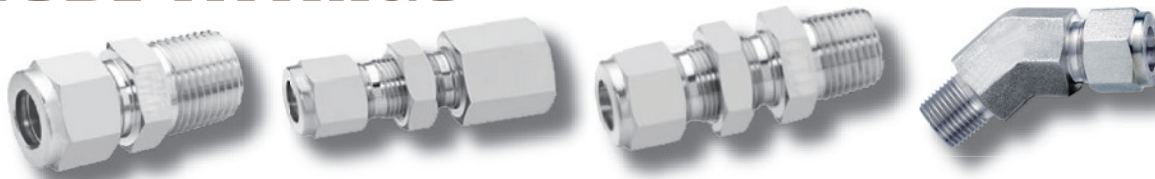


# TUBE FITTINGS



## Ordering Code Information

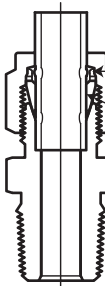
**NBMC – 02 – 2N – SS**

(e.g. Bulkhead Male Connector, 1/8 O.D, 1/8"NPT, SS316)

Fitting Type		Tube O.D		P Size		P Type			
NMC	Male Connector	01	1/16	M02	2mm	1	1/16	N	NPT Threads
NMC-M	Male Connector	02	1/8	M03	3mm	2	1/8	R	ISO Tapered Threads
NMCBT	Male Bore Through Connector	03	3/16	M04	4mm	3	3/16	G	ISO Parallel Threads
NBMC	Bulkhead Male Connector	04	1/4	M06	6mm	4	1/4	M	Metric Threads
NME	Male Elbow	05	5/16	M08	8mm	5	5/16-24	S	SAE/MS Straight Threads
NME-M	Male Elbow	06	3/8	M10	10mm	6	3/8 or 3/8-24	T	Tube Weld
NLME	Male Elbow 45°	08	1/2	M12	12mm	7	7/16-20	P	Pipe Weld
NMRT	Male Run Tee	10	5/8	M14	14mm	8	1/2 or M8 x 1		
NMBT	Male Branch Tee	12	3/4	M16	16mm	9	9/16-18		
NFC	Female Connector	14	7/8	M18	18mm	10	5/8 or M10 x 1		
NBFC	Bulkhead Female Connector	16	1	M20	20mm	12	3/4 or 3/4-16 or M12 x 1.5		
NFE	Female Elbow			M22	22mm	14	7/8-14 or M14 x 1.5		
NFRT	Female Run Tee			M25	25mm	16	1 or M16 x 1.5		
NFBT	Female Branch Tee					17	1 1/16-12		
NU	Union					18	M18 x 1.5		
NRU	Reducing Union					19	1 3/16-12		
NBU	Bulkhead Union					20	1 1/4 or M20 x 1.5		
NUE	Union Elbow					21	1 5/16-12		
NUT	Union Tee					22	M22 x 1.5		
NUC	Union Cross					24	1 1/2 or M24 x 1.5		
NR	Reducer					26	1 5/8-12		
NR-M	Reducer					27	M27 x 2		
NBR	Bulkhead Reducer					30	1 7/8-12 or M30 x 2		
NMA	Male Adapter					32	2		
NFA	Female Adapter								
NPC	Port Connector								
NRPC	Reducing Port Connector								
NMWC	Male Pipe Weld Connector								
NMWE	Male Pipe Weld Elbow								
NSWC	Tube Socket Weld Connector								
NSWE	Tube Socket Weld Elbow								
NTP	Tube Plug								
NTC	Tube Cap								
NPN	Nut								
NFF	Front Ferrule								
NBF	Back Ferrule								

Material	
SS	SS316
O	Please specify

### Function



- Compression nut threads are silver plated which prevents galling.
- Back ferrule locks together the fitting and tube forms a primary seal which resists the pressure pulses & vibration.
- Front ferrule forms a secondary seal which achieves the connection tube and fitting and guarantee a bubble tight Zero Leak Sealing.
- Rugged body construction, high precision machined surface finished and close tolerances provides maximum trouble free service life in severe working conditions.

**NOTE.** The above illustrated sealing action of a tube fitting which takes place when the assembly is fully tightened.

### Assembly Instructions

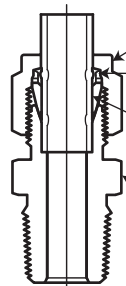
### Material

SS	SS316
O	Please specify as required

## Thread Standards Specification

PIPE THREAD	RELEVANT STANDARDS
NPT	ASME B1.20.1, MIL-P-7105B
ISO/BSP (Parallel)	ISO 228, BS 2779, JIS B 0202
ISO/BSP (Tapered) ISO/BSP (Gauge)	ISO 7, BS 21, JIS B 0203
(Based on DIN 16288-1987)	ISO 228, BS 2779
Unified (SAE)	ASME B 1.1

### Function



Compression nut threads are silver plated which prevents galling.

Back ferrule locks together the fitting and tube forms a primary seal which absorbs the pressure pulses & vibration.

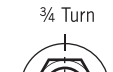
Front ferrule forms a secondary seal which achieves the connection tube and fitting and guarantee a bubble tight Zero Leak Sealing.

Rugged body construction, high precision machined surface finished and standardised tolerances provides maximum trouble free service life in severe working conditions.

**NOTE.** The above illustrated sealing action of a tube fitting which takes place when the assembly is fully tightened.

### Assembly Instructions

#### Insert Tubing

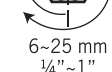
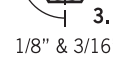


1. Insert the tubing in to the tube fitting until it comes up to the tube-stop.

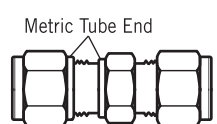
2. Ensure that the nut is finger tight and tighten the nut 1 1/4 turns as shown in fig-4.

3. For 1/8" and 3/16" fittings only 3/4 turns as shown in fig-3.

#### Ensure Finger Tight

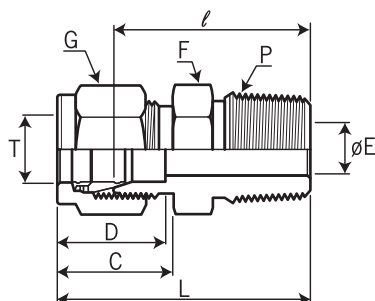


### Identification of Tube Fittings



The metric size of tube fittings have extra stepped shoulder on the body and nut to distinguish them from the imperial size.

## NMC Type – Male Connector (Imperial Range)

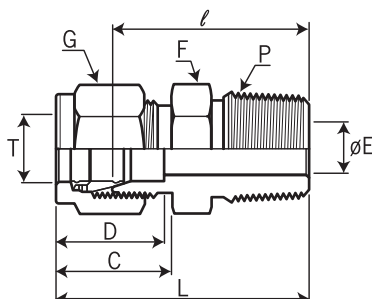
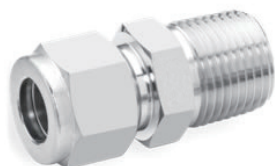


### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L
					F	G				
					in	in				
NMC-01-1N-SS	SS316	1/16	1/16	1.27	5/16	5/16	8.63	10.92	20.02	23.83
NMC-01-2N-SS	SS316	1/16	1/8	1.28	7/16	7/16	8.63	10.92	22.52	26.33
NMC-02-2N-SS	SS316	1/8	1/8	2.28	7/16	7/16	12.70	15.24	23.88	30.48
NMC-02-4N-SS	SS316	1/8	1/4	2.28	9/16	7/16	12.70	15.24	28.96	35.56
NMC-02-6N-SS	SS316	1/8	3/8	2.28	11/16	7/16	12.70	15.24	29.21	35.81
NMC-02-8N-SS	SS316	1/8	1/2	2.28	7/8	7/16	12.70	15.24	35.56	42.16
NMC-03-2N-SS	SS316	3/16	1/8	3.04	7/16	1/2	13.71	16.00	24.63	31.24
NMC-03-4N-SS	SS316	3/16	1/4	3.04	9/16	1/2	13.71	16.00	29.71	36.32
NMC-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	25.40	32.76
NMC-04-4N-SS	SS316	1/4	1/4	4.82	9/16	9/16	15.24	17.78	30.48	37.84
NMC-04-6N-SS	SS316	1/4	3/8	4.82	11/16	9/16	15.24	17.78	30.99	38.35
NMC-04-8N-SS	SS316	1/4	1/2	4.82	7/8	9/16	15.24	17.78	37.34	44.70
NMC-04-12N-SS	SS316	1/4	3/4	4.82	1-1/16	9/16	15.24	17.78	38.86	46.22
NMC-05-2N-SS	SS316	5/16	1/8	4.82	9/16	5/8	16.25	18.54	26.67	34.03
NMC-05-4N-SS	SS316	5/16	1/4	6.35	9/16	5/8	16.25	18.54	31.24	38.60
NMC-05-6N-SS	SS316	5/16	3/8	6.35	11/16	5/8	16.25	18.54	31.75	39.11
NMC-06-2N-SS	SS316	3/8	1/8	4.82	5/8	11/16	16.76	19.30	27.94	35.30
NMC-06-4N-SS	SS316	3/8	1/4	7.11	5/8	11/16	16.76	19.30	32.51	39.87
NMC-06-6N-SS	SS316	3/8	3/8	7.11	11/16	11/16	16.76	19.30	32.51	39.87
NMC-06-8N-SS	SS316	3/8	1/2	7.11	7/8	11/16	16.76	19.30	38.86	46.22
NMC-06-12N-SS	SS316	3/8	3/4	7.11	1-1/16	11/16	16.76	19.30	40.39	47.75
NMC-08-2N-SS	SS316	1/2	1/8	4.82	13/16	7/8	22.86	21.84	28.70	38.86
NMC-08-4N-SS	SS316	1/2	1/4	7.11	13/16	7/8	22.86	21.84	33.27	43.43
NMC-08-6N-SS	SS316	1/2	3/8	9.65	13/16	7/8	22.86	21.84	33.27	43.43
NMC-08-8N-SS	SS316	1/2	1/2	10.41	7/8	7/8	22.86	21.84	38.86	49.02
NMC-08-12N-SS	SS316	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	40.38	50.54
NMC-08-16N-SS	SS316	1/2	1	10.41	1-3/8	7/8	22.86	21.84	46.99	57.15
NMC-10-6N-SS	SS316	5/8	3/8	9.65	15/16	1	24.38	21.84	34.03	44.19
NMC-10-8N-SS	SS316	5/8	1/2	11.93	15/16	1	24.38	21.84	38.86	49.02
NMC-10-12N-SS	SS316	5/8	3/4	12.70	1-1/16	1	24.38	21.84	40.38	50.54
NMC-12-8N-SS	SS316	3/4	1/2	11.93	1-1/16	1-1/8	24.38	21.84	40.38	50.54
NMC-12-12N-SS	SS316	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	40.38	50.54
NMC-12-16N-SS	SS316	3/4	1	15.74	1-3/8	1-1/8	24.38	21.84	46.99	57.15
NMC-14-12N-SS	SS316	7/8	3/4	15.74	1-3/16	1-1/4	25.90	21.84	40.38	50.54
NMC-14-16N-SS	SS316	7/8	1	18.28	1-3/8	1-1/4	25.90	21.84	46.99	57.15
NMC-16-8N-SS	SS316	1	1/2	11.93	1-3/8	1-1/2	31.24	26.41	45.21	57.40
NMC-16-12N-SS	SS316	1	3/4	15.74	1-3/8	1-1/2	31.24	26.41	45.21	57.40
NMC-16-16N-SS	SS316	1	1	22.35	1-3/8	1-1/2	31.24	26.41	50.04	62.23

## NMC-M Type – Male Connector (Metric Range)



### Metric Range: ISO Tapered Thread

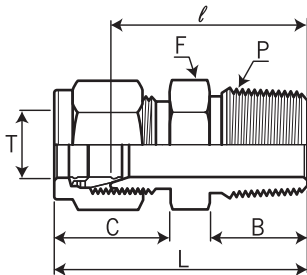
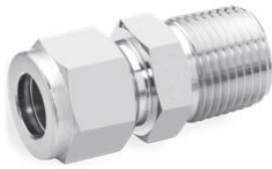
unit=mm

Ordering Code	Material	Tube O.D. T mm	P * R(PT)	E Min	Width across flat		D	C	l	L
					F	G				
					mm	mm				
NMC-M02-2R-SS	SS316	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
NMC-M03-2R-SS	SS316	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
NMC-M03-4R-SS	SS316	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
NMC-M04-2R-SS	SS316	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
NMC-M04-4R-SS	SS316	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
NMC-M06-2R-SS	SS316	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
NMC-M06-4R-SS	SS316	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
NMC-M06-6R-SS	SS316	6	3/8	4.8	17	14	15.3	17.7	31.0	38.4
NMC-M06-8R-SS	SS316	6	1/2	4.8	22	14	15.3	17.7	36.6	44.0
NMC-M08-2R-SS	SS316	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
NMC-M08-4R-SS	SS316	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
NMC-M08-6R-SS	SS316	8	3/8	6.4	17	16	16.2	18.6	31.7	39.2
NMC-M08-8R-SS	SS316	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
NMC-M10-2R-SS	SS316	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
NMC-M10-4R-SS	SS316	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
NMC-M10-6R-SS	SS316	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
NMC-M10-8R-SS	SS316	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
NMC-M12-4R-SS	SS316	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
NMC-M12-6R-SS	SS316	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
NMC-M12-8R-SS	SS316	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
NMC-M12-12R-SS	SS316	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
NMC-M15-8R-SS	SS316	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
NMC-M16-4R-SS	SS316	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
NMC-M16-6R-SS	SS316	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
NMC-M16-8R-SS	SS316	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
NMC-M16-12R-SS	SS316	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
NMC-M18-8R-SS	SS316	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
NMC-M18-12R-SS	SS316	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
NMC-M20-8R-SS	SS316	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
NMC-M20-12R-SS	SS316	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
NMC-M22-12R-SS	SS316	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
NMC-M22-16R-SS	SS316	22	1	18.3	35	32	26.0	22.0	47.8	57.9
NMC-M25-12R-SS	SS316	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
NMC-M25-16R-SS	SS316	25	1	21.8	35	38	31.3	26.5	50.0	62.3

