82 series
Brass compression fittings

- Port size: Ø 6 ... 42 mm tube 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 0,8 mm wall thickness
- Lower torque requirement on the tube nut than fittings which bite into the tube
- Will cope with tube misalignment of ±4°

EN 61373

+150°C (+302°F)

-45°C (-49°F)

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:
6, 8, 10, 12, 14, 15, 18, 20, 22, 25, 28, 32, 35, 38, 42 mm
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
Stainless Steel tube to AISI 304 and AISI 316
Nylon – PA12 (tube support required)

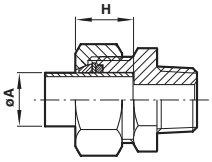
Testing & Approvals:
PED 97/23/EC
Shock & vibration tested to EN 61373 Category 2 – (Bogie mounted)

Materials:
Body & Nut: brass
Washer & clampring: brass, white galvinised
'O'-Ring: HNBR – colour coded yellow

Technical data
Recommended nut torque settings

Tube Ø mm	Recommended torque	Tube Ø mm	Recommended torque
6	20 Nm	22	55 Nm
8	20 Nm	25	75 Nm
10	20 Nm	28	95 Nm
12	25 Nm	30	135 Nm
14	30 Nm	32	150 Nm
15	30 Nm	35	170 Nm
16	35 Nm	38	280 Nm
18	45 Nm	42	290 Nm
20	55 Nm		

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



Tube stop position

Ø A	H	Ø A	H
6	16,0	22	19,5
8	17,0	25	21,0
10	18,5	28	22,5
12	18,0	30	23,0
14	18,0	32	23,5
15	18,5	35	23,5
16	20,5	38	27,0
18	19,5	42	26,5
20	19,5		

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

82★★★★★★★★

Thread type	
	Add 'V' = optional – FPM high temperature 'O'-ring.
Shape	
	Thread size/pipe size
Pipe size	

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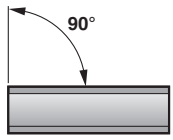
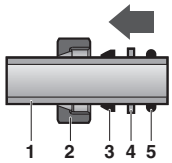
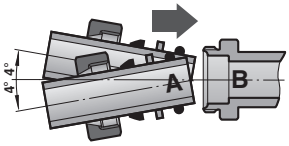
Method of assembly



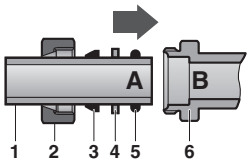
1. Ensure that the end of the tube is cut square and is free from burrs.



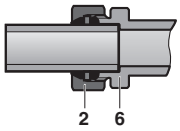
2. Slide the nut (2) onto the pipe (1) from right to left. Slide the split ring (3) onto the pipe (1) from right to left keeping the smaller edge towards the nut (2). Slide the washer (4) onto the pipe (1) from right to left. Slide the 'O'-ring (5) onto the pipe (1) from right to left. N.B. The pipe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



3. Before installing the pipe fittings, check that the pipes misaligne-ment is not higher than ± 4°



4. Move the pipe head (A) with all components asembled as shown towards the casing abutment (B). In pipe fitings without abut-ment (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) 82125	Straight adaptor (parallel) 82225	Female adaptor (parallel) 82226	Straight union (equal) 82020	Straight union (unequal) 82020	Bulkhead union 82029	Cap 82012	Straight stem connector (taper) 82115	Straight stem connector (parallel) 82215
Page 3	Page 4	Page 5	Page 5	Page 6	Page 7	Page 7	Page 8	Page 9

Elbow connectors and adaptors

Union elbow (equal) 82040	Union elbow (unequal) 82040	90° Elbow adaptor (taper) 82145	90° Elbow adaptor female (taper) 82246
Page 9	Page 10	Page 11	Page 12

Tee connectors and adaptors

Union tee (equal) 82060	Union tee (unequal) 82060	Tee adaptor (taper) 82165	Tee adaptor female (taper) 82266
Page 13	Page 13	Page 14	Page 14

Accessories

Tubing nut 820F4	Split ring 820J1	Tubing washer 820E7	Tubing 'O'-ring 8000K	Thread 'O'-ring ISO G parallel thread 8000K	Tube support 82033
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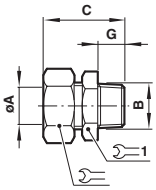
NORGREN

Straight adaptor (taper)
82125

Dimensions in mm
Projection/First angle



Ø A	B	C	G		1	Weight (g)	Model
6	R1/8	33	10	19	16	48	821250618
6	R1/4	35	12	19	16	51	821250628
6	R3/8	35	12	19	17	58	821250638
6	R1/2	36	13	19	21	71	821250648
8	R1/8	34,5	10	21	17	58	821250818
8	R1/4	36,5	12	21	17	58	821250828
8	R3/8	36,5	12	21	17	61	821250838
8	R1/2	37,5	13	21	21	76	821250848
8	R3/4	30,5	15	21	27	113	821250868
10	R1/8	35	10	24	20	74	821251018
10	R1/4	37	12	24	19	77	821251028
10	R3/8	37	12	24	19	77	821251038
10	R1/2	38	13	24	21	91	821251048
10	R3/4	41	15	24	27	116	821251068
12	R1/4	39	12	26	23	96	821251228
12	R3/8	39	12	26	23	96	821251238
12	R1/2	40	13	26	23	104	821251248
12	R3/4	42	15	26	27	118	821251268
14	R1/4	41	12	28	25	109	821251428
14	R3/8	42	12	28	25	115	821251438
14	R1/2	42	13	28	25	118	821251448
14	R3/4	44	15	28	27	135	821251468
14	R1	47	18	28	34	203	821251488
15	R1/4	38	12	30	25	112	821251528
15	R3/8	38	12	30	25	112	821251538
15	R1/2	39	13	30	25	115	821251548
15	R3/4	41	15	29	27	129	821251568
15	R1	44	18	29	34	167	821251588
16	R1/4	39	12	30	27	128	821251628
16	R3/8	39	12	30	27	122	821251638
16	R1/2	40	13	30	27	128	821251648
16	R3/4	42	15	30	27	131	821251668
16	R1	45	18	30	27	193	821251688
18	R1/4	41	12	32	28	137	821251828
18	R3/8	41	12	32	18	141	821251838
18	R1/2	42	13	32	18	147	821251848
18	R3/4	44	15	32	18	163	821251868
18	R1	47	18	32	34	186	821251888
20	R3/8	41,5	12	34	30	150	821252038
20	R1/2	42,5	13	34	30	160	821252048
20	R3/4	44,5	15	34	30	173	821252068
20	R1	47,5	18	34	34	207	821252088
22	R3/8	41,5	12	38	34	198	821252238
22	R1/2	42,5	13	38	34	195	821252248
22	R3/4	44,5	15	38	34	208	821252268
22	R1	47,5	18	38	34	225	821252288
25	R1/2	44	13	42	38	256	821252548
25	R3/4	46	15	42	38	259	821252568
25	R1	49	18	42	38	288	821252588
28	R1/2	44,5	13	44	38	256	821252848

