



SENSEMASTER LTD

Sensing, Heating & Anti-static Solutions

Sensemaster Ltd.
Unit 1 Severn Bridge Ind Est.
Caldicot, Monmouthshire. NP26 5PW

CAST-X 500

0.250" OD (1/4 INCH 6.3 mm) - 0.035" wall (0.89 mm) = 0.215" (5.5 mm) ID

LENGTH IN INCHES (SINGLE TUBE) = 84" (2133 mm)

TOTAL VOLUME (US GAL) = 0.00925 TOTAL VOLUME (LITRE) = 0.03503

CAST-X 1000

0.313" OD (5/16 INCH 7.9 mm) - 0.020" wall (0.5 mm) = 0.293" (7.44 mm) ID

LENGTH IN INCHES (SINGLE TUBE) = 137" (3480 mm)

TOTAL VOLUME (US GAL) = .03472 TOTAL VOLUME (LITRE) = 0.13141

CAST-X 2000

0.5" OD (1/2 INCH 12.7 mm) - 0.065" wall (1.7 mm) = 0.435" (11.05 mm) ID

LENGTH IN INCHES (SINGLE TUBE) = 150" (3810 mm)

TOTAL VOLUME (US GAL) = 0.06982 TOTAL VOLUME (LITRE) = 0.26429

CAST-X 2500

0.625" OD (5/8 INCH 15.88 mm) - 0.065" wall (1.7 mm) = 0.56" (14.22 mm) ID

LENGTH IN INCHES (SINGLE TUBE) = 130" (3302 mm)

TOTAL VOLUME (US GAL) = 0.10830 TOTAL VOLUME (LITRE) = 0.40996

CAST-X 3000

0.75" OD (3/4 INCH 19.05 mm) - 0.065" wall (1.7 mm) = 0.685" (17.4 mm) ID

LENGTH IN INCHES (SINGLE TUBE) = 142" (3606 mm)

TOTAL VOLUME (US GAL) = 0.18559 TOTAL VOLUME (LITRE) = 0.70253

CAST-X 4000

1" OD (25.4 mm) - 0.083" wall (2.1 mm) = 0.917 (23.29 mm) ID

LENGTH IN INCHES (SINGLE TUBE) = 212" (5384 mm)

TOTAL VOLUME (US GAL) = 0.50135 TOTAL VOLUME (LITRE) = 1.89784

Please liaise with Sensemaster technical mail@sensemaster.co.uk 01291 422022 for further assistance

Further product information can be found on our website link <https://sensemaster.co.uk/cast-x-2/>



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MAXIMUM PRESSURE RATINGS FOR STAINLESS STEEL TUBES

Tube OD in.	Tube Wall Thickness, in.															
	0.010	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
	Working Pressure, psig Note: For gas service, select a tube wall thickness outside of the shaded area. (See Gas Service, page 2.)															
1/16	5600	6800	8100	9400	12 000											
1/8						8500	10 900									
3/16						5400	7 000	10 200								
1/4						4000	5 100	7 500	10 200 ^D							
5/16							4 000	5 800	8 000							
3/8							3 300	4 800	6 500	7500 ^{D2}						
1/2							2 600	3 700	5 100	6700						
5/8								2 900	4 000	5200	6000					
3/4								2 400	3 300	4200	4900	5800				
7/8								2 000	2 800	3600	4200	4800				
1									2 400	3100	3600	4200	4700			
1 1/4										2400	2800	3300	3600	4100	4900	
1 1/2											2300	2700	3000	3400	4000	4900
2												2000	2200	2500	2900	3600

Table 1: Max Working Pressures for 316 Series seamless stainless steel at ambient temperatures.

°F	°C	Multiplier
200	93	1.00
400	204	.96
600	315	.85
800	426	.79
1000	537	.76
1200	648	.37

Table 2: Use the above chart and the below formulae to calculate max pressures at elevated temperatures for 316 Series seamless stainless steel.

To determine allowable pressure at elevated temperatures, multiply allowable working pressure from Tables 1 by factor shown in 'multiplier' on Table 2.

Example:

- Type 316 Stainless Steel 1/2 in. OD x 0.035 in. wall at 1000°F. 2600 psi x 0.76 = 1976 psi.
- Allowable working pressure for 1/2 in. OD x 0.035 in. wall type 316 stainless steel tubing is therefore 1976 psi at 1000°F.

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