## NMCBT Type – Male Bore Through Connector (Imperial Range)

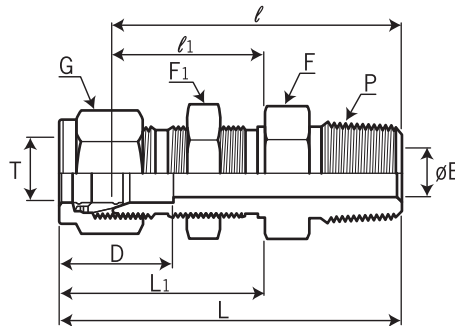
### Imperial Range:

unit=inch



Ordering Code	Material	Tube O.D. T in	P * (NPT)	F HEX	L in	C in	l in	B in
NMCBT-01-1N-SS	SS316	1/16	1/16	5/16	0.93	0.43	0.78	0.38
NMCBT-01-2N-SS	SS316	1/16	1/8	7/16	1.03	0.43	0.88	0.38
NMCBT-01-4N-SS	SS316	1/16	1/4	9/16	1.23	0.43	1.08	0.56
NMCBT-02-1N-SS	SS316	1/8	1/16	3/8	1.17	0.60	0.91	0.38
NMCBT-02-2N-SS	SS316	1/8	1/8	7/16	1.20	0.60	0.94	0.38
NMCBT-02-4N-SS	SS316	1/8	1/4	9/16	1.40	0.60	1.14	0.56
NMCBT-03-2N-SS	SS316	3/16	1/8	7/16	1.23	0.64	0.97	0.38
NMCBT-03-4N-SS	SS316	3/16	1/4	9/16	1.43	0.64	1.17	0.56
NMCBT-04-2N-SS	SS316	1/4	1/8	1/2	1.29	0.70	1.00	0.38
NMCBT-04-4N-SS	SS316	1/4	1/4	9/16	1.49	0.70	1.20	0.56
NMCBT-04-4N-SS	SS316	1/4	3/8	11/16	1.60	0.70	1.22	0.56
NMCBT-04-8N-SS	SS316	1/4	1/2	7/8	1.87	0.70	1.47	0.75
NMCBT-05-4N-SS	SS316	5/16	1/4	9/16	1.52	0.73	1.22	0.56
NMCBT-06-4N-SS	SS316	3/8	1/4	5/8	1.57	0.76	1.28	0.56
NMCBT-06-6N-SS	SS316	3/8	3/8	11/16	1.57	0.76	1.28	0.56
NMCBT-06-8N-SS	SS316	3/8	1/2	7/8	1.82	0.76	1.53	0.75
NMCBT-06-12N-SS	SS316	3/8	3/4	1-1/16	1.88	0.76	1.59	0.75
NMCBT-08-8N-SS	SS316	1/2	1/2	7/8	1.93	0.87	1.53	0.76
NMCBT-08-12N-SS	SS316	1/2	3/4	1-1/16	1.99	0.87	1.59	0.75
NMCBT-10-12N-SS	SS316	5/8	3/4	1-1/16	1.99	0.87	1.59	0.75
NMCBT-12-12N-SS	SS316	3/4	3/4	1-1/16	1.99	0.87	1.59	0.75
NMCBT-16-16N-SS	SS316	1	1	1-3/8	2.46	1.05	1.97	0.94

## NBMC Type – Bulkhead Male Connector (Imperial/Metric Range)



### Imperial Range:

unit=mm

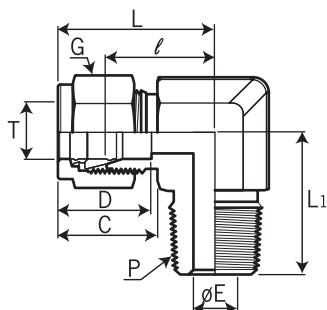
Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat			D	l	l <sub>1</sub>	L	L <sub>1</sub>	Panel Hole Drill Size	Panel Max. Thickness
					F	F <sub>1</sub>	G							
NBMC-02-2N-SS	SS316	1/8	1/8	2.28	1/2	1/2	7/16	12.70	39.88	24.63	46.48	31.24	8.33	12.70
NBMC-04-2N-SS	SS316	1/4	1/8	4.82	5/8	5/8	9/16	15.24	42.17	26.16	49.53	33.52	11.50	10.16
NBMC-04-4N-SS	SS316	1/4	1/4	4.82	5/8	5/8	9/16	15.24	45.98	26.16	53.34	33.52	11.50	10.16
NBMC-06-4N-SS	SS316	3/8	1/4	7.11	3/4	3/4	11/16	16.76	50.04	29.46	57.40	36.83	14.68	11.17
NBMC-08-6N-SS	SS316	1/2	3/8	9.39	15/16	15/16	7/8	22.86	53.08	31.75	63.24	41.91	19.44	12.70
NBMC-08-8N-SS	SS316	1/2	1/2	10.41	15/16	15/16	7/8	22.86	58.67	31.75	68.83	41.91	19.44	12.70

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	P * (NPT)	E Min	Width across flat			D	l	l <sub>1</sub>	L	L <sub>1</sub>	Panel Hole Drill Size	Panel Max. Thickness
					F	F <sub>1</sub>	G							
NBMC-M06-2N-SS	SS316	6	1/8	2.28	14	17	14	17	41.90	26.0	51.0	35	11.60	12
NBMC-M06-4N-SS	SS316	6	1/4	4.82	14	17	14	17	46.90	26.0	56.0	35	11.60	12
NBMC-M10-4N-SS	SS316	10	1/4	7.11	17	19	19	18	52.10	29.5	60.5	38	16.40	10
NBMC-M12-4N-SS	SS316	12	1/4	10.40	22	24	22	24	59.70	32.0	71.0	43	19.50	14

## NME Type – Male Elbow (Imperial Range)

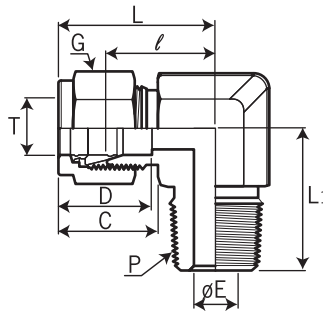


### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L1
					F in	G in					
NME-02-2N-SS	SS316	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.31	24.91	18.90
NME-02-4N-SS	SS316	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.31	24.91	23.36
NME-03-2N-SS	SS316	3/16	1/8	3.04	1/2	1/2	13.71	16.00	18.79	25.40	18.79
NME-03-4N-SS	SS316	3/16	1/4	3.04	1/2	1/2	13.71	16.00	18.79	25.40	23.36
NME-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.11	26.47	19.10
NME-04-4N-SS	SS316	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.82	27.18	23.87
NME-04-6N-SS	SS316	1/4	3/8	4.82	11/16	9/16	15.24	17.78	22.35	29.71	28.40
NME-04-8N-SS	SS316	1/4	1/2	4.82	13/16	9/16	15.24	17.78	24.61	31.97	35.10
NME-05-2N-SS	SS316	5/16	1/8	4.82	9/16	5/8	16.25	18.54	21.34	28.70	19.81
NME-05-4N-SS	SS316	5/16	1/4	6.35	9/16	5/8	16.25	18.54	22.41	29.77	24.50
NME-05-6N-SS	SS316	5/16	3/8	6.35	11/16	5/8	16.25	18.54	23.12	30.48	28.40
NME-06-2N-SS	SS316	3/8	1/8	4.82	5/8	11/16	16.76	19.30	23.12	30.48	20.60
NME-06-4N-SS	SS316	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.12	30.48	25.40
NME-06-6N-SS	SS316	3/8	3/8	7.11	11/16	11/16	16.76	19.30	23.88	31.24	28.44
NME-06-8N-SS	SS316	3/8	1/2	7.11	13/16	11/16	16.76	19.30	24.06	31.42	33.02
NME-06-12N-SS	SS316	3/8	3/4	7.11	1-1/16	11/16	16.76	19.30	29.72	37.08	36.83
NME-08-4N-SS	SS316	1/2	1/4	7.11	13/16	7/8	22.86	21.84	25.90	36.06	28.30
NME-08-6N-SS	SS316	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.30
NME-08-8N-SS	SS316	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
NME-08-12N-SS	SS316	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	29.71	39.87	36.83
NME-10-6N-SS	SS316	5/8	3/8	9.65	15/16	1	24.38	21.84	26.90	37.06	29.40
NME-10-8N-SS	SS316	5/8	1/2	11.93	15/16	1	24.38	21.84	26.90	37.06	34.00
NME-10-12N-SS	SS316	5/8	3/4	12.70	1-1/16	1	24.38	21.84	29.71	39.87	36.83
NME-12-8N-SS	SS316	3/4	1/2	11.93	1-1/16	1-1/8	24.38	21.84	29.71	39.87	37.00
NME-12-12N-SS	SS316	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83
NME-14-12N-SS	SS316	7/8	3/4	15.74	1-1/4	1-1/4	25.90	21.84	34.54	44.70	41.65
NME-16-12N-SS	SS316	1	3/4	15.74	1-27/64	1-1/2	31.24	26.41	36.83	49.02	42.20
NME-16-16N-SS	SS316	1	1	22.35	1-27/64	1-1/2	31.24	26.41	36.83	49.02	46.70

## NME-M Type – Male Elbow (Metric Range)



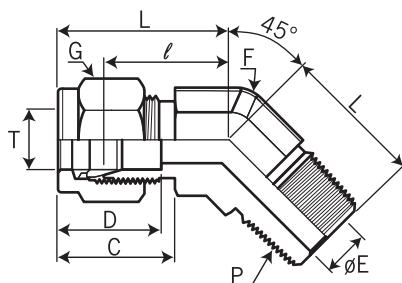
### Metric Range: ISO Tapered Thread

unit=mm

Ordering Code	Material	Tube O.D. T mm	P * R(PT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F mm	G mm					
NME-M03-2R-SS	SS316	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
NME-M03-4R-SS	SS316	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
NME-M04-2R-SS	SS316	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
NME-M04-4R-SS	SS316	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
NME-M06-2R-SS	SS316	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
NME-M06-4R-SS	SS316	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
NME-M06-6R-SS	SS316	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
NME-M06-8R-SS	SS316	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
NME-M08-2R-SS	SS316	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
NME-M08-4R-SS	SS316	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
NME-M08-6R-SS	SS316	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	28.5
NME-M08-8R-SS	SS316	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
NME-M10-2R-SS	SS316	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
NME-M10-4R-SS	SS316	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
NME-M10-6R-SS	SS316	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
NME-M10-8R-SS	SS316	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
NME-M12-2R-SS	SS316	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
NME-M12-4R-SS	SS316	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
NME-M12-6R-SS	SS316	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
NME-M12-8R-SS	SS316	12	1/2	9.5	20.6	22	22.8	22.0	29.7	36.0	33.0
NME-M12-12R-SS	SS316	12	3/4	9.5	27.0	22	22.8	22.0	27.9	39.8	36.8
NME-M16-6R-SS	SS316	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
NME-M16-8R-SS	SS316	16	1/2	11.9	25.4	25	24.4	22.0	29.7	38.0	35.1
NME-M16-12R-SS	SS316	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
NME-M18-8R-SS	SS316	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
NME-M18-12R-SS	SS316	18	3/4	15.1	27.0	30	24.4	22.0	34.5	39.8	36.8
NME-M20-8R-SS	SS316	20	1/2	11.9	31.8	32	26.0	22.0	34.5	44.6	41.7
NME-M20-12R-SS	SS316	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
NME-M22-12R-SS	SS316	22	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
NME-M22-16R-SS	SS316	22	1	18.3	36.0	32	26.0	22.0	34.5	44.6	46.5
NME-M25-12R-SS	SS316	25	3/4	15.9	36.0	38	31.3	26.5	36.8	49.1	41.7
NME-M25-16R-SS	SS316	25	1	21.8	36.0	38	31.3	26.5	36.8	49.1	46.5



## NLME Type – Male Elbow 45° (Imperial Range)



### Imperial Range:

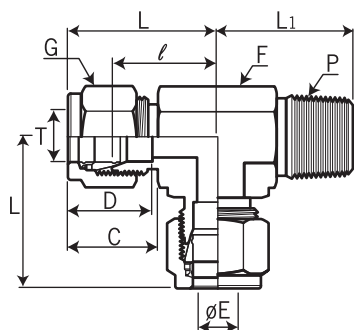
unit=mm

Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F in	G in					
NLME-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	17.27	24.63	16.51
NLME-04-4N-SS	SS316	1/4	1/4	4.82	1/2	9/16	15.24	17.78	17.27	24.63	21.08
NLME-06-2N-SS	SS316	3/8	1/8	4.82	5/8	11/16	16.76	19.30	20.57	27.94	18.28
NLME-06-4N-SS	SS316	3/8	1/4	7.11	5/8	11/16	16.76	19.30	20.57	27.94	22.86
NLME-06-6N-SS	SS316	3/8	3/8	7.11	13/16	11/16	16.76	19.30	21.84	29.21	24.13
NLME-08-6N-SS	SS316	1/2	3/8	9.65	13/16	7/8	22.86	21.84	21.84	32.00	24.13

## NMRT Type – Male Run Tee (Imperial / Metric Range)

### Imperial Range:

unit=mm



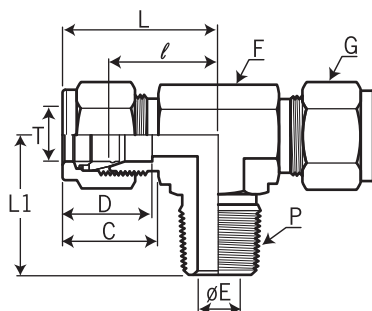
Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F in	G in					
NMRT-02-2N-SS	SS316	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.31	24.91	18.90
NMRT-02-4N-SS	SS316	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.31	24.91	23.36
NMRT-03-2N-SS	SS316	3/16	1/8	3.04	1/2	1/2	13.71	16.00	17.77	24.38	17.78
NMRT-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.56	26.92	18.79
NMRT-04-4N-SS	SS316	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.72	27.08	23.37
NMRT-05-2N-SS	SS316	5/16	1/8	4.82	9/16	5/8	16.25	18.54	22.35	29.71	20.82
NMRT-06-4N-SS	SS316	3/8	1/4	7.11	5/8	1/16	16.76	19.30	23.12	30.48	25.40
NMRT-06-4N-SS	SS316	3/8	3/8	7.11	11/16	11/16	16.76	19.30	23.88	31.24	26.20
NMRT-08-6N-SS	SS316	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
NMRT-08-8N-SS	SS316	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
NMRT-10-8N-SS	SS316	5/8	1/2	11.93	15/16	1	24.86	21.84	27.46	38.10	35.05
NMRT-12-12N-SS	SS316	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	28.19	38.35	35.30

