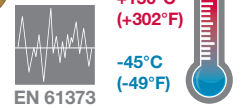


- > Port size: Ø 1/8 ... 2" nominal pipe size, BSPP and BSPT thread
- > For use in areas of vibration
- > Pre-assembled units
- > No special assembly tools or heat required
- > Can be remade without damage to tube
- > Suitable for use on seam welded as well as seamless tube or pipe
- > Thinner tube can 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°



Technical features

Medium:

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

Operating pressure:

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

Ambient temperature:

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

Tube sizes (nominal pipe size see page 2 for corresponding tube outside diameter):

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"

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:

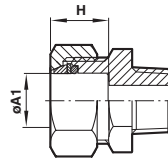
Body & nut: brass Washer & clamping: brass 'O'-Ring: HNBR – colour coded yellow

Technical data

Recommended nut torque settings

Tube Ø (mm)	Recommended torque	Tube Ø (mm)	Recommended torque
1/8"	20 Nm	1"	150 Nm
1/4"	30 Nm	1 1/4"	300 Nm
3/8"	40 Nm	1 1/2"	310 Nm
1/2"	45 Nm	2"	320 Nm
3/4"	90 Nm		

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



Tube stop position and tube outside diameter details

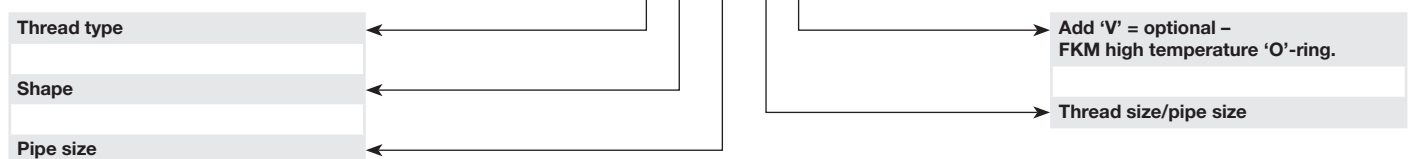
Nominal pipe size	Pipe O/D Ø A1"	Pipe O/D Ø A1 (mm)	H (mm)
1/8"	0,405	10,3 ± 0,1	18
1/4"	0,540	13,7 ± 0,2	18,5
3/8"	0,675	17,1 ± 0,13	20
1/2"	0,840	21,3 ± 0,16	20
3/4"	1,050	26,7 ± 0,2	21,5
1"	1,315	33,4 ± 0,3	22,5
1 1/4"	1,660	42,2 ± 0,3	27
1 1/2"	1,900	48,3 ± 0,3	25
2"	2,375	60,3 ± 0,3	35

The information provided in this table are typical values as dimension H will vary slightly with torque applied to the nut.

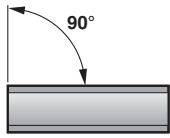
For fittings without tube stops such as straight connector and bulkheads the above tube insertion depths are also applicable

Option selector

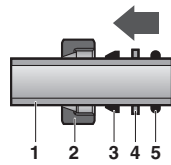
83★★★★★★



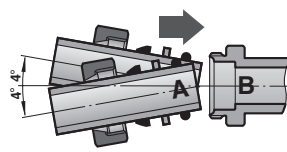
Method of assembly



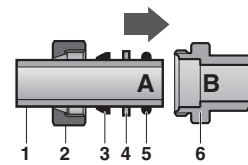
1. Ensure that the end of the tube is cut square and is free from burrs.



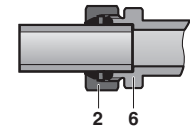
2. Slide the nut (2) onto the pipe (1) from right to left. Slide the split ring (3) onto the pipe (1) from right to left keeping the smaller edge towards the nut (2). Slide the washer (4) onto the pipe (1) from right to left. Slide the 'O'-ring (5) onto the pipe (1) from right to left. N.B. The pipe 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

Straight adaptor (taper)	Straight adaptor (parallel)	Female adaptor (parallel)	Straight union (equal)	Straight union (unequal)	Bulkhead union	Cap	Straight stem connector (taper)	Straight stem connector (parallel)
83125	83225	83226	83020	83020	83029	83012	83115	83215
								
Page 3	Page 3	Page 4	Page 4	Page 5	Page 5	Page 5	Page 6	Page 6






Elbow connectors and adaptors

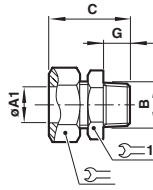
Union elbow (equal)	Union elbow (unequal)	90° Elbow adaptor (taper)	90° Elbow adaptor female (taper)
83040	83040	83145	83246
			
Page 7	Page 7	Page 8	Page 8

Tee connectors and adaptors

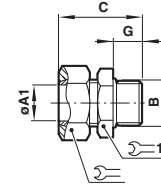
Union tee (equal)	Union tee (unequal)	Tee adaptor (taper)	Tee adaptor female (taper)
83060	83060	83165	83266
			
