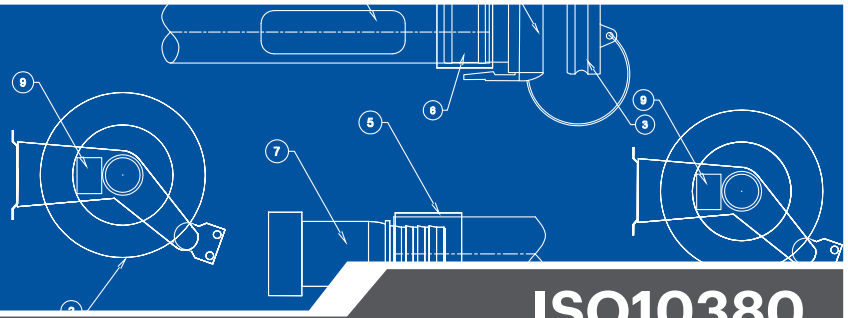




FLEXIBLE ENGINEERING SOLUTIONS



ISO10380

HOSES

ISO 10380 TYPE 1-50 STAINLESS STEEL HOSE

DOUBLE BRAID CORRUGATED HOSE



APPLICATION	Stainless steel corrugated hoses are suitable for a wide range of applications including Cryogenic, Chemical, Petroleum, Marine and High temperature industrial functions.
TUBE	316 Annular Corrugated
COVER	316 Double Braid Wire Braid
TEMPERATURE	-200°C to +550°C
SAFETY	4:1
SPECIFICATIONS	ISO 10380:2012 Type 1-50

HOSE SPECIFICATIONS FOR ISO 10380 TYPE 1-50 STAINLESS STEEL HOSE

Part No.	Nominal Bore		Hose OD mm	Bend Radius mm	Maximum Pressure			
	inch	mm			Working		Test	
					bar	psi	bar	psi
30-CC012AB2AH	1/2	12	18.4	165	128	1856	512	7424
30-CC020AB2AH	3/4	20	28.7	225	102	1479	408	5916
30-CC025AB2AH	1	25	35.0	260	80	1160	320	4640
30-CC032AB2AH	1-1/4	32	44.2	300	64	928	256	3712
30-CC040AB2AH	1-1/2	40	54.6	340	48	696	192	2784
30-CC050AB2AH	2	50	66.6	390	55	798	220	3192
30-CC065AB2AH	2-1/2	65	85.0	460	38	551	152	2204
30-CC080AB2AH	3	80	99.0	660	28	406	112	1624
30-CC100AB2AH	4	100	121.0	750	22	319	88	1279

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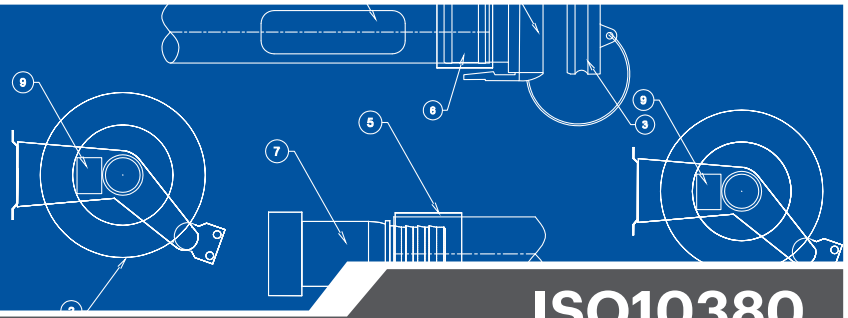
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Installation Data

Construction

The hoses are annularly corrugated formed from butt welded rigid tube. Depending on the application, required working pressure and conditions of operation, a single or double layer of wire braid can be applied externally to the hose to restrain it, increasing its ability to withstand pressure, increasing hoop strength and protection from abrasion. The extent of braided, gauge and angle lay is calculated carefully to maximise performance.

Materials

Tube: BS EN 10088-2:2005 1.4541 (321S31) or 1.4404 (316S11)

Braid: BS EN 10099-3:2005 1.4301 (304S31) or 1.4401 (316S31)

Shock pressure

Pulsating, surge or shock pressures considerably affect hose longevity and if encountered, peak pressure must not exceed 50% of the maximum working pressure.

Flow velocity

High velocities should be avoided as they can lead to premature fatigue failure.

An interlock hose should be used as a liner if velocity exceeds:

Unbraided: 30m/s (gas); 15m/s (liquid)

Braided: 45m/s (gas); 22.5m/s (liquid)

When the hose is installed in a bend condition, these values should be reduced by 50% for a 90° bend, 25% for a 45° and so on, proportionally to the angle. With higher velocity, the next larger hose with liner should be used.

Pressure loss

To achieve the same pressure loss as in steel pipes, the diameter of the corrugated hose should be increased by 15%.

Pressure derating factors

The pressure ratings given apply to hose with welded end connections at room temperatures. The following derating factors must be applied at higher temperatures.

Operating Temperature (°C)	321S31 Stainless Steel	316S11 Stainless Steel
-200 to 50	1.00	1.00
100	0.96	0.94
150	0.92	0.90
200	0.88	0.86
250	0.84	0.82
300	0.80	0.78
350	0.76	0.74
400	0.72	0.70
450	0.66	-
500	0.60	-
550	0.54	-
600	0.44	-

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