

Stainless
Steel
Tubular
Products

aalco[®]

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Aalco is the UK's largest independent multi-metals stockholder. Customers from every sector of the UK manufacturing and engineering industries, whether small local businesses or large multinational corporations, benefit from a cost-effective single source for all their metals requirements.

Aalco – delivering customer service and investing in capability:

- ◊ An inventory that includes aluminium, stainless steel, copper, brass, bronze and nickel alloys in all semi-finished forms
- ◊ Comprehensive processing services providing items cut and/or finished to customer requirements
- ◊ Eighteen locations bringing local service to every corner of the UK
- ◊ Ongoing investment in technology and logistics to ensure on-time delivery

No order is too large or too small and Aalco offers a responsive and competitive service for supplying anything from single item orders to major JIT contracts, tailoring this service to individual needs.

Whatever your requirement, in whatever quantity, your local Aalco service centre is ready and willing to satisfy your needs. For a quotation, for further information, more extensive technical information, advice on product selection or to place an order, please contact your local Aalco service centre or refer to the web site www.aalco.co.uk.

Service

The most comprehensive stock range; the highest investment in processing equipment; local service centres nationwide; helpful, friendly, knowledgeable staff and the industry's biggest fleet of delivery vehicles – it all adds up to unbeatable service.

Aalco has maintained market leadership over many years through an absolute dedication to customer service – a service level that is continuously monitored and improved through key performance indicators.

That's why, for reliable, on-time delivery of exactly what you want, when and where you need it, whether it's a small one-off item or a complex JIT contract, Aalco is the essential first choice.

People

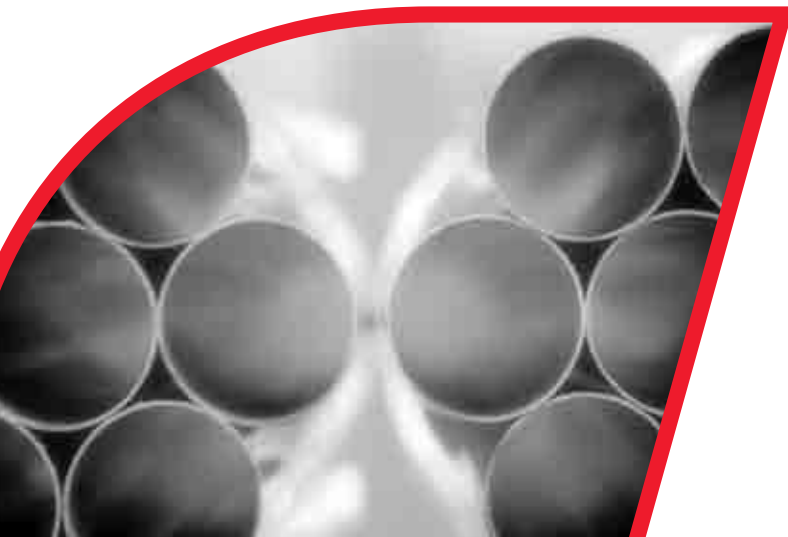
Exceptional customer service starts with people. Aalco develops and retains high quality personnel using a variety of 'in house' courses which cover both skills training, product knowledge and teamwork.

Every Aalco service centre has a dedicated team of people working together to provide an unbeatable service to customers in their region. Customers can expect to receive a quick and informed response to any enquiries for material or for information.

Quality

Aalco takes great care when selecting manufacturing sources for its products and every mill we use is measured against a series of predetermined quality control requirements. All products supplied by Aalco conform to the relevant BS or international standards. Certification can be supplied on request.

Aalco service centres operate a quality manual designed to ISO9001/2008 requirements. Many vendor approvals and bespoke quality control systems are operated through individual Aalco service centres.





Tube

Seamless to ASTM A269, imperial sizes from 1/8" O/D x 24swg to 4" O/D x 1/4" wall in grade 316L

Seamless to ASTM A269, grades 304L & 316L, in metric sizes 6mm O/D x 0.5mm wall to 38mm O/D x 4mm wall

Decorative – Round, Square, Rectangular

Structural – Square and Rectangular up to 250mm

Hygienic (see below)

Welded Metric Nominal Internal Diameter (see below)

Pipe

Seamless and Welded to ASTM A312 from 1/8" to 24" in grades 304L & 316L

Flanges

ASTM A182 / ANSI B16.5

BS 10 Table E, Grade 316L

BS 4504 / EN 1092 Raised Face, 16 Bar

Backing Flanges in Aluminium and Coated Mild Steel

Fittings

Butt Weld Fittings, Seamless and Welded, to ASTM A403 in grades 304L & 316L including elbows, tees & reducers