Page 9	Page 9	Page 10	Page 10

Accessories

Tubing nut 830F4	Split ring 830J1	Tubing washer 830E7	Tubing 'O'-ring 8000K	Thread 'O'-ring ISO G parallel thread 8000K
				
Page 11	Page 11	Page 11	Page 11	Page 11

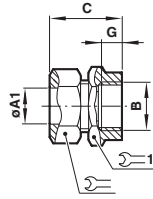
Straight adaptor (taper)
83125




Ø A1 nominal pipe size	Ø A1 (mm)	B	C	G			Weight (g)	Model
1/8"	10,3	R 1/8	34,5	10	24	20	80	831250118
1/8"	10,3	R 1/4	36,5	12	24	20	83	831250128
1/8"	10,3	R 3/8	36,5	12	24	20	83	831250138
1/8"	10,3	R 1/2	37,5	13	24	21	96	831250148
1/4"	13,7	R 1/8	37,5	10	28	25	128	831250418
1/4"	13,7	R 1/4	38,5	12	28	25	128	831250428
1/4"	13,7	R 3/8	38,5	12	28	25	128	831250438
1/4"	13,7	R 1/2	39,5	13	28	25	134	831250448
1/4"	13,7	R 3/4	41,5	15	28	28	144	831250468
1/4"	13,7	R 1	44,5	18	28	34	202	831250488
3/8"	17,1	R 1/4	39	12	31	27	128	831250628
3/8"	17,1	R 3/8	39	12	31	27	134	831250638
3/8"	17,1	R 1/2	40	13	31	27	144	831250648
3/8"	17,1	R 3/4	42	15	31	28	150	831250668
3/8"	17,1	R 1	45	18	31	34	192	831250688
1/2"	21,3	R 1/4	40,5	12	38	34	192	831250728
1/2"	21,3	R 3/8	40,5	12	38	34	202	831250738
1/2"	21,3	R 1/2	41,5	13	38	34	208	831250748
1/2"	21,3	R 3/4	43,5	15	38	34	214	831250768
1/2"	21,3	R 1	46,5	18	38	34	230	831250788
3/4"	26,7	R 3/8	42	12	44	40	266	831250938
3/4"	26,7	R 1/2	43	13	44	40	288	831250948
3/4"	26,7	R 3/4	45	15	44	40	266	831250968
3/4"	26,7	R 1	48	18	44	40	304	831250988
3/4"	26,7	R 1 1/4	48	18	44	45	384	8312509A8
1"	33,4	R 1/2	47,5	13	53	48	416	831251048
1"	33,4	R 3/4	49,5	15	53	48	448	831251068
1"	33,4	R 1	52,5	18	53	48	464	831251088
1"	33,4	R 1 1/4	52,5	18	53	48	464	8312510A8
1"	33,4	R 1 1/2	54,5	20	53	50	496	8312510B8
1 1/4"	42,2	R 3/4	49,5	15	66	60	640	831251168
1 1/4"	42,2	R 1	52,5	18	66	60	624	831251188
1 1/4"	42,2	R 1 1/4	52,5	18	66	60	672	8312511A8
1 1/4"	42,2	R 1 1/2	57	20	66	60	672	8312511B8
1 1/4"	42,2	R 2	61,5	20	66	60	704	8312511C8
1 1/2"	48,3	R 1	54,5	18	71	65	688	831251288
1 1/2"	48,3	R 1 1/4	54,5	18	71	65	736	8312512A8
1 1/2"	48,3	R 1 1/2	56,5	20	71	65	704	8312512B8
1 1/2"	48,3	R 2	61,5	20	71	65	816	8312512C8
2"	60,3	R 1 1/4	59,5	18	84	78	896	8312513A8
2"	60,3	R 1 1/2	61,5	20	84	78	992	8312513B8
2"	60,3	R 2	61,5	20	84	78	1040	8312513C8

