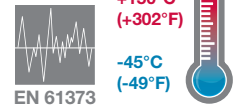


- > Port size: Ø 1/8 ... 2" nominal pipe size, NPT thread
- > For use in areas of vibration
- > Pre-assembled units
- > No special assembly tools or heat required
- > Can be remade without damage to tube
- > Suitable for use on seam welded as well as seamless tube or pipe
- > Thinner tube can be used; as thin as 0,03" (0,8 mm) wall thickness
- > Lower torque requirement on the tube nut than fittings which bite into the tube
- > Will cope with tube misalignment of ±4°
- > Corrosion resistant AL2 alloy
- > Approximately 65% lighter than brass or stainless steel fittings



EN 61373

Technical features

Medium:

Compressed air, water (plus other media suitable for use with materials of construction).

Operating pressure:

Typically up to 15 bar (218 psi)
For applications above 15 bar (218 psi) contact Norgren technical service

Ambient temperature:

-45 ... +150°C (-49 ... +302°F) with HNBR 'O'-ring (yellow)

Tube sizes:

1/8", 1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

Thread sizes:

1/8", 1/4", 3/8", 1/2", 3/4", 1", 1-1/2" (NPT)

Thread sizes:

1/8", 1/4", 3/8", 1/2", 3/4", 1", 1 1/2" (BSPT and BSPP)

Tubing:

Designed for use with:
Copper tube to BS 2871
Nylon - PA12 (tube support required)
Stainless steel tube to AISI 304 and AISI 316

Testing & approvals:

PED 97/23/EC
Shock & vibration tested to EN 61373 Category 2 (Bogie mounted)
Salt Spray tested to ISO 9227-06, data on request

Materials:

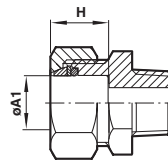
Body & Nut: AL2 Aluminium with PA20 anodic treatment to HB 175 hardness
Washer & clamping: brass, white galvanized
'O'-Ring: HNBR – colour coded yellow

Technical data

Recommended nut torque settings

Nominal pipe size	Recommended torque	Tube Ø	Recommended torque
1/8"	20 Nm (15 ft.lb.)	1"	150 Nm (111 ft.lb.)
1/4"	30 Nm (22 ft.lb.)	1 1/4"	300 Nm (221 ft.lb.)
3/8"	40 Nm (30 ft.lb.)	1 1/2"	310 Nm (229 ft.lb.)
1/2"	45 Nm (33 ft.lb.)	2"	320 Nm (236 ft.lb.)
3/4"	90 Nm (66 ft.lb.)		

Torque settings based on Railway applications up to 15 bar for use with stainless steel tube



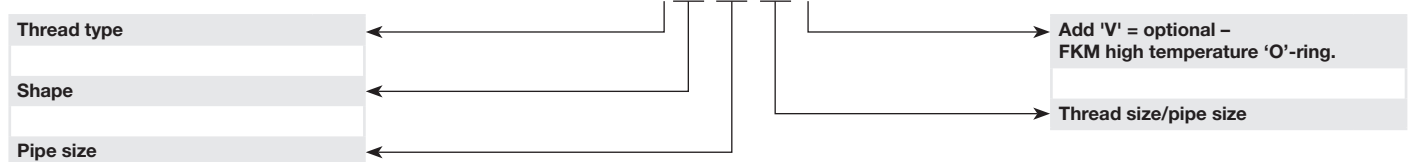
Tube stop position and tube outside diameter details

Nominal pipe size	Pipe O/D Ø A1"	Pipe O/D Ø A1 mm	H
1/8"	0.405	10,3 ± 0,1	18
1/4"	0.540	13,7 ± 0,2	18,5
3/8"	0.675	17,1 ± 0,13	20
1/2"	0.840	21,3 ± 0,16	20
3/4"	1.050	26,7 ± 0,2	21,5
1"	1.315	33,4 ± 0,3	22,5
1 1/4"	1.660	42,2 ± 0,3	27
1 1/2"	1.900	48,3 ± 0,3	25
2"	2.375	60,3 ± 0,3	35

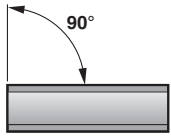
The information provided in this table are typical values as dimension H will vary slightly with torque applied to the nut. For fittings without tube stops such as straight connector and bulkheads the above tube insertion depths are also applicable.

Option selector

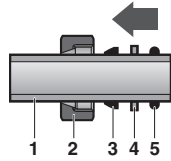
83A★★★★★★



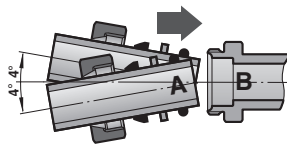
Method of assembly



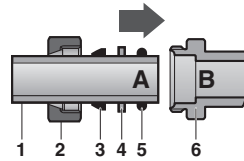
1. Ensure that the end of the tube is cut square and is free from burrs.



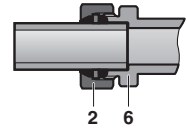
2. Slide the nut (2) onto the pipe (1) from right to left. Slide the split ring (3) onto the pipe (1) from right to left keeping the smaller edge towards the nut (2). Slide the washer (4) onto the pipe (1) from right to left. Slide the 'O'-ring (5) onto the pipe (1) from right to left. N.B. The pipe head must be deburred to ensure the 'O'-ring is not damaged.



3. Before installing the pipe fittings, check that the pipes misalignment is not higher than $\pm 4^\circ$










4. Move the pipe head (A) with all components assembled as shown towards the casing abutment (B). In pipe fittings without abutment (B), the pipe should be inserted as per the tube stop/abutment position listed below.


