BCM-FL16-NS12	89.8	19.1	31.2	15.7	38.1	34.9	34.9	33.7	23.8	
1	1	-BCM-FL16-NS16	94.5	23.9	31.2	22.4	38.1	34.9	34.9	33.7	23.8	

## Schott Rohr Verschraubung Einschrauber Bulkhead Male Connector



### Metrisches Rohr Metric Tube NPT Gewinde

T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Gx	Tafel Loch Bohrer Größe	Max. Tafel Dicke
6	1/8	-BCM-ML6-NS2	49.6	9.5	15.3	4.8	14	14	14	11.5	10.2
6	1/4	-BCM-ML6-NS4	53.5	14.2	15.3	4.8	14	14	14	11.5	10.2
8	1/8	-BCM-ML8-NS2	52.3	9.5	16.2	4.8	16	15	15	13.1	11.2
8	1/4	-BCM-ML8-NS4	57.5	14.2	16.2	6.4	16	15	15	13.1	11.2
10	1/4	-BCM-ML10-NS4	58.4	14.2	17.2	7.9	19	18	18	16.3	11.2
10	3/8	-BCM-ML10-NS6	58.4	14.2	17.2	7.9	19	18	18	16.3	11.2
10	1/2	-BCM-ML10-NS8	63.1	19.1	17.2	7.9	19	22	22	16.3	11.2
12	1/4	-BCM-ML12-NS4	63.3	14.2	22.8	7.9	22	22	22	19.5	12.7
12	3/8	-BCM-ML12-NS6	64.5	14.2	22.8	9.5	22	22	22	19.5	12.7
12	1/2	-BCM-ML12-NS8	67.5	19.1	22.8	9.5	22	22	22	19.5	12.7

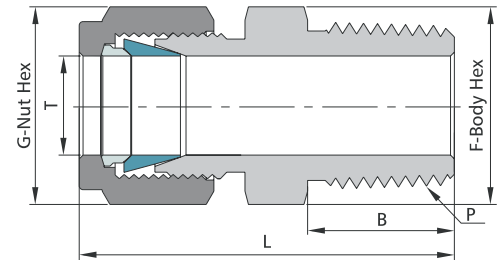


### Schott Zoll Rohr Verschraubung Einschrauber Fractional Tube AN Union

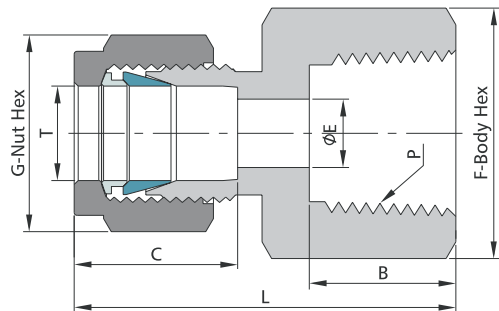
T-Tube A.D. (in.)	AN Tube Gewinde Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Gx	Tafel Loch Bohrer Größe	Max. Tafel Dicke
1/8	1/8	-BCM-FL2-AN2	48.5	11.4	12.7	1.5	11.1	12.7	12.7	8.3	12.7
1/8	1/4	-BCM-FL2-AN4	51.8	14.0	12.7	2.3	11.1	15.9	15.9	8.3	12.7
3/16	3/16	-BCM-FL3-AN3	50.3	12.2	13.7	2.3	12.7	14.3	14.3	9.9	12.7
1/4	1/4	-BCM-FL4-NS4	53.8	14.0	15.2	4.3	14.3	15.9	15.9	11.5	10.2
5/16	5/16	-BCM-FL5-AN5	56.1	14.0	16.2	5.8	15.9	17.5	17.5	13.1	14.3
3/8	1/4	-BCM-FL6-AN4	57.2	14.0	16.8	4.3	17.5	19.1	19.1	14.7	11.2
3/8	3/8	-BCM-FL6-AN6	57.2	14.2	16.8	7.1	17.5	19.1	19.1	14.7	11.2
1/2	1/2	-BCM-FL8-AN8	65.8	16.8	22.8	9.9	22.2	23.8	23.8	19.4	12.7
5/8	5/8	-BCM-FL10-AN10	69.6	19.3	24.5	12.3	25.4	27.0	27.0	22.6	15.1
3/4	3/4	-BCM-FL12-AN12	79.0	21.8	24.4	15.5	28.6	30.2	30.2	25.8	16.8
1	1	-BCM-FL16-AN16	92.5	23.1	31.2	21.3	38.1	41.3	41.3	33.7	19.1

# Thermoelement-Verschraubung Zoll Fractional Tube NPT Gewinde Thermocouple Connector

T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	G	F
1/16	1/16	-TCM-FL1-NS1	23.6	9.7	7.9	7.9
1/16	1/8	-TCM-FL1-NS2	26.2	9.7	7.9	11.1
1/16	1/4	-TCM-FL1-NS4	30.9	14.2	7.9	14.3
1/8	1/16	-TCM-FL2-NS1	29.7	9.7	11.1	9.5
1/8	1/8	-TCM-FL2-NS2	30.5	9.7	11.1	11.1
1/8	1/4	-TCM-FL2-NS4	35.6	14.2	11.1	14.3
3/16	1/8	-TCM-FL3-NS2	31.2	9.7	12.7	11.1
3/16	1/4	-TCM-FL3-NS4	36.3	14.2	12.7	14.3
1/4	1/8	-TCM-FL4-NS2	32.8	9.7	14.3	12.7
1/4	1/4	-TCM-FL4-NS4	37.8	14.2	14.3	14.3
1/4	3/8	-TCM-FL4-NS6	40.6	14.2	14.3	17.5
1/4	1/2	-TCM-FL4-NS8	47.5	19.1	14.3	22.2
5/16	1/4	-TCM-FL5-NS4	38.6	14.2	15.9	14.3
3/8	1/4	-TCM-FL6-NS4	39.9	14.2	17.5	15.9
3/8	3/8	-TCM-FL6-NS6	39.9	14.2	17.5	17.5
3/8	1/2	-TCM-FL6-NS8	46.2	19.1	17.5	22.2
3/8	3/4	-TCM-FL6-NS12	47.8	19.1	17.5	27.0
1/2	1/2	-TCM-FL8-NS8	49.0	19.1	22.2	22.2
1/2	3/4	-TCM-FL8-NS12	50.5	19.1	22.2	27.0
5/8	3/4	-TCM-FL10-NS12	50.5	19.1	25.4	27.0
3/4	3/4	-TCM-FL12-NS12	50.5	19.1	28.6	27.0
1	1	-TCM-FL16-NS16	62.5	20.6	38.1	34.9



## Rohr Aufschrauber Female Connector



Zoll Fractional Tube			NPT Gewinde						
T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	
1/16	1/16	-CF-FL1-NS1	23.6	9.9	8.6	1.3	7.9	11.1	
1/16	1/8	-CF-FL1-NS2	24.4	10.4	8.6	1.3	7.9	14.3	
1/8	1/8	-CF-FL2-NS2	28.7	10.4	12.7	2.3	11.1	14.3	
1/8	1/4	-CF-FL2-NS4	33.5	15.0	12.7	2.3	11.1	19.1	
3/16	1/8	-CF-FL3-NS2	29.7	10.4	13.7	3.0	12.7	14.3	
1/4	1/8	-CF-FL4-NS2	31.2	10.4	15.2	4.8	14.3	14.3	
1/4	1/4	-CF-FL4-NS4	35.8	15.0	15.2	4.8	14.3	19.1	
1/4	3/8	-CF-FL4-NS6	37.6	15.0	15.2	4.8	14.3	22.2	
1/4	1/2	-CF-FL4-NS8	42.4	19.8	15.2	4.8	14.3	27.0	
5/16	1/8	-CF-FL5-NS2	32.0	10.4	16.3	6.4	15.9	14.3	
5/16	1/4	-CF-FL5-NS4	36.8	15.0	16.3	6.4	15.9	19.1	
3/8	1/8	-CF-FL6-NS2	32.8	10.4	16.8	7.1	17.5	15.9	
3/8	1/4	-CF-FL6-NS4	37.6	15.0	16.8	7.1	17.5	19.1	
3/8	3/8	-CF-FL6-NS6	39.1	15.0	16.8	7.1	17.5	22.2	
3/8	1/2	-CF-FL6-NS8	43.9	19.8	16.8	7.1	17.5	27.0	
3/8	3/4	-CF-FL6-NS12	47.8	20.6	16.8	7.1	17.5	33.3	
1/2	1/4	-CF-FL8-NS4	40.4	15.0	22.9	10.4	22.2	20.6	
1/2	3/8	-CF-FL8-NS6	41.9	15.0	22.9	10.4	22.2	22.2	
1/2	1/2	-CF-FL8-NS8	46.7	19.8	22.9	10.4	22.2	27.0	
1/2	3/4	-CF-FL8-NS12	48.3	20.6	22.9	10.4	22.2	33.3	
5/8	3/8	-CF-FL10-NS6	41.9	15.0	24.4	12.7	25.4	23.8	
5/8	1/2	-CF-FL10-NS8	46.7	19.8	24.4	12.7	25.4	27.0	
3/4	1/2	-CF-FL12-NS8	46.7	19.8	24.4	15.7	28.6	27.0	
3/4	3/4	-CF-FL12-NS12	48.3	20.6	24.4	15.7	28.6	33.3	
7/8	3/4	-CF-FL14-NS12	49.8	20.6	25.9	18.3	31.8	33.3	
1	3/4	-CF-FL16-NS12	53.3	20.6	31.2	22.4	38.1	34.9	
1	1	-CF-FL16-NS16	62.2	25.4	31.2	22.4	38.1	41.3	
1 1/4	1 1/4	-CF-FL20-NS20	74.7	25.4	41.1	27.7	47.6	54.0	
1 1/2	1 1/2	-CF-FL24-NS24	83.3	27.7	50.0	36.3	57.2	60.3	
2	2	-CF-FL32-NS32	101.6	28.4	67.6	46.0	76.2	73.0	

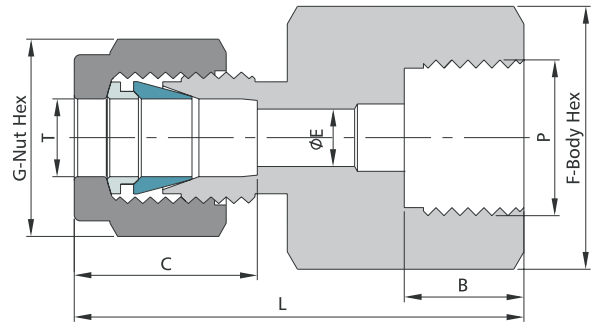
Fractional Tube			BSP Tapered Gewinde(RT)						
T-Tube A.D. (in.)	P-RT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	
1/4	1/8	-CF-FL4-RT2	31.2	10.4	15.2	4.8	14.3	14.3	
1/4	1/4	-CF-FL4-RT4	35.8	15.0	15.2	4.8	14.3	19.1	
1/4	3/8	-CF-FL4-RT6	37.6	15.0	15.2	4.8	14.3	22.2	
1/4	1/2	-CF-FL4-RT8	42.4	19.8	15.2	4.8	14.3	27.0	
3/8	1/4	-CF-FL6-RT4	37.6	15.0	16.8	7.1	17.5	19.1	
3/8	3/8	-CF-FL6-RT6	39.1	15.0	16.8	7.1	17.5	22.2	
3/8	1/2	-CF-FL6-RT8	43.9	19.8	16.8	7.1	17.5	27.0	
1/2	1/4	-CF-FL8-RT4	40.4	15.0	22.9	10.4	22.2	20.6	
1/2	3/8	-CF-FL8-RT6	41.9	15.0	22.9	10.4	22.2	22.2	
1/2	1/2	-CF-FL8-RT8	46.7	19.8	22.9	10.4	22.2	27.0	



## Zoll Rohr Fractional Tube BSP Parallel Gewinde(RG)

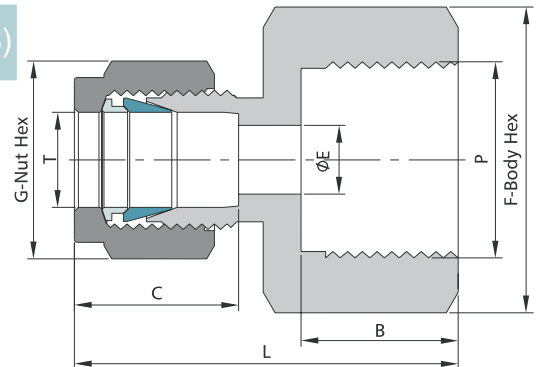
## Aufschrauber Rohr Female Connector

T-Tube A.D. (in.)	P-RG Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
1/8	1/4	-CF-FL2-RG4	35.1	10.2	12.7	2.3	11.1	19.1
1/8	3/8	-CF-FL2-RG6	35.1	14.2	12.7	2.3	11.1	23.8
1/4	1/4	-CF-FL4-RG4	37.6	10.2	15.2	4.8	14.3	19.1
1/4	3/8	-CF-FL4-RG6	37.6	14.2	15.2	4.8	14.3	23.8
1/4	1/2	-CF-FL4-RG8	43.4	18.0	15.2	4.8	14.3	27.0
5/16	1/4	-CF-FL5-RG4	38.4	10.2	16.3	5.6	15.2	19.1
5/16	3/8	-CF-FL5-RG6	39.2	14.2	16.3	6.4	15.2	23.8
5/16	1/2	-CF-FL5-RG8	40.9	18.0	16.3	7.1	15.2	27.0
3/8	1/4	-CF-FL6-RG4	39.4	10.2	16.8	5.6	17.5	19.1
3/8	3/8	-CF-FL6-RG6	39.4	14.2	16.8	6.4	17.5	23.8
3/8	1/2	-CF-FL6-RG8	41.4	18.0	16.8	7.1	17.5	27.0
1/2	1/4	-CF-FL8-RG4	41.9	10.2	22.9	5.6	22.2	19.1
1/2	3/8	-CF-FL8-RG6	44.5	14.2	22.9	6.4	22.2	23.8
1/2	1/2	-CF-FL8-RG8	48.3	18.0	22.9	7.1	22.2	27.0

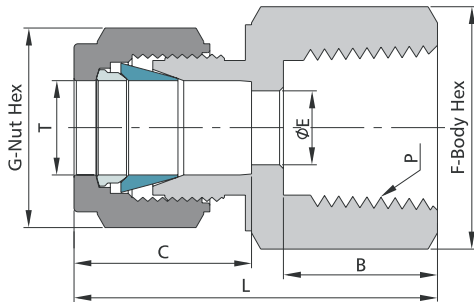


## Zoll Rohr Fractional Tube Metrisches Metric Gewinde(MS)

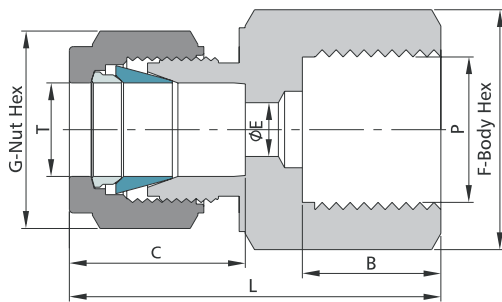
T-Tube A.D. (in.)	P-Metric Gewinde Size	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
1/8	M14X1.5	-CF-FL2-MS14	31.1	13	12.7	2.4	11.1	19.1
1/8	M16X1.5	-CF-FL2-MS16	32.2	14	12.7	2.4	11.1	22.2
1/8	M18X1.5	-CF-FL2-MS18	33.4	15	12.7	2.4	11.1	23.8
1/8	M20X1.5	-CF-FL2-MS20	34.6	16	12.7	2.4	11.1	25.4
1/4	M16X1.5	-CF-FL4-MS16	35.1	14	15.2	4.8	14.3	22.2
1/4	M18X1.5	-CF-FL4-MS18	36.3	15	15.2	4.8	14.3	23.8
1/4	M20X1.5	-CF-FL4-MS20	37.6	16	15.2	4.8	14.3	25.4
3/8	M14X1.5	-CF-FL6-MS14	35.2	13	16.8	4.8	17.5	19.1
3/8	M16X1.5	-CF-FL6-MS16	36.5	14	16.8	7.1	17.5	22.2
3/8	M18X1.5	-CF-FL6-MS18	37.8	15	16.8	7.1	17.5	23.8
3/8	M20X1.5	-CF-FL6-MS20	39.1	16	16.8	7.1	17.5	25.4
1/2	M16X1.5	-CF-FL8-MS16	42.4	14	22.9	7.1	22.2	22.2
1/2	M18X1.5	-CF-FL8-MS18	43.6	15	22.9	9.7	22.2	23.8
1/2	M20X1.5	-CF-FL8-MS20	44.9	16	22.9	9.7	22.2	25.4
1/2	M22X1.5	-CF-FL8-MS22	46.3	17	22.9	9.7	22.2	27.0



# Aufschrauber Rohr Female Connector



Metrisch Metric Tube			NPT Gewinde						
T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	
3	1/8	-CF-ML3-NS2	28.7	9.9	12.9	2.4	12	14	
3	1/4	-CF-ML3-NS4	33.5	15.0	12.9	2.4	12	19	
4	1/8	-CF-ML4-NS2	29.7	9.9	13.7	2.4	12	14	
6	1/8	-CF-ML6-NS2	31.3	9.9	15.3	4.8	14	14	
6	1/4	-CF-ML6-NS4	35.8	15.0	15.3	4.8	14	19	
6	3/8	-CF-ML6-NS6	37.7	15.0	15.3	4.8	14	22	
6	1/2	-CF-ML6-NS8	42.5	19.8	15.3	4.8	14	27	
8	1/8	-CF-ML8-NS2	32.1	9.9	16.2	4.8	16	15	
8	1/4	-CF-ML8-NS4	38.5	15.0	16.2	6.4	16	19	
8	3/8	-CF-ML8-NS6	36.2	15.0	16.2	6.4	16	22	
8	1/2	-CF-ML8-NS8	41.0	19.8	16.2	6.4	16	27	
10	1/8	-CF-ML10-NS2	33.0	9.9	17.2	4.8	19	15	
10	1/4	-CF-ML10-NS4	37.8	15.0	17.2	7.9	19	19	
10	3/8	-CF-ML10-NS6	39.4	15.0	17.2	7.9	19	22	
10	1/2	-CF-ML10-NS8	44.2	19.8	17.2	7.9	19	27	
12	1/4	-CF-ML12-NS4	41.9	15.0	22.8	7.9	22	22	
12	3/8	-CF-ML12-NS6	41.9	15.0	22.8	9.5	22	22	
12	1/2	-CF-ML12-NS8	48.2	19.8	22.8	9.5	22	27	
12	3/4	-CF-ML12-NS12	49.7	20.6	22.8	9.5	22	35	
14	3/4	-CF-ML14-NS12	49.7	20.6	24.4	11.1	25	35	
15	1/2	-CF-ML15-NS8	46.7	19.8	24.4	11.9	25	27	
16	3/8	-CF-ML16-NS6	41.9	15.0	24.4	9.5	25	27	
16	1/2	-CF-ML16-NS8	46.9	19.8	24.4	11.9	25	27	
20	1/2	-CF-ML20-NS8	47.9	19.8	26.0	11.9	32	30	
20	3/4	-CF-ML20-NS12	49.7	20.6	26.0	15.9	32	35	
22	3/4	-CF-ML22-NS12	49.7	20.6	26.0	15.9	32	35	
22	1	-CF-ML22-NS16	57.9	25.4	26.0	18.3	32	40	
25	3/4	-CF-ML25-NS12	53.4	20.6	31.3	15.9	40	35	
25	1	-CF-ML25-NS16	62.3	25.4	31.3	21.8	40	40	

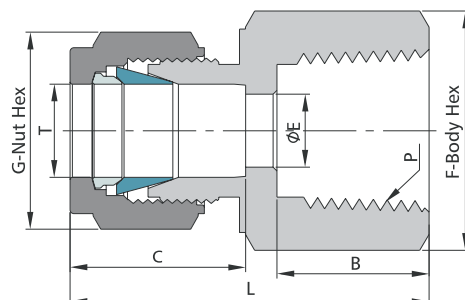


Metrisch Metric Tube			BSP Parallel Gewinde (RG)						
T-Tube A.D.	P-RG Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	
3	1/4	-CF-ML3-RG4	35.3	10.2	12.9	2.4	12	19	
6	1/4	-CF-ML6-RG4	37.6	10.2	15.3	4.0	14	19	
6	3/8	-CF-ML6-RG6	37.6	14.2	15.3	4.8	14	24	
6	1/2	-CF-ML6-RG8	43.0	18.0	15.3	4.8	14	27	
8	1/4	-CF-ML8-RG4	36.2	10.2	16.2	6.4	16	19	
8	3/8	-CF-ML8-RG6	38.5	14.2	16.2	6.4	16	24	
8	1/2	-CF-ML8-RG8	40.5	18.0	16.2	6.4	16	27	
10	1/4	-CF-ML10-RG4	38.8	10.2	17.2	5.9	19	19	
10	3/8	-CF-ML10-RG6	39.4	14.2	17.2	7.9	19	24	
10	1/2	-CF-ML10-RG8	41.4	18.0	17.2	7.9	19	27	
12	1/4	-CF-ML12-RG4	41.9	10.2	22.8	5.9	22	22	
12	3/8	-CF-ML12-RG6	44.4	14.2	22.8	7.9	22	24	
12	1/2	-CF-ML12-RG8	48.2	18.0	22.8	9.5	22	27	
20	1/2	-CF-ML20-RG8	54.3	18.0	26.0	11.9	32	30	
22	1/2	-CF-ML22-RG8	54.3	18.0	26.0	11.9	32	30	

## Metrisch Rohr Metric Tube BSP Tapered Gewinde(RT)

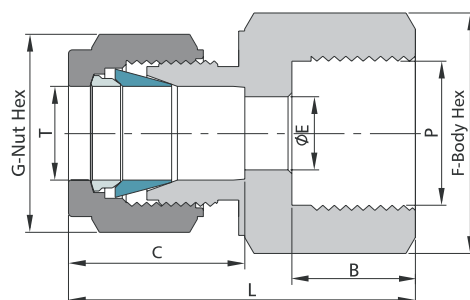
## Aufschrauber Female Connector

T-Tube O.D.	P-RT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
3	1/8	-CF-ML3-RT2	28.7	9.9	12.9	2.4	12	14
6	1/8	-CF-ML6-RT2	31.3	9.9	15.3	4.8	14	14
6	1/4	-CF-ML6-RT4	35.8	15.0	15.3	4.8	14	19
6	3/8	-CF-ML6-RT6	36.9	15.0	15.3	4.8	14	22
6	1/2	-CF-ML6-RT8	42.5	19.8	15.3	4.8	14	27
8	1/8	-CF-ML8-RT2	32.8	9.9	16.2	4.8	16	15
8	1/4	-CF-ML8-RT4	37.0	15.0	16.2	6.4	16	19
8	3/8	-CF-ML8-RT6	37.7	15.0	16.2	6.4	16	22
8	1/2	-CF-ML8-RT8	43.3	19.8	16.2	6.4	16	27
10	1/8	-CF-ML10-RT2	33.0	9.9	17.2	4.8	19	15
10	1/4	-CF-ML10-RT4	37.8	15.0	17.2	7.9	19	19
10	3/8	-CF-ML10-RT6	38.6	15.0	17.2	7.9	19	22
10	1/2	-CF-ML10-RT8	44.2	19.8	17.2	7.9	19	27
12	1/8	-CF-ML12-RT2	38.5	9.9	22.8	4.8	22	22
12	1/4	-CF-ML12-RT4	41.3	15.0	22.8	7.9	22	22
12	3/8	-CF-ML12-RT6	41.9	15.0	22.8	9.5	22	22
12	1/2	-CF-ML12-RT8	46.7	19.8	22.8	9.5	22	27
12	3/4	-CF-ML12-RT12	49.0	20.6	22.8	9.5	22	35
15	1/2	-CF-ML15-RT8	46.7	19.8	24.4	11.9	25	27
16	1/2	-CF-ML16-RT8	48.4	19.8	24.4	11.9	25	27
16	3/4	-CF-ML16-RT12	49.7	20.6	24.4	12.7	25	35
20	1/2	-CF-ML20-RT8	47.9	19.8	26.0	11.9	32	30
20	3/4	-CF-ML20-RT12	49.7	20.6	26.0	15.9	32	35
22	3/4	-CF-ML22-RT12	49.7	20.6	26.0	15.9	32	35
22	1	-CF-ML22-RT16	57.9	25.4	26.0	18.3	32	40
25	3/4	-CF-ML25-RT12	53.4	20.6	31.3	15.9	40	35
25	1	-CF-ML25-RT16	62.3	25.4	31.3	21.8	40	40

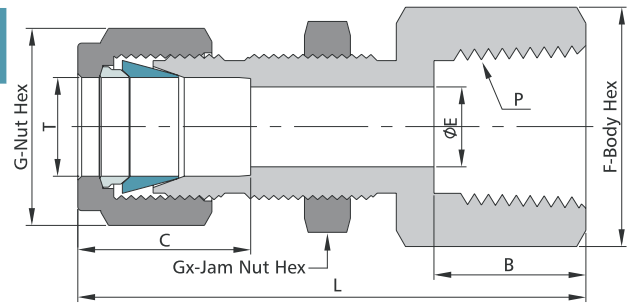


## Metrisches Rohr Metric Tube Metric Gewinde(MS)

T-Tube O.D.	P-Metric Gewinde Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F
6	M10X1	-CF-ML6-MS10	32.7	11	15.3	4.0	14	16
6	M12X1.5	-CF-ML6-MS12	33.2	12	15.3	4.8	14	18
6	M14X1.5	-CF-ML6-MS14	33.6	13	15.3	4.8	14	20
6	M20X1.5	-CF-ML6-MS20	41.8	16	15.3	4.8	14	27
8	M8X1	-CF-ML8-MS8	31.5	9	16.2	3.2	16	14
8	M10X1	-CF-ML8-MS10	33.6	11	16.2	4.0	16	16
8	M12X1.5	-CF-ML8-MS12	36.1	12	16.2	5.0	16	18
8	M14X1.5	-CF-ML8-MS14	36.5	13	16.2	6.0	16	20
8	M20X1.5	-CF-ML8-MS20	39.5	16	16.2	6.4	16	27
10	M16X1.5	-CF-ML10-MS16	39.5	14	17.2	7.9	19	22
12	M16X1.5	-CF-ML12-MS16	42.0	14	22.8	9.5	22	22
12	M20X1.5	-CF-ML12-MS20	44.9	16	22.8	9.5	22	27
14	M20X1.5	-CF-ML14-MS20	44.9	16	24.4	11.9	25	27
14	M22X1.5	-CF-ML14-MS22	45.9	17	24.4	11.9	25	27
16	M20X1.5	-CF-ML16-MS20	44.9	16	24.4	11.9	25	27
18	M20X1.5	-CF-ML18-MS20	44.9	16	24.4	15.1	30	27
20	M20X1.5	-CF-ML20-MS20	44.9	16	26.0	15.9	32	27
22	M24X1.5	-CF-ML22-MS24	45.9	17	26.0	18.3	32	32
25	M27X2	-CF-ML25-MS27	52.4	18	31.3	19.8	40	36

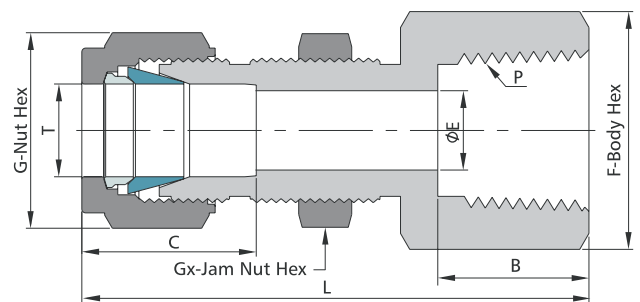


# Schott Aufschrauber Bulkhead Female Connector



## Fractional Tube

T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Gx	Panel Hole Drill Größe	Max. Panel Thickness
1/16	1/16	-BCF-FL1-NS1	26.2	9.9	8.6	1.3	7.9	11.1	7.9	5.2	3.2
1/16	1/8	-BCF-FL1-NS2	26.9	10.4	8.6	1.3	7.9	14.3	7.9	5.2	3.2
1/8	1/8	-BCF-FL2-NS2	44.7	10.4	12.7	2.3	11.1	14.3	12.7	8.3	12.7
1/8	1/4	-BCF-FL2-NS4	49.6	15.0	12.7	2.3	11.1	19.1	12.7	8.3	12.7
3/16	1/8	-BCF-FL3-NS2	45.5	10.4	13.7	3	12.7	14.3	14.3	9.9	12.7
1/4	1/8	-BCF-FL4-NS2	47.0	10.4	15.2	4.8	14.3	15.9	15.9	11.5	10.2
1/4	1/4	-BCF-FL4-NS4	51.8	15.0	15.2	4.8	14.3	19.1	15.9	11.5	10.2
1/4	3/8	-BCF-FL4-NS6	53.3	15.0	15.2	4.8	14.3	22.2	15.9	11.5	10.2
1/4	1/2	-BCF-FL4-NS8	58.2	19.8	15.2	4.8	14.3	27.0	15.9	11.5	10.2
5/16	1/8	-BCF-FL5-NS2	49.8	10.4	16.2	6.4	15.9	14.3	17.5	13.1	11.2
5/16	1/4	-BCF-FL5-NS4	60.5	15.0	16.2	6.4	15.9	19.1	17.5	13.1	11.2
3/8	1/8	-BCF-FL6-NS2	50.3	10.4	16.8	7.1	17.5	15.9	19.1	14.5	11.2
3/8	1/4	-BCF-FL6-NS4	55.1	15.0	16.8	7.1	17.5	19.1	19.1	14.5	11.2
3/8	3/8	-BCF-FL6-NS6	56.6	15.0	16.8	7.1	17.5	22.2	19.1	14.5	11.2
3/8	1/2	-BCF-FL6-NS8	61.5	19.8	16.8	7.1	17.5	27.0	19.1	14.5	11.2
3/8	3/4	-BCF-FL6-NS12	65.3	20.6	16.8	7.1	17.5	33.3	19.1	14.5	11.2
1/2	1/4	-BCF-FL8-NS4	60.2	15.0	22.9	10.4	22.2	20.6	23.8	19.4	12.7
1/2	3/8	-BCF-FL8-NS6	61.7	15.0	22.9	10.4	22.2	23.8	23.8	19.4	12.7
1/2	1/2	-BCF-FL8-NS8	66.5	19.8	22.9	10.4	22.2	27.0	23.8	19.4	12.7
1/2	3/4	-BCF-FL8-NS12	68.1	20.6	22.9	10.4	22.2	33.3	23.8	19.4	12.7
5/8	3/8	-BCF-FL10-NS6	62.5	15.0	24.4	12.7	25.4	23.8	27.0	22.6	15.1
5/8	1/2	-BCF-FL10-NS8	67.3	19.8	24.4	12.7	25.4	27.0	27.0	22.6	15.1
3/4	1/2	-BCF-FL12-NS8	72.2	19.8	24.4	15.7	28.6	27.0	30.2	25.8	19.8
3/4	3/4	-BCF-FL12-NS12	73.7	20.6	24.4	15.7	28.6	33.3	30.2	25.8	19.8
7/8	3/4	-BCF-FL14-NS12	80.8	20.6	25.9	18.3	31.8	33.3	34.9	29	23.8
1	3/4	-BCF-FL16-NS12	84.7	20.6	31.2	22.4	38.1	34.9	41.3	33.7	23.8
1	1	-BCF-FL16-NS16	93.5	25.4	31.2	22.4	38.1	41.3	41.3	33.7	23.8



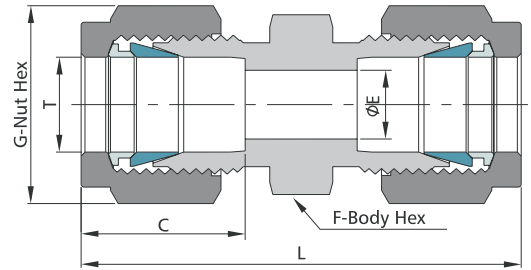
## Metric Tube

T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Gx	Panel Hole Drill Größe	Max. Panel Thickness
6	1/8	-BCM-ML6-NS2	47.2	10.4	15.3	4.8	14	14	14	11.5	10.2
6	1/4	-BCM-ML6-NS4	52.0	15.0	15.3	4.8	14	19	19	11.5	10.2
8	1/8	-BCM-ML8-NS2	49.6	10.4	16.2	4.8	16	15	15	13.1	11.2
10	1/4	-BCM-ML10-NS4	55.2	15.0	17.2	7.9	19	19	19	16.3	11.2
12	3/8	-BCM-ML12-NS6	60.9	15.0	22.8	9.5	22	22	22	19.5	12.7
12	1/2	-BCM-ML12-NS8	66.4	19.8	22.8	9.5	22	27	27	19.5	12.7

## Zoll Rohr Fractional Tube

T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
1/16	-U-FL1	25.1	8.6	7.9	11.1	1.3
1/8	-U-FL2	35.6	12.7	11.1	11.1	2.3
3/16	-U-FL3	37.3	13.7	12.7	12.7	3.0
1/4	-U-FL4	40.9	15.2	14.3	12.7	4.8
5/16	-U-FL5	42.9	16.2	15.9	14.3	6.4
3/8	-U-FL6	45.0	16.8	17.5	15.9	7.1
1/2	-U-FL8	51.3	22.9	22.2	20.6	10.4
5/8	-U-FL10	52.1	24.4	25.4	23.9	12.7
3/4	-U-FL12	53.6	24.4	28.6	27.0	15.7
7/8	-U-FL14	55.4	25.9	31.8	34.9	18.3
1	-U-FL16	64.8	31.2	38.1	34.9	22.4
1 1/4	-U-FL20	92.2	41.1	47.6	44.5	27.7
1 1/2	-U-FL24	108.0	50.0	57.2	54.0	34.0
2	-U-FL32	149.4	67.6	76.2	69.9	46.0

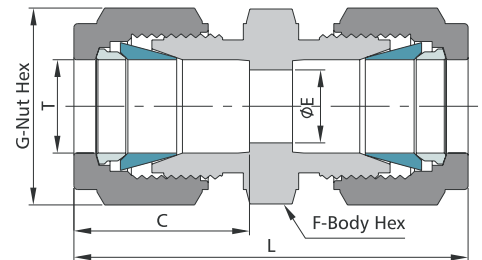
## Verbinder Rohr Union



## Metrisches Rohr Metric Tube

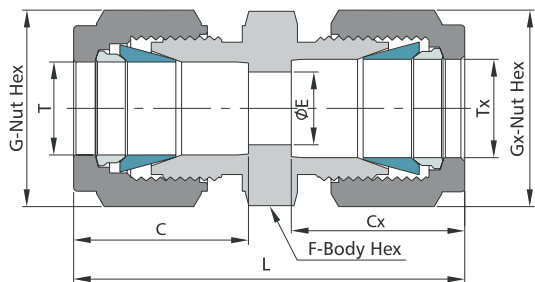
T-Tube A.D.	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
2	-U-ML2	35.3	12.9	12	12	1.7
3	-U-ML3	35.6	12.9	12	12	2.4
4	-U-ML4	37.3	13.7	12	12	2.4
6	-U-ML6	41.0	15.3	14	14	4.8
8	-U-ML8	43.2	16.2	16	15	6.4
10	-U-ML10	46.2	17.2	19	18	7.9
12	-U-ML12	51.2	22.8	22	22	9.5
14	-U-ML14	52.0	24.4	25	24	11.1
15	-U-ML15	52.0	24.4	25	24	11.9
16	-U-ML16	52.0	24.4	25	24	12.7
18	-U-ML18	53.5	24.4	30	27	15.1
20	-U-ML20	55.0	26.0	32	30	15.9
22	-U-ML22	55.0	26.0	32	30	18.3
25	-U-ML25	65.0	31.3	40	35	21.8

## Verbinder Rohr Union



## Reduzier Rohr Verbinder Conversion Union

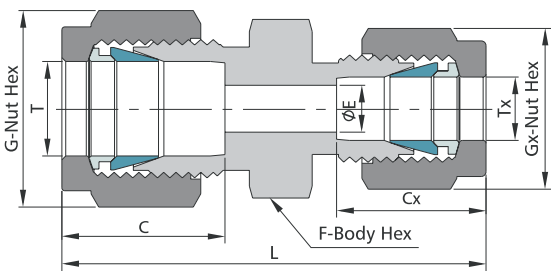
## Metrisch zu Zoll Metric Tube To Fractional Tube



T-Tube A.D.	Tx-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	Cx	Gx
3	1/8	-U-ML3-FL2	35.2	12.9	12	12	2.4	12.7	11.1
4	1/8	-U-ML4-FL2	36.5	13.7	12	12	2.4	12.7	11.1
4	1/4	-U-ML4-FL4	39.4	13.7	12	14	2.4	15.2	14.3
6	1/8	-U-ML6-FL2	38.5	15.3	14	14	2.4	12.7	11.1
6	1/4	-U-ML6-FL4	41.0	15.3	14	14	4.8	15.2	14.3
6	5/16	-U-ML6-FL5	42.3	15.3	14	14	4.8	16.2	15.9
8	1/4	-U-ML8-FL4	42.3	16.2	16	15	4.8	15.2	14.3
8	3/8	-U-ML8-FL6	42.4	16.2	16	15	6.4	16.8	17.5
10	1/8	-U-ML10-FL2	41.8	17.2	19	18	2.4	12.7	11.1
10	1/4	-U-ML10-FL4	44.5	17.2	19	18	4.8	15.2	14.3
10	5/16	-U-ML10-FL5	45.1	17.2	19	18	6.4	16.2	15.9
10	3/8	-U-ML10-FL6	45.9	17.2	19	18	7.1	16.8	17.5
12	5/16	-U-ML12-FL5	47.8	22.8	22	22	6.4	16.2	15.9
12	3/8	-U-ML12-FL6	48.4	22.8	22	22	7.1	16.8	17.5
12	1/2	-U-ML12-FL8	51.2	22.8	22	22	9.5	22.9	22.2
15	1/2	-U-ML15-FL8	52.0	24.4	25	24	10.4	22.9	22.2
16	3/8	-U-ML16-FL6	52.0	24.4	25	24	12.7	16.8	25.4
18	3/4	-U-ML18-FL12	53.5	24.4	30	27	15.1	24.4	28.6

## Reduzier Verbinder Reducing Union

## Zoll Typ Fractional Tube

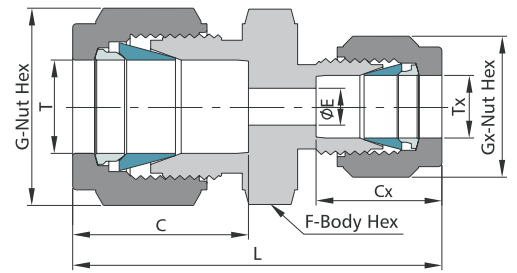


T-Tube A.D. (in.)	Tx-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	Cx	Gx
1/8	1/16	-U-FL2-FL1	31.0	12.7	11.1	11.1	1.3	8.6	7.9
3/16	1/16	-U-FL3-FL1	32.3	13.7	12.7	11.1	1.3	8.6	7.9
3/16	1/8	-U-FL3-FL2	36.6	13.7	12.7	11.1	2.3	15.2	14.3
1/4	1/16	-U-FL4-FL1	34.3	15.2	14.3	12.7	1.3	8.6	7.9
1/4	1/8	-U-FL4-FL2	38.6	15.2	14.3	12.7	2.3	12.7	11.1
1/4	3/16	-U-FL4-FL3	39.4	15.2	14.3	12.7	3.0	13.7	12.7
5/16	1/8	-U-FL5-FL2	39.9	16.2	15.9	14.3	2.3	12.7	11.1
5/16	1/4	-U-FL5-FL4	42.2	16.2	15.9	14.3	4.8	15.2	14.3
3/8	1/16	-U-FL6-FL1	36.6	16.8	17.5	15.9	1.3	8.6	7.9
3/8	1/8	-U-FL6-FL2	40.9	16.8	17.5	15.9	2.3	12.7	11.1
3/8	1/4	-U-FL6-FL4	43.2	16.8	17.5	15.9	4.8	15.2	14.3
3/8	5/16	-U-FL6-FL5	44.2	16.8	17.5	15.9	6.4	16.2	15.9
1/2	1/8	-U-FL8-FL2	45.2	22.8	22.2	20.6	2.3	12.7	11.1
1/2	1/4	-U-FL8-FL4	47.0	22.8	22.2	20.6	4.8	15.2	14.3
1/2	3/8	-U-FL8-FL6	48.5	22.8	22.2	20.6	7.1	16.8	17.5
5/8	3/8	-U-FL10-FL6	49.3	24.4	25.4	23.9	7.1	16.8	17.5
5/8	1/2	-U-FL10-FL8	52.1	24.4	25.4	23.9	10.4	22.8	22.2
3/4	1/4	-U-FL12-FL4	49.3	24.4	28.6	27.0	4.8	15.2	14.3
3/4	3/8	-U-FL12-FL6	50.8	24.4	28.6	27.0	7.1	16.8	17.5
3/4	1/2	-U-FL12-FL8	53.6	24.4	28.6	27.0	10.4	22.8	22.2
3/4	5/8	-U-FL12-FL10	53.6	24.4	28.6	27.0	12.7	24.4	25.4
1	1/2	-U-FL16-FL8	62.7	31.2	38.1	34.9	10.4	22.8	22.2
1	3/4	-U-FL16-FL12	63.2	31.2	38.1	34.9	15.7	24.4	24.4

# Reduzier Rohr Verbinder Reducing Union

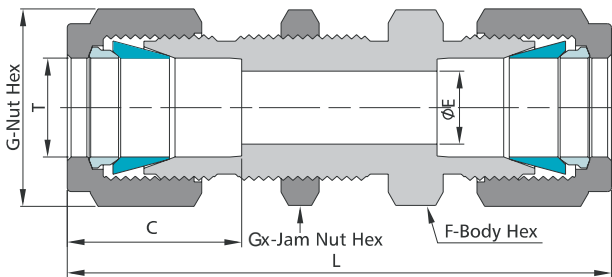
# Metrisches Rohr Metric Tube

T-Tube A.D.	Tx-Tube A.D.	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	Cx	Gx
3	2	-U-ML3-ML2	35.8	12.9	12	12	0.8	12.9	12
6	2	-U-ML6-ML2	38.6	15.3	14	14	1.7	12.9	12
6	3	-U-ML6-ML3	38.6	15.3	14	14	2.4	12.9	12
6	4	-U-ML6-ML4	39.4	15.3	14	14	2.4	13.7	12
8	6	-U-ML8-ML6	42.3	16.3	16	15	4.8	15.3	14
10	6	-U-ML10-ML6	44.5	17.2	19	18	4.8	15.3	14
10	8	-U-ML10-ML8	45.1	17.2	19	18	6.4	16.3	16
12	6	-U-ML12-ML6	47.0	22.8	22	22	4.8	15.3	14
12	8	-U-ML12-ML8	47.8	22.8	22	22	6.4	16.3	16
12	10	-U-ML12-ML10	48.7	22.8	22	22	7.9	17.2	19
16	10	-U-ML16-ML10	49.5	24.4	25	24	7.9	17.2	19
16	12	-U-ML16-ML12	52.0	24.4	25	24	9.5	22.8	22
18	12	-U-ML18-ML12	53.5	24.4	35	27	9.5	22.8	22
25	18	-U-ML25-ML18	61.0	31.3	40	35	15.1	24.4	30
25	20	-U-ML25-ML20	62.3	31.3	40	35	15.9	26.0	32