Ø A	B	C	G		1	Weight (g)	Model
28	R3/4	46,5	15	44	40	246	821252868
28	R1	49,5	18	44	40	301	821252888
28	R1 1/4	49,5	18	44	42	295	8212528A8
30	R1/2	45,5	13	48	45	353	821253048
30	R3/4	47,5	13	48	45	362	821253068
30	R1	50,5	15	48	45	346	821253088
30	R1 1/4	50,5	18	48	45	364	8212530A8
30	R1 1/2	52,5	20	48	48	399	8212530A8
32	R3/4	48	18	50	46	387	821253268
32	R1	51	15	50	46	384	821253288
32	R1 1/4	51	18	50	46	429	8212532A8
32	R1 1/2	53	20	50	48	434	8212532A8
35	R1/2	47	13	53	48	406	821253548
35	R3/4	49	18	53	48	410	821253568
35	R1	52	13	53	48	435	821253588
35	R1 1/4	52	15	53	48	454	8212535A8
38	R1 1/2	54	20	53	48	462	8212532B8
38	R3/4	51	18	56	48	426	821253868
38	R1	54	15	56	48	432	821253888
38	R1 1/4	54	18	56	50	419	8212538A8
38	R1 1/2	56	20	56	50	425	8212542B8
42	R1	53	18	66	60	685	821254288
42	R1 1/4	53	18	66	60	678	8212542A8
42	R1 1/2	55	20	66	60	698	8212542B8
42	R2	55	20	66	60	710	8212542C8

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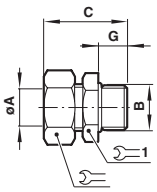
Straight adaptor (parallel)
82225

Dimensions in mm
Projection/First angle



Ø A	B	C	G		1	Weight (g)	Model
6	G1/8	30	6	19	18	64	822250618
6	G1/4	33	8	19	22	74	822250628
6	G3/8	33	8	19	24	80	822250638
6	G1/2	37	10	19	32	127	822250648
8	G1/8	31	6	21	18	64	822250818
8	G1/4	33	8	21	22	80	822250828
8	G3/8	33	8	21	24	96	822250838
8	G1/2	37	10	21	32	130	822250848
8	G3/4	41	14	21	36	160	822250868
10	G1/8	31	6	24	18	80	822251018
10	G1/4	34	8	24	22	96	822251028
10	G3/8	34	8	24	24	112	822251038
10	G1/2	38	10	24	32	131	822251048
10	G3/4	42	14	24	36	196	822251068
12	G1/8	33	6	26	21	96	822251218
12	G1/4	35	8	26	22	96	822251228
12	G3/8	35	8	26	24	102	822251238
12	G1/2	39	10	26	32	145	822251248
12	G3/4	45	14	26	36	195	822251268
14	G1/4	37	8	28	23	112	822251428
14	G3/8	37	8	28	24	112	822251438
14	G1/2	41	10	28	32	160	822251448
14	G3/4	47	14	28	36	200	822251468
14	G1	49	14	28	46	250	822251488
15	G1/4	34	8	30	24	100	822251528
15	G3/8	34	8	30	24	112	822251538
15	G1/2	38	10	30	32	112	822251548
15	G3/4	44	14	30	36	160	822251568
15	G1	49	14	30	46	256	822251588
16	G1/4	33	14	30	24	122	822251628
16	G3/8	35	8	30	25	128	822251638
16	G1/2	39	10	30	32	134	822251648
16	G3/4	46	14	30	36	205	822251668
16	G1	49	14	30	46	284	822251688
18	G1/4	37	8	32	28	137	822251828
18	G3/8	37	8	32	28	144	822251838
18	G1/2	40	10	32	32	176	822251848
18	G3/4	39	10	32	36	224	822251868
18	G1	39	14	32	36	292	822251888
20	G3/8	36,5	8	34	30	154	822252038
20	G1/2	40,5	10	34	32	176	822252048
20	G3/4	46,5	14	34	38	234	822252068
20	G1	46,5	14	34	46	300	822252088
22	G3/8	36,5	8	38	34	176	822252238
22	G1/2	40,5	10	38	34	208	822252248
22	G3/4	46,5	14	38	36	256	822252268
22	G1	36,5	14	38	46	256	822252288
25	G1/2	46,5	10	42	36	272	822252548
25	G3/4	48	14	42	36	352	822252568
25	G1	48	14	42	46	343	822252588

Ø A	B	C	G		1	Weight (g)	Model
28	G1/2	41,5	10	44	38	250	822252848
28	G3/4	47,5	14	44	38	272	822252868
28	G1	47,5	14	44	46	352	822252888
28	G1 1/4	53,5	16	44	60	481	8222528A8
30	G 1/2	41,5	10	48	42	260	822252848
30	G3/4	47,5	14	48	42	346	822253068
30	G1	47,5	14	48	46	384	822253088
30	G1 1/4	49,5	16	48	60	505	8222530A8
30	G1 1/2	50,5	16	48	65	610	8222530B8
32	G3/4	48	14	50	46	394	822253268
32	G1	48	14	50	46	394	822253288
32	G1 1/4	50	16	50	60	544	8222532A8
32	G1 1/2	50	16	50	65	623	8222532B8
35	G1/2	40	10	53	38	287	822253548
35	G3/4	46	14	53	46	400	822253568
35	G1	49	14	53	46	410	822253588
35	G1 1/4	51	16	53	60	560	8222535A8
35	G1 1/2	52	16	53	65	637	8222535B8
38	G3/4	48	14	56	50	416	822253868
38	G1	50	14	56	50	432	822253888
38	G1 1/4	57	16	56	60	554	8222538A8
38	G1 1/2	57	16	56	65	644	8222538B8
42	G1	49	14	66	60	624	822254288
42	G1 1/4	56	16	66	60	624	8222542A8
42	G1 1/2	56	16	66	65	704	8222542B8
42	G2	58	18	66	78	1088	8222542C8

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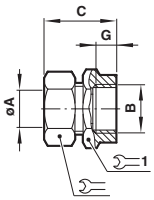
Female adaptor (parallel)
82226