Straight adaptor (parallel)
83225

 Dimensions in mm
 Projection/First angle

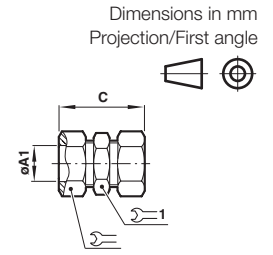

Ø A1 nominal pipe size	Ø A1 (mm)	B	C	G			Weight (g)	Model
1/8"	10,3	G 1/8	30,5	6	24	22	74	832250118
1/8"	10,3	G 1/4	33,5	8	24	22	80	832250128
1/8"	10,3	G 3/8	34,5	8	24	24	102	832250138
1/8"	10,3	G 1/2	38,5	10	24	32	115	832250148
1/4"	13,7	G 1/8	33,5	6	28	24	125	832250418
1/4"	13,7	G 1/4	34,5	8	28	23	128	832250428
1/4"	13,7	G 3/8	34,5	8	28	24	128	832250438
1/4"	13,7	G 1/2	38,5	10	28	32	144	832250448
1/4"	13,7	G 3/4	44,5	14	28	36	208	832250468
1/4"	13,7	G 1	46,5	14	28	46	256	832250488
3/8"	17,1	G 1/4	34,5	8	31	27	128	832250628
3/8"	17,1	G 3/8	35	8	31	27	128	832250638
3/8"	17,1	G 1/2	39	10	31	32	154	832250648
3/8"	17,1	G 3/4	45	14	31	36	192	832250668
3/8"	17,1	G 1	45	14	31	46	304	832250688
1/2"	21,3	G 1/4	37,5	8	38	32	192	832250728
1/2"	21,3	G 3/8	37,5	8	38	32	192	832250738
1/2"	21,3	G 1/2	39,5	10	38	32	198	832250748
1/2"	21,3	G 3/4	44,5	14	38	36	224	832250768
1/2"	21,3	G 1	45,5	14	38	46	336	832250788
3/4"	26,7	G 1/4	35	8	44	38	266	832250928
3/4"	26,7	G 3/8	36,5	8	44	38	272	832250938
3/4"	26,7	G 1/2	41	10	44	38	272	832250948
3/4"	26,7	G 3/4	45	14	44	38	288	832250968
3/4"	26,7	G 1	47	14	44	46	368	832250988
3/4"	26,7	G 1 1/4	49	16	44	60	544	8322509A8
1"	33,4	G 1/2	43,5	10	53	46	432	832251048
1"	33,4	G 3/4	49,5	14	53	46	448	832251068
1"	33,4	G 1	49,5	14	53	46	464	832251088
1"	33,4	G 1 1/4	53,5	16	53	60	608	8322510A8
1"	33,4	G 1 1/2	54	16	53	65	640	8322510B8
1 1/4"	42,2	G 3/4	48,5	14	66	58	672	832251168
1 1/4"	42,2	G 1	50,5	14	66	58	640	832251188
1 1/4"	42,2	G 1 1/4	51,5	16	66	60	640	8322511A8
1 1/4"	42,2	G 1 1/2	51,5	16	66	65	736	8322511B8
1 1/2"	48,3	G 1	51,5	14	71	65	752	832251288
1 1/2"	48,3	G 1 1/4	58,5	16	71	65	752	8322512A8
1 1/2"	48,3	G 1 1/2	58,5	16	71	65	768	8322512B8
1 1/2"	48,3	G 2	60,5	18	71	75	1088	8322512C8
2"	60,3	G 1 1/4	62,5	16	84	82	1344	8322513A8
2"	60,3	G 1 1/2	62,5	16	84	82	1344	8322513B8
2"	60,3	G 2	64,5	18	84	82	1376	8322513C8



Female adaptor (parallel)
83226

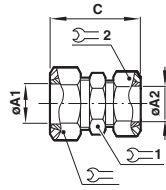


Ø A1 nominal pipe size	Ø A1 (mm)	B	C	G			Weight (g)	Model
1/8"	10,3	G 1/8	28	11	24	18	80	832260118
1/8"	10,3	G 1/4	30	12	24	23	96	832260128
1/8"	10,3	G 3/8	31	12,5	24	26	112	832260138
1/8"	10,3	G 1/2	32	13	24	32	128	832260148
1/4"	13,7	G 1/8	33,5	11	28	23	128	832260418
1/4"	13,7	G 1/4	33,5	12	28	23	144	832260428
1/4"	13,7	G 3/8	33,5	12,5	28	26	144	832260438
1/4"	13,7	G 1/2	36,5	13	28	32	176	832260448
1/4"	13,7	G 3/4	37,5	15	28	37	192	832260468
1/4"	13,7	G 1	38,5	18	28	47	240	832260488
3/8"	17,1	G 1/4	32	12	31	27	144	832260628
3/8"	17,1	G 3/8	33,5	12,5	31	27	144	832260638
3/8"	17,1	G 1/2	34,5	13	31	32	160	832260648
3/8"	17,1	G 3/4	38,5	15	31	37	176	832260668
3/8"	17,1	G 1	39,5	18	31	47	240	832260688
1/2"	21,3	G 1/4	32	12	38	32	176	832260728
1/2"	21,3	G 3/8	34	12,5	38	32	208	832260738
1/2"	21,3	G 1/2	35,5	13	38	32	192	832260748
1/2"	21,3	G 3/4	39,5	15	38	37	224	832260768
1/2"	21,3	G 1	42,5	18	38	47	320	832260788
3/4"	26,7	G 1/4	34	12	44	38	272	832260928
3/4"	26,7	G 3/8	34	12,5	44	38	272	832260938
3/4"	26,7	G 1/2	34,5	13	44	38	282	832260948
3/4"	26,7	G 3/4	37	15	44	38	272	832260968
3/4"	26,7	G 1	42	18	44	47	384	832260988
3/4"	26,7	G 1 1/4	44	18	44	60	448	8322609A8
3/4"	26,7	G 1 1/2	45	20	44	65	544	8322609B8
1"	33,4	G 1/2	38,5	13	53	48	448	832261048
1"	33,4	G 3/4	41,5	15	53	48	448	832261068
1"	33,4	G 1	43,5	18	53	48	464	832261088
1"	33,4	G 1 1/4	44,5	18	53	60	496	8322610A8
1"	33,4	G 1 1/2	47,5	20	53	65	576	8322610B8
1 1/4"	42,2	G 3/4	45	15	66	60	720	832261168
1 1/4"	42,2	G 1	46	18	66	60	736	832261188
1 1/4"	42,2	G 1 1/4	46	18	66	60	768	8322611A8
1 1/4"	42,2	G 1 1/2	47	20	66	65	784	8322611B8
1 1/4"	42,2	G 2	47	22	66	80	896	8322611C8
1 1/2"	48,3	G 1	47,5	18	71	65	720	832261288
1 1/2"	48,3	G 1 1/4	47,5	18	71	65	736	8322612A8
1 1/2"	48,3	G 1 1/2	48	20	71	65	752	8322612B8
1 1/2"	48,3	G 2	51	22	71	80	928	8322612C8
2"	60,3	G 1 1/4	50,5	18	84	80	1056	8322613A8
2"	60,3	G 1 1/2	52,5	20	84	80	1088	8322613B8
2"	60,3	G 2	53,5	22	84	80	1152	8322613C8