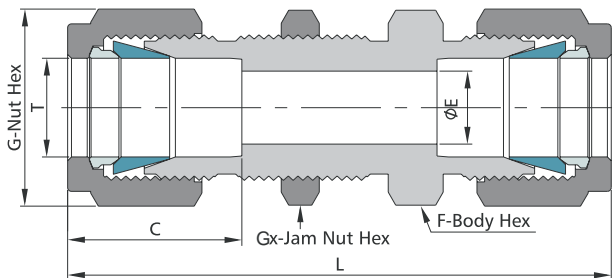


## Schott Verbinder Bulkhead Union



## Zoll Typ Fractional Tube

T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	E Minimum Öffnung	G	F	Gx	Tafel Loch Größe	Max. Tafel Dicke
1/16	-BU-FL1	31.5	8.6	1.3	7.9	7.9	7.9	5.2	3.0
1/8	-BU-FL2	51.3	12.7	2.3	11.1	12.7	12.7	8.3	12.7
3/16	-BU-FL3	53.6	13.7	3.0	12.7	14.3	14.3	9.9	12.7
1/4	-BU-FL4	57.7	15.2	4.8	14.3	15.9	15.9	11.5	10.2
5/16	-BU-FL5	60.7	16.2	6.4	15.9	17.5	17.5	13.1	11.2
3/8	-BU-FL6	62.2	16.8	7.1	17.5	19.1	19.1	14.7	11.2
1/2	-BU-FL8	71.1	22.9	10.4	22.2	23.8	23.8	19.4	12.7
5/8	-BU-FL10	72.6	24.4	12.7	25.4	27.0	27.0	22.6	15.1
3/4	-BU-FL12	79.0	24.4	15.7	28.6	30.1	30.1	25.8	19.8
7/8	-BU-FL14	84.6	25.9	18.3	31.8	34.9	34.9	29.0	23.8
1	-BU-FL16	95.8	31.2	22.4	38.1	41.3	41.3	33.7	23.8



## Metrischer Rohr Verbinder Metric Tube

T-Tube A.D.	Basic Bestell Nummer	L	C	E Minimum Öffnung	G	F	Gx	Tafel Loch Größe	Max. Tafel Dicke
3	-BU-ML3	51.3	12.9	2.4	12	14	14	8.3	12.7
4	-BU-ML4	53.6	13.7	2.4	12	14	14	9.9	12.7
6	-BU-ML6	57.7	15.3	4.8	14	16	16	11.5	10.2
8	-BU-ML8	61.0	16.2	6.4	16	18	18	13.1	11.2
10	-BU-ML10	63.7	17.2	7.9	19	22	22	16.3	11.2
12	-BU-ML12	71.0	22.8	9.5	22	24	24	19.5	12.7
15	-BU-ML15	72.5	24.4	11.9	25	27	27	22.8	12.7
16	-BU-ML16	72.5	24.4	12.7	25	27	27	22.8	12.7
18	-BU-ML18	78.9	24.4	15.1	30	30	30	26.0	16.8
20	-BU-ML20	84.5	26.0	15.9	32	30	30	29.0	19.0
25	-BU-ML25	95.8	31.3	22.6	40	35	35	33.8	24.0

## Schott Mutter Bulkhead Locknut



## Zoll Fractional Tube Metrisch Metric Tube

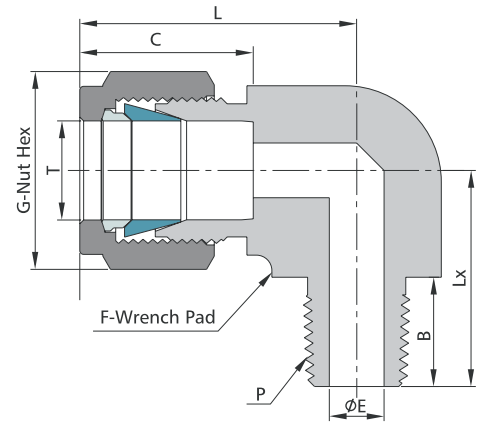
T-Tube A.D. (in.)	Basic Bestell Nummer	T-Tube A.D.	Basic Bestell Nummer
1/16	-BN-FL1	3	-BN-ML3
1/8	-BN-FL2	4	-BN-ML4
3/16	-BN-FL3	6	-BN-ML6
1/4	-BN-FL4	8	-BN-ML8
5/16	-BN-FL5	10	-BN-ML10
3/8	-BN-FL6	12	-BN-ML12
1/2	-BN-FL8	15	-BN-ML15
5/8	-BN-FL10	16	-BN-ML16
3/4	-BN-FL12	18	-BN-ML18
7/8	-BN-FL14	20	-BN-ML20
1	-BN-FL16	25	-BN-ML25

Zoll Typ Fractional Tube

NPT Gewinde

Einschraub Rohr Winkel Male Elbow

T-Tube A.D. (in.)	P-NPT Pipe Größte (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
1/16	1/16	-LM-FL1-NS1	17.8	8.6	7.9	11.1	1.3	9.7	16.5
1/16	1/8	-LM-FL1-NS2	19.1	8.6	7.9	11.1	1.3	9.7	17.8
1/8	1/16	-LM-FL2-NS1	23.6	12.7	11.1	11.1	2.4	9.7	17.8
1/8	1/8	-LM-FL2-NS2	23.6	12.7	11.1	11.1	2.4	9.7	17.8
1/8	1/4	-LM-FL2-NS4	24.6	12.7	11.1	14.3	2.4	14.2	23.4
3/16	1/8	-LM-FL3-NS2	25.4	13.7	12.7	12.7	3.0	9.7	18.8
3/16	1/4	-LM-FL3-NS4	25.4	13.7	12.7	14.3	3.0	14.2	23.4
1/4	1/16	-LM-FL4-NS1	26.9	15.2	14.3	12.7	2.4	9.7	18.8
1/4	1/8	-LM-FL4-NS2	26.9	15.2	14.3	12.7	4.8	9.7	18.8
1/4	1/4	-LM-FL4-NS4	26.9	15.2	14.3	14.3	4.8	14.2	23.4
1/4	3/8	-LM-FL4-NS6	29.7	15.2	14.3	19.1	4.8	14.2	26.2
1/4	1/2	-LM-FL4-NS8	31.8	15.2	14.3	22.2	4.8	19.1	33.0
5/16	1/8	-LM-FL5-NS2	28.7	16.3	15.9	15.9	4.8	9.7	19.8
5/16	1/4	-LM-FL5-NS4	28.7	16.3	15.9	15.9	6.4	14.2	24.4
5/16	3/8	-LM-FL5-NS6	30.5	16.3	15.9	19.1	6.4	14.2	26.2
3/8	1/8	-LM-FL6-NS2	30.5	16.8	17.5	15.9	4.8	9.7	20.8
3/8	1/4	-LM-FL6-NS4	30.5	16.8	17.5	15.9	7.1	14.2	25.4
3/8	3/8	-LM-FL6-NS6	31.2	16.8	17.5	19.1	7.1	14.2	26.2
3/8	1/2	-LM-FL6-NS8	33.3	16.8	17.5	22.2	7.1	19.1	33.0
3/8	3/4	-LM-FL6-NS12	37.1	16.8	17.5	27.0	7.1	19.1	36.8
1/2	1/4	-LM-FL8-NS4	36.1	22.9	22.2	20.6	7.1	14.2	27.9
1/2	3/8	-LM-FL8-NS6	36.1	22.9	22.2	20.6	9.7	14.2	27.9
1/2	1/2	-LM-FL8-NS8	36.1	22.9	22.2	22.2	10.4	19.1	33.0
1/2	3/4	-LM-FL8-NS12	39.9	22.9	22.2	27.0	10.4	19.1	36.8
5/8	3/8	-LM-FL10-NS6	38.1	24.4	25.4	22.2	9.7	14.2	30.2
5/8	1/2	-LM-FL10-NS8	38.1	24.4	25.4	22.2	11.9	19.1	35.1
5/8	3/4	-LM-FL10-NS12	39.9	24.4	25.4	27.0	12.7	19.1	36.8
3/4	1/2	-LM-FL12-NS8	39.9	24.4	28.6	27.0	11.9	19.1	36.8
3/4	3/4	-LM-FL12-NS12	39.9	24.4	28.6	27.0	15.7	19.1	36.8
7/8	3/4	-LM-FL14-NS12	44.7	25.9	31.8	34.9	15.7	19.1	41.7
1	3/4	-LM-FL16-NS12	49.0	31.2	38.1	34.9	15.7	19.1	41.7
1	1	-LM-FL16-NS16	49.0	31.2	38.1	34.9	22.4	23.9	46.5
1 1/4	1 1/4	-LM-FL20-NS20	66.5	41.1	47.6	41.3	27.7	23.9	47.8
1 1/2	1 1/2	-LM-FL24-NS24	78.0	50.0	57.2	47.6	34.0	26.2	60.5
2	2	-LM-FL32-NS32	107.2	67.6	76.2	71.4	46.0	26.9	70.6

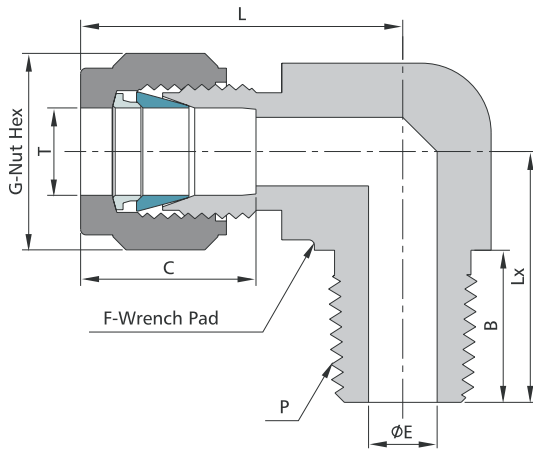


Zoll Typ Fractional Tube BSP Tapered Gewinde(RT)

T-Tube A.D. (in.)	P-RT Pipe Größte (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
1/4	1/8	-LM-FL4-RT2	26.9	15.2	14.3	11.1	4.8	9.7	18.8
1/4	1/4	-LM-FL4-RT4	26.9	15.2	14.3	14.3	4.8	14.2	23.4
1/4	3/8	-LM-FL4-RT6	29.7	15.2	14.3	19.1	4.8	14.2	26.2
1/4	1/2	-LM-FL4-RT8	31.8	15.2	14.3	22.2	4.8	19.1	33.0
5/16	1/4	-LM-FL5-RT4	28.7	16.3	15.9	15.9	6.4	14.2	25.4
3/8	1/8	-LM-FL6-RT2	30.5	16.8	17.5	14.3	4.8	9.7	20.8
3/8	1/4	-LM-FL6-RT4	30.5	16.8	17.5	15.9	7.1	14.2	25.4
3/8	3/8	-LM-FL6-RT6	31.2	16.8	17.5	19.1	7.1	14.2	26.2
1/2	3/8	-LM-FL8-RT6	36.1	22.9	22.2	19.1	9.7	14.2	27.9
1/2	1/2	-LM-FL8-RT8	36.1	22.9	22.2	22.2	10.4	19.1	33.0

# Einschraub Rohr Winkel Male Elbow

## Metrisch Metric Tube NPT Gewinde

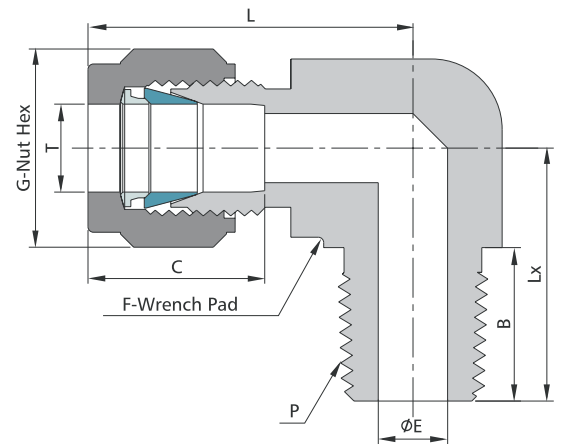


T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
3	1/8	-LM-ML3-NS2	23.6	12.9	12	11.1	2.4	9.7	17.8
3	1/4	-LM-ML3-NS4	24.6	12.9	12	12.7	2.4	14.2	23.4
4	1/8	-LM-ML4-NS2	25.4	13.7	12	12.7	2.4	9.7	18.8
4	1/4	-LM-ML4-NS4	25.4	13.7	12	12.7	2.4	14.2	23.4
6	1/8	-LM-ML6-NS2	27.0	15.3	14	12.7	4.8	9.7	18.8
6	1/4	-LM-ML6-NS4	27.0	15.3	14	12.7	4.8	14.2	23.4
6	3/8	-LM-ML6-NS6	29.8	15.3	14	17.5	4.8	14.2	26.2
6	1/2	-LM-ML6-NS8	31.8	15.3	14	20.6	4.8	19.0	33.0
8	1/8	-LM-ML8-NS2	28.8	16.2	16	14.3	4.8	9.7	19.8
8	1/4	-LM-ML8-NS4	28.8	16.2	16	14.3	6.4	14.2	24.4
8	3/8	-LM-ML8-NS6	30.6	16.2	16	17.5	6.4	14.2	26.2
8	1/2	-LM-ML8-NS8	32.7	16.2	16	20.6	6.4	19.1	33.0
10	1/8	-LM-ML10-NS2	31.5	17.2	19	17.5	4.8	9.7	23.6
10	1/4	-LM-ML10-NS4	31.5	17.2	19	17.5	7.1	14.2	28.2
10	3/8	-LM-ML10-NS6	31.5	17.2	19	17.5	7.9	14.2	28.2
10	1/2	-LM-ML10-NS8	33.5	17.2	19	20.6	7.9	19.1	33.0
12	1/8	-LM-ML12-NS2	36.0	22.8	22	20.6	4.8	9.7	23.6
12	1/4	-LM-ML12-NS4	36.0	22.8	22	20.6	7.1	14.2	28.2
12	3/8	-LM-ML12-NS6	36.0	22.8	22	20.6	9.5	14.2	28.2
12	1/2	-LM-ML12-NS8	36.0	22.8	22	20.6	9.5	19.1	33.0
12	3/4	-LM-ML12-NS12	39.8	22.8	22	27.0	9.5	19.1	36.8
15	1/2	-LM-ML15-NS8	38.0	24.4	25	23.8	10.4	19.1	35.1
16	1/4	-LM-ML16-NS4	38.0	24.4	25	23.8	7.1	14.2	30.2
16	3/8	-LM-ML16-NS6	38.0	24.4	25	23.8	9.5	14.2	30.2
16	1/2	-LM-ML16-NS8	38.0	24.4	25	23.8	11.9	19.1	35.1
16	3/4	-LM-ML16-NS12	39.8	24.4	25	27.0	12.7	19.1	36.8
18	1/2	-LM-ML18-NS8	39.8	24.4	30	27.0	11.9	19.1	36.8
18	3/4	-LM-ML18-NS12	39.8	24.4	30	27.0	15.1	19.1	36.8
20	1/2	-LM-ML20-NS8	44.6	26.0	32	34.9	11.9	19.1	41.7
20	3/4	-LM-ML20-NS12	44.6	26.0	32	34.9	15.9	19.1	41.7
22	3/4	-LM-ML22-NS12	44.6	26.0	32	34.9	15.9	19.1	41.7
22	1	-LM-ML22-NS16	44.6	26.0	32	34.9	18.3	23.9	46.5
25	3/4	-LM-ML25-NS12	49.1	31.3	40	34.9	15.9	19.0	41.7
25	1	-LM-ML25-NS16	49.1	31.3	40	34.9	21.8	23.9	46.5

Metrisches Rohr Metric Tube BSP Tapered Gewinde(RT)

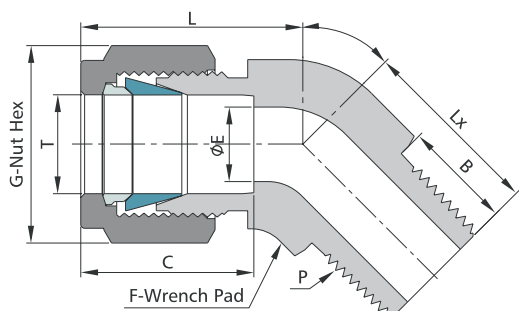
Rohrwinkel Einschrauber Male Elbow

T-Tube A.D.	P-RT Rohr Größte (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
3	1/8	-LM-ML3-RT2	23.6	12.9	12	11.1	2.4	9.7	17.8
3	1/4	-LM-ML3-RT4	24.6	12.9	12	12.7	2.4	14.2	23.4
4	1/8	-LM-ML4-RT2	25.4	13.7	12	12.7	2.4	9.7	18.8
4	1/4	-LM-ML4-RT4	25.4	13.7	12	12.7	2.4	14.2	23.4
6	1/8	-LM-ML6-RT2	27.0	15.3	14	12.7	4.8	9.7	18.8
6	1/4	-LM-ML6-RT4	27.0	15.3	14	12.7	4.8	14.2	23.4
6	3/8	-LM-ML6-RT6	29.8	15.3	14	17.5	4.8	14.2	26.2
6	1/2	-LM-ML6-RT8	31.8	15.3	14	20.6	4.8	19.0	33.0
8	1/8	-LM-ML8-RT2	28.8	16.2	16	14.3	4.8	9.7	19.8
8	1/4	-LM-ML8-RT4	28.8	16.2	16	14.3	6.4	14.2	24.4
8	3/8	-LM-ML8-RT6	30.6	16.2	16	17.5	6.4	14.2	26.2
8	1/2	-LM-ML8-RT8	32.7	16.2	16	20.6	6.4	19.1	33.0
10	1/8	-LM-ML10-RT2	33.5	17.2	19	17.5	4.8	9.7	21.6
10	1/4	-LM-ML10-RT4	33.5	17.2	19	17.5	7.1	14.2	26.2
10	3/8	-LM-ML10-RT6	33.5	17.2	19	17.5	7.9	14.2	26.2
10	1/2	-LM-ML10-RT8	33.5	17.2	19	20.6	7.9	19.1	33.0
12	1/8	-LM-ML12-RT2	36.0	22.8	22	20.6	4.8	9.7	23.6
12	1/4	-LM-ML12-RT4	36.0	22.8	22	20.6	7.1	14.2	28.2
12	3/8	-LM-ML12-RT6	36.0	22.8	22	20.6	9.5	14.2	28.2
12	1/2	-LM-ML12-RT8	36.0	22.8	22	20.6	9.5	19.1	33.0
12	3/4	-LM-ML12-RT12	39.8	22.8	22	27.0	9.5	19.1	36.8
16	1/4	-LM-ML16-RT4	38.0	24.4	25	23.8	7.1	14.2	30.2
16	3/8	-LM-ML16-RT6	38.0	24.4	25	23.8	9.5	14.2	30.2
16	1/2	-LM-ML16-RT8	38.0	24.4	25	23.8	11.9	19.1	35.1
16	3/4	-LM-ML16-RT12	39.8	24.4	25	27.0	12.7	19.1	36.8
18	1/2	-LM-ML18-RT8	39.8	24.4	30	27.0	11.9	19.1	36.8
18	3/4	-LM-ML18-RT12	39.8	24.4	30	27.0	15.1	19.1	36.8
20	1/2	-LM-ML20-RT8	44.6	26.0	32	34.9	11.9	19.1	41.7
20	3/4	-LM-ML20-RT12	44.6	26.0	32	34.9	15.9	19.1	41.7
22	3/4	-LM-ML22-RT12	44.6	26.0	32	34.9	15.9	19.1	41.7
22	1	-LM-ML22-RT16	44.6	26.0	32	34.9	18.3	23.9	46.5
25	3/4	-LM-ML25-RT12	49.1	31.3	40	34.9	15.9	19.1	41.7
25	1	-LM-ML25-RT16	49.1	31.3	40	34.9	21.8	23.9	46.5

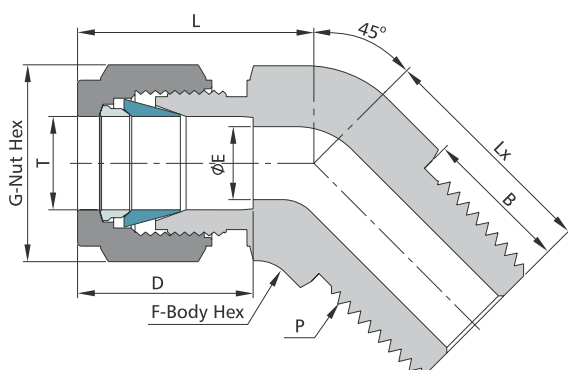


## 45° Rohr Einschraubwinkel Male Elbow

### Zoll Typ Fractional Tube NPT Gewinde



T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
1/16	1/16	-VM-FL1-NS1	15.7	8.6	7.9	9.5	1.3	9.7	14.5
1/8	1/8	-VM-FL2-NS2	20.8	12.7	11.1	11.1	2.3	9.7	16.8
3/16	1/8	-VM-FL3-NS2	21.6	13.7	12.7	11.1	3.0	9.7	14.7
1/4	1/8	-VM-FL4-NS2	23.4	15.2	14.3	14.3	4.8	9.7	16.8
1/4	1/4	-VM-FL4-NS4	24.1	15.2	14.3	14.3	4.8	14.3	21.8
5/16	1/8	-VM-FL5-NS2	24.1	16.3	15.9	14.3	4.8	9.7	16.8
3/8	1/8	-VM-FL6-NS2	25.7	16.8	17.5	14.3	4.8	9.7	17.0
3/8	1/4	-VM-FL6-NS4	25.7	16.8	17.5	14.3	7.1	14.3	21.8
3/8	3/8	-VM-FL6-NS6	26.4	16.8	17.5	19.1	7.1	19.1	24.1
1/2	3/8	-VM-FL8-NS6	29.2	22.9	22.2	19.1	9.7	19.1	24.1
5/8	1/2	-VM-FL10-NS8	30.7	24.4	25.4	22.2	11.9	19.1	29.7
3/4	3/4	-VM-FL12-NS12	31.5	24.4	28.6	27.0	15.7	19.1	30.5
7/8	3/4	-VM-FL14-NS12	40.4	25.9	31.8	33.3	15.7	19.1	32.3
1	1	-VM-FL16-NS16	46.7	31.2	38.1	33.3	22.4	23.9	37.6

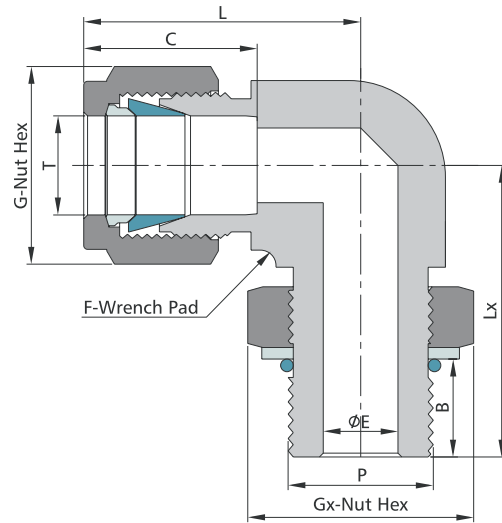


### Metric Tube

### NPT Gewinde

T-Tube A.D.	P-NPT Rohr Size (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
6	1/8	-VM-ML6-NS2	23.4	15.3	14	14	4.8	9.7	16.8
6	1/4	-VM-ML6-NS4	23.4	15.3	14	14	4.8	14.3	21.8
8	1/8	-VM-ML8-NS2	24.3	16.2	16	14	4.8	9.7	16.8
10	1/4	-VM-ML10-NS4	26.6	17.2	19	19	7.9	14.3	24.1
12	3/8	-VM-ML12-NS6	29.1	22.8	22	19	9.5	19.1	24.1
12	1/2	-VM-ML12-NS8	30.7	22.8	22	22	9.5	19.1	29.7
16	1/2	-VM-ML16-NS8	30.7	24.4	25	22	11.9	19.1	29.7

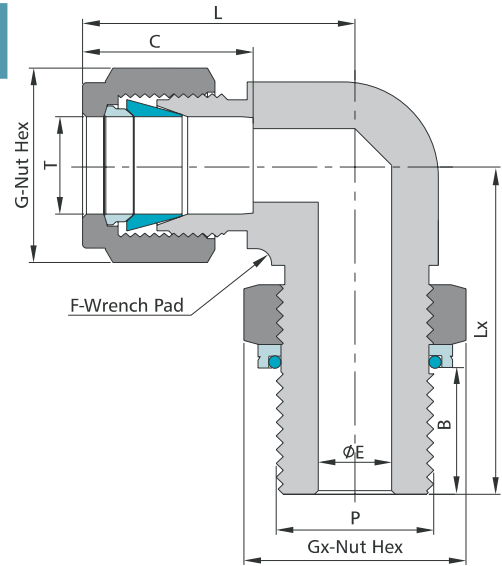
## Einstellbarer Rohrwinkel Einschrauber Positionable Male Elbow



### Zoll Typ Fractional Tube SAE/MS Straight Gewinde

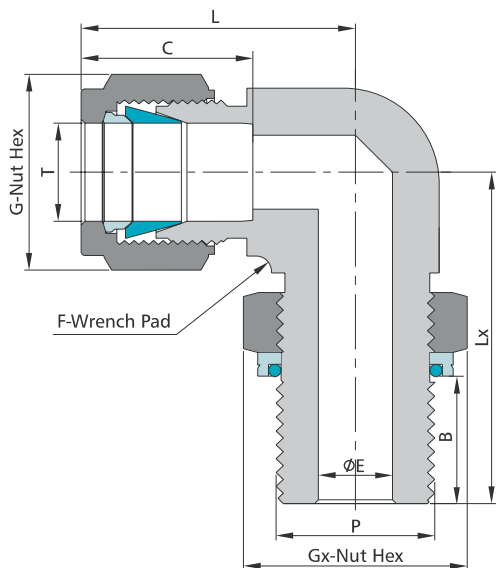
T-Tube A.D. (in.)	P-SAE/MS Gewinde Größe	Basic Bestell Nummer	L	B	C	G	E Minimum Öffnung	F	Lx	Gx
1/4	7/16-20	-LP-FL4-ST7	28.4	9.9	15.2	14.3	4.8	11.1	28.7	14.3
5/16	1/2-20	-LP-FL5-ST8	30.2	9.9	16.3	15.9	6.4	12.7	29.5	15.9
3/8	9/16-18	-LP-FL6-ST9	32.0	11.2	16.8	17.5	7.1	14.3	32.3	17.5
3/8	3/4-16	-LP-FL6-ST12	34.8	12.7	16.8	17.5	7.1	19.1	37.8	22.2
1/2	3/4-16	-LP-FL8-ST12	37.6	12.7	22.9	22.2	10.4	19.1	37.8	22.2
5/8	7/8-14	-LP-FL10-ST14	39.6	14.2	24.4	25.4	12.7	22.2	43.4	25.4
3/4	11/16-12	-LP-FL12-ST17	41.4	16.8	24.4	28.6	15.7	27.0	48.8	31.8
7/8	13/16-12	-LP-FL14-ST19	43.2	16.8	25.9	31.8	18.3	30.2	50.5	34.9
1	15/16-12	-LP-FL16-ST21	50.5	16.8	31.2	38.1	22.4	33.3	53.4	38.1

# Einstellbarer Rohr Einschrauber Positionable Male Elbow



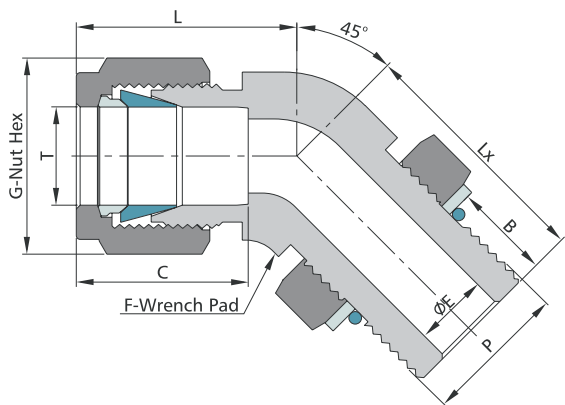
Zoll Typ Fractional Tube			BSP Parallel Dicke								
T-Tube A.D. (in.)	P-BSP Parallel Dicke (in.)	Größe	Basic Bestell Nummer	L	B	C	G	E Minimum Öffnung	F	Lx	Gx
1/4	1/8		-LP-FL4-BP2	26.9	13.7	15.2	14.3	4.1	12.7	31.8	14.3
1/4	1/4		-LP-FL8-BP4	29.0	14.2	15.2	14.3	4.8	15.9	32.3	19.1
3/8	1/4		-LP-FL6-BP4	30.5	14.2	16.8	17.5	5.8	15.9	32.3	19.1
3/8	3/8		-LP-FL6-BP6	33.3	14.2	16.8	17.5	7.1	20.6	37.1	22.2
1/2	1/4		-LP-FL8-BP4	36.1	14.2	22.9	22.2	5.8	20.6	35.1	19.1
1/2	3/8		-LP-FL8-BP6	36.1	14.4	22.9	22.2	7.9	20.6	37.1	22.2
1/2	1/2		-LP-FL8-BP8	38.1	18.5	22.9	22.2	10.4	23.8	43.2	27.0
5/8	1/2		-LP-FL10-BP8	38.1	18.5	24.4	25.4	11.9	23.8	46.0	27.0
3/4	1/2		-LP-FL12-BP8	39.9	18.5	24.4	28.6	11.9	27.0	46.0	27.0
3/4	3/4		-LP-FL12-BP12	39.9	20.3	24.4	28.6	15.7	27.0	48.8	34.9
1	3/4		-LP-FL16-BP12	49.3	20.3	31.2	38.1	15.7	34.9	53.6	34.9
1	1		-LP-FL16-BP16	19.3	20.3	31.2	38.1	19.8	34.9	53.6	41.3





## Einstellbarer Winkel Positionable Male Elbow

Metrisches Rohr Metric Tube		BSP Parallel Gewinde								
T-Tube A.D.	P-BSP Parallel Gewinde Größe (in.)	Basic Bestell Nummer	L	B	C	G	E Minimum Öffnung	F	Lx	Gx
6	1/8	-LP-ML6-BP2	27.0	13.7	15.3	14	4.0	12.7	31.8	14.3
6	1/4	-LP-ML6-BP4	29.0	14.2	15.3	14	4.8	15.9	32.3	19.1
8	1/8	-LP-ML8-BP2	28.8	13.7	16.2	16	4.0	14.3	32.1	14.3
8	1/4	-LP-ML8-BP4	29.9	14.2	16.2	16	5.9	15.9	34.3	19.1
10	1/4	-LP-ML10-BP4	33.5	14.2	17.2	19	5.9	20.6	32.3	19.1
10	3/8	-LP-ML10-BP6	33.5	14.4	17.2	19	7.9	20.6	37.1	22.2
12	1/4	-LP-ML12-BP4	36.0	14.2	22.8	22	5.9	20.6	31.9	19.1
12	3/8	-LP-ML12-BP6	36.0	14.4	22.8	22	7.9	20.6	36.5	22.2
12	1/2	-LP-ML12-BP8	38.0	18.5	22.8	22	9.5	23.8	46.0	27.0
12	3/4	-LP-ML12-BP12	39.8	20.3	22.8	22	9.5	27.0	48.8	34.9

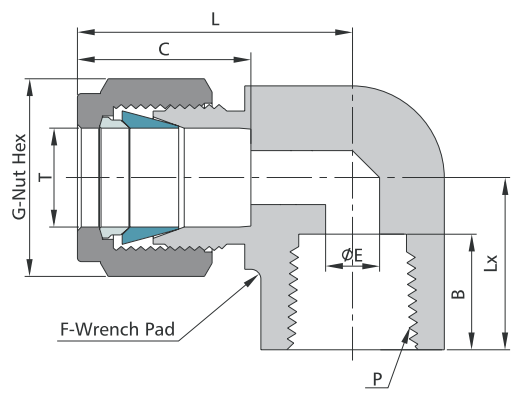


## 45° Positionable Male Elbow Einstellbarer Winkel Positionable Male Elbow

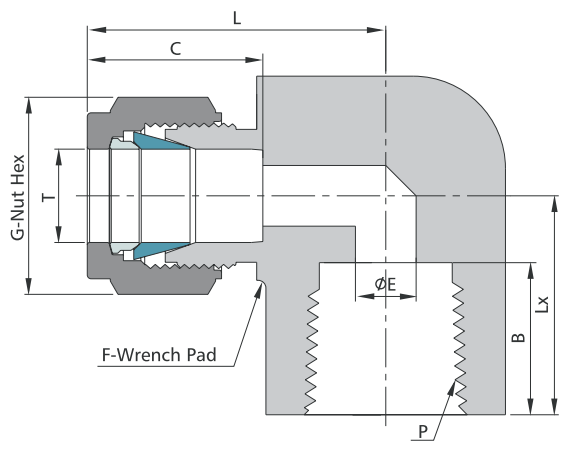
Zoll Typ Fractional Tube		SAE/MS Straight Gewinde								
T-Tube A.D. (in.)	P-SAE/MS Gewinde Größe	Basic Bestell Nummer	L	B	C	G	E Minimum Öffnung	F	Lx	Gx
1/4	7/16-20	-VP-FL4-ST7	25.7	9.9	15.2	14.3	4.8	12.7	25.7	14.3
3/8	9/16-18	-VP-FL6-ST9	27.9	11.2	16.8	17.5	7.1	14.3	32.3	17.5
1/2	3/4-16	-VP-FL8-ST12	32.0	12.7	22.9	22.2	10.4	19.1	37.6	22.2
3/4	11/16-12	-VP-FL12-ST17	39.9	16.8	24.4	28.6	15.7	27.0	48.8	31.8
1	15/16-12	-VP-FL16-ST21	47.5	16.8	31.2	38.1	22.4	33.3	53.4	38.1

# Aufschrauber Rohr Winkel Female Elbow

## Zoll Typ Fractional Tube NPT Gewinde



T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	B	G	E Minimum Öffnung	F	Lx
1/16	1/16	-LF-FL1-NS1	18.0	9.9	8.6	7.9	1.3	11.1	14.2
1/16	1/8	-LF-FL1-NS2	20.6	10.4	8.6	7.9	1.3	14.3	19.1
1/8	1/8	-LF-FL2-NS2	24.6	9.9	12.7	11.1	2.3	14.3	19.1
1/8	1/4	-LF-FL2-NS4	27.4	15.0	12.7	11.1	2.3	19.1	22.4
3/16	1/8	-LF-FL3-NS2	25.4	9.9	13.7	12.7	3.0	14.3	19.1
1/4	1/8	-LF-FL4-NS2	26.9	9.9	15.2	14.3	4.8	14.3	19.1
1/4	1/4	-LF-FL4-NS4	29.7	15.0	15.2	14.3	4.8	19.1	22.4
1/4	3/8	-LF-FL4-NS6	31.8	15.0	15.2	14.3	4.8	22.2	22.4
1/4	1/2	-LF-FL4-NS8	34.5	19.8	15.2	14.3	4.8	27.0	28.4
5/16	1/8	-LF-FL5-NS2	28.7	9.9	16.2	15.9	6.4	15.9	19.1
5/16	1/4	-LF-FL5-NS4	30.5	15.0	16.2	15.9	6.4	19.1	22.4
3/8	1/8	-LF-FL6-NS2	30.5	9.9	16.8	17.5	7.1	15.9	19.1
3/8	1/4	-LF-FL6-NS4	31.2	15.0	16.8	17.5	7.1	19.1	22.4
3/8	3/8	-LF-FL6-NS6	33.3	15.0	16.8	17.5	7.1	22.2	22.4
3/8	1/2	-LF-FL6-NS8	36.1	19.8	16.8	17.5	7.1	27.0	28.4
1/2	1/4	-LF-FL8-NS4	36.1	15.0	22.9	22.2	10.4	20.6	22.4
1/2	3/8	-LF-FL8-NS6	36.1	15.0	22.9	22.2	10.4	22.2	22.4
1/2	1/2	-LF-FL8-NS8	38.9	19.8	22.9	22.2	10.4	27.0	28.4
5/8	3/8	-LF-FL10-NS6	38.1	15.0	24.4	25.4	12.7	22.2	22.4
5/8	1/2	-LF-FL10-NS8	39.9	19.8	24.4	25.4	12.7	27.0	28.4
3/4	1/2	-LF-FL12-NS8	39.9	19.8	24.4	28.6	15.7	27.0	28.4
3/4	3/4	-LF-FL12-NS12	44.7	20.6	24.4	28.6	15.7	34.9	31.8
7/8	3/4	-LF-FL14-NS12	44.7	20.6	25.9	31.8	18.3	34.9	31.8
1	3/4	-LF-FL16-NS12	49.0	20.6	31.2	38.1	22.4	34.9	31.8
1	1	-LF-FL16-NS16	50.3	25.4	31.2	38.1	22.4	41.3	38.1



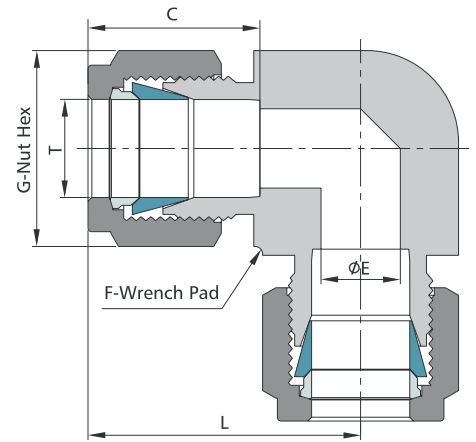
## Metrisches Rohr Metric Tube NPT Gewinde

T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	B	G	E Minimum Öffnung	F	Lx
6	1/8	-LF-ML6-NS2	27.0	9.9	15.3	14	4.8	12.7	19.0
6	1/4	-LF-ML6-NS4	29.8	15.0	15.3	14	4.8	17.5	22.4
8	1/8	-LF-ML8-NS2	28.8	9.9	16.2	16	4.8	14.3	19.1
8	1/4	-LF-ML8-NS4	30.6	15.0	16.2	16	6.4	17.5	22.4
10	1/4	-LF-ML10-NS4	33.5	15.0	17.2	19	7.9	20.6	22.4
10	3/8	-LF-ML10-NS6	33.5	15.0	17.2	19	7.9	20.6	22.4
10	1/2	-LF-ML10-NS8	36.6	19.8	17.2	19	7.9	25.4	28.5
12	1/4	-LF-ML12-NS4	36.0	15.0	22.8	22	7.9	20.6	22.4
12	3/8	-LF-ML12-NS6	36.0	15.0	22.8	22	9.5	20.6	22.4
12	1/2	-LF-ML12-NS8	38.8	19.8	22.8	22	9.5	25.4	28.5
16	3/8	-LF-ML16-NS6	39.5	15.0	24.4	25	9.5	27.0	23.6
16	1/2	-LF-ML16-NS8	39.5	19.8	24.4	25	11.9	27.0	28.5

## Zoll Type Fractional Tube

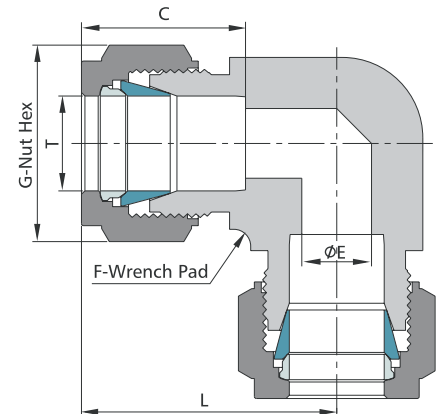
T-Tube Rohr (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
1/16	-LU-FL1	19.1	8.6	7.9	9.5	1.3
1/8	-LU-FL2	22.4	12.7	11.1	9.5	2.3
3/16	-LU-FL3	25.4	13.7	12.7	12.7	3.0
1/4	-LU-FL4	26.9	15.2	14.3	12.7	4.8
5/16	-LU-FL5	28.7	16.3	15.9	15.9	6.4
3/8	-LU-FL6	30.5	16.8	17.5	15.9	7.1
1/2	-LU-FL8	36.1	22.9	22.2	20.6	10.4
5/8	-LU-FL10	38.1	24.4	25.4	22.2	12.7
3/4	-LU-FL12	39.9	24.4	28.6	27.0	15.7
7/8	-LU-FL14	44.7	25.9	31.8	34.9	18.3
1	-LU-FL16	49.0	31.2	38.1	34.9	22.4
1 1/4	-LU-FL20	66.5	41.1	47.6	41.3	27.7
1 1/2	-LU-FL24	78.0	50.0	57.2	47.6	34.0
2	-LU-FL32	107.2	67.6	76.2	71.4	46.0

## Rohr Winkel Union Elbow



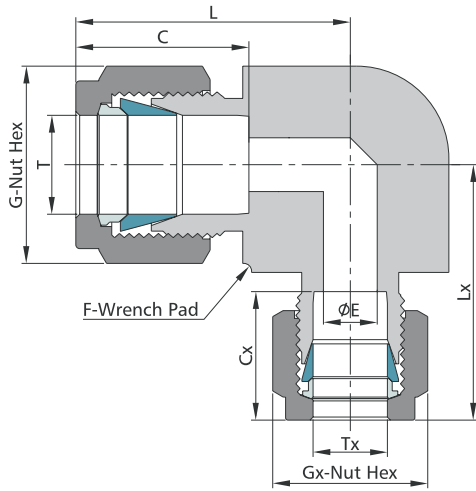
## Metrisches Rohr Metric Tube

T-Tube Rohr	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
3	-LU-ML3	23.6	12.9	12	9.5	2.4
4	-LU-ML4	25.4	13.7	12	12.7	2.4
6	-LU-ML6	27.0	15.3	14	12.7	4.8
8	-LU-ML8	28.8	16.2	16	14.3	6.4
10	-LU-ML10	33.5	17.2	19	17.5	7.9
12	-LU-ML12	36.0	22.8	22	20.6	9.5
14	-LU-ML14	38.8	24.4	25	23.9	11.9
15	-LU-ML15	38.8	24.4	25	23.9	12.7
16	-LU-ML16	38.8	24.4	25	23.9	12.7
18	-LU-ML18	39.8	24.4	30	27.0	15.1
20	-LU-ML20	44.6	26.0	32	34.9	15.9
22	-LU-ML22	44.6	26.0	32	34.9	18.3
25	-LU-ML25	49.1	31.3	40	34.9	21.8