BSP Screwed Fittings, grade 316 from 1/8" to 3"

Hygienic fittings (see below)

Welded Metric Nominal Internal Diameter (see below)

Hygienic Tube and Fittings

Grades 304L & 316L 3/4" O/D to 4" O/D:

Tube – As Welded & Descaled, Annealed & Polished or Bright Annealed

Bends, Fitted Bends, Tees, Reducers, Clamps & Tube Hangers

Unions – RJT, IDF & DIN

Metric – Welded Nominal Internal Diameter (ND)

From 18mm O/D x 1.5mm wall to 910mm O/D x 5mm wall

Grades 1.4432 (316L High Molybdenum) & 1.4307 (304L)

Tube, Elbows, Tees, Reducers, Collars, End Caps, Tube Clamps & Clips

Backing Flanges in Aluminium & Coated Mild Steel

Further information is provided by these publications, available either from your local Service Centre or at www.aalco.co.uk



Product Guide

Technical information on applications, uses and specifications for stainless

steel, aluminium, copper, brass and bronze.

Stocklist



in stainless steel, aluminium, copper, brass and bronze.

A guide to the Aalco standard stock range



Metric

A guide to the range of light-walled nominal diameter metric stainless steel tubular products used

in water treatment, pulp & paper and other industries.



Handrail

A guide to the Aalco range of stainless steel handrail/balustrade systems

comprising tube and slotted tube plus associated fittings.

Metric Tube & Fittings

Introduction/Specifications

Stainless steel metric tubulars range

A complete range of fittings including elbows, tees, reducers, end caps, collars, backing flanges and clamps is available.

Advantages

This ID based system brings many advantages including:

- Light weight
- Systems flexibility including ease of alteration
- Fast welding times
- Low consumables usage
- Attractive appearance
- Clean/hygienic/high-tech image
- Low environmental impact
- Recyclability
- Simple fabrication and erection
- Good mechanical properties
- Good ductility
- Low maintenance
- Long service life
- Smooth surface with no coatings or linings

Grades

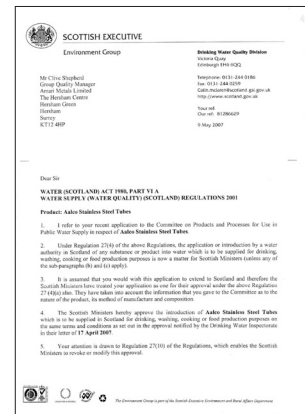
A range of grades is available from stock or on fast-track production:

BSEN 1.4307 (304L)

BSEN 1.4404 (316L)

BSEN 1.4432 (316L High Molybdenum)

Sizes shown throughout are the most popular. Many more are available, please contact your local Aalco service centre for details.



Approved for use in public water supplies

Specifications

- **Dimensional tolerances to EN/ISO 1127**
 - **Outside Diameter (Class D3):** $\pm 0.75\%$ / minimum $\pm 0.3\text{mm}$
 - **Outside Diameter for tubes 168.3mm O/D & above (Class D2):** $\pm 1.0\%$ / minimum $\pm 0.5\text{mm}$
 - **Wall Thickness (Class T3):** $\pm 10\%$ / minimum $\pm 0.15\text{mm}$
- **Lengths**
 - 6 metre random lengths with plain ends.
- **Finish**
 - Unannealed, Pickled.

Metric Tube & Fittings

Range/Sizes - Metric Tube

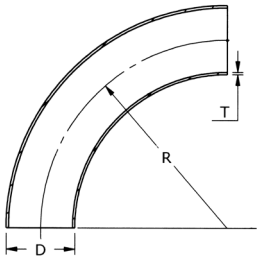
Metric tube sizes

DN	OD	Weight per metre (kg) for given Wall Thickness in mm					
		1.5mm	2.0mm	2.5mm	3.0mm	4.0mm	5.0mm
15	18	0.620					
15	20	0.695	0.901				
20	23	0.808					
20	25	0.883					
25	28	0.995					
25	30	1.070	1.402				
25	32	1.146					
32	35	1.258					
32	38	1.371	1.803				
32	40		1.903				
40	43	1.559					
40	44.5		2.128				
50	51	1.859	2.454				
50	53	1.934					
50	54		2.604				
65	68	2.498					
65	69		3.355				
65	70		3.405				
75	78	2.870					
80	83	3.061					
80	84		4.107				
100	103	3.812					
100	104		5.108				
100	106				7.737		
100	108					10.417	
125	128	4.751					
125	129		6.360				
150	153	5.690					
150	154		7.612				
150	156				11.493		
150	158					15.425	
200	203	7.568					
200	204		10.116				
200	205			12.677			
200	206				15.249		
200	208					20.433	
250	254		12.620				
250	255			15.807			
250	256				19.005		
300	304		15.214				
300	305			18.937			
300	306				22.761		
300	308					30.449	
350	355			22.067			
350	356				26.517		
400	406				30.273		
400	408					40.465	
450	456				34.029		
500	506				37.785		
500	508					50.481	
600	606				45.297		
600	608					60.497	