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F mm	G mm					
NMRT-M03-2N-SS	SS316	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.6
NMRT-M03-4N-SS	SS316	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
NMRT-M04-2N-SS	SS316	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
NMRT-M06-2N-SS	SS316	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
NMRT-M06-4N-SS	SS316	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
NMRT-M08-2N-SS	SS316	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
NMRT-M08-4N-SS	SS316	8	1/4	6.4	17.5	16	16.2	18.6	21.3	28.8	24.4
NMRT-M10-4N-SS	SS316	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
NMRT-M10-6N-SS	SS316	10	3/8	7.9	20.6	19	17.2	19.5	23.9	31.5	28.2
NMRT-M12-4N-SS	SS316	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
NMRT-M12-6N-SS	SS316	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
NMRT-M12-8N-SS	SS316	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
NMRT-M16-6N-SS	SS316	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
NMRT-M16-8N-SS	SS316	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
NMRT-M20-12N-SS	SS316	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7

## NMBT Type – Male Branch Tee (Imperial / Metric Range)



### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F in	G in					
NMBT-02-2N-SS	SS316	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.31	24.91	18.90
NMBT-02-4N-SS	SS316	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.31	24.91	23.36
NMBT-03-2N-SS	SS316	3/16	1/8	3.04	1/2	1/2	13.71	16.00	17.77	24.38	17.78
NMBT-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.56	26.92	18.79
NMBT-04-4N-SS	SS316	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.72	27.08	23.37
NMBT-05-2N-SS	SS316	5/16	1/8	4.82	9/16	5/8	16.25	18.54	22.35	29.71	20.82
NMBT-06-4N-SS	SS316	3/8	1/4	7.11	5/8	1/16	16.76	19.30	23.12	30.48	25.40
NMBT-06-6N-SS	SS316	3/8	3/8	7.11	11/16	11/16	16.76	19.30	23.88	31.24	26.20
NMBT-08-6N-SS	SS316	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
NMBT-08-8N-SS	SS316	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
NMBT-10-8N-SS	SS316	5/8	1/2	11.93	15/16	1	24.86	21.84	27.46	38.10	35.05
NMBT-12-12N-SS	SS316	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	28.19	38.35	35.30

### Metric Range:

unit=mm

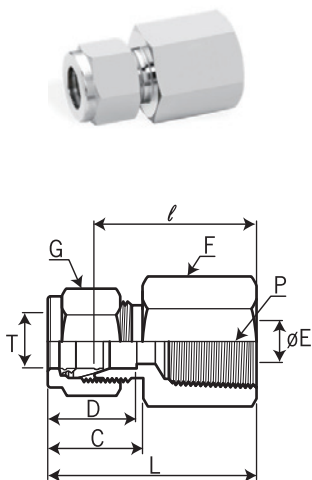
Ordering Code	Material	Tube O.D. T mm	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F mm	G mm					
NMBT-M03-2N-SS	SS316	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
NMBT-M03-4N-SS	SS316	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
NMBT-M04-2N-SS	SS316	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
NMBT-M06-2N-SS	SS316	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
NMBT-M06-4N-SS	SS316	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
NMBT-M08-2N-SS	SS316	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
NMBT-M08-4N-SS	SS316	8	1/4	6.4	17.5	16	16.2	18.6	21.3	28.8	24.4
NMBT-M10-4N-SS	SS316	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
NMBT-M10-6N-SS	SS316	10	3/8	7.9	20.6	19	17.2	19.5	23.9	31.5	28.2
NMBT-M12-4N-SS	SS316	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
NMBT-M12-6N-SS	SS316	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
NMBT-M12-8N-SS	SS316	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
NMBT-M16-6N-SS	SS316	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
NMBT-M16-8N-SS	SS316	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
NMBT-M20-12N-SS	SS316	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7



## NFC Type – Female Connector (Imperial / Metric Range)

### Imperial Range:

unit=mm



Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L
					F in	G in				
NFC-02-2N-SS	SS316	1/8	1/8	2.28	9/16	7/16	12.70	15.24	22.10	28.70
NFC-02-4N-SS	SS316	1/8	1/4	2.28	3/4	7/16	12.70	15.24	26.92	33.52
NFC-03-2N-SS	SS316	3/16	1/8	3.04	9/16	1/2	13.71	16.00	23.10	29.71
NFC-04-2N-SS	SS316	1/4	1/8	4.82	9/16	9/16	15.24	17.78	23.88	31.24
NFC-04-4N-SS	SS316	1/4	1/4	4.82	3/4	9/16	15.24	17.78	28.45	35.81
NFC-04-6N-SS	SS316	1/4	3/8	4.82	7/8	9/16	15.24	17.78	30.23	37.59
NFC-04-8N-SS	SS316	1/4	1/2	4.82	1-1/16	9/16	15.24	17.78	35.05	42.41
NFC-05-2N-SS	SS316	5/16	1/8	6.35	9/16	5/8	16.25	17.78	24.64	32.00
NFC-05-4N-SS	SS316	5/16	1/4	6.35	3/4	5/8	16.25	18.54	29.47	36.83
NFC-06-2N-SS	SS316	3/8	1/8	7.11	5/8	11/16	16.76	18.54	25.40	32.76
NFC-06-4N-SS	SS316	3/8	1/4	7.11	3/4	11/16	16.76	19.30	30.23	37.59
NFC-06-6N-SS	SS316	3/8	3/8	7.11	7/8	11/16	16.76	19.30	31.75	39.11
NFC-06-8N-SS	SS316	3/8	1/2	7.11	1-1/16	11/16	16.76	19.30	36.58	43.94
NFC-06-12N-SS	SS316	3/8	3/4	7.11	1-5/16	11/16	22.86	19.30	40.39	47.75
NFC-08-4N-SS	SS316	1/2	1/4	10.41	1-3/16	7/8	22.86	19.30	30.22	40.38
NFC-08-6N-SS	SS316	1/2	3/8	10.41	7/8	7/8	22.86	21.84	31.75	41.91
NFC-08-8N-SS	SS316	1/2	1/2	10.41	1-1/16	7/8	22.86	21.84	36.57	46.73
NFC-08-12N-SS	SS316	1/2	3/4	10.41	1-5/16	7/8	24.38	21.84	38.10	48.26
NFC-10-6N-SS	SS316	5/8	3/8	12.70	15/16	1	24.38	21.84	31.75	41.91
NFC-10-8N-SS	SS316	5/8	1/2	12.70	1-1/16	1	24.38	21.84	36.57	46.73
NFC-12-8N-SS	SS316	3/4	1/2	15.74	1-1/16	1-1/8	24.38	21.84	36.57	46.73
NFC-12-12N-SS	SS316	3/4	3/4	15.74	1-5/16	1-1/8	24.38	21.84	38.10	48.26
NFC-14-12N-SS	SS316	7/8	3/4	18.28	1-5/16	1-1/4	25.90	21.84	39.62	49.78
NFC-16-12N-SS	SS316	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	41.05	53.24
NFC-16-16N-SS	SS316	1	1	22.35	1/5/8	1-1/2	31.24	26.41	50.04	62.23

### Metric Range: ISO Tapered Thread

unit=mm

Ordering Code	Material	Tube O.D. T mm	P * R(PT)	E Min	Width across flat		D	C	ℓ	L
					F mm	G mm				
NFC-M03-2R-SS	SS316	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
NFC-M03-4R-SS	SS316	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
NFC-M04-2R-SS	SS316	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
NFC-M06-2R-SS	SS316	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
NFC-M06-4R-SS	SS316	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
NFC-M06-6R-SS	SS316	6	3/8	4.8	22	14	15.3	17.7	29.5	36.9
NFC-M06-8R-SS	SS316	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
NFC-M08-2R-SS	SS316	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
NFC-M08-4R-SS	SS316	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
NFC-M08-6R-SS	SS316	8	3/8	6.4	22	16	16.2	18.6	30.2	37.7
NFC-M08-8R-SS	SS316	8	1/2	6.4	27	16	16.2	19.5	35.8	43.3
NFC-M10-2R-SS	SS316	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
NFC-M10-4R-SS	SS316	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
NFC-M10-6R-SS	SS316	10	3/8	7.9	22	19	17.2	19.5	31.0	38.6
NFC-M10-8R-SS	SS316	10	1/2	7.9	27	19	17.2	22.0	36.6	44.2
NFC-M12-2R-SS	SS316	12	1/8	8.3	22	22	22.8	22.0	28.4	38.5
NFC-M12-4R-SS	SS316	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
NFC-M12-6R-SS	SS316	12	3/8	9.5	22	22	22.8	22.0	31.0	41.1
NFC-M12-8R-SS	SS316	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
NFC-M12-12R-SS	SS316	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
NFC-M15-8R-SS	SS316	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
NFC-M16-8R-SS	SS316	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
NFC-M20-8R-SS	SS316	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
NFC-M20-12R-SS	SS316	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
NFC-M22-12R-SS	SS316	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
NFC-M22-16R-SS	SS316	22	1	18.3	41	32	26.0	22.0	47.8	57.9
NFC-M25-12R-SS	SS316	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
NFC-M25-16R-SS	SS316	25	1	21.8	41	38	31.3	26.5	50.0	62.3

## NBFC Type – Bulkhead Female Connector (Imperial/Metric Range)

### Imperial Range:

unit=mm

Ordering Code	Mat'l	Tube O.D. T in	P * (NPT)	E Min	Width across flat			D	ℓ	ℓ <sub>1</sub>	L	L <sub>1</sub>	Panel Hole Drill Size	Panel Max. Thick.
					F	F <sub>1</sub>	G							
					in	in	in							
NBFC-02-2N-SS	SS316	1/8	1/8	2.28	9/16	1/2	7/16	12.70	38.10	24.63	44.70	31.24	8.33	12.70
NBFC-04-2N-SS	SS316	1/4	1/8	4.82	5/8	5/8	9/16	15.24	39.63	26.16	46.99	33.52	11.50	10.16
NBFC-04-4N-SS	SS316	1/4	1/4	4.82	3/4	5/8	9/16	15.24	44.45	26.16	51.81	33.52	11.50	10.16
NBFC-06-4N-SS	SS316	3/8	1/4	7.11	3/4	3/4	11/16	16.76	47.75	29.46	55.11	36.83	14.68	11.17
NBFC-08-6N-SS	SS316	1/2	3/8	10.41	15/16	15/16	7/8	22.86	51.56	31.75	61.72	41.91	19.44	12.70
NBFC-08-8N-SS	SS316	1/2	1/2	10.41	1-1/16	15/16	7/8	22.86	56.38	31.75	66.54	41.91	19.44	12.70
NBFC-12-12N-SS	SS316	3/4	3/4	15.74	1-1/4	1-3/16	1-1/8	24.38	65.35	38.80	75.51	47.21	25.79	16.76

### Metric Range:

unit=mm

Ordering Code	Mat'l	Tube O.D. T mm	P * (NPT)	E Min	Width across flat			D	ℓ	ℓ <sub>1</sub>	L	L <sub>1</sub>	Panel Hole Drill Size	Panel Max. Thick.
					F	F <sub>1</sub>	G							
					mm	mm	mm							
NBFC-M06-2N-SS	SS316	6	1/8	4.8	15.8	15.8	14	15.3	39.50	27.7	46.90	35.00	11.5	10.2
NBFC-M06-4N-SS	SS316	6	1/4	4.8	19.0	16.0	14	15.3	44.40	26.2	51.80	33.60	11.5	10.2
NBFC-M08-4N-SS	SS316	8	1/4	6.3	19.0	17.4	16	16.2	46.35	28.4	53.85	35.55	13.1	11.2
NBFC-M12-8N-SS	SS316	12	1/2	9.5	27.0	24.0	22	22.8	56.40	31.8	66.50	41.90	19.5	12.7

## NFE Type – Female Elbow (Imperial/Metric Range)

### Imperial Range:

unit=mm

Ordering Code	Mat'l	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F	G					
					in	in					
NFE-02-2N-SS	SS316	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	19.05
NFE-02-4N-SS	SS316	1/8	1/4	2.28	11/16	7/16	12.70	15.24	21.22	27.82	22.35
NFE-03-2N-SS	SS316	3/16	1/8	3.04	1/2	1/2	13.71	16.00	18.79	25.40	19.05
NFE-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.56	26.92	19.05
NFE-04-4N-SS	SS316	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
NFE-04-6N-SS	SS316	1/4	3/8	4.82	13/16	9/19	15.24	17.78	24.39	31.75	22.35
NFE-04-8N-SS	SS316	1/4	1/2	4.82	1	9/16	15.24	17.78	27.18	34.54	28.44
NFE-05-2N-SS	SS316	5/16	1/8	6.35	9/16	5/8	16.25	18.54	21.34	28.70	19.05
NFE-05-4N-SS	SS316	5/16	1/4	6.35	11/16	5/8	16.25	18.54	23.12	30.48	22.35
NFE-06-2N-SS	SS316	3/8	1/8	7.11	5/8	11/16	16.76	19.30	23.12	30.48	19.05
NFE-06-4N-SS	SS316	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.88	31.24	22.35
NFE-06-6N-SS	SS316	3/8	3/8	7.11	13/16	11/16	16.76	19.30	25.91	33.27	22.35
NFE-06-8N-SS	SS316	3/8	1/2	7.11	1	11/16	16.76	19.30	28.70	36.06	28.44
NFE-08-4N-SS	SS316	1/2	1/4	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
NFE-08-6N-SS	SS316	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.92	36.06	22.35
NFE-08-8N-SS	SS316	1/2	1/2	10.41	1	7/8	22.86	21.84	28.70	38.86	28.44
NFE-10-6N-SS	SS316	5/8	3/8	12.70	15/16	1	24.38	21.84	27.94	38.10	20.35
NFE-10-8N-SS	SS316	5/8	1/2	12.70	1	1	24.38	21.84	29.71	39.87	28.44
NFE-12-8N-SS	SS316	3/4	1/2	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	28.44
NFE-12-12N-SS	SS316	3/4	3/4	15.74	1-1/4	1-1/8	24.38	21.84	34.54	44.70	37.75
NFE-14-12N-SS	SS316	7/8	3/4	18.28	1-1/4	1-1/4	25.90	21.84	34.54	44.70	31.75
NFE-16-12N-SS	SS316	1	3/4	22.35	1-27/64	1-1/2	31.24	26.41	36.83	49.02	31.75
NFE-16-16N-SS	SS316	1	1	22.35	1-11/16	1-1/2	31.24	26.41	38.10	50.29	38.10