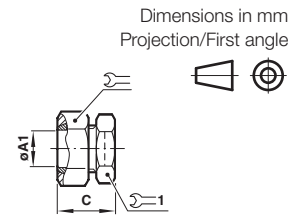
Straight union (equal)
83020



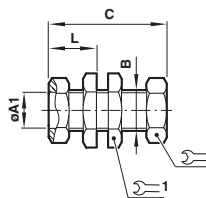
Ø A1 nominal pipe size	Ø A1 (mm)	C			Weight (g)	Model
1/8"	10,3	43	24	20	102	830200100
1/4"	13,7	46	28	25	170	830200400
3/8"	17,1	46	31	28	176	830200600
1/2"	21,3	49	38	34	262	830200700
3/4"	26,7	52	44	43	384	830200900
1"	33,4	57	53	48	608	830201000
1 1/4"	42,2	60	66	60	864	830201100
1 1/2"	48,3	63	71	65	960	830201200
2"	60,3	72	84	80	1504	830201300
3"		140	118	118		830201400

Straight union (unequal)
83020


Ø A1 nominal pipe size	Ø A1 (mm)	Ø A2 nominal pipe size	Ø A2 (mm)	C	1	2	Weight (g)	Model	
1/4"	13,7	1/8"	10,3	45	28	25	24	154	830200401
3/8"	17,1	1/8"	10,3	45,5	31	27	24	160	830200601
3/8"	17,1	1/4"	13,7	45,5	31	28	28	192	830200604
1/2"	21,3	1/4"	13,7	47	38	34	28	240	830200704
1/2"	21,3	3/8"	17,1	47,5	38	34	31	240	830200706
3/4"	26,7	1/4"	13,7	48,5	44	38	30	304	830200904
3/4"	26,7	3/8"	17,1	49	44	38	31	304	830200906
3/4"	26,7	1/2"	21,3	50,5	44	40	38	336	830200907
1"	33,4	3/8"	17,1	54,5	53	48	31	464	830201006
1"	33,4	1/2"	21,3	55	53	48	38	496	830201007
1"	33,4	3/4"	26,7	56,5	53	48	55	528	830201009
1 1/4"	42,2	1/2"	21,3	54	66	60	37	704	830201107
1 1/4"	42,2	3/4"	26,7	55,5	66	60	44	736	830201109
1 1/4"	42,2	1"	33,4	59	66	60	53	784	830201110
1 1/2"	48,3	1"	33,4	60	71	65	53	896	830201210
1 1/2"	48,3	1 1/4"	42,2	60	71	65	66	960	830201211
2"	60,3	1"	33,4	65	84	78	53	1184	830201310
2"	60,3	1 1/4"	42,2	65	84	78	66	1248	830201311
2"	60,3	1 1/2"	48,3	68	84	78	71	1312	830201312

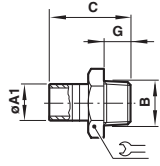
Cap
83012


Ø A1 nominal pipe size	Ø A1 (mm)	C	1	Weight (g)	Model
1/8"	10,3	24,5	24	80	830120100
1/4"	13,7	24,5	28	112	830120400
3/8"	17,1	27	31	128	830120600
1/2"	21,3	26,5	38	176	830120700
3/4"	26,7	30	44	256	830120900
1"	33,4	33,5	53	416	830121000
1 1/4"	42,2	34,5	66	640	830121100
1 1/2"	48,3	36,5	71	736	830121200
2"	60,3	41,5	84	960	830121300

