



STAUFF

Seamless Tubing

Carbon Steel & Stainless Steel

Quality and Service
worldwide

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Seamless Tubing

Stauff Corporation Pty Ltd supplies a range of precision hydraulic tubing in both Metric and Imperial sizes. The materials available are standard cold drawn, normalised, seamless (CDS) carbon steel, zinc plated CDS carbon steel, and seamless, annealed 316L stainless steel.

The carbon steel tubing is cleaned, normalised, free of scale, phosphated, oiled and capped. The zinc plated carbon steel tube is the same material but with a yellow passivated zinc plated exterior with an oiled interior and capped ends. The stainless steel tubing is cold drawn seamless, heat treated to anneal, and supplied with capped ends. Tubing is sold as 6 metre lengths.

Pressures are calculated for straight tube according to DIN 2413 Part III for dynamic stress for the carbon steel tube and to DIN 2413 Part 1 for static stress for the stainless steel tube and are given as a guide only. Bends may introduce wall thinning with consequent reduction in the allowable pressure. All critical applications should be subject to proving tests. No allowance has been made for corrosion in the calculations. Thin walled tubing will need support sleeves for secure "bite" type and "compression" type fitting assembly.

metric, carbon steel, phosphated tubing and zinc plated tubing

Specifications

Material St 37.4 steel

Tech. Stds. DIN 2391 / 94 / C
DIN 1630 / 84
DIN 2445 / 2 / 74
EN 10204 / 3.1B

Condition cold drawn seamless,
normalised NBK,
phosphated, oiled & capped

Properties tensile 340N/mm² min.
yield 235N/mm² min.
elong. 25% min.
tensile 400N/mm² typical
yield 300N/mm² typical
elong. 38% typical

Pressures are calculated for temperatures up to 120°C. Above that, pressure reductions are necessary

Weldability easy to weld.
Carbon content 0.17% max.
Sulphur content 0.04% max.

Zinc plating Fe / Zn 8c chromate
converted, 8 to 12 micron.
DIN 50961
AS 1789 - 1984

PART NO. metric CDS phosphated	PART NO. metric CDS zinc plated	SIZE	DESIGN WORKING PRESSURE	BURST PRESSURE	WEIGHT kg / m
10004X075	-	4 x 0.75	500	2040	0.060
10006X100	10006X100ZP	6 x 1	440	1700	0.123
10008X100	10008X100ZP	8 x 1	330	1130	0.173
10008X150	10008X150ZP	8 x 1.5	500	2040	0.240
10010X100	10010X100ZP	10 x 1	280	900	0.222
10010X150	10010X150ZP	10 x 1.5	420	1540	0.314
10012X100	-	12 x 1	235	720	0.271
10012X150	10012X150ZP	12 x 1.5	350	1200	0.389
10012X200	10012X200ZP	12 x 2	470	1800	0.493
10014X200	-	14 x 2	400	1440	0.592
10015X150	10015X150ZP	15 x 1.5	280	900	0.500
10016X150	1016X150ZP	16 x 1.5	260	830	0.540
10016X200	10016X200ZP	16 x 2	350	1200	0.691
10016X250	-	16 x 2.5	440	1630	0.832
10018X150	10018X150ZP	18 x 1.5	240	720	0.610
10018X200	-	18 x 2	310	1030	0.788
10020X200	10020X200ZP	20 x 2	280	900	0.960
10020X250	10020X250ZP	20 x 2.5	350	1200	1.080
10022X200	10022X200ZP	22 x 2	260	800	0.986
10022X300	-	22 x 3	380	1350	1.406
10025X200	10025X200ZP	25 x 2	230	680	1.135
10025X250	-	25 x 2.5	280	900	1.423
10025X300	10025X300ZP	25 x 3	340	1130	1.630
10025X400	-	25 x 4	450	1690	2.070
10028X150	-	28 x 1.5	150	430	0.995
10028X200	-	28 x 2	200	610	1.280
10030X300	10030X300ZP	30 x 3	280	900	2.000
10030X400	10030X400ZP	30 x 4	380	1300	2.570
10035X250	-	35 x 2.5	200	600	2.018
-	10035X300ZP	35 x 3	240	745	2.400
10035X350	-	35 x 3.5	280	900	2.776
10038X400	-	38 x 4	300	960	3.350
10038X500	10038X500ZP	38 x 5	370	1270	4.070
10042X300	10042X300ZP	42 x 3	200	600	2.890
10042X400	-	42 x 4	270	845	3.750