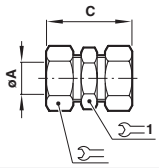
Dimensions in mm
Projection/First angle



Ø A	B	C	G		1	Weight (g)	Model
6	G1/8	30,5	11	19	18	67	822260618
6	G1/4	31,5	12	19	23	74	822260628
6	G3/8	32,5	12,5	19	26	84	822260638
6	G1/2	33,5	13	19	32	94	822260648
8	G1/8	30	11	21	18	67	822260818
8	G1/4	31,5	12	21	23	77	822260828
8	G3/8	33	12,5	21	26	90	822260838
8	G1/2	33,5	13	21	37	109	822260848
10	G1/8	32	11	24	18	77	822261018
10	G1/4	33	12	24	23	90	822261028
10	G3/8	34,5	12,5	24	26	106	822261038
10	G1/2	34	13	24	32	125	822261048
10	G3/4	39	15	24	37	169	822261068
12	G1/4	33,5	12	26	23	99	822261228
12	G3/8	33,5	12,5	26	26	109	822261238
12	G1/2	34,5	13	26	32	141	822261248
12	G3/4	39,5	15	26	37	179	822261268
14	G1/4	32	12	28	23	112	822261428
14	G3/8	34	12,5	28	26	128	822261438
14	G1/2	35	13	28	32	144	822261448
14	G3/4	36	15	28	37	164	822261468
14	G1	38	18	28	47	224	822261488
15	G1/4	32	12	29	25	112	822261528
15	G3/8	34	12,5	29	25	106	822261538
15	G1/2	34	13	29	30	128	822261548
15	G3/4	38	15	29	37	169	822261568
15	G1	40	18	29	47	224	822261588
16	G1/4	33	12	30	25	113	822261628
16	G3/8	34	12,5	30	26	160	822261638
16	G1/2	35	13	30	32	176	822261648
16	G3/4	38	15	30	37	174	822261668
16	G1	40	18	30	47	234	822261688
18	G1/4	32	12	32	27	133	822261828
18	G3/8	34	12,5	32	27	160	822261838
18	G1/2	37	13	32	32	160	822261848
18	G3/4	38	15	32	37	192	822261868
18	G1	40	18	32	47	254	822261888
20	G3/8	34,5	12,5	34	30	160	822262038
20	G1/2	35,5	13	34	32	176	822262048
20	G3/4	38,5	15	34	37	198	822262068
20	G1	40,5	18	34	47	284	822262088
22	G3/8	34	12,5	38	34	208	822262238
22	G1/2	35	13	38	34	224	822262248
22	G3/4	38	15	38	37	218	822262268
22	G1	41,5	18	38	47	295	822262288
25	G1/2	37	13	42	36	240	822262548
25	G3/4	39	15	42	37	243	822262568
25	G1	43	18	42	47	336	822262588
28	G1/2	39	13	44	38	262	822262848
28	G3/4	39	15	44	38	288	822262868

Ø A	B	C	G		1	Weight (g)	Model
28	G1	46	18	44	47	294	822262888
28	G1 1/4	48	18	44	60	304	8222628A8
30	G1/2	40	13	48	42	315	822263048
30	G3/4	39	15	48	42	352	822263068
30	G1	42	18	48	47	400	822263088
30	G1 1/4	44	18	48	60	480	8222630A8
30	G1 1/2	46	20	48	65	500	8222630B8
32	G3/4	41	15	50	46	384	822263268
32	G1	42	18	50	47	378	822263288
32	G1 1/4	44	18	50	60	480	8222632A8
32	G1 1/2	47	20	50	65	559	8222632B8
35	G1/2	42,5	13	53	46	402	822263548
35	G3/4	43,5	15	53	46	448	822263568
35	G1	43,5	18	53	48	426	822263588
35	G1 1/4	43,5	18	53	60	512	8222635A8
35	G1 1/2	47,5	20	53	65	515	8222635B8
38	G3/4	41,5	15	56	48	309	822263868
38	G1	43,5	18	56	48	448	822263888
38	G1 1/4	47,5	18	56	60	512	8222638A8
38	G1 1/2	47,5	20	56	65	592	8222638B8
42	G1	44	18	66	60	704	822264288
42	G1 1/4	47	18	66	60	672	8222642A8
42	G1 1/2	48	20	66	65	624	8222642B8
42	G2	50	22	66	80	644	8222642C8

Straight union (equal)
82020



Ø A	C		1	Weight (g)	Model
6	40	19	15	74	820200600
8	42,5	21	18	90	820200800
10	44	24	20	118	820201000
12	46	26	23	141	820201200
14	46	28	25	160	820201400
15	47	29	25	150	820201500
16	48	30	27	173	820201600
18	50	32	28	198	820201800
20	49	34	30	208	820202000
22	48	38	34	266	820202200
25	51	42	38	362	820202500
28	52	44	40	352	820202800
30	54	48	44	432	820203000
32	54	50	46	483	820203200
35	57	53	48	538	820203500
38	59	56	50	531	820203800
42	62	66	60	858	820204200

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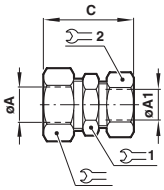
Straight union (unequal)
82020

Dimensions in mm
Projection/First angle



Ø A	Ø A1	C		1	2	Weight (g)	Model
8	6	42,5	21	17	19	83	820200806
10	6	44	24	19	19	102	820201006
10	8	43,5	24	19	21	102	820201008
12	6	45	26	23	19	118	820201208
12	8	45,5	26	23	21	122	820201208
12	10	46	26	23	24	134	820201210
14	6	47	28	24	19	132	820201406
14	8	47,5	28	24	21	136	820201408
14	10	48	28	24	24	128	820201410
14	12	49	28	24	25	128	820201412
15	10	44,5	30	25	24	150	820201510
15	12	44,5	30	25	25	150	820201512
15	14	47	30	25	28	160	820201514
16	8	44,5	30	27	21	163	820201608
16	10	44	30	27	24	165	820201610
16	12	47	30	26	25	170	820201612
16	14	49	30	26	28	173	820201614
18	8	47,5	32	28	21	172	820201808
18	10	48	32	28	24	179	820201810
18	12	49	32	28	25	186	820201812
18	14	51	32	28	28	192	820201814
18	15	44,5	32	28	29	189	820201815
18	16	49	32	28	30	195	820201816
20	10	48,5	34	30	24	196	820202010
20	12	49,5	34	30	25	199	820202012
20	14	50	34	30	28	208	820202015
20	16	49,5	34	30	30	214	820202016
20	18	51,5	34	30	32	221	820202018
22	12	47	38	34	25	232	820202212
22	14	48,5	38	34	28	237	820202214
22	15	46	38	34	29	232	820202215
22	16	48,5	38	34	10	241	820202216
22	18	51,5	38	34	32	256	820202218
22	20	49	38	34	34	256	820202220
25	14	53	42	38	28	296	820202514
25	16	50	42	38	30	299	820202516
25	18	50	42	38	32	314	820202518
25	20	52,5	42	38	34	320	820202520
25	22	50,5	42	38	38	333	820202522
28	14	50	44	40	28	297	820202814
28	16	52	44	40	30	300	820202816
28	18	53,5	44	40	32	308	820202818
28	20	51,5	44	40	34	320	820202820
28	22	51	44	39	38	330	820202822
28	25	54,4	44	38	42	365	820202828
30	20	54	48	45	34	379	820203020
30	22	52	48	42	38	387	820203022
30	25	55,5	48	45	42	435	820203025
30	28	53	48	45	44	429	820203028
32	18	52	50	45	32	395	820203218

Ø A	Ø A1	C		1	2	Weight (g)	Model
32	22	52,5	50	45	38	410	820203222
32	25	56	50	45	42	454	820203225
32	28	53,5	50	45	44	451	820203228
32	30	53,5	50	45	48	477	820203230
35	22	54,5	53	46	38	471	820203522
35	25	57	53	47	42	464	820203525
35	28	55,5	53	47	44	477	820203528
35	30	56,5	53	48	48	512	820203530
35	32	56	53	48	50	525	820203532
38	25	59	56	50	42	531	820203825
38	30	58,5	56	50	48	538	820203830
38	32	58	56	50	50	550	820203832
38	35	60	56	50	53	566	820203835
42	28	56,5	66	60	44	691	820204228
42	30	55,5	66	60	48	720	820204230
42	35	58	66	59	53	765	820204235
42	38	59	66	61	56	758	820204238

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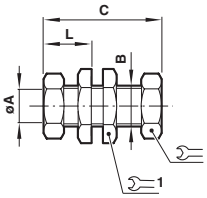
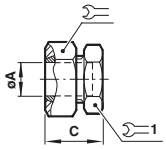
Bulkhead union
82029