Metric Tube & Fittings

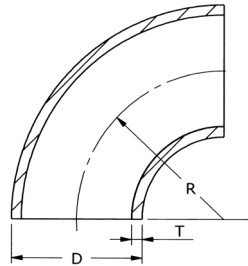
Range/Sizes - Metric Elbows

Welded 45° & 90° elbows (radius D+100)



Data refers to 90° Bends only.
45° Bends in sizes below DN200
are cut from 90°s

Welded 45° & 90° elbows (radius 1.5D)



Data refers to 90° Bends only.
45° Bends in sizes below DN200
are cut from 90°s

D DN	OD	T Wall	Weight
mm	mm	mm	kg
25	30	2	0.27
40	44.5	2	0.46
50	54	2	0.61
65	69	2	0.90
80	84	2	1.16
100	104	2	1.61
100	106	3	2.43
125	129	2	2.25
125	131	3	3.40
150	154	2	2.99
	156	3	4.51
200	204	2	4.77
	205	2.5	5.97
	206	3	7.19
250	254	2	6.94
	255	2.5	8.69
	256	3	10.45
300	304	2	9.52
	305	2.5	11.90
	306	3	14.30
350	355	2.5	15.62
	356	3	18.74
400	406	3	23.78
450	456	3	29.40
500	506	3	35.61
	508	4	47.57
600	606	3	49.90
	608	4	66.52
700	708	4	88.60
	710	5	101.91

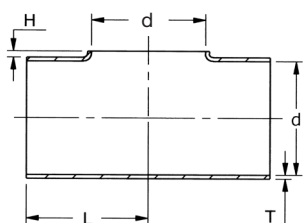
D DN	OD	T Wall	Weight
mm	mm	mm	kg
15	18	1.5	0.030
20	23	1.5	0.050
25	28	1.5	0.060
32	38	2	0.140
40	44.5	2	0.220
50	54	2	0.320
65	69	2	0.450
80	84	2	0.770
	86	3	1.180
100	104	2	1.200
	106	3	1.820
125	129	2	1.880
150	154	2	2.690
	156	3	4.060
200	204	2	4.770
	205	2.5	5.970
	206	3	7.190
250	254	2	7.430
	256	3	11.190
300	304	2	10.710
	306	3	16.090
350	356	3	22.500
400	406	3	29.040
	408	4	38.620
450	456	3	36.760
500	506	3	45.400
	508	4	60.420
	510	5	75.370
600	606	3	65.420
	608	4	87.080

45° & 90° elbows (radius 3D) are also available on request

Metric Tube & Fittings

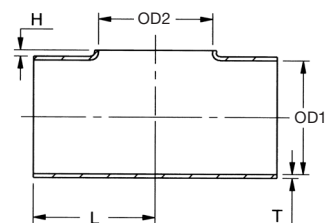
Range/Sizes - Metric Tees

Pulled equal tees



DN	d OD	T Wall	L	H	Weight
mm	mm	mm	mm*	mm*	kg
25	28	1.5	28.5	15.5	0.05
32	38	1.5	47.5	20.5	0.13
40	44	2	47.5	24	0.14
50	54	2	57	29	0.22
65	69	2	63.5	38.5	0.37
80	84	2	85.5	45	0.63
100	104	2	105	55	0.95
125	129	2	124	69	1.42
150	154	2	143	84	2.03
200	204	2	178	110	3.80
250	254	2	216	140	5.80
300	306	3	300	168	10.60
350	356	3	350	195	14.40
400	406	3	400	223	22.54

