pressure ratings
corrugated metal hose

The nominal pressures listed in the product data sheets are expressed in bars (1 bar=100kPa, 14.5psi) and have been determined by testing the hose in accordance with International Standard ISO 10380 - i.e. in the dynamic condition. When tested in a static controlled environment, pressures up to 80% higher than those listed could be expected.

The nominal pressure is the maximum permissible working pressure of the hose when operating in nominal conditions – at ambient (room) temperature, constant uniform flexing (dynamic), without pressure surges.

The burst pressure of the hose is at least 4 times the nominal pressure as required by ISO 10380.

Other influences on the pressure ratings listed in the hose performance tables on the data sheets include -

operating temperature
The operating temperature of the application will have a direct relationship (as outlined in ISO 10380) on the lowering of the pressure capability of the hose illustrated in the table below.

Temperature °C	AISI 304	AISI 321	AISI 316L
-200	1.00	1.00	1.00
-100	1.00	1.00	1.00
20	1.00	1.00	1.00
50	0.91	0.95	0.96
100	0.81	0.83	0.83
150	0.73	0.75	0.76
200	0.65	0.69	0.69
250	0.61	0.65	0.65
300	0.56	0.62	0.61
350	0.53	0.59	0.58
400	0.50	0.58	0.56
450	0.49	0.57	0.54
500	0.47	0.56	0.53
550	0.46	0.53	0.52
600	0.31	0.34	-
650	0.19	0.19	-
700	0.10	0.10	-
750	0.04	-	-

wire braid tightness
The pressure ratings for braided hoses are based on the braid being directly attached to the hose through the braiding machines. Braiding attached by hand to the hose will not be as tight as machine attached and will reduce the maximum permissible pressure from that published.

end connection rating
The pressure ratings are for the particular hose selected, it is possible the pressure rating of the end connections used or required may be lower than for the hose, in which case the pressure rating of the lower rated end connection shall determine the pressure rating of the complete assembly.

pressure fluctuations
Pressure fluctuations have a marked affect on the service of metal hoses. Pulsating pressures reduce the capability to between 60 and 80%, whilst shock pressure loads (surges) would generally reduce it to between 40 and 60% of the nominal working pressure.

for further information on SITCOFLEX Office
e-mail : sales@sitflexible.com
web : www.sitflexible.com