Ø A	Ø B	C	L		1	Weight (g)	Model
6	15	56	23	19	19	102	820290600
8	17	58	25	21	21	163	820290800
10	19	59	25,5	24	23	160	820291000
12	22	63	27	26	27	205	820291200
14	24	69	29	28	30	240	820291400
15	25	64	27	29	30	234	820291500
16	26	65	28	30	32	250	820291600
18	28	65	29	32	34	275	820291800
20	30	69,5	29,5	34	36	310	820292000
22	34	70	29,5	38	40	397	820292200
25	37	75	31	42	42	518	820292500
28	39	68,5	30	44	46	467	820292800
30	43	75,5	33	48	50	672	820293000
32	45	75	33	50	50	691	820293200
35	47	83	35	53	55	778	820293500
38	50	82	36	56	60	848	820293800
42	59	82	35	66	70	1200	820294200

Cap
82012

Dimensions in mm
Projection/First angle



Ø A	C		1	Weight (g)	Model
6	23	19	16	48	820120600
8	23,5	21	17	51	820120800
10	25	24	19	80	820121000
12	27	26	23	96	820121200
14	28	28	24	102	820121400
15	26	29	24	112	820121500
16	27	30	27	128	820121600
18	29	32	28	138	820121800
20	29,5	34	30	144	820122000
22	29,5	38	34	176	820122200
25	31	42	37	240	820122500
28	31,5	44	40	250	820122800
30	32,5	48	42	304	820123000
32	33	50	45	352	820123200
35	34	53	48	384	820123500
38	36	56	50	400	820123800
42	34	66	60	640	820124200

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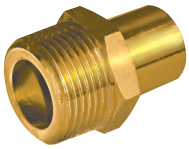
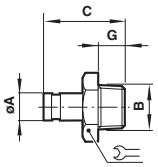
Straight stem connector (taper)
82115

Dimensions in mm
Projection/First angle





Ø A	B	C	G		Weight (g)	Model
6	R1/8	32	10	10	22	821150618
6	R1/4	34	12	14	32	821150628
6	R3/8	34	12	17	32	821150638
8	R1/8	34,5	10	10	29	821150818
8	R1/4	35,5	12	14	35	821150828
8	R3/8	35,5	12	17	38	821150838
8	R1/2	36,5	13	21	32	821150848
10	R1/8	34,5	10	12	26	821151018
10	R1/4	36,5	12	14	38	821151028
10	R3/8	36,5	12	17	42	821151038
10	R1/2	37,5	13	21	74	821151048
10	R3/4	41,5	15	27	80	821151068
12	R1/4	37,5	12	14	42	821151228
12	R3/8	37,5	12	17	45	821151238
12	R1/2	38,5	13	21	74	821151248
12	R3/4	41,5	15	27	80	821151268
14	R1/4	38	12	15	32	821151428
14	R3/8	38	12	17	58	821151438
14	R1/2	39	13	21	58	821151448
14	R3/4	42	15	27	80	821151468
15	R3/8	38	12	17	48	821151538
15	R1/2	39	13	21	74	821151548
15	R3/4	42	15	27	115	821151568
16	R1/4	39	12	18	38	821151628
16	R3/8	39	12	18	48	821151638
16	R1/2	40	13	21	58	821151648
16	R3/4	43	15	27	86	821151668
16	R1	46	18	34	144	821151688
18	R1/4	40	12	19	38	821151828
18	R3/8	40	12	19	48	821151838
18	R1/2	41	13	21	74	821151848
18	R3/4	44	15	27	106	821151868
18	R1	47	18	34	144	821151888
20	R1/4	41	12	21	48	821152028
20	R3/8	41	12	21	58	821152038
20	R1/2	42	13	21	64	821152048
20	R3/4	44,5	15	27	109	821152068
20	R1	47	18	34	192	821152088
22	R3/8	41,5	12	23	70	821152238
22	R1/2	42,5	13	23	70	821152248
22	R3/4	44,5	15	27	106	821152268
22	R1	47,5	18	34	192	821152288
25	R3/8	43	12	27	80	821152538
25	R1/2	44	13	27	90	821152548
25	R3/4	46	15	27	122	821152568
25	R1	49	18	34	192	821152588
25	R1 1/4	49	18	42	176	8211525A8
28	R1/2	45	13	30	112	821152848
28	R3/4	47	15	30	134	821152868
28	R1	50	18	34	192	821152888

Ø A	B	C	G		Weight (g)	Model
28	R1 1/4	50	18	42	176	8211528A8
30	R3/4	48,5	15	32	128	821153068
30	R1	51,5	18	34	160	821153088
30	R1 1/4	51,5	18	42	192	8211530A8
30	R1 1/2	53,5	20	48	256	8211530B8
32	R3/4	48,5	15	34	154	821153268
32	R1	51,5	18	34	208	821153288
32	R1 1/4	51,5	18	42	208	8211532A8
35	R1	53	18	36	192	821153588
35	R1 1/4	53	18	42	208	8211535A8
35	R1 1/2	55	20	48	589	8211535B8
38	R1	55	18	40	176	821153888
38	R1 1/4	55	18	42	224	8211538A8
38	R1 1/2	57	20	48	234	8211538B8
42	R1	56,5	18	44	288	821154288
42	R1 1/4	56,5	18	45	294	8211542A8
42	R1 1/2	58,5	20	48	320	8211542B8

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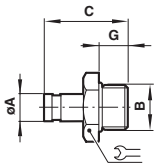
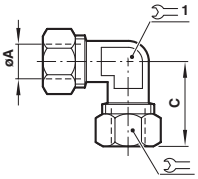
Straight stem connector (parallel)
82215

Dimensions in mm
Projection/First angle



Ø A	B	C	G		Weight (g)	Model
6	G1/8	29	6	18	16	822150618
6	G1/4	32	8	22	32	822150628
6	G3/8	32	8	24	38	822150638
8	G1/8	32,5	6	18	16	822150818
8	G1/4	29,5	8	22	32	822150828
8	G3/8	32,5	8	24	38	822150838
8	G1/2	36,5	10	32	80	822150848
10	G1/8	30,5	6	18	26	822151018
10	G1/4	33,5	8	22	32	822151028
10	G3/8	33,5	8	24	38	822151038
10	G1/2	37,5	10	32	80	822151048
12	G3/8	33,5	8	24	32	822151238
12	G1/2	37,5	10	32	80	822151248
12	G3/4	41,5	14	36	96	822151268
14	G1/4	34	8	22	48	822151428
14	G3/8	34	8	24	48	822151438
14	G1/2	38	10	32	80	822151448
14	G3/4	42	14	36	112	822151468
15	G3/8	34	8	24	58	822151538
15	G1/2	38	10	32	80	822151548
15	G3/4	42	14	36	122	822151568
16	G1/4	35	8	22	54	822151628
16	G3/8	35	8	24	48	822151638
16	G1/2	39	10	32	80	822151648
16	G3/4	43	14	36	112	822151668
16	G1	45	14	46	192	822151688
18	G1/4	35	8	22	54	822151828
18	G3/8	35	8	24	64	822151838
18	G1/2	40	10	32	80	822151848
18	G3/4	44	14	36	112	822151868
18	G1	45	14	46	192	822151888
20	G1/4	36	8	22	64	822152028
20	G3/8	36	8	24	70	822152038
20	G1/2	40	10	32	96	822152048
20	G3/4	44	14	36	112	822152068
20	G1	46	14	46	192	822152088
22	G3/8	36,5	8	24	80	822152238
22	G1/2	40,5	10	32	86	822152248
22	G3/4	44,5	14	36	112	822152268
22	G1	46	14	46	192	822152288
25	G3/8	41	8	26	80	822152538
25	G1/2	45	10	32	112	822152548
25	G3/4	49	14	36	128	822152568
25	G1	48	14	46	192	822152588
25	G1 1/4	52	16	60	368	8221525A8
28	G3/4	46	14	36	144	822152868
28	G1	46	14	48	192	822152888
28	G1 1/4	52	16	60	368	8221528A8
30	G3/4	46,5	14	36	176	822153068
30	G1	48,5	14	46	182	822153088
30	G1 1/4	52,5	16	60	384	8221530A8
30	G1 1/2	55,5	16	65	576	8221530B8
32	G3/4	46,5	14	36	176	822153268
32	G1	48,5	14	46	208	822153288
32	G1 1/4	55,5	16	60	410	8221532A8
35	G1	50	14	46	192	822153588
35	G1 1/4	57	16	60	464	8221535A8
35	G1 1/2	57	16	65	592	8221535B8
38	G1	52	14	46	288	822153888
38	G1 1/4	59	16	60	448	8221538A8
38	G1 1/2	59	16	65	624	8221538B8
42	G1	53,5	14	46	384	822154288
42	G1 1/4	60,5	16	60	464	8221542A8
42	G1 1/2	60,5	16	65	640	8221542B8