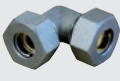




5. Move the four components from left to right and screw the nut (2) onto the pipe fitting casing (6).





Straight adaptors and connectors

<p>Straight adaptor (taper) 83A425</p>  <p>Page 3</p>	<p>Female adaptor (taper) 83A426</p>  <p>Page 3</p>	<p>Straight union (equal) 83A020</p>  <p>Page 4</p>	<p>Straight union (unequal) 83A020</p>  <p>Page 4</p>	<p>Bulkhead union 83A029</p>  <p>Page 5</p>	<p>Cap 83A012</p>  <p>Page 5</p>	<p>Straight stem connector (taper) 83A415</p>  <p>Page 6</p>
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



Elbow connectors and adaptors

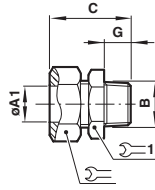
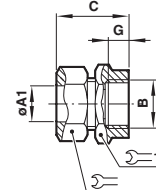
<p>Union elbow (equal) 83A040</p>  <p>Page 6</p>	<p>Union elbow (unequal) 83A040</p>  <p>Page 7</p>	<p>90° Elbow adaptor (taper) 83A445</p>  <p>Page 8</p>	<p>90° Elbow adaptor female (taper) 83A446</p>  <p>Page 9</p>
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Tee connectors and adaptors

<p>Union tee (equal) 83A060</p>  <p>Page 10</p>	<p>Union tee (unequal) 83A060</p>  <p>Page 10</p>	<p>Tee adaptor (taper) 83A465</p>  <p>Page 11</p>	<p>Tee adaptor female (taper) 83A466</p>  <p>Page 12</p>
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Accessories

<p>Tubing nut 83A0F4</p>  <p>Page 13</p>	<p>Split ring 83A0J1</p>  <p>Page 13</p>	<p>Tubing washer 83A0E7</p>  <p>Page 13</p>	<p>Tubing 'O'-ring 8000K</p>  <p>Page 13</p>
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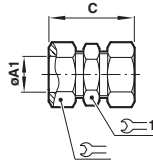
Straight adaptor (taper)
83A425

Female adaptor (taper)
83A426

 Dimensions in mm
 Projection/First angle




Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	B NPT	C inch	G inch	mm	mm	Weight (g)	Model
1/8"	0.405	10.3	1/8"	1.38	0.39	24	20	25	83A4250118
1/8"	0.405	10.3	1/4"	1.46	0.47	24	20	26	83A4250128
1/8"	0.405	10.3	3/8"	1.46	0.47	24	20	26	83A4250138
1/8"	0.405	10.3	1/2"	1.50	0.51	24	22	30	83A4250148
1/4"	0.540	13.7	1/8"	1.46	0.39	28	25	40	83A4250418
1/4"	0.540	13.7	1/4"	1.54	0.47	28	25	40	83A4250428
1/4"	0.540	13.7	3/8"	1.54	0.47	28	25	40	83A4250438
1/4"	0.540	13.7	1/2"	1.57	0.51	28	25	42	83A4250448
1/4"	0.540	13.7	3/4"	1.65	0.59	28	28	45	83A4250468
1/4"	0.540	13.7	1"	1.77	0.71	28	34	63	83A4250488
3/8"	0.675	17.1	1/4"	1.57	0.47	32	27	40	83A4250628
3/8"	0.675	17.1	3/8"	1.57	0.47	32	27	42	83A4250638
3/8"	0.675	17.1	1/2"	1.61	0.51	32	27	45	83A4250648
3/8"	0.675	17.1	3/4"	1.69	0.59	32	28	47	83A4250668
3/8"	0.675	17.1	1"	1.81	0.71	32	45	60	83A4250688
1/2"	0.840	21.3	1/4"	1.61	0.47	38	34	60	83A4250728
1/2"	0.840	21.3	3/8"	1.61	0.47	38	34	63	83A4250738
1/2"	0.840	21.3	1/2"	1.65	0.51	38	34	65	83A4250748
1/2"	0.840	21.3	3/4"	1.73	0.59	38	34	67	83A4250768
1/2"	0.840	21.3	1"	1.85	0.71	38	34	72	83A4250788
3/4"	1.050	26.7	3/8"	1.67	0.47	45	40	83	83A4250938
3/4"	1.050	26.7	1/2"	1.71	0.51	45	40	90	83A4250948
3/4"	1.050	26.7	3/4"	1.79	0.59	45	40	83	83A4250968
3/4"	1.050	26.7	1"	1.91	0.71	45	40	95	83A4250988
3/4"	1.050	26.7	1-1/4"	1.91	0.71	45	45	120	83A42509A8
1"	1.315	33.4	1/2"	1.87	0.51	55	50	130	83A4251048
1"	1.315	33.4	3/4"	1.95	0.59	55	50	140	83A4251068
1"	1.315	33.4	1"	2.07	0.71	55	50	145	83A4251088
1"	1.315	33.4	1-1/4"	2.07	0.71	55	50	145	83A42510A8
1"	1.315	33.4	1-1/2"	2.15	0.79	55	50	155	83A42510B8
1-1/4"	1.660	42.2	3/4"	1.99	0.59	70	60	200	83A4251168
1-1/4"	1.660	42.2	1"	2.11	0.71	70	60	195	83A4251188
1-1/4"	1.660	42.2	1-1/4"	2.11	0.71	70	60	210	83A42511A8
1-1/4"	1.660	42.2	1-1/2"	2.28	0.79	70	60	210	83A42511B8
1-1/4"	1.660	42.2	2"	2.46	0.79	70	60	220	83A42511C8
1-1/2"	1.900	48.3	1"	2.15	0.71	70	70	215	83A4251288
1-1/2"	1.900	48.3	1-1/4"	2.15	0.71	70	70	230	83A42512A8
1-1/2"	1.900	48.3	1-1/2"	2.22	0.79	70	70	220	83A42512B8
1-1/2"	1.900	48.3	2"	2.42	0.79	70	70	255	83A42512C8
2"	2.375	60.3	1-1/4"	2.38	0.71	84	80	280	83A42513A8
2"	2.375	60.3	1-1/2"	2.46	0.79	84	80	310	83A42513B8
2"	2.375	60.3	2"	2.46	0.79	84	80	325	83A42513C8

Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	B NPT	C inch	G inch	mm	mm	Weight (g)	Model
1/8"	0.405	10.3	1/8"	1.12	0.43	18	24	25	83A4260118
1/8"	0.405	10.3	1/4"	1.20	0.47	22	24	30	83A4260128
1/8"	0.450	10.3	3/8"	1.24	0.49	25	24	35	83A4260138
1/8"	0.405	10.3	1/2"	1.28	0.51	32	24	40	83A4260148
1/4"	0.540	13.7	1/8"	1.34	0.43	23	28	40	83A4260418
1/4"	0.540	13.7	1/4"	1.34	0.47	23	28	45	83A4260428
1/4"	0.540	13.7	3/8"	1.34	0.49	25	28	45	83A4260438
1/4"	0.540	13.7	1/2"	1.46	0.51	30	28	55	83A4260448
1/4"	0.540	13.7	3/4"	1.50	0.59	38	28	60	83A4260468
1/4"	0.540	13.7	1"	1.54	0.71	50	28	75	83A4260488
3/8"	0.675	17.1	1/4"	1.30	0.47	27	32	45	83A4260628
3/8"	0.675	17.1	3/8"	1.36	0.49	27	32	45	83A4260638
3/8"	0.675	17.1	1/2"	1.40	0.51	30	32	50	83A4260648
3/8"	0.675	17.1	3/4"	1.56	0.59	38	32	55	83A4260668
3/8"	0.675	17.1	1"	1.59	0.71	50	32	75	83A4260688
1/2"	0.840	21.3	1/4"	1.28	0.47	32	38	55	83A4260728
1/2"	0.840	21.3	3/8"	1.36	0.49	32	38	65	83A4260738
1/2"	0.840	21.3	1/2"	1.42	0.51	32	38	60	83A4260748
1/2"	0.840	21.3	3/4"	1.57	0.59	38	38	70	83A4260768
1/2"	0.840	21.3	1"	1.69	0.71	50	38	100	83A4260788
3/4"	1.050	26.7	1/4"	1.36	0.47	38	45	85	83A4260928
3/4"	1.050	26.7	3/8"	1.36	0.49	38	45	85	83A4260938
3/4"	1.050	26.7	1/2"	1.38	0.51	38	45	88	83A4260948
3/4"	1.050	26.7	3/4"	1.48	0.59	38	45	85	83A4260968
3/4"	1.050	26.7	1"	1.67	0.71	50	45	120	83A4260988
3/4"	1.050	26.7	1-1/4"	1.75	0.79	60	45	140	83A42609A8
3/4"	1.050	26.7	1-1/2"	1.79	0.79	70	45	170	83A42609B8
1"	1.315	33.4	1/2"	1.52	0.51	50	55	140	83A4261048
1"	1.315	33.4	3/4"	1.63	0.59	50	55	140	83A4261068
1"	1.315	33.4	1"	1.71	0.71	50	55	145	83A4261088
1"	1.315	33.4	1-1/4"	1.75	0.79	60	55	155	83A42610A8
1"	1.315	33.4	1-1/2"	1.87	0.79	70	55	180	83A42610B8
1-1/4"	1.660	42.2	3/4"	1.81	0.59	60	70	225	83A4261168
1-1/4"	1.660	42.2	1"	1.85	0.71	60	70	230	83A4261188
1-1/4"	1.660	42.2	1-1/4"	1.85	0.79	60	70	240	83A42611A8
1-1/4"	1.660	42.2	1-1/2"	1.89	0.79	70	70	245	83A42611B8
1-1/4"	1.660	42.2	2"	1.89	0.87	80	70	280	83A42611C8
1-1/2"	1.900	48.3	1"	1.87	0.71	70	70	225	83A4261288
1-1/2"	1.900	48.3	1-1/4"	1.87	0.79	70	70	230	83A42612A8
1-1/2"	1.900	48.3	1-1/2"	1.89	0.79	70	70	235	83A42612B8
1-1/2"	1.900	48.3	2"	2.01	0.87	80	70	290	83A42612C8
2"	2.375	60.3	1-1/4"	2.03	0.79	80	84	330	83A42613A8
2"	2.375	60.3	1-1/2"	2.11	0.79	80	84	340	83A42613B8
2"	2.375	60.3	2"	2.15	0.87	80	84	360	83A42613C8

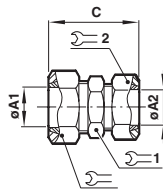
Straight union (equal)
83A020




Dimensions in mm
 Projection/First angle



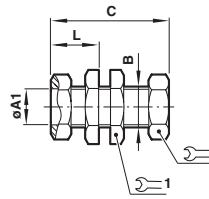
Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	C inch	 mm	 1 mm	Weight (g)	Model
1/8"	0.405	10.30	1.73	24	20	32	83A0200100
1/4"	0.540	13.70	1.85	28	25	53	83A0200400
3/8"	0.675	17.10	1.89	32	28	55	83A0200600
1/2"	0.840	21.30	1.97	38	34	82	83A0200700
3/4"	1.050	26.70	2.09	45	45	120	83A0200900
1"	1.315	33.40	2.24	55	50	190	83A0201000
1-1/4"	1.660	42.20	2.44	70	60	270	83A0201100
1-1/2"	1.900	48.30	2.48	70	70	300	83A0201200
2"	2.375	60.30	2.83	84	80	470	83A0201300

Straight union (unequal)
83A020

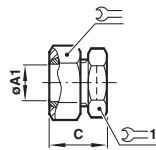
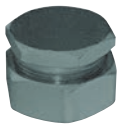


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	Ø A2 nominal pipe size	Ø A2 inch	Ø A2 mm	C inch	 mm	 1 mm	 2 mm	Weight (g)	Model
1/4"	0.540	13.7	1/8"	0.405	10.3	1.77	28	24	25	48	83A0200401
3/8"	0.675	17.1	1/8"	0.405	10.3	1.79	32	24	27	50	83A0200601
3/8"	0.675	17.1	1/4"	0.540	13.7	1.79	32	28	27	60	83A0200604
1/2"	0.840	21.3	1/4"	0.540	13.7	1.85	38	28	34	75	83A0200704
1/2"	0.840	21.3	3/8"	0.675	17.1	1.87	38	32	34	75	83A0200706
3/4"	1.050	26.7	1/4"	0.540	13.7	1.91	45	28	40	95	83A0200904
3/4"	1.050	26.7	3/8"	0.675	17.1	1.93	45	32	40	95	83A0200906
3/4"	1.050	26.7	1/2"	0.840	21.3	1.99	45	38	40	105	83A0200907
1"	1.315	33.4	3/8"	0.675	17.1	2.15	55	32	50	145	83A0201006
1"	1.315	33.4	1/2"	0.840	21.3	2.17	55	38	50	155	83A0201007
1"	1.315	33.4	3/4"	1.050	26.7	2.22	55	45	50	165	83A0201009
1-1/4"	1.660	42.2	1/2"	0.840	21.3	2.13	70	38	60	220	83A0201107
1-1/4"	1.660	42.2	3/4"	1.050	26.7	2.19	70	45	60	230	83A0201109
1-1/4"	1.660	42.2	1"	1.315	33.4	2.32	70	55	60	245	83A0201110
1-1/2"	1.900	48.3	1"	1.315	33.4	2.36	70	55	70	280	83A0201210
1-1/2"	1.900	48.3	1-1/4"	1.660	42.2	2.36	70	70	70	300	83A0201211
2"	2.375	60.3	1"	1.315	33.4	2.56	84	55	80	370	83A0201310
2"	2.375	60.3	1-1/4"	1.660	42.2	2.56	84	70	80	390	83A0201311
2"	2.375	60.3	1-1/2"	1.900	48.3	2.68	84	70	80	410	83A0201312