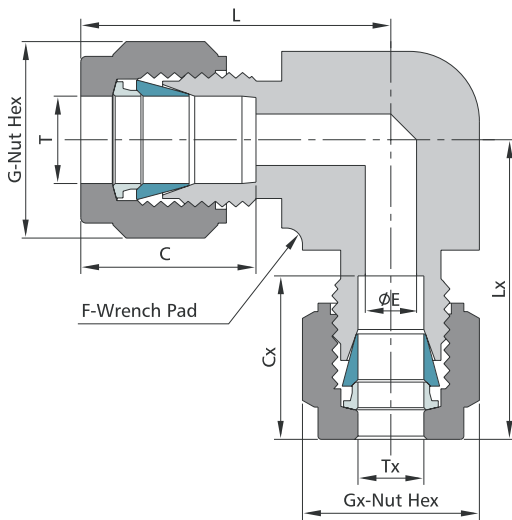


## Reduzier Rohr Winkel Union Elbow

## Zoll Typ Fractional Tube



T-Tube A.D. (in.)	Tx-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	Cx	Gx	Lx
3/16	1/8	-LU-FL3-FL2	24.4	13.7	12.7	11.1	2.3	12.7	11.1	23.4
1/4	1/8	-LU-FL4-FL2	26.9	15.2	14.3	12.7	2.3	12.7	11.1	24.4
5/16	1/8	-LU-FL5-FL2	29.7	16.3	15.9	15.9	2.3	12.7	11.1	26.4
5/16	1/4	-LU-FL5-FL4	29.7	16.3	15.9	15.9	4.8	15.2	14.3	29.0
3/8	1/8	-LU-FL6-FL2	30.5	16.8	17.5	15.9	2.3	12.7	11.1	26.4
3/8	1/4	-LU-FL6-FL4	30.5	16.8	17.5	15.9	4.8	15.2	14.3	27.7
3/8	5/16	-LU-FL6-FL5	30.5	16.8	17.5	15.9	6.4	16.3	15.9	29.7
1/2	1/4	-LU-FL8-FL4	36.1	22.9	22.2	20.6	4.8	15.2	14.3	31.8
1/2	5/16	-LU-FL8-FL5	36.1	22.9	22.2	20.6	6.4	16.3	15.9	32.5
1/2	3/8	-LU-FL8-FL6	36.1	22.9	22.2	20.6	7.1	16.8	17.5	33.3
5/8	3/8	-LU-FL10-FL6	36.3	24.4	25.4	22.2	7.1	16.8	17.5	33.5
5/8	1/2	-LU-FL10-FL8	36.3	24.4	25.4	22.2	10.4	22.9	22.2	36.3
3/4	1/4	-LU-FL12-FL4	39.6	24.4	28.6	27.0	4.8	15.2	14.3	35.1
3/4	3/8	-LU-FL12-FL6	39.6	24.4	28.6	27.0	7.1	16.8	17.5	36.8
3/4	1/2	-LU-FL12-FL8	39.6	24.4	28.6	27.0	10.4	22.9	22.2	39.6
7/8	1/4	-LU-FL14-FL4	44.7	25.9	31.8	34.9	4.8	15.2	14.3	38.4
1	1/2	-LU-FL16-FL8	49.3	31.2	38.1	34.9	10.4	22.9	22.2	41.1
1	3/4	-LU-FL16-FL12	49.3	31.2	38.1	34.9	15.7	24.4	28.6	44.7



## Metrisches Rohr Metric Tube

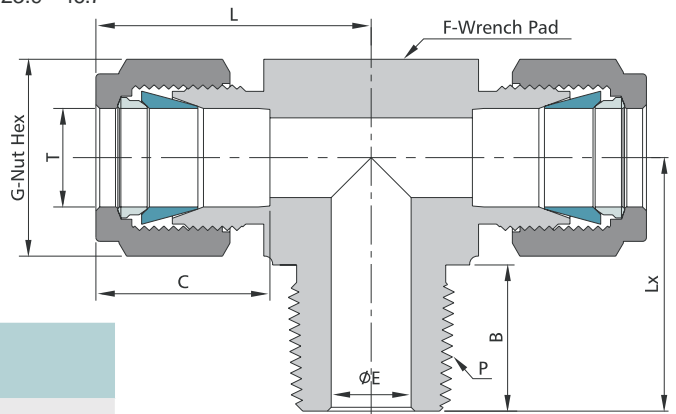
T-Tube A.D.	Tx-Tube A.D.	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	Cx	Gx	Lx
8	6	-LU-ML8-ML6	28.8	16.2	16	14.3	4.8	15.3	14	27.0
10	8	-LU-ML10-ML8	33.5	17.2	19	17.5	6.4	16.2	16	28.8
12	8	-LU-ML12-ML8	36.0	22.8	22	20.6	6.4	16.2	16	28.8
14	8	-LU-ML14-ML8	38.8	24.4	25	23.9	6.4	16.2	16	28.8
14	10	-LU-ML14-ML10	38.8	24.4	25	23.9	7.9	17.2	19	33.5

## Zoll Typ Fractional Tube

## NPT Gewinde

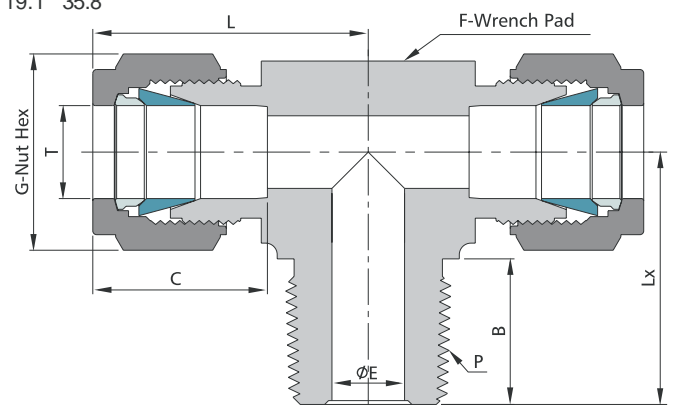
## Einschraub Rohr T-Stück Male Branch Tee

T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
1/8	1/8	-TTM-FL2-NS2	23.6	12.7	11.1	11.1	2.3	9.7	17.8
1/8	1/4	-TTM-FL2-NS4	24.6	12.7	11.1	14.3	2.3	14.2	23.4
3/16	1/8	-TTM-FL3-NS2	24.4	13.7	12.7	12.7	3.0	9.7	17.8
1/4	1/8	-TTM-FL4-NS2	26.9	15.2	14.3	12.7	4.8	9.7	18.8
1/4	1/4	-TTM-FL4-NS4	26.9	15.2	14.3	14.3	4.8	14.2	23.4
5/16	1/8	-TTM-FL5-NS2	29.7	16.3	15.9	15.9	4.8	9.7	20.8
5/16	1/4	-TTM-FL5-NS4	29.7	16.3	15.9	15.9	6.4	14.2	25.7
3/8	1/4	-TTM-FL6-NS4	30.5	16.8	17.5	15.9	7.1	14.2	25.4
3/8	3/8	-TTM-FL6-NS6	33.3	16.8	17.5	20.6	7.1	14.2	28.2
1/2	3/8	-TTM-FL8-NS6	36.1	22.9	22.2	20.6	9.7	14.2	28.2
1/2	1/2	-TTM-FL8-NS8	36.1	22.9	22.2	22.2	10.4	19.1	33.0
5/8	1/2	-TTM-FL10-NS8	38.9	24.4	25.4	25.4	11.9	19.1	35.8
3/4	3/4	-TTM-FL12-NS12	39.9	24.4	28.6	27.0	15.7	19.1	36.8
7/8	3/4	-TTM-FL14-NS12	44.7	25.9	31.8	33.3	15.7	19.1	38.1
1	3/4	-TTM-FL16-NS12	49.3	31.2	38.1	33.3	15.7	19.1	42.2
1	1	-TTM-FL16-NS16	49.3	31.2	38.1	34.9	22.4	23.9	46.7



## Metrisches Rohr Metric Tube NPT Gewinde

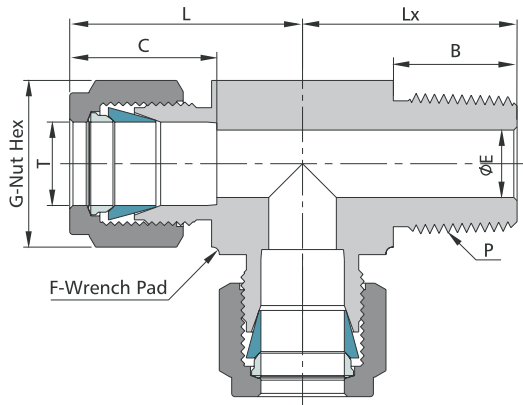
T-Tube A.D.	P-NPT Rohr Größe	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
6	1/8	-TTM-ML6-NS2	27.0	15.3	14	12.7	4.8	9.7	18.8
6	1/4	-TTM-ML6-NS4	27.0	15.3	14	12.7	4.8	14.2	23.4
8	1/8	-TTM-ML8-NS2	29.9	16.2	16	15.9	4.8	9.7	20.8
8	1/4	-TTM-ML8-NS4	29.9	16.2	16	15.9	6.4	14.2	25.4
10	1/4	-TTM-ML10-NS4	33.5	17.2	19	20.6	7.9	14.2	28.2
10	3/8	-TTM-ML10-NS6	33.5	17.2	19	20.6	7.9	14.2	28.2
12	1/4	-TTM-ML12-NS4	36.0	22.8	22	20.6	7.9	14.2	28.2
12	3/8	-TTM-ML12-NS6	36.0	22.8	22	20.6	9.5	14.2	28.2
12	1/2	-TTM-ML12-NS8	36.0	22.8	22	20.6	9.5	19.1	33.0
16	1/2	-TTM-ML16-NS8	38.8	24.4	25	25.4	11.9	19.1	35.8



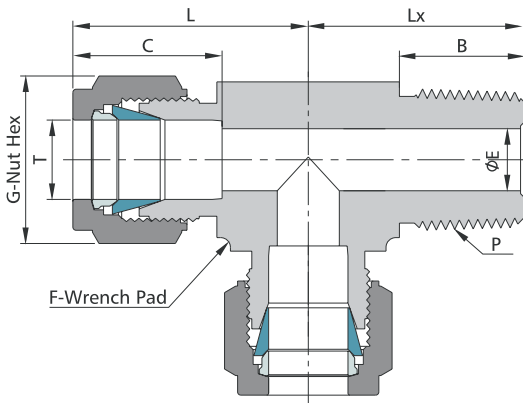
## Einschraub T-Stück Male Run Tee

## Zoll Typ Fractional Tube

## NPT Gewinde



T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
1/8	1/8	-TMT-FL2-NS2	23.6	12.7	11.1	11.1	2.3	9.7	17.8
1/8	1/4	-TMT-FL2-NS4	24.6	12.7	11.1	14.3	2.3	14.2	23.4
3/16	1/8	-TMT-FL3-NS2	24.4	13.7	12.7	12.7	3.0	9.7	17.8
1/4	1/8	-TMT-FL4-NS2	26.9	15.2	14.3	12.7	4.8	9.7	18.8
1/4	1/4	-TMT-FL4-NS4	26.9	15.2	14.3	14.3	4.8	14.2	23.4
5/16	1/8	-TMT-FL5-NS2	29.7	16.3	15.9	15.9	4.8	9.7	20.8
5/16	1/4	-TMT-FL5-NS4	29.7	16.3	15.9	15.9	6.4	14.2	25.7
3/8	1/4	-TMT-FL6-NS4	30.5	16.8	17.5	15.9	7.1	14.2	25.4
3/8	3/8	-TMT-FL6-NS6	33.3	16.8	17.5	20.6	7.1	14.2	28.2
1/2	3/8	-TMT-FL8-NS6	36.1	22.9	22.2	20.6	9.7	14.2	28.2
1/2	1/2	-TMT-FL8-NS8	36.1	22.9	22.2	22.2	10.4	19.1	33.0
5/8	1/2	-TMT-FL10-NS8	38.9	24.4	25.4	25.4	11.9	19.1	35.8
3/4	3/4	-TMT-FL12-NS12	39.9	24.4	28.6	27.0	15.7	19.1	36.8
7/8	3/4	-TMT-FL14-NS12	44.7	25.9	31.8	33.3	15.7	19.1	38.1
1	3/4	-TMT-FL16-NS12	49.3	31.2	38.1	33.3	15.7	19.1	42.2
1	1	-TMT-FL16-NS16	49.3	31.2	38.1	34.9	22.4	23.9	46.7

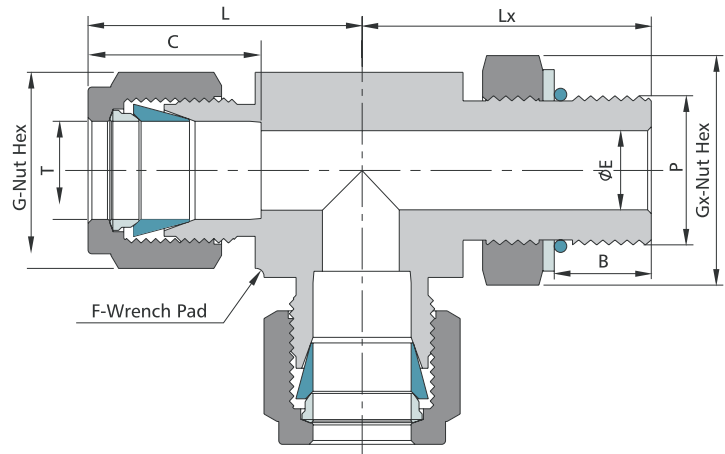


## Metrisches Rohr Metric Tube

## NPT Gewinde

T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
6	1/8	-TMT-ML6-NS2	27.0	15.3	14	12.7	4.8	9.7	18.8
6	1/4	-TMT-ML6-NS4	27.0	15.3	14	12.7	4.8	14.2	23.4
8	1/8	-TMT-ML8-NS2	29.9	16.2	16	15.9	4.8	9.7	20.8
8	1/4	-TMT-ML8-NS4	29.9	16.2	16	15.9	6.4	14.2	25.4
10	1/4	-TMT-ML10-NS4	33.5	17.2	19	20.6	7.9	14.2	28.2
10	1/2	-TMT-ML10-NS8	33.5	17.2	19	20.6	7.9	14.2	28.2
12	1/4	-TMT-ML12-NS4	36.0	22.8	22	20.6	7.9	14.2	28.2
12	3/8	-TMT-ML12-NS6	36.0	22.8	22	20.6	9.5	14.2	28.2
12	1/2	-TMT-ML12-NS8	36.0	22.8	22	20.6	9.5	19.1	33.0
16	1	-TMT-ML16-NS16	38.8	24.4	25	25.4	11.9	19.1	35.8

## Einstellbares T-Stück Positionable Male Run Tee-**SAE/MS** Gewinde

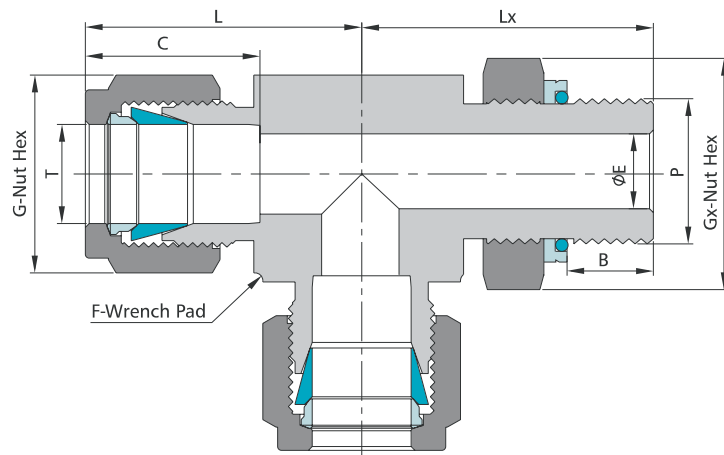


### Fractional Tube

### SAE/MS St

T-Tube A.D. (in.)	P-SAE/MS Gewinde Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Lx	Gx
1/4	7/16-20	-TPT-FL4-ST7	28.5	9.9	15.2	4.8	14.3	11.1	28.5	14.3
3/8	9/16-18	-TPT-FL6-ST9	32.0	11.2	16.8	7.1	17.5	14.3	32.3	17.5
1/2	3/4-16	-TPT-FL8-ST12	37.6	12.7	22.9	10.4	22.2	19.1	37.8	22.2
3/4	1 1/16-12	-TPT-FL12-ST17	41.4	16.8	24.4	15.7	28.6	27.0	48.8	28.6
1	1 5/16-12	-TPT-FL16-ST21	50.5	16.8	31.2	22.4	38.1	33.3	53.6	38.1

## Einstellbares T-Stück Positionable Male Run Tee-**BSP** Parallel Gewinde

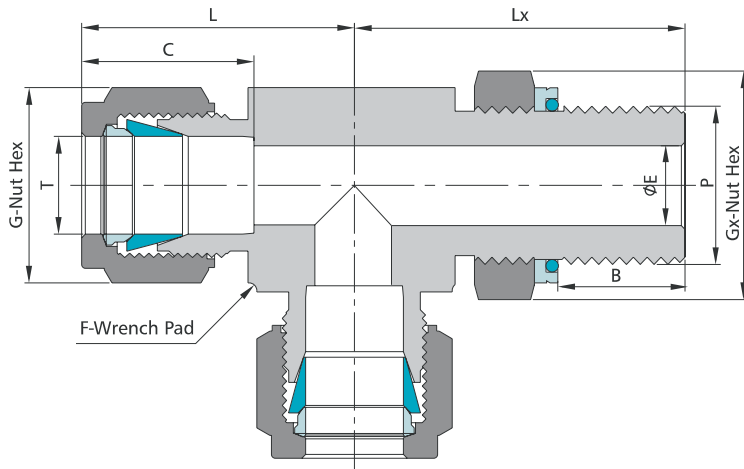


### Fractional Tube

### BSP

T-Tube A.D. (in.)	P-BSP Parallel Gewinde Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Lx	Gx
1/4	1/8	-TPT-FL4-BP2	26.9	13.7	15.2	4.1	14.3	12.7	26.4	14.3
1/4	1/4	-TPT-FL4-BP4	29.0	14.2	15.2	4.8	14.3	15.9	32.3	19.1
3/8	1/4	-TPT-FL6-BP4	30.5	14.2	16.8	5.8	17.5	15.9	32.3	19.1
1/2	3/8	-TPT-FL8-BP6	36.1	14.4	22.9	7.9	22.2	20.6	37.1	22.2
1/2	1/2	-TPT-FL8-BP8	38.1	18.5	22.9	10.4	22.2	23.8	43.4	27.0
5/8	1/2	-TPT-FL10-BP8	38.1	18.5	24.4	11.9	25.4	23.8	43.4	27.0
3/4	1/2	-TPT-FL12-BP8	39.9	15.8	24.4	11.9	28.6	27.0	45.2	34.9
3/4	3/4	-TPT-FL12-BP12	39.9	20.3	24.4	15.7	28.6	27.0	48.8	27.0
1	1	-TPT-FL16-BP16	49.0	20.3	31.2	19.8	38.1	34.9	53.6	41.3

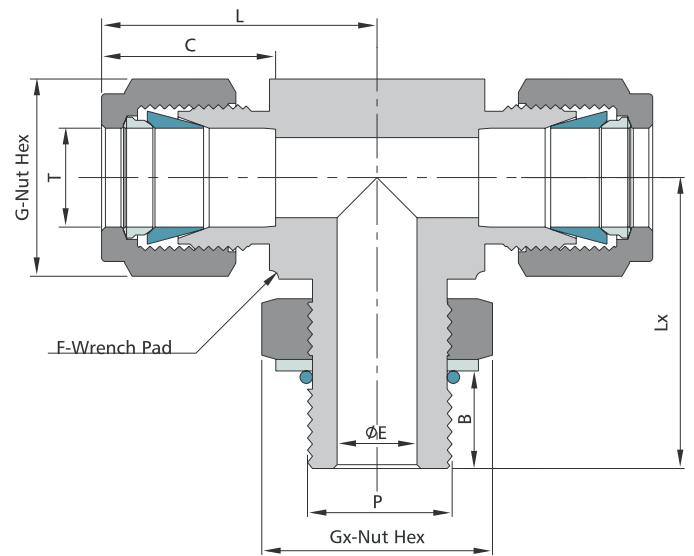
# Einstellbares Rohr Einschrauber T-Stück Positionable Male Run Tee-BSP Parallel Gewinde



Metrisches Rohr Metric Tube BSP Parallel Gewinde											
T-Tube A.D.	P-BSP Parallel Gewinde (in.)	Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Lx	Gx
6	1/8	-TPT-ML6-BP2		27.0	13.7	15.3	4.0	14	12.7	26.4	14.3
6	1/4	-TPT-ML6-BP4		29.0	14.2	15.3	4.8	14	15.9	32.2	19.1
8	1/8	-TPT-ML8-BP2		28.8	13.7	16.2	4.0	16	14.3	27.5	14.3
8	1/4	-TPT-ML8-BP4		29.9	14.2	16.2	6.4	16	15.9	32.2	19.1
10	1/4	-TPT-ML10-BP4		33.5	14.2	17.2	5.9	19	20.6	35.1	19.1
12	3/8	-TPT-ML12-BP6		36.0	14.4	22.8	7.9	22	20.6	37.1	22.2
12	1/2	-TPT-ML12-BP8		38.0	18.5	22.8	9.5	22	23.8	43.5	27.0



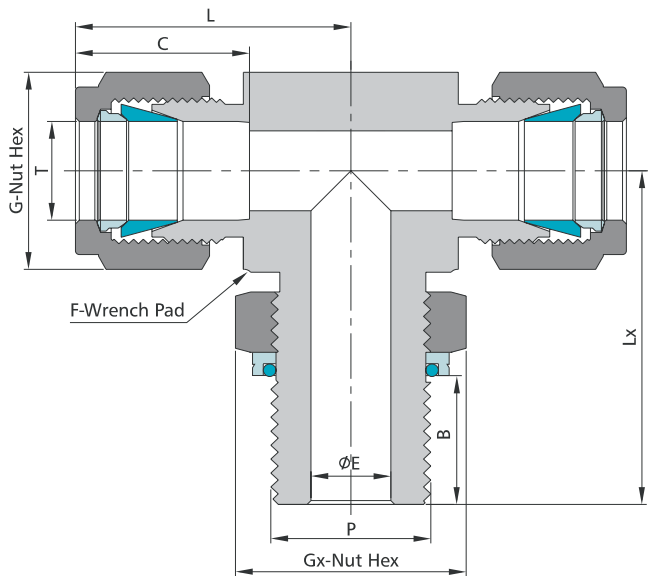
# Einstellbares Einschraub T-Stück Positionable Male Branch Tee-SAE/MS Gewinde



## Zoll Typ Fractional Tube SAE/MS Straight Gewinde

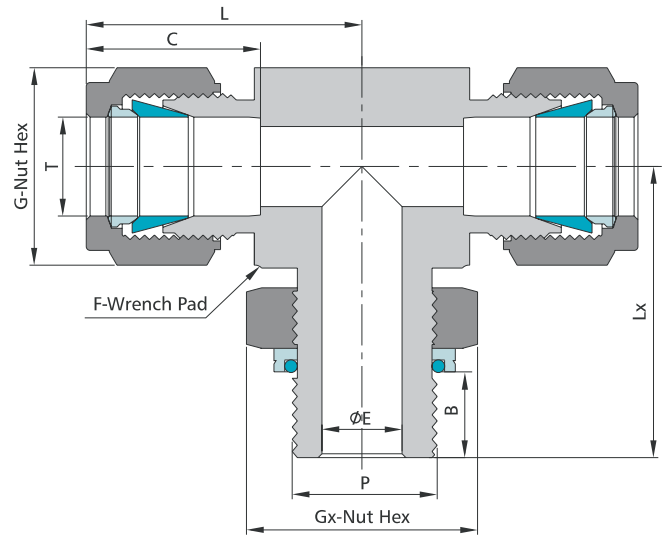
T-Tube A.D. (in.)	P-SAE/MS Gewinde Größe	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Lx	Gx
1/4	7/16-20	-TTP-FL4-ST7	28.5	9.9	15.2	4.8	14.3	11.1	28.5	14.3
3/8	9/16-18	-TTP-FL6-ST9	32.0	11.2	16.8	7.1	17.5	14.3	32.3	17.5
1/2	3/4-16	-TTP-FL8-ST12	37.6	12.7	22.9	10.4	22.2	19.1	37.8	22.2
3/4	11/16-12	-TTP-FL12-ST17	41.4	16.8	24.4	15.7	28.6	27.0	48.8	28.6
1	15/16-12	-TTP-FL16-ST21	50.5	16.8	31.2	22.4	38.1	33.3	53.6	38.1

# Einstellbares Einschraub T-Stück Positionable Male Branch Tee-BSP Parallel Gewinde



Zoll Typ Fractional Tube			BSP Parallel Gewinde								
T-Tube A.D. (in.)	P-BSP Parallel Gewinde (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Lx	Gx	
1/4	1/8	-TTP-FL4-BP2	26.9	13.7	15.2	4.1	14.3	12.7	26.4	14.3	
1/4	1/4	-TTP-FL4-BP4	29.0	14.2	15.2	4.8	14.3	15.9	32.3	19.1	
3/8	1/4	-TTP-FL6-BP4	30.5	14.2	16.8	5.8	17.5	15.9	32.3	19.1	
1/2	3/8	-TTP-FL8-BP6	36.1	14.4	22.9	7.9	22.2	20.6	37.1	22.2	
1/2	1/2	-TTP-FL8-BP8	38.1	18.5	22.9	10.4	22.2	23.8	43.4	27.0	
5/8	1/2	-TTP-FL10-BP8	38.1	18.5	24.4	11.9	25.4	23.8	43.4	27.0	
3/4	1/2	-TTP-FL12-BP8	39.9	15.8	24.4	11.9	28.6	27.0	45.2	34.9	
3/4	3/4	-TTP-FL12-BP12	39.9	20.3	24.4	15.7	28.6	27.0	48.8	27.0	
1	1	-TTP-FL16-BP16	49.0	20.3	31.2	19.8	38.1	34.9	53.6	41.3	

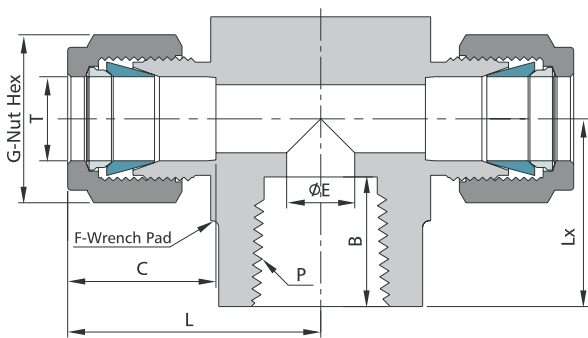
# Einstellbares T-Stück Positionable Male Branch Tee-BSP Parallel Gewinde



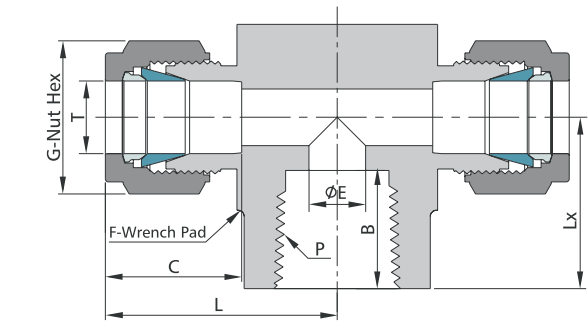
Metrisches Rohr Metric Tube			BSP Parallel Gewinde								
T-Tube A.D.	P-BSP Parallel Gewinde (in.)	Basic Bestell Nummer	L	B	C	E Minimum Öffnung	G	F	Lx	Gx	
6	1/8	-TTP-ML6-BP2	27.0	13.7	15.3	4.0	14	12.7	26.4	14.3	
6	1/4	-TTP-ML6-BP4	29.0	14.2	15.3	4.8	14	15.9	32.2	19.1	
8	1/8	-TTP-ML8-BP2	28.8	13.7	16.2	4.0	16	14.3	27.5	14.3	
8	1/4	-TTP-ML8-BP4	29.9	14.2	16.2	6.4	16	15.9	32.2	19.1	
10	1/4	-TTP-ML10-BP4	33.5	14.2	17.2	5.9	19	20.6	35.1	19.1	
12	3/8	-TTP-ML12-BP6	36.0	14.4	22.8	7.9	22	20.6	37.1	22.2	
12	1/2	-TTP-ML12-BP8	38.0	18.5	22.8	9.5	22	23.8	43.5	27.0	

## Aufschrauber T-Stück Female Branch Tee

### Zoll Typ Fractional Tube NPT Gewinde



T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
1/8	1/8	-TTF-FL2-NS2	24.6	12.7	11.1	14.3	2.3	10.4	19.1
3/16	1/8	-TTF-FL3-NS2	25.7	13.7	12.7	14.3	3.0	10.4	19.1
1/4	1/8	-TTF-FL4-NS2	26.9	15.2	14.3	14.3	4.8	10.4	19.1
1/4	1/4	-TTF-FL4-NS4	29.7	15.2	14.3	19.1	4.8	15.0	22.4
5/16	1/8	-TTF-FL5-NS2	29.7	16.2	15.9	15.9	6.4	10.4	19.1
3/8	1/4	-TTF-FL6-NS4	31.2	16.8	17.5	19.1	7.1	15.0	22.4
1/2	1/4	-TTF-FL8-NS4	36.1	22.9	22.2	20.6	10.4	15.0	22.4
1/2	3/8	-TTF-FL8-NS6	36.1	22.9	22.2	22.2	10.4	15.0	22.4
1/2	1/2	-TTF-FL8-NS8	38.9	22.9	22.2	27.0	10.4	19.8	28.4
5/8	1/2	-TTF-FL10-NS8	38.9	24.4	25.4	27.0	12.7	19.8	28.4
3/4	3/4	-TTF-FL12-NS1244.7	24.4	28.6	34.9	15.7	20.6	31.8	
7/8	3/4	-TTF-FL14-NS1244.7	25.9	31.8	34.9	18.3	20.6	31.8	
1	3/4	-TTF-FL16-NS1249.0	31.2	38.1	34.9	22.4	20.6	31.8	
1	1	-TTF-FL16-NS1650.3	31.2	38.1	41.3	22.4	25.4	38.1	

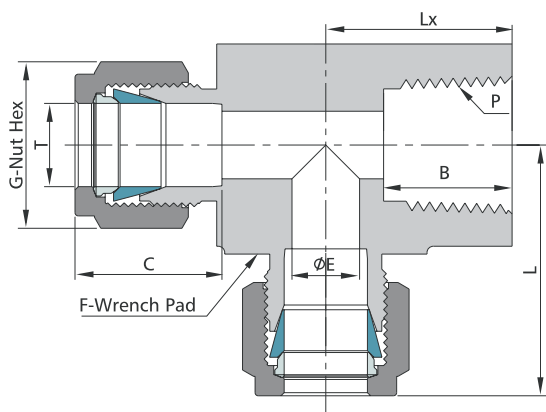


### Metrisches Rohr Metric Tube NPT Gewinde

T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
6	1/8	-TTF-ML6-NS2	27.0	15.3	14	12.7	4.8	10.4	19.0
6	1/4	-TTF-ML6-NS4	29.8	15.3	14	17.5	4.8	15.0	22.4
8	1/8	-TTF-ML8-NS2	29.9	16.2	16	15.9	4.8	10.4	19.0
8	1/4	-TTF-ML8-NS4	31.2	16.2	16	17.5	6.4	15.0	22.4
10	1/4	-TTF-ML10-NS433.5	17.2	19	20.6	7.9	15.0	22.4	
12	1/8	-TTF-ML12-NS236.0	22.8	22	20.6	6.4	10.4	22.3	
12	1/4	-TTF-ML12-NS436.0	22.8	22	20.6	7.9	15.0	22.4	
12	3/8	-TTF-ML12-NS636.0	22.8	22	20.6	9.5	15.0	23.1	
12	1/2	-TTF-ML12-NS838.8	22.8	22	25.4	9.5	19.8	28.5	
16	1/2	-TTF-ML16-NS838.8	24.4	25	27.0	11.9	19.8	28.4	

## Aufschrauber T-Stück Female Run Tee

### Zoll Typ Fractional Tube NPT Gewinde

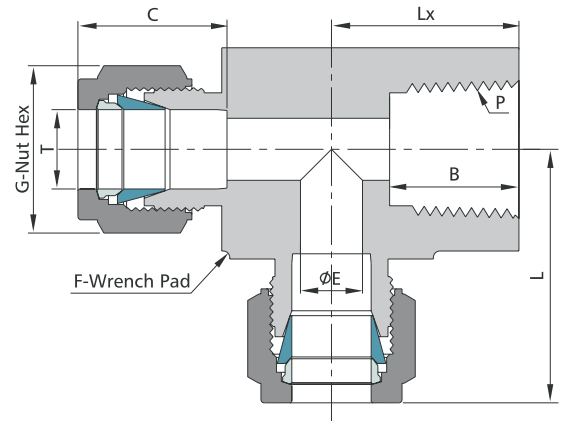


T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
1/8	1/8	-TFT-FL2-NS2	24.6	12.7	11.1	14.3	2.3	10.4	19.1
3/16	1/8	-TFT-FL3-NS2	25.7	13.7	12.7	14.3	3.0	10.4	19.1
1/4	1/8	-TFT-FL4-NS2	26.9	15.2	14.3	14.3	4.8	10.4	19.1
1/4	1/4	-TFT-FL4-NS4	29.7	15.2	14.3	19.1	4.8	15.0	22.4
5/16	1/8	-TFT-FL5-NS2	29.7	16.2	15.9	15.9	6.4	10.4	19.1
3/8	1/4	-TFT-FL6-NS4	31.2	16.8	17.5	19.1	7.1	15.0	22.4
1/2	1/4	-TFT-FL8-NS4	36.1	22.9	22.2	20.6	10.4	15.0	22.4
1/2	3/8	-TFT-FL8-NS6	36.1	22.9	22.2	22.2	10.4	15.0	22.4
1/2	1/2	-TFT-FL8-NS8	38.9	22.9	22.2	27.0	10.4	19.8	28.4
5/8	1/2	-TFT-FL10-NS8	38.9	24.4	25.4	27.0	12.7	19.8	28.4
3/4	3/4	-TFT-FL12-NS1244.7	24.4	28.6	34.9	15.7	20.6	31.8	
7/8	3/4	-TFT-FL14-NS1244.7	25.9	31.8	34.9	18.3	20.6	31.8	
1	3/4	-TFT-FL16-NS1249.0	31.2	38.1	34.9	22.4	20.6	31.8	
1	1	-TFT-FL16-NS1650.3	31.2	38.1	41.3	22.4	25.4	38.1	

## Metrisches Rohr Metric Tube NPT Gewinde

T-Tube A.D.	P-NPT RohrGröße (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx
6	1/8	-TFT-ML6-NS2	27.0	15.3	14	12.7	4.8	10.4	19.0
6	1/4	-TFT-ML6-NS4	29.8	15.3	14	17.5	4.8	15.0	22.4
8	1/8	-TFT-ML8-NS2	29.9	16.2	16	15.9	4.8	10.4	19.0
8	1/4	-TFT-ML8-NS4	31.2	16.2	16	17.5	6.4	15.0	22.4
10	1/4	-TFT-ML10-NS4	33.5	17.2	19	20.6	7.9	15.0	22.4
12	1/8	-TFT-ML12-NS2	36.0	22.8	22	20.6	6.4	10.4	22.3
12	1/4	-TFT-ML12-NS4	36.0	22.8	22	20.6	7.9	15.0	22.4
12	3/8	-TFT-ML12-NS6	36.0	22.8	22	20.6	9.5	15.0	23.1
12	1/2	-TFT-ML12-NS8	38.8	22.8	22	25.4	9.5	19.8	28.5
16	1/2	-TFT-ML16-NS8	39.8	24.4	25	27.0	11.9	19.8	28.4

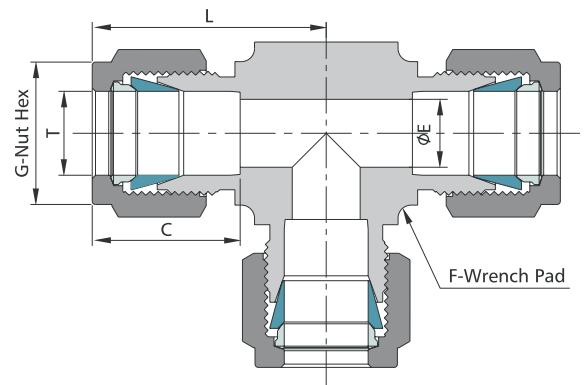
## Aufschauber T-Stück Female Run Tee



## Zoll Typ Fractional Tube

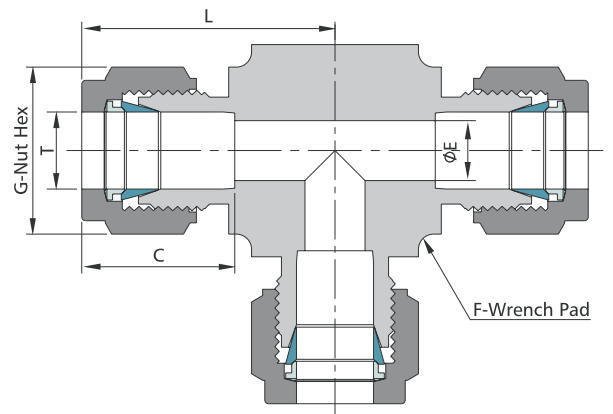
T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
1/16	-TTT-FL1	17.8	8.6	7.9	9.5	1.3
1/8	-TTT-FL2	22.4	12.7	11.1	9.5	2.3
3/16	-TTT-FL3	24.4	13.7	12.7	11.1	3.0
1/4	-TTT-FL4	26.9	15.2	14.3	12.7	4.8
5/16	-TTT-FL5	29.7	16.2	15.9	15.9	6.4
3/8	-TTT-FL6	30.5	16.8	17.5	15.9	7.1
1/2	-TTT-FL8	36.1	22.9	22.2	20.6	10.4
5/8	-TTT-FL10	36.3	24.4	25.4	25.4	12.7
3/4	-TTT-FL12	38.4	24.4	28.6	27.0	15.7
7/8	-TTT-FL14	44.7	25.9	31.8	34.9	18.3
1	-TTT-FL16	49.0	31.2	38.1	34.9	22.4
1 1/4	-TTT-FL20	66.5	41.1	47.6	41.3	27.7
1 1/2	-TTT-FL24	78.0	50.0	57.2	47.6	34.0
2	-TTT-FL32	107.2	67.6	76.2	71.4	46.0

## T-Stück Union Tee

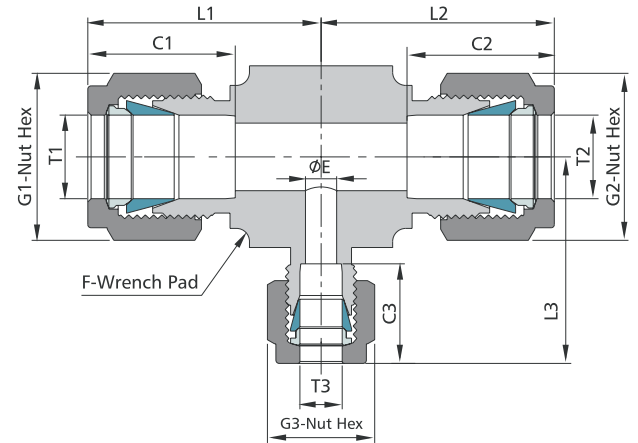


## Metrisches Rohr Metric Tube

T-Tube A.D.	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
2	-TTT-ML2	22.3	12.9	12	9.5	1.7
3	-TTT-ML3	22.3	12.9	12	9.5	2.4
4	-TTT-ML4	25.4	13.7	12	12.7	2.4
6	-TTT-ML6	27.0	15.3	14	12.7	4.8
8	-TTT-ML8	29.9	16.2	16	15.9	6.4
10	-TTT-ML10	33.5	17.2	19	17.5	7.9
12	-TTT-ML12	36.0	22.8	22	20.6	9.5
14	-TTT-ML14	38.8	24.4	25	25.4	11.1
15	-TTT-ML15	38.8	24.4	25	25.4	11.9
16	-TTT-ML16	38.8	24.4	25	25.4	12.7
18	-TTT-ML18	39.8	24.4	30	27.0	15.1
20	-TTT-ML20	44.6	26.0	32	34.9	15.9
22	-TTT-ML22	44.6	26.0	32	34.9	18.3
25	-TTT-ML25	49.1	31.3	40	34.9	21.8



