- **Tube size: Ø 1/4" ... 3/4"**
- **Simple tube connection and disconnection – no tools required**
- **Fewer component parts – internally machined form in body to secure collet reduces number of potential leak paths**
- **Internal tube support as standard for greater safety**
- **Corrosion resistant**
- **Easy identification – all collets marked with tube size**
- **Total fittings system solution**
- **Reduced assembly & maintenance times provide time/labour savings**
- **Greater reliability and reduced testing**
- **Ease of tube insertion in areas of restricted access**

Technical features

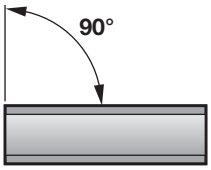
Medium:
Compressed air
Maximum working pressure:
0 ... 10 bar (0 ... 145 psi)
Working temperature:
-40°C .. 100°C (-40°F ... 212°F)

Standards & Legislation:
Fittings and Tubing Comply to Department Of Transport Federal Motor Vehicle Safety Standard, (DOT FMVSS 106) (Mandatory requirements for inch tube fittings in U.S.A.)
Society for Automotive Engineers SAE J1131 (Inch tube and fittings)
German TÜV approval and DIN 74324 (Metric Tube and Fittings)

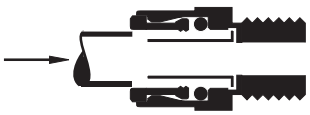
Swivel fittings:
The swivel feature should be used for positioning purposes only and should not be used as a rotating joint.

Materials:
Body (straights), Tube support, Collet: brass BS 2874 CZ 121
Body (elbows, tees): brass BS 2874 CZ 122
'O'-Ring: Buna N (low nitrile)
Thread sealant: Precoat 5
Tubing:
Tube should be to SAE J844

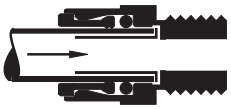
Method of assembly



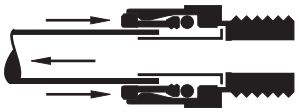
1. Ensure that the end of the tube is cut square and is free from burrs.



2. Push the tube through the collet into the fitting.

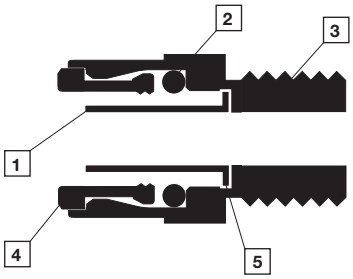


3. Continue pushing the tube through the 'O'-ring until it bottoms on the tube stop. Then pull back on the tube to reinforce the collet teeth gripping action.



4. To disconnect - first ensure there is no air present. Push the tube into the fitting until it bottoms on the tube stop. Then hold down the collet and withdraw the tube.

Component functions



1 Tube support
2 'O'-ring
3 Body
4 Collet
5 Tube stop

Body
The body has an internally machined form to secure the collet(s), 'O'-Ring(s) and Tube support(s). It also has internal & externally machined thread form(s) for connection to ports where applicable.

Collet
The purpose of the collet is to grip the tube and ensure it is retained by the fitting at all times.

'O'-ring
The 'O'-Ring is to ensure adequate interference between the tube & fitting body therefore providing a pneumatic seal at all times.

Tube support
The tube support prevents the tube collapsing during extreme tensile loading conditions. Such conditions are only encountered during performance testing and far exceed those experienced during normal use.

Straight adaptors and connectors

Straight adaptor (NPTF) 95453	Straight adaptor (metric) 944666	Straight adaptor (BSP taper) 944530	Equal straight connector 944503	Reducing straight connector 944504
				
Page 2	Page 2	Page 3	Page 3	Page 3

Elbow adaptors and connector

Elbow adaptor (NPTF) 954331	Universal hobbs elbow adaptor (metric) 944138	Elbow adaptor (BSP taper) 944330	Elbow connector 944514
			