### Metric Range: ISO Tapered Thread

unit=mm

Ordering Code	Mat'l	Tube O.D. T mm	P * R(PT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F	G					
					mm	mm					
NFE-M06-4R-SS	SS316	6	1/4	4.8	17.46	14	15.3	17.7	19.6	27.0	22.40
NFE-M06-6R-SS	SS316	6	3/8	4.8	20.63	14	15.3	17.7	22.4	29.8	22.40
NFE-M06-8R-SS	SS316	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	28.40
NFE-M08-4R-SS	SS316	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
NFE-M08-8R-SS	SS316	8	1/2	6.4	20.63	16	16.2	18.6	27.7	35.2	28.40
NFE-M10-4R-SS	SS316	10	1/4	7.9	17.46	19	17.2	19.5	25.9	33.5	22.35
NFE-M10-6R-SS	SS316	10	3/8	7.9	20.63	19	17.2	19.5	25.9	33.5	22.40
NFE-M10-8R-SS	SS316	10	1/2	7.9	25.40	19	17.2	19.5	28.5	36.1	28.40
NFE-M12-6R-SS	SS316	12	3/8	9.5	20.63	22	22.8	22.0	26.1	36.2	22.35
NFE-M12-8R-SS	SS316	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40

## NFRT Type – Female Run Tee (Imperial Range / Metric Range)

### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F	G					
					in	in					
NFRT-02-2N-SS	SS316	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	19.05
NFRT-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.56	26.92	19.05
NFRT-04-4N-SS	SS316	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
NFRT-06-4N-SS	SS316	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.88	31.24	22.35
NFRT-08-6N-SS	SS316	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
NFRT-08-8N-SS	SS316	1/2	1/2	10.41	1	7/8	22.86	21.84	29.71	39.87	28.44
NFRT-12-12N-SS	SS316	3/4	3/4	15.74	1-1/4	1-1/8	24.38	21.84	34.54	44.70	31.75

### Metric Range: ISO Tapered Thread

unit=mm

Ordering Code	Material	Tube O.D. T mm	P * R(PT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F	G					
					mm	mm					
NFRT-M06-2R-SS	SS316	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.0
NFRT-M06-4R-SS	SS316	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.4
NFRT-M06-8R-SS	SS316	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	28.4
NFRT-M08-2R-SS	SS316	8	1/8	6.4	15.87	16	16.2	18.6	22.4	29.9	19.0
NFRT-M08-4R-SS	SS316	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.4
NFRT-M08-6R-SS	SS316	8	3/8	6.4	20.63	16	16.2	18.6	25.2	32.7	22.4
NFRT-M08-8R-SS	SS316	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.5	28.4
NFRT-M12-4R-SS	SS316	12	1/4	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
NFRT-M12-6R-SS	SS316	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
NFRT-M12-8R-SS	SS316	12	1/2	9.5	26.98	22	22.8	22.0	29.7	39.8	28.4
NFRT-M16-8R-SS	SS316	16	1/2	12.7	25.40	25	24.4	22.0	29.7	39.8	28.4

## NFBT Type – Female Branch Tee (Imperial Range / Metric Range)

### Imperial Range:

unit=mm

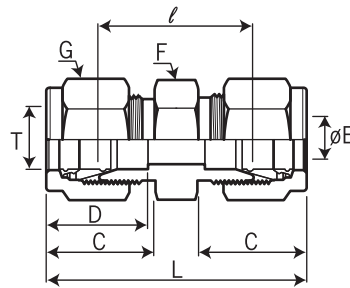
Ordering Code	Material	Tube O.D. T in	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F	G					
					in	in					
NFBT-02-2N-SS	SS316	1/8	1/8	2.28	1/2	7/16	12.70	15.24	17.78	24.38	19.05
NFBT-04-2N-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.56	26.92	19.05
NFBT-04-4N-SS	SS316	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
NFBT-06-4N-SS	SS316	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.88	31.24	22.35
NFBT-08-4N-SS	SS316	1/2	1/4	10.41	13/16	7/8	22.86	21.34	25.90	36.06	22.35
NFBT-08-6N-SS	SS316	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
NFBT-08-8N-SS	SS316	1/2	1/2	10.41	1	1	22.86	21.84	28.70	38.86	28.44
NFBT-10-8N-SS	SS316	5/8	1/2	12.70	1	1-1/8	24.38	21.84	28.70	38.86	28.44
NFBT-12-12N-SS	SS316	3/4	3/4	15.74	1-1/4	1-1/8	24.38	21.84	34.54	44.70	31.75
NFBT-16-12N-SS	SS316	1	3/4	22.35	1-27/64	1-1/2	31.24	26.41	36.83	49.02	31.72
NFBT-16-16N-SS	SS316	1	1	22.35	1-11/16	1-1/2	31.24	26.41	41.40	53.59	38.10

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	P * (NPT)	E Min	Width across flat		D	C	ℓ	L	L <sub>1</sub>
					F	G					
					mm	mm					
NFBT-M06-2N-SS	SS316	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.0
NFBT-M06-4N-SS	SS316	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.4
NFBT-M06-6N-SS	SS316	6	3/8	4.8	20.63	14	15.3	17.7	24.3	31.7	22.4
NFBT-M06-8N-SS	SS316	6	1/2	4.8	25.40	14	15.3	17.7	27.3	34.7	28.4
NFBT-M08-2N-SS	SS316	8	1/8	6.4	15.87	16	16.2	18.6	22.4	29.9	19.0
NFBT-M08-4N-SS	SS316	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.4
NFBT-M08-6N-SS	SS316	8	3/8	6.4	20.63	16	16.2	18.6	24.9	32.4	22.4
NFBT-M08-8N-SS	SS316	8	1/2	6.4	25.40	16	16.2	18.6	27.7	35.2	28.4
NFBT-M10-4N-SS	SS316	10	1/4	7.9	20.63	19	17.2	19.5	25.9	33.5	22.4
NFBT-M10-6N-SS	SS316	10	3/8	7.9	20.63	19	17.2	19.5	25.7	33.3	22.4
NFBT-M10-8N-SS	SS316	10	1/2	9.5	25.40	19	17.2	19.5	26.0	33.6	22.4
NFBT-M12-4N-SS	SS316	12	1/4	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
NFBT-M12-6N-SS	SS316	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
NFBT-M12-8N-SS	SS316	12	1/2	9.5	25.40	22	22.8	22.0	29.9	40.0	28.4
NFBT-M16-8N-SS	SS316	16	1/2	12.7	25.40	25	24.4	22.0	28.7	38.8	28.7

## NU Type – Union (Imperial / Metric Range)



### Imperial Range:

unit=mm

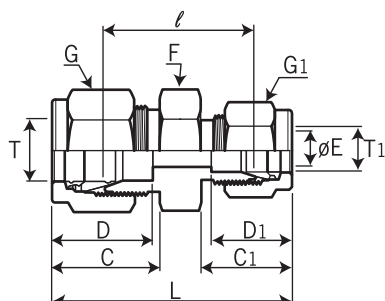
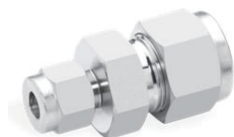
Ordering Code	Material	Tube O.D. T in	E Min	Width across flat		D	C	$\ell$	L
				F	G				
				in	in				
NU-01-SS	SS316	1/16	1.27	5/16	5/16	8.63	10.91	17.53	25.15
NU-02-SS	SS316	1/8	2.28	7/16	7/16	12.70	15.24	22.36	35.56
NU-03-SS	SS316	3/16	3.04	7/16	1/2	13.71	16.00	24.11	37.33
NU-04-SS	SS316	1/4	4.82	1/2	9/16	15.24	17.78	26.17	40.89
NU-05-SS	SS316	5/16	6.35	9/16	5/8	16.25	18.54	28.20	42.92
NU-06-SS	SS316	3/8	7.11	5/8	11/16	16.76	19.30	30.23	44.95
NU-08-SS	SS316	1/2	10.41	13/16	5/8	22.86	21.84	30.98	51.30
NU-10-SS	SS316	5/8	12.70	15/16	1	24.38	21.84	31.75	52.07
NU-12-SS	SS316	3/4	15.74	1-1/16	1-1/8	24.38	21.84	33.27	53.59
NU-14-SS	SS316	7/8	18.28	1-3/16	1-1/4	25.90	21.84	35.05	55.37
NU-16-SS	SS316	1	22.35	1-3/8	1-1/2	31.24	26.41	40.39	64.77
NU-20-SS	SS316	1-1/4	27.61	1-3/4	1-7/8	41.10	38.80	48.00	92.20

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	E Min	Width across flat		D	C	$\ell$	L
				F	G				
				mm	mm				
NU-M02-SS	SS316	2	1.7	12	12	12.9	15.3	22.4	35.6
NU-M03-SS	SS316	3	2.4	12	12	12.9	15.3	22.1	35.3
NU-M04-SS	SS316	4	2.4	12	12	13.7	16.1	24.1	37.3
NU-M06-SS	SS316	6	4.8	14	14	15.3	17.7	26.2	41.0
NU-M08-SS	SS316	8	6.4	15	16	16.2	18.6	28.2	43.2
NU-M10-SS	SS316	10	7.9	18	19	17.2	19.5	31.0	46.2
NU-M12-SS	SS316	12	9.5	22	22	22.8	22.0	31.0	51.2
NU-M15-SS	SS316	15	11.9	24	25	24.4	22.0	31.8	52.0
NU-M20-SS	SS316	20	15.9	30	32	26.0	22.0	34.8	55.0
NU-M22-SS	SS316	22	18.3	30	32	26.0	22.0	34.8	55.0
NU-M25-SS	SS316	25	21.8	35	38	31.3	26.5	40.4	65.0

## NRU Type – Reducing Union (Imperial / Metric Range)



### Imperial Range:

unit=mm

Ordering Code	Material	Tube O. D.		E Min	Width across flat			D	D <sub>1</sub>	C	C <sub>1</sub>	ℓ	L
		T	T <sub>1</sub>		F	G	G <sub>1</sub>						
		in	in		Min	in	in						
NRU-02-01-SS	SS316	1/8	1/16	1.27	7/16	7/16	5/16	12.70	8.63	15.24	10.92	17.71	30.91
NRU-03-01-SS	SS316	3/16	1/8	2.28	7/16	1/2	7/16	13.71	12.70	16.00	15.24	23.35	36.57
NRU-04-02-SS	SS316	1/4	1/8	2.28	1/2	9/16	7/16	15.24	12.70	17.78	15.24	23.88	38.60
NRU-04-03-SS	SS316	1/4	3/16	3.04	1/2	9/16	1/2	15.24	13.71	17.78	16.00	25.40	39.37
NRU-05-02-SS	SS316	5/16	1/8	2.28	9/16	5/8	7/16	16.25	12.70	18.54	15.24	25.90	39.87
NRU-05-04-SS	SS316	5/16	1/4	4.82	9/16	11/16	9/16	16.25	15.24	18.54	17.78	27.43	42.16
NRU-06-02-SS	SS316	3/8	1/8	2.28	5/8	11/16	7/16	16.76	12.70	19.30	15.24	26.92	40.89
NRU-06-04-SS	SS316	3/8	1/4	4.82	5/8	11/16	9/16	16.76	15.24	19.30	17.78	28.44	43.18
NRU-06-05-SS	SS316	3/8	5/16	6.35	5/8	7/8	5/8	16.76	16.25	19.30	18.54	29.46	44.19
NRU-08-02-SS	SS316	1/2	1/8	2.28	13/16	7/8	7/16	22.86	12.70	21.84	15.24	28.44	45.21
NRU-08-04-SS	SS316	1/2	1/4	4.82	13/16	7/8	9/16	22.86	15.24	21.84	17.78	29.46	46.99
NRU-08-06-SS	SS316	1/2	3/8	7.11	13/16	1	11/16	22.86	16.76	17.78	19.30	30.98	48.51
NRU-10-06-SS	SS316	5/8	3/8	7.11	15/16	1	11/16	24.38	16.76	21.84	19.30	31.75	49.27
NRU-10-08-SS	SS316	5/8	1/2	10.41	15/16	1-1/8	7/8	24.38	22.86	21.84	21.84	31.75	52.07
NRU-12-04-SS	SS316	3/4	1/4	4.82	1-1/16	1-1/8	9/16	24.38	15.24	21.84	17.78	31.75	49.27
NRU-12-06-SS	SS316	3/4	3/8	7.11	1-1/16	1-1/8	11/16	24.38	16.76	21.84	19.30	33.27	50.80
NRU-12-08-SS	SS316	3/4	1/2	10.41	1-1/16	1-1/8	7/8	24.38	22.86	21.84	21.84	33.27	53.59
NRU-12-10-SS	SS316	3/4	5/8	12.70	1-1/16	1-1/8	1	24.38	24.38	21.84	21.84	33.27	53.59
NRU-16-08-SS	SS316	1	1/2	10.41	1-3/8	1-1/2	7/8	31.24	22.86	26.41	21.84	40.89	63.24
NRU-16-12-SS	SS316	1	3/4	15.74	1-3/8	1-1/2	1-1/8	31.24	24.38	26.41	21.84	40.38	62.73