Bulkhead union
83A029

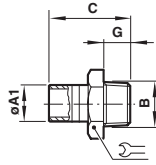
 Dimensions in mm
 Projection/First angle


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	Ø B inch	Ø B mm	C inch	L inch	mm	1 mm	Weight (g)	Model
1/8"	0.405	10.3	0.75	19	2.32	0.96	24	23	55	83A0290100
1/4"	0.540	13.7	0.94	24	2.52	1.04	28	30	115	83A0290400
3/8"	0.675	17.1	1.06	27	2.52	1.06	32	32	120	83A0290600
1/2"	0.840	21.3	1.30	33	2.64	1.12	38	38	130	83A0290700
3/4"	1.050	26.7	1.54	39	2.72	1.18	45	45	170	83A0290900
1"	1.315	33.4	1.85	47	3.03	1.36	55	55	290	83A0291000
1-1/4"	1.660	42.2	2.32	59	3.27	1.36	70	70	390	83A0291100
1-1/2"	1.900	48.3	2.52	64	3.27	1.40	70	75	460	83A0291200
2"	2.375	60.3	3.03	77	3.90	1.63	84	90	690	83A0291300

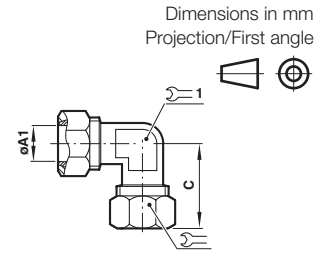
Cap
83A012


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	C inch	mm	1 mm	Weight (g)	Model
1/8"	0.405	10.3	0.96	24	22	25	83A0120100
1/4"	0.540	13.7	0.96	28	24	35	83A0120400
3/8"	0.675	17.1	1.06	32	27	40	83A0120600
1/2"	0.840	21.3	1.04	38	34	55	83A0120700
3/4"	1.050	26.7	1.18	45	40	80	83A0120900
1"	1.315	33.4	1.32	55	50	130	83A0121000
1-1/4"	1.660	42.2	1.36	70	60	200	83A0121100
1-1/2"	1.900	48.3	1.44	70	70	230	83A0121200
2"	2.375	60.3	1.63	84	75	300	83A0121300

Straight stem connector (taper)
83A415



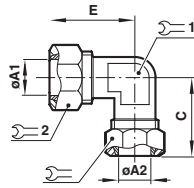
Union elbow (equal)
83A040



Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	B NPT	C inch	G inch	mm	Weight (g)	Model
1/8"	0.405	10.3	1/8"	1.36	0.39	12	10	83A4150118
1/8"	0.405	10.3	1/4"	1.44	0.47	14	12	83A4150128
1/4"	0.540	13.7	1/4"	1.50	0.47	14	12	83A4150428
1/4"	0.540	13.7	3/8"	1.50	0.47	18	15	83A4150438
1/4"	0.540	13.7	1/2"	1.54	0.47	22	20	83A4150448
3/8"	0.675	17.1	3/8"	1.54	0.47	18	18	83A4150638
3/8"	0.675	17.1	1/2"	1.57	0.51	22	23	83A4150648
3/8"	0.675	17.1	3/4"	1.65	0.59	28	32	83A4150668
1/2"	0.840	21.3	3/8"	1.57	0.47	23	23	83A4150738
1/2"	0.840	21.3	1/2"	1.61	0.51	23	25	83A4150748
1/2"	0.840	21.3	3/4"	1.69	0.59	28	30	83A4150768
1/2"	0.840	21.3	1"	1.81	0.71	34	45	83A4150788
3/4"	1.050	26.7	3/8"	1.69	0.47	28	32	83A4150938
3/4"	1.050	26.7	1/2"	1.73	0.51	28	35	83A4150948
3/4"	1.050	26.7	3/4"	1.81	0.59	28	40	83A4150968
3/4"	1.050	26.7	1"	1.93	0.71	34	55	83A4150988
1"	1.315	33.4	1/2"	1.81	0.51	38	53	83A4151048
1"	1.315	33.4	3/4"	1.89	0.59	38	55	83A4151068
1"	1.315	33.4	1"	2.01	0.71	38	65	83A4151088
1"	1.315	33.4	1-1/4"	2.01	0.71	45	80	83A41510A8
1"	1.315	33.4	1-1/2"	2.17	0.79	50	85	83A41510B8
1-1/4"	1.660	42.2	1"	2.22	0.71	45	95	83A4151188
1-1/4"	1.660	42.2	1-1/4"	2.22	0.71	45	100	83A41511A8
1-1/4"	1.660	42.2	1-1/2"	2.30	0.79	50	110	83A41511B8
1-1/4"	1.660	42.2	2"	2.30	0.79	70	140	83A41511C8
1-1/2"	1.900	48.3	1"	2.26	0.71	50	110	83A4151288
1-1/2"	1.900	48.3	1-1/4"	2.26	0.71	50	115	83A41512A8
1-1/2"	1.900	48.3	1-1/2"	2.34	0.79	50	120	83A41512B8
1-1/2"	1.900	48.3	2"	2.34	0.79	70	150	83A41512C8
2"	2.375	60.3	1"	2.56	0.71	70	180	83A4151388
2"	2.375	60.3	1-1/4"	2.56	0.71	70	185	83A41513A8
2"	2.375	60.3	1-1/2"	2.64	0.79	70	190	83A41513B8
2"	2.375	60.3	2"	2.64	0.79	70	200	83A41513C8

Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	C inch	mm	mm 1	Weight (g)	Model
1/8"	0.405	10.3	1.30	24	14	45	83A0400100
1/4"	0.540	13.7	1.30	28	18	60	83A0400400
3/8"	0.675	17.1	1.54	32	22	65	83A0400600
1/2"	0.840	21.3	1.56	38	28	100	83A0400700
3/4"	1.050	26.7	1.69	45	32	135	83A0400900
1"	1.315	33.4	2.03	55	40	225	83A0401000
1-1/4"	1.660	42.2	2.30	70	50	345	83A0401100
1-1/2"	1.900	48.3	2.42	70	55	370	83A0401200
2"	2.375	60.3	2.58	84	67	585	83A0401300