Union elbow (equal)
82040



Ø A	C		1	Weight (g)	Model
6	29	19	12	86	820400600
8	31,5	21	14	106	820400800
10	33	24	14	131	820401000
12	36,5	26	18	170	820401200
14	38,5	28	18	179	820401400
15	35,5	29	20	189	820401500
16	37,5	30	20	205	820401600
18	39,5	32	22	218	820401800
20	40	34	28	288	820402000
22	40,5	38	29	320	820402200
25	43,5	42	32	426	820402500
28	46	44	33	387	820402800
30	49,5	48	37	576	820403000
32	51,5	50	40	640	820403200
35	52	53	40	640	820403500
38	58	56	50	938	820403800
42	58	66	50	1056	820404200

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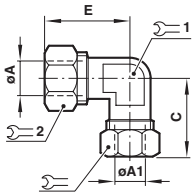
Union elbow (unequal)
82040

Dimensions in mm
Projection/First angle



Ø A	Ø A1	C	E		1	2	Weight (g)	Model
8	6	31,5	31,5	19	14	21	96	820400806
10	6	32	29	19	12	24	106	820401006
10	8	31,5	32	21	14	24	118	820401008
12	6	35	36,5	19	18	26	147	820401206
12	10	34,5	36,5	24	18	26	157	820401210
14	6	35	36,5	19	18	28	147	820401406
14	8	34,5	38,5	21	18	28	160	820401408
14	10	35	38,5	24	18	28	173	820401410
14	12	36	36	25	18	28	192	820401412
16	10	36	38	24	20	30	179	820401610
16	12	36,5	37,5	25	20	30	192	820401612
18	8	36	39	21	20	32	176	820401808
18	10	36	39	24	20	32	192	820401810
18	12	37	39	25	20	32	198	820401812
18	14	39,5	39	28	20	32	202	820401814
18	16	37,5	39	30	20	32	214	820401816
20	12	40,5	39,5	25	27	34	269	820402012
20	14	39	42	28	27	34	275	820402014
20	16	39	39,5	30	27	34	275	820402016
20	18	40	40	32	27	34	282	820402018
22	16	39	39,5	30	29	38	282	820402216
22	18	40	41,5	32	29	38	301	820402218
25	18	43	43,5	32	32	42	397	820402518
25	20	42,5	42,5	34	32	42	387	820402520
25	22	42,5	44	38	32	42	416	820402522
28	20	42,5	41,5	34	32	44	518	820402820
28	25	45	41,5	42	32	44	550	820402825
30	18	51	49,5	32	39	48	570	820403018
30	20	48,5	49,5	34	39	48	611	820403020
30	22	48,5	48	38	39	48	579	820403022
30	25	54,5	49,5	42	39	48	653	820403025
30	28	49,5	48	44	39	48	621	820403028
32	20	50,5	49	34	40	50	621	820403220
32	22	51	51,5	38	40	50	656	820403222
32	25	53,5	49	42	40	50	694	820403225
32	28	51,5	49	44	40	50	704	820403228
35	20	50,5	51,5	34	40	53	640	820403520
35	22	50,5	51,5	38	40	53	672	820403522
35	25	53,5	51,5	42	40	53	714	820403525
35	28	51,5	51,5	44	40	53	723	820403528
38	22	55,5	52,5	38	50	56	723	820403822
38	25	58,5	52,5	42	50	56	774	820403825
38	30	56	58	48	50	56	1136	820403830
38	32	58,5	59,5	50	50	56	1187	820403832
42	25	58,5	56,5	42	50	66	890	820404225
42	30	56	56,5	48	50	66	909	820404230
42	35	58	57	53	50	66	960	820404235
42	38	59,5	56,5	56	50	66	960	820404238

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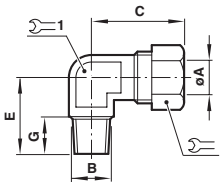
NORGREN

90° Elbow adaptor (taper)
82145

Dimensions in mm
Projection/First angle



Ø A	B	C	E	G		1	Weight (g)	Model
6	R1/8	29,5	21,5	10	19	12	58	821450618
6	R1/4	30,5	23,5	13,5	19	12	58	821450628
6	R3/8	30,5	25	13,5	19	14	80	821450638
6	R1/2	33,5	29	15	19	18	100	821450648
8	R1/8	31	21,8	10	21	14	61	821450818
8	R1/4	31	25,3	13	21	14	74	821450828
8	R3/8	30,5	25	13,5	21	14	70	821450838
8	R1/2	30,5	29,5	14	21	18	105	821450848
8	R3/4	31	33,5	17	21	20	140	821450868
10	R1/8	33	22,5	10	24	14	80	821451018
10	R1/4	33	24	12	24	14	86	821451028
10	R3/8	33	25	14	24	14	93	821451038
10	R1/2	35	30,5	15	24	17	112	821451048
10	R3/4	34,5	33,5	17	24	20	151	821451068
12	R1/4	36	28	12	26	18	122	821451228
12	R3/8	36	27	12	26	18	128	821451238
12	R1/2	36	29,5	15	26	18	128	821451248
12	R3/4	36,5	32,5	15	26	20	166	821451268
14	R1/4	39	27,5	13,5	28	18	128	821451428
14	R3/8	38	27,5	12	28	18	128	821451438
14	R1/2	38	30	15	28	18	144	821451448
14	R3/4	38,5	33	17	28	20	171	821451468
14	R1	41,5	39	20,5	28	27	241	821451488
15	R1/4	36	27,5	13,5	29	20	118	821451528
15	R3/8	36	27,5	12	29	20	118	821451538
15	R1/2	36	30,5	13	29	20	138	821451548
15	R3/4	36	32,5	15	29	20	138	821451568
15	R1	39	39	20,5	29	20	146	821451588
16	R1/4	37,5	27,5	12	30	22	154	821451628
16	R3/8	38	28	12,5	30	22	160	821451638
16	R1/2	37	29,5	15	30	22	160	821451648
16	R3/4	38	32,5	15	30	22	160	821451668
16	R1	37,5	31,5	20,5	30	27	154	821451688
18	R1/4	40	27,5	12	32	22	161	821451828
18	R3/8	40	26,5	12	32	22	151	821451838
18	R1/2	39,5	29	15	32	22	160	821451848
18	R3/4	39,5	32,5	17	32	22	208	821451868
18	R1	40,5	41	20,5	32	27	242	821451888
20	R3/8	39,5	31,5	12	34	27	227	821452038
20	R1/2	39,5	33	13	34	27	227	821452048
20	R3/4	40	35,5	15	34	27	237	821452068
20	R1	39	40	20,5	34	27	245	821452088
22	R3/8	39,5	32,5	13	38	29	226	821452238
22	R1/2	39	32	13	38	29	240	821452248
22	R3/4	39,5	35,5	15	38	29	240	821452268
22	R1	39,5	38,5	20,5	38	29	336	821452288
25	R1/2	43,5	37	14,5	42	32	346	821452548
25	R3/4	44,5	36	15	42	32	355	821452568
25	R1	43	38	20,5	42	32	349	821452588
28	R1/2	42,5	34,5	13,5	44	32	320	821452848