Bulkhead union
83029


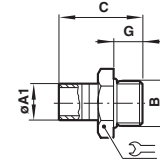
Ø A1 nominal pipe size	Ø A1 (mm)	Ø B	C	L	1	2	Weight (g)	Model
1/8"	10,3	19	58	24,5	24	23	176	830290100
1/4"	13,7	24	63	26,5	28	30	368	830290400
3/8"	17,1	27	62	27	31	32	384	830290600
1/2"	21,3	33	66	28,5	38	38	416	830290700
3/4"	26,7	39	68	30	44	46	544	830290900
1"	33,4	47	77	34,5	53	55	928	830291000
1 1/4"	42,2	59	81	34,5	66	70	1248	830291100
1 1/2"	48,3	64	83	35,5	71	75	1472	830291200
2"	60,3	77	97	41,5	84	90	2208	830291300


Straight stem connector (taper)
83115




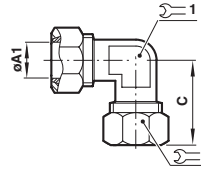
Straight stem connector (parallel)
83215



Dimensions in mm
Projection/First angle

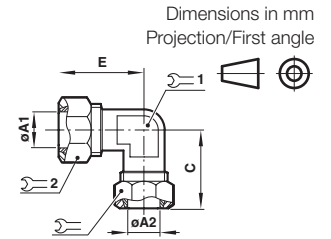





Ø A1 nominal pipe size	Ø A1 (mm)	B	C	G		Weight (g)	Model
1/8"	10,3	R 1/8	34,5	10	12	32	831150118
1/8"	10,3	R 1/4	36,5	12	16	38	831150128
1/4"	13,7	R 1/4	38	12	15	38	831150428
1/4"	13,7	R 3/8	38	12	17	48	831150438
1/4"	13,7	R 1/2	39	13	21	64	831150448
3/8"	17,1	R 3/8	39	12	19	58	831150638
3/8"	17,1	R 1/2	40	13	21	74	831150648
3/8"	17,1	R 3/4	42	15	27	102	831150668
1/2"	21,3	R 3/8	40	12	23	74	831150738
1/2"	21,3	R 1/2	41	13	23	80	831150748
1/2"	21,3	R 3/4	43	15	27	96	831150768
1/2"	21,3	R 1	46	18	34	144	831150788
3/4"	26,7	R 3/8	43	12	28	102	831150938
3/4"	26,7	R 1/2	44	13	28	112	831150948
3/4"	26,7	R 3/4	46	15	28	128	831150968
3/4"	26,7	R 1	49	18	34	176	831150988
1"	33,4	R 1/2	46	13	35	170	831151048
1"	33,4	R 3/4	48	15	36	176	831151068
1"	33,4	R 1	51	18	36	208	831151088
1"	33,4	R 1 1/4	51	18	42	256	8311510A8
1"	33,4	R 1 1/2	55	20	48	272	8311510B8
1 1/4"	42,2	R 1	56,5	18	44	304	831151188
1 1/4"	42,2	R 1 1/4	56,5	18	45	320	8311511A8
1 1/4"	42,2	R 1 1/2	58,5	20	48	352	8311511B8
1 1/4"	42,2	R 2	58,5		65	448	8311511C8
1 1/2"	48,3	R 1	57,5	18	50	352	831151288
1 1/2"	48,3	R 1 1/4	57,5	18	50	368	8311512A8
1 1/2"	48,3	R 1 1/2	59,5	20	50	384	8311512B8
1 1/2"	48,3	R 2	59,5		65	480	8311512C8
2"	60,3	R 1	65	18	65	576	831151388
2"	60,3	R 1 1/4	65	18	65	592	8311513A8
2"	60,3	R 1 1/2	67	20	65	608	8311513B8
2"	60,3	R 2	67		65	640	8311513C8

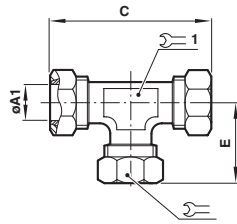
Ø A1 nominal pipe size	Ø A1 (mm)	B	C	G		Weight (g)	Model
1/8"	10,3	G 1/8	30,5	6	18	26	832150118
1/8"	10,3	G 1/4	33,5	8	22	32	832150128
1/4"	13,7	G 1/4	34	8	22	48	832150428
1/4"	13,7	G 3/8	34	8	24	64	832150438
1/4"	13,7	G 1/2	38	10	32	80	832150448
3/8"	17,1	G 3/8	35	8	24	64	832150638
3/8"	17,1	G 1/2	39	10	32	96	832150648
3/8"	17,1	G 3/4	43	14	36	134	832150668
1/2"	21,3	G 3/8	36	8	24	74	832150738
1/2"	21,3	G 1/2	40	10	32	112	832150748
1/2"	21,3	G 3/4	44	14	36	134	832150768
1/2"	21,3	G 1	46	14	46	256	832150788
3/4"	26,7	G 3/8	38	8	24	96	832150938
3/4"	26,7	G 1/2	42	10	32	128	832150948
3/4"	26,7	G 3/4	46	14	36	160	832150968
3/4"	26,7	G 1	48	14	46	240	832150988
1"	33,4	G 1/2	44	10	32	154	832151048
1"	33,4	G 3/4	48	14	36	192	832151068
1"	33,4	G 1	50	14	46	224	832151088
1"	33,4	G 1 1/4	54	16	60	416	8321510A8
1"	33,4	G 1 1/2	57	15	65	608	8321510B8
1 1/4"	42,2	G 1	53,5	14	46	240	832151188
1 1/4"	42,2	G 1 1/4	57,5	16	60	528	8321511A8
1 1/4"	42,2	G 1 1/2	60,5	16	65	672	8321511B8
1 1/4"	42,2	G 2	64,5		75	704	8321511C8
1 1/2"	48,3	G 1	54,5	14	50	448	832151288
1 1/2"	48,3	G 1 1/4	61,5	16	60	576	8321512A8
1 1/2"	48,3	G 1 1/2	61,5	16	65	704	8321512B8
1 1/2"	48,3	G 2	65,5		75	736	8321512C8
2"	60,3	G 1	61	14	60	576	832151388
2"	60,3	G 1 1/4	68	16	60	624	8321513A8
2"	60,3	G 1 1/2	68	16	65	752	8321513B8
2"	60,3	G 2	70		75	768	8321513C8