Page 3	Page 4	Page 3	Page 4

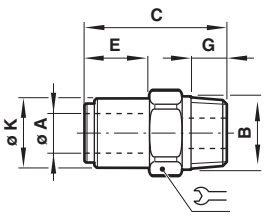
Tee connectors

Equal tee connector 944514	Reducing tee connector 944588
	
Page 4	Page 4

Dimensions

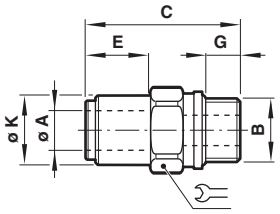
Dimensions in mm
Projection/First angle

Straight adaptor NPTF thread



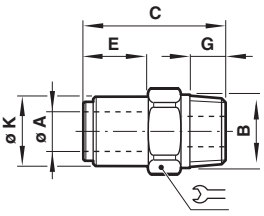
O/D Tube A	NPTF B	C	E	G	Ø K		Model
3/16"	1/8"	25,8	10,8	9,5	11,7	1/2"	95453003
1/4"	1/8"	26,3	10,8	9,5	12,7	1/2"	95453004
1/4"	1/4"	29,8	9,3	14,3	12,7	9/16"	95453010
1/4"	3/8"	30,5	8,0	14,3	12,7	1 1/16"	95453018
3/8"	1/8"	33,6	17,1	9,5	16,5	1 1/16"	95453006
3/8"	1/4"	37,6	16,1	14,3	16,5	1 1/16"	95453012
3/8"	3/8"	36,1	13,6	14,3	16,5	1 1/16"	95453020
3/8"	1/2"	37,1	9,1	19,0	16,5	7/8"	95453029
1/2"	1/4"	42,6	19,1	14,3	20,0	7/8"	95453013
1/2"	3/8"	41,6	18,1	14,3	20,0	7/8"	95453021
1/2"	1/2"	43,6	15,6	19,0	20,0	7/8"	95453030
5/8"	3/8"	47,5	22,5	14,3	25,0	1 1/16"	95453022
5/8"	1/2"	53,5	23,5	19,0	25,0	1 1/16"	95453031
3/4"	1/2"	53,5	22,5	19,0	29,5	1 3/16"	95453049

Straight adaptor Metric thread



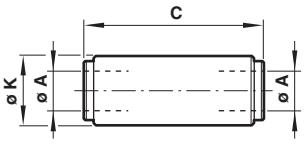
O/D Tube A	Thread B	C	E	G	Ø K		Model
1/4"	M10 x 1.0	28,5	13,5	6,5	13,0	14	94466631
1/4"	M12 x 1.5	30,5	11,5	7,5	13,0	17	94466633
1/4"	M16 x 1.5	27,5	7,5	7,5	13,0	22	94466635
3/8"	M12 x 1.5	35,0	16,0	7,5	16,8	17	94466653
3/8"	M14 x 1.5	35,0	15,0	7,5	17,0	19	94466654
3/8"	M16 x 1.5	35,0	15,0	7,5	17,0	22	94466655
3/8"	M22 x 1.5	31,0	5,5	9,5	17,0	27	94466658
1/2"	M16 x 1.5	39,0	19,0	7,5	20,5	22	94466665
1/2"	M20 x 1.5	38,0	13,0	10,0	20,5	27	94466667
1/2"	M22 x 1.5	35,0	9,5	9,5	20,5	27	94466668
5/8"	M16 x 1.5	42,5	19,5	7,5	26,0	27	94466679
5/8"	M22 x 1.5	44,5	19,5	9,5	26,0	27	94466675

Straight adaptor BSP taper thread



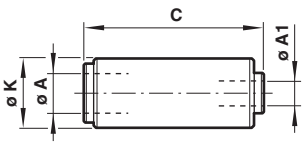
O/D Tube A	B	C	E	G	Ø K		Model
1/4"	1/8"	26,5	10,5	9,5	12,5	13	94453004
1/4"	1/4"	27,0	9,5	11,0	12,5	14	94453010
3/8"	1/8"	33,5	17,0	9,5	16,5	17	94453006
3/8"	1/4"	39,5	19,0	11,0	20,0	22	94453012
3/8"	3/8"	34,5	13,5	12,5	16,5	17	94453020
3/8"	1/2"	34,0	9,0	16,0	16,5	22	94453029
1/2"	1/4"	39,5	19,0	11,0	20,0	22	94453013
1/2"	3/8"	40,0	18,0	12,5	20,0	22	94453021
1/2"	1/2"	40,5	15,5	16,0	20,0	22	94453030

Equal straight connector



O/D Tube A	C	Ø K	Model
1/4"	35,6	13,0	94450304
3/8"	44,1	17,0	94450306
1/2"	51,1	20,5	94450307
5/8"	61,5	25,5	94450308
3/4"	63,0	30,0	94450309

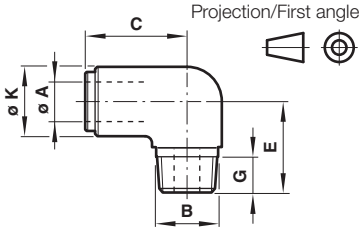
Reducing straight connector



O/D Tube A	O/D Tube Ø A1	C	Ø K	Model
1/4"	3/16"	36,0	13,0	94450437
3/8"	3/16"	43,0	17,0	94450439
3/8"	1/4"	43,5	17,0	94450448
1/2"	3/8"	48,5	20,5	94450464