# Reduzier T-Stück Drop Union Tee



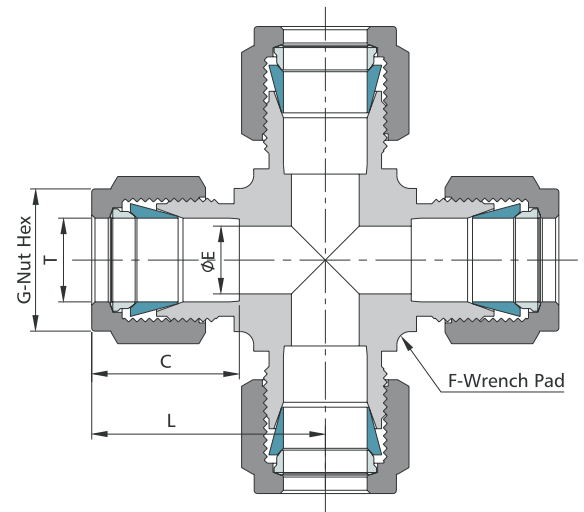
## Zoll-Ausführung Typ Fractional Rohr

T1-Rohr A.D. (in.)	T2-Rohr A.D. (in.)	T3-Rohr A.D. (in.)	Basic Bestell Nummer	L1	L2	L3	C1	C2	C3	G1	G2	G3	F	E Minimum Öffnung
1/4	1/4	1/8	-TTT-FL4-FL4-FL2	26.7	26.7	24.4	15.2	15.2	12.7	14.3	14.3	11.1	12.7	2.3
3/8	1/4	1/4	-TTT-FL6-FL4-FL4	30.5	29.0	29.0	16.8	15.2	15.2	17.5	14.3	14.3	15.9	4.8
3/8	1/4	3/8	-TTT-FL6-FL4-FL6	30.5	29.0	30.5	16.8	15.2	16.8	17.5	14.3	17.5	15.9	4.8
3/8	3/8	1/4	-TTT-FL6-FL6-FL4	30.5	30.5	29.0	16.8	16.8	15.2	17.5	17.5	14.3	15.9	4.8
1/2	1/4	1/4	-TTT-FL8-FL4-FL4	36.1	31.8	31.8	22.9	15.2	15.2	22.2	14.3	14.3	20.6	4.8
1/2	1/4	1/2	-TTT-FL8-FL4-FL8	36.1	31.8	36.1	22.9	15.2	22.9	22.2	14.3	22.2	20.6	4.8
1/2	3/8	3/8	-TTT-FL8-FL6-FL6	36.1	33.3	33.3	22.9	16.8	16.8	22.2	17.5	17.5	20.6	7.1
1/2	3/8	1/2	-TTT-FL8-FL6-FL8	36.1	33.3	36.1	22.9	16.8	22.9	22.2	17.5	22.2	20.6	7.1
1/2	1/2	1/4	-TTT-FL8-FL8-FL4	36.1	36.1	31.8	22.9	22.9	15.2	22.2	22.2	14.3	20.6	4.8
1/2	1/2	3/8	-TTT-FL8-FL8-FL6	36.1	36.1	33.3	22.9	22.9	16.8	22.2	22.2	17.5	20.6	7.1
5/8	3/8	3/8	-TTT-FL10-FL6-FL6	36.3	33.5	33.5	24.4	16.8	16.8	25.4	17.5	17.5	25.4	7.1
5/8	3/8	1/2	-TTT-FL10-FL6-FL8	36.3	33.5	36.3	24.4	16.8	22.9	25.4	17.5	22.2	25.4	7.1
5/8	1/2	3/8	-TTT-FL10-FL8-FL6	36.3	36.3	33.5	24.4	22.9	16.8	25.4	22.2	17.5	25.4	7.1
5/8	1/2	1/2	-TTT-FL10-FL8-FL8	36.3	36.3	36.3	24.4	22.9	22.9	25.4	22.2	22.2	25.4	10.4
5/8	5/8	3/8	-TTT-FL10-FL10-FL6	36.3	36.3	33.5	24.4	24.4	16.8	25.4	25.4	17.5	25.4	7.1
5/8	5/8	1/2	-TTT-FL10-FL10-FL8	36.3	36.3	36.3	24.4	24.4	22.9	25.4	25.4	22.2	25.4	10.4
3/4	3/8	3/8	-TTT-FL12-FL6-FL6	39.6	36.9	36.9	24.4	16.8	16.8	28.6	17.5	17.5	27.0	7.1
3/4	1/2	3/8	-TTT-FL12-FL8-FL6	39.6	36.9	36.9	24.4	22.9	16.8	28.6	22.2	17.5	27.0	7.1
3/4	1/2	1/2	-TTT-FL12-FL8-FL8	39.6	36.9	36.9	24.4	22.9	22.9	28.6	22.2	22.2	27.0	10.4
3/4	5/8	3/8	-TTT-FL12-FL10-FL6	39.6	36.9	36.9	24.4	24.4	16.8	28.6	25.4	17.5	27.0	7.1
3/4	5/8	1/2	-TTT-FL12-FL10-FL8	39.6	36.9	36.9	24.4	24.4	22.9	28.6	25.4	22.2	27.0	10.4
3/4	5/8	5/8	-TTT-FL12-FL10-FL10	39.6	36.9	36.9	24.4	24.4	24.4	28.6	25.4	25.4	27.0	12.7
3/4	3/4	1/4	-TTT-FL12-FL12-FL4	39.6	39.6	35.1	24.4	24.4	15.2	28.6	28.6	14.3	27.0	4.8
3/4	3/4	3/8	-TTT-FL12-FL12-FL6	39.6	39.6	36.9	24.4	24.4	16.8	28.6	28.6	17.5	27.0	7.1
3/4	3/4	1/2	-TTT-FL12-FL12-FL8	39.6	39.6	39.6	24.4	24.4	22.9	28.6	28.6	22.2	27.0	10.4
3/4	3/4	5/8	-TTT-FL12-FL12-FL10	39.6	39.6	39.6	24.4	24.4	24.4	28.6	28.6	25.4	27.0	12.7
7/8	1/2	3/4	-TTT-FL14-FL8-FL12	44.7	44.7	44.7	25.9	22.9	24.4	31.8	22.2	28.6	34.9	10.4
7/8	5/8	3/8	-TTT-FL14-FL10-FL6	44.7	44.7	41.9	25.9	24.4	16.8	31.8	25.4	17.5	34.9	7.1
7/8	3/4	3/8	-TTT-FL14-FL12-FL6	44.7	44.7	41.9	25.9	24.4	16.8	31.8	28.6	17.5	34.9	7.1
7/8	3/4	1/2	-TTT-FL14-FL12-FL8	44.7	44.7	44.7	25.9	24.4	22.9	31.8	28.6	22.2	34.9	10.4
7/8	3/4	3/4	-TTT-FL14-FL12-FL12	44.7	44.7	44.7	25.9	24.4	24.4	31.8	28.6	28.6	34.9	15.7
7/8	7/8	1/4	-TTT-FL14-FL14-FL4	44.7	44.7	40.4	25.9	25.9	15.2	31.8	31.8	14.3	34.9	4.8
7/8	7/8	3/8	-TTT-FL14-FL14-FL6	44.7	44.7	41.9	25.9	25.9	16.8	31.8	31.8	17.5	34.9	7.1
1	3/8	3/8	-TTT-FL16-FL6-FL6	49.3	41.9	41.9	31.2	16.8	16.8	38.1	17.5	17.5	34.9	7.1
1	1/2	1/4	-TTT-FL16-FL8-FL4	49.3	44.7	40.4	31.2	22.9	15.2	38.1	22.2	14.3	34.9	4.8
1	1/2	3/8	-TTT-FL16-FL8-FL6	49.3	44.7	41.9	31.2	22.9	16.8	38.1	22.2	17.5	34.9	7.1
1	1/2	1/2	-TTT-FL16-FL8-FL8	49.3	44.7	44.7	31.2	22.9	22.9	38.1	22.2	22.2	34.9	10.4
1	1/2	1	-TTT-FL16-FL8-FL16	49.3	44.7	49.3	31.2	22.9	31.2	38.1	22.2	38.1	34.9	10.4
1	5/8	3/8	-TTT-FL16-FL10-FL6	49.3	44.7	41.9	31.2	24.4	16.8	38.1	25.4	17.5	34.9	7.1
1	3/4	1/2	-TTT-FL16-FL12-FL8	49.3	44.7	44.7	31.2	24.4	22.9	38.1	28.6	22.2	34.9	10.4
1	3/4	5/8	-TTT-FL16-FL12-FL10	49.3	44.7	44.7	31.2	24.4	24.4	38.1	28.6	25.4	34.9	12.7
1	3/4	1	-TTT-FL16-FL12-FL16	49.3	44.7	49.3	31.2	24.4	31.2	38.1	28.6	38.1	34.9	15.7
1	7/8	1/4	-TTT-FL16-FL14-FL4	49.3	44.7	40.4	31.2	25.9	15.2	38.1	31.8	14.3	34.9	4.8
1	7/8	3/8	-TTT-FL16-FL14-FL6	49.3	44.7	41.9	31.2	25.9	16.8	38.1	31.8	17.5	34.9	7.1
1	7/8	1/2	-TTT-FL16-FL14-FL8	49.3	44.7	44.7	31.2	25.9	22.9	38.1	31.8	22.2	34.9	10.4
1	7/8	3/4	-TTT-FL16-FL14-FL12	49.3	44.7	44.7	31.2	25.9	24.4	38.1	31.8	28.6	34.9	12.7
1	7/8	7/8	-TTT-FL16-FL14-FL14	49.3	44.7	44.7	31.2	25.9	25.9	38.1	31.8	31.8	34.9	18.3
1	1	1/4	-TTT-FL16-FL16-FL4	49.3	49.3	40.4	31.2	31.2	15.2	38.1	38.1	14.3	34.9	4.8
1	1	3/8	-TTT-FL16-FL16-FL6	49.3	49.3	41.9	31.2	31.2	16.8	38.1	38.1	17.5	34.9	7.1
1	1	1/2	-TTT-FL16-FL16-FL8	49.3	49.3	44.7	31.2	31.2	22.9	38.1	38.1	22.2	34.9	10.4
1	1	5/8	-TTT-FL16-FL16-FL10	49.3	49.3	44.7	31.2	31.2	24.4	38.1	38.1	25.4	34.9	12.7
1	1	3/4	-TTT-FL16-FL16-FL12	49.3	49.3	44.7	31.2	31.2	24.4	38.1	38.1	28.6	34.9	15.7
1	1	7/8	-TTT-FL16-FL16-FL14	49.3	49.3	44.7	31.2	31.2	25.9	38.1	38.1	31.8	34.9	18.3

## Zoll Typ Fractional Tube

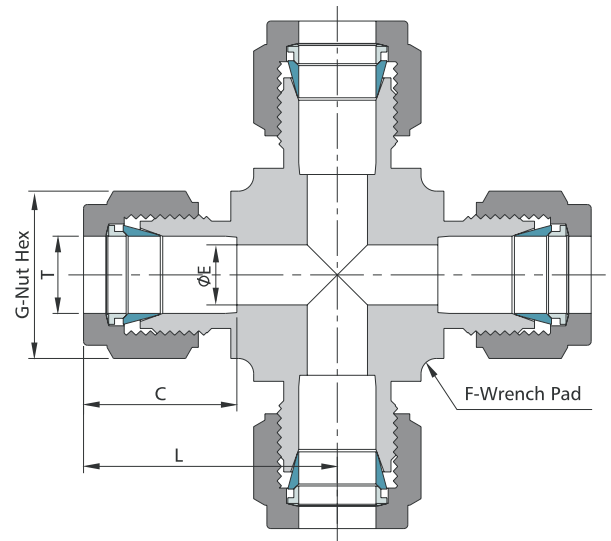
T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
1/8	-C-FL2	22.4	12.7	11.1	11.1	2.3
3/16	-C-FL3	24.4	13.7	12.7	11.1	3.0
1/4	-C-FL4	26.9	15.2	14.3	12.7	4.8
5/16	-C-FL5	29.7	16.2	15.9	14.3	6.4
3/8	-C-FL6	30.5	16.8	17.5	15.9	7.1
1/2	-C-FL8	36.1	22.9	22.2	19.1	10.4
5/8	-C-FL10	36.3	24.4	25.4	27.0	12.7
3/4	-C-FL12	38.4	24.4	28.6	27.0	15.7
7/8	-C-FL14	44.7	25.9	31.8	34.9	18.3
1	-C-FL16	49.0	31.2	38.1	34.9	22.4

## Kreuz Stücke Union Cross



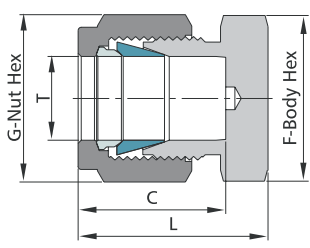
## Metrisches Rohr Metric Tube

T-Tube A.D.	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
3	-C-ML3	22.3	12.9	12	11.1	2.4
4	-C-ML4	25.4	13.7	12	12.7	2.4
6	-C-ML6	27.0	15.3	14	12.7	4.8
8	-C-ML8	29.9	16.2	16	15.9	6.4
10	-C-ML10	33.5	17.2	19	20.6	7.9
12	-C-ML12	36.0	22.8	22	20.6	9.5
16	-C-ML16	37.0	24.4	25	23.9	12.7
18	-C-ML18	38.3	24.4	30	27.0	15.1

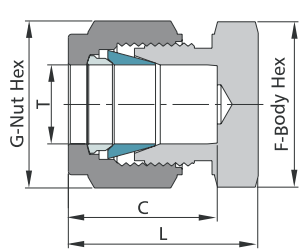


# Bindstopfen fuer Verschraubungen Cap

# Zoll Typ Fractional Tube



T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F
1/16	-TC-FL1	15.0	8.6	7.9	7.9
1/8	-TC-FL2	20.1	12.7	11.1	11.1
3/16	-TC-FL3	21.3	13.7	12.7	11.1
1/4	-TC-FL4	23.4	15.2	14.3	14.3
5/16	-TC-FL5	24.4	16.3	15.9	14.3
3/8	-TC-FL6	25.7	16.8	17.5	15.9
1/2	-TC-FL8	29.2	22.9	22.2	20.6
5/8	-TC-FL10	30.0	24.4	25.4	23.9
3/4	-TC-FL12	31.5	24.4	28.6	27.0
7/8	-TC-FL14	34.0	25.9	31.8	30.2
1	-TC-FL16	38.4	31.2	38.1	34.9
1 1/4	-TC-FL20	53.3	41.1	47.6	44.5
1 1/2	-TC-FL24	64.5	50.0	57.2	54.0
2	-TC-FL32	86.6	67.6	76.2	69.9

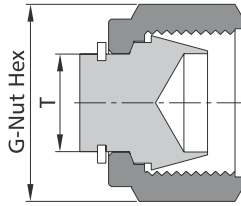


# Metrischer Typ Metric Tube

T-Tube A.D.	Basic Bestell Nummer	L	C	G	F
2	-TC-ML2	20.1	12.9	12.0	12
3	-TC-ML3	20.1	12.9	12.0	12
4	-TC-ML4	21.3	13.7	12.0	12
6	-TC-ML6	23.1	15.3	14.0	14
8	-TC-ML8	24.5	16.2	16.0	15
10	-TC-ML10	26.6	17.2	19.0	18
12	-TC-ML12	29.1	22.8	22.0	22
14	-TC-ML14	29.9	24.4	25.0	24
15	-TC-ML15	29.9	24.4	25.0	24
16	-TC-ML16	29.9	24.4	25.0	24
18	-TC-ML18	31.4	24.4	30.0	27
20	-TC-ML20	34.0	26.0	32.0	30
22	-TC-ML22	34.0	26.0	32.0	30
25	-TC-ML25	38.5	31.3	40.0	35
32	-TC-ML32	55.8	42.0	47.6	45

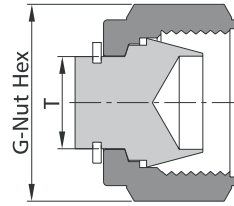


## Verschlusskappe für Verschraubung Plug



### Zoll Typ Fractional

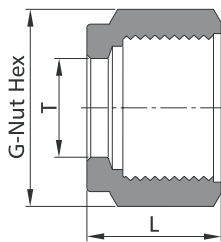
T-Tube A.D. (in.)	Basic Bestell Nummer	G
1/16	-TP-FL1	7.9
1/8	-TP-FL2	11.1
3/16	-TP-FL3	12.7
1/4	-TP-FL4	14.3
5/16	-TP-FL5	15.9
3/8	-TP-FL6	17.5
1/2	-TP-FL8	22.2
5/8	-TP-FL10	25.4
3/4	-TP-FL12	28.6
7/8	-TP-FL14	31.8
1	-TP-FL16	38.1
1 1/4	-TP-FL20	47.6
1 1/2	-TP-FL24	57.2
2	-TP-FL32	76.2



### Metrisch Metric

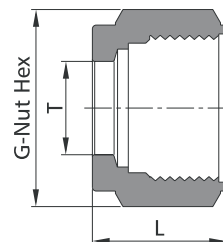
T-Tube A.D.	Basic Bestell Nummer	G
2	-TP-ML2	12.0
3	-TP-ML3	12.0
4	-TP-ML4	12.0
6	-TP-ML6	14.0
8	-TP-ML8	16.0
10	-TP-ML10	19.0
12	-TP-ML12	22.0
14	-TP-ML14	25.0
15	-TP-ML15	25.0
16	-TP-ML16	25.0
18	-TP-ML18	30.0
20	-TP-ML20	32.0
22	-TP-ML22	32.0
25	-TP-ML25	40.0
32	-TP-ML32	47.6

## Überwurfmutter für Verschraubung Nut



### Zoll Typ Fractional

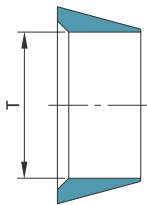
T-Tube A.D. (in.)	Basic Bestell Nummer	L	G
1/16	-N-FL1	7.9	7.9
1/8	-N-FL2	11.9	11.1
3/16	-N-FL3	11.9	12.7
1/4	-N-FL4	12.7	14.3
5/16	-N-FL5	13.5	15.9
3/8	-N-FL6	14.2	17.5
1/2	-N-FL8	17.5	22.2
5/8	-N-FL10	17.5	25.4
3/4	-N-FL12	17.5	28.6
7/8	-N-FL14	17.5	31.8
1	-N-FL16	20.6	38.1
1 1/4	-N-FL20	31.8	47.6
1 1/2	-N-FL24	38.1	57.2
2	-N-FL32	52.3	76.2



### Metrisch Metric

T-Tube A.D.	Basic Bestell Nummer	L	G
3	-N-ML3	11.9	12.0
4	-N-ML4	11.9	12.0
6	-N-ML6	12.7	14.0
8	-N-ML8	13.5	16.0
10	-N-ML10	15.1	19.0
12	-N-ML12	17.4	22.0
14	-N-ML14	17.4	25.0
15	-N-ML15	17.4	25.0
16	-N-ML16	17.4	25.0
18	-N-ML18	17.4	30.0
20	-N-ML20	17.4	32.0
22	-N-ML22	17.4	32.0
25	-N-ML25	20.6	40.0
32	-N-ML32	31.8	47.6

## Vorderer Klemmring Front Ferrule

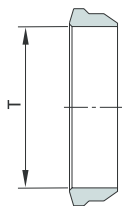


## Zoll Typ Fractional Tube

## Metrisch Metric Tube

T-Tube A.D. (in.)	Basic Bestell Nummer	T-Tube A.D.	Basic Bestell Nummer
1/16	-FF-FL1	3	-FF-ML3
1/8	-FF-FL2	4	-FF-ML4
3/16	-FF-FL3	6	-FF-ML6
1/4	-FF-FL4	8	-FF-ML8
5/16	-FF-FL5	10	-FF-ML10
3/8	-FF-FL6	12	-FF-ML12
1/2	-FF-FL8	14	-FF-ML14
5/8	-FF-FL10	15	-FF-ML15
3/4	-FF-FL12	16	-FF-ML16
7/8	-FF-FL14	18	-FF-ML18
1	-FF-FL16	20	-FF-ML20
1 1/4	-FF-FL20	22	-FF-ML22
1 1/2	-FF-FL24	25	-FF-ML25
2	-FF-FL32	32	-FF-ML32

## Hinterer Klemmring Rear Ferrule



## Zoll Typ Fractional Tube

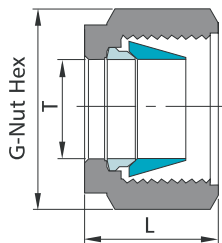
## Metrisch Metric Tube

T-Tube A.D. (in.)	Basic Bestell Nummer	T-Tube A.D.	Basic Bestell Nummer
1/16	-RF-FL1	3	-RF-ML3
1/8	-RF-FL2	4	-RF-ML4
3/16	-RF-FL3	6	-RF-ML6
1/4	-RF-FL4	8	-RF-ML8
5/16	-RF-FL5	10	-RF-ML10
3/8	-RF-FL6	12	-RF-ML12
1/2	-RF-FL8	14	-RF-ML14
5/8	-RF-FL10	15	-RF-ML15
3/4	-RF-FL12	16	-RF-ML16
7/8	-RF-FL14	18	-RF-ML18
1	-RF-FL16	20	-RF-ML20
1 1/4	-RF-FL20	22	-RF-ML22
1 1/2	-RF-FL24	25	-RF-ML25
2	-RF-FL32	32	-RF-ML32

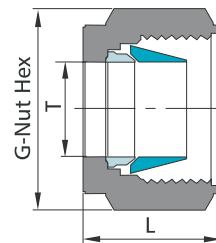
## Überwurfmutter +Klemmringe Nut+ Ferrule

## Zoll Typ Fractional Tube

## Metrisch Metric Tube



T-Tube A.D. (in.)	Basic Bestell Nummer	L	G
1/16	-NRF-FL1	7.9	7.9
1/8	-NRF-FL2	11.9	11.1
3/16	-NRF-FL3	11.9	12.7
1/4	-NRF-FL4	12.7	14.3
5/16	-NRF-FL5	13.5	15.9
3/8	-NRF-FL6	14.2	17.5
1/2	-NRF-FL8	17.5	22.2
5/8	-NRF-FL10	17.5	25.4
3/4	-NRF-FL12	17.5	28.6
7/8	-NRF-FL14	17.5	31.8
1	-NRF-FL16	20.6	38.1
1 1/4	-NRF-FL20	31.8	47.6
1 1/2	-NRF-FL24	38.1	57.2
2	-NRF-FL32	52.3	76.2

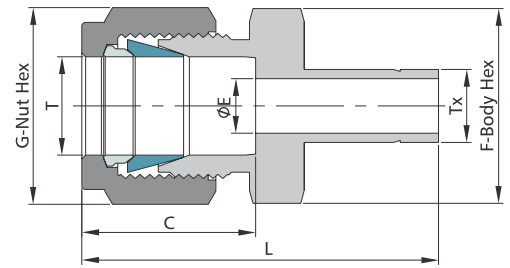


T-Tube A.D.	Basic Bestell Nummer	L	G
3	-NRF-ML3	11.9	12
4	-NRF-ML4	11.9	12
6	-NRF-ML6	12.7	14
8	-NRF-ML8	13.5	16
10	-NRF-ML10	15.1	19
12	-NRF-ML12	17.4	22
14	-NRF-ML14	17.4	25
15	-NRF-ML15	17.4	25
16	-NRF-ML16	17.4	25
18	-NRF-ML18	17.4	30
20	-NRF-ML20	17.4	32
22	-NRF-ML22	17.4	32
25	-NRF-ML25	20.6	40
32	-NRF-ML32	31.8	47.6

## Zoll Typ Fractional Tube

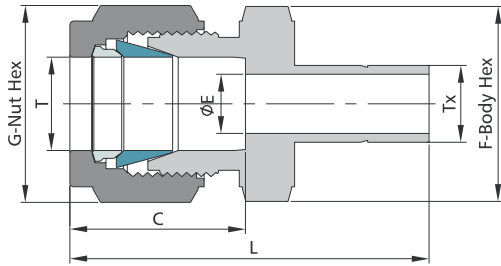
## RohrStutzen Reduzier Verschraubung Reducer

T-Tube A.D. (in.)	Tx-Tube A.D. (in.)	Basic Bestell Number	L	C	G	F	E Minimum Öffnung
1/16	1/8	-R-FL1-FT2	29.2	8.6	7.9	7.9	1.3
1/16	3/16	-R-FL1-FT3	28.7	8.6	7.9	7.9	1.3
1/16	1/4	-R-FL1-FT4	31.5	8.6	7.9	7.9	1.3
1/8	1/16	-R-FL2-FT1	30.0	12.7	11.1	11.1	0.8
1/8	1/8	-R-FL2-FT2	33.5	12.7	11.1	11.1	2.0
1/8	3/16	-R-FL2-FT3	34.3	12.7	11.1	11.1	2.3
1/8	1/4	-R-FL2-FT4	36.1	12.7	11.1	11.1	2.3
1/8	3/8	-R-FL2-FT6	37.6	12.7	11.1	11.1	2.3
1/8	1/2	-R-FL2-FT8	44.2	12.7	11.1	14.3	2.3
3/16	1/8	-R-FL3-FT2	34.8	13.7	12.7	11.1	2.0
3/16	1/4	-R-FL3-FT4	37.1	13.7	12.7	11.1	3.0
1/4	1/8	-R-FL4-FT2	36.8	15.2	14.3	12.7	2.0
1/4	3/16	-R-FL4-FT3	37.6	15.2	14.3	12.7	3.0
1/4	1/4	-R-FL4-FT4	39.1	15.2	14.3	12.7	4.8
1/4	5/16	-R-FL4-FT5	39.9	15.2	14.3	12.7	4.8
1/4	3/8	-R-FL4-FT6	40.6	15.2	14.3	12.7	4.8
1/4	1/2	-R-FL4-FT8	46.2	15.2	14.3	14.3	4.8
1/4	5/8	-R-FL4-FT10	47.8	15.2	14.3	17.5	4.8
1/4	3/4	-R-FL4-FT12	48.0	15.2	14.3	20.6	4.8
5/16	3/8	-R-FL5-FT6	41.9	16.3	15.9	14.3	6.4
5/16	1/2	-R-FL5-FT8	47.5	16.3	15.9	14.3	6.4
3/8	1/4	-R-FL6-FT4	41.4	16.8	17.5	15.9	4.8
3/8	3/8	-R-FL6-FT6	43.2	16.8	17.5	15.9	7.1
3/8	1/2	-R-FL6-FT8	48.5	16.8	17.5	15.9	7.1
3/8	5/8	-R-FL6-FT10	50.3	16.8	17.5	17.5	7.1
3/8	3/4	-R-FL6-FT12	50.3	16.8	17.5	20.6	7.1
1/2	1/4	-R-FL8-FT4	45.0	22.9	22.2	20.6	4.8
1/2	3/8	-R-FL8-FT6	46.7	22.9	22.2	20.6	7.1
1/2	1/2	-R-FL8-FT8	52.3	22.9	22.2	20.6	9.9
1/2	5/8	-R-FL8-FT10	53.8	22.9	22.2	20.6	10.4
1/2	3/4	-R-FL8-FT12	53.8	22.9	22.2	20.6	10.4
1/2	1	-R-FL8-FT16	60.2	22.9	22.2	27.0	10.4
5/8	3/4	-R-FL10-FT12	54.6	24.4	25.4	23.9	12.7
5/8	7/8	-R-FL10-FT14	56.1	24.4	25.4	23.9	12.7
5/8	1	-R-FL10-FT16	61.0	24.4	25.4	27.0	12.7
3/4	3/4	-R-FL12-FT12	54.6	24.4	28.6	27.0	9.9
3/4	1	-R-FL12-FT16	62.5	24.4	28.6	27.0	15.7
1	1 1/4	-R-FL16-FT20	80.5	31.2	38.1	34.9	22.4
1	1 1/2	-R-FL16-FT24	89.2	31.2	38.1	41.3	22.4
1	2	-R-FL16-FT32	112.5	31.2	38.1	54.0	22.4
1 1/4	1 1/2	-R-FL20-FT24	104.1	41.1	47.6	44.5	27.7
1 1/4	2	-R-FL20-FT32	125.2	41.1	47.6	54.0	27.7
1 1/2	2	-R-FL24-FT32	131.3	50.0	57.2	54.0	34.0



# Reduzierstückverschraubung Reducer

## Metrisches Rohr Metric Tube

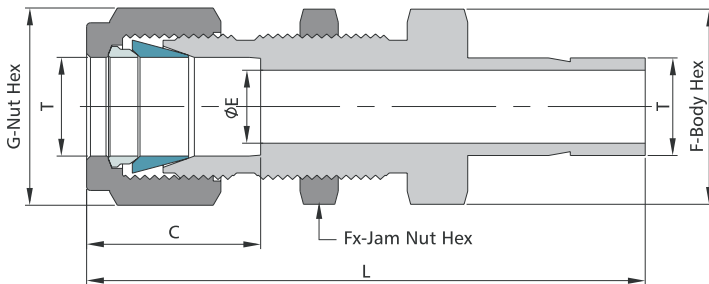
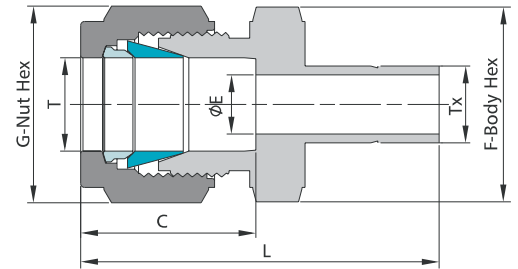


T-Tube A.D.	Tx-Tube A.D.	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
3	4	-R-ML3-MT4	35.0	12.9	12	12	2.4
3	6	-R-ML3-MT6	36.1	12.9	12	12	2.4
3	10	-R-ML3-MT10	38.4	12.9	12	14	2.4
4	6	-R-ML4-MT6	37.1	13.7	12	12	2.4
6	3	-R-ML6-MT3	36.9	15.3	14	14	1.8
6	8	-R-ML6-MT8	39.9	15.3	14	14	4.8
6	10	-R-ML6-MT10	40.7	15.3	14	14	4.8
6	12	-R-ML6-MT12	46.3	15.3	14	14	4.8
6	18	-R-ML6-MT18	49.6	15.3	14	22	4.8
8	6	-R-ML8-MT6	40.3	16.2	16	15	4.6
8	10	-R-ML8-MT10	42.0	16.2	16	15	6.4
8	12	-R-ML8-MT12	47.6	16.2	16	15	6.4
10	6	-R-ML10-MT6	42.4	17.2	19	18	4.6
10	12	-R-ML10-MT12	49.8	17.2	19	18	7.9
10	15	-R-ML10-MT15	51.3	17.2	19	18	7.9
10	18	-R-ML10-MT18	51.3	17.2	19	22	7.9
12	6	-R-ML12-MT6	44.9	22.8	22	22	4.6
12	10	-R-ML12-MT10	46.7	22.8	22	22	7.7
12	16	-R-ML12-MT16	53.8	22.8	22	22	9.5
12	18	-R-ML12-MT18	53.8	22.8	22	22	9.5
12	20	-R-ML12-MT20	56.1	22.8	22	22	9.5
12	22	-R-ML12-MT22	56.1	22.8	22	24	9.5
12	25	-R-ML12-MT25	62.4	22.8	22	27	9.5
16	12	-R-ML16-MT12	53.0	24.4	25	24	9.1
18	12	-R-ML18-MT12	54.6	24.4	30	27	9.1
18	16	-R-ML18-MT16	56.1	24.4	30	27	12.7
18	20	-R-ML18-MT20	57.6	24.4	30	27	15.1
18	22	-R-ML18-MT22	57.6	24.4	30	27	15.1
18	25	-R-ML18-MT25	62.4	24.4	30	27	15.1
20	16	-R-ML20-MT16	57.9	26.0	32	30	12.7
20	18	-R-ML20-MT18	57.9	26.0	32	30	13.9
20	22	-R-ML20-MT22	59.4	26.0	32	30	15.8
20	25	-R-ML20-MT25	64.2	26.0	32	30	15.8
22	18	-R-ML22-MT18	57.9	26.0	32	30	13.9
22	20	-R-ML22-MT20	59.4	26.0	32	30	15.1
22	25	-R-ML22-MT25	64.2	26.0	32	30	18.3
25	18	-R-ML25-MT18	63.1	31.3	40	35	13.9
25	20	-R-ML25-MT20	64.6	31.3	40	35	15.1

## Metrisches Rohr zu Zoll Metric Tube To Fractional Tube

## Reduzierstückverschraubung Reducer

T-Tube A.D.	Tx-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
3	1/8	-R-ML3-FT2	33.5	12.9	12	12	2.0
3	1/4	-R-ML3-FT4	36.1	12.9	12	12	2.4
6	1/4	-R-ML6-FT4	39.2	15.3	14	14	4.8
6	5/16	-R-ML6-FT5	39.9	15.3	14	14	4.8
6	3/8	-R-ML6-FT6	40.7	15.3	14	14	4.8
6	1/2	-R-ML6-FT8	46.3	15.3	14	14	4.8
8	3/8	-R-ML8-FT6	42.0	16.2	16	15	6.4
8	1/2	-R-ML8-FT8	47.6	16.2	16	15	6.4
10	3/8	-R-ML10-FT6	44.2	17.2	19	18	7.1
10	1/2	-R-ML10-FT8	49.8	17.2	19	18	7.9
12	1/2	-R-ML12-FT8	52.3	22.8	22	22	9.5
12	3/4	-R-ML12-FT12	53.8	22.8	22	22	9.5
18	3/4	-R-ML18-FT12	56.1	24.4	30	27	15.1
18	1	-R-ML18-FT16	62.4	24.4	30	27	15.1



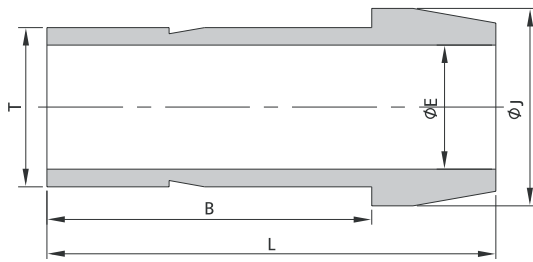
## Schott-Rohrstückverschraubung Bulkhead Reducer

### Fractional Tube

T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung
1/8	-BR-FL2-FT2	49.5	12.7	11.1	12.7	2.0
1/4	-BR-FL4-FT4	55.9	15.3	14.3	15.9	4.8
3/8	-BR-FL6-FT6	61.2	16.8	17.5	19.1	7.1
1/2	-BR-FL8-FT8	72.9	22.9	22.2	23.9	9.9

## Verschraubungsrohrstutzen Port Connector

## Zoll Typ Fractional Tube



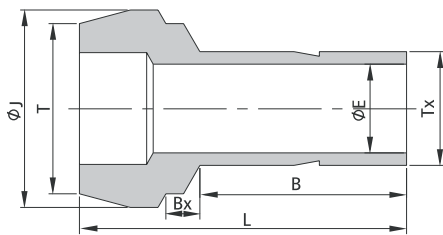
T-Tube A.D. (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	J
1/16	-P-FL1	13.7	10.7	0.8	3.3
1/8	-P-FL2	22.4	15.7	2.3	6.1
1/4	-P-FL4	24.6	18.8	4.8	9.4
5/16	-P-FL5	25.9	20.1	6.4	10.9
3/8	-P-FL6	26.2	20.3	7.6	12.7
1/2	-P-FL8	35.8	25.9	9.9	15.7
3/4	-P-FL12	37.3	27.7	15.0	22.1
1	-P-FL16	48.3	34.5	20.3	28.4

## Metrisches Rohr Metric Tube

T-Tube A.D.	Basic Bestell Nummer	L	B	E Minimum Öffnung	J
3	-P-ML3	22.2	15.7	2.1	6.0
6	-P-ML6	24.6	18.7	4.4	9.0
8	-P-ML8	25.9	20.0	6.2	11.0
10	-P-ML10	26.1	20.2	8.2	13.1
12	-P-ML12	35.8	26.0	9.1	15.0
16	-P-ML16	37.4	27.6	12.7	19.0
18	-P-ML18	40.8	27.7	13.0	21.0

## Reduzier Verschraubungsrohrstutzen Reducing Port Connector

## Fractional Tube



T-Tube A.D. (in.)	Tx-Tube A.D. (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	Bx	J
1/8	1/16	-P-FL2-FL1	17.3	8.6	0.8	2.0	6.1
1/4	1/16	-P-FL4-FL1	18.0	8.6	0.8	3.6	9.4
1/4	1/8	-P-FL4-FL2	22.6	13.5	2.3	3.3	9.4
3/8	1/8	-P-FL6-FL2	23.1	13.5	2.3	3.8	12.7
3/8	1/4	-P-FL6-FL4	24.9	15.7	4.8	3.3	12.7
1/2	1/4	-P-FL8-FL4	28.9	15.7	4.8	3.8	15.7
1/2	3/8	-P-FL8-FL6	30.1	17.5	7.1	3.3	15.7
3/4	1/2	-P-FL12-FL8	36.6	23.1	9.9	3.8	22.1

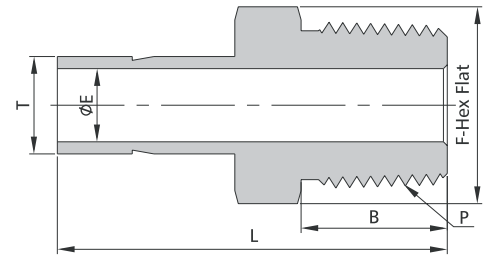
## Metrisches Rohr Metric Tube

T-Tube A.D.	Tx-Tube A.D.	Basic Bestell Nummer	L	B	E Minimum Öffnung	Bx	J
6	3	-P-ML6-ML3	22.6	13.5	2.2	3.2	9.0
8	6	-P-ML8-ML6	24.7	15.7	4.6	3.1	11.0
10	6	-P-ML10-ML6	25.0	15.7	4.6	3.4	13.1
12	6	-P-ML12-ML6	29.1	15.7	4.6	3.6	15.0
12	8	-P-ML12-ML8	29.8	16.8	6.4	3.4	15.0
12	10	-P-ML12-ML10	30.4	17.5	7.7	3.1	15.0
16	12	-P-ML16-ML12	36.2	23.1	9.1	3.4	19.0

Zoll Typ Fractional Tube NPT Gewinde

Einschraub Rohrstutzen adaptor Male Adapter

T-Tube A.D. (in.)	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
1/16	1/8	-AM-FT1-NS2	25.4	9.7	0.8	11.1
1/8	1/8	-AM-FT2-NS2	29.5	9.7	2.0	11.1
1/8	1/4	-AM-FT2-NS4	35.1	14.2	2.0	14.3
3/16	1/8	-AM-FT3-NS2	30.5	9.7	2.9	11.1
3/16	1/4	-AM-FT3-NS4	36.1	14.2	2.9	14.3
1/4	1/8	-AM-FT4-NS2	31.8	9.7	4.0	11.1
1/4	1/4	-AM-FT4-NS4	37.1	14.2	4.0	14.3
1/4	3/8	-AM-FT4-NS6	37.8	14.2	4.0	17.5
1/4	1/2	-AM-FT4-NS8	43.4	19.1	4.0	22.2
5/16	1/8	-AM-FT5-NS2	32.8	9.7	5.6	11.1
5/16	1/4	-AM-FT5-NS4	38.1	14.2	5.6	14.3
5/16	3/8	-AM-FT5-NS6	38.9	14.2	5.6	17.5
5/16	1/2	-AM-FT5-NS8	44.2	19.1	5.6	22.2
3/8	1/8	-AM-FT6-NS2	33.5	9.7	7.1	11.1
3/8	1/4	-AM-FT6-NS4	38.9	14.2	7.1	14.3
3/8	3/8	-AM-FT6-NS6	39.6	14.2	7.1	17.5
3/8	1/2	-AM-FT6-NS8	45.2	19.1	7.1	22.2
1/2	1/4	-AM-FT8-NS4	44.5	14.2	7.1	14.3
1/2	3/8	-AM-FT8-NS6	45.2	14.2	9.5	17.5
1/2	1/2	-AM-FT8-NS8	50.8	19.1	9.5	22.2
5/8	1/2	-AM-FT10-NS8	52.3	19.1	11.9	22.2
3/4	1/2	-AM-FT12-NS8	52.3	19.1	11.9	22.2
3/4	3/4	-AM-FT12-NS12	52.3	19.1	14.7	27.0
3/4	1	-AM-FT12-NS16	61.2	23.9	20.7	34.9
1	3/4	-AM-FT16-NS12	58.7	19.1	20.7	27.0
1	1	-AM-FT16-NS16	68.1	23.9	20.7	34.9
1 1/4	1 1/4	-AM-FT20-NS20	80.3	23.9	25.4	44.5
1 1/2	1 1/2	-AM-FT24-NS24	94.5	26.2	31.8	54.0
2	2	-AM-FT32-NS32	119.4	26.9	43.7	69.9

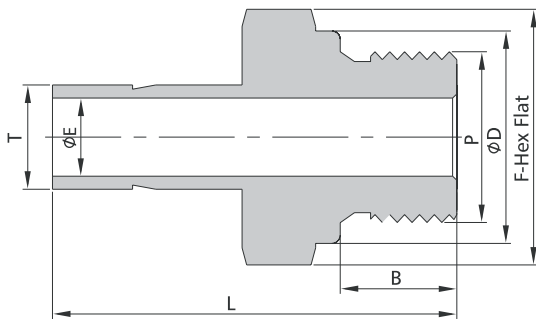


Zoll Typ Fractional Tube BSP Tapered Gewinde(RT)

T-Tube A.D. (in.)	P-RT Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
1/8	1/8	-AM-FT2-RT2	29.5	9.7	2.0	11.1
1/8	1/4	-AM-FT2-RT4	34.5	14.2	2.0	14.3
1/4	1/8	-AM-FT4-RT2	31.8	9.7	4.0	11.1
1/4	1/4	-AM-FT4-RT4	37.1	14.2	4.0	14.3
1/4	3/8	-AM-FT4-RT6	37.8	14.2	4.0	17.5
1/4	1/2	-AM-FT4-RT8	43.4	19.1	4.0	22.2
5/16	1/8	-AM-FT5-RT2	32.8	9.7	5.6	11.1
5/16	1/4	-AM-FT5-RT4	38.1	14.2	5.6	14.3
3/8	1/4	-AM-FT6-RT4	38.9	14.2	7.1	14.3
3/8	3/8	-AM-FT6-RT6	39.6	14.2	7.1	17.5
3/8	1/2	-AM-FT6-RT8	45.2	19.1	7.1	22.2
1/2	1/4	-AM-FT8-RT4	44.5	14.2	7.1	14.3
1/2	3/8	-AM-FT8-RT6	45.2	14.2	9.5	17.5
1/2	1/2	-AM-FT8-RT8	50.8	19.1	9.5	22.2
5/8	3/8	-AM-FT10-RT6	48.5	14.2	9.5	17.5
5/8	1/2	-AM-FT10-RT8	52.3	19.1	11.9	22.2
3/4	3/4	-AM-FT12-RT12	54.4	19.1	14.7	27.0
1	1	-AM-FT16-RT16	68.1	23.9	20.7	34.9