Ø A	B	C	E	G		1	Weight (g)	Model
28	R3/4	43	36	15	44	32	336	821452868
28	R1	43,5	38,5	20,5	44	38	339	821452888
28	R1 1/4	42,5	42	20,5	44	38	474	8214528A8
30	R1/2	49,5	42	13,5	48	38	534	821453048
30	R3/4	49,5	44	15,5	48	38	592	821453068
30	R1	50	47,5	18	48	38	560	821453088
30	R1 1/4	50	47,5	20,5	48	38	494	8214530A8
30	R1 1/2	50,5	52	20	48	40	525	8214530B8
32	R3/4	49	44	15	50	40	608	821453268
32	R1	52	46	18	50	40	538	821453288
32	R1 1/4	49	47	18	50	40	592	8214532A8
32	R1 1/2	49	49,5	20	50	40	529	8214532B8
35	R1/2	50	42	13,5	53	40	547	821453548
35	R3/4	51	44	15,5	53	40	592	821453568
35	R1	51	44,5	18	53	40	605	821453588
35	R1 1/4	52	48,5	19	53	40	560	8214535A8
35	R1 1/2	52	51,5	21,5	53	40	573	8214535B8
38	R3/4	57	48,5	16,5	56	50	960	821453868
38	R1	59	52,5	18,5	56	50	1024	821453888
38	R1 1/4	59	51,5	18,5	56	50	960	8214538A8
38	R1 1/2	58	53	20,5	56	50	844	8214538B8
42	R1	57,5	51	18	66	50	992	821454288
42	R1 1/4	58	52,5	18	66	50	992	8214542A8
42	R1 1/2	58	54,5	20	66	50	912	8214542B8
42	R2	59	55	20	66	68	1280	8214542C8

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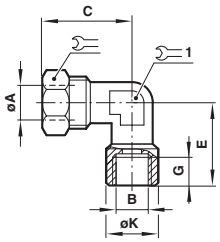
NORGREN

90° Elbow adaptor female (parallel)
82246



Dimensions in mm
Projection/First angle

ØA	B	C	E	G	ØK		1	Weight (g)	Model
6	G1/8	30	24	11	17,5	19	14	96	822460618
6	G1/4	32,5	30,5	12	22	19	18	122	822460628
8	G1/8	31,5	24	11	17,5	21	14	122	822460818
8	G1/4	34	30,5	12	22	21	18	128	822460828
8	G3/8	36,5	34	12,5	25	21	20	128	822460838
8	G1/2	37,5	40,5	13	30	21	27	246	822460848
10	G1/8	34,5	25,5	11	17,5	24	14	102	822461018
10	G1/4	34	29,5	12	22	24	18	128	822461028
10	G3/8	36	32,5	12,5	25	24	20	160	822461038
10	G1/2	38,5	34,5	13	30	24	27	250	822461048
10	G3/4	39,5	41,5	15	36,5	24	27	254	822461068
12	G1/4	40,5	30,5	12	22	26	18	154	822461228
12	G3/8	35,5	32,5	12,5	25	26	20	160	822461238
12	G1/2	39,5	36,5	13	30	26	27	266	822461248
12	G3/4	39	41	15	36,5	26	27	246	822461268
14	G1/4	38	25	12	22	28	18	144	822461428
14	G3/8	39	32	12,5	25	28	20	160	822461438
14	G1/2	40,5	36	13	30	28	27	272	822461448
14	G3/4	41,5	38,5	15	36,5	28	27	272	822461468
15	G1/4	36	25	12	22	29	20	144	822461528
15	G3/8	37,5	32,5	12,5	25	29	20	154	822461538
15	G1/2	39	40,5	13	30	29	27	272	822461548
15	G3/4	39	41	15	36,5	29	27	246	822461568
16	G1/4	38,5	32,5	12	22	30	20	144	822461628
16	G3/8	37,5	33,5	12,5	25	30	20	160	822461638
16	G1/2	39,5	41	13	30	30	27	272	822461648
16	G3/4	38,5	38	15	36,5	30	27	253	822461668
18	G1/4	39,5	32	12	22	32	20	178	822461828
18	G3/8	39	32,5	12,5	25	32	20	192	822461838
18	G1/2	39,5	36,5	13	30	32	27	272	822461848
18	G3/4	40	41	15	36,5	32	27	304	822461868
18	G1	43,5	44,5	18	45	32	32	402	822461888
20	G3/8	39,5	32,5	12,5	25	34	27	192	822462038
20	G1/2	39,5	36,5	13	30	34	27	288	822462048
20	G3/4	39,5	41,5	15	36,5	34	27	288	822462068
20	G1	42,5	43	18	45	34	32	414	822462088
22	G3/8	40	33	12,5	25	38	29	251	822462238
22	G1/2	39,5	40	13	30	38	29	304	822462248
22	G3/4	39,5	40	15	36,5	38	29	272	822462268
22	G1	41,5	43,5	18	45	38	32	426	822462288
25	G1/2	42,5	41	13	30	42	32	400	822462548
25	G3/4	42,5	44	15	36,5	42	32	416	822462568
25	G1	44	44	18	45	42	32	448	822462588
28	G1/2	43,5	41	13	30	44	32	416	822462848
28	G3/4	43,5	44	15	36,5	44	32	416	822462868
28	G1	43,5	44,5	18	45	44	32	416	822462888
30	G1/2	50	42,5	13	30	48	39	578	822463048
30	G3/4	49,5	45,5	15	36,5	48	39	592	822463068
30	G1	49	51,5	18	45	48	39	608	822463088
30	G1 1/4	53,5	47	18	55	48	50	775	8224630A8

