

UBFX

An ISO 1038 specification medium pressure hose.

- Specifically designed to meet the requirements of ISO 10380 flexibility class 1.

- Will convey all manner of liquids and gases.

- High physical strength.

- Long life.

- Good corrosion characteristics.

- Suitable for elevated temperature up to +600°C or in cryogenic applications down to -200°C.

- Manufactured to BS 6501 Part 1, 1991, Type B flexibility.



Double Braid

Single Braid

Convuluted Hose Core



Nominal Size DN		Max Working Pressure at 20°C		Max Test Pressure at 20°C		Burst Pressure at 20°C		Minimum Bend Radius, Flexing		Maximum O.D.		Approximate Weight		Hose Ref.
mm	in	bar	psi	bar	psi	bar	psi	mm	in	mm	in	kg/m	lbs/ft	
6	1/4	10	145	15	218	40	580	110	4.3	10.0	0.395	0.08	0.054	●
		167	2420	250	3630	668	9680	110	4.3	11.4	0.449	0.16	0.11	▲
		220	3190	350	4790	880	12760	110	4.3	12.8	0.504	0.24	0.16	■
10	3/8	5.5	80	8.3	120	22	320	150	6.0	14.9	0.585	0.16	0.11	●
		100	1450	150	2180	400	5800	150	6.0	16.3	0.642	0.27	0.18	▲
		178	2580	267	3870	712	10320	150	6.0	17.6	0.693	0.38	0.25	■
12	1/2	5.5	80	8.3	120	22	320	165	6.5	19.6	0.772	0.17	0.11	●
		74	1075	111	1615	297	4300	165	6.5	21.0	0.826	0.36	0.22	▲
		103	1500	155	2250	412	6000	165	6.5	22.4	0.880	0.53	0.33	■
15	5/8	5	70	7.5	1.5	20	280	195	7.7	22.0	0.864	0.28	0.18	●
		70	1015	105	1523	280	4060	195	7.7	23.3	0.917	0.45	0.29	▲
		125	1810	188	2720	500	7240	195	7.7	24.6	0.969	0.62	0.40	■
20	3/4	4.1	60	6.2	90	16.4	240	200	8.0	25.8	1.02	0.27	0.18	●
		65	950	97	1425	260	3800	200	8.0	27.4	1.08	0.52	0.27	▲
		86	1250	129	1875	344	5000	200	8.0	29.0	1.14	0.77	0.39	■
25	1	4.1	60	6.2	90	16.4	240	200	8.0	33.7	1.33	0.32	0.21	●
		50	725	75	1088	200	2900	200	8.0	35.8	1.41	0.70	0.47	▲
		76	1110	114	1650	304	4440	200	8.0	37.9	1.49	1.10	0.57	■
32	1 1/4	3.4	50	5.1	75	13.6	200	250	10.0	41.1	1.62	0.40	0.27	●
		39	563	59	845	156	2250	250	10.0	43.2	1.70	0.86	0.57	▲
		57	825	85	1237	228	3300	250	10.0	45.3	1.78	1.30	0.93	■
40	1 1/2	2.4	35	3.6	53	9.6	140	250	10.0	47.9	1.89	0.67	0.45	●
		35	500	53	750	140	2000	250	10.0	50.0	1.97	1.20	0.80	▲
		55	800	82	1200	220	3200	250	10.0	52.2	2.06	1.70	1.10	■
50	2	1	15	1.5	23	4	60	350	14.0	62.1	2.45	0.82	0.55	●
		30	435	45	653	120	1740	350	14.0	64.2	2.53	1.50	1.00	▲
		44	638	66	957	176	2550	350	14.0	66.3	2.61	2.30	1.50	■
65	2 1/2	1	15	1.5	23	4	60	410	16.0	76.5	3.01	1.90	1.30	●
		26	377	39	720	104	1920	410	16.0	78.6	3.09	2.80	1.90	▲
		46	667	69	1000	184	2670	410	16.0	80.7	3.18	3.70	2.50	■
80	3	1	15	1.5	23	4	60	450	18.0	89.8	3.54	2.30	1.50	●
		22	320	33	480	88	1280	450	18.0	91.9	3.62	3.40	2.20	▲
		40	580	60	870	160	2320	450	18.0	94.1	3.70	4.50	3.00	■

MATERIALS

- TUBE: BS 1449 PART 2 (1983) 321S31 OR 316S11, EN 10088-2 1.4541 OR 1.4404 Monel 400 nickel alloy or bronze.
- Braid: 304 or BS 1554 (1990) 304S31 or 316S19.

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), 15 m/s (liquids)
- Braided: 45m/s (gas), 22.5 m/s (liquids)

When the hose is installed in a bent condition, these values should be reduced by 50% for a 90° bend, 25% for a 45° bend and so on, proportionately 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 temperature. The following derating factors must be applied at higher temperatures:

Operating Temperature °C	Type 321S31 Stainless Steel	Type 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	-