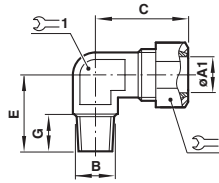
Union elbow (unequal)
83A040



 Dimensions in mm
 Projection/First angle


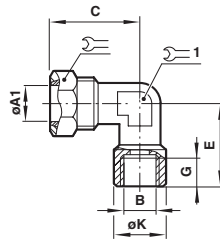
Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	Ø A2 nominal pipe size	Ø A2 inch	Ø A2 mm	C inch	E inch	mm	1 mm	2 mm	Weight (g)	Model
1/4"	0.540	13.7	1/8"	0.405	10.3	1.34	1.50	24	28	18	60	83A0400401
3/8"	0.675	17.1	1/8"	0.405	10.3	1.40	1.56	24	32	20	62	83A0400601
3/8"	0.675	17.1	1/4"	0.540	13.7	1.54	1.20	28	32	20	70	83A0400604
1/2"	0.840	21.3	1/4"	0.540	13.7	1.57	1.54	28	38	27	95	83A0400704
1/2"	0.840	21.3	3/8"	0.675	17.1	1.61	1.50	32	38	27	95	83A0400706
3/4"	1.050	26.7	1/4"	0.540	13.7	1.67	1.65	28	45	32	125	83A0400904
3/4"	1.050	26.7	3/8"	0.675	17.1	1.67	1.65	32	45	32	125	83A0400906
3/4"	1.050	26.7	1/2"	0.92	23.3	1.61	1.73	38	45	32	130	83A0400907
1"	1.315	33.4	1/4"	0.540	13.7	1.89	2.05	28	55	41	190	83A0401004
1"	1.315	33.4	3/8"	0.675	17.1	1.95	2.05	32	55	41	195	83A0401006
1"	1.315	33.4	1/2"	0.840	21.3	1.91	1.99	38	55	41	210	83A0401007
1"	1.315	33.4	3/4"	1.050	26.7	1.99	2.05	45	55	41	220	83A0401009
1-1/4"	1.660	42.2	3/4"	1.050	26.7	2.19	2.26	45	70	50	260	83A0401109
1-1/4"	1.660	42.2	1"	1.315	33.4	2.26	2.24	55	70	50	350	83A0401110
1-1/2"	1.900	48.3	1"	1.315	33.4	2.44	2.42	55	70	55	420	83A0401210
1-1/2"	1.900	48.3	1-1/4"	1.660	42.2	2.42	2.44	70	70	55	410	83A0401211
2"	2.375	60.3	1-1/4"	1.660	42.2	2.66	2.99	70	84	67	650	83A0401311
2"	2.375	60.3	1-1/2"	1.900	48.3	2.70	2.99	70	84	67	610	83A0401312



90° Elbow adaptor (taper)
83A445

Dimensions in mm
 Projection/First angle



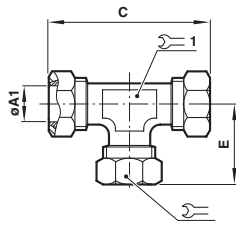
Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	B NPT	C inch	E inch	G inch	 mm	 1 mm	Weight (g)	Model
1/8"	0.405	10.3	1/8"	1.30	0.89	0.39	24	14	30	83A4450118
1/8"	0.405	10.3	1/4"	1.26	1.01	0.53	24	14	28	83A4450128
1/8"	0.405	10.3	3/8"	1.30	0.99	0.53	24	14	32	83A4450138
1/8"	0.405	10.3	1/2"	1.32	1.15	0.59	24	18	38	83A4450148
1/4"	0.540	13.7	1/8"	1.42	1.00	0.39	28	18	40	83A4450418
1/4"	0.540	13.7	1/4"	1.44	1.08	0.47	28	18	40	83A4450428
1/4"	0.540	13.7	3/8"	1.44	1.08	0.47	28	18	42	83A4450438
1/4"	0.540	13.7	1/2"	1.46	1.18	0.48	28	18	45	83A4450448
1/4"	0.540	13.7	3/4"	1.46	1.30	0.67	28	20	53	83A4450468
1/4"	0.540	13.7	1"	1.57	1.55	0.81	28	27	83	83A4450488
3/8"	0.675	17.1	1/4"	1.54	1.14	0.47	32	22	50	83A4450628
3/8"	0.675	17.1	3/8"	1.54	1.14	0.47	32	22	50	83A4450638
3/8"	0.675	17.1	1/2"	1.56	1.15	0.59	32	22	46	83A4450648
3/8"	0.675	17.1	3/4"	1.65	1.28	0.67	32	20	50	83A4450668
3/8"	0.675	17.1	1"	1.69	1.57	0.71	32	27	50	83A4450688
1/2"	0.840	21.3	1/8"	1.56	1.16	0.39	38	27	65	83A4450718
1/2"	0.840	21.3	1/4"	1.56	1.24	0.47	38	27	75	83A4450728
1/2"	0.840	21.3	3/8"	1.56	1.23	0.49	38	27	80	83A4450738
1/2"	0.840	21.3	1/2"	1.52	1.30	0.51	38	27	80	83A4450748
1/2"	0.840	21.3	3/4"	1.56	1.40	0.59	38	27	83	83A4450768
1/2"	0.840	21.3	1"	1.52	1.54	0.69	38	27	83	83A4450788
3/4"	0.840	21.3	1/4"	1.69	1.38	0.47	45	32	110	83A4450928
3/4"	0.840	21.3	3/8"	1.69	1.38	0.49	45	32	110	83A4450938
3/4"	0.840	21.3	1/2"	1.73	1.36	0.53	45	32	108	83A4450948
3/4"	0.840	21.3	3/4"	1.69	1.46	0.61	45	32	108	83A4450968
3/4"	0.840	21.3	1"	1.65	1.58	0.81	45	32	115	83A4450988
3/4"	0.840	21.3	1-1/4"	1.65	1.65	0.74	45	32	175	83A44509A8
3/4"	0.840	21.3	1-1/2"	1.71	2.05	0.79	45	50	250	83A44509B8
1"	1.315	33.4	1/2"	2.07	1.67	0.53	55	41	200	83A4451048
1"	1.315	33.4	3/4"	2.03	1.73	0.59	55	41	200	83A4451068
1"	1.315	33.4	1"	2.09	1.85	0.71	55	41	195	83A4451088
1"	1.315	33.4	1-1/4"	2.03	1.87	0.81	55	41	195	83A44510A8
1"	1.315	33.4	1-1/2"	2.03	2.02	0.89	55	41	185	83A44510B8
1-1/4"	1.660	42.2	3/4"	2.24	1.91	0.59	70	50	295	83A4451168
1-1/4"	1.660	42.2	1"	2.26	2.05	0.71	70	50	300	83A4451188
1-1/4"	1.660	42.2	1-1/4"	2.26	2.07	0.73	70	50	320	83A44511A8
1-1/4"	1.660	42.2	1-1/2"	2.30	2.07	0.79	70	50	300	83A44511B8
1-1/4"	1.660	42.2	2"	2.24	2.11	0.79	70	67	500	83A44511C8
1-1/2"	1.900	48.3	1"	2.38	2.22	0.71	70	55	390	83A4451288
1-1/2"	1.900	48.3	1-1/4"	2.26	2.07	0.73	70	55	390	83A44512A8
1-1/2"	1.900	48.3	1-1/2"	2.42	2.24	0.79	70	55	370	83A44512B8
1-1/2"	1.900	48.3	2"	2.44	2.26	0.79	70	67	500	83A44512C8
2"	2.375	60.3	1-1/4"	2.80	2.32	0.71	84	67	600	83A44513A8
2"	2.375	60.3	1-1/2"	2.78	2.30	0.79	84	67	580	83A44513B8
2"	2.375	60.3	2"	2.81	2.28	0.79	84	67	570	83A44513C8