# Einschraub Rohrstutzen Adapter Male

## Zoll Typ Fractional Tube BSP Parallel Gewinde(RS)



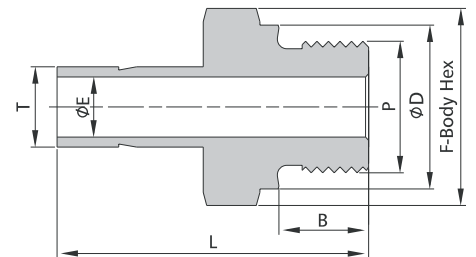
T-Tube A.D. (in.)	P-RS Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F	D
1/8	1/8	-AM-FT2-RS2	27.7	7.1	1.3	14.3	13.7
1/8	1/4	-AM-FT2-RS4	33.3	11.2	1.3	19.1	17.8
1/4	1/8	-AM-FT4-RS2	30.2	7.1	4.1	14.3	13.7
1/4	1/4	-AM-FT4-RS4	38.1	11.2	4.6	19.1	17.8
3/8	1/8	-AM-FT6-RS2	34.0	7.1	1.3	19.1	13.7
3/8	1/4	-AM-FT6-RS4	37.3	11.2	6.4	19.1	17.8
3/8	3/8	-AM-FT6-RS6	38.1	11.2	7.1	22.2	21.6
3/8	1/2	-AM-FT6-RS8	42.9	14.2	7.1	27.0	25.9
1/2	1/4	-AM-FT8-RS4	42.9	11.2	6.4	19.1	17.8
1/2	3/8	-AM-FT8-RS6	43.7	11.2	7.9	22.2	21.6
1/2	1/2	-AM-FT8-RS8	49.3	14.2	9.9	27.0	25.9
5/8	1/2	-AM-FT10-RS8	50.0	14.2	11.9	27.0	25.9
3/4	3/4	-AM-FT12-RS12	53.1	16.0	14.7	33.5	32.0
1	1	-AM-FT16-RS16	63.3	18.3	20.3	41.3	38.9



## Zoll Typ Fractional Tube BSP Parallel Gewinde(RP)

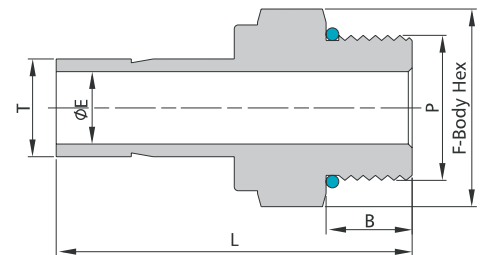
## Einschraub Rohrstutzen Adapter Male

T-Tube A.D. (in.)	P-RP Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F	D
1/8	1/8	-AM-FT2-RP2	27.7	7.1	1.3	14.3	13.7
1/8	1/4	-AM-FT2-RP4	33.3	11.2	1.3	19.1	17.8
1/4	1/8	-AM-FT4-RP2	30.2	7.1	4.1	14.3	13.7
1/4	1/4	-AM-FT4-RP4	38.1	11.2	4.6	19.1	17.8
3/8	1/8	-AM-FT6-RP2	34.0	7.1	1.3	19.1	13.7
3/8	1/4	-AM-FT6-RP4	37.3	11.2	6.4	19.1	17.8
3/8	3/8	-AM-FT6-RP6	38.1	11.2	7.1	22.2	21.6
3/8	1/2	-AM-FT6-RP8	42.9	14.2	7.1	27.0	25.9
1/2	1/4	-AM-FT8-RP4	42.9	11.2	6.4	19.1	17.8
1/2	3/8	-AM-FT8-RP6	43.7	11.2	7.9	22.2	21.6
1/2	1/2	-AM-FT8-RP8	49.3	14.2	9.9	27.0	25.9
5/8	1/2	-AM-FT10-RP8	50.0	14.2	11.9	27.0	25.9
3/4	3/4	-AM-FT12-RP12	53.1	16.0	14.7	33.5	32.0
1	1	-AM-FT16-RP16	63.3	18.3	20.3	41.3	38.9

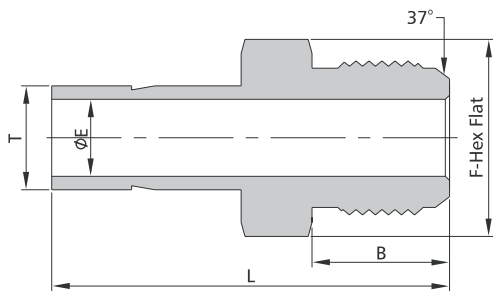


## Zoll Typ Fractional Tube SAE/MS Straight Gewinde

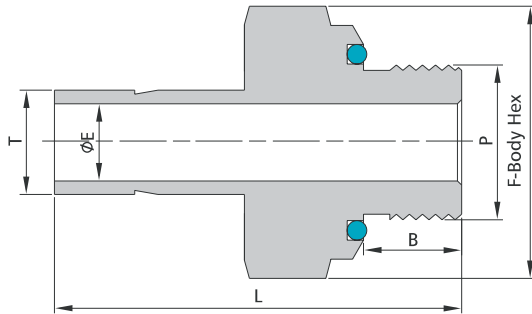
T-Tube A.D. (in.)	P-SAE/MS Gewinde Größe	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
1/8	5/16-24	-AM-FT2-ST5	30.5	7.6	2.0	11.1
1/4	7/16-20	-AM-FT4-ST7	35.3	9.1	4.3	14.3
3/8	7/16-20	-AM-FT6-ST7	37.1	9.1	5.1	15.9
3/8	9/16-18	-AM-FT6-ST9	38.6	9.9	6.9	17.5
3/8	3/4-16	-AM-FT6-ST12	40.6	11.2	6.9	22.2
1/2	9/16-18	-AM-FT8-ST9	44.2	9.9	7.1	17.5
1/2	3/4-16	-AM-FT8-ST12	46.2	11.2	9.4	22.2
5/8	7/8-14	-AM-FT10-ST14	49.3	12.7	11.9	25.4
3/4	1 1/16-12	-AM-FT12-ST17	53.3	15.0	14.8	34.9
1	1 5/16-12	-AM-FT16-ST21	61.2	15.0	20.3	38.1



## Einschraub Rohrstutzen Adapter Male



Zoll Type Fractional Tube			An Union			
T-Tube A.D. (in.)	AN Tube Flare Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
1/4	1/4	-AM-FT4-AN4	37.1	14.0	4.6	12.7
3/8	1/4	-AM-FT6-AN4	38.9	14.0	6.4	12.7
3/8	3/8	-AM-FT6-AN6	39.6	14.2	7.1	15.9
1/2	1/2	-AM-FT8-AN8	48.5	16.8	9.9	20.6
3/4	3/4	-AM-FT12-AN12	56.1	21.8	14.7	28.6
1	1	-AM-FT16-AN16	65.5	23.1	20.3	34.9

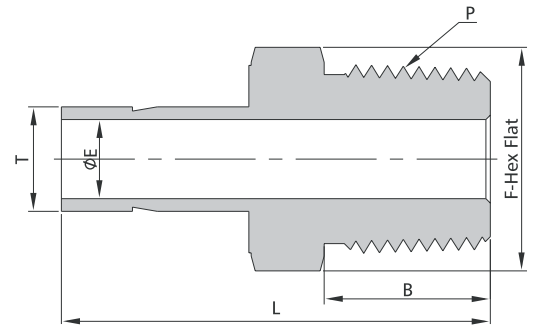


Zoll Typ Fractional Tube O-Ring mit SAE/MS Straight Gewinde						
T-Tube A.D. (in.)	P-SAE/MS Gewinde Größe	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
1/8	5/16-24	-AM-FT2-OST5	32.5	8.6	2.0	14.3
3/16	3/8-24	-AM-FT3-OST6	35.1	9.7	3.0	15.9
1/4	7/16-20	-AM-FT4-OST7	39.1	10.4	4.3	19.1
5/16	1/2-20	-AM-FT5-OST8	41.7	11.2	5.6	22.2
3/8	9/16-18	-AM-FT6-OST9	43.2	11.9	6.9	23.8
1/2	3/4-16	-AM-FT8-OST12	49.6	11.9	9.4	28.6

## Zoll Typ Metric Tube NPT Gewinde

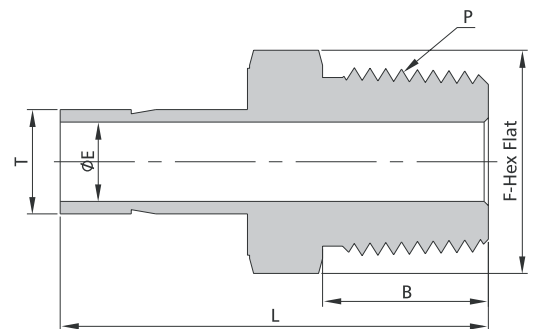
T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Größe Nummer	L	B	E Minimum Öffnung	F
3	1/8	-AM-MT3-NS2	29.4	9.7	1.8	12
4	1/8	-AM-MT4-NS2	29.4	9.7	2.0	12
6	1/8	-AM-MT6-NS2	31.0	9.7	4.0	12
6	1/4	-AM-MT6-NS4	35.7	14.2	4.0	14
6	3/8	-AM-MT6-NS6	36.5	14.2	3.0	18
6	1/2	-AM-MT6-NS8	42.1	19.1	3.0	22
8	1/4	-AM-MT8-NS4	37.3	14.2	6.4	14
8	3/8	-AM-MT8-NS6	38.1	14.2	6.4	18
10	1/4	-AM-MT10-NS4	38.1	14.2	7.1	14
10	3/8	-AM-MT10-NS6	43.7	14.2	7.5	18
10	1/2	-AM-MT10-NS8	44.5	19.1	7.5	22
12	1/4	-AM-MT12-NS4	43.7	14.2	7.1	14
12	3/8	-AM-MT12-NS6	44.5	14.2	9.1	18
12	1/2	-AM-MT12-NS8	49.2	19.1	9.1	22
16	1/2	-AM-MT16-NS8	50.8	19.1	12.7	22
16	3/4	-AM-MT16-NS12	51.6	19.1	12.7	27
18	1/2	-AM-MT18-NS8	50.8	19.1	12.7	22
18	3/4	-AM-MT18-NS12	51.6	19.1	14.0	27
20	1/2	-AM-MT20-NS8	51.8	19.1	15.0	22
20	3/4	-AM-MT20-NS12	52.4	19.1	15.1	27
25	1	-AM-MT25-NS16	65.9	23.9	19.8	35

## Einschraub Rohrstutzen Adapter Male



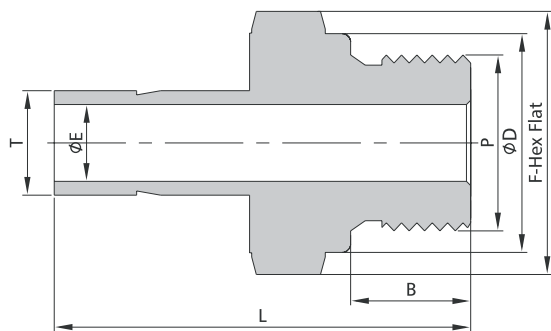
## Metrisches Rohr Metric Tube BSP Tapered Gewinde(RT)

T-Tube A.D.	P-RT Rohr Größe (in.)	Basic Größe Nummer	L	B	E Minimum Öffnung	F
3	1/8	-AM-MT3-RT2	29.4	9.7	1.8	12
4	1/8	-AM-MT4-RT2	29.4	9.7	2.0	12
6	1/8	-AM-MT6-RT2	31.0	9.7	4.0	12
6	1/4	-AM-MT6-RT4	35.7	14.2	4.0	14
8	1/4	-AM-MT8-RT4	37.3	14.2	6.4	14
8	3/8	-AM-MT8-RT6	38.3	14.2	5.0	18
10	1/4	-AM-MT10-RT4	38.1	14.2	7.1	14
10	3/8	-AM-MT10-RT6	38.1	14.2	7.5	18
10	1/2	-AM-MT10-RT8	44.5	19.1	7.5	22
12	1/4	-AM-MT12-RT4	43.7	14.2	7.1	14
12	3/8	-AM-MT12-RT6	44.5	14.2	9.1	18
12	1/2	-AM-MT12-RT8	49.2	19.1	9.1	22
16	1/2	-AM-MT16-RT8	50.8	19.1	12.7	22
18	3/4	-AM-MT18-RT12	51.6	19.1	14.0	27
20	3/4	-AM-MT20-RT12	52.4	19.1	15.1	27
25	1	-AM-MT25-RT16	65.9	23.9	19.8	35

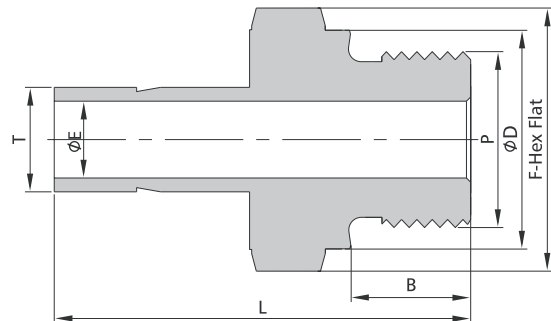


## Einschraub Rohrstutzen Adapter Male

## Metrisches Rohr Metric BSP Parallel Gewinde(RS)



T-Tube A.D.	P-RS Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Opening	F	D
3	1/8	-AM-MT3-RS2	31.0	7.1	1.8	14	13.7
4	1/8	-AM-MT4-RS2	31.8	7.1	2.0	14	13.7
6	1/8	-AM-MT6-RS2	33.3	7.1	4.0	14	13.7
6	1/4	-AM-MT6-RS4	38.1	11.2	4.0	19	17.8
8	1/4	-AM-MT8-RS4	38.9	11.2	6.4	19	17.8
10	1/4	-AM-MT10-RS4	38.9	11.2	6.4	19	17.8
10	3/8	-AM-MT10-RS6	39.7	11.2	7.5	22	21.6
10	1/2	-AM-MT10-RS8	42.9	14.2	7.5	27	25.9
12	1/4	-AM-MT12-RS4	43.7	11.2	6.4	19	17.8
12	3/8	-AM-MT12-RS6	44.5	11.2	7.9	22	21.6
12	1/2	-AM-MT12-RS8	49.2	14.2	9.1	27	25.9
16	1/2	-AM-MT16-RS8	50.8	14.2	11.9	27	25.9
18	3/4	-AM-MT18-RS12	53.2	16.0	14.0	33	32.0
20	3/4	-AM-MT20-RS12	54.0	16.0	15.1	33	32.0
25	1	-AM-MT25-RS16	65.1	18.3	19.8	41	38.9



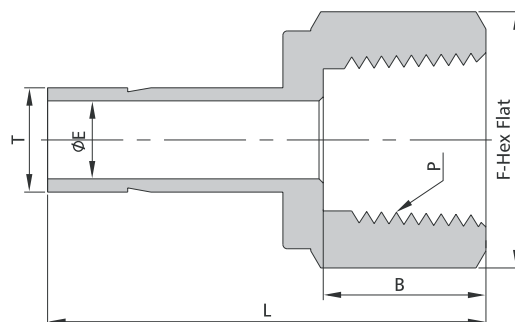
## Metrisches Rohr Metric BSP Parallel Gewinde(RP)

T-Tube A.D.	P-RP Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Opening	F	D
3	1/8	-AM-MT3-RP2	31.0	7.1	1.8	14	13.7
4	1/8	-AM-MT4-RP2	31.8	7.1	2.0	14	13.7
6	1/8	-AM-MT6-RP2	33.3	7.1	4.0	14	13.7
6	1/4	-AM-MT6-RP4	38.1	11.2	4.0	19	17.8
8	1/4	-AM-MT8-RP4	38.9	11.2	6.4	19	17.8
10	1/4	-AM-MT10-RP4	38.9	11.2	6.4	19	17.8
10	3/8	-AM-MT10-RP6	39.7	11.2	7.5	22	21.6
10	1/2	-AM-MT10-RP8	42.9	14.2	7.5	27	25.9
12	1/4	-AM-MT12-RP4	43.7	11.2	6.4	19	17.8
12	3/8	-AM-MT12-RP6	44.5	11.2	7.9	22	21.6
12	1/2	-AM-MT12-RP8	49.2	14.2	9.1	27	25.9
16	1/2	-AM-MT16-RP8	50.8	14.2	11.9	27	25.9
18	3/4	-AM-MT18-RP12	53.2	16.0	14.0	33	32.0
20	3/4	-AM-MT20-RP12	54.0	16.0	15.1	33	32.0
25	1	-AM-MT25-RP16	65.1	18.3	19.8	41	38.9

## Zoll Typ Fractional Tube NPT Gewinde

## Aufschraub Rohrstutzen Adapter Female

T-Tube A.D. (in.)	P-NPT RohrGröße (in.)	Basic Ordering Nummer	L	B	E Minimum Öffnung	F
1/16	1/8	-AF-FT1-NS2	27.2	10.4	0.8	14.3
1/8	1/8	-AF-FT2-NS2	31.2	10.4	2.4	14.3
1/8	1/4	-AF-FT2-NS4	35.1	15.0	2.4	19.1
3/16	1/8	-AF-FT3-NS2	31.8	10.4	2.9	14.3
3/16	1/4	-AF-FT3-NS4	36.1	15.0	2.9	19.1
1/4	1/8	-AF-FT4-NS2	33.3	10.4	4.8	14.3
1/4	1/4	-AF-FT4-NS4	37.3	15.0	4.8	19.1
1/4	3/8	-AF-FT4-NS6	39.6	15.0	4.8	22.2
1/4	1/2	-AF-FT4-NS8	45.7	19.8	4.8	27.0
5/16	1/8	-AF-FT5-NS2	34.0	10.4	5.6	14.3
5/16	1/4	-AF-FT5-NS4	38.1	15.0	5.6	19.1
5/16	3/8	-AF-FT5-NS6	40.4	15.0	5.6	22.2
3/8	1/8	-AF-FT6-NS2	34.5	10.4	7.1	14.3
3/8	1/4	-AF-FT6-NS4	39.4	15.0	7.1	19.1
3/8	3/8	-AF-FT6-NS6	40.4	15.0	7.1	22.2
3/8	1/2	-AF-FT6-NS8	46.7	19.8	7.1	27.0
1/2	1/4	-AF-FT8-NS4	43.7	15.0	9.9	19.1
1/2	3/8	-AF-FT8-NS6	45.7	15.0	9.9	22.2
1/2	1/2	-AF-FT8-NS8	53.3	19.8	9.9	27.0
5/8	3/8	-AF-FT10-NS6	47.2	15.0	11.9	22.2
5/8	1/2	-AF-FT10-NS8	53.1	19.8	11.9	27.0
3/4	1/2	-AF-FT12-NS8	53.3	19.8	14.7	27.0
3/4	3/4	-AF-FT12-NS12	54.9	20.6	14.7	31.8
3/4	1	-AF-FT12-NS16	58.4	25.4	14.7	41.3
7/8	3/4	-AF-FT14-NS12	56.4	20.6	14.7	33.3
1	3/4	-AF-FT16-NS12	61.2	20.6	20.7	33.3
1	1	-AF-FT16-NS16	64.5	25.4	20.7	41.3
1 1/4	1 1/4	-AF-FT20-NS20	77.7	25.4	25.4	54.0
1 1/2	1 1/2	-AF-FT24-NS24	88.9	27.7	31.8	60.3
2	2	-AF-FT32-NS32	107.4	28.4	43.7	73.0

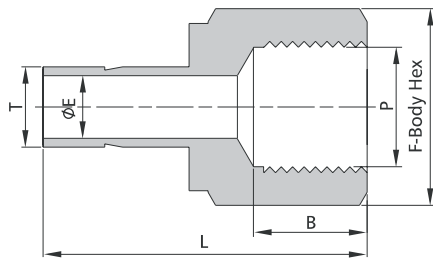


## Zoll Typ Fractional Tube BSP Tapered Gewinde(RT)

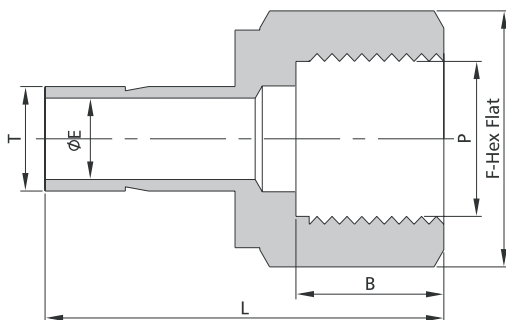
T-Tube A.D. (in.)	P-RT RohrGröße (in.)	Basic Ordering Nummer	L	B	E Minimum Öffnung	F
1/4	1/8	-AF-FT4-RT2	33.3	10.4	4.0	14.3
1/4	1/4	-AF-FT4-RT4	37.6	15.0	4.0	19.1
3/8	1/4	-AF-FT6-RT4	39.6	15.0	7.1	19.1
3/8	3/8	-AF-FT6-RT6	41.4	15.0	7.1	22.2
1/2	1/4	-AF-FT8-RT4	46.5	15.0	9.5	19.1
1/2	3/8	-AF-FT8-RT6	48.0	15.0	9.5	22.2
1/2	1/2	-AF-FT8-RT8	54.4	19.8	9.5	27.0

## Aufschraubrohrstutzen Adapter Female

## Zoll Typ Fractional Tube BSP Parallel Gewinde(RP)



T-Tube A.D. (in.)	P-RP Rohr Öffnung (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
1/8	1/8	-AF-FT2-RP2	29.7	10.2	2.0	14.3
1/4	1/8	-AF-FT4-RP2	31.8	10.2	4.3	14.3
1/4	1/4	-AF-FT4-RP4	38.1	15.2	4.3	19.1
3/8	1/4	-AF-FT6-RP4	39.4	15.2	7.1	19.1
3/8	3/8	-AF-FT6-RP6	39.9	15.2	7.1	23.9
1/2	3/8	-AF-FT8-RP6	45.2	15.2	9.7	23.9
1/2	1/2	-AF-FT8-RP8	51.3	18.2	9.7	27.0



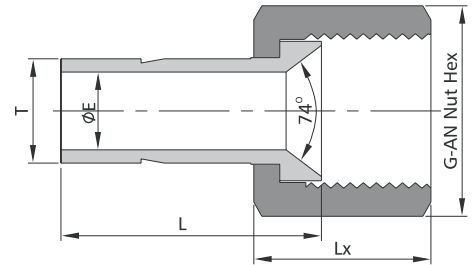
## Zoll Typ Fractional Tube BSP Parallel Gewinde(RG)

T-Tube A.D. (in.)	P-RG Rohr Öffnung (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
1/4	1/4	-AF-FT4-RG4	37.3	10.2	4.6	19.1
3/8	3/8	-AF-FT6-RG6	38.9	14.0	7.1	22.2
1/2	1/2	-AF-FT8-RG8	48.5	18.0	9.9	27.0

## Zoll Typ Fractional Tube AN Union

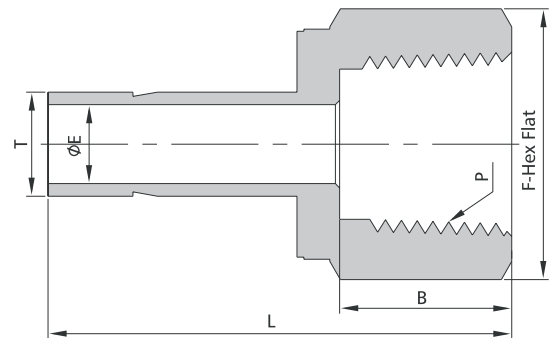
## Aufschraubrohrstutzen Adapter Female

T-Tube A.D. (in.)	AN Tube Flare Größe (in.)	Basic Bestell Nummer	L	Lx	E Minimum mess-regel.deG	
1/8	1/8	-AF-FT2-AN2	18.5	13.7	2.4	9.5
1/8	1/4	-AF-FT2-AN4	19.1	15.7	2.4	14.3
1/4	1/4	-AF-FT4-AN4	21.3	15.7	4.6	14.3
3/8	3/8	-AF-FT6-AN6	24.9	18.3	7.1	17.5
1/2	1/2	-AF-FT8-AN8	31.8	21.6	9.9	22.2

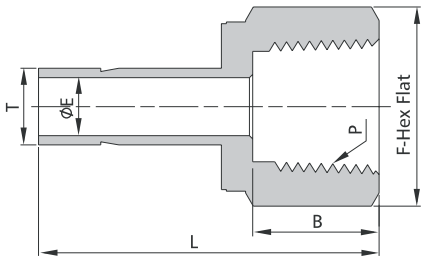


## Metrisches Rohr Metric Tube NPT Gewinde

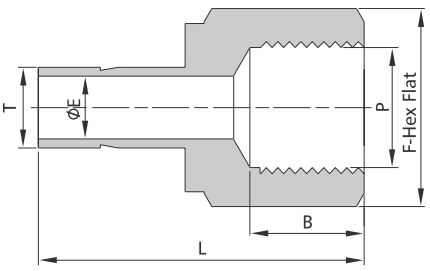
T-Tube A.D.	P-NPT Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum mess-regel.deF	
3	1/8	-AF-MT3-NS2	28.8	10.4	1.3	14
4	1/8	-AF-MT4-NS2	33.3	10.4	2.0	14
6	1/8	-AF-MT6-NS2	29.4	10.4	4.0	14
6	1/4	-AF-MT6-NS4	34.1	15.0	4.0	19
8	1/8	-AF-MT8-NS2	35.1	10.4	6.4	14
8	1/4	-AF-MT8-NS4	35.5	15.0	6.4	19
8	3/8	-AF-MT8-NS6	36.5	15.0	6.4	22
10	1/4	-AF-MT10-NS4	37.3	15.0	7.5	19
10	3/8	-AF-MT10-NS6	37.3	15.0	7.5	22
10	1/2	-AF-MT10-NS8	42.1	19.8	7.5	27
12	1/4	-AF-MT12-NS4	41.3	15.0	9.1	19
12	3/8	-AF-MT12-NS6	42.9	15.0	9.1	22
12	1/2	-AF-MT12-NS8	47.6	19.8	9.1	27
16	1/2	-AF-MT16-NS8	49.2	19.8	12.7	27
18	3/4	-AF-MT18-NS12	52.4	20.6	14.0	33
20	1/2	-AF-MT20-NS8	50.0	19.8	15.0	27
20	3/4	-AF-MT20-NS12	53.2	20.6	15.1	33
25	1	-AF-MT25-NS16	66.7	25.4	19.8	41



# Aufschraub Rohrstopfen Female Adapter Metrisches Rohr Metric Tube BSP Tapered Gewinde(RT)

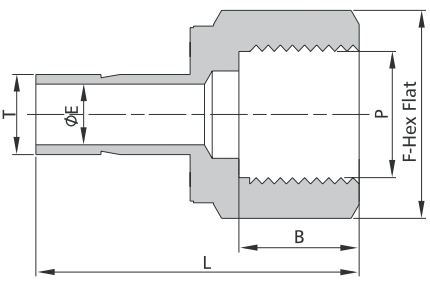


T-Tube A.D.	P-RT Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
3	1/8	-AF-MT3-RT2	27.8	10.4	1.8	14
4	1/8	-AF-MT4-RT2	28.6	10.4	2.0	14
6	1/8	-AF-MT6-RT2	30.2	10.4	4.0	14
8	1/4	-AF-MT8-RT4	34.7	15.0	6.4	19
10	1/4	-AF-MT10-RT4	36.5	15.0	7.5	19
10	3/8	-AF-MT10-RT6	36.5	15.0	7.5	22
10	1/2	-AF-MT10-RT8	41.3	19.8	7.5	27
12	1/4	-AF-MT12-RT4	40.5	15.0	9.1	19
12	3/8	-AF-MT12-RT6	43.7	15.0	9.1	22
12	1/2	-AF-MT12-RT8	46.8	19.8	9.1	27
16	1/2	-AF-MT16-RT8	48.4	19.8	12.7	27
18	3/4	-AF-MT18-RT12	61.6	20.6	14.0	32
20	3/4	-AF-MT20-RT12	52.4	20.6	15.1	32
25	1	-AF-MT25-RT16	66.7	25.4	19.8	41



## Metrisches Rohr Metric Tube BSP Parallel Gewinde(RP)

T-Tube A.D.	P-RP Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
6	1/8	-AF-MT6-RP2	32.0	10.2	4.1	14
6	1/4	-AF-MT6-RP4	37.8	15.2	4.1	19



## Metrisches Rohr Metric Tube BSP Parallel Gewinde(RG)

T-Tube A.D.	P-RG Rohr Größe (in.)	Basic Bestell Nummer	L	B	E Minimum Öffnung	F
3	1/8	-AF-MT3-RG2	28.6	6.5	1.6	14.0
3	1/4	-AF-MT3-RG4	28.6	10.2	1.8	19.0
4	1/8	-AF-MT4-RG2	29.4	6.5	2.0	14.0
6	1/8	-AF-MT6-RG2	31.0	6.5	4.0	14.0
6	1/4	-AF-MT6-RG4	37.3	10.2	4.0	19.0
8	1/4	-AF-MT8-RG4	38.1	10.2	6.4	19.0
10	1/4	-AF-MT10-RG4	38.9	10.2	7.5	19.0
10	1/2	-AF-MT10-RG8	43.7	18.0	7.5	27.0
12	3/8	-AF-MT12-RG6	44.5	14.2	9.1	22.0
12	1/2	-AF-MT12-RG8	48.4	18.0	9.1	27.0
16	1/2	-AF-MT16-RG8	50.0	18.0	12.7	27.0
18	3/4	-AF-MT18-RG12	53.2	22.4	14.0	33.0
20	3/4	-AF-MT20-RG12	54.0	22.4	15.1	33.0
25	1	-AF-MT25-RG16	67.5	30.2	19.8	41.0



## ANSI Flange      Flansch Verschraubungsadapter

T-Tube A.D. (in.)	ANSI Flange NPS (in.)	Class	Bestell Nummer	L	J	Jx	E Minimum Öffnung	C	G	F
1/4	1/2	150	SS-FA-FL4 -F8-150	40.1	88.9	60.5	4.8	15.2	14.3	20.6
3/8	1/2	300	SS-FA-FL6-F8-300	45.5	95.3	66.5	7.7	16.8	17.5	20.6
1/2	1/2	150	SS-FA-FL8 -F8-150	45.2	88.9	60.5	10.4	22.9	22.2	20.6
1/2	1	150	SS-FA-FL8 -F16-150	48.3	108.0	79.2	10.4	22.9	22.2	20.6
1/2	2	150	SS-FA-FL8 -F32-150	53.1	152.4	120.7	10.4	22.9	22.2	20.6
3/4	1	150	SS-FA-FL12 - F16-150	50.3	108.0	79.2	15.7	24.4	28.6	31.8
1	1	150	SS-FA-FL16-F16-150	60.5	108.0	79.2	22.4	31.2	38.1	34.9

## Flange Adaptor

### Bemerkung Features

- ⊙ Integral maschinell hergestelltes Schmiedestück
- ⊙ ANSI Flange kompatibel nach ANSI B16.5
- ⊙ DIN Flange kompatibel nach DIN 2501/2526
- ⊙ GB Flange kompatibel nach GB/T9123.1-2000
- ⊙ EN Flange kompatibel nach EN 1092-1
- ⊙ JIS Flange kompatibel nach JIS B 2238

### DIN Flanges, Pressure Class PN 40/GB Flanges, Pressure Class PN4.0MPa

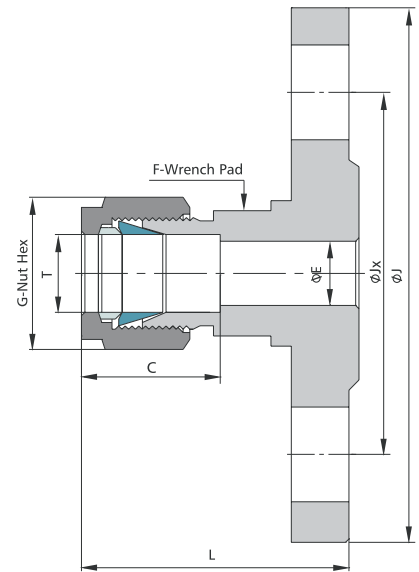
T-Tube A.D.	DIN Flange Größe DN	Bestell Nummer	L	J	Jx	E Minimum Öffnung	C	G	F
6	25	SS-FA-ML6-F25-40C	47.5	115	85	4.8	15.3	14	14
12	15	SS-FA-ML12-F15-40C	48.5	95	65	9.5	22.8	22	20
12	25	SS-FA-ML12-F25-40C	50.5	115	85	9.5	22.8	22	20
12	50	SS-FA-ML12-F50-40C	55.3	165	125	9.5	22.8	22	20
18	15	SS-FA-ML18-F15-40C	51.8	95	65	15.1	24.4	30	32
18	25	SS-FA-ML18-F25-40C	53.8	115	85	15.1	24.4	30	32
25	25	SS-FA-ML25-F25-40C	64.0	115	85	21.8	31.3	40	35

### EN Flanges, Pressure Class PN 40

T-Tube A.D.	EN Flange Größe DN	Bestell Nummer	L	J	Jx	E Minimum Öffnung	C	G	F
6	25	SS-FA-ML6-F25-40B1	47.5	115	85	4.8	15.3	14	14
12	15	SS-FA-ML12-F15-40B1	48.5	95	65	9.5	22.8	22	20
12	25	SS-FA-ML12-F25-40B1	50.5	115	85	9.5	22.8	22	20
12	50	SS-FA-ML12-F50-40B1	55.3	165	125	9.5	22.8	22	20
18	15	SS-FA-ML18-F15-40B1	51.8	95	65	15.1	24.4	30	32
18	25	SS-FA-ML18-F25-40B1	53.8	115	85	15.1	24.4	30	32
25	25	SS-FA-ML25-F25-40B1	64.0	115	85	21.8	31.3	40	35

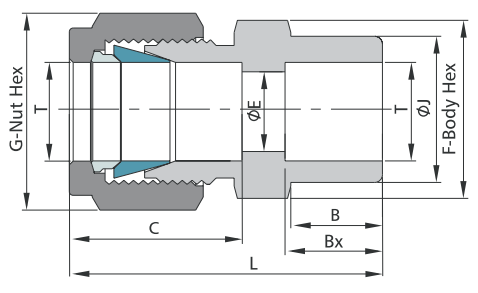
### JIS Flanges, Pressure Class 10K

T-Tube A.D. (in./mm)	EN Flange Größe DN	Bestell Nummer	L	J	Jx	E Minimum Öffnung	C	G	F
1/4	15	SS-FA-FL4 -F15-10KRF	42.2	95	70.1	4.8	15.2	14.3	20.6
3/8	15	SS-FA-FL6-F15-10KRF	43.7	95	70.1	7.1	16.8	17.5	20.6
1/2	15	SS-FA-FL8 -F15-10KRF	46.5	95	70.1	10.4	22.9	22.2	20.6
3/4	15	SS-FA-FL12-F15-10KRF	48.5	95	70.1	15.7	24.4	28.6	31.8
1	25	SS-FA-FL16-F25-10KRF	61.0	125	89.9	22.4	31.2	38.1	34.9
12	15	SS-FA-ML12-F15-10KRF	46.5	95	70.0	9.5	22.8	22.0	20.0
18	15	SS-FA-ML18 -F15-10KRF	48.5	95	70.0	15.1	24.4	30.0	32.0
25	25	SS-FA-ML25-F25-10KRF	61.0	125	90.0	21.8	31.3	40.0	35.0



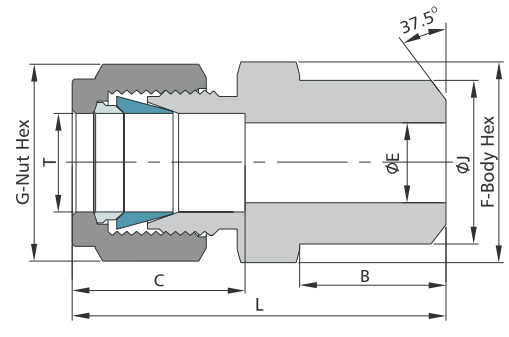
# Anschweiß Rohrverschraubung Weld Connector

# Zoll Type Fractional Tube Tube Socket Weld



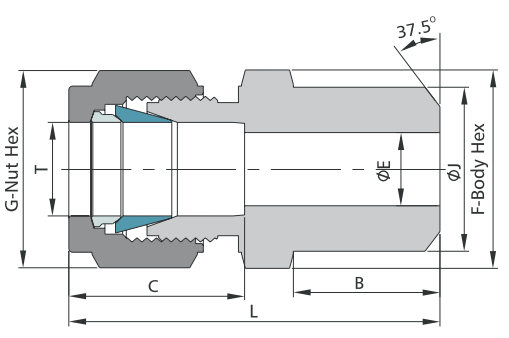
T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	B	E Minimum Öffnung	Bx	J
1/8	-CW-FL2-TS2	29.0	12.7	11.1	11.1	8.6	2.3	6.5	7.9
3/16	-CW-FL3-TS3	29.7	13.7	12.7	11.1	9.5	3.3	7.2	10.7
1/4	-CW-FL4-TS4	33.5	15.2	14.3	12.7	10.4	4.8	7.9	11.2
3/8	-CW-FL6-TS6	37.6	16.8	17.5	15.9	11.9	7.1	9.7	15.7
1/2	-CW-FL8-TS8	41.1	22.9	22.2	20.6	11.9	10.4	12.7	19.1
5/8	-CW-FL10-TS10	41.9	24.4	25.4	23.8	11.9	12.7	13.5	23.4
3/4	-CW-FL12-TS12	43.4	24.4	28.6	27.0	11.9	15.7	14.2	26.7
1	-CW-FL16-TS16	52.6	31.2	38.1	34.9	14.2	22.4	19.1	33.3

# Zoll Typ Fractional Tube Rohr Butt weld



T-Tube A.D. (in.)	Rohr mess-regel (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	J
1/8	1/8	-CW-FL2-PB2	30.5	12.7	11.1	11.1	2.3	9.7	10.3
3/16	1/8	-CW-FL3-PB2	31.2	13.7	12.7	11.1	3.0	9.7	10.3
1/4	1/8	-CW-FL4-PB2	32.8	15.2	14.3	12.7	4.8	9.7	10.3
1/4	1/4	-CW-FL4-PB4	37.8	15.2	14.3	14.3	4.8	14.2	13.7
5/16	1/8	-CW-FL5-PB2	34.0	16.3	15.9	14.3	5.1	9.7	10.3
5/16	1/4	-CW-FL5-PB4	38.6	16.3	15.9	14.3	6.4	14.2	13.7
3/8	1/4	-CW-FL6-PB4	39.9	16.8	17.5	15.9	7.1	14.2	13.7
3/8	3/8	-CW-FL6-PB6	39.9	16.8	17.5	17.5	7.1	14.2	17.2
3/8	1/2	-CW-FL6-PB8	46.2	16.8	17.5	22.4	7.1	19.1	21.3
3/8	3/4	-CW-FL6-PB12	47.8	16.8	17.5	27.0	7.1	19.1	26.7
1/2	3/8	-CW-FL8-PB6	43.4	22.9	22.2	20.6	10.4	14.2	17.2
1/2	1/2	-CW-FL8-PB8	49.0	22.9	22.2	22.2	10.4	19.1	21.3
1/2	3/4	-CW-FL8-PB12	50.5	22.9	22.2	27.0	10.4	19.1	26.7
5/8	1/2	-CW-FL10-PB8	49.0	24.4	25.4	23.8	12.7	19.1	21.3
3/4	3/4	-CW-FL12-PB12	50.5	24.4	28.6	27.0	15.7	19.1	26.7
1	1	-CW-FL16-PB16	62.2	31.2	38.1	34.9	22.4	20.6	33.4

# Metrisches Rohr Metric Tube Rohr Butt weld

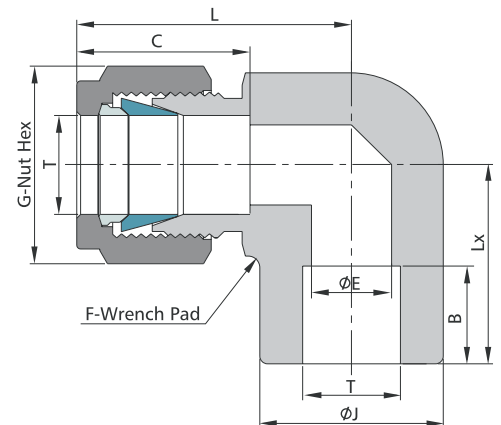


T-Tube A.D.	Rohr mess-regel (in.)	Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	J
3	1/8	-CW-ML3-PB2	29.7	12.9	12	12	2.4	9.7	10.3
4	1/8	-CW-ML4-PB2	30.7	13.7	12	12	2.4	9.7	10.3
6	1/8	-CW-ML6-PB2	32.9	15.3	14	14	4.8	9.7	10.3
6	1/4	-CW-ML6-PB4	37.7	15.3	14	14	4.8	14.2	13.7
8	1/8	-CW-ML8-PB2	34.2	16.2	16	15	5.1	9.7	10.3
8	1/4	-CW-ML8-PB4	38.7	16.2	16	15	6.4	14.2	13.7
8	1/2	-CW-ML8-PB8	44.8	16.2	16	22	6.4	19.1	21.3
10	1/4	-CW-ML10-PB4	40.1	17.2	19	18	7.1	14.2	13.7
10	3/8	-CW-ML10-PB6	40.9	17.2	19	18	7.9	14.2	17.2
10	1/2	-CW-ML10-PB8	45.7	17.2	19	22	7.9	19.1	21.3
12	1/4	-CW-ML12-PB4	43.4	22.8	22	22	7.1	14.2	13.7
12	3/8	-CW-ML12-PB6	43.4	22.8	22	22	9.5	14.2	17.2
12	1/2	-CW-ML12-PB8	48.2	22.8	22	22	9.5	19.1	21.3
15	1/2	-CW-ML15-PB8	48.4	24.4	25	24	9.5	19.1	21.3
16	1/2	-CW-ML16-PB8	49.0	24.4	25	24	12.7	19.1	21.3
18	1/2	-CW-ML18-PB8	50.5	24.4	30	27	13.5	19.1	21.3

## Zoll Typ Fractional Tube Tube Socket Weld

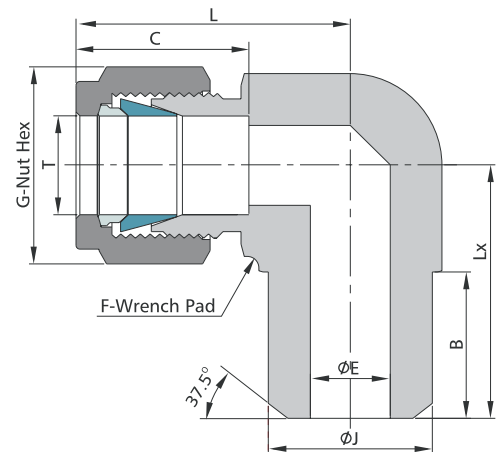
T-Tube A.D. (in.)	Basic Bestell Nummer	L	C	G	F	B	E Minimum Öffnung	Lx	J
1/8	-LW-FL2-TS2	16.8	12.7	11.1	9.5	6.5	2.3	16.0	9.7
3/16	-LW-FL3-TS3	18.3	13.7	12.7	11.1	7.2	3.3	17.5	11.2
1/4	-LW-FL4-TS4	26.9	15.2	14.3	14.3	7.9	4.8	19.6	12.7
3/8	-LW-FL6-TS6	30.5	16.8	17.5	19.1	9.7	7.1	23.1	15.7
1/2	-LW-FL8-TS8	36.1	22.9	22.2	19.1	12.7	10.4	25.9	20.6
5/8	-LW-FL10-TS10	29.5	24.4	25.4	27.0	13.5	12.7	29.5	23.9
3/4	-LW-FL12-TS12	29.5	24.4	28.6	27.0	14.2	15.7	33.3	27.8
1	-LW-FL16-TS16	36.8	31.2	38.1	34.9	19.1	22.4	37.3	35.1

## Rohr Schweiß Verschraubung Winkel Weld Elbow



## Zoll Typ anschweiß Stück Fractional Tube Rohr Butt weld

T-Tube A.D. (in.)	Rohr Größe (in.)	Weld Basic Bestell Nummer	L	C	G	F	E Minimum Öffnung	B	Lx	J
1/8	1/8	-LW-FL2-PB2	23.4	12.7	11.1	11.1	2.3	9.7	18.3	10.3
3/16	1/8	-LW-FL3-PB2	25.7	13.7	12.7	12.7	3.3	9.7	18.8	10.3
1/4	1/8	-LW-FL4-PB2	27.2	15.2	14.3	12.7	4.8	9.7	18.8	10.3
1/4	1/4	-LW-FL4-PB4	27.2	15.2	14.3	14.3	4.8	14.2	23.4	13.7
3/8	1/4	-LW-FL6-PB4	30.5	16.8	17.5	15.9	7.1	14.2	25.4	13.7
1/2	3/8	-LW-FL8-PB6	34.8	22.9	22.2	19.1	10.4	14.2	28.8	17.2
1/2	1/2	-LW-FL8-PB8	36.3	22.9	22.2	22.2	10.4	19.1	35.1	21.3
5/8	1/2	-LW-FL10-PB8	36.3	24.4	25.4	2.2	12.7	19.1	35.1	21.3
3/4	3/4	-LW-FL12-PB12	39.6	24.4	28.6	27.0	15.7	19.1	38.1	26.7
1	3/4	-LW-FL16-PB12	49.3	31.2	38.1	34.9	22.4	19.1	41.9	26.7
1	1	-LW-FL16-PB16	49.3	31.2	38.1	34.9	22.4	20.6	46.7	33.4



# Verschraubungen Rohr Pipe Fittings

## Edelstahl Karbonstahl Messing Serie



GMR Gross-Mess-Regeltechnik  
Talstr. 50 D- 98544 Zella-Mehlis  
Tel: +49 (0) 3682 - 49099 Fax: -49093

[www.mess-regel.de](http://www.mess-regel.de) e-Mail: [info@mess-regel.de](mailto:info@mess-regel.de)

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## Features

- ⊙ Jeder Fitting ist mit Art und Größe sowie auch mit Hersteller markiert
- ⊙ Alle Fittings werden gereinigt, von Rückständen wie Öl, Schmutz, Schmiere und losen Partikeln
- ⊙ Gerade Fittings sind für mechanische Bearbeitung hergestellt, geformte Fittings sind von Schmiedestücken hergestellt und bearbeitet

## Technische Daten

### Material Standards

Material	Designator	Material TYP	Schmiedestücke
316SS	SS	ASME SA479, ASTM A276	ASME SA182, ASTM A182
Brass	B	ASME B16, ASTM B453	ASTM B283
Carbon steel	CS		ASTM A576

Um Korrosion zu widerstehen, sind alle Kohlenstoff-Fittings mit einem elektrolytischen Zinküberzug beschichtet

ASTM A108

### Gewinde Spezifikationen

Gewinde Thread Type	Spezifikation Specification
NPT	ASME B1.20.1, SAE AS71051
BSP (Tapered)	ISO 7/1 BS 21, JIS B0203
BSP (Parallel)	ISO 228, JIS B0202
Unified (SAE)	ASME B1.1
Metric (M)	ISO 261, GB/T 196

### Druck Bereiche Basis

- ⊙ Bereiche basierend nach ASME/ANSI B31.3.