ØA	B	C	E	G	ØK		1	Weight (g)	Model
32	G1/2	49	45	13	30	50	40	578	822463248
32	G3/4	49	50	15	36,5	50	40	608	822463268
32	G1	49	51	18	45	50	40	640	822463288
32	G1 1/4	57	57,5	18	55	50	50	816	8224632A8
35	G3/4	51,5	46,5	15	36,5	53	40	592	822463568
35	G1	51,5	51	18	45	53	40	672	822463588
35	G1 1/4	58	57,5	18	55	53	50	816	8224635A8
38	G3/4	74	54	15	36,5	56	40	784	822463868
38	G1	76	55	18	45	56	50	672	822463888
38	G1 1/4	78	57,5	18	55	56	50	1120	8224638A8
42	G1	56,5	56	15	45	66	50	1200	822464288
42	G1 1/4	58,5	57,5	18	55	66	50	1232	8224642A8
42	G1 1/2	58,5	57,5	20	63	66	50	912	8224642B8

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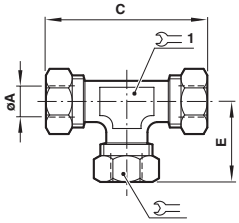
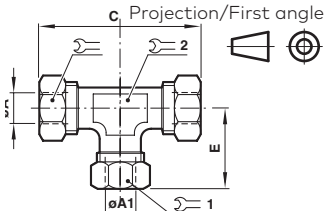
Union tee (equal)
82060



Ø A	C	E		1	Weight (g)	Model
6	57	28,5	19	12	128	820600600
8	61	30,5	21	15	150	820600800
10	63	31,5	24	15	179	820601000
12	73	36,5	26	18	250	820601200
14	75	37,5	28	20	259	820601400
15	71	35,5	29	20	256	820601500
16	75	37,5	30	20	288	820601600
18	78	39	32	22	326	820601800
20	79	39,5	34	20,5	397	820602000
22	80	40	38	29	410	820602200
25	87	43,5	42	33	586	820602500
28	86	44	43	33	499	820602800
30	101	50,5	48	36	774	820603000
32	102	51	50	40	845	820603200
35	102	51	53	40	845	820603500
38	119	59,5	56	50	890	820603800
42	115	57,5	66	50	1440	820604200

Union tee (unequal)
82060

Dimensions in mm
Projection/First angle



Ø A	Ø A1	C	E		1	2	Weight (g)	Model
8	6	61	29,5	21	19	14	141	820600806
10	8	62	30	24	21	15	166	820601008
12	8	74	34	26	21	18	227	820601208
12	10	71	34	26	24	18	240	820601210
14	10	77	34	28	24	18	240	820601410
14	12	76	36	28	26	18	259	820601412
16	12	72	36	30	26	20	250	820601612
16	14	75,5	40	30	28	20	259	820601614
18	12	75	35	32	26	20	284	820601812
18	14	78	39,5	32	28	20	304	820601814
18	16	79	38	32	30	20	301	820601816
20	12	79	41	34	26	27	344	820602012
20	14	79,5	42,5	34	28	27	374	820602014
20	16	80	41	34	30	27	365	820602016
20	18	79	39,5	34	32	27	371	820602018
22	16	79,5	41	38	30	29	397	820602216
22	18	79,5	39	38	32	29	406	820602218
22	20	79,5	40	38	34	29	490	820602220
25	18	87,5	43	42	32	32	497	820602518
25	20	87,5	43	42	34	32	554	820602520
25	22	84,5	42	42	38	32	547	820602522
28	20	86,5	41	44	34	32	491	820602820
28	25	100	47	44	24	32	538	820602825
30	20	99	46,5	48	34	36	664	820603020
30	22	100	46,5	48	38	36	736	820603022
30	25	100	46,5	48	42	36	752	820603025
30	28	96	46,5	48	44	36	854	820603028
32	20	99	49,5	50	34	40	815	820603220
32	25	102	51	50	42	40	890	820603225
32	28	102	50,5	50	44	40	880	820603228
35	20	102	50	53	34	40	833	820603520
35	25	100	52	53	42	40	909	820603525
35	28	100	49,5	53	44	40	912	820603528
38	25	115	56	56	42	50	909	820603825
38	30	119,5	56	56	48	50	931	820603830
42	30	113	54,5	66	48	50	1439	820604230
42	35	113	56	66	53	50	1523	820604235

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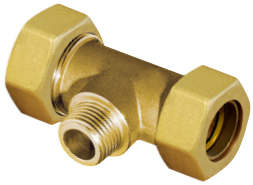
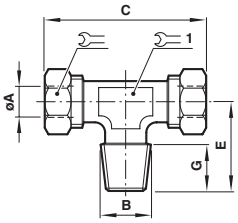
Tee adaptor (taper)
82165

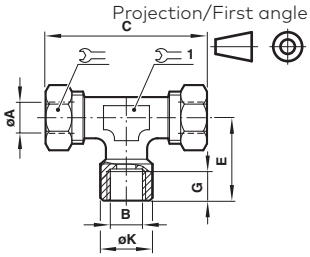




Ø A	B	C	E	G		1	Weight (g)	Model
6	R1/8	58	22	10	19	12	96	821650618
6	R1/4	58	21,5	12	19	12	102	821650628
8	R1/4	61,5	23,5	12	21	14	128	821650828
8	R3/8	61	23	12	21	14	128	821650838
10	R1/8	62	22	10	24	14	144	821651018
10	R1/4	64	24	12	24	14	154	821651028
10	R3/8	63,5	24	12	24	14	154	821651038
10	R1/2	68,5	29	13	24	18	180	821651048
12	R1/4	69,5	26,5	12	26	18	192	821651228
12	R3/8	73	26,5	12	26	18	202	821651238
12	R1/2	68,5	29,5	13	26	18	202	821651248
14	R1/4	75,5	27	12	28	18	208	821651428
14	R3/8	75,5	27	12	28	18	208	821651438
14	R1/2	77	29	13	28	18	208	821651448
15	R3/8	71	28	12	29	20	208	821651538
15	R1/2	71	29	13	29	20	208	821651548
16	R3/8	71	28	12	30	20	224	821651638
16	R1/2	72,5	30	13	30	20	224	821651648
18	R3/8	78,5	29,5	12	32	20	272	821651838
18	R1/2	76,5	30	13	32	20	272	821651848
18	R3/4	77,5	33	15	32	20	272	821651868
20	R3/8	80	31,5	12	34	27	320	821652038
20	R1/2	80	33	13	34	27	336	821652048
20	R3/4	80	35	15	34	27	336	821652068
22	R1/2	80	34	13	38	29	352	821652248
22	R3/4	80,5	35	15	38	29	352	821652268
25	R1/2	88	32,5	13	42	32	480	821652548
25	R3/4	88	34,5	15	42	32	496	821652568
25	R1	88	35	18	42	32	496	821652588
28	R3/4	83	34,5	15	44	32	448	821652868
28	R1	85,5	33,5	18	44	32	464	821652888
30	R3/4	99,5	38,5	15	48	37	688	821653068
30	R1	99	47	18	48	37	688	821653088
30	R1"1/4	99	47	18	48	37	698	8216530A8
32	R3/4	99	39	15	50	40	752	821653268
32	R1	99	42	18	50	40	768	821653288
32	R1 1/4	99	42	18	50	40	768	821653588
35	R1	100	42	18	53	40	750	821653588
35	R1 1/4	100	42	18	53	40	800	8216535A8
38	R1	115	47	18	56	40	800	821653888
38	R1 1/4	115	47	18	56	40	800	8216538A8
42	R1	115,5	47	18	66	50	1328	821654288
42	R1 1/4	117	50	18	66	50	1296	8216542A8
42	R1 1/2	113	49	20	66	50	1280	8216542B8