90° Elbow adaptor female (taper)
83A446

 Dimensions in mm
 Projection/First angle


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	B NPT	C inch	E inch	G inch	Ø K inch			Weight (g)	Model
1/8"	0.405	10.3	1/8"	1.26	1.14	0.43	0.71	mm	mm	35	83A4460118
1/8"	0.405	10.3	1/4"	1.50	1.18	0.47	0.87	24	18	45	83A4460128
1/8"	0.405	10.3	3/8"	1.50	1.30	0.49	0.98	24	20	53	83A4460138
1/8"	0.405	10.3	1/2"	1.50	1.46	0.51	1.18	24	27	83	83A4460148
1/4"	0.540	13.7	1/8"	1.48	1.14	0.43	0.71	28	18	48	83A4460418
1/4"	0.540	13.7	1/4"	1.44	1.18	0.47	0.87	28	18	50	83A4460428
1/4"	0.540	13.7	3/8"	1.48	1.28	0.49	0.98	28	20	53	83A4460438
1/4"	0.540	13.7	1/2"	1.56	1.44	0.51	1.18	28	27	90	83A4460448
1/4"	0.540	13.7	3/4"	1.56	1.54	0.59	1.46	32	27	95	83A4460468
3/8"	0.675	17.1	1/4"	1.56	1.22	0.47	0.87	32	22	55	83A4460628
3/8"	0.675	17.1	3/8"	1.56	1.20	0.49	0.98	32	22	55	83A4460638
3/8"	0.675	17.1	1/2"	1.61	1.59	0.51	1.18	32	27	105	83A4460648
3/8"	0.675	17.1	3/4"	1.59	1.56	0.59	1.46	32	27	90	83A4460668
1/2"	0.840	21.3	1/4"	1.54	1.32	0.47	0.87	38	27	90	83A4460728
1/2"	0.840	21.3	3/8"	1.54	1.32	0.49	0.98	38	27	85	83A4460738
1/2"	0.840	21.3	1/2"	1.56	1.44	0.51	1.18	38	27	95	83A4460748
1/2"	0.840	21.3	3/4"	1.52	1.63	0.59	1.46	38	27	100	83A4460768
1/2"	0.840	21.3	1"	1.69	1.71	0.71	1.77	38	32	150	83A4460788
3/4"	1.050	26.7	3/8"	1.69	1.40	0.49	0.98	45	32	120	83A4460938
3/4"	1.050	26.7	1/2"	1.71	1.42	0.51	1.18	45	32	120	83A4460948
3/4"	1.050	26.7	3/4"	1.67	1.73	0.59	1.46	45	32	130	83A4460968
3/4"	1.050	26.7	1"	1.71	1.73	0.71	1.77	45	32	135	83A4460988
1"	1.315	33.4	3/8"	2.05	1.85	0.49	0.98	55	40	200	83A4461038
1"	1.315	33.4	1/2"	2.01	1.85	0.51	1.18	55	40	200	83A4461048
1"	1.315	33.4	3/4"	2.05	1.77	0.59	1.46	55	40	195	83A4461068
1"	1.315	33.4	1"	2.01	1.99	0.71	1.77	55	40	210	83A4461088
1"	1.315	33.4	1-1/4"	2.17	2.09	0.79	2.17	55	50	330	83A44610A8
1"	1.315	33.4	1-1/2"	2.30	2.19	0.79	2.48	55	50	350	83A44610B8
1-1/4"	1.660	42.2	1"	2.28	2.09	0.71	1.77	70	50	385	83A4461188
1-1/4"	1.660	42.2	1-1/4"	2.26	2.22	0.79	2.17	70	50	390	83A44611A8
1-1/4"	1.660	42.2	1-1/2"	2.24	2.17	0.79	2.48	70	50	390	83A44611B8
1-1/2"	1.900	48.3	1"	2.36	2.20	0.71	1.77	70	55	385	83A4461288
1-1/2"	1.900	48.3	1-1/4"	2.44	2.20	0.79	2.17	70	55	380	83A44612A8
1-1/2"	1.900	48.3	1-1/2"	2.42	2.03	0.79	2.48	70	55	370	83A44612B8
1-1/2"	1.900	48.3	2"	2.56	2.24	0.87	2.95	70	67	530	83A44612C8
2"	2.375	60.3	1-1/4"	2.83	2.24	0.79	2.17	84	67	580	83A44613A8
2"	2.375	60.3	1-1/2"	2.87	2.26	0.79	2.48	84	67	580	83A44613B8
2"	2.375	60.3	2"	2.87	2.30	0.87	2.95	84	67	600	83A44613C8

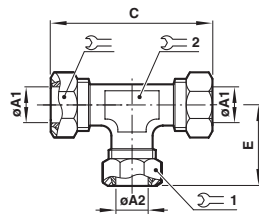
Union tee (equal)
83A060

Dimensions in mm
 Projection/First angle

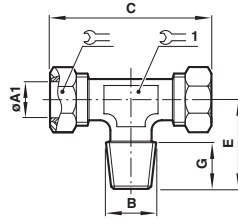


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	C inch	E inch	mm	mm	1	Weight (g)	Model
1/8"	0.405	10.3	2.48	1.24	24	14	60	83A0600100	
1/4"	0.540	13.7	2.87	1.44	28	18	85	83A0600400	
3/8"	0.675	17.1	3.03	1.52	32	22	90	83A0600600	
1/2"	0.840	21.3	3.11	1.56	38	27	140	83A0600700	
3/4"	1.050	26.7	3.35	1.67	45	32	180	83A0600900	
1"	1.315	33.4	4.06	2.03	55	40	285	83A0601000	
1-1/4"	1.660	42.2	4.61	2.30	70	50	455	83A0601100	
1-1/2"	1.900	48.3	4.80	2.40	70	55	495	83A0601200	
2"	2.375	60.3	5.83	2.91	84	67	810	83A0601300	