Union elbow (equal)
83040


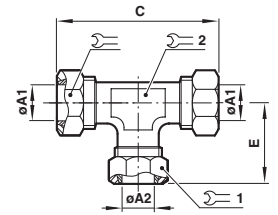
Ø A1 nominal pipe size	Ø A1 (mm)	C			Weight (g)	Model
1/8"	10,3	32	24	14	144	830400100
1/4"	13,7	36,5	28	18	192	830400400
3/8"	17,1	38	31	22	208	830400600
1/2"	21,3	39	38	28	320	830400700
3/4"	26,7	42,5	44	32	432	830400900
1"	33,4	53,5	53	40	720	830401000
1 1/4"	42,2	56	66	50	1104	830401100
1 1/2"	48,3	62	71	55	1184	830401200
2"	60,3	70,5	84	68	1872	830401300

Union elbow (unequal)
83040


Ø A1 nominal pipe size	Ø A1 (mm)	Ø A2 nominal pipe size	Ø A2 (mm)	C	E				Weight (g)	Model
1/4"	13,7	1/8"	10,3	33,5	37,5	24	18	28	192	830400401
3/8"	17,1	1/8"	10,3	35	38,5	24	20	31	198	830400601
3/8"	17,1	1/4"	13,7	38,5	29,5	28	20	31	224	830400604
1/2"	23,3	1/4"	13,7	39,5	38,5	28	27	38	304	830400704
1/2"	23,3	3/8"	17,1	40	37,5	31	27	38	304	830400706
3/4"	26,7	1/4"	13,7	42	41,5	28	33	44	400	830400904
3/4"	26,7	3/8"	17,1	41,5	41,5	31	33	44	400	830400906
3/4"	26,7	1/2"	23,3	40,5	43,5	38	33	44	416	830400907
1"	33,4	1/4"	13,7	47,5	52	28	40	53	608	830401004
1"	33,4	3/8"	17,1	48,5	52	31	40	53	624	830401006
1"	33,4	1/2"	23,3	48	50,5	38	40	53	672	830401007
1"	33,4	3/4"	26,7	50	52	44	40	53	704	830401009
1 1/4"	42,2	3/4"	26,7	55	56,5	44	50	66	832	830401109
1 1/4"	42,2	1"	33,4	57,5	56	53	50	66	1120	830401110
1 1/2"	48,3	1"	33,4	62	61,5	53	55	71	1344	830401210
1 1/2"	48,3	1 1/4"	42,2	60,5	62	66	55	71	1312	830401211
2"	60,3	1 1/4"	42,2	66,5	71	66	68	84	2080	830401311
2"	60,3	1 1/2"	48,3	68,5	71	71	68	84	1952	830401312

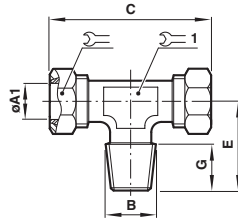
Union tee (equal)
83060




Ø A1 nominal pipe size	Ø A1 (mm)	C	E	1	1	Weight (g)	Model
1/8"	10,3	62	31	24	16	192	830600100
1/4"	13,7	72	36	28	18	272	830600400
3/8"	17,1	75	37,5	31	20	288	830600600
1/2"	21,3	78	39	38	27	448	830600700
3/4"	26,7	84	42	44	32	576	830600900
1"	33,4	103	51,5	53	40	912	830601000
1 1/4"	42,2	115	57,5	66	50	1456	830601100
1 1/2"	48,3	122	61	71	55	1584	830601200
2"	60,3	146	73	84	68	2592	830601300