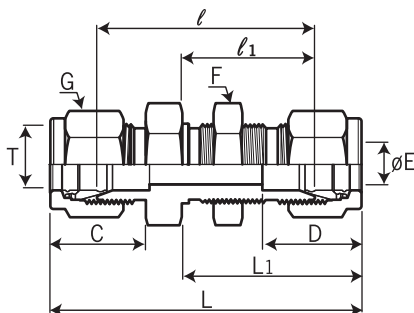
### Metric Range:

unit=mm

Ordering Code	Material	Tube O. D.		E Min	Width across flat			D	D <sub>1</sub>	C	C <sub>1</sub>	ℓ	L
		T	T <sub>1</sub>		F	G	G <sub>1</sub>						
		mm	mm		mm	mm	mm						
NRU-M06-M03-SS	SS316	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
NRU-M06-M04-SS	SS316	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
NRU-M08-M06-SS	SS316	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
NRU-M10-M06-SS	SS316	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
NRU-M10-M08-SS	SS316	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.0	45.1
NRU-M12-M06-SS	SS316	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
NRU-M12-M08-SS	SS316	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
NRU-M12-M10-SS	SS316	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
NRU-M16-M12-SS	SS316	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
NRU-M25-M18-SS	SS316	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	60.0
NRU-M25-M20-SS	SS316	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3



## NBU Type – Bulkhead Union (Imperial / Metric Range)



### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	E Min	Width across flat		D	C	l	l <sub>1</sub>	L	L <sub>1</sub>	Panel Hole Drill Size	Panel Max. Thickness
				F Min	G in								
NBU-01-SS	SS316	1/16	1.27	5/16	5/16	8.63	10.92	23.88	13.46	31.50	17.27	5.16	3.05
NBU-02-SS	SS316	1/8	2.28	1/2	7/16	12.70	15.24	38.10	24.63	51.30	31.24	8.33	12.70
NBU-03-SS	SS316	3/16	3.04	9/16	1/2	13.71	16.00	40.37	25.40	53.59	32.00	9.92	12.70
NBU-04-SS	SS316	1/4	4.82	5/8	9/16	15.24	17.78	42.93	26.16	57.65	35.52	11.50	10.16
NBU-05-SS	SS316	5/16	6.35	11/16	5/8	16.25	18.54	45.98	28.44	60.70	35.81	13.09	11.17
NBU-06-SS	SS316	3/8	7.11	3/4	11/16	16.76	19.30	47.51	29.46	62.23	36.83	14.65	11.17
NBU-08-SS	SS316	1/2	10.41	15/16	7/8	22.86	21.84	50.80	31.75	71.12	41.91	19.44	12.70
NBU-10-SS	SS316	5/8	12.70	1-1/16	1	24.38	21.84	52.32	32.51	72.64	42.67	22.62	12.70
NBU-12-SS	SS316	3/4	15.74	1-3/16	1-1/8	24.38	21.84	58.67	37.33	78.99	47.49	25.79	16.76
NBU-14-SS	SS316	7/8	18.28	1-3/8	1-1/4	25.90	21.84	64.26	42.92	84.58	53.08	28.97	19.05
NBU-16-SS	SS316	1	22.35	1-5/8	1-1/2	31.24	26.41	71.37	45.21	95.75	57.40	33.73	19.05

### Metric Range:

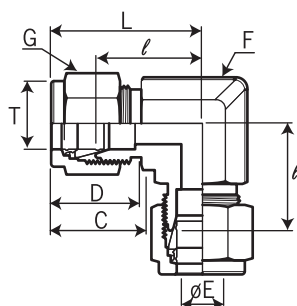
unit=mm

Ordering Code	Material	Tube O.D. T mm	E Min	Width across flat			D	C	l	l <sub>1</sub>	L	L <sub>1</sub>	Panel Hole Drill Size	Panel Max. Thickness
				F mm	F <sub>1</sub> mm	G mm								
NBU-M03-SS	SS316	3	2.4	14	12.7	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
NBU-M04SS	SS316	4	2.4	14	14.3	12	13.7	15.3	40.4	25.4	53.6	32.0	9.9	12.7
NBU-M06-SS	SS316	6	4.8	16	15.9	14	15.3	16.1	42.9	26.2	57.7	33.6	11.5	10.2
NBU-M08-SS	SS316	8	6.4	16	17.5	16	16.2	17.7	46.0	28.6	61.0	36.1	13.1	11.2
NBU-M10-SS	SS316	10	7.9	22	22.0	19	17.2	18.6	48.5	29.4	63.7	37.0	16.2	11.2
NBU-M12-SS	SS316	12	9.5	24	23.8	22	22.8	19.5	50.8	31.8	71.0	41.9	19.5	12.7
NBU-M15-SS	SS316	15	11.9	27	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
NBU-M16-SS	SS316	16	12.7	27	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
NBU-M18-SS	SS316	18	15.1	30	30.0	30	24.4	22.0	58.7	37.7	78.9	47.4	26.0	16.8
NBU-M20-SS	SS316	20	15.9	35	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
NBU-M22-SS	SS316	22	18.3	35	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.1
NBU-M25-SS	SS316	25	21.8	41	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.1

• Metric Tubes Bulkhead Hexgon Application Only



## NUE Type – Union Elbow (Imperial / Metric Range)



### Imperial Range:

unit=mm

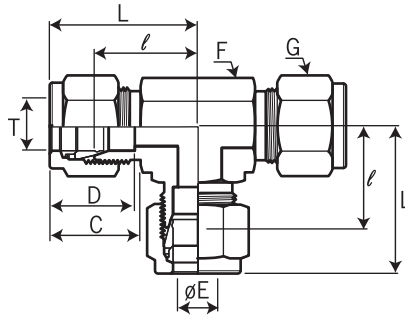
Ordering Code	Material	Tube O.D. T in	E Min	Width across flat		D	C	ℓ	L
				F	G				
				in	in				
NUE-01-SS	SS316	1/16	1.27	3/8	5/16	8.63	10.92	14.07	17.88
NUE-02-SS	SS316	1/8	2.28	3/8	7/16	12.70	15.24	15.75	22.35
NUE-03-SS	SS316	3/16	3.04	1/2	1/2	13.71	16.00	17.77	24.38
NUE-04-SS	SS316	1/4	4.82	1/2	9/16	15.24	17.78	19.56	26.92
NUE-05-SS	SS316	5/16	6.35	9/16	5/8	16.25	18.54	21.34	28.70
NUE-06-SS	SS316	3/8	7.11	5/8	11/16	16.76	19.30	23.12	30.48
NUE-08-SS	SS316	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
NUE-10-SS	SS316	5/8	12.70	15/16	1	24.38	21.84	28.64	38.80
NUE-12-SS	SS316	3/4	15.74	1-1/6	1-1/8	24.38	21.84	29.71	39.87
NUE-14-SS	SS316	7/8	18.28	1-1/4	1-1/4	25.90	21.84	34.54	44.70
NUE-16-SS	SS316	1	22.35	1-27/64	1-1/2	31.24	26.41	36.83	49.02

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	E Min	Width across flat		D	C	ℓ	L
				F	G				
				mm	mm				
NUE-M02-SS	SS316	2	1.7	9.5	12	12.9	15.3	15.7	22.3
NUE-M03-SS	SS316	3	2.4	9.5	12	12.9	15.3	15.7	22.3
NUE-M04-SS	SS316	4	2.4	12.7	12	13.7	16.4	18.8	25.4
NUE-M06-SS	SS316	6	4.8	12.7	14	15.3	17.7	19.6	27.0
NUE-M08-SS	SS316	8	6.4	14.3	16	16.2	18.6	21.3	28.8
NUE-M10-SS	SS316	10	7.9	17.5	19	17.2	19.5	23.9	31.5
NUE-M12-SS	SS316	12	9.5	20.6	22	22.8	22.0	25.9	36.0
NUE-M15-SS	SS316	15	11.9	25.4	25	24.4	22.0	28.7	38.8
NUE-M16-SS	SS316	16	12.7	25.4	25	24.4	22.0	28.7	38.8
NUE-M18-SS	SS316	18	15.1	27.0	30	24.4	22.0	29.7	39.8
NUE-M20-SS	SS316	20	15.9	31.8	32	26.0	22.0	32.5	42.6
NUE-M22-SS	SS316	22	18.3	31.8	32	26.0	22.0	32.5	42.6
NUE-M25-SS	SS316	25	21.8	36.0	38	31.3	26.5	36.8	49.1

## NUT Type – Union Tee (Imperial / Metric Range)



### Imperial Range:

unit=mm

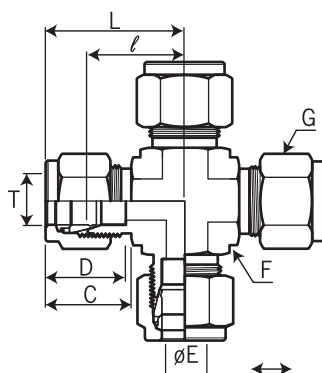
Ordering Code	Material	Tube O. D. T in	E Min	Width across flat		D	C	ℓ	L
				F	G				
				in	in				
NUT-01-SS	SS316	1/16	1.27	3/8	5/16	8.63	10.92	14.07	17.88
NUT-02-SS	SS316	1/8	2.28	3/8	7/16	12.70	15.24	15.75	22.35
NUT-03-SS	SS316	3/16	3.04	1/2	1/2	13.71	16.00	17.77	24.38
NUT-04-SS	SS316	1/4	4.82	1/2	9/16	15.24	17.78	19.56	26.92
NUT-05-SS	SS316	5/16	6.35	9/16	5/8	16.25	18.54	21.34	28.70
NUT-06-SS	SS316	3/8	7.11	5/8	11/16	16.76	19.30	23.12	30.48
NUT-08-SS	SS316	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
NUT-10-SS	SS316	5/8	12.70	15/16	1	24.38	21.84	28.64	38.80
NUT-12-SS	SS316	3/4	15.74	1-1/6	1-1/8	24.38	21.84	29.71	39.87
NUT-14-SS	SS316	7/8	18.28	1-1/4	1-1/4	25.90	21.84	34.54	44.70
NUT-16-SS	SS316	1	22.35	1-27/64	1-1/2	31.24	26.41	36.83	49.02

### Metric Range:

unit=mm

Ordering Code	Material	Tube O. D. T mm	E Min	Width across flat		D	C	ℓ	L
				F	G				
				mm	mm				
NUT-M02-SS	SS316	2	1.7	9.5	12	12.9	15.3	15.7	22.3
NUT-M03-SS	SS316	3	2.4	9.5	12	12.9	15.3	15.7	22.3
NUT-M04-SS	SS316	4	2.4	12.7	12	13.7	16.1	18.8	25.4
NUT-M06-SS	SS316	6	4.8	12.7	14	15.3	17.7	19.6	27.0
NUT-M08-SS	SS316	8	6.4	14.3	16	16.2	18.6	21.3	28.8
NUT-M10-SS	SS316	10	7.9	17.5	19	17.2	19.5	23.9	31.5
NUT-M12-SS	SS316	12	9.5	20.6	22	22.8	22.0	25.9	36.0
NUT-M15-SS	SS316	15	11.9	25.4	25	24.4	22.0	28.7	38.8
NUT-M16-SS	SS316	16	12.7	25.4	25	24.4	22.0	28.7	38.8
NUT-M18-SS	SS316	18	15.1	27.0	30	24.4	22.0	29.7	39.8
NUT-M20-SS	SS316	20	15.9	31.8	32	26.0	22.0	32.5	42.6
NUT-M22-SS	SS316	22	18.3	31.8	32	26.0	22.0	32.5	42.6
NUT-M25-SS	SS316	25	21.8	36.0	38	31.3	26.5	36.8	49.1

## NUC Type – Union Cross (Imperial / Metric Range)



### Imperial Range:

unit=mm

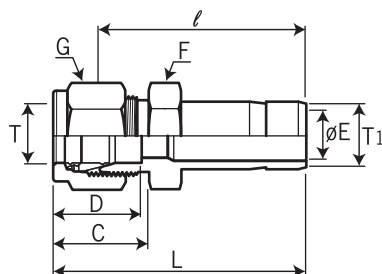
Ordering Code	Material	Tube O.D. T in	E Min	Width across flat		D	C	ℓ	L
				F in	G in				
NUC-01-SS	SS316	1/16	1.27	3/8	5/16	8.63	10.92	14.07	17.88
NUC-02-SS	SS316	1/8	2.28	3/8	7/16	12.70	15.24	15.75	22.35
NUC-03-SS	SS316	3/16	3.04	1/2	1/2	13.71	16.00	17.77	24.38
NUC-04-SS	SS316	1/4	4.82	1/2	9/16	15.24	17.78	19.56	26.92
NUC-05-SS	SS316	5/16	6.35	1/2	5/8	16.25	18.54	21.34	28.70
NUC-06-SS	SS316	3/8	7.11	11/16	11/16	16.76	19.30	23.12	30.48
NUC-08-SS	SS316	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
NUC-10-SS	SS316	5/8	12.70	13/16	1	24.38	21.84	28.64	38.80
NUC-12-SS	SS316	3/4	15.74	1	1-1/8	24.38	21.84	29.71	39.87
NUC-14-SS	SS316	7/8	18.28	1-1/4	1-1/4	25.90	21.84	34.54	44.70
NUC-16-SS	SS316	1	22.35	1-27/64	1-1/2	31.24	26.41	36.83	49.02

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	E Min	Width across flat		D	C	ℓ	L
				F mm	G mm				
NUC-M03-SS	SS316	3	2.4	9.5	12	12.9	15.3	15.7	22.3
NUC-M06-SS	SS316	6	4.8	12.7	14	15.3	17.7	19.6	27.0
NUC-M08-SS	SS316	8	6.4	14.3	16	16.2	18.6	21.3	28.8
NUC-M10-SS	SS316	10	7.9	17.5	19	17.2	19.5	23.9	31.5
NUC-M12-SS	SS316	12	9.5	20.6	22	22.8	22.0	25.9	36.0
NUC-M16-SS	SS316	16	12.7	25.4	25	24.4	22.0	28.7	38.8
NUC-M18-SS	SS316	18	15.1	27.0	30	24.4	22.0	29.7	39.8
NUC-M20-SS	SS316	20	15.9	31.8	32	26.0	22.0	32.5	42.6
NUC-M25-SS	SS316	25	21.8	36.0	38	31.3	26.5	36.8	49.1