Union tee (unequal)
83A060

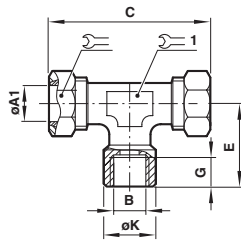


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	Ø A2 nominal pipe size	Ø A2 inch	Ø A2 mm	C inch	E inch	mm	mm	1	mm	2	Weight (g)	Model
1/8"	0.405	10.3	1/4"	0.540	13.7	2.66	1.46	24	28	18	46	83A0600104		
1/8"	0.405	10.3	3/8"	0.675	17.1	2.66	1.59	24	32	20	50	83A0600106		
1/4"	0.540	13.7	3/8"	0.675	17.1	2.76	1.56	28	32	20	90	83A0600406		
3/8"	0.675	17.1	1/4"	0.540	13.7	2.91	1.48	32	28	20	90	83A0600604		
3/8"	0.675	17.1	1/2"	0.840	21.3	3.07	1.54	32	38	27	125	83A0600607		
1/2"	0.840	21.3	1/4"	0.540	13.7	3.09	1.57	38	28	27	128	83A0600704		
1/2"	0.840	21.3	3/8"	0.675	17.1	3.07	1.59	38	32	27	120	83A0600706		
1/2"	0.840	21.3	3/4"	1.050	26.7	3.19	1.67	38	45	32	170	83A0600709		
3/4"	1.050	26.7	1/4"	0.540	13.7	3.35	1.65	45	28	32	160	83A0600904		
3/4"	1.050	26.7	3/8"	0.675	17.1	3.35	1.67	45	32	32	165	83A0600906		
3/4"	1.050	26.7	1/2"	0.840	21.3	3.33	1.63	45	38	32	175	83A0600907		
1"	1.315	33.4	3/8"	0.675	17.1	4.06	1.97	55	32	40	265	83A0601006		
1"	1.315	33.4	1/2"	0.840	21.3	4.06	1.99	55	38	40	275	83A0601007		
1"	1.315	33.4	3/4"	1.050	26.7	4.06	1.99	55	45	40	290	83A0601009		
1-1/4"	1.660	42.2	3/4"	1.050	26.7	4.53	2.22	70	45	50	360	83A0601109		
1-1/4"	1.660	42.2	1"	1.315	33.4	4.45	2.32	70	55	50	480	83A0601110		
1-1/2"	1.900	48.3	1"	1.315	33.4	4.80	2.42	70	55	55	520	83A0601210		
1-1/2"	1.900	48.3	1-1/4"	1.660	42.2	4.92	2.52	70	70	55	550	83A0601211		
2"	2.375	60.3	1-1/4"	1.660	42.2	5.75	2.78	84	70	67	760	83A0601311		
2"	2.375	60.3	1-1/2"	1.900	48.3	5.75	2.74	84	70	67	790	83A0601312		

Tee adaptor (taper)
83A465

 Dimensions in mm
 Projection/First angle


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	B NPT	C inch	E inch	G inch	mm	1 mm	Weight (g)	Model
1/8"	0.405	10.3	1/8"	2.44	0.87	0.39	24	14	45	83A4650118
1/4"	0.540	13.7	1/8"	2.91	0.98	0.39	28	18	65	83A4650418
1/4"	0.540	13.7	1/4"	2.93	1.08	0.47	28	18	70	83A4650428
1/4"	0.540	13.7	3/8"	2.91	1.050	0.47	28	18	70	83A4650438
1/4"	0.540	13.7	1/2"	2.85	1.14	0.51	28	18	70	83A4650448
3/8"	0.675	17.1	1/4"	3.15	1.10	0.47	32	20	75	83A4650628
3/8"	0.675	17.1	3/8"	2.99	1.10	0.47	32	20	75	83A4650638
3/8"	0.675	17.1	1/2"	3.07	1.22	0.51	32	20	75	83A4650648
1/2"	0.840	21.3	1/4"	3.07	1.26	0.47	38	27	110	83A4650728
1/2"	0.840	21.3	3/8"	3.13	1.28	0.47	38	27	115	83A4650738
1/2"	0.840	21.3	1/2"	3.13	1.30	0.51	38	27	120	83A4650748
1/2"	0.840	21.3	3/4"	3.11	1.38	0.59	38	27	120	83A4650768
3/4"	1.050	26.7	1/2"	3.39	1.34	0.51	45	32	160	83A4650948
3/4"	1.050	26.7	3/4"	3.37	1.34	0.59	45	32	160	83A4650968
3/4"	1.050	26.7	1"	3.39	1.34	0.71	45	33	165	83A4650988
1"	1.315	33.4	1/2"	4.02	1.46	0.51	55	40	255	83A4651048
1"	1.315	33.4	3/4"	4.02	1.54	0.59	55	40	255	83A4651068
1"	1.315	33.4	1"	4.04	1.61	0.71	55	40	255	83A4651088
1"	1.315	33.4	1-1/4"	4.02	1.65	0.71	55	40	265	83A46510A8
1-1/4"	1.660	42.2	1"	4.55	1.95	0.71	70	50	430	83A4651188
1-1/4"	1.660	42.2	1-1/4"	4.61	1.97	0.71	70	50	420	83A46511A8
1-1/4"	1.660	42.2	1-1/2"	4.49	1.93	0.79	70	50	440	83A46511B8
1-1/2"	1.900	48.3	1"	4.84	1.97	0.71	70	55	460	83A4651288
1-1/2"	1.900	48.3	1-1/4"	4.84	1.97	0.71	70	55	470	83A46512A8
1-1/2"	1.900	48.3	1-1/2"	4.84	2.03	0.79	70	55	480	83A46512B8
1-1/2"	1.900	48.3	2"	4.84	2.05	0.79	70	67	480	83A46512C9
2"	2.375	60.3	1-1/4"	5.71	1.97	0.71	84	67	720	83A46513A8
2"	2.375	60.3	1-1/2"	5.71	2.05	0.79	84	67	790	83A46513B8
2"	2.375	60.3	2"	5.71	2.05	0.79	84	67	800	83A46513C9