Pulled reducing tees



DN1 x DN2	OD1 x OD2	T Wall	L	H	Weight
mm	mm	mm	mm*	mm*	kg
50 x 25	54 x 28	2	57	29	0.20
50 x 40	54 x 44	2	57	29	0.20
65 x 40	69 x 44	2	63.5	38	0.35
65 x 50	69 x 54	2	63.5	38	0.35
80 x 40	84 x 44	2	85.5	45	0.60
80 x 50	84 x 54	2	85.5	45	0.60
80 x 65	84 x 69	2	85.5	45	0.60
100 x 50	104 x 54	2	105	55	0.90
100 x 65	104 x 69	2	105	55	0.90
100 x 80	104 x 84	2	105	55	0.90
125 x 80	129 x 84	2	124	69	1.30
125 x 100	129 x 84	2	124	69	1.30
150 x 80	154 x 84	2	143	84	1.90
150 x 100	154 x 104	2	143	84	1.90
150 x 125	154 x 129	2	143	84	1.90
200 x 100	204 x 104	2	178	110	3.60
200 x 125	204 x 129	2	178	110	3.60
200 x 150	204 x 154	2	178	110	3.60
250 x 150	254 x 154	2	216	140	5.50
250 x 200	254 x 204	2	216	140	5.50
300 x 200	306 x 206	3	300	165	10.30

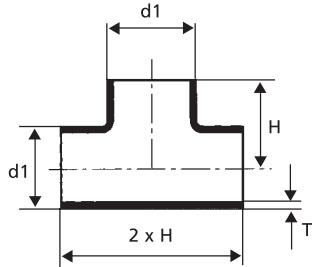
Notes

* Approximate

Metric Tube & Fittings

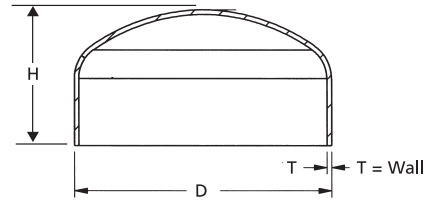
Range/Sizes - Metric Tees and End Caps

Equal tees with branch



DN	d1 OD	T Wall	H	Weight
mm	mm	mm	mm	kg
25	28	1.5	28.5	0.07
32	38	1.5	47.5	0.18
32	38	2	47.5	0.24
40	44.5	2	47.5	0.24
50	54	2	57.0	0.34
65	69	2	63.5	0.48
80	84	2	85.5	0.77
100	104	2	105	1.19
125	129	2	124	1.76
150	154	2	143	2.03
200	204	2	178	3.84

Pressed end caps

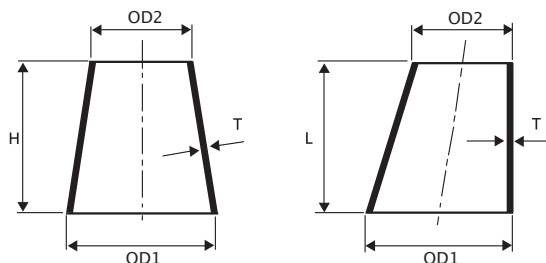


DN	D OD	T Wall	H Height	Weight
mm	mm	mm	mm	kg
25	28	1.5	12	0.02
30	33	2	12	0.03
32	38	2	15	0.03
40	44.5	2	16	0.04
50	54	2	19	0.06
80	84	2	23	0.13
100	104	2	24	0.19
125	129	2	34	0.31
150	154	2	41	0.44
200	206	3	50	1.13
250	256	3	55	1.62
300	306	3	70	2.47
350	356	3	89	3.52
400	406	3	98	4.52
450	458	4	108	5.5
500	508	4	120	6.6
600	608	4	140	9.2

Metric Tube & Fittings

Range/Sizes - Metric Reducers

Concentric and eccentric reducers



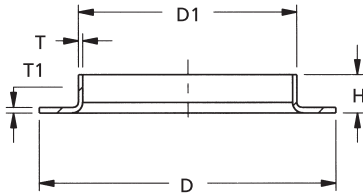
DN1 x DN2	OD1 x OD2	T Wall	Length	Weight
mm	mm	mm	mm	kg
25 x 20	28 x 23	1.5	15	0.01
30 x 25	33 x 28	1.5	15	0.02
40 x 25	43 x 28	1.5	45	0.06
40 x 25	44 x 29	2	45	0.08
50 x 25	54 x 29	2	75	0.16
50 x 40	54 x 44	2	30	0.07
65 x 40	69 x 44	2	75	0.21
65 x 50	69 x 54	2	45	0.14
80 x 40	84 x 44	2	120	0.39
80 x 50	84 x 54	2	90	0.31
80 x 65	84 x 69	2	45	0.17
100 x 50	104 x 54	2	150	0.60
100 x 65	104 x 69	2	105	0.46
100 x 80	104 x 84	2	60	0.28
125 x 50	129 x 54	2	225	1.03
125 x 80	129 x 84	2	135	0.72
125 x 100	129 x 104	2	75	0.44
150 x 80	154 x 84	2	210	1.26
150 x 100	154 x 104	2	150	0.97
150 x 100	156 x 106	3	150	1.48
150 x 125	154 x 129	2	75	0.53
200 x 100	204 x 104	2	300	2.32
200 x 125	204 x 129	2	225	1.88
200 x 150	204 x 154	2	150	1.35
250 x 125	254 x 129	2	375	3.61