## NR Type – Reducer (Imperial Range)

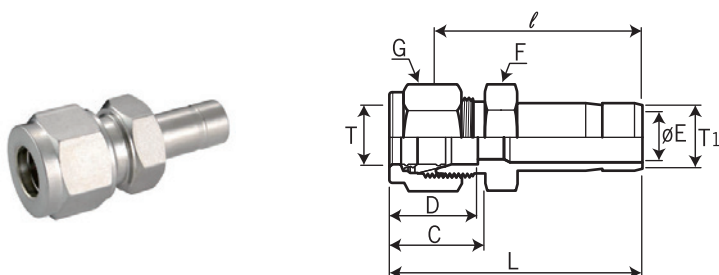


### Imperial Range:

unit=mm

Ordering Code	Material	Tube O. D.		E Min	Width across flat		D	C	ℓ	L
		T	T <sub>1</sub>		F	G				
		in	in		in	in				
NR-02-01-SS	SS316	1/8	1/16	0.76	7/16	7/16	12.70	15.24	22.35	28.95
NR-02-02-SS	SS316	1/8	1/8	2.03	7/16	7/16	12.70	15.24	26.92	33.52
NR-02-03-SS	SS316	1/8	3/16	2.28	7/16	7/16	12.70	15.24	27.69	34.29
NR-02-04-SS	SS316	1/8	1/4	2.28	7/16	7/16	12.70	15.24	29.46	36.06
NR-02-06-SS	SS316	1/8	3/8	2.28	7/16	7/16	12.70	15.24	30.99	37.59
NR-02-08-SS	SS316	1/8	1/2	2.28	9/16	7/16	12.70	15.24	37.59	44.19
NR-03-02-SS	SS316	3/16	1/8	2.03	7/16	1/2	13.71	16.00	28.18	34.79
NR-03-04-SS	SS316	3/16	1/4	3.04	7/16	1/2	13.71	16.00	30.47	37.08
NR-04-02-SS	SS316	1/4	1/8	2.03	1/2	9/16	15.24	17.78	29.47	36.83
NR-04-03-SS	SS316	1/4	3/16	3.04	1/2	9/16	15.24	17.78	30.23	37.59
NR-04-04-SS	SS316	1/4	1/4	4.82	1/2	9/16	15.24	17.78	31.75	39.11
NR-04-05-SS	SS316	1/4	5/16	4.82	1/2	9/16	15.24	17.78	32.51	39.87
NR-04-06-SS	SS316	1/4	3/8	4.82	1/2	9/16	15.24	17.78	33.28	40.64
NR-04-08-SS	SS316	1/4	1/2	4.82	9/16	9/16	15.24	17.78	38.86	46.22
NR-04-10-SS	SS316	1/4	5/8	4.82	11/16	9/16	15.24	17.78	40.64	48.00
NR-04-12-SS	SS316	1/4	3/4	4.82	13/16	9/16	15.24	17.78	40.39	47.75
NR-05-06-SS	SS316	5/16	3/8	6.35	9/16	5/8	16.25	18.54	34.55	41.91
NR-05-08-SS	SS316	5/16	1/2	6.35	9/16	5/8	16.25	18.54	40.13	47.49
NR-06-04-SS	SS316	3/8	1/4	4.82	5/8	11/16	16.76	19.30	34.04	41.40
NR-06-06-SS	SS316	3/8	3/8	7.11	5/8	11/16	16.76	19.30	35.82	43.18
NR-06-08-SS	SS316	3/8	1/2	7.11	5/8	11/16	16.76	19.30	41.15	48.51
NR-06-10-SS	SS316	3/8	5/8	7.11	11/16	11/16	16.76	19.30	42.93	50.29
NR-06-12-SS	SS316	3/8	3/4	7.11	13/16	11/16	16.76	19.30	42.93	50.29
NR-08-04-SS	SS316	1/2	1/4	4.82	13/16	7/8	22.86	21.84	34.79	44.95
NR-08-06-SS	SS316	1/2	3/8	7.11	13/16	7/8	22.86	21.84	36.57	46.73
NR-08-08-SS	SS316	1/2	1/2	9.90	13/16	7/8	22.86	21.84	42.16	52.32
NR-08-10-SS	SS316	1/2	5/8	10.41	13/16	7/8	22.86	21.84	43.68	53.84
NR-08-12-SS	SS316	1/2	3/4	10.41	13/16	7/8	22.86	21.84	43.68	53.84
NR-08-16-SS	SS316	1/2	1	10.41	1-1/16	7/8	22.86	21.84	50.03	60.19
NR-10-12-SS	SS316	5/8	3/4	12.70	15/16	1	24.38	21.84	44.45	54.61
NR-10-14-SS	SS316	5/8	7/8	12.70	15/16	1	24.38	21.84	45.97	56.13
NR-10-16-SS	SS316	5/8	1	12.70	1-1/16	1	24.38	21.84	50.80	60.96
NR-12-08-SS	SS316	3/4	1/2	9.90	1-1/16	1-1/8	24.38	21.84	44.45	54.61
NR-12-16-SS	SS316	3/4	1	15.74	1-1/16	1-1/8	24.38	21.84	52.32	62.48

## NR-M Type – Reducer (Metric Range)

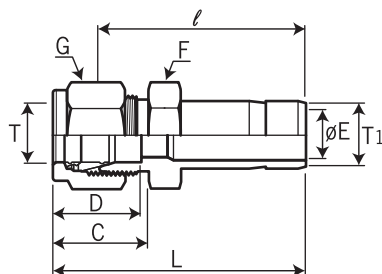


### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D.		E Min	Width across flat		D	C	ℓ	L
		T	T <sub>1</sub>		F	G				
		mm	mm		mm	mm				
NR-M03-M04-SS	SS316	3	4	2.4	12	12	12.9	15.3	28.4	35.0
NR-M03-M06-SS	SS316	3	6	2.4	12	12	12.9	15.3	29.5	36.1
NR-M03-M10-SS	SS316	3	10	2.4	12	12	12.9	15.3	31.8	38.4
NR-M04-M06-SS	SS316	4	6	2.4	12	12	13.7	16.1	30.5	37.1
NR-M06-M03-SS	SS316	6	3	1.8	14	14	15.3	17.7	29.5	36.9
NR-M06-M08-SS	SS316	6	8	4.8	14	14	15.3	17.7	32.5	39.9
NR-M06-M10-SS	SS316	6	10	4.8	14	14	15.3	17.7	33.3	40.7
NR-M06-M12-SS	SS316	6	12	4.8	14	14	15.3	17.7	38.9	46.3
NR-M08-M06-SS	SS316	8	6	4.6	15	16	16.2	18.6	32.8	40.3
NR-M08-M10-SS	SS316	8	10	6.4	15	16	16.2	18.6	34.5	42.0
NR-M08-M12-SS	SS316	8	12	6.4	15	16	16.2	18.6	40.1	47.6
NR-M10-M06-SS	SS316	10	6	4.6	18	19	17.2	19.5	34.8	42.4
NR-M10-M12-SS	SS316	10	12	7.9	18	19	17.2	19.5	42.2	49.8
NR-M10-M15-SS	SS316	10	15	7.9	18	19	17.2	19.5	43.7	51.3
NR-M10-M18-SS	SS316	10	18	7.9	19	19	17.2	19.5	43.7	51.3
NR-M12-M06-SS	SS316	12	6	4.6	22	22	22.8	22.0	34.8	44.9
NR-M12-M10-SS	SS316	12	10	7.7	22	22	22.8	22.0	36.6	46.7
NR-M12-M16-SS	SS316	12	16	9.5	22	22	22.8	22.0	43.7	53.8
NR-M12-M18-SS	SS316	12	18	9.5	22	22	22.8	22.0	43.7	53.8
NR-M12-M20-SS	SS316	12	20	9.5	22	22	22.8	22.0	46.0	56.1
NR-M12-M22-SS	SS316	12	22	9.5	24	22	22.8	22.0	46.0	56.1
NR-M12-M25-SS	SS316	12	25	9.5	27	22	22.8	22.0	52.3	62.4
NR-M16-M12-SS	SS316	16	12	9.1	24	25	24.4	22.0	42.9	53.0
NR-M18-M12-SS	SS316	18	12	9.1	27	30	24.4	22.0	44.5	54.6
NR-M18-M16-SS	SS316	18	16	12.7	27	30	24.4	22.0	46.0	56.1
NR-M18-M20-SS	SS316	18	20	15.1	27	30	24.4	22.0	47.5	57.6
NR-M18-M22-SS	SS316	18	22	15.1	27	30	24.4	22.0	47.5	57.6
NR-M18-M25-SS	SS316	18	25	15.1	27	30	24.4	22.0	52.3	62.4
NR-M20-M16-SS	SS316	20	16	12.7	30	32	24.4	22.0	47.8	57.9
NR-M20-M18-SS	SS316	20	18	13.9	30	32	26.0	22.0	47.8	57.9
NR-M20-M22-SS	SS316	20	22	15.8	30	32	26.0	22.0	49.3	59.4
NR-M20-M25-SS	SS316	20	25	15.8	30	32	26.0	22.0	54.1	64.2
NR-M22-M18-SS	SS316	22	18	13.9	30	32	26.0	22.0	47.8	57.9
NR-M22-M20-SS	SS316	22	20	15.1	30	32	26.0	22.0	49.3	59.4
NR-M22-M25-SS	SS316	22	25	18.3	30	32	26.0	22.0	54.1	64.2
NR-M25-M18-SS	SS316	25	18	13.9	35	38	31.3	26.5	50.8	63.1
NR-M25-M20-SS	SS316	25	20	15.1	35	38	31.3	26.5	52.3	64.6

## NR-M Type – Reducer (Metric to Fractional Range)

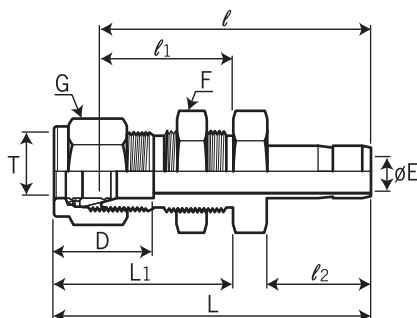


### Metric to Fractional Range:

unit=mm

Ordering Code	Material	Tube O.D.		E Min	Width across flat		D	C	ℓ	L
		T	T <sub>1</sub>		F	G				
		mm	in		mm	mm				
NR-M03-02-SS	SS316	3	1/8	2.0	12	12	12.9	15.3	26.9	33.5
NR-M03-04-SS	SS316	3	1/4	2.4	12	12	12.9	15.3	29.5	36.1
NR-M06-04-SS	SS316	6	1/4	4.8	14	14	15.3	17.7	31.8	39.2
NR-M06-05-SS	SS316	6	5/16	4.8	14	14	15.3	17.7	32.5	39.9
NR-M06-06-SS	SS316	6	3/8	4.8	14	14	15.3	17.7	33.3	40.7
NR-M06-08-SS	SS316	6	1/2	4.8	14	14	15.3	17.7	38.9	46.3
NR-M08-06-SS	SS316	8	3/8	6.4	15	16	16.2	18.6	34.5	42.0
NR-M08-08-SS	SS316	8	1/2	6.4	15	16	16.2	18.6	40.1	47.6
NR-M10-06-SS	SS316	10	3/8	7.1	18	19	17.2	19.5	36.6	44.2
NR-M10-08-SS	SS316	10	1/2	7.9	18	19	17.2	19.5	42.2	49.8
NR-M12-08-SS	SS316	12	1/2	9.5	22	22	22.8	22.0	42.2	52.3
NR-M12-12-SS	SS316	12	3/4	9.5	22	22	22.8	22.0	43.7	53.8
NR-M18-12-SS	SS316	18	3/4	15.1	27	30	24.4	22.0	46.0	56.1
NR-M18-16-SS	SS316	18	1	15.1	27	30	24.4	22.0	52.3	62.4

## NBR Type – Bulkhead Reducer (Imperial Range)



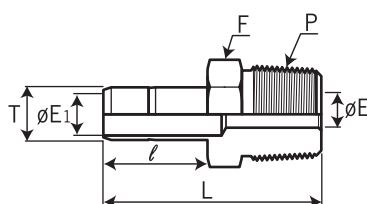
### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	E Min	Width across flat		D	ℓ	ℓ <sub>1</sub>	ℓ <sub>2</sub>	L	L <sub>1</sub>	Panel Hole Drill Size	Panel Max. Thickness
				F	G								
				Min	in								
NBR-02-SS	SS316	1/8	2.03	1/2	7/16	12.70	42.93	24.63	13.46	49.53	31.24	8.33	12.70
NBR-04-SS	SS316	1/4	4.82	5/8	9/16	15.24	48.44	26.16	15.74	55.88	33.52	11.50	10.16
NBR-06-SS	SS316	3/8	7.11	3/4	11/16	16.76	53.85	29.46	17.52	61.21	36.83	14.68	11.17
NBR-08-SS	SS316	1/2	10.41	15/16	7/8	22.86	62.73	31.75	23.11	72.89	41.91	19.44	12.70