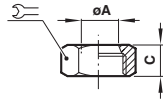
Tee adaptor female (taper)
83A466



Dimensions in mm
Projection/First angle

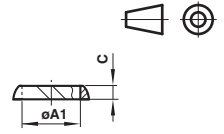


Ø A1 nominal pipe size	Ø A1 inch	Ø A1 mm	B NPT	C inch	E inch	G inch	Ø K inch	mm	mm 1	Weight (g)	Model
1/8"	0.405	10.3	1/8"	2.66	1.16	0.43	0.71	24	18	75	83A4660411
1/4"	0.540	13.7	1/8"	2.80	1.10	0.43	0.71	28	18	85	83A4660418
1/4"	0.540	13.7	1/4"	2.81	1.18	0.47	0.87	28	18	85	83A4660428
1/4"	0.540	13.7	3/8"	2.91	1.18	0.49	0.98	28	20	90	83A4660438
1/4"	0.540	13.7	1/2"	3.13	1.22	0.51	1.18	28	27	130	83A4660468
3/8"	0.675	17.1	1/4"	3.19	1.26	0.47	0.87	32	20	80	83A4660628
3/8"	0.675	17.1	3/8"	3.19	1.26	0.49	0.98	32	22	80	83A4660638
3/8"	0.675	17.1	1/2"	3.25	1.22	0.51	1.18	32	27	110	83A4660648
1/2"	0.840	21.3	1/4"	3.03	1.30	0.47	0.87	38	27	120	83A4660728
1/2"	0.840	21.3	3/8"	3.09	1.22	0.49	0.98	38	27	120	83A4660738
1/2"	0.840	21.3	1/2"	3.09	1.22	0.51	1.18	38	27	130	83A4660748
1/2"	0.840	21.3	3/4"	3.23	1.30	0.59	1.46	38	32	150	83A4660768
3/4"	1.050	26.7	1/2"	3.35	1.26	0.51	1.18	45	33	165	83A4660948
3/4"	1.050	26.7	3/4"	3.39	1.28	0.59	1.46	45	32	145	83A4660968
3/4"	1.050	26.7	1"	3.96	1.57	0.71	1.77	45	40	250	83A4660988
1"	1.315	33.4	1/2"	4.02	1.61	0.51	1.18	55	40	270	83A4661048
1"	1.315	33.4	3/4"	4.06	1.57	0.59	1.46	55	40	265	83A4661068
1"	1.315	33.4	1"	4.06	1.61	0.71	1.77	55	40	255	83A4661088
1-1/4"	1.660	42.2	1"	4.70	1.93	0.71	1.77	70	50	440	83A4661188
1-1/2"	1.900	48.3	1"	4.80	1.97	0.71	1.77	70	55	480	83A4661288
1-1/2"	1.900	48.3	1-1/4"	4.84	1.97	0.79	2.17	70	55	560	83A46612A8
2"	2.375	60.3	1-1/4"	5.87	2.32	0.79	2.17	84	67	580	83A46613A8
2"	2.375	60.3	1-1/2"	5.83	2.32	0.79	2.48	84	67	590	83A46613B8
2"	2.375	60.3	2"	5.71	2.32	0.87	2.95	84	67	600	83A46613C8

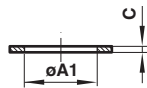
Tubing nut
83A0F4


ϕA for nominal pipe size	ϕA inch	ϕA mm	C inch	C mm	mm	Model
1/8"	0.405	10.3	0.60	15.0	24	83A0F40100
1/4"	0.540	13.7	0.61	15.5	28	83A0F40400
3/8"	0.675	17.1	0.61	15.5	32	83A0F40600
1/2"	0.840	21.3	0.63	16.0	38	83A0F40700
3/4"	1.050	26.7	0.69	17.5	45	83A0F40900
1"	1.315	33.4	0.73	18.5	55	83A0F41000
1-1/4"	1.660	42.2	0.81	20.5	70	83A0F41100
1-1/2"	1.900	48.3	0.83	21.0	70	83A0F41200
2"	2.375	60.3	0.96	24.5	85	83A0F41300

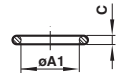
Split ring
83A0J1

 Dimensions in mm
 Projection/First angle


ϕA for nominal pipe size	$\phi A1$ inch	$\phi A1$ mm	C inch	C mm	Model
1/8"	0.41	10.5	0.20	5	83A0J10100
1/4"	0.55	13.9	0.20	5	83A0J10400
3/8"	0.69	17.4	0.20	5	83A0J10600
1/2"	0.85	21.6	0.20	5	83A0J10700
3/4"	1.07	27.1	0.22	5.5	83A0J10900
1"	1.35	34.3	0.24	6	83A0J11000
1-1/4"	1.68	42.6	0.26	6.5	83A0J11100
1-1/2"	1.91	48.5	0.26	6.5	83A0J11200
2"	2.38	60.4	0.33	8.5	83A0J11300

Tubing washer
83A0E7


ϕA for nominal pipe size	$\phi A1$ inch	$\phi A1$ mm	C inch	C mm	Model
1/8"	0.41	10.5	0.06	1.5	83A0E70100
1/4"	0.54	13.8	0.06	1.5	83A0E70400
3/8"	0.69	17.5	0.06	1.5	83A0E70600
1/2"	0.86	21.8	0.06	1.5	83A0E70700
3/4"	1.08	27.4	0.08	2.0	83A0E70900
1"	1.46	37.2	0.08	2.0	83A0E71000
1-1/4"	1.69	42.9	0.08	2.0	83A0E71100
1-1/2"	1.92	48.8	0.08	2.0	83A0E71200
2"	2.40	60.9	0.12	3.0	83A0E71300

Tubing 'O'-ring for tube – HNBR (yellow)
8000K


For tube ϕ	$\phi A1$ inch	$\phi A1$ mm	C inch	C mm	Model
1/8"	0.35	8.90	0.07	1.9	8000K21000
1/4"	0.48	12.10	0.11	2.7	8000K30400
3/8"	0.67	16.90	0.11	2.7	8000K21800
1/2"	0.78	19.80	0.14	3.6	8000K30700
3/4"	1.03	26.20	0.14	3.6	8000K30900
1"	1.28	32.50	0.14	3.6	8000K31000
1-1/4"	1.60	40.64	0.21	5.33	8000K31100
1-1/2"	1.85	46.99	0.21	5.33	8000K31200
2"	2.35	59.69	0.21	5.33	8000K31300

Warning

These products are intended for use in industrial compressed air and rail transport 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.