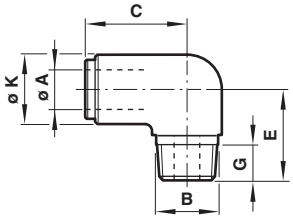
Elbow adaptor NPTF thread

Dimensions in mm
Projection/First angle



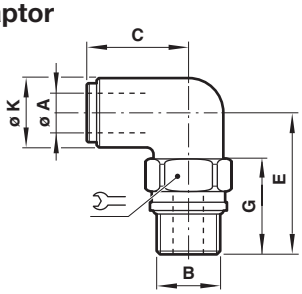
O/D Tube A	NPTF B	C	E	G	Ø K	Model
3/16"	1/8"	20,5	19,0	9,5	12,0	95433103
1/4"	1/8"	20,5	20,0	9,5	14,0	95433104
1/4"	1/4"	22,0	26,0	14,5	17,5	95433110
1/4"	3/8"	24,0	28,0	14,5	21,0	95433118
1/4"	1/2"	24,5	35,0	19,0	24,0	95433127
5/16"	1/8"	22,5	24,0	9,5	17,5	95433105
3/8"	1/8"	27,5	22,0	9,5	17,5	95433106
3/8"	1/4"	27,0	26,0	14,5	17,5	95433112
3/8"	3/8"	29,0	28,0	14,5	21,0	95433120
3/8"	1/2"	29,0	35,0	19,0	24,0	95433129
1/2"	1/4"	31,0	29,0	14,5	22,0	95433113
1/2"	3/8"	32,0	29,0	14,5	22,0	95433121
1/2"	1/2"	32,5	35,0	19,0	24,0	95433130
1/2"	3/4"	37,0	38,0	19,0	29,5	95433144
5/8"	3/8"	36,5	31,0	14,5	27,0	95433198
5/8"	1/2"	39,0	36,0	19,0	29,5	95433131
3/4"	1/2"	38,5	37,5	19,0	33,0	95433149

Elbow adaptor BSP taper thread



O/D Tube A	BSP taper B	C	E	G	Ø K	Model
1/4"	1/8"	20,5	20,0	9,5	14,3	94433004
1/4"	1/4"	21,8	22,0	11,1	15,9	94433010
3/8"	1/4"	25,1	24,0	11,1	17,5	94433012
3/8"	3/8"	26,1	27,5	12,7	20,0	94433020
3/8"	1/2"	30,1	31,0	15,9	23,8	94433029
1/2"	1/4"	30,1	27,0	11,1	23,8	94433013
1/2"	3/8"	30,1	28,5	12,7	23,8	94433021
1/2"	1/2"	30,6	31,0	15,9	23,8	94433030

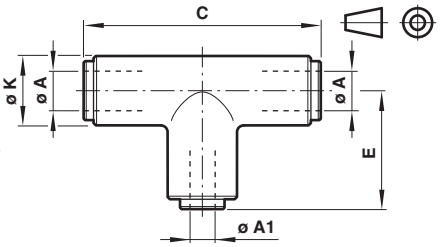
Universal hobbs elbow adaptor Metric thread



O/D Tube A	Thread B	C	E	G	Ø K		Model
1/4"	M12 x 1.5	23,5	29,0	19,0	14,0	17	94413833
1/4"	M16 x 1.5	24,5	34,0	21,5	17,5	24	94413835
1/4"	M22 x 1.5	28,5	41,5	25,0	26,0	30	94413838
3/8"	M12 x 1.5	29,0	31,0	19,0	18,5	17	94413853
3/8"	M16 x 1.5	29,0	33,5	21,5	18,5	24	94413855
3/8"	M22 x 1.5	32,0	40,5	25,0	26,0	30	94413858
1/2"	M14 x 1.5	32,5	33,5	19,5	22,0	19	94413864
1/2"	M16 x 1.5	32,5	35,5	21,5	22,0	24	94413865
1/2"	M22 x 1.5	34,5	40,5	25,0	26,0	30	94413868
5/8"	M22 x 1.5	38,0	40,5	25,0	26,0	30	94413875

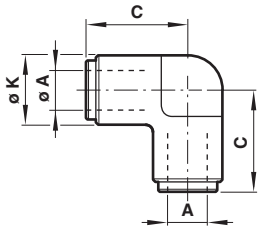
Reducing tee connector

Dimensions in mm
Projection/First angle



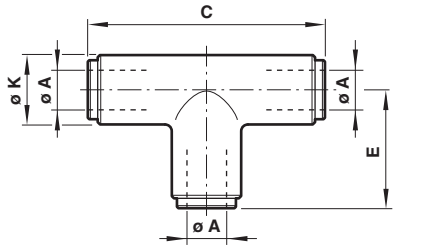
O/D Tube A	O/D Tube A1	O/D Tube A2	C	E	Ø K	Model
3/8"	1/4"	1/4"	51,0	23,5	17,0	94458816
3/8"	3/8"	1/4"	55,0	23,5	17,0	94458801
3/8"	3/8"	1/2"	60,0	32,5	20,5	94458802
1/2"	3/8"	3/8"	62,5	30,0	20,5	94458804
1/2"	1/2"	3/16"	64,0	24,5	20,5	94458803
1/2"	1/2"	1/4"	64,0	25,0	20,5	94458810
1/2"	1/2"	3/8"	62,0	31,0	20,5	94458811
5/8"	1/2"	5/8"	76,5	39,5	27,0	94458814

Equal elbow connector



O/D Tube A	C	Ø K	Model
1/4"	21	11	94451104
3/8"	27	14,5	94451106
1/2"	32	18	94451107

Equal tee connector



O/D Tube A	C	E	Ø K	Model
1/4"	42,0	21,0	13,0	94451404
3/8"	54,0	27,0	17,0	94451406
1/2"	64,0	32,0	20,5	94451407
5/8"	78,0	39,0	27,0	94451408

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **»Technical features/data«**.
Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.