

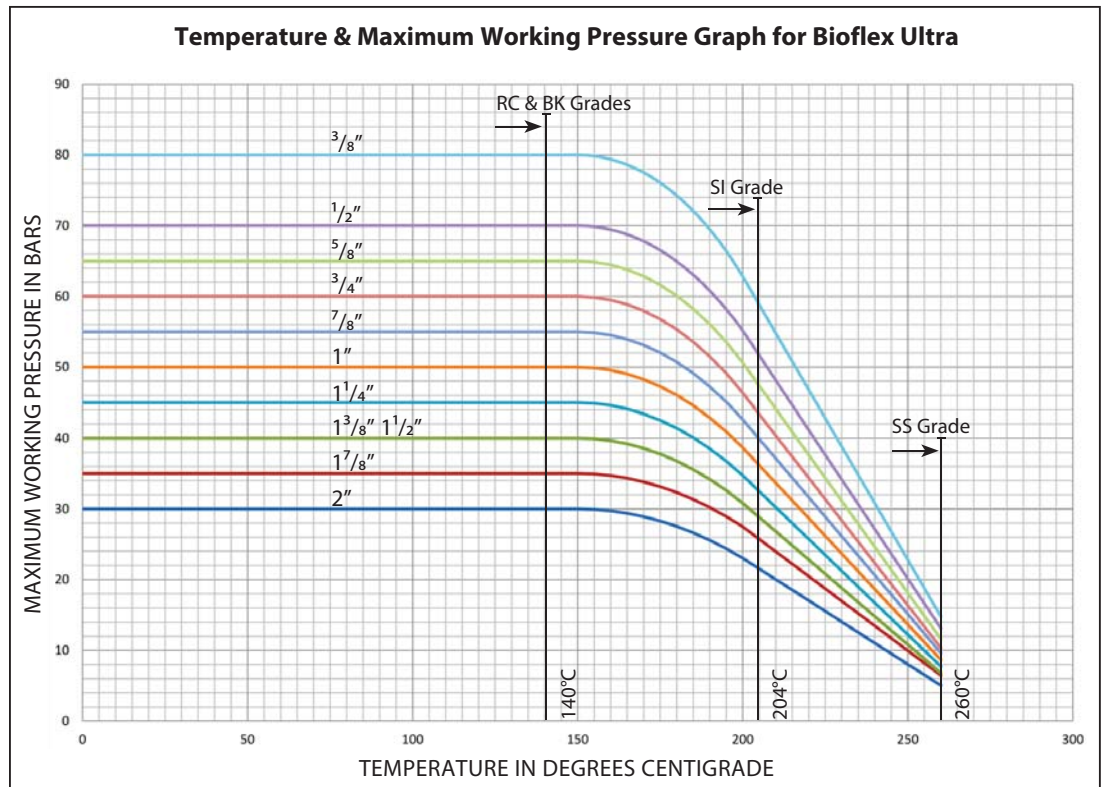
Bioflex Ultra Specifications: Temperatures, Pressures & Flow Rates

Temperature vs Pressure

Due to its extremely strong construction, Bioflex Ultra has outstanding resistance to temperature and pressure, much higher than that of conventional convoluted PTFE lined hose.

Maximum Working Pressure (MWP) Variation with Temperature:

MWP for SS grade hose, also for RC, BK and SI grades are as given in the graph, BUT only within the temperature range for the particular grade of hose, as given below:



Min/Max Operating Temperatures:

Bioflex Ultra GP or AS	SS	-73°C to +260°C
Bioflex Ultra GP or AS	SS, RC & SS, BK	-40°C to +140°C
Bioflex Ultra GP or AS	SS, SI	-73°C to +204°C
Bioflex Ultra GP or AS	PB - MWPs for PB are as given in the graph up to 80°C, then reduced by 50% between 80°C and 100°C (the maximum for PB).	

Temperature vs Vacuum

All sizes and grades of Bioflex Ultra hose are usable at full vacuum up to 200°C (150°C for TO grades). Above this, the vacuum resistance should be reduced 2% for every degree above 200°C (150°C for TO grades).

Flow Rates

In practice, flow rates will vary with hose flexing, fluid viscosity, end fitting design and other parameters, but Bioflex Ultra hose flow rates are always around 2 times better than convoluted PTFE hose, when comparing hose assemblies with PTFE lined (non bore-restricted) end fittings.

Bioflex Ultra Hose - Flow Rate Calculation

If it is required to determine the flow rate of a particular hose assembly, or if it is required to determine the pressure required to generate a certain flow rate, then this can sometimes be approximately calculated by the Bioflex Ultra supplier.

It should be noted that calculations can only be made for fluids with a viscosity equal to water, and for hose assemblies with PTFE lined end fittings (no bore restrictions at the ends of the hose).

The following information should be given to the supplier:

To calculate the Flow Rate in Cubic Metres per Hour:

- Pressure in Bars at the Entry into the Hose Assembly
- Pressure in Bars at the Exit from the Hose Assembly > (Subtracted to calculate Pressure Drop over the Hose Length)
- The hose configuration (roughly straight, or 33% Bends, or 66% Bends, or 100% Tightly Coiled)

OR To Calculate the Pressure Drop in bars over the length of the Hose Assembly:

- Required Flow Rate in Cubic Metres per Hour
- The hose configuration (roughly straight, or 33% Bends, or 66% Bends, or 100% Tightly Coiled)