Material	Zulässiger Akzentwert
316SS	1378bar(20000psig)
Brass	689bar(10000psig)
Carbon steel	1378bar(20000psig)

### Gewinde Druck Bereiche ; Thread Pressure Ratings

Für Rohrenden; Pipe End (NPT and ISO 7) Pressure Ratings

NPT/ISO Rohr ; Pipe Größe; Size	316SS and Carbon Steel				Messing; Brass			
	Außengewinde Male		Innengewinde Female		Außengewinde Male		Innengewinde Female	
	psig	bar	psig	bar	psig	bar	psig	bar
1/16	11000	759	6700	462	5500	379	3300	228
1/8	10000	690	6500	448	5000	345	3200	221
1/4	8000	552	6600	455	4000	276	3300	228
3/8	7800	538	5300	366	3900	269	2600	179
1/2	7700	531	4900	338	3800	262	2400	166
3/4	7300	503	4600	317	3600	248	2300	159
1	5300	366	4400	303	2800	193	2200	152
1 1/4	6000	414	5000	345	3000	207	2500	172
1 1/2	5000	345	4600	317	2500	172	2300	159
2	3900	269	3900	269	1900	131	1900	131

Hinweis: Berechnungen basierend auf ASME B31.3 Anlagenbau für Präzisionsstahlrohre for process piping

## Druckbereiche SAE/MS Pressure Ratings

SAE/MS Gewinde Thread Größe Size	316SS and Carbon Steel			
	Fest Nonpositionable		Einstellbar Positionable	
	psig	bar	psig	bar
5/16-24	4568	315	4568	315
7/16-20				
1/2-20			3626	250
9/16-18				
3/4-16				
7/8-14	3626	250	2900	200
11/16-12				
13/16-12	2900	200	2320	160
15/16-12				
15/8-12				
17/8-12	2320	160	1813	125
21/2-12				
	1813	125	1450	100

Anmerkung Note: Druckbereiche Basierend auf SAE J1926/3 Pressure ratings are from SAE J1926/3

## Temperaturbereiche Temperature Ratings

Systemtemperaturen beschränkt durch Dichtungsmaterialien limited by the thread sealant,gasket or O-ring material

### Fitting Material

Material	Minimum Temperature	Minimum Temperature
316SS	-200°C (-325°F)	649°C (1200°F)
Brass		204°C (400 °F)
Carbon steel		190°C (375°F)

**Bemerkung:**(für Edelstahl nicht empfehlenswert)) Druck Temperatur beachten für Expositionsschutz insbesondere bei Temperaturen über 426 °C  
**Remark:**(For stainless steel) Prolonged exposure to temperature over 426 °C(426°F ) is not recommended

### Dichtungen O-ring MaterialienGasket,

Komponente	Material	Minimum Temperatur	Maximum Temperatur
RS Dichtung gasket	Buna-N	-13°F(-25°C)	230°F(110°C)
	Fluorocarbon FKM	5°F(-15°C)	400°F(204°C)
RG, RP Dichtung	Copper	-325°F(-198°C)	800°F(426°C)
O-ringe	Viton	- 40°F(-40°C)	450°F(232°C)
	Buna-N	-13°F(-25°C)	230°F(110°C)

## Bestellungs Information Ordering

Zu den Bestellnummern bitte das Fittingsmaterial ergänzen, zur Komplettierung

Beispiel: Reduzierung Nippel mit 1/2 Außengewinde Form NPT, 1/4 Innengewinde Form NPT in 316 Edelstahl Der Komplette Bestellcode lautet:

Die Nummer ist SS-PRB-NS8-NS4 (SS=Edelstahl,PRB=Reduziernippel ,NS8=NPT 1/2 ",NS4=NPT1/4")

Add a material designator to the basic ordering number, to get the complete ordering number

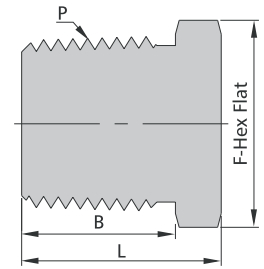
Example: Reducing bushing with 1/2 male NPT thread, 1/4 female NPT thread and 316 stainless steel the complete ordering number is SS-PRB-NS8-NS4

**Bemerkung:**Dimensionen in mm wenn nicht anders Angegeben Dimensionen für Referenzbeispiele sind nicht Bindend könne abweichen

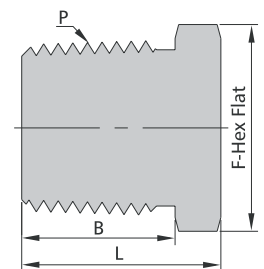
**Note:**Dimensions in mm unless otherwise specified. Dimensions for reference only, subject to change

## Verschlussschrauben Pipe Plug

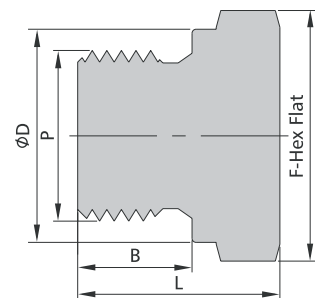
P-NPT Größe (in.)	Basic Bestell Nummer	L	F	B
1/16	-PP-NS1	13.7	7.9	9.7
1/8	-PP-NS2	14.2	11.1	9.7
1/4	-PP-NS4	19.1	14.3	14.2
3/8	-PP-NS6	19.8	17.5	14.2
1/2	-PP-NS8	24.6	22.2	19.1
3/4	-PP-NS12	26.9	27.0	19.1
1	-PP-NS16	31.8	34.9	23.9



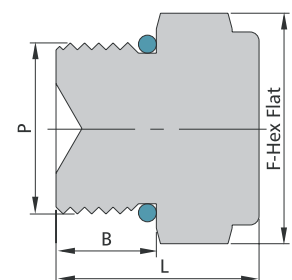
P-RT Größe (in.)	Basic Bestell Nummer	L	F	B
1/16	-PP-RT1	13.7	7.9	9.7
1/8	-PP-RT2	14.2	11.1	9.7
1/4	-PP-RT4	19.1	14.3	14.2
3/8	-PP-RT6	19.8	17.5	14.2
1/2	-PP-RT8	24.6	22.2	19.1
3/4	-PP-RT12	26.9	27.0	19.1
1	-PP-RT16	31.8	34.9	23.9



P-RS Größe (in.)	Basic Bestell Nummer	L	F	B	D
1/8	-PP-RS2	14.0	14.3	7.1	13.7
1/4	-PP-RS4	19.8	19.1	11.2	18.0
3/8	-PP-RS6	19.8	22.2	11.2	21.6
1/2	-PP-RS8	25.1	27.0	14.2	25.9
3/4	-PP-RS12	28.7	33.3	15.7	32.0
1	-PP-RS16	30.7	41.3	18.3	38.9

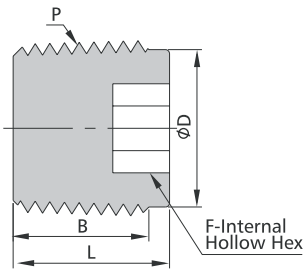


P-SAE/MS Größe	Basic Bestell Nummer	L	F	B
7/16-20	-PP-ST7	19.3	14.3	9.1
9/16-18	-PP-ST9	20.8	17.5	9.9
3/4-16	-PP-ST12	22.6	22.2	11.2
1 1/16-12	-PP-ST17	28.4	31.8	15.0
1 5/16-12	-PP-ST21	30.0	38.1	15.0





## Hollow Hex Plug

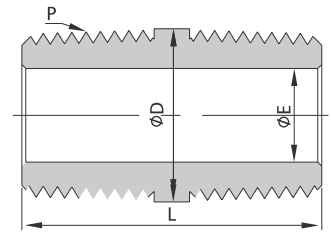


P-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	D
1/16	-PI-NS1	10.4	4.0	7.4	7.4
1/8	-PI-NS2	10.4	4.8	7.4	9.4
1/4	-PI-NS4	15.5	6.4	12.4	12.1
3/8	-PI-NS6	15.5	7.9	12.4	15.7
1/2	-PI-NS8	19.3	9.5	16.2	19.3
3/4	-PI-NS12	19.8	14.3	16.7	25.7

P-RT Größe (in.)	Basic Bestell Nummer	L	F	B	D
1/16	-PI-RT1	10.4	4.0	7.4	7.4
1/8	-PI-RT2	10.4	4.8	7.4	9.4
1/4	-PI-RT4	15.5	6.4	12.4	12.1
3/8	-PI-RT6	15.5	7.9	12.4	15.7
1/2	-PI-RT8	19.3	9.5	16.2	19.3
3/4	-PI-RT12	19.8	14.3	16.7	25.7

## Doppelnippel Close Nipple

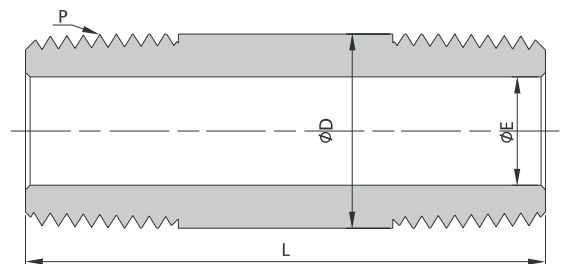
P-NPT Größe (in.)	Basic Bestell Nummer	L	D	E Minimum Öffnung
1/16	-PCN-NS1	19.1	7.9	3.0
1/8	-PCN-NS2	19.1	10.3	4.8
1/4	-PCN-NS4	28.4	13.7	7.1
3/8	-PCN-NS6	28.4	17.1	9.7
1/2	-PCN-NS8	38.1	21.3	11.9
3/4	-PCN-NS12	38.1	26.7	15.7
1	-PCN-NS16	47.8	33.4	22.4



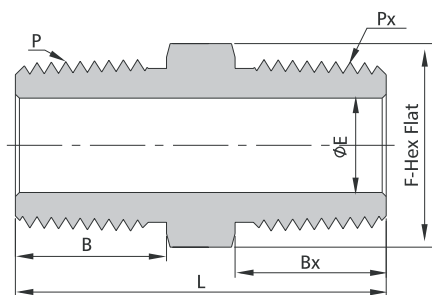
P-RT Größe (in.)	Basic Bestell Nummer	L	D	E Minimum Öffnung
1/16	-PCN-RT1	19.1	7.9	3.0
1/8	-PCN-RT2	19.1	10.3	4.8
1/4	-PCN-RT4	28.4	13.7	7.1
3/8	-PCN-RT6	28.4	17.1	9.7
1/2	-PCN-RT8	38.1	21.3	11.9
3/4	-PCN-RT12	38.1	26.7	15.7
1	-PCN-RT16	47.8	33.4	22.4

## Special Pipe Nipple

P-NPT Größe (in.)	Basic Bestell Nummer	L	D	E Minimum Öffnung
1/8	-PSN-NS2-38.1	38.1	10.3	4.8
1/8	-PSN-NS2-50.8	50.8	10.3	4.8
1/8	-PSN-NS2-63.5	63.5	10.3	4.8
1/8	-PSN-NS2-76.2	76.2	10.3	4.8
1/4	-PSN-NS4-38.1	38.1	13.7	7.1
1/4	-PSN-NS4-50.8	50.8	13.7	7.1
1/4	-PSN-NS4-63.5	63.5	13.7	7.1
1/4	-PSN-NS4-76.2	76.2	13.7	7.1
1/4	-PSN-NS4-101.6	101.6	13.7	7.1
3/8	-PSN-NS6-38.1	38.1	17.1	9.7
3/8	-PSN-NS6-50.8	50.8	17.1	9.7
3/8	-PSN-NS6-63.5	63.5	17.1	9.7
3/8	-PSN-NS6-76.2	76.2	17.1	9.7
3/8	-PSN-NS6-101.6	101.6	17.1	9.7
1/2	-PSN-NS8-50.8	50.8	21.3	11.9
1/2	-PSN-NS8-76.2	76.2	21.3	11.9
1/2	-PSN-NS8-101.6	101.6	21.3	11.9
1/2	-PSN-NS8-152.4	152.4	21.3	11.9
3/4	-PSN-NS12-50.8	50.8	26.7	15.7
3/4	-PSN-NS12-76.2	76.2	26.7	15.7
3/4	-PSN-NS12-101.6	101.6	26.7	15.7
1	-PSN-NS16-76.2	76.2	33.4	22.4
1	-PSN-NS16-101.6	101.6	33.4	22.4



# Sechskant Nippel Hex Nipple



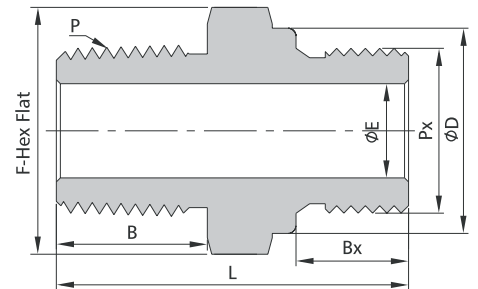
P-NPT Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/16	1/16	-PHN-NS1	25.7	7.9	9.7	9.7	3.0
1/8	1/16	-PHN-NS2-NS1	25.7	11.1	9.7	9.7	3.0
1/8	1/8	-PHN-NS2	25.7	11.1	9.7	9.7	4.8
1/4	1/16	-PHN-NS4-NS1	31.0	14.3	14.2	9.7	3.0
1/4	1/8	-PHN-NS4-NS2	31.0	14.3	14.2	9.7	4.8
1/4	1/4	-PHN-NS4	35.6	14.3	14.2	14.2	7.1
3/8	1/16	-PHN-NS6-NS1	31.8	17.5	14.2	9.7	3.0
3/8	1/8	-PHN-NS6-NS2	31.8	17.5	14.2	9.7	4.8
3/8	1/4	-PHN-NS6-NS4	36.3	17.5	14.2	14.2	7.1
3/8	3/8	-PHN-NS6	36.3	17.5	14.2	14.2	9.7
1/2	1/8	-PHN-NS8-NS2	37.3	22.2	19.1	9.7	4.8
1/2	1/4	-PHN-NS8-NS4	41.9	22.2	19.1	14.2	7.1
1/2	3/8	-PHN-NS8-NS6	41.9	22.2	19.1	14.2	9.7
1/2	1/2	-PHN-NS8	46.7	22.2	19.1	19.1	11.9
3/4	1/8	-PHN-NS12-NS2	40.3	27.0	19.1	9.7	4.8
3/4	1/4	-PHN-NS12-NS4	41.9	27.0	19.1	14.2	7.1
3/4	3/8	-PHN-NS12-NS6	41.9	27.0	19.1	14.2	9.7
3/4	1/2	-PHN-NS12-NS8	46.7	27.0	19.1	19.1	11.9
3/4	3/4	-PHN-NS12	46.7	27.0	19.1	19.1	15.7
1	1/8	-PHN-NS16-NS2	44.5	34.9	23.9	9.7	4.8
1	1/4	-PHN-NS16-NS4	49.3	34.9	23.9	14.2	7.1
1	3/8	-PHN-NS16-NS6	19.3	34.9	23.9	14.2	9.7
1	1/2	-PHN-NS16-NS8	54.1	34.9	23.9	19.1	11.9
1	3/4	-PHN-NS16-NS12	54.1	34.9	23.9	19.1	15.7
1	1	-PHN-NS16	58.9	34.9	23.9	23.9	22.4
1 1/4	1	-PHN-NS20-NS16	62.2	44.5	23.9	23.9	22.4
1 1/4	1 1/4	-PHN-NS20	62.9	44.5	23.9	23.9	31.8
1 1/2	1 1/2	-PHN-NS24	66.3	50.8	26.2	26.2	38.1

P-RT Größe (in.)	Px-RT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/8	1/8	-PHN-RT2	25.7	11.1	9.7	9.7	4.8
1/4	1/4	-PHN-RT4	35.6	14.3	14.2	14.2	7.1
3/8	3/8	-PHN-RT6	36.3	17.5	14.2	14.2	9.7
1/2	1/2	-PHN-RT8	46.7	22.2	19.1	19.1	11.9
3/4	3/4	-PHN-RT12	46.7	27.0	19.1	19.1	15.7
1	1	-PHN-RT16	58.9	34.9	23.9	23.9	22.4

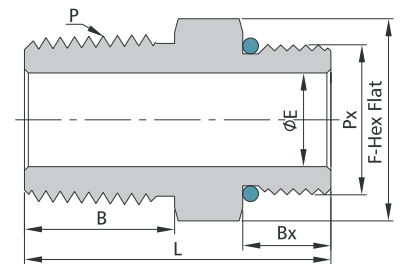
P-NPT Größe (in.)	Px-RT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/8	1/8	-PHN-NS2-RT2	25.7	11.1	9.7	9.7	4.8
1/4	1/4	-PHN-NS4-RT4	35.6	14.3	14.2	14.2	7.1
3/8	3/8	-PHN-NS6-RT6	36.3	17.5	14.2	14.2	9.7
1/2	1/2	-PHN-NS8-RT8	46.7	22.2	19.1	19.1	11.9
3/4	3/4	-PHN-NS12-RT12	46.7	27.0	19.1	19.1	15.7
1	1	-PHN-NS16-RT16	58.9	34.9	23.9	23.9	22.4

## Sechskant Nippel Hex Nipple

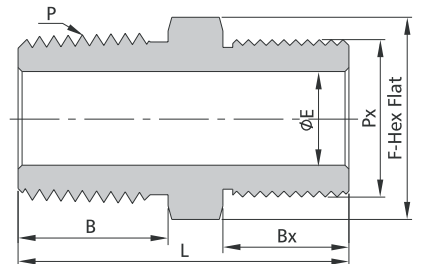
P-NPT Größe (in.)	Px-RS Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung	D
1/8	1/8	-PHN-NS2-RS2	27.7	14.3	9.7	7.1	4.8	13.7
1/4	1/4	-PHN-NS4-RS4	36.8	19.1	14.2	11.2	7.1	18.0
3/8	3/8	-PHN-NS6-RS6	37.6	22.2	14.2	11.2	9.7	21.6
1/2	1/2	-PHN-NS8-RS8	44.4	27.0	19.1	14.2	11.9	25.9
3/4	3/4	-PHN-NS12-RS12	49.0	33.3	19.1	15.7	15.7	32.0
1	1	-PHN-NS16-RS16	56.6	41.3	23.9	18.3	22.4	38.9



P-NPT Größe (in.)	Px-SAE/MS Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/4	7/16-20	-PHN-NS4-ST7	30.5	14.3	14.2	11.2	5.1
3/8	9/16-18	-PHN-NS6-ST9	32.0	17.5	14.2	11.2	7.1
1/2	3/4-16	-PHN-NS8-ST12	38.9	22.2	19.1	14.2	10.7
3/4	1 1/16-12	-PHN-NS12-ST17	44.4	31.8	19.1	15.7	16.7
1	1 5/16-12	-PHN-NS16-ST21	50.8	38.1	23.9	18.3	22.4

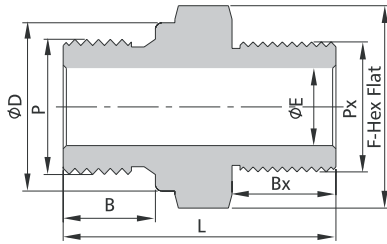


P-NPT Größe (in.)	Px-Metric Größe	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/4	M8X1	-PHN-NS4-MS8	35.1	9.0	19.1	9.0	3.2
1/4	M14X1.5	-PHN-NS4-MS14	34.2	19.0	14.2	13.0	7.0
3/8	M14X1.5	-PHN-NS6-MS14	34.2	19.0	14.2	13.0	7.0
1/2	M14X1.5	-PHN-NS8-MS14	39.1	22.2	19.1	13.0	7.0
1/4	M16X1.5	-PHN-NS4-MS14	35.2	22.2	14.2	14.0	7.1
1/8	M20X1.5	-PHN-NS2-MS20	32.7	24.0	9.7	16.0	5.0
1/4	M20X1.5	-PHN-NS4-MS20	37.2	24.0	14.2	16.0	7.0
3/8	M20X1.5	-PHN-NS6-MS20	37.2	24.0	14.2	16.0	9.5
1/2	M20X1.5	-PHN-NS8-MS20	42.0	24.0	19.1	16.0	10.0
3/4	M20X1.5	-PHN-NS12-MS20	42.1	27.0	19.1	16.0	10.0
3/8	M24X1.5	-PHN-NS6-MS24	38.2	27.0	14.2	17.0	9.5
1/2	M24X1.5	-PHN-NS8-MS24	43.5	27.0	19.1	17.0	11.9

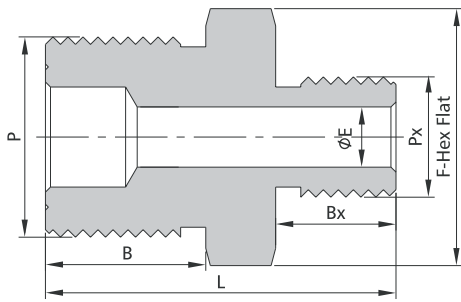


P-RT Größe (in.)	Px-Metric Größe	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/4	M12X1.5	-PHN-RT4-MS12	36.2	19.0	14.2	15.0	5.0
1/8	M20X1.5	-PHN-RT2-MS20	32.7	24.0	9.7	16.0	5.0
1/4	M20X1.5	-PHN-RT4-MS20	37.2	24.0	14.2	16.0	7.0
3/8	M20X1.5	-PHN-RT6-MS20	37.2	24.0	14.2	16.0	9.5
1/2	M20X1.5	-PHN-RT8-MS20	42.0	24.0	19.1	16.0	10.0

## Sechskant Nippel Hex Nipple



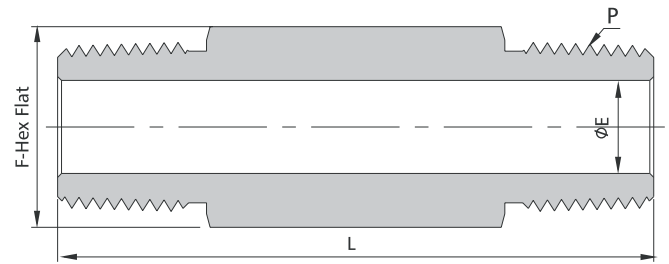
P-RS Größe (in.)	Px-Metric Größe	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung	D
1/4	M18X1.5	-PHN-RS4-MS18	34.2	22.2	11.2	15.0	5.9	18.0
1/8	M20X1.5	-PHN-RS2-MS20	30.1	24.0	7.1	16.0	4.0	13.7
1/4	M20X1.5	-PHN-RS4-MS20	36.2	24.0	11.2	16.0	5.9	18.0
3/8	M20X1.5	-PHN-RS6-MS20	36.2	24.0	11.2	16.0	7.9	21.6
1/2	M20X1.5	-PHN-RS8-MS20	40.2	24.0	14.2	16.0	11.9	25.9



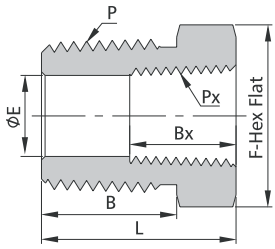
P-Metric Größe	Px-Metric Größe	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
M20X1.5	M10X1	-PHN-MS20-MS10	34.0	24.0	16.0	11.0	4.0
M20X1.5	M12X1.5	-PHN-MS20-MS12	35.0	24.0	16.0	12.0	6.0
M20X1.5	M14X1.5	-PHN-MS20-MS14	36.0	24.0	16.0	13.0	8.0
M20X1.5	M16X1.5	-PHN-MS20-MS16	37.0	24.0	16.0	14.0	9.0
M20X1.5	M20X1.5	-PHN-MS20	39.0	24.0	16.0	16.0	10.0
M27X2	M27X2	-PHN-MS27	44.5	31.8	18.0	18.0	14.0

## Sechskant Nippel Lang Hex Long Nipple

P-NPT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung
1/8	-PLN-NS2-38.1	38.1	11.1	4.8
1/8	-PLN-NS2-50.8	50.8	11.1	4.8
1/8	-PLN-NS2-63.5	63.5	11.1	4.8
1/8	-PLN-NS2-76.2	76.2	11.1	4.8
1/4	-PLN-NS4-38.1	38.1	14.3	7.1
1/4	-PLN-NS4-50.8	50.8	14.3	7.1
1/4	-PLN-NS4-63.5	63.5	14.3	7.1
1/4	-PLN-NS4-76.2	76.2	14.3	7.1
1/4	-PLN-NS4-101.6	101.6	14.3	7.1
3/8	-PLN-NS6-38.1	38.1	17.5	9.7
3/8	-PLN-NS6-50.8	50.8	17.5	9.7
3/8	-PLN-NS6-63.5	63.5	17.5	9.7
3/8	-PLN-NS6-76.2	76.2	17.5	9.7
3/8	-PLN-NS6-101.6	101.6	17.5	9.7
1/2	-PLN-NS8-50.8	50.8	22.2	11.9
1/2	-PLN-NS8-76.2	76.2	22.2	11.9
1/2	-PLN-NS8-101.6	101.6	22.2	11.9
1/2	-PLN-NS8-152.4	152.4	22.2	11.9
3/4	-PLN-NS12-50.8	50.8	27.0	15.7
3/4	-PLN-NS12-76.2	76.2	27.0	15.7
3/4	-PLN-NS12-101.6	101.6	27.0	15.7
1	-PLN-NS16-76.2	76.2	34.9	22.4
1	-PLN-NS16-101.6	101.6	34.9	22.4



# Reduzier Muffe Reducing Bushing

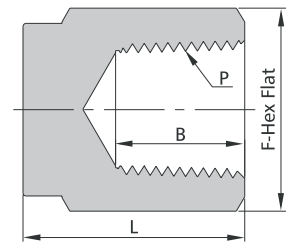


P-NPT Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/8	1/16	-PRB-NS2-NS1	26.2	11.1	9.7	9.9	4.8
1/4	1/16	-PRB-NS4-NS1	21.8	14.3	14.2	9.9	4.8
1/4	1/8	-PRB-NS4-NS2	26.9	14.3	14.2	10.4	7.7
3/8	1/16	-PRB-NS6-NS1	21.8	17.5	14.2	9.9	4.8
3/8	1/8	-PRB-NS6-NS2	21.8	17.5	14.2	10.4	8.6
3/8	1/4	-PRB-NS6-NS4	30.2	19.1	14.2	15.0	9.7
1/2	1/8	-PRB-NS8-NS2	27.4	22.2	19.1	10.4	8.6
1/2	1/4	-PRB-NS8-NS4	27.4	22.2	19.1	15.0	11.4
1/2	3/8	-PRB-NS8-NS6	35.8	22.2	19.1	15.0	11.9
3/4	1/8	-PRB-NS12-NS2	27.4	27.0	19.1	10.4	8.6
3/4	1/4	-PRB-NS12-NS4	27.4	27.0	19.1	15.0	11.4
3/4	3/8	-PRB-NS12-NS6	27.4	27.0	19.1	15.0	15.0
3/4	1/2	-PRB-NS12-NS8	41.4	27.0	19.1	19.8	15.7
1	1/8	-PRB-NS16-NS2	34.8	34.9	23.9	10.4	8.6
1	1/4	-PRB-NS16-NS4	34.8	34.9	23.9	15.0	11.4
1	3/8	-PRB-NS16-NS6	34.8	34.9	23.9	15.0	15.0
1	1/2	-PRB-NS16-NS8	34.8	34.9	23.9	19.8	18.5
1	3/4	-PRB-NS16-NS12	47.0	34.9	23.9	20.6	22.4
1 1/4	3/4	-PRB-NS20-NS12	37.3	44.5	23.9	20.6	22.4
1 1/4	1	-PRB-NS20-NS16	56.9	44.5	23.9	25.4	28.1
1 1/2	1	-PRB-NS24-NS16	40.4	50.8	26.2	25.4	28.1
1 1/2	1 1/4	-PRB-NS24-NS20	59.2	50.8	26.2	25.4	36.3

P-RT Größe (in.)	Px-RT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/4	1/8	-PRB-RT4-RT2	26.9	14.3	14.2	10.4	7.7
3/8	1/4	-PRB-RT6-RT4	30.2	19.1	14.2	15.0	9.7
1/2	1/4	-PRB-RT8-RT4	27.4	22.2	19.1	15.0	11.4
1/2	3/8	-PRB-RT8-RT6	35.8	22.2	19.1	15.0	11.9

## Verschlusskappe Pipe Cap

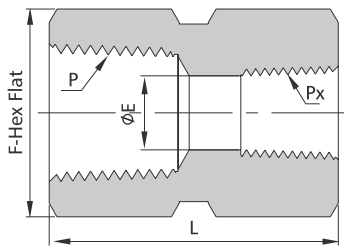
P-NPT Größe (in.)	Basic Bestell Nummer	L	F	B
1/16	-PC-NS1	12.7	11.1	9.9
1/8	-PC-NS2	19.1	14.3	10.4
1/4	-PC-NS4	23.1	19.1	15.0
3/8	-PC-NS6	26.2	22.2	15.0
1/2	-PC-NS8	34.0	27.0	19.8
3/4	-PC-NS12	36.6	33.3	20.6
1	-PC-NS16	41.1	41.3	25.4



P-RT Größe (in.)	Basic Bestell Nummer	L	F	B
1/16	-PC-RT1	12.7	11.1	9.9
1/8	-PC-RT2	19.1	14.3	10.4
1/4	-PC-RT4	23.1	19.1	15.0
3/8	-PC-RT6	26.2	22.2	15.0
1/2	-PC-RT8	34.0	27.0	19.8
3/4	-PC-RT12	36.6	33.3	20.6
1	-PC-RT16	41.1	41.3	25.4



## Sechskant Muffe Hex Coupling



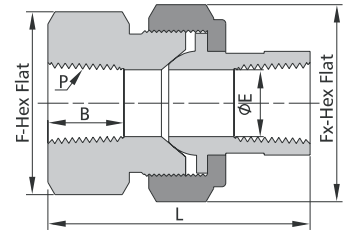
P-NPT Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	E
1/16	1/16	-PCG-NS1	19.1	14.3	4.8
1/8	1/8	-PCG-NS2	20.6	14.3	8.6
1/4	1/8	-PCG-NS4-NS2	31.0	19.1	8.6
1/4	1/4	-PCG-NS4	30.2	19.1	11.4
3/8	1/4	-PCG-NS6-NS4	35.1	22.2	11.4
3/8	3/8	-PCG-NS6	33.3	22.2	15.0
1/2	1/8	-PCG-NS8-NS2	39.6	27.0	8.6
1/2	1/4	-PCG-NS8-NS4	44.4	27.0	11.4
1/2	3/8	-PCG-NS8-NS6	45.2	27.0	15.0
1/2	1/2	-PCG-NS8	39.6	27.0	18.5
3/4	1/4	-PCG-NS12-NS4	46.0	33.3	11.4
3/4	1/2	-PCG-NS12-NS8	52.3	33.3	18.5
3/4	3/4	-PCG-NS12	41.1	33.3	23.9
1	1/2	-PCG-NS16-NS8	55.6	41.3	18.5
1	3/4	-PCG-NS16-NS12	57.2	41.3	23.9
1	1	-PCG-NS16	50.8	41.3	29.7

P-RT Größe (in.)	Px-RT Größe (in.)	Basic Bestell Nummer	L	F	E
1/8	1/8	-PCG-RT2	20.6	14.3	8.6
1/4	1/4	-PCG-RT4	30.2	19.1	11.4
3/8	1/4	-PCG-RT6-RT4	35.1	22.2	11.4
3/8	3/8	-PCG-RT6	33.3	22.2	15.0
1/2	1/4	-PCG-RT8-RT4	44.4	27.0	11.4
1/2	3/8	-PCG-RT8-RT6	45.2	27.0	15.0
1/2	1/2	-PCG-RT8	39.6	27.0	18.5

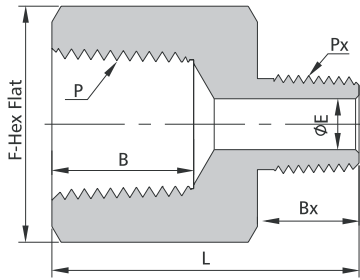
## Verschraubung innen innen

## Union Ball Joints

P-NPT Größe (in.)	Basic Bestell Öffnung	L	F	Fx	B	E Minimum Öffnung
1/8	-UBJ-NS2	46.0	23.8	28.6	10.4	6.8
1/4	-UBJ-NS4	59.4	30.2	34.9	15.0	9.1
3/8	-UBJ-NS6	63.5	33.3	38.1	15.0	13.2
1/2	-UBJ-NS8	68.3	41.3	44.5	19.8	15.7
3/4	-UBJ-NS12	79.2	47.6	54.0	20.6	22.4
1	-UBJ-NS16	90.4	60.3	63.5	25.4	26.2

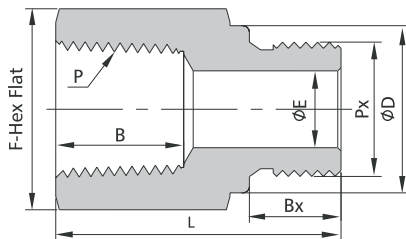


# Adapter innen- außen Adapter



P-NPT Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/8	1/16	-FA-NS2-NS1	27.7	14.3	10.4	9.7	3.0
1/8	1/8	-FA-NS2	27.9	14.3	10.4	9.7	4.8
1/4	1/16	-FA-NS4-NS1	32.0	19.1	15.0	9.7	3.0
1/4	1/8	-FA-NS4-NS2	32.0	19.1	15.0	9.7	4.8
1/4	1/4	-FA-NS4	35.6	19.1	15.0	14.2	7.1
3/8	1/16	-FA-NS6-NS1	31.8	22.2	15.0	9.7	3.0
3/8	1/8	-FA-NS6-NS2	33.8	22.2	15.0	9.7	4.8
3/8	1/4	-FA-NS6-NS4	38.1	22.2	15.0	14.2	7.1
3/8	3/8	-FA-NS6	38.4	22.2	15.0	14.2	9.7
1/2	1/8	-FA-NS8-NS2	40.1	27.0	19.8	9.7	4.8
1/2	1/4	-FA-NS8-NS4	44.4	27.0	19.8	14.2	7.1
1/2	3/8	-FA-NS8-NS6	44.7	27.0	19.8	14.2	9.7
1/2	1/2	-FA-NS8	49.3	27.0	19.8	19.1	11.9
3/4	1/8	-FA-NS12-NS2	39.6	33.3	20.6	9.7	4.8
3/4	1/4	-FA-NS12-NS4	46.2	33.3	20.6	14.2	7.1
3/4	3/8	-FA-NS12-NS6	46.2	33.3	20.6	14.2	9.7
3/4	1/2	-FA-NS12-NS8	51.3	33.3	20.6	19.1	11.9
3/4	3/4	-FA-NS12	51.3	33.3	20.6	19.1	15.7
1	1/8	-FA-NS16-NS2	46.0	41.3	25.4	9.7	4.8
1	1/4	-FA-NS16-NS4	49.8	41.3	25.4	14.2	7.1
1	3/8	-FA-NS16-NS6	50.9	41.3	25.4	14.2	9.7
1	1/2	-FA-NS16-NS8	54.9	41.3	25.4	19.1	11.9
1	3/4	-FA-NS16-NS12	55.1	41.3	25.4	19.1	15.7
1	1	-FA-NS16	57.9	41.3	25.4	23.9	22.4
1 1/4	1	-FA-NS20-NS16	62.7	54.0	25.4	23.9	22.4

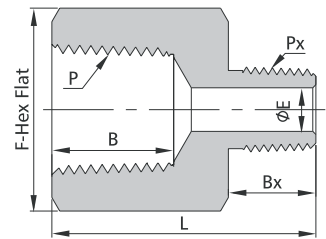
P-NPT Größe (in.)	Px-RT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/8	1/8	-FA-NS2-RT2	27.9	14.3	10.4	9.7	4.8
1/4	1/4	-FA-NS4-RT4	35.6	19.1	15.0	14.2	7.1
3/8	3/8	-FA-NS6-RT6	38.4	22.2	15.0	14.2	9.7
1/2	1/2	-FA-NS8-RT8	49.3	27.0	19.8	19.1	11.9
3/4	3/4	-FA-NS12-RT12	51.3	33.3	20.6	19.1	15.7
1	1	-FA-NS16-RT16	57.9	41.3	25.4	23.9	22.4



P-NPT Größe (in.)	Px-RS Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung	D
1/8	1/8	-FA-NS2-RS2	25.1	14.3	9.9	7.1	4.1	13.7
1/4	1/4	-FA-NS4-RS4	33.5	19.1	10.4	11.2	5.8	18.0
3/8	3/8	-FA-NS6-RS6	35.8	22.2	15.0	11.2	7.9	21.6
1/2	1/2	-FA-NS8-RS8	44.2	27.0	15.0	14.2	11.9	25.9
3/4	3/4	-FA-NS12-RS12	48.0	33.3	20.6	15.7	15.7	32.0
1	1	-FA-NS16-RS16	53.3	41.3	25.4	18.3	19.8	38.9

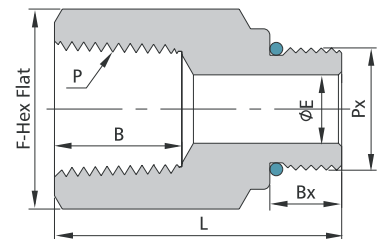
## Adapter innen außen Adapter

P-RT Größe (in.)	Px-RT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/8	1/8	-FA-RT2	27.9	14.3	10.4	9.7	4.8
1/4	1/8	-FA-RT4-RT2	32.0	19.1	15.0	9.7	4.8
1/4	1/4	-FA-RT4	35.6	19.1	15.0	14.2	7.1
3/8	1/4	-FA-RT6-RT4	38.1	22.2	15.0	14.2	7.1
3/8	3/8	-FA-RT6	38.4	22.2	15.0	14.2	9.7
1/2	1/4	-FA-RT8-RT4	44.7	27.0	19.8	14.2	7.1
1/2	3/8	-FA-RT8-RT6	44.4	27.0	19.8	14.2	9.7
1/2	1/2	-FA-RT8	49.3	27.0	19.8	19.1	11.9
3/4	3/4	-FA-RT12	51.3	33.3	20.6	19.1	15.7
1	1	-FA-RT16	57.9	41.3	25.4	23.9	22.4