Union tee (unequal)
83060

 Dimensions in mm
 Projection/First angle

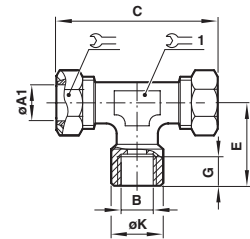

Ø A1 nominal pipe size	Ø A1 (mm)	Ø A2 nominal pipe size	Ø A2 (mm)	C	E	1	2	Weight (g)	Model	
1/8"	10,3	1/4"	13,7	67,5	36,5	24	28	18	147	830600104
1/8"	10,3	3/8"	17,1	67,5	39,5	24	31	20	160	830600106
1/4"	13,7	3/8"	17,1	70	38,5	28	31	20	288	830600406
3/8"	17,1	1/4"	13,7	74	37	31	28	20	288	830600604
3/8"	17,1	1/2"	21,3	78	38,5	31	38	27	400	830600607
1/2"	21,3	1/4"	13,7	78,5	39,5	38	28	27	410	830600704
1/2"	21,3	3/8"	17,1	78	39,5	38	31	27	384	830600706
1/2"	21,3	3/4"	26,7	81	42	38	44	32	544	830600709
3/4"	26,7	1/4"	13,7	85	41,5	44	28	32	512	830600904
3/4"	26,7	3/8"	17,1	85	41,5	44	31	32	528	830600906
3/4"	26,7	1/2"	21,3	84,5	41	44	38	32	560	830600907
1"	33,4	3/8"	17,1	103	49	53	31	40	848	830601006
1"	33,4	1/2"	21,3	103	50	53	38	40	880	830601007
1"	33,4	3/4"	26,7	103	50	53	44	40	928	830601009
1 1/4"	42,2	3/4"	26,7	115	56	66	44	50	1152	830601109
1 1/4"	42,2	1"	33,4	113	59	66	53	50	1536	830601110
1 1/2"	48,3	1"	33,4	122	61,5	71	53	55	1664	830601210
1 1/2"	48,3	1 1/4"	42,2	125	63	71	66	55	1760	830601211
2"	60,3	1 1/4"	42,2	146	68,5	84	66	68	2432	830601311
2"	60,3	1 1/2"	48,3	146	69,5	84	71	68	2528	830601312

Tee adaptor (taper)
83165





Ø A1 nominal pipe size	Ø A1 (mm)	B	C	E	G			Weight (g)	Model
1/8"	10,3	R 1/8	61	22	10	24	14	144	831650118
1/4"	13,7	R 1/8	73	25	10	28	18	208	831650418
1/4"	13,7	R 1/4	73,5	27,5	12	28	18	224	831650428
1/4"	13,7	R 3/8	73	27	12	28	18	224	831650438
1/4"	13,7	R 1/2	71,5	29	13	28	18	224	831650448
3/8"	17,1	R 1/4	78	28	12	31	20	240	831650628
3/8"	17,1	R 3/8	74	28	12	31	20	240	831650638
3/8"	17,1	R 1/2	76	31	13	31	20	240	831650648
1/2"	21,3	R 1/4	77	32	12	38	27	352	831650728
1/2"	21,3	R 3/8	78,5	32,5	12	38	27	368	831650738
1/2"	21,3	R 1/2	78,5	33	13	38	27	384	831650748
1/2"	21,3	R 3/4	78	35	15	38	27	384	831650768
3/4"	26,7	R 1/2	85	34,5	13	44	32	512	831650948
3/4"	26,7	R 3/4	84,5	34	15	44	32	512	831650968
3/4"	26,7	R 1	85	33,5	18	44	33	528	831650988
1"	33,4	R 1/2	102	37	13	53	40	816	831651048
1"	33,4	R 3/4	102	39	15	53	40	816	831651068
1"	33,4	R 1	102,5	41	18	53	40	816	831651088
1"	33,4	R 1 1/4	102	42	18	53	40	848	8316510A8
1 1/4"	42,2	R 1	113,5	49,5	18	66	50	1376	831651188
1 1/4"	42,2	R 1 1/4	116	50	18	66	50	1344	8316511A8
1 1/4"	42,2	R 1 1/2	112	49	20	66	50	1408	8316511B8
1 1/2"	48,3	R 1	123	50	18	71	55	1472	831651288
1 1/2"	48,3	R 1 1/4	123	50	18	71	55	1504	8316512A8
1 1/2"	48,3	R 1 1/2	123	51,5	20	71	55	1536	8316512B8
1 1/2"	48,3	R 2	123	52		71	68	1536	8316512C8
2"	60,3	R 1 1/4	143	50	18	84	68	2304	8316513A8
2"	60,3	R 1 1/2	143	52	20	84	68	2528	8316513B8
2"	60,3	R 2	143	52		84	68	2560	8316513C8