## NMA Type – Male Adapter (Imperial / Metric Range)



### Imperial Range:

unit=mm

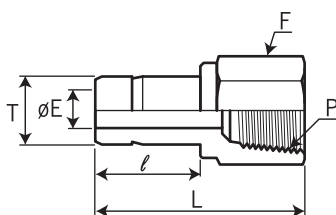
Ordering Code	Material	Tube O.D. T in	P* (NPT)	E min.	E1	Width across flat	l	L
						F in		
NMA-02-2N-SS	SS316	1/8	1/8	4.57	1.77	7/16	13.45	29.50
NMA-02-4N-SS	SS316	1/8	1/4	7.11	1.77	9/16	13.45	34.80
NMA-03-2N-SS	SS316	3/16	1/8	4.57	3.04	7/16	14.20	30.22
NMA-03-4N-SS	SS316	3/16	1/4	7.11	3.04	9/16	14.20	35.56
NMA-04-2N-SS	SS316	1/4	1/8	4.57	4.57	7/16	15.75	31.80
NMA-04-4N-SS	SS316	1/4	1/4	7.11	4.57	9/16	15.75	37.08
NMA-04-6N-SS	SS316	1/4	3/8	10.41	4.57	11/16	15.75	37.84
NMA-04-8N-SS	SS316	1/4	1/2	12.70	4.57	7/8	16.80	43.43
NMA-05-2N-SS	SS316	5/16	1/8	4.57	6.35	7/16	16.80	32.76
NMA-05-4N-SS	SS316	5/16	1/4	7.11	6.35	9/16	17.50	38.10
NMA-06-2N-SS	SS316	3/8	1/8	4.57	7.11	7/16	17.50	33.50
NMA-06-4N-SS	SS316	3/8	1/4	7.11	7.11	9/16	17.50	38.90
NMA-06-6N-SS	SS316	3/8	3/8	10.41	7.11	11/16	17.50	39.60
NMA-06-8N-SS	SS316	3/8	1/2	12.70	7.11	7/8	23.20	45.20
NMA-08-4N-SS	SS316	1/2	1/4	7.11	9.90	9/16	23.20	44.50
NMA-08-6N-SS	SS316	1/2	3/8	10.41	9.90	11/16	23.20	45.20
NMA-08-8N-SS	SS316	1/2	1/2	12.70	9.90	7/8	24.70	50.50
NMA-10-6N-SS	SS316	5/8	3/8	10.41	12.70	11/16	24.70	47.40
NMA-10-8N-SS	SS316	5/8	1/2	12.70	12.70	7/8	24.70	52.30
NMA-10-12N-SS	SS316	5/8	3/4	18.28	12.70	1-1/16	24.70	52.30
NMA-12-8N-SS	SS316	3/4	1/2	12.70	14.98	7/8	24.70	52.30
NMA-12-12N-SS	SS316	3/4	3/4	18.28	14.98	1-1/16	24.70	52.30
NMA-12-16N-SS	SS316	3/4	1	22.35	14.98	1-3/8	24.70	57.91
NMA-14-12N-SS	SS316	7/8	3/4	18.28	17.27	1-1/16	26.70	54.30
NMA-16-12N-SS	SS316	1	3/4	18.28	20.06	1-1/16	31.70	58.70
NMA-16-16N-SS	SS316	1	1	22.35	20.06	1-3/8	31.70	66.00

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	P* (NPT)	E min.	E1	Width across flat	l	L
						F mm		
NMA-M03-2N-SS	SS316	3	1/8	4.0	1.8	12	13.15	29.4
NMA-M06-2N-SS	SS316	6	1/8	4.6	4.6	12	15.75	32.8
NMA-M06-4N-SS	SS316	6	1/4	4.6	4.6	14	15.75	38.1
NMA-M08-4N-SS	SS316	8	1/4	6.3	6.3	14	16.50	39.1
NMA-M10-4N-SS	SS316	10	1/4	7.7	7.7	14	17.50	39.9
NMA-M10-6N-SS	SS316	10	3/8	7.7	7.7	17	17.50	40.6
NMA-M10-8N-SS	SS316	10	1/2	11.9	7.7	22	17.50	45.2
NMA-M12-4N-SS	SS316	12	1/4	7.1	9.1	14	23.50	46.5
NMA-M12-6N-SS	SS316	12	3/8	9.1	9.1	17	23.50	46.2
NMA-M12-8N-SS	SS316	12	1/2	11.9	9.1	22	23.50	51.8
NMA-M18-8N-SS	SS316	18	1/2	11.9	13.9	22	24.90	53.2
NMA-M18-12N-SS	SS316	18	3/4	15.9	13.9	27	24.90	53.2

## NFA Type – Female Adapter (Imperial / Metric Range)



### Imperial Range:

unit=mm

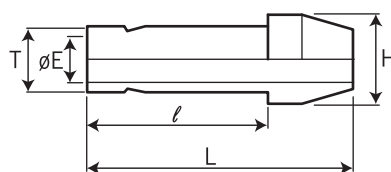
Ordering Code	Material	Tube O.D. T in	P* (NPT)	E min.	Width across flat	l	L
					F in		
NFA-02-2N-SS	SS316	1/8	1/8	1.77	9/16	13.45	31.50
NFA-02-4N-SS	SS316	1/8	1/4	1.77	3/4	13.45	35.30
NFA-03-2N-SS	SS316	3/16	1/8	3.04	9/16	14.20	32.00
NFA-03-4N-SS	SS316	3/16	1/4	3.04	3/4	14.20	35.81
NFA-04-2N-SS	SS316	1/4	1/8	4.57	9/16	15.75	33.02
NFA-04-4N-SS	SS316	1/4	1/4	4.57	3/4	15.75	37.10
NFA-04-6N-SS	SS316	1/4	3/8	4.57	7/8	15.75	39.37
NFA-04-8N-SS	SS316	1/4	1/2	4.57	1-1/16	15.75	42.50
NFA-05-2N-SS	SS316	5/16	1/8	6.35	9/16	16.80	34.29
NFA-05-4N-SS	SS316	5/16	1/4	6.35	3/4	16.80	37.59
NFA-06-2N-SS	SS316	3/8	1/8	7.11	9/16	17.50	34.29
NFA-06-4N-SS	SS316	3/8	1/4	7.11	3/4	17.50	38.10
NFA-06-6N-SS	SS316	3/8	3/8	7.11	7/8	17.50	40.38
NFA-06-8N-SS	SS316	3/8	1/2	7.11	1-1/16	17.50	46.73
NFA-08-4N-SS	SS316	1/2	1/4	9.90	3/4	23.20	43.43
NFA-08-6N-SS	SS316	1/2	3/8	9.90	7/8	23.20	45.46
NFA-08-8N-SS	SS316	1/2	1/2	9.90	1-1/16	23.20	51.80
NFA-10-6N-SS	SS316	5/8	3/8	12.70	7/8	24.70	48.26
NFA-10-8N-SS	SS316	5/8	1/2	12.70	1-1/16	24.70	53.84
NFA-10-12N-SS	SS316	5/8	3/4	12.70	1-1/4	24.70	55.37
NFA-12-8N-SS	SS316	3/4	1/2	14.98	1-1/16	24.70	52.83
NFA-12-12N-SS	SS316	3/4	3/4	14.98	1-1/4	24.70	54.86
NFA-12-16N-SS	SS316	3/4	1	14.98	1-5/8	24.70	58.42
NFA-14-12N-SS	SS316	7/8	3/4	17.27	1-1/4	26.70	57.15
NFA-16-12N-SS	SS316	1	3/4	20.06	1-1/4	31.70	60.70
NFA-16-16N-SS	SS316	1	1	20.06	1-5/8	31.70	64.26

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	P* (NPT)	E min.	Width across flat	l	L
					F mm		
NFA-M03-2N-SS	SS316	3	1/8	1.8	14	13.15	31.15
NFA-M06-2N-SS	SS316	6	1/8	4.6	14	15.75	32.50
NFA-M06-4N-SS	SS316	6	1/4	4.6	19	15.75	37.10
NFA-M08-4N-SS	SS316	8	1/4	6.3	19	16.50	37.60
NFA-M10-4N-SS	SS316	10	1/4	7.7	19	17.50	38.10
NFA-M10-6N-SS	SS316	10	3/8	7.7	22	17.50	40.10
NFA-M10-8N-SS	SS316	10	1/2	7.7	27	17.50	46.50
NFA-M12-4N-SS	SS316	12	1/4	9.1	19	23.50	43.70
NFA-M12-6N-SS	SS316	12	3/8	9.1	22	23.50	46.00
NFA-M12-8N-SS	SS316	12	1/2	9.1	27	23.50	52.30
NFA-M18-12N-SS	SS316	18	3/4	13.9	32	24.90	54.80

## NPC Type – Port Connector (Imperial / Metric Range)



### Imperial Range:

unit=mm

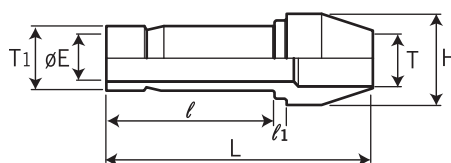
Ordering Code	Material	Tube O.D. T in	E min	H	ℓ	L
NPC-02-SS	SS316	1/8	1.77	6.09	15.75	22.35
NPC-04-SS	SS316	1/4	4.57	9.39	18.79	24.63
NPC-05-SS	SS316	5/16	6.35	10.92	20.06	25.90
NPC-06-SS	SS316	3/8	7.11	12.70	20.32	26.16
NPC-08-SS	SS316	1/2	9.90	15.74	25.90	35.81
NPC-12-SS	SS316	3/4	14.98	22.09	27.68	37.33
NPC-16-SS	SS316	1	20.06	28.44	34.54	48.26

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	E min	H	ℓ	L
NPC-M03-SS	SS316	3	2.1	6.0	15.7	22.2
NPC-M06-SS	SS316	6	4.4	9.0	18.7	24.6
NPC-M08-SS	SS316	8	6.2	11.0	20.0	25.9
NPC-M10-SS	SS316	10	8.2	13.1	20.2	26.1
NPC-M12-SS	SS316	12	9.1	15.0	26.0	35.8
NPC-M16-SS	SS316	16	12.7	19.0	27.6	37.4

## NRPC Type – Reducing Port Connector (Imperial / Metric Range)



### Imperial Range:

unit=mm

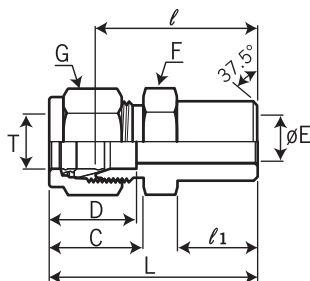
Ordering Code	Material	Tube O.D. T in	Reduced O.D. T1 in	E min	H	ℓ	ℓ1	L
NRPC-04-02-SS	SS316	1/4	1/8	2.28	9.39	13.45	3.30	22.60
NRPC-06-02-SS	SS316	3/8	1/8	2.28	12.70	13.45	3.81	23.11
NRPC-06-04-SS	SS316	3/8	1/4	4.82	12.70	15.75	3.30	24.89
NRPC-08-04-SS	SS316	1/2	1/4	4.82	15.74	15.75	3.81	29.21
NRPC-08-06-SS	SS316	1/2	3/8	7.11	15.74	17.50	3.30	30.48
NRPC-12-08-SS	SS316	3/4	1/2	9.90	22.09	23.20	3.81	36.57

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	Reduced O.D. T1 mm	E min	H	ℓ	ℓ1	L
NRPC-M06-M03-SS	SS316	6	3	2.2	9.0	13.5	3.2	22.6
NRPC-M08-M06-SS	SS316	8	6	4.6	11.0	15.7	3.1	24.7
NRPC-M10-M06-SS	SS316	10	6	4.6	13.1	15.7	3.4	25.0
NRPC-M12-M06-SS	SS316	12	6	4.6	15.0	15.7	3.6	29.1
NRPC-M12-M08-SS	SS316	12	8	6.4	15.0	16.8	3.4	29.8
NRPC-M12-M10-SS	SS316	12	10	7.7	15.0	17.5	3.1	30.4
NRPC-M16-M12-SS	SS316	16	12	9.1	19.0	23.1	3.4	36.2

## NMWC Type – Male Pipe Weld Connector (Imperial/Metric Range)



### Imperial Range:

unit=mm

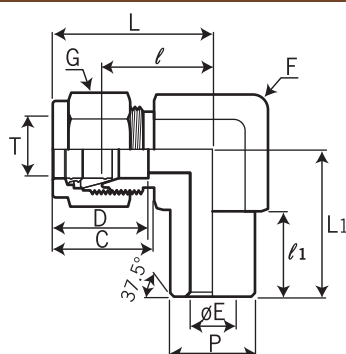
Ordering Code	Material	Tube O.D. T in	Male Pipe Size P	E Min	Width across flat		D	C	l	l <sub>1</sub>	L
					F in	G in					
NMWC-02-2P-SS	SS316	1/8	1/8	2.28	7/16	7/16	12.70	15.24	24.64	9.65	31.24
NMWC-03-2P-SS	SS316	3/16	1/8	3.04	7/16	1/2	13.71	16.00	24.63	9.65	31.24
NMWC-04-2P-SS	SS316	1/4	1/8	4.82	1/2	9/16	15.24	17.78	25.40	9.65	32.76
NMWC-04-4P-SS	SS316	1/4	1/4	4.82	9/16	9/16	15.24	17.78	30.48	14.22	37.84
NMWC-05-2P-SS	SS316	5/16	1/8	5.08	9/16	5/8	16.25	18.54	28.66	9.65	37.03
NMWC-05-4P-SS	SS316	5/16	1/4	6.35	9/16	5/8	16.25	18.54	31.24	14.22	38.60
NMWC-06-4P-SS	SS316	3/8	1/4	7.11	5/8	11/16	16.76	19.30	32.51	14.22	39.87
NMWC-06-6P-SS	SS316	3/8	3/8	7.11	11/16	11/16	16.76	19.30	32.51	11.05	39.87
NMWC-06-8P-SS	SS316	3/8	1/2	7.11	7/8	11/16	16.76	19.30	35.87	14.22	43.23
NMWC-08-6P-SS	SS316	1/2	3/8	10.41	13/16	7/8	22.86	21.84	33.27	19.05	43.43
NMWC-08-8P-SS	SS316	1/2	1/2	10.41	7/8	7/8	22.86	21.84	38.86	14.22	49.02
NMWC-08-12P-SS	SS316	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	40.38	19.05	50.54
NMWC-10-8P-SS	SS316	5/8	1/2	12.70	15/16	1	24.38	21.84	38.86	19.05	49.02
NMWC-12-12P-SS	SS316	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	40.38	19.05	50.54
NMWC-16-16P-SS	SS316	1	1	22.35	1-3/8	1-1/2	31.24	26.41	50.04	23.87	62.23