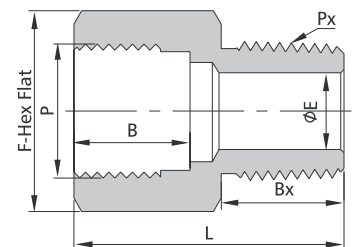


P-RT Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/8	1/8	-FA-RT2-NS2	27.9	14.3	10.4	9.7	4.8
1/4	1/4	-FA-RT4-NS4	35.6	19.1	15.0	14.2	7.1
3/8	3/8	-FA-RT6-NS6	38.4	22.2	15.0	14.2	9.7
1/2	1/2	-FA-RT8-NS8	49.3	27.0	19.8	19.1	11.9
3/4	3/4	-FA-RT12-NS12	51.3	33.3	20.6	19.1	15.7
1	1	-FA-RT16-NS16	57.9	41.3	25.4	23.9	22.4

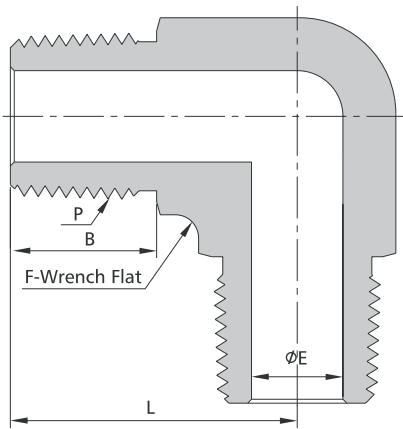
P-NPT Größe (in.)	Px-SAE/MS Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/4	7/16-20	-FA-NS4-ST7	33.5	19.1	15.0	9.1	5.1
3/8	9/16-18	-FA-NS6-ST9	35.3	23.8	15.0	9.9	7.1
1/2	3/4-16	-FA-NS8-ST12	44.7	27.0	19.8	11.2	10.7
3/4	1 1/16-12	-FA-NS12-ST17	50.5	34.9	20.6	15.0	16.7
1	1 5/16-12	-FA-NS16-ST21	53.8	41.3	25.4	15.0	22.4



P-RG Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	Bx	E Minimum Öffnung
1/4	1/4	-FA-RG4-NS4	30.2	19.1	11.2	14.2	5.6
3/8	3/8	-FA-RG6-NS6	32.2	23.8	11.2	14.2	6.6
1/2	1/2	-FA-RG8-NS8	42.7	27.0	14.2	19.1	7.1



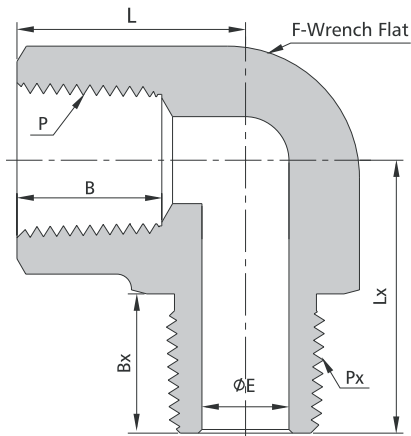
## Winkel außen außen a-a



## Male Elbow

P-NPT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung	B
1/16	-PME-NS1	18.3	9.5	3.0	9.7
1/8	-PME-NS2	19.3	11.1	4.8	9.7
1/4	-PME-NS4	27.7	14.3	7.1	14.2
3/8	-PME-NS6	31.0	19.1	9.7	14.2
1/2	-PME-NS8	37.3	22.2	11.9	19.1
3/4	-PME-NS12	40.4	27.0	15.7	19.1
1	-PME-NS16	50.0	33.3	22.4	23.9

## Winkel außen innen a-i

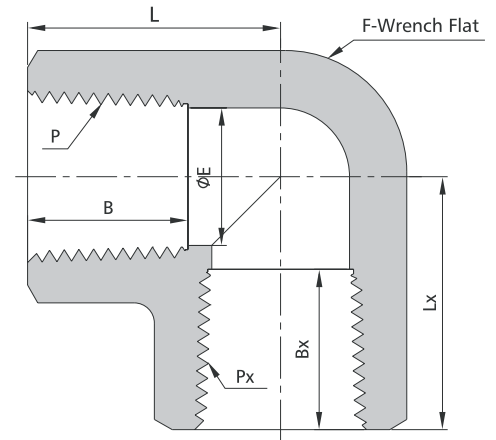


## Street Elbow

P-NPT Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	E Minimum Öffnung	Lx	Bx
1/16	1/16	-PSE-NS1	16.8	14.3	9.9	3.0	18.3	9.7
1/16	1/8	-PSE-NS1-NS2	16.8	14.3	9.9	4.8	19.8	9.7
1/16	1/4	-PSE-NS1-NS4	16.8	14.3	9.9	4.8	27.7	14.2
1/16	3/8	-PSE-NS1-NS6	22.4	19.1	9.9	4.8	27.7	14.2
1/8	1/16	-PSE-NS2-NS1	16.8	14.3	10.4	3.0	22.1	9.7
1/8	1/8	-PSE-NS2	16.8	14.3	10.4	4.8	22.1	9.7
1/8	1/4	-PSE-NS2-NS4	16.8	14.3	10.4	7.1	27.7	14.2
1/8	3/8	-PSE-NS2-NS6	22.4	19.1	10.4	8.6	31.0	14.2
1/8	1/2	-PSE-NS2-NS8	24.1	22.2	10.4	8.6	37.3	19.1
1/8	3/4	-PSE-NS2-NS12	25.4	27.0	10.4	8.6	40.4	19.1
1/8	1	-PSE-NS2-NS16	41.4	33.3	10.4	8.6	50.0	23.9
1/4	1/8	-PSE-NS4-NS2	22.4	19.1	15.0	4.8	25.4	9.7
1/4	1/4	-PSE-NS4	22.4	19.1	15.0	7.1	29.7	14.2
1/4	3/8	-PSE-NS4-NS6	22.4	19.1	15.0	8.6	31.0	14.2
1/4	1/2	-PSE-NS4-NS8	24.1	22.2	15.0	11.9	37.3	19.1
1/4	3/4	-PSE-NS4-NS12	25.4	27.0	15.0	15.0	40.4	19.1
1/4	1	-PSE-NS4-NS16	41.4	33.3	15.0	15.0	50.0	23.9
3/8	1/4	-PSE-NS6-NS4	25.7	22.2	15.0	7.4	31.0	14.2
3/8	3/8	-PSE-NS6	25.7	22.2	15.0	8.6	32.0	14.2
3/8	1/2	-PSE-NS6-NS8	25.7	22.2	15.0	11.9	37.3	19.1
3/8	3/4	-PSE-NS6-NS12	31.2	27.0	15.0	15.0	40.4	19.1
3/8	1	-PSE-NS6-NS16	38.1	33.3	15.0	15.0	50.0	23.9
1/2	1/4	-PSE-NS8-NS4	31.2	27.0	19.8	7.4	35.1	14.2
1/2	3/8	-PSE-NS8-NS6	31.2	27.0	19.8	8.6	35.1	14.2
1/2	1/2	-PSE-NS8	31.2	27.0	19.8	11.9	37.3	19.1
1/2	3/4	-PSE-NS8-NS12	31.2	27.0	19.8	15.7	40.4	19.1
1/2	1	-PSE-NS8-NS16	41.4	33.3	19.8	18.5	50.0	23.9
3/4	3/4	-PSE-NS12	34.5	33.3	20.6	15.7	40.4	19.1
3/4	1	-PSE-NS12-NS16	34.5	33.3	25.4	22.4	50.0	23.9
1	1	-PSE-NS16	41.4	41.3	25.4	22.4	50.0	23.9
1 1/4	1 1/4	-PSE-NS20	43.2	47.6	25.4	31.8	60.5	23.9

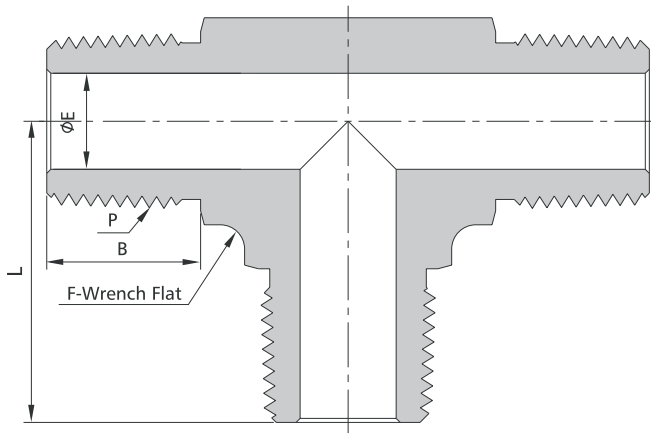
## Winkel innen innen i-i Female Elbow

P-NPT Größe (in.)	Px-NPT Größe (in.)	Basic Bestell Nummer	L	F	B	E Minimum Öffnung	Lx	Bx
1/16	1/16	-PE-NS1	12.7	11.1	9.9	4.8	12.7	9.9
1/8	1/16	-PE-NS2-NS1	16.8	14.3	10.4	4.8	16.8	9.9
1/8	1/8	-PE-NS2	16.8	14.3	10.4	8.6	16.8	10.4
1/4	1/8	-PE-NS4-NS2	22.4	19.1	15.0	8.6	22.4	10.4
1/4	1/4	-PE-NS4	22.4	19.1	15.0	11.4	22.4	15.0
3/8	3/8	-PE-NS6	25.7	22.2	15.0	15.0	25.7	15.0
1/2	1/2	-PE-NS8	31.2	27.0	19.8	18.5	31.2	19.8
3/4	3/4	-PE-NS12	34.5	33.5	20.6	23.9	34.5	20.6
1	1	-PE-NS16	41.4	41.3	25.4	29.7	41.4	25.4
1 1/4	1 1/4	-PE-NS20	43.2	47.6	25.4	37.2	43.2	25.4
1 1/2	1 1/2	-PE-NS24	52.8	63.5	27.7	43.3	52.8	27.7



P-RT Größe (in.)	Px-RT Größe (in.)	Basic Bestell Nummer	L	F	B	E Minimum Öffnung	Lx	Bx
1/4	1/4	-PE-RT4	22.4	19.1	15.0	11.4	22.4	15.0
3/8	3/8	-PE-RT6	25.7	22.2	15.0	15.0	25.7	15.0
1/2	1/2	-PE-RT8	31.2	27.0	19.8	18.5	31.2	19.8

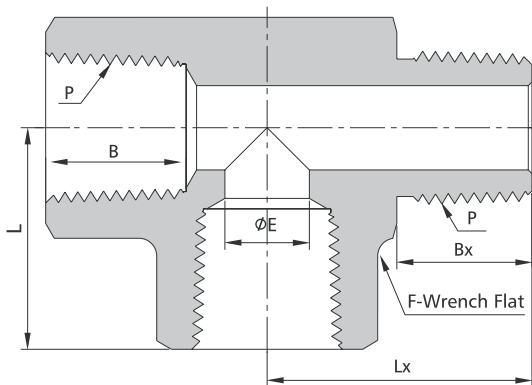
## T-Stück außen außen außen a-a-a



## Male Tee

P-NPT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung	B
1/16	-PMT-NS1	18.3	9.5	3.0	9.7
1/8	-PMT-NS2	19.3	11.1	4.8	9.7
1/4	-PMT-NS4	27.7	14.3	7.1	14.2
3/8	-PMT-NS6	31.0	19.1	9.7	14.2
1/2	-PMT-NS8	37.3	22.2	11.9	19.1
3/4	-PMT-NS12	40.4	27.0	15.7	19.1
1	-PMT-NS16	50.0	33.3	22.4	23.9
1 1/4	-PMT-NS20	56.3	41.3	31.8	23.9
1 1/2	-PMT-NS24	67.1	47.6	38.1	26.2

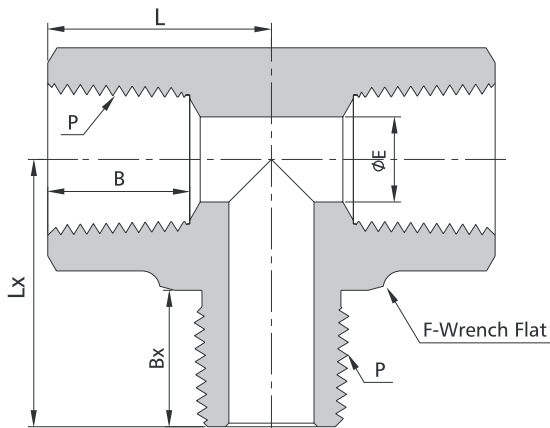
## T-Stück innen innen ausen i-i-a



## Male Street Tee

P-NPT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung	B	Lx	Bx
1/16	-PST-NS1	12.7	11.1	3.0	9.9	18.3	9.7
1/8	-PST-NS2	16.8	14.3	4.8	10.4	19.8	9.7
1/4	-PST-NS4	22.4	19.1	7.1	15.0	27.7	14.2
3/8	-PST-NS6	25.7	22.2	9.7	15.0	31.0	14.2
1/2	-PST-NS8	31.2	27.0	11.9	19.8	37.3	19.1
3/4	-PST-NS12	34.5	33.5	15.7	20.6	40.4	19.1
1	-PST-NS16	41.4	41.3	22.4	25.4	50.0	23.9

## T-Stück innen außen innen i-a-i

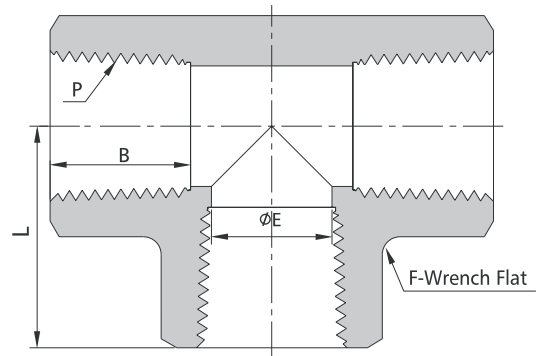


## Male Branch Tee

P-NPT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung	B	Lx	Bx
1/16	-PBT-NS1	12.7	11.1	3.0	9.9	18.3	9.7
1/8	-PBT-NS2	16.8	14.3	4.8	10.4	19.8	9.7
1/4	-PBT-NS4	22.4	19.1	7.1	15.0	27.7	14.2
3/8	-PBT-NS6	25.7	22.2	9.7	15.0	31.0	14.2
1/2	-PBT-NS8	31.2	27.0	11.9	19.8	37.3	19.1
3/4	-PBT-NS12	34.5	33.5	15.7	20.6	40.4	19.1
1	-PBT-NS16	41.4	41.3	22.4	25.4	50.0	23.9

## T-Stück innen innen innen i-i-i Female Tee

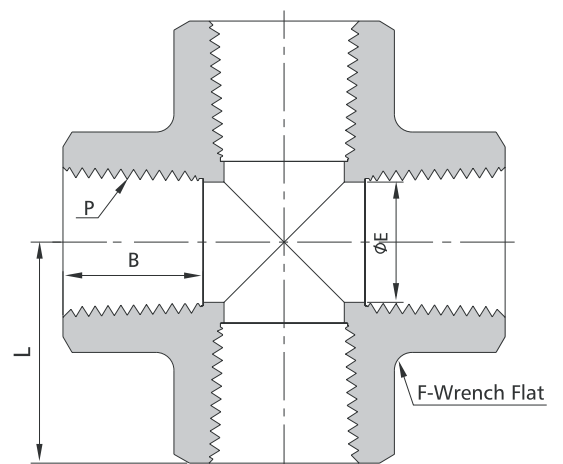
P-NPT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung	B
1/16	-PT-NS1	12.7	11.1	4.8	9.9
1/8	-PT-NS2	16.8	14.3	8.6	10.4
1/4	-PT-NS4	22.4	19.1	11.4	15.0
3/8	-PT-NS6	25.7	22.2	15.0	15.0
1/2	-PT-NS8	31.2	27.0	18.5	19.8
3/4	-PT-NS12	34.5	33.5	23.9	20.6
1	-PT-NS16	41.4	41.3	29.7	25.4
1 1/4	-PT-NS20	43.2	47.6	37.2	25.4
1 1/2	-PT-NS24	52.8	63.5	43.3	27.7



P-RT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung	B
1/4	-PT-BT4	22.4	19.1	11.4	15.0
3/8	-PT-BT6	25.7	22.2	15.0	15.0
1/2	-PT-BT8	31.2	27.0	18.5	19.8

P-NPT Größe (in.)	Basic Bestell Nummer	L	F	E Minimum Öffnung	B
1/16	-PCR-NS1	12.7	11.1	4.8	9.9
1/8	-PCR-NS2	16.8	14.3	8.6	10.4
1/4	-PCR-NS4	22.4	19.1	11.4	15.0
3/8	-PCR-NS6	25.7	22.2	15.0	15.0
1/2	-PCR-NS8	31.2	27.0	18.5	19.8
3/4	-PCR-NS12	34.5	33.5	23.9	20.6
1	-PCR-NS16	41.4	41.3	29.7	25.4

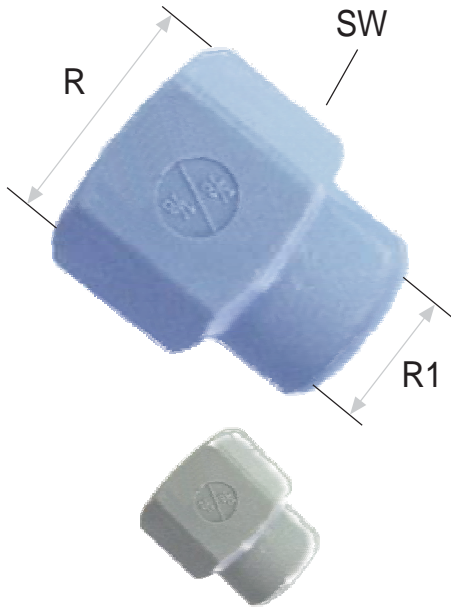
## Kreuzstück i-i-i-i Female Cross





## Gerade Reduzierverbindung

## Reducing Coupling G=BSP Parallel Thread(RG)



Kat Nu.	R Gew. BSPT	R1 Gew. BSPT	SW mm	Color
TEF1904028	1/4"	1/8"	17	Blue
TEF1906028	3/8"	1/8"	21	Blue
TEF1906048	3/8"	1/4"	21	Blue
TEF1908048	1/2"	1/4"	26	Blue
TEF1908068	1/2"	3/8"	26	Blue
TEF1912068	3/4"	3/8"	30	Blue
TEF1912042	3/4"	1/4"	30	Black
TEF1912082	3/4"	1/2"	30	Black

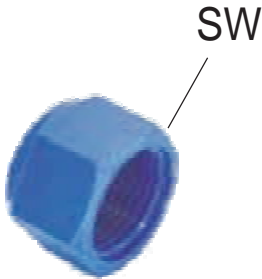
CAT. NO.	R Thread NPT	R1 Thread NPT	SW mm	Color
TEF1904023	1/4"	1/8"	17	Grey
TEF1906023	3/8"	1/8"	21	Grey
TEF1906043	3/8"	1/4"	21	Grey
TEF1908043	1/2"	1/4"	26	Grey
TEF1908063	1/2"	3/8"	26	Grey

CAT. NO.	Thread BSPT	SW mm	Color
TEF0802008	1/8"	13	Blue
TEF0804008	1/4"	16	Blue
TEF0806008	3/8"	20	Blue
TEF0808008	1/2"	25	Blue
TEF0812008	3/4"	30	Blue

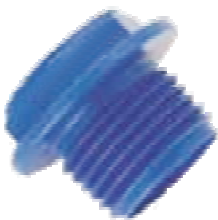
CAT. NO.	Thread NPT	SW mm	Color
TEF0802003	1/8"	14	Grey
TEF0804003	1/4"	17	Grey
TEF0806003	3/8"	22	Grey
TEF0808003	1/2"	26	Grey
TEF0812003	3/4"	29	Grey

CAT. NO.	Thread BSPT	SW mm
TEF2108L08	1/2"	22

## Verschlusskappe Cap



## Verschlussmuffe Plug



BSP Parallel DIN 259 (ISO 228) Flankenwinkel 55° NPT Gewinde Thread Kegelig ASA B2.1

Material: Nylon 6/6 Farbe: Blau= ISO Gewinde Grau=NPT

Arbeitsdruck: Bis zu 14 BAR (200 psi) bei 20°C.

Temperatur: -20°C + 110°C (Je nach Application)

Farb code: Rot Griffiring = mm Gelber Griffiring = Zoll ,inch Grauer Griffiring = NPT Zoll ,inch



KAT. NU.	Rohr A.D	Gew.BSPT	SW mm	SW1 mm	Color
TEF6603022	3/16"	1/8"	14	15	■
TEF6603042	3/16"	1/4"	14	17.5	
TEF6604022	1/4"	1/8"	15	15.5	
TEF6604042	1/4"	1/4"	15	17.5	
TEF6605022	5/16"	1/8"	16	17	
TEF6605042	5/16"	1/4"	16	17	
TEF6605062	5/16"	3/8"	16	17	
TEF6605082	5/16"	1/2"	16	17	
TEF6606022	3/8"	1/8"	19	19	
TEF6606042	3/8"	1/4"	19	19	
TEF6606062	3/8"	3/8"	19	19	
TEF6606082	3/8"	1/2"	19	19	
TEF6608062	1/2"	3/8"	22	22	
TEF6608082	1/2"	1/2"	22	24	
TEF6644022	4 mm	1/8"	14	15	
TEF6644042	4 mm	1/4"	14	17.5	
TEF6646022	6 mm	1/8"	15	15	
TEF6646042	6 mm	1/4"	15	17	
TEF6648022	8 mm	1/8"	16	17	
TEF6648042	8 mm	1/4"	16	17	
TEF6648062	8 mm	3/8"	16	17	
TEF6648082	8 mm	1/2"	16	17	
TEF6650022	10 mm	1/8"	19	19	
TEF6650042	10 mm	1/4"	19	19	
TEF6650041	10 mm	1/4"	19	19	
TEF6650047	10 mm	1/4"	19	19	
TEF6650062	10 mm	3/8"	19	19.5	
TEF6650082	10 mm	1/2"	19	19.5	
TEF6652062	12 mm	3/8"	22	22.5	
TEF6652082	12 mm	1/2"	22	24	

CAT. NO.	Tube O.D	Thread NPT	SW mm	SW1 mm	Color
TEF6602023	5/32"	1/8"	14	15	■
TEF6602043	5/32"	1/4"	14	17.5	
TEF6603023	3/16"	1/8"	14	15	
TEF6603043	3/16"	1/4"	14	17.5	
TEF6604023	1/4"	1/8"	15	15.5	
TEF6604043	1/4"	1/4"	15	17.5	
TEF6605023	5/16"	1/8"	16	17	
TEF6605043	5/16"	1/4"	16	17	
TEF6605063	5/16"	3/8"	16	22	
TEF6605083	5/16"	1/2"	16	24	
TEF6606023	3/8"	1/8"	19	19	
TEF6606043	3/8"	1/4"	19	19	
TEF6606063	3/8"	3/8"	19	19	
TEF6606083	3/8"	1/2"	19	19	
TEF6608063	1/2"	3/8"	22	22.5	
TEF6608083	1/2"	1/2"	22	24	

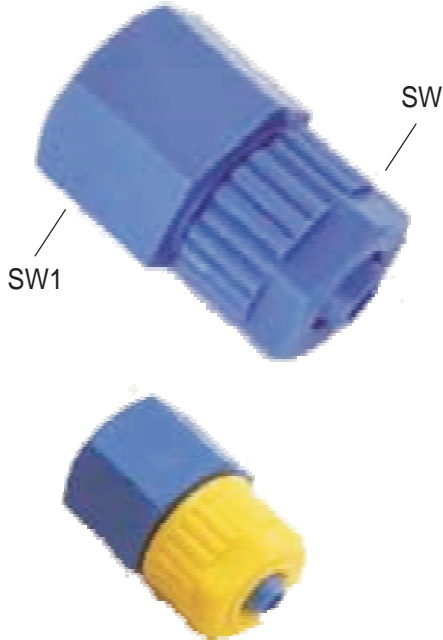
Material: Acetal copolymer resin.  
 Farbe: Schwarz = mm  
 Farbe Grau = Zoll ,inch  
 Arbeitsdruck: Bis zu 14 BAR (200 psi)  
 Arbeitsdruck: bei 20°C.  
 Temperatur: -20°C + 90°C  
 Temperatur:(Je nach Application)

Das Rohr wird in den Anschluss geschoben von einer Mutter gesichert, die die äußere Oberfläche des Rohrs festzieht, und über anziehen eines Griffings mittels NBR "O" Ring befestigt.

## Gerade Aufschraubverbindung mit Tülle

Female Connector with spout

BSP Parallel Thread(RP)



Kat Nu.	Rohr A.D	Gew. BSPT	Gew. mm	SW mm	SW1 mm	Color
TEF46646028	6 mm	1/8"		14	14	
TEF46646048	6 mm	1/4"		14	17	
TEF46648028	8 mm	1/8"		14	14	
TEF46648048	8 mm	1/4"		14	17	
TEF46648548	8 mm		M14x1.5	14	17	
TEF46648068	8 mm	3/8"		14	22	
TEF46648088	8 mm	1/2"		14	26	
TEF46650048	10 mm	1/4"		17	17	
TEF46650068	10 mm	3/8"		17	22	
TEF46650088	10 mm	1/2"		17	26	

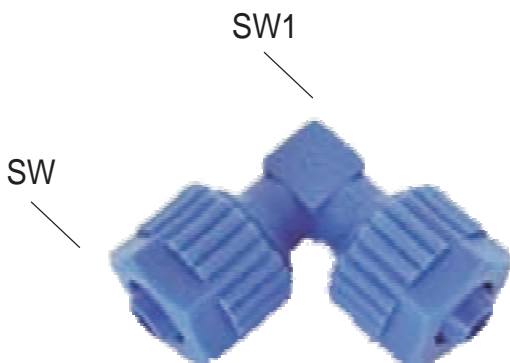
CAT. NO.	Tube O.D	Thread BSPT	SW mm	SW1 mm	Color
TEF46604028	1/4"	1/8"	14	14	
TEF46604048	1/4"	1/4"	14	17	
TEF46605028	5/16"	1/8"	14	14	
TEF46605048	5/16"	1/4"	14	17	
TEF46605068	5/16"	3/8"	14	22	
TEF46605088	5/16"	1/2"	14	26	
TEF46606048	3/8"	1/4"	17	17	
TEF46606068	3/8"	3/8"	17	22	
TEF46606088	3/8"	1/2"	17	26	

CAT. NO.	Tube O.D	Thread NPT	SW mm	SW1 mm	Color
TEF46606043	3/8"	1/4"	17	17	
TEF46606063	3/8"	3/8"	17	22	
TEF46606083	3/8"	1/2"	17	26	

## Winkelschlauchverbindung mit Tülle

Union Elbow with spout

BSP Parallel Thread(RP)



CAT. NO.	Tube O.D	SW mm	SW1 mm	Color
TEF46546008	6 mm	14	8	
TEF46548008	8 mm	14	8	
TEF46552008	12 mm	19	15	

CAT. NO.	Tube O.D	SW mm	SW1 mm	Color
TEF46504008	1/4"	14	8	
TEF46505008	5/16"	14	8	
TEF46508008	1/2"	19	15	
TEF46508002	1/2"	19	15	

CAT. NO.	Tube O.D	SW mm	SW1 mm	Color
TEF46504003	1/4"	14	8	
TEF46505003	5/16"	14	8	
TEF46508003	1/2"	19	15	
TEF46508003	1/2"	19	15	

Material: Glass Fiber Gefülltes Polypropylene.  
 Farb code: Blau Griffiring = mm  
 Gelber Griffiring = Zoll ,inch  
 Grau Griffiring = NPT

Arbeitsdruck: Bis zu 14 BAR (200 psi) bei 20°C.  
 Temperatur: -20°C + 90°C ( Application)

Über das Rohr wird die Mutter geschoben das Rohr auf die Tülle der Verschraubung gesteckt die Mutter mittels Griffiring festdrehen bis das Rohr befestigt ist

Gerade Einschraubverbindung mit Tülle

Male Connector with spout

BSP Parallel Thread(RP)



Kat Nu.	Rohr A.D	Gew. BSPT	SW mm	SW1 mm	Color
TEF46846028	6 mm	1/8"	14	13	
TEF46846048	6 mm	1/4"	14	15	
TEF46846088	6 mm	1/2"	14	13	
TEF46846128	6 mm	3/4"	14	15	
TEF46848028	8 mm	1/8"	14	13	
TEF46848048	8 mm	1/4"	14	15	
TEF46848068	8 mm	3/8"	14	14	
TEF46848088	8 mm	1/2"	14	14	
TEF46848128	8 mm	3/4"	14	14	
TEF46850048	10 mm	1/4"	17	14.5	
TEF46850068	10 mm	3/8"	17	17.5	
TEF46850088	10 mm	1/2"	17	22	
TEF46850128	10 mm	3/4"	17	22	
TEF46852048	12 mm	1/4"	19	17	
TEF46852068	12 mm	3/8"	19	18	
TEF46852088	12 mm	1/2"	19	22	
TEF46848022	8 mm	1/8"	14	13	



CAT. NO.	Tube O.D	Thread BSPT	SW mm	SW1 mm	Color
TEF46804028	1/4"	1/8"	14	14	
TEF46804048	1/4"	1/4"	14	14	
TEF46804088	1/4"	1/2"	14	14	
TEF46804128	1/4"	3/4"	14	14	
TEF46805028	5/16"	1/8"	14	13	
TEF46805048	5/16"	1/4"	14	15	
TEF46805068	5/16"	3/8"	14	13	
TEF46806048	3/8"	1/4"	17	14.5	
TEF46806068	3/8"	3/8"	17	17.5	
TEF46806088	3/8"	1/2"	17	22	
TEF46806128	3/8"	3/4"	17	27	
TEF46808048	1/2"	1/4"	19	17	
TEF46808068	1/2"	3/8"	19	18	
TEF46808088	1/2"	1/2"	19	22	

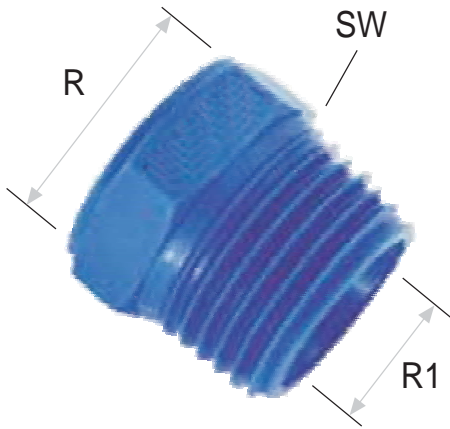
Material: Glass Fiber Gefülltes Polypropylene.  
 Farb code: Blau Griffing = mm  
 Gelber Griffing = Zoll ,inch  
 Grau Griffing = NPT  
 Arbeitsdruck: Bis zu 14 BAR (200 psi) bei 20°C.  
 Temperatur: -20°C + 90°C ( Application)

CAT. NO.	Tube O.D	Thread NPT	SW mm	SW1 mm	Color
TEF46804023	1/4"	1/8"	14	13	
TEF46804043	1/4"	1/4"	14	15	
TEF46804083	1/4"	1/2"	14	13	
TEF46804123	1/4"	3/4"	14	15	
TEF46805023	5/16"	1/8"	14	18	
TEF46805043	5/16"	1/4"	14	15	
TEF46805103	5/16"	3/8"	14	14	
TEF46805123	5/16"	3/4"	14	14	
TEF46806043	3/8"	1/4"	17	14.5	
TEF46806063	3/8"	3/8"	17	17.5	
TEF46806083	3/8"	1/2"	17	22	
TEF46806123	3/8"	3/4"	17	27	
TEF46808043	1/2"	1/4"	19	17	
TEF46808063	1/2"	3/8"	19	18	
TEF46808083	1/2"	1/2"	19	22	

Über das Rohr wird die Mutter geschoben das Rohr auf die Tülle der Verschraubung gesteckt die Mutter mittels Griffing festdrehen bis das Rohr befestigt ist

## Gerade Muffenreduzierverbindung

## Reducing Bushing BSPT Parallel Thread(Konisch)



CAT. NO.	R Thread BSP	R1 Thread BSPT	SW mm	Color
TEF11004028	1/4"	1/8"	14	Blue
TEF11006028	3/8"	1/8"	17	
TEF11006048	3/8"	1/4"	17	
TEF11008028	1/2"	1/8"	22	
TEF11008048	1/2"	1/4"	22	
TEF11008068	1/2"	3/8"	22	
TEF110TEF48	3/4"	1/4"	27	
TEF110TEF68	3/4"	3/8"	27	
TEF110TEF88	3/4"	1/2"	27	

CAT. NO.	R Thread NPT	R1 Thread NPT	SW mm	Color
TEF21004023	1/4"	1/8"	14	Grey
TEF21006023	3/8"	1/8"	18.5	
TEF21006043	3/8"	1/4"	18.5	
TEF21008023	1/2"	1/8"	24	
TEF21008043	1/2"	1/4"	24	
TEF21008063	1/2"	3/8"	24	
TEF210TEF43	3/4"	1/4"	29	
TEF210TEF63	3/4"	3/8"	29	
TEF210TEF83	3/4"	1/2"	29	

BSP Parallel DIN 259 (ISO 228) Flankenwinkel 55°  
 BSPT Konisch R=Rohr DIN 2999 (ISO 7/1)  
 Rp-R BS 21 (BSP-BSPT Flankenwinkel 55°)

## Gerade Muffen Ataptorreduzierverbindung



CAT. NO.	R Thread BSP	R1 Thread BSPT	SW mm	Color
TEFE202028	1/8"	1/8"	14	Blue
TEFE202048	1/8"	1/4"	14	
TEFE202068	1/8"	3/8"	14	
TEFE202088	1/8"	1/2"	14	
TEFE204028	1/4"	1/8"	17	
TEFE204048	1/4"	1/4"	17	
TEFE204068	1/4"	3/8"	17	
TEFE204088	1/4"	1/2"	17	
TEFE206028	3/8"	1/8"	22	
TEFE206048	3/8"	1/4"	33	
TEFE206068	3/8"	3/8"	22	
TEFE206088	3/8"	1/2"	22	
TEFE208028	1/2"	1/8"	26	
TEFE208048	1/2"	1/4"	26	
TEFE208068	1/2"	3/8"	26	
TEFE208088	1/2"	1/2"	26	

NPT Gewinde Thread Kegelig ASA B2.1



CAT. NO.	R Thread NPT	R1 Thread NPT	SW mm	Color
TEF22002023	1/8"	1/8"	14	Grey
TEF22002043	1/8"	1/4"	14	
TEF22002063	1/8"	3/8"	14	
TEF22002083	1/8"	1/2"	14	
TEF22004023	1/4"	1/8"	17	
TEF22004043	1/4"	1/4"	17	
TEF22004063	1/4"	3/8"	17	
TEF22004083	1/4"	1/2"	17	
TEF22006023	3/8"	1/8"	22	
TEF22006043	3/8"	1/4"	22	
TEF22006063	3/8"	3/8"	22	
TEF22006083	3/8"	1/2"	22	
TEF22008023	1/2"	1/8"	26	
TEF22008043	1/2"	1/4"	26	
TEF22008063	1/2"	3/8"	26	
TEF22008083	1/2"	1/2"	26	

Material: Nylon 6/6 Farbe: Blau  
 Arbeitsdruck: Bis zu 14 BAR (200 psi) bei 20°C.  
 Temperatur: -20°C + 110°C (Je nach Application)  
 Blau= ISO Gewinde Grau=NPT



# Ventile Verschraubungen Tube Fittings Nadelventile Serie N Typ N-NA Typ N-NF

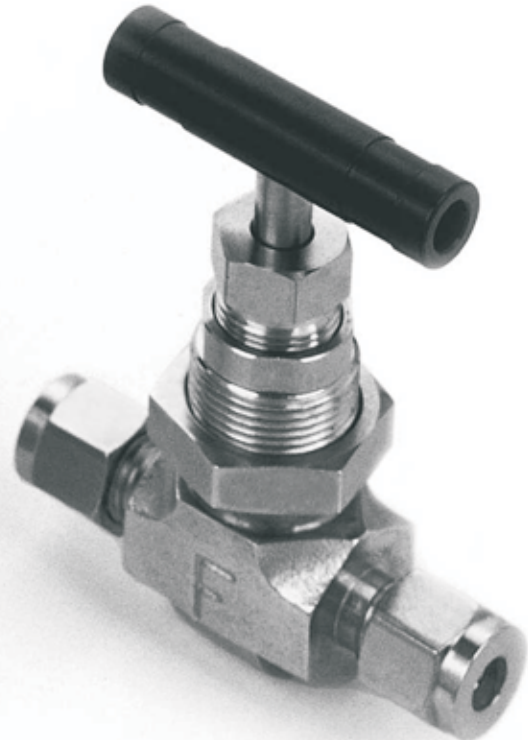


Nadelventile Dosierventile Doppelklemmring Edelstahl Messing Serie

System Fit-Lok

**GMR**

# Nadel-Ventile Serie N-NA,N-NF



## Features

- ⊙ Druck bis zu 414 bar ( 6000 psig) für Edelstahl Typ  
Druck bis zu 207 bar ( 3000 psig) für Messing
- ⊙ Temperatur für PTFE packung von -54°C to 232° C (-65 F° to 450F°)  
Temperatur für Grafoil packung von -54C° bis 649 C° (-65 F° to 1200F°)
- ⊙ Panel Anschluss möglich
- ⊙ Packung isoliert von den Medien
- ⊙ PTFE Ring in der Packung schützt vor Außenverschmutzung
- ⊙ Nicht-rotierende Ventilspitze
- ⊙ Jedes Ventil ist getestet mit 69 bar (1000 psig) mit Stickstoff gespült mit Test über 1,5-mal Maximal Druck mit reinem Wasser

## Durchfluss bei 37 C° oder 100 F°

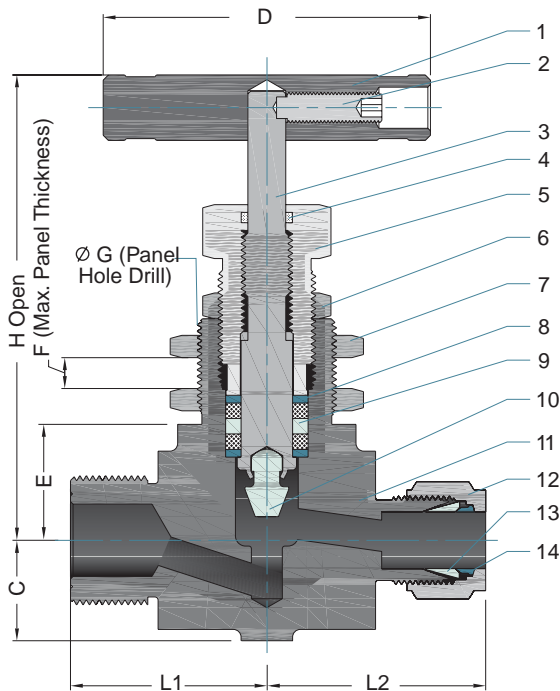


## Technical Data

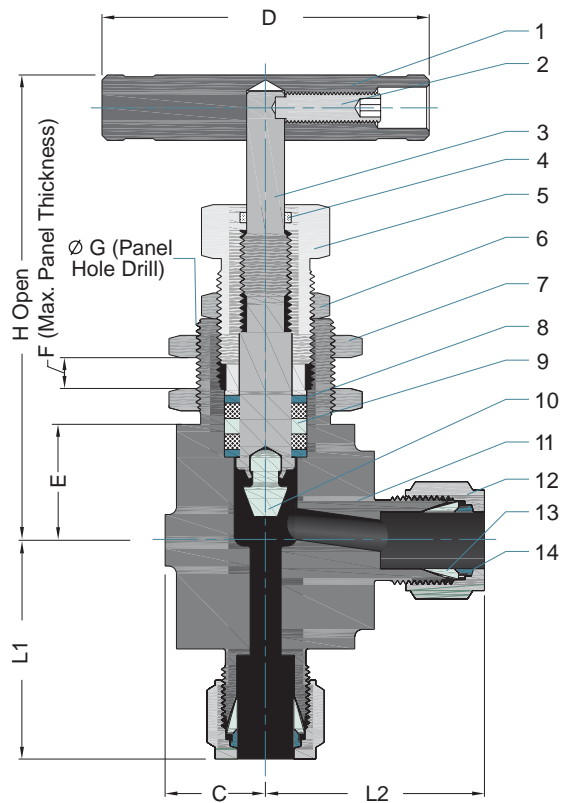
### Arbeitsdruck in psig(bar)

Temperatur		Ventil Material Edelstahl SS-I			Ventil Material Messing
°F	°C	Packungs Material			Packungs Material
		PTFE	Grafoil	PEEK	PTFE
-65~100	-53~37	6000(414)	6000(414)	6000(414)	3000(207)
200	93	5160(356)	5160(356)	5160(356)	2350(162)
250	121	4910(338)	4910(338)	4910(338)	2200(151)
300	148	4660(321)	4660(321)	4660(321)	2050(141)
350	176	4470(307)	4470(307)	4470(307)	1470(101)
400	204	4280(295)	4280(295)	4280(295)	390(27)
450	232	4130(285)	4130(285)	4130(285)	
500	260		3980(274)	3980(274)	
550	288		3880(268)	3880(268)	
600	315		3760(259)	3780(261)	
650	343		3690(254)		
700	371		3600(248)		
750	399		3510(242)		
800	426		3460(238)		
850	454		3380(232)		
900	482		3280(225)		
950	510		3220(221)		
1000	538		3030(208)		
1050	566		3000(207)		
1100	593		2685(184)		
1150	621		2285(157)		
1200	649		1715(118)		

# Ventile Verschraubungen Tube Fittings



Abmessungen für NF serie



Abmessungen für NA serie

## Nadel Ventile Serie N Typ N-NF Typ N-NA

### Konstruktionsbauteile und Materialien

Position	Teil	Ventil Körper und Materialien			
		316SS	304SS	321SS	Brass
1	Griff	Aluminium			Aluminium
2	Befestigungsschraube	Steel			Steel
3	Spindel	316SS			316SS
4	Spindeldichtung	PTFE			PTFE
5	Einsatz	316SS (304SS)			Brass
6	Packungsmutter	316SS (304SS)			Brass
7	Befestigungsmutter	316SS (304SS)			Brass
8	Pacungsstützring	316SS			316SS
9	Packung	PTFE, PCTFE, PEEK, Grafoil			PTFE, PCTFE
10	Spindel Typ	316SS, PCTFE, PEEK, Stellite			316SS
11	Körper	316SS	304SS	321SS	Brass
	Sitz	316SS, 304SS, 321SS, Stellite			
12	Überwurfmutter	316SS (304SS)			Brass
13	Vorderer Klemmring	316SS			Brass
14	Hinterer Klemmring	316SS			Brass



# Nadel Ventile Serie N Typ N-NA Typ N-NF

## Tabelle von Standartgrößen

Basic Model Nummer	Connection Size		Düse in. (mm)	Cv	L1	L2	H	D	C	E	F	G
	Einlass Größe	Auslass Größe			in. (mm)							
-FNS2-7	1/8" Female NPT	1/8" Female NPT	0.157 (4.0)	0.35	1.00 (25.4)	1.00 (25.4)	2.79 (70.9)	1.75 (44.5)	0.53 (13.5)	0.43 (10.9)	0.25 (6.4)	0.77 (19.6)
-FNS4-7	1/4" Female NPT	1/4" Female NPT			1.03 (26.2)	1.03 (26.2)						
-ML6-7	6mm Fit-Lok	6mm Fit-Lok										
-FL4-7	1/4" Fit-Lok	1/4" Fit-Lok			1.22 (30.9)	1.22 (30.9)						
-ML8-7	8mm Fit-Lok	8mm Fit-Lok										
-NS6-7	3/8" Male NPT	3/8" Male NPT			1.19 (30.2)	1.19 (30.2)						
-FO4-7	1/4" Male FO	1/4" Male FO										
-FR4-7	1/4" Male FR	1/4" Male FR			1.03 (26.2)	1.03 (26.2)						
-FNS4-8	1/4" Female NPT	1/4" Female NPT	0.236 (6.0)	0.85	1.03 (26.2)	1.03 (26.2)	3.53 (89.6)	2.50 (63.5)	0.77 (19.5)	0.89 (22.5)	0.38 (9.7)	1.09 (27.7)
-FNS6-8	3/8" Female NPT	3/8" Female NPT			1.13 (28.6)	1.13 (28.6)						
-NS6-8	3/8" Male NPT	3/8" Male NPT										
-FL6-8	3/8" Fit-Lok	3/8" Fit-Lok			1.44 (36.5)	1.44 (36.5)						
-ML10-8	10mm Fit-Lok	10mm Fit-Lok										
-ML12-8	12mm Fit-Lok	12mm Fit-Lok			1.53 (38.9)	1.53 (38.9)						
-ML14-8	14mm Fit-Lok	14mm Fit-Lok			1.56 (39.7)	1.56 (39.7)						
-FNS8-8	1/2" Female NPT	1/2" Female NPT			1.26 (32.0)	1.26 (32.0)						
-NS8-8	1/2" Male NPT	1/2" Male NPT			1.50 (38.1)	1.50 (38.1)						
-FL8-8	1/2" Fit-Lok	1/2" Fit-Lok			1.53 (38.9)	1.53 (38.9)						
-TS6-8	3/8" TS	3/8" TS										
-TS8-8	1/2" TS	1/2" TS										
-MTS12-8	12mm MTS	12mm MTS			1.13 (28.6)	1.13 (28.6)						
-MTS14-8	14mm MTS	14mm MTS										
-MTS16-8	16mm MTS	16mm MTS										
-MTB14-8	14mm MTB	14mm MTB			1.50 (38.1)	1.50 (38.1)						
-MTB16-8	16mm MTB	16mm MTB										
-UMB14-8	14mm UMB	14mm UMB			2.92 (74.1)	2.92 (74.1)						
-UMB16-8	16mm UMB	16mm UMB										
-FO8-8	1/2" Male FO	1/2" Male FO			1.13 (28.6)	1.13 (28.6)						
-FR8-8	1/2" Male FR	1/2" Male FR			1.56 (39.7)	1.56 (39.7)						
-MS20-8	M20x1.5 Male ISO	M20x1.5 Male ISO										
-MS22-8	M22x1.5 Male ISO	M22x1.5 Male ISO			1.50 (38.1)	1.50 (38.1)						
-FNS8-9	1/2" Female NPT	1/2" Female NPT			0.433 (11.0)	2.18						
-FNS12-9	3/4" Female NPT	3/4" Female NPT	1.63 (41.3)	1.63 (41.3)								
-NS8-9	1/2" Male NPT	1/2" Male NPT										
-NS12-9	3/4" Male NPT	3/4" Male NPT	1.56 (39.7)	1.56 (39.7)								
-ML14-9	14mm Fit-Lok	14mm Fit-Lok	1.63 (41.3)	1.63 (41.3)								
-ML16-9	16mm Fit-Lok	16mm Fit-Lok										
-FL12-9	3/4" Fit-Lok	3/4" Fit-Lok	1.97 (50.0)	1.97 (50.0)								
-ML20-9	20mm Fit-Lok	20mm Fit-Lok										
-ML25-9	25mm Fit-Lok	25mm Fit-Lok										
-MTS14-9	14mm MTS	14mm MTS										
-MTS16-9	16mm MTS	16mm MTS	1.56 (39.7)	1.56 (39.7)								
-TS12-9	3/4" TS	3/4" TS										
-MTB14-9	14mm MTB	14mm MTB										
-MTB16-9	16mm MTB	16mm MTB										
-UMB14-9	14mm UMB	14mm UMB	2.98 (75.7)	2.98 (75.7)								
-UMB16-9	16mm UMB	16mm UMB										
-FO12-9	3/4" Male FO	3/4" Male FO										
-FR8-9	1/2" Male FR	1/2" Male FR	1.56 (39.7)	1.56 (39.7)								
-MS27-9	M27x2 Male ISO	M27x2 Male ISO										

### Remarks:

- FIT-LOK sind FIT-LOK Doppelklemmring fittings, FO sind O-ring gedichtete fittings, FR sind Metal gedichte fittings, Austauschbar mit Swagelok/Parker products
- Abmessungen mit FIT-LOK nur fingerfest angezogen. Alle Abmessungen nur für Beispiele, Daten sind nicht verbindlich, können sich ändern. Für genaue Dimensionen Zeichnungen bitte Werk Anfragen
- Die Typen Größen Arten sind Standardausführungen. Andere Type andere Größen sind verfügbar auf Anfrage.