Tee adaptor female (parallel)
82266

Dimensions in mm
Projection/First angle



ØA	B	C	E	G	ØK		1	Weight (g)	Model
6	G1/8	55	27	11	17,5	19	12	96	822660618
6	G1/4	66,5	30	12	22	19	18	173	822660618
8	G1/4	67,5	30	12	22	21	18	176	822660828
8	G3/8	69	30	12,5	25	21	18	170	822660838
10	G1/8	68	30	11	17,5	24	18	160	822661018
10	G1/4	71,5	30	12	22	24	18	205	822661028
10	G3/8	69	30,5	12,5	25	24	18	192	822661038
10	G1/2	79	31	13	30	24	27	320	822661048
12	G1/4	72	30	12	22	26	18	211	822661228
12	G3/8	75	30,5	12,5	25	26	20	310	822661238
12	G1/2	78	31	13	30	26	27	326	822661248
14	G1/4	76	29	12	22	28	18	240	822661428
14	G3/8	80,5	30,5	12,5	25	28	20	256	822661438
14	G1/2	80,5	30,5	13	30	28	27	224	822661448
15	G3/8	71,5	32	12,5	25	29	21	218	822661538
15	G1/2	77	30,5	13	30	29	27	291	822661548
16	G3/8	76,5	32	12,5	25	30	20	384	822661638
16	G1/2	78,5	35,5	13	30	30	25	336	822661648
18	G3/8	80,5	30,5	12,5	25	32	22	272	822661838
18	G1/2	79	30	13	30	32	27	266	822661848
18	G3/4	80,5	30,5	15	36,5	32	27	416	822661868
20	G3/8	79,5	31	12,5	25	34	27	352	822662038
20	G1/2	79	31	13	30	34	27	352	822662048
20	G3/4	83,5	33,5	15	36,5	34	32	413	822662068
22	G1/2	80,5	31	13	30	38	29	368	822662248
22	G3/4	85,5	33	15	36,5	38	33	448	822662268
25	G1/2	85	32,5	13	30	42	33	496	822662548
25	G3/4	86,5	33,5	15	36,5	42	32	672	822662568
28	G3/4	88	33,5	15	36,5	44	32	448	822662868
28	G1	104	40,5	18	45	44	40	630	822662888
30	G3/4	100	39,5	15	36,5	48	36	704	822663068
30	G1	100,5	40	18	45	48	40	800	822663088
32	G3/4	102	41	15	36,5	50	40	800	822663268
32	G1	101,5	40,5	18	45	50	40	774	822663288
35	G3/4	103	39,5	15	36,5	53	40	784	822663568
35	G1	102	41	18	45	53	40	794	822663588
38	G3/4	119,5	48	15	36,5	56	50	1064	822663868
38	G1	115	48	18	45	56	50	1120	822663888
42	G3/4	115	46,5	15	36,5	66	50	1344	822664268
42	G1	115	48,5	18	45	66	50	1344	822664288

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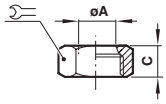
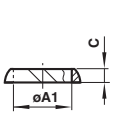
Tubing nut
820F4



Ø A	C		Model
6	13	19	820F40600
8	13	21	820F40800
10	14,5	24	820F41000
12	15	26	820F41200
14	15	28	820F41400
15	15	29	820F41500
16	15	30	820F41600
18	16	32	820F41800
20	16	34	820F42000
22	15,5	38	820F42200
25	17	42	820F42500
28	16,5	44	820F42800
30	16,5	48	820F43000
32	16,5	50	820F43200
35	18	53	820F43500
38	19	56	820F43800
42	19,5	66	820F44200

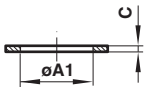
Split ring
820J1

Dimensions in mm
Projection/First angle



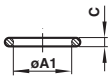
For tube Ø	Ø A1	C	Model
6	6,2	4,5	820J10600
8	8,2	4,5	820J10800
10	10,2	5	820J11000
12	12,2	5	820J11200
14	14,2	5	820J11400
15	15,2	5	820J11500
16	16,2	5	820J11600
18	18,2	5	820J11800
20	20,2	5	820J12000
22	22,2	5	820J12200
25	25,2	5,5	820J12500
28	28,2	5,5	820J12800
30	30,2	5,5	820J13000
32	32,2	5,5	820J13200
35	35,2	6	820J13500
38	38,2	6	820J13800
42	42,2	6,5	820J14200

Tubing washer
820E7



For tube Ø	Ø A1	C	Model
6	6,5	1,5	820E70600
8	8,4	1,5	820E70800
10	10,4	1,5	820E71000
12	12,4	1,5	820E71200
14	14,2	1,5	820E71400
15	15,6	1,5	820E71500
16	16,2	1,5	820E71600
18	18,2	1,5	820E71800
20	20,2	1,5	820E72000
22	22,4	1,5	820E72200
25	25,5	2	820E72500
28	28,4	2	820E72800
30	30,2	2	820E73000
32	32,5	2	820E73200
35	35,5	2	820E73500
38	38,5	2	820E73800
42	42,9	2	820E74200

Tubing 'O'-ring – HNBR (yellow)
8000K



For tube Ø	Ø A1	C	Model
6	5,7	1,9	8000K20600
8	7,2	1,9	8000K20800
10	8,9	1,9	8000K21000
12	10,5	2,7	8000K21200
14 - 15	13,6	2,7	8000K21400
16	15,1	2,7	8000K21600
18	16,9	2,7	8000K21800
20	18,4	2,7	8000K22000
22	21,3	3,6	8000K22200
25	24,6	3,6	8000K22500
28	27,8	3,6	8000K22800
30	29,3	3,6	8000K23000
32	30,8	3,6	8000K23200
35	34,1	3,6	8000K23500
38	37,3	3,6	8000K23800
42	40,6	5,3	8000K24200

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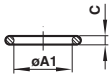
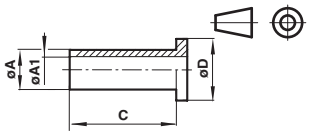
Thread 'O'-ring ISO G parallel thread – HNBR (yellow) 8000K



For thread	Ø A1	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

Tube support 82033

Dimensions in mm
Projection/First angle



For tube ID/OD	Ø A	Ø A1	Ø D	C	Weight g	Model
4/6	3,9	3	5	13,5	2	820330604
6/8	5,9	4,5	7	24	3	820330806
8/10	7,9	6,5	9	24	5	820331008
10/12	9,9	8,5	11	24	5	820331210
12/14	11,9	10,5	13	24	7	820331412
14/16	13,9	12,5	15	24	9	820331614
16/18	15,9	14,5	17	24	10	820331816
18/20	17,9	16,5	19	24	11	820332018
20/22	19,9	18,5	21	24	12	820332220
25/28	25,9	24	27	24	17	820332825
26/30	25,9	24	29	24	18	820333026
33/35	32,9	31	34	32	32	820333532
35/38	34,9	33	37	30	30	820333835
38/42	37,9	36,5	38	30	30	820334238

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.

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