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	Male Pipe Size P	E Min	Width across flat		D	C	l	l <sub>1</sub>	L
					F mm	G mm					
NMWC-M03-2P-SS	SS316	3	1/8	2.4	12	12	12.9	15.3	23.10	9.7	29.70
NMWC-M04-2P-SS	SS316	4	1/8	2.4	12	12	13.7	16.1	24.10	9.7	30.70
NMWC-M06-2P-SS	SS316	6	1/8	4.8	14	14	15.3	17.7	25.40	9.7	32.80
NMWC-M06-4P-SS	SS316	6	1/4	4.8	14	14	15.3	17.7	30.20	14.2	37.60
NMWC-M08-2P-SS	SS316	8	1/8	5.1	15	16	16.2	18.6	26.70	9.7	34.20
NMWC-M08-4P-SS	SS316	8	1/4	6.4	15	16	16.2	18.6	31.20	14.2	38.70
NMWC-M08-8P-SS	SS316	8	1/2	6.4	22	16	16.2	18.6	37.30	19.0	44.80
NMWC-M10-4P-SS	SS316	10	1/4	7.1	18	19	17.2	19.5	33.30	14.2	40.90
NMWC-M10-6P-SS	SS316	10	3/8	7.9	18	19	17.2	19.5	32.50	14.2	40.10
NMWC-M10-8P-SS	SS316	10	1/2	7.9	22	19	17.2	19.5	38.10	19.0	45.70
NMWC-M12-4P-SS	SS316	12	1/4	7.1	22	22	22.8	22.0	33.30	14.2	43.40
NMWC-M12-6P-SS	SS316	12	3/8	9.5	22	22	22.8	22.0	33.30	14.2	43.40
NMWC-M12-8P-SS	SS316	12	1/2	9.5	24	22	22.8	22.0	38.10	19.0	48.20
NMWC-M15-8P-SS	SS316	15	1/2	11.9	24	25	24.4	22.0	38.90	19.0	49.00
NMWC-M16-8P-SS	SS316	16	1/2	12.7	24	25	24.4	22.0	38.90	19.0	49.00
NMWC-M18-8P-SS	SS316	18	1/2	13.5	27	30	24.4	22.0	39.95	19.0	50.05

## NMWE Type – Male Pipe Weld Elbow (Imperial Range)

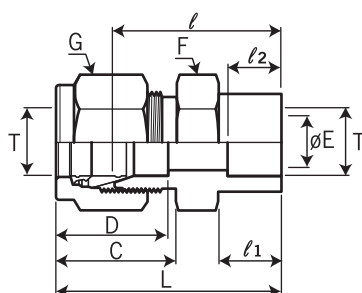


### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	Pipe Weid Size P	E Min	Width across flat		D	C	ℓ	ℓ <sub>1</sub>	L	L <sub>1</sub>
					F	G						
					in	in						
NMWE-02-2P-SS	SS316	1/8	1/8	4.82	1/2	9/16	12.70	15.24	20.32	9.65	26.92	18.79
NMWE-04-4P-SS	SS316	1/4	1/4	4.82	1/2	9/16	15.24	17.76	19.56	14.22	26.92	23.36
NMWE-06-4P-SS	SS316	3/8	1/4	7.11	5/8	11/16	16.75	19.30	23.13	14.22	30.48	25.40
NMWE-08-8P-SS	SS316	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	19.05	36.06	33.02
NMWE-12-12P-SS	SS316	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	19.05	39.87	36.83

## NSWC Type – Tube Socket Weld Connector (Imperial Range)

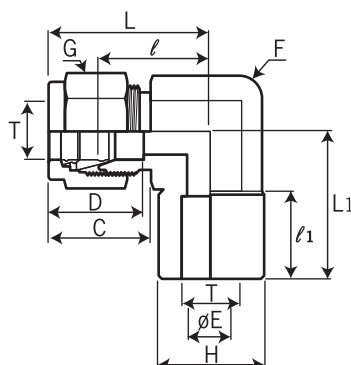


### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	E Min	H	Width across flat		D	C	ℓ	ℓ <sub>1</sub>	ℓ <sub>2</sub>	L
					F	G						
					in	in						
NSWC-02-2T-SS	SS316	1/8	2.28	7.87	7/16	7/16	12.70	15.24	22.55	8.63	6.35	28.95
NSWC-04-4T-SS	SS316	1/4	4.82	11.17	1/2	9/16	15.24	17.78	28.16	10.41	7.87	35.52
NSWC-06-6T-SS	SS316	3/8	7.11	15.74	5/8	11/16	16.76	19.30	30.23	11.93	9.65	37.59
NSWC-08-8T-SS	SS316	1/2	10.41	19.06	13/16	7/8	22.86	21.84	30.98	11.93	12.70	41.14
NSWC-12-12T-SS	SS316	3/4	15.74	26.67	1-1/16	1-1/8	24.38	21.84	33.27	11.93	14.22	43.43
NSWC-16-16T-SS	SS316	1	22.85	33.27	1-3/8	1-1/2	31.24	26.41	40.38	14.22	19.05	52.57

## NSWE Type – Tube Socket Weld Elbow (Imperial Range)

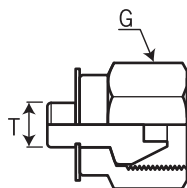


### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	E Min	H	Width across flat		D	C	ℓ	ℓ <sub>1</sub>	L	L <sub>1</sub>
					F	G						
					in	in						
NSWE-04-4T-SS	SS316	1/4	4.82	12.70	1/2	9/16	15.24	17.78	19.56	7.87	26.92	19.55
NSWE-06-6T-SS	SS316	3/8	7.11	15.74	5/8	11/16	16.76	19.30	23.12	9.65	30.48	23.11
NSWE-08-8T-SS	SS316	1/2	10.41	20.57	13/16	7/8	22.86	21.84	25.90	12.70	36.06	25.90

## NTP Type – Tube Plug (Imperial / Metric Range)



### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in	Width across flat
			G in
NTP-02-SS	SS316	1/8	7/16
NTP-03-SS	SS316	3/16	1/2
NTP-04-SS	SS316	1/4	9/16
NTP-05-SS	SS316	5/16	5/8
NTP-06-SS	SS316	3/8	11/16
NTP-08-SS	SS316	1/2	7/8
NTP-10-SS	SS316	5/8	1
NTP-12-SS	SS316	3/4	1-1/8
NTP-14-SS	SS316	7/8	1-1/4
NTP-16-SS	SS316	1	1-1/2

### Metric Range:

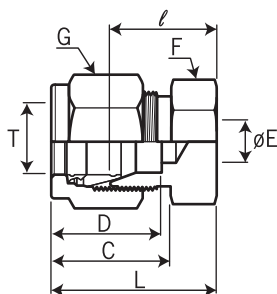
unit=mm

Ordering Code	Material	Tube O.D. T mm	Width across flat
			G mm
NTP-M02-SS	SS316	2	12
NTP-M03-SS	SS316	3	12
NTP-M04-SS	SS316	4	12
NTP-M06-SS	SS316	6	14
NTP-M08-SS	SS316	8	16
NTP-M10-SS	SS316	10	19
NTP-M12-SS	SS316	12	22
NTP-M15-SS	SS316	15	25
NTP-M16-SS	SS316	16	25
NTP-M18-SS	SS316	18	30
NTP-M20-SS	SS316	20	32
NTP-M22-SS	SS316	22	32
NTP-M25-SS	SS316	25	38

## NTC Type – Tube Cap (Imperial / Metric Range)

### Imperial Range:

unit=mm



Ordering Code	Material	Tube O.D. T in	Width across flat		D	C	ℓ	L
			F in	G in				
NTC-01-SS	SS316	1/16	5/16	5/16	8.63	10.92	11.20	14.18
NTC-02-SS	SS316	1/8	7/16	7/16	15.24	15.24	13.46	20.06
NTC-03-SS	SS316	3/16	7/16	1/2	13.71	16.00	14.73	21.33
NTC-04-SS	SS316	1/4	1/2	9/16	15.24	17.78	16.00	23.26
NTC-05-SS	SS316	5/16	9/16	5/8	16.25	18.54	17.01	24.38
NTC-06-SS	SS316	3/8	5/8	11/16	16.76	19.30	18.28	25.65
NTC-08-SS	SS316	1/2	13/16	7/8	22.86	21.84	19.05	29.21
NTC-10-SS	SS316	5/8	15/16	1	24.38	21.84	19.81	29.97
NTC-12-SS	SS316	3/4	1-1/16	1-1/8	24.38	21.84	21.33	31.49
NTC-14-SS	SS316	7/8	1-3/16	1-1/4	25.90	21.84	23.87	34.03
NTC-16-SS	SS316	1	1-3/8	1-1/2	31.24	26.41	26.16	38.35

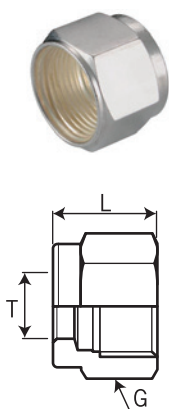
### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm	Width across flat		D	C	ℓ	L
			F mm	G mm				
NTC-M02-SS	SS316	2	12	12	12.9	15.3	13.5	20.1
NTC-M03-SS	SS316	3	12	12	12.9	15.3	13.5	20.1
NTC-M04-SS	SS316	4	12	12	13.7	16.1	14.7	21.3
NTC-M06-SS	SS316	6	14	14	15.3	17.7	15.7	23.1
NTC-M08-SS	SS316	8	15	16	16.2	18.6	17.0	24.5
NTC-M10-SS	SS316	10	18	19	17.2	19.5	19.0	26.6
NTC-M12-SS	SS316	12	22	22	22.8	22.0	19.0	29.1
NTC-M15-SS	SS316	15	24	25	24.4	22.0	19.8	29.9
NTC-M16-SS	SS316	16	24	25	24.4	22.0	19.8	29.9
NTC-M18-SS	SS316	18	27	30	24.4	22.0	21.3	31.4
NTC-M20-SS	SS316	20	30	32	26.0	22.0	23.9	34.0
NTC-M22-SS	SS316	22	30	32	26.0	22.0	23.9	34.0
NTC-M25-SS	SS316	25	35	38	31.3	26.5	26.2	38.5



## NPN Type – Nut (Imperial / Metric Range)



### Imperial Range:

unit=mm

Ordering Code	Mat'l	Tube O.D. T in	Width across flat	L
			G	
			in	
NPN-01-SS	SS316	1/16	5/16	7.93
NPN-02-SS	SS316	1/8	7/16	11.93
NPN-03-SS	SS316	3/16	1/2	11.93
NPN-04-SS	SS316	1/4	9/16	12.70
NPN-05-SS	SS316	5/16	5/8	13.46
NPN-06-SS	SS316	3/8	11/16	14.22
NPN-08-SS	SS316	1/2	7/8	17.52
NPN-10-SS	SS316	5/8	1	17.52
NPN-12-SS	SS316	3/4	1-1/8	17.52
NPN-14-SS	SS316	7/8	1-1/4	17.52
NPN-16-SS	SS316	1	1-1/2	20.57

### Metric Range:

unit=mm

Ordering Code	Mat'l	Tube O.D. T mm	Width across flat	L
			G	
			mm	
NPN-M03-SS	SS316	3	12	11.9
NPN-M04-SS	SS316	4	12	11.9
NPN-M06-SS	SS316	6	14	12.7
NPN-M08-SS	SS316	8	16	13.5
NPN-M10-SS	SS316	10	19	15.1
NPN-M12-SS	SS316	12	22	17.4
NPN-M15-SS	SS316	15	25	17.4
NPN-M16-SS	SS316	16	25	17.4
NPN-M18-SS	SS316	18	30	17.4
NPN-M20-SS	SS316	20	32	17.4
NPN-M22-SS	SS316	22	32	17.4
NPN-M25-SS	SS316	25	38	20.6

## NFF Type – Front Ferrule (Imperial / Metric Range)



### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in
NFF-01-SS	SS316	1/16
NFF-02-SS	SS316	1/8
NFF-03-SS	SS316	3/16
NFF-04-SS	SS316	1/4
NFF-05-SS	SS316	5/16
NFF-06-SS	SS316	3/8
NFF-08-SS	SS316	1/2
NFF-10-SS	SS316	5/8
NFF-12-SS	SS316	3/4
NFF-14-SS	SS316	7/8
NFF-16-SS	SS316	1

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm
NFF-M02-SS	SS316	2
NFF-M03-SS	SS316	3
NFF-M04-SS	SS316	4
NFF-M06-SS	SS316	6
NFF-M08-SS	SS316	8
NFF-M10-SS	SS316	10
NFF-M12-SS	SS316	12
NFF-M15-SS	SS316	15
NFF-M16-SS	SS316	16
NFF-M18-SS	SS316	18
NFF-M20-SS	SS316	20
NFF-M22-SS	SS316	22
NFF-M25-SS	SS316	25

## NBF Type – Back Ferrule (Imperial / Metric Range)



### Imperial Range:

unit=mm

Ordering Code	Material	Tube O.D. T in
NBF-01-SS	SS316	1/16
NBF-02-SS	SS316	1/8
NBF-03-SS	SS316	3/16
NBF-04-SS	SS316	1/4
NBF-05-SS	SS316	5/16
NBF-06-SS	SS316	3/8
NBF-08-SS	SS316	1/2
NBF-10-SS	SS316	5/8
NBF-12-SS	SS316	3/4
NBF-14-SS	SS316	7/8
NBF-16-SS	SS316	1

### Metric Range:

unit=mm

Ordering Code	Material	Tube O.D. T mm
NBF-M02-SS	SS316	2
NBF-M03-SS	SS316	3
NBF-M04-SS	SS316	4
NBF-M06-SS	SS316	6
NBF-M08-SS	SS316	8
NBF-M10-SS	SS316	10
NBF-M12-SS	SS316	12
NBF-M15-SS	SS316	15
NBF-M16-SS	SS316	16
NBF-M18-SS	SS316	18
NBF-M20-SS	SS316	20
NBF-M22-SS	SS316	22
NBF-M25-SS	SS316	25



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