DN1 x DN2	OD1 x OD2	T Wall	Length	Weight
mm	mm	mm	mm	kg
250 x 150	254 x 154	2	300	3.08
250 x 200	254 x 204	2	150	1.73
250 x 200	255 x 205	2.5	150	2.20
250 x 200	256 x 206	3	150	2.61
300 x 200	304 x 204	2	300	3.83
300 x 200	306 x 206	3	300	5.8
300 x 250	304 x 254	2	150	2.10
300 x 250	306 x 256	3	150	3.18
350 x 200	356 x 206	3	450	9.5
350 x 250	356 x 256	3	300	6.9
350 x 300	356 x 306	3	150	3.74
400 x 200	406 x 206	3	600	13.8
400 x 250	406 x 256	3	450	11.2
400 x 300	406 x 306	3	300	8.0
400 x 350	406 x 356	3	150	4.30
450 x 300	456 x 306	3	450	12.9
450 x 350	456 x 356	3	300	9.2
450 x 400	456 x 406	3	150	4.87
500 x 300	506 x 306	3	600	18.4
500 x 350	506 x 356	3	450	14.6
500 x 400	506 x 406	3	300	10.3
500 x 450	506 x 456	3	150	5.4
600 x 400	606 x 406	3	600	22.8
600 x 450	606 x 456	3	450	18.0
600 x 500	606 x 506	3	300	12.6

Metric Tube & Fittings

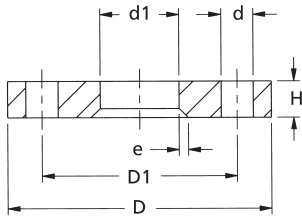
Range/Sizes - Metric Pressed Collars, Flanges, Clamps and Clips

Pressed collars



DN	D1 x T x H	T1	D	Weight
mm	mm	mm	mm	kg
15	20 x 1.5 x 7	1.5	51	0.04
20	25 x 1.5 x 7	1.5	58	0.04
25	30 x 1.5 x 8	1.5	68	0.05
32	38 x 2 x 10	2	78	0.06
40	44.5 x 2 x 10	2	88	0.09
50	54 x 2 x 12	2	102	0.11
65	69 x 2 x 12	2	122	0.15
80	84 x 2 x 13	2	138	0.19
100	104 x 2 x 16	2	158	0.24
	106 x 3 x 16	3	158	0.36
125	129 x 2 x 15	2	188	0.31
	131 x 3 x 20	3	188	0.47
150	154 x 2 x 19	2	212	0.38
	156 x 3 x 20	3	212	0.57
200	204 x 2 x 21	2	268	0.54
	206 x 3 x 25	3	268	0.82
250	256 x 3 x 25	3	320	1.07
300	306 x 3 x 21	3	370	1.21

Flanges



Mild steel Zinc Plated and Passivated with drilling dimensions to BS4504 PN10 Reduced Thickness (Unipipe)

Other types of backing flanges are also available including Epoxy Coated Aluminium and Pressed Stainless Steel types.

DN	D	D1	No of Bolt Holes	d	d1	H	Flange Weight
mm	mm	mm	mm	mm	mm	mm	kgs/pc
25	115	85	4	14	35	10	0.6
32	140	100	4	18	42	10	1.0
40	150	110	4	18	50	10	1.2
50	165	125	4	18	60	10	1.4
65	185	145	4	18	75	10	1.7
80	200	160	8	18	90	10	1.8
100	220	180	8	18	110	10	1.9
125	250	210	8	18	136	12	3.1
150	285	240	8	22	161	12	3.8
200	340	295	8	22	213	12	4.9
250	395	350	12	22	262	16	8.0
300	445	400	12	22	313	19	11.0
350	505	460	16	22	364	22	15.5
400	565	515	16	26	418	22	18.1
450	615	565	20	26	470	25	22.1
500	670	620	20	26	520	28	25.4
600	780	725	20	29	630	31	30.0

Clamps and clips

A range of tube Clamps and Clips is available in Grade 1.4404 (316L) Stainless Steel as well as Zinc Plated Mild Steel.



www.aalco.co.uk

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Fax 02890 837 837
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DYFED

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