# Bestell Information Nadelventile N-Order Information

Serie	Typ	Körper Material	Einlass Type	Inlet Größe	Ausgangs Auslass Type	Ausgangs Größe	Sitz Material	Düsen Größe	Sitz Material	Spitzen Type	Packung Material	Handles
N-	NF	SS 316SS	FNS Female NPT	2 1/8"	gleich wie einlass	7 0.157" (4.0mm)	316SS	0.157" (4.0mm)	Stumpf	PTFE	Black	
N-	NA	S4 304SS	NS Male NPT	4 1/4"	Spezifiziert als gleiche oder andere gröÙe type and Größe	8 0.236" (6.0mm)	K PCTFE	0.236" (6.0mm)	Regel Typ	PCTFE	Aluminium Bar	
		S1 321SS	FRT Female BSP Tapered	6 3/8" oder 6mm		9 0.433" (11mm)	P PEEK		Ball	P PEEK	Red	
		B Messing	RT Male BSP Tapered	8 1/2" oder 8mm			W Stellite			G Gratfoil	Aluminium Bar	
		M Monel	FMS Female ISO 261	10 10mm							Green	
		T Titanium	MS Male ISO 261	12 3/4" oder 12mm							Aluminium Bar	
			FRP Female BSP Parallel	14 14mm oder M14x1.5							B Blue	
			BP Male BSP Parallel	16 1" oder 16mm							SS 316SS	
			TS Fractional Tube Socket Weld	18 18mm							BK Black Knob	
			MTS Metric Tube Socket Weld	20 1" oder 20mm oder $\Delta$ M20x1.5								
			TB Fractional Tube Butt Weld	22 22mm oder M22x1.5								
			MTB Metric Tube Butt Weld	24 24mm								
			PSW Rohr Socket Weld	25 25mm								
			PBW Rohr Butt Weld	27 M27x2								
			FL Fractional Tube Fitting	28 28mm								
			ML Metric Tube Fitting									
			UFB Nut+Gasket+Fractional Bulge Nipple									
			UMB Nut+Gasket+Metric Bulge Nipple									
			FO Male FO Fitting									
			FR Male FR Fitting									

www.mess-regel.de

## Beispiel A

**Model: N-NFB-ML12-8**

NFB: NF Serie, Körper Material ist Messing

ML12: Einlass type ist metrischer Fitting, Größe ist 12mm

Auslass Type and Größe gleich wie Einlass Type and Größe

8: Sitz Material ist gleich wie Körper Material

Düsen Größe ist 6.0mm (0.236")

Spindel Material ist 316SS, Spitze ist Stumpf Type

Packungsmaterial ist PTFE, schwarzer Aluminiumknopf

## Beispiel B

**Model: N-NASS-NS8-MS27x3-19WR-GBK**

NASS: NA Serie, Körpermaterial ist 316SS

NS8: Einlass Type ist einschraubbar NPT, Größe ist 1/2"

MS27x3: Auslass Type ist ISO metrisches Gewinde, Größe is M27x3  
19WR: Sitz material ist Stellite

Düse Größe ist 11mm (0.433")

Sitz material ist Stellite, Spitze ist Reguler Type

GBK: Packungs Material ist Gratfoil, Schwarzer Knopf

### Anmerkung:

Standardsteigung für metrisches Gewinde wie folgt:

M10 und unterhalb: 1 mm

M24 und unterhalb: 1,5 mm

M27 und unterhalb: 2 mm

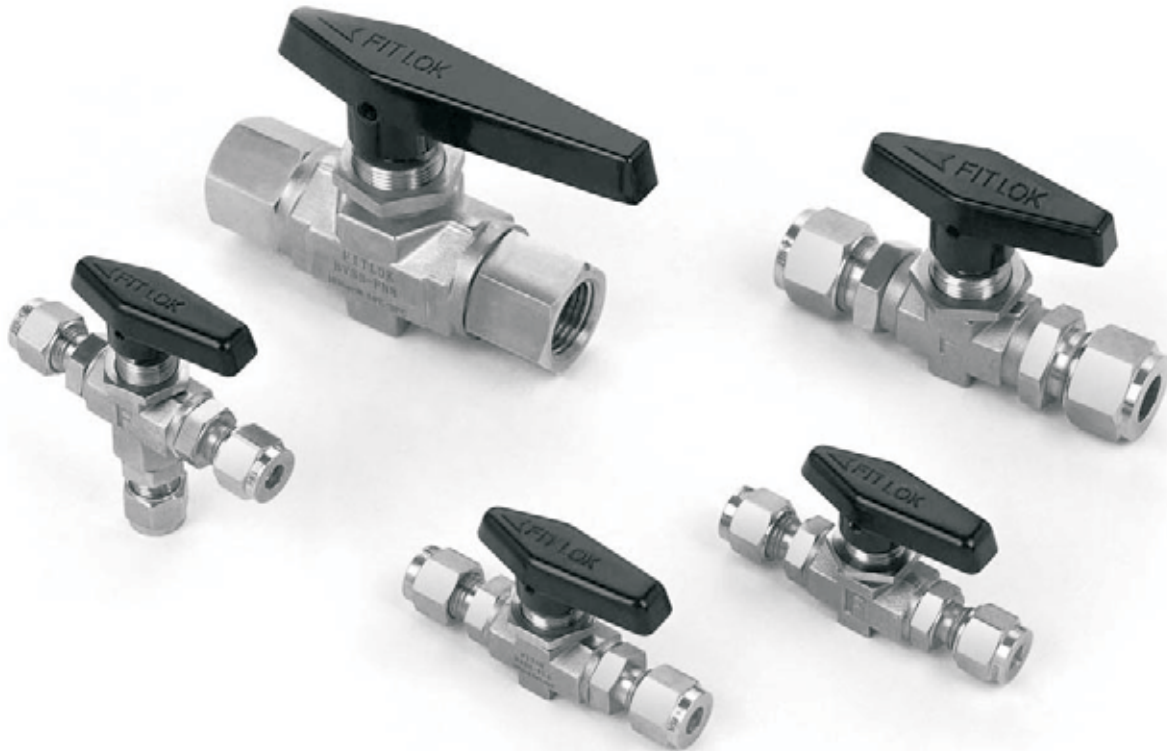
Standardsteigung sollte in der Modell Nummer ignodiert werden

N-NF/N-NA0610/0306



# Kugelhahn

## Ventile Verschraubungen Tube Fittings F Serie Type BV-2 Weg&BT-3Wege



## F Serie Kugelhahn -Ball Valves

### Features

- ⊙ Verschiedenste Anschlüsse Größen und Nennweiten Lieferbart
- ⊙ Einstellbare (wechselbare) in-line Dichtungen Verschiedenster Typen
- ⊙ Panel Ausführung möglich mountable
- ⊙ Bi-directional Durchfluss -flow
- ⊙ Alle Ventile sind 100% factory tested mit Stickstoff 69bar (1000psig), 3% mit hydrostatik Test test mit 1.5 fachen maxialen Arbeitsdruck bei 100°C mit Reinstwasser

### Technische Daten

#### Pressure Bereiche Ratings

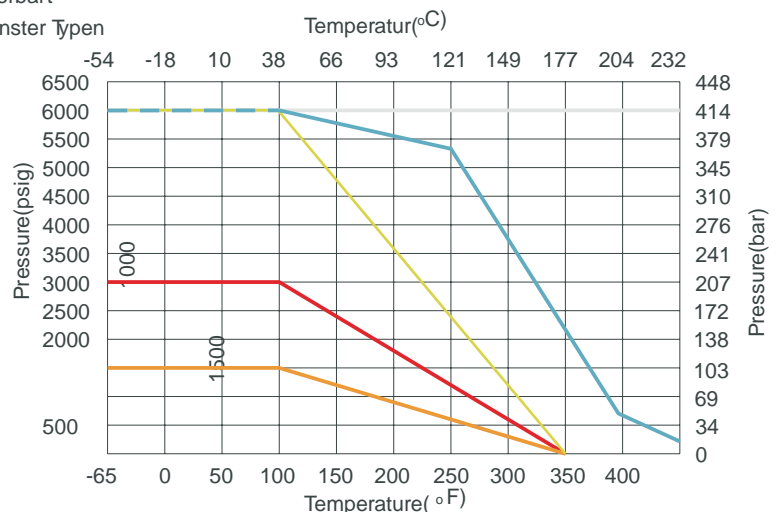
##### Edelstahl316 Stainless Steel

- ⊙ 414bar (6000 psi) mit PEEK
- ⊙ 207bar (3000 psig) mit PCTFE
- ⊙ 103bar (1500 psig) mit PTFE

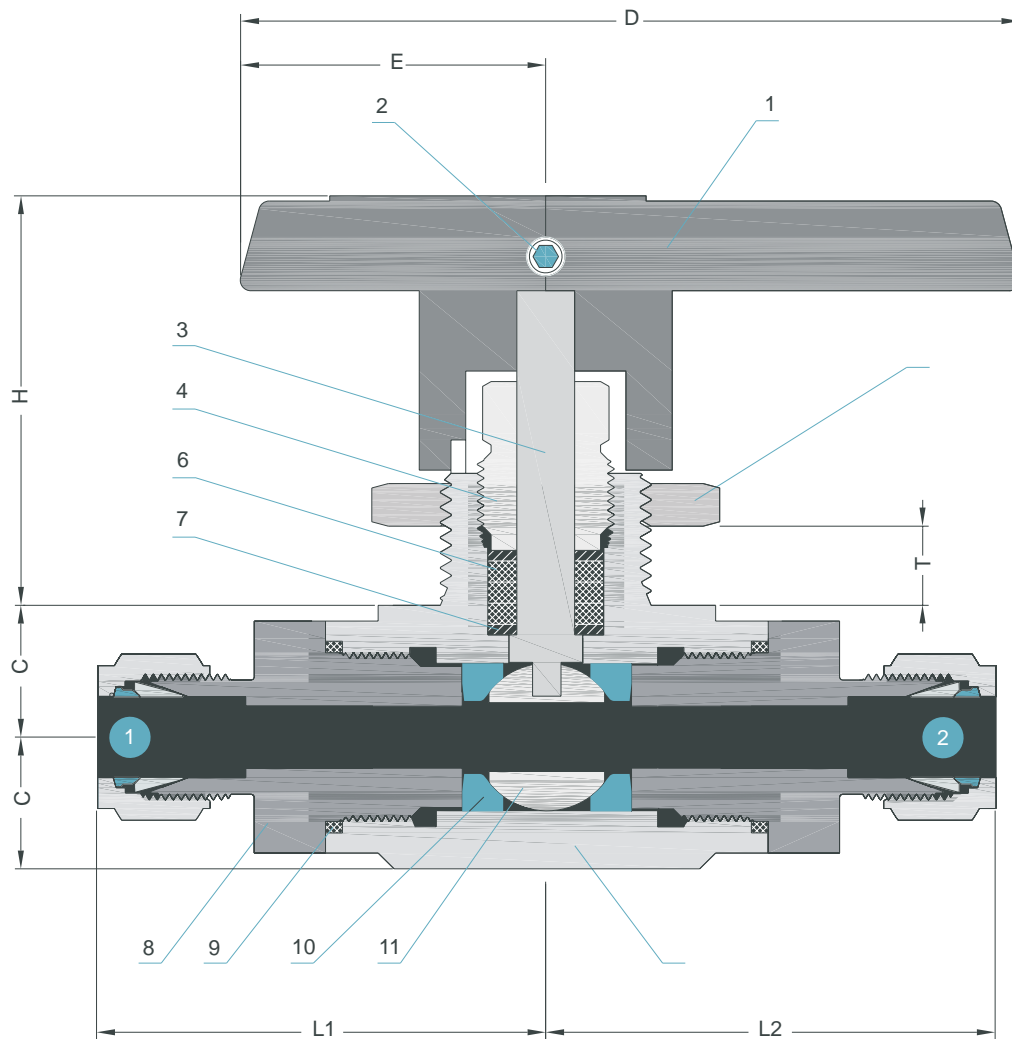
##### Messing Brass

- ⊙ 207bar (3000 psig) mit PEEK oder PCTFE
- ⊙ 103bar (1500 psig) mit PTFE

### Druck vs. Temperatur



- PEEK Sitz -Seats
- PCTFE Sitz -Seats
- PTFE Sitz -Seats
- 316SS Ventilkörper Valve Body
- Messing Ventilkörper -Brass Valves Body



## F Serie BV Typ 2Weg AUF - ZU

### Konstruktion und verwendetes Material

Item	Part	ValveBodyMaterials <sup>LO</sup>					
		316SS			Brass		
1	Griff-Handle	Aluminum			Aluminum		
2	Griffbefestigung-HandlePin	StainlessSteel			StainlessSteel		
3	Achse-Stem	StainlessSteel			Brass/B16		
4	Acsenbefestigung-PackingNut	StainlessSteel			Brass		
5	Befestigungsring-LockNut	StainlessSteel			Brass/B16		
6	Packung-Packing	PTFE			PTFE		
7	Dichtungsring-StemWasher	316SS/A276			StainlessSteel		
8	Verschraubung-EndConnector	316SS/A276			Brass/B16		
9	Dichtungsring-ConnectorSeal	PTFE			PTFE		
10	Sitz-Seat	PTFE	PCTFE	PEEK	PTFE	PCTFE	PEEK
11	Ball	316SS/A276			Brass/B16		
12	Körper-Body	CF3M/A351			Brass/B16		



# F Serie BV Typ 2-Wege

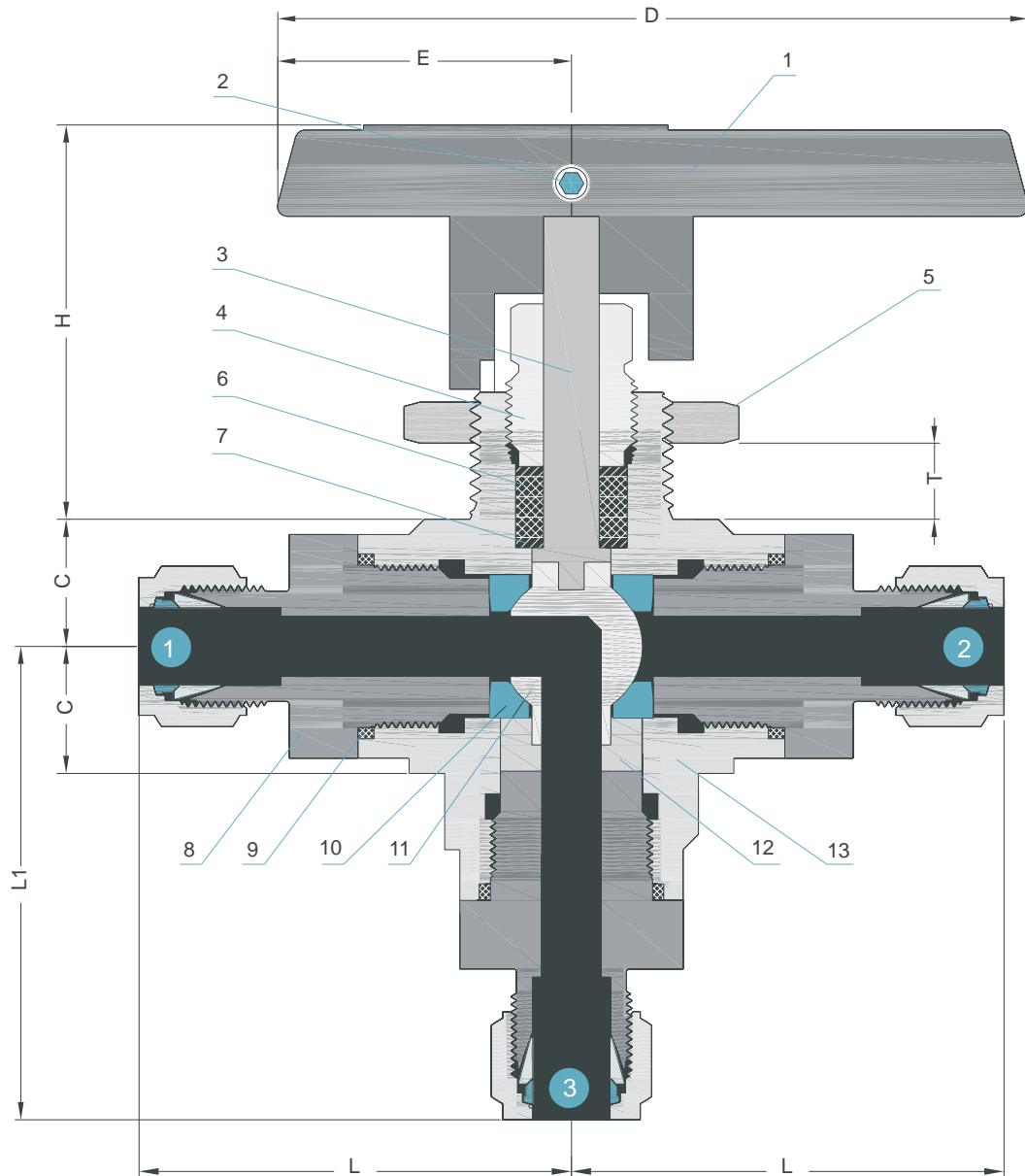
## Dimensionen Abmessungen Maße für F-BV Serie

BasicModel Nummer	AnschlussGröße		Düse in. (mm)	Cv	L1	L2	C	H	T	PHD	D	E
	Port ①	Port ②			in. (mm)							
F-BV□-ML3-1	3mmFITLOK	3mmFITLOK	0.093 (2.4)	0.23	1.38 (35.1)							
F-BV□-FL2-1	1/8"FITLOK	1/8"FITLOK										
F-BV□-FNS2-3	1/8"FemaleNPT	1/8"FemaleNPT	0.165 (4.2)	0.95	1.06 (26.9)	0.33 (8.4)	0.95 (24.1)	0.18 (4.6)	0.58 (14.7)	1.88 (47.8)	0.75 (19.1)	
F-BV□-NS2-3	1/8"MaleNPT	1/8"MaleNPT										
F-BV□-NS2-FNS2-3	1/8"MaleNPT	1/8"FemaleNPT										
F-BV□-NS4-FL4-3	3/4"MaleNPT	1/4"FITLOK										
F-BV□-NS4-3	1/4"MaleNPT	1/4"MaleNPT										
F-BV□-FO4-3	1/4"MaleFO	1/4"MaleFO										
F-BV□-FR4-3	1/4"MaleFR	1/4"MaleFR										
F-BV□-FL4-3	1/4"FITLOK	1/4"FITLOK										
F-BV□-ML6-3	6mmFITLOK	6mmFITLOK										
F-BV□-ML8-3	8mmFITLOK	8mmFITLOK										
F-BV□-FL4-5	1/4"FITLOK	1/4"FITLOK	0.250 (6.4)	2.40	1.53 (38.8)	0.48 (12.2)	1.53 (38.9)	0.25 (6.4)	0.77 (19.6)	2.50 (63.5)	1.16 (29.5)	
F-BV□-FNS4-5	1/4"FemaleNPT	1/4"FemaleNPT										
F-BV□-FRT4-5	1/4"FemaleBSPT	1/4"FemaleBSPT										
F-BV□-NS4-5	1/4"MaleNPT	1/4"MaleNPT										
F-BV□-NS4-FNS4-5	1/4"MaleNPT	1/4"FemaleNPT										
F-BV□-NS6-5	3/8"MaleNPT	3/8"MaleNPT										
F-BV□-FNS4-ML6-5	3/8"FemaleNPT	6mmFITLOK										
F-BV□-NS4-FL4-5	1/4"MaleNPT	1/4"FITLOK										
F-BV□-FNS4-FL4-5	1/4"FemaleNPT	1/4"FITLOK										
F-BV□-FO6-5	3/8"MaleFO	3/8"MaleFO										
F-BV□-FR6-5	3/8"MaleFR	3/8"MaleFR	0.406 (10.3)	6.50	1.62 (41.1)	0.70 (17.8)	1.74 (44.2)	0.38 (9.70)	0.9 (22.9)	4.00 (101.6)	1.5 (38.1)	
F-BV□-FNS6-6	3/8"FemaleNPT	3/8"FemaleNPT										
F-BV□-FRT8-6	1/2"FemaleBSPT	1/2"FemaleBSPT										
F-BV□-FNS8-6	1/2"FemaleNPT	1/2"FemaleNPT										
F-BV□-FO8-6	1/2"MaleFO	1/2"MaleFO										
F-BV□-FR8-6	1/2"MaleFR	1/2"MaleFR										
F-BV□-MS20-6	M20X1.5MaleISO	M20X1.5MaleISO										
F-BV□-FMS20-6	M20X1.5FemaleISO	M20X1.5FemaleISO										
F-BV□-FL8-6	1/2"FITLOK	1/2"FITLOK										
F-BV□-FL12-6	3/4"FITLOK	3/4"FITLOK										
F-BV□-ML14-6	14mmFITLOK	14mmFITLOK	0.406 (10.3)	6.50	2.34 (59.4)	0.70 (17.8)	1.74 (44.2)	0.38 (9.70)	0.9 (22.9)	4.00 (101.6)	1.5 (38.1)	
F-BV□-ML16-6	16mmFITLOK	16mmFITLOK										
F-BV□-ML18-6	18mmFITLOK	18mmFITLOK										
F-BV□-ML20-6	20mmFITLOK	20mmFITLOK										

### Bemerkungen:

- a. FITLOK sind FITLOK Doppelklemmringverschraubungen, für O-Ring Dichtungen Fittings sind Metalgedichtete Verschraubungen Austauschbar mit Swagelok/Parker Produkten
- b. Abmessungen für FITLOK locker angezogen Alle Dimensionen nur für Referenz nicht verbindlich genaue Werte auf Anfrage, mit Firma in Verbindung setzen
- c. Die Größen und Typen sind Standard. Andere Größen und Typen auf Anfrage siehe Bestell Information
- d. PHD: Panel Loch Abmessung
- e. T: Maximum Panel Dicke

# F Serie BT Typ 3 Wege (L und T Form)



## Konstruktion und verwendetes Material

Item	Part	ValveBodyMaterials					
		316SS			Brass		
1	Griff-Handle	Aluminum			Aluminum		
2	Griffbefestigung-HandlePin	StainlessSteel			StainlessSteel		
3	Achse-Stem	StainlessSteel			Brass/B16		
4	Acsenbefestigung-PackingNut	StainlessSteel			Brass		
5	Befestigungsring-LockNut	StainlessSteel			Brass/B16		
6	Packung-Packing	PTFE			PTFE		
7	Dichtungsring-StemWasher	316SS/A276			StainlessSteel		
8	Verschraubung-EndConnector	316SS/A276			Brass/B16		
9	Dichtungsring-ConnectorSeal	PTFE			PTFE		
10	Sitz-Seat	PTFE	PCTFE	PEEK	PTFE	PCTFE	PEEK
11	Ball	316SS/A276			Brass/B16		
12	EinsatzBodyInsert	316SS/A276			Brass/B16		
13	Körper-Body	CF3M/A351			Brass/B16		



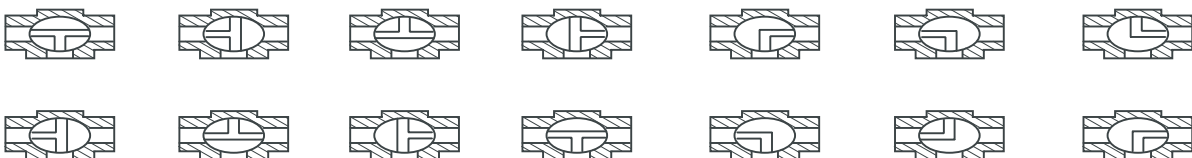


# F Serie BT Typ 3-Wege L (T)

## Dimensionen Abmessungen Maße für F-BT Serie

Basic Model Nummer	Connection Size			Orifice in. (mm)	Cv	L	L1	C	H	T	PHD	D	E								
	Port ①	Port ②	Port ③			in. (mm)															
F-BT □ ML3-1	3mm FITFLOK			0.093 (2.4)	0.22	1.38 (35.1)	1.46 (37.1)														
F-BT □ FL2-1	1/8" FITFLOK																				
F-BT □ FNS2-2	1/8" Female NPT			0.125 (3.2)	0.55	1.06 (26.9)	1.15 (29.2)	0.33 (8.4)	0.95 (24.1)	0.18 (4.6)	0.58 (14.7)	1.88 (47.8)	0.75 (19.1)								
F-BT □ NS2-2	1/8" Male NPT																				
F-BT □ FL4-2	1/4" FITFLOK																				
F-BT □ ML6-2	6mm FITFLOK																				
F-BT □ NS4-2	1/4" Male NPT																				
F-BT □ ML6-4	6mm FITFLOK																				
F-BT □ ML8-4	8mm FITFLOK			0.187 (4.7)	0.68	1.75 (44.5)	1.87 (47.5)	0.48 (12.2)	1.53 (38.9)	0.25 (6.4)	0.77 (19.6)	2.50 (63.5)	1.16 (29.5)								
F-BT □ FL4-4	1/4" FITFLOK																				
F-BT □ FRT4-4	1/4" Female BSPT																				
F-BT □ FNS4-4	1/4" Female NPT																				
F-BT □ FO4-4	1/4" Male FO																				
F-BT □ FR4-4	1/4" Male FR																				
F-BT □ NS4-4	1/4" Male NPT																				
F-BT □ NS6-4	3/8" Male NPT																				
F-BT □ FL6-4	3/8" FITFLOK																				
F-BT □ ML10-4	10mm FITFLOK																				
F-BT □ FL4-FL4-NS4-4	1/4" FTIOK	1/4" Male NPT																			
F-BT □ FL8-FL8-FNS8-6	1/2" FTIOK	1/2" Female NPT																			
F-BT □ FRT6-6	3/8" Female BSPT					0.406 (10.3)	3.60							1.85 (46.9)	2.19 (55.6)	0.70 (17.8)	1.74 (44.2)	0.38 (9.70)	0.9 (22.9)	4.00 (101.6)	1.5 (38.1)
F-BT □ FNS6-6	3/8" Female NPT																				
F-BT □ FO6-6	3/8" Male FO																				
F-BT □ FR6-6	3/8" Male FR																				
F-BT □ FRT8-6	1/2" Female BSPT																				
F-BT □ FNS8-6	1/2" Female NPT																				
F-BT □ FO8-6	1/2" Male FO																				
F-BT □ FR8-6	1/2" Male FR																				
F-BT □ FMS20-6	M20X1.5 Female ISO																				
F-BT □ MS20-6	M20X1.5 Male ISO																				
F-BT □ FL8-6	1/2" FITFLOK																				
F-BT □ FL12-6	3/4" FITFLOK																				
F-BT □ ML14-6	14mm FITFLOK																				
F-BT □ ML16-6	16mm FITFLOK																				
F-BT □ ML18-6	18mm FITFLOK																				
F-BT □ ML20-6	20mm FITFLOK																				

### Bemerkungen:



a. FITFLOK sind FITFLOK Doppelklemmringverschraubungen für O-Ring Dichtungen Fittings sind Metalgedichtete Verschraubungen  
 b. Abmessungen für FITFLOK locker Angezogen Alle Dimensionen nur für Referenz nicht verbindlich  
 c. Die Größen und Typen sind Standard. Andere Größen und Typen auf Anfrage siehe Bestell Information

d. PHD: Panel-Loch-Abmessung e.T: Maximum Panel- Dicke

Austauschbar mit Swagelok/Parker Produkten genaue Werte auf Anfrage, mit Firma in Verbindung setzen

# Bestell-Information Ordering

Serie F		Körper Material		Port1 Type	Port1 Größe	Port2/3 Type	Port2/3 Größe	Sitz Material	Knopf
F-B	Zweiwege-	SS	316SS	FNS FemaleNPT	2 1/8"	gleich wieport1	1 0.093" (2.4mm)	PTFE	Schwarz
F-B	Dreiwege	B	Brass	NS MaleNPT	4 1/4"	Spezifiziert mit genaue Angabe port 2, 3 typ and Größe	2 0.125" (3.2mm)	K PCTFE	R Rot
		FRT	FemaleBSP Tapered	6 3/8" oder 6mm	8 1/2" oder 8mm	!Nur bei Dreiwegen Typ	3 0.165" (4.2mm)	P PEEK	B Blau
		RT	MaleBSP Tapered	10 10mm	12 3/4" oder 12mm	L für Typ L Verbindung	4 0.187" (4.7mm)		Y Gelb
		FMS	FemaleISO261 (metric)	14 14mm oder M14x1.5(M)	16 1" or 16mm oder M16x1.5(M)	B für Bohrung rechter Winkel	5 0.250" (6.4mm)		
		MS	Male261 (metric)	18 18mm	20 20mm oder M20x1.5(M)	T für Typ T Verbindung	6 0.406" (10.3mm)		
		FRF	FemaleBSP Paralle			Bohrung Typ IT			
		BP	MaleBSP Paralle						
		FL	Fractional FITLOK						
		ML	Metric FITLOK						
		FO	Male FO Fitting						
		FR	Male FR Fitting						

## BeispieleA

**Model: F-BVSS-FNS8-6**  
 F-BVSS: BV Type Kugelhahn-Ballvalve  
 Zweiwege-TwoWay  
 Bodymaterialis 316SS  
**FNS8:** Port1 typist MutterNPT-femaleNPT  
 Port1 Größeist 1/2"  
 Port2 type und Größe gleichwie  
 Typ: Port1  
 6: Düse ist 0.406" (10.3mm)  
 Sitzmaterialist PTFE  
 Handeisblack

## BeispieleB

**Model: F-BTB-FNS4-FNS4-MS14-4-L**  
 F-BTB: BT Typ Kugelhahn- Ballvalve  
 Dreiwegen-ThreeWay  
 Körpermaterialist Messing--Bodymaterialis brass  
**FNS4:** Port1 typist Mutter NP FemaleNPT  
 Port1 Größeist 1/4"  
**FNS4:** Port2 typeist Mutter NP FemaleNPT  
 Port2 Größeist 1/4"  
**MS14:** Port3 typeist Gewinde Typ ISO-male  
 Port3 size ist M14x1.5  
 4: Düse ist 0.187" (4.7mm) Sitzmaterialist PTFE  
 Knopf ist Schwarz  
 L-Typ Bohrung

## Bemerkung:

Standard für metrische Gewindewie folgt:  
 M10 und unterhalb: 1mm  
 M24 und unterhalb: 1.5mm  
 M76 und unterhalb: 2mm  
 Standard gewindesteigung soll beim Modellignoriert werden



# GZ-G1/4-G1.1/2 oder G-G1/4-G1.1/2 Durchflussanzeiger • Sight Flow Indicator



## Beschreibung (GENERAL CHARACTERISTICS)

Mechanischer Durchflussanzeiger, für flüssige Medien mit (ohne)Rotor zur quantitativen Durchflussanzeige. Die Rotordrehung ist durchflussproportional. Robuste Ausführung in den Werkstoffen Messing oder Edelstahl.

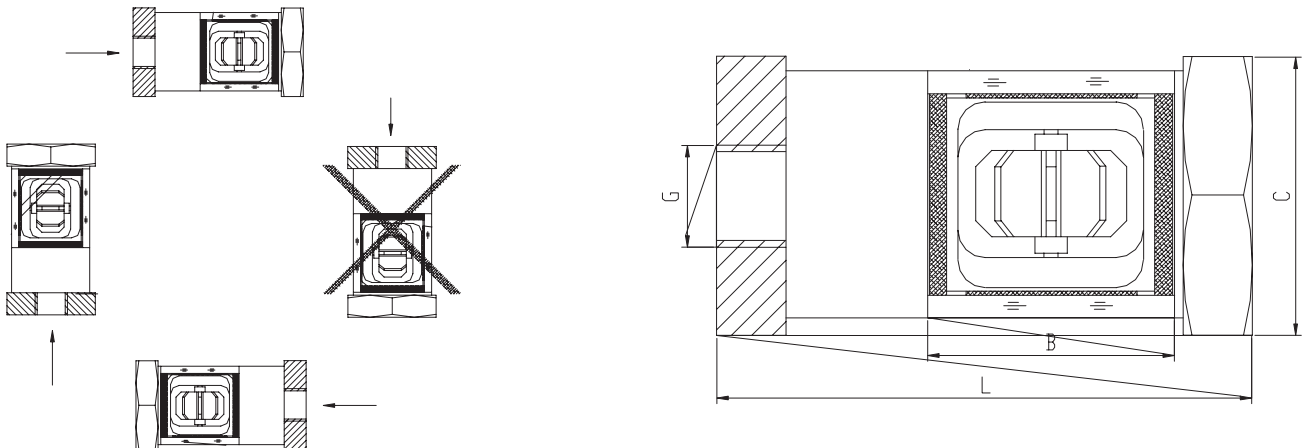
Mechanical flow Indicator for liquids, with (without) a rotor for quantitative flow indication in a special tube-shaped glass housing. with (without) a signal-red rotor provides a directly flow proportional indication of the momentary flow-rate. Rugged design in brass or stainless steel.

\*Reinigung durch Glasdrehung mittels internen Wischer \*cleaning mechanism of the internal surface of the glass

\*Fenster 360° sichtbar \*visibility of rotor 360°

## Montage Position MOUNTING POSITION

## MitRotorGZ- OhneRotorG-



## Messbereiche und Optionen METERING SUBSTANCES

Wasser, Öl, Flüssigkeiten, sowie Gas/Luft als Option mit Kugellager water, oil, gas/air only special option with bearing

je nach Viskosität höheres Anlaufverhalten

with higher viscosity instruments tend to higher starting values of the rotor

## Technische Daten mit Rotor GZ- ohne Rotor G-

## TECHNICAL DATA

	Type	G	DN	Max. flow Wasser l/min Water	Anlauf start of rotor l/min			L mm	C mm	B mm	Gewicht Weight kg	Ohne Rotor Max. flow Wasser Water l/min
					Wasser Water l/min	Öl Oil 40mm <sup>2</sup> /s	Öl Oil 41-150mm <sup>2</sup> /s					
Messing Brass	GZ-G1/4MS	G1/4"	8	4	0.4	2.0	3.0	72	36	35	0.3	15
	GZ-G3/8MS	G3/8"	10	8	0.6	2.0	3.0	72	36	35	0.3	20
	GZ-G1/2MS	G1/2"	15	12	1.0	3.0	3.5	86	46	42	0.6	30
	GZ-G3/4MS	G3/4"	20	25	1.0	3.0	3.5	94	46	42	0.6	60
	GZ-G1MS	G1"	25	40	1.6	3.0	3.5	104	46	42	0.6	90
	GZ-G11/4MS	G1.25"	32	80	8.0	4.0	5.0	120	65	56	1.5	150
	GZ-G11/2MS	G1.5"	40	100	8.0	5.0	5.0	130	65	56	1.6	220
Edelstahl 1.4305 Stainless steel	GZ-G1/4ES	G1/4"	8	4	0.4	2.0	3.0	72	36	35	0.3	15
	GZ-G3/8ES	G3/8"	10	8	0.6	2.0	3.0	72	36	35	0.3	20
	GZ-G1/2ES	G1/2"	15	12	1.0	3.0	3.5	86	46	42	0.6	30
	GZ-G3/4ES	G3/4"	20	25	1.0	3.0	3.5	94	46	42	0.6	60
	GZ-G1ES	G1"	25	40	1.6	3.0	3.5	104	46	42	0.6	90
	GZ-G11/4ES	G1.25"	32	80	8.0	4.0	5.0	120	65	56	1.5	150
	GZ-G11/2ES	G1.5"	40	100	8.0	5.0	5.0	130	65	56	1.6	220

Druck Pressure PN1.6Mpa

Mediumtemperatur Media temperature max.100°C

Druckverlust Average pressure loss 0.025Mpa at Qmax.

GMR Gross-Mess-Regeltechnik D-98544 Zella-Mehlis, Talstraße 50

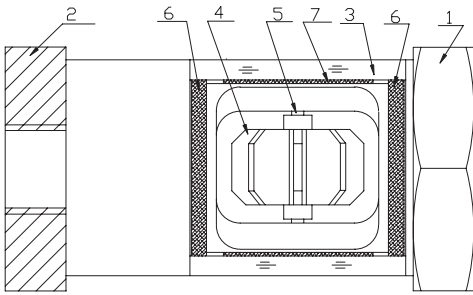
TEL: 0049-3682-49099

FAX: 0049- 03682-49093

<http://www.mess-regel.de>

E-mail: [info@mess-regel.de](mailto:info@mess-regel.de)

# GZ-G1/4-G1.1/2 oder G-G1/4-G1.1/2 Durchflussanzeiger • Sight Flow Indicator



Ref.	component	Material
1	MaterialFitting	Messing Brass (HPb-59-1)or (304SS)
2	EinlassFitting Inlet	Messing Brass (HPb-59-1)or (304SS)
3	Schauglas	Transparent cylinder Quartz glass
4	Rotor Rot(red)	POM
5	Rotor Spindel	(304SS)
6	O-ring	Viton Fluorine rubber
7	WisMsermaterial Wipers	Polyolefin-Viton Fluorine rubber