Specifications

Material	316/316L stainless steel 1.4435	
Tech. Stds.	ASTM A269 D4/T3 ASTM A213 AW DIN 17458 TC 1 ISO 1127	
Condition	cold drawn seamless heat treated in accordance with DIN 17458 Table 6 plugged or capped	
Properties	tensile	500N/mm ² min.
	yield	220N/mm ² min.
	elong.	45% min.
	tensile	590N/mm ² typical
	yield	300N/mm ² typical
	elong.	47% typical
	hardness	RB 80 max before working
Weldability	easy to weld carbon content 0.03% max.	

Pressures are calculated at 50°C. For higher temperatures, the values should be reduced by the following: at 100°C 11%
at 200°C 21%



“Stauff Clean” Tube Cleaning System



Stauff Clamps for Tube Support



Stauff Tube Manipulation Service

metric stainless steel tubing

PART NUMBER	SIZE	DESIGN WORKING PRESSURE	BURST PRESSURE	WEIGHT kg / m
E10006X100	6 X 1	375	2120	0.125
E10006X150	6 X 1.5	560	4200	0.173
E10008X100	8 X 1	280	1415	0.175
E10008X150	8 X 1.5	420	2550	0.244
E10008X200	8 X 2	595	4500	0.300
E10010X100	10 X 1	240	1120	0.225
E10010X150	10 X 1.5	360	1930	0.319
E10012X100	12 X 1	200	900	0.275
E10012X150	12 X 1.5	300	1500	0.394
E10012X200	12 X 2	400	2250	0.501
E10014X200	14 X 2	340	1800	0.601
E10015X150	15 X 1.5	240	1120	0.507
E10016X150	16 X 1.5	220	1040	0.546
E10016X200	16 X 2	300	1500	0.701
E10016X250	16 X 2.5	370	2040	0.845
E10018X100	18 X 1	130	560	0.428
E10018X150	18 X 1.5	200	900	0.620
E10018X200	18 X 2	265	1280	0.801
E10020X200	20 X 2	240	1120	0.901
E10020X250	20 X 2.5	300	1500	1.095
E10022X200	22 X 2	220	1000	1.002
E10025X100	25 X 1	95	390	0.642
E10025X250	25 X 2.5	240	1120	1.408
E10025X300	25 X 3	285	1420	1.653
E10028X200	28 X 2	170	750	1.302
E10030X300	30 X 3	240	1120	2.028
E10030X400	30 X 4	320	1640	2.605
E10035X200	35 X 2	135	580	1.653
E10038X300	38 X 3	190	840	2.982
E10038X500	38 X 5	310	1610	4.131
E10042X300	42 X 3	170	750	2.930

imperial stainless steel tubing

PART NUMBER	SIZE	DESIGN WORKING PRESSURE	BURST PRESSURE	WEIGHT kg / m
E1000635X089	1/4" (6.35) x 0.89 (20G)	330	1750	0.122
E1000635X124	1/4" (6.35) X 1.24 (18G)	460	2880	0.169
E1000635X165	1/4" (6.35) X 1.65 (16G)	620	4870	0.181
E1000795X089	5/16" (7.95) X 0.89 (20G)	260	1290	0.165
E1000953X089	3/8" (9.53) X 0.89 (20G)	220	1030	0.193
E1000953X124	3/8" (9.53) X 1.24 (18G)	310	1580	0.257
E1000953X165	3/8" (9.53) X 1.65 (16G)	410	2370	0.326
E100127X089	1/2" (12.7) X 0.89 (20G)	170	730	0.268
E100127X124	1/2" (12.7) X 1.24 (18G)	230	1070	0.356
E100127X165	1/2" (12.7) X 1.65 (16G)	310	1570	0.456
E1001905X124	3/4" (19.05) X 1.24 (18G)	150	660	0.553
E100254X165	1" (25.4) X 1.65 (16G)	155	670	0.982