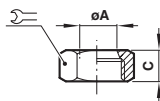
Tee adaptor female (taper)
83266




Dimensions in mm
Projection/First angle

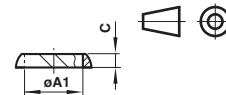


Ø A1 nominal pipe size	Ø A1 (mm)	B	C	E	G	Ø K			Weight (g)	Model
1/8"	10,3	G 1/8	66,5	29,5	11	17,5	24	18	240	832660411
1/4"	13,7	G 1/8	70	28	11	17,5	28	18	272	832660418
1/4"	13,7	G 1/4	70,5	27,5	12	22	28	18	272	832660428
1/4"	13,7	G 3/8	73	30	12,5	25	28	20	288	832660438
1/4"	13,7	G 1/2	78,5	31	13	30	28	27	416	832660468
3/8"	17,1	G 1/4	79	32	12	22	31	20	256	832660628
3/8"	17,1	G 3/8	79	33	12,5	25	31	22	256	832660638
3/8"	17,1	G 1/2	80,5	30,5	13	30	31	27	352	832660648
1/2"	21,3	G 1/4	76	33	12	22	38	27	384	832660728
1/2"	21,3	G 3/8	77,5	31	12,5	25	38	27	384	832660738
1/2"	21,3	G 1/2	77,5	31	13	30	38	27	416	832660748
1/2"	21,3	G 3/4	81	33	15	36,5	38	32	480	832660768
3/4"	26,7	G 1/2	84	32	13	30	44	33	528	832660948
3/4"	26,7	G 3/4	85	32,5	15	36,5	44	32	464	832660968
3/4"	26,7	G 1	99,5	40	18	45	44	40	800	832660988
1"	33,4	G 1/2	102	41	13	30	53	40	864	832661048
1"	33,4	G 3/4	103	40	15	36,5	53	40	848	832661068
1"	33,4	G 1	103	41	18	45	53	40	816	832661088
1 1/4"	42,2	G 1	117,5	48	18	45	66	50	1408	832661188
1 1/2"	48,3	G 1	122	50	18	45	71	55	1536	832661288
1 1/2"	48,3	G 1 1/4	123	48			71	55	1792	8326612A8
2"	60,3	G 1 1/4	147	59,5			84	68	1856	8326613A8
2"	60,3	G 1 1/2	146	59			84	68	1888	8326613B8
2"	60,3	G 2	143	58			84	68	1920	8326613C8

Tubing nut
830F4


$\varnothing A1$ for nominal pipe size	$\varnothing A$ (mm)	C		Model
1/8"	10,3	14,5	24	830F40100
1/4"	13,7	15	28	830F40400
3/8"	17,1	14,5	31	830F40600
1/2"	21,3	15,5	38	830F40700
3/4"	26,7	17	44	830F40900
1"	33,4	18,5	53	830F41000
1 1/4"	42,2	19,5	66	830F41100
1 1/2"	48,3	21	71	830F41200
2"	60,3	23,5	84	830F41300

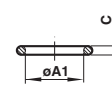
Split ring
830J1

 Dimensions in mm
 Projection/First angle


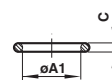
$\varnothing A1$ for nominal pipe size	$\varnothing A1$ (mm)	C	Model
1/8"	10,5	5	830J10100
1/4"	13,9	5	830J10400
3/8"	17,4	5	830J10600
1/2"	21,6	5	830J10700
3/4"	27,1	5,5	830J10900
1"	34,3	6	830J11000
1 1/4"	42,6	6,5	830J11100
1 1/2"	48,5	6,5	830J11200
2"	60,4	8,5	830J11300

Tubing washer
830E7


$\varnothing A1$ for nominal pipe size	$\varnothing A1$ (mm)	C	Model
1/8"	10,5	1,5	830E70100
1/4"	13,8	1,5	830E70400
3/8"	17,5	1,5	830E70600
1/2"	21,8	1,5	830E70700
3/4"	27,4	2	830E70900
1"	37,2	2	830E71000
1 1/4"	42,9	2	830E71100
1 1/2"	48,8	2	830E71200
2"	60,9	3	830E71300

Tubing 'O'-ring – HNBR (yellow)
8000K


For tube \varnothing	$\varnothing A1$ (mm)	C	Model
1/8"	8,9	1,9	8000K21000
1/4"	12,1	2,7	8000K30400
3/8"	16,9	2,7	8000K21800
1/2"	19,8	3,6	8000K30700
3/4"	26,2	3,6	8000K30900
1"	32,5	3,6	8000K31000
1 1/4"	40,6	5,3	8000K31100
1 1/2"	43,8	5,3	8000K31200
2"	59,8	5,3	8000K31300

Thread 'O'-ring ISO G parallel thread – HNBR (yellow)
8000K


For thread	$\varnothing A1$ (mm)	C	Model
G1/8	8,9	1,9	8000K21000
G1/4	12,1	2,7	8000K30400
G3/8	15,1	2,7	8000K21600
G1/2	19,8	3,6	8000K30700
G3/4	24,6	3,6	8000K22500
G1	30,8	3,6	8000K23200
G1 1/4	37,5	5,3	8000K400A8
G1 1/2	43,8	5,3	8000K24500
G2	56,5	5,3	8000K400C8

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 NORGRN.

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.