Seamless Tubing

imperial, carbon steel, phosphated tubing and zinc plated tubing

PART NO. Imperial CDS phosphated	PART NO. Imperial CDS zinc plated	SIZE	DESIGN WORKING PRESSURE	BURST PRESSURE	WEIGHT
1000635X089	-	1/4" (6.35) X 0.89 (20G)	400	1400	0.122
1000953X122	1000953X122ZP	3/8"(9.53) X 1.22 (18G)	360	1240	0.254
1000953X163	-	3/8"(9.53) X 1.63 (16G)	480	1870	0.322
100127X122	-	1/2"(12.7) X 1.22 (18G)	270	850	0.350
100127X163	100127X163ZP	1/2"(12.7) X 1.63 (16G)	360	1240	0.452
1001588X122	-	5/8"(15.88) X 1.22 (18G)	215	650	0.448
1001588X163	1001588X163ZP	5/8"(15.88) X 1.63 (16G)	290	930	0.582
1001905X163	1001905X163ZP	3/4"(19.05) X 1.63 (16G)	240	740	0.711
1001905X203	-	3/4" (19.05) X 2.03 (14G)	300	985	0.858
100254X203	100254X203ZP	1" (25.4) X 2.03 (14G)	230	700	1.230
100318X264	-	1 1/4" (31.8) X 2.64 (12G)	230	720	1.980
-	100318X325ZP	1 1/4" (31.8) X 3.25 (10G)	290	920	2.312
100381X264	-	1 1/2" (38.1) X 2.64 (12G)	195	580	2.383

The specifications for the tubing are the same as that for the metric, carbon steel tubing.

Related products and services

Tube manipulation.

A complete tube manipulation service is available through Stauff. Precision bending using a computer controlled mandrel bender is complemented by the "Walform" tube reshaping process or by flaring as required. Finish plating can also be offered where required. The bending data is stored on disk so that repeat jobs in the future will be exactly the same as the original. Enquire through your local Stauff Branch.



Tube fittings and tube cleaning.

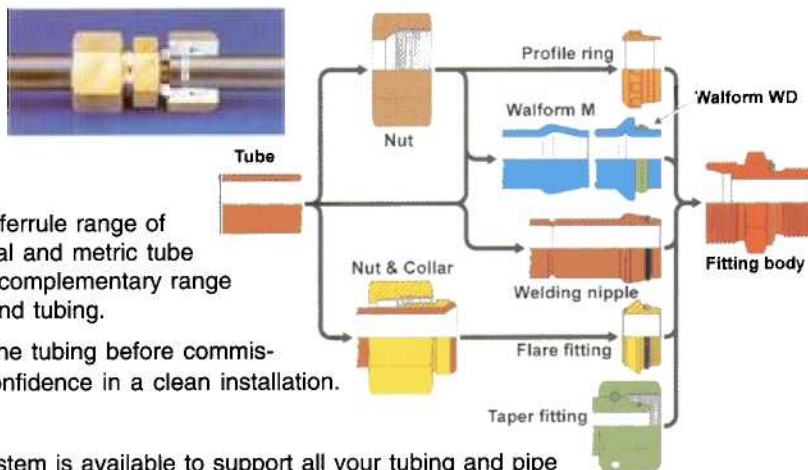
A complete range of tube fittings to suit metric tubing is available for both carbon steel tubing and stainless steel tubing. The range goes from 4mm OD tube through to 42mm OD tube and extends from the popular profile ring type through to the ultra-secure Walform type.

For instrumentation tube sizes, the Let-Lok twin ferrule range of fittings in stainless steel or brass in both Imperial and metric tube sizes give guaranteed security of connection. A complementary range of instrumentation valving supports the fittings and tubing.

The Stauff Clean tube cleaning system cleans the tubing before commissioning and gives the machine designer total confidence in a clean installation.

Tube and Pipe Supports

The well-known Stauff tube and pipe support system is available to support all your tubing and pipe installations to minimise or eliminate vibration, noise and fatigue. A wide variety of mounting methods and a full range of sizes guarantees a trouble-free installation.



For fitting availability, for design assistance, or for system recommendations, talk to your local Stauff representative or Branch. They are able to give you the products and advice that will satisfy your needs completely.

