



## High-Precision Machined Hose Elements

The key element in every Watson-Marlow Bredel hose pump is a superior composite reinforced hose. Constructed from high quality compounded rubbers, the hose is reinforced with four layers of braided nylon and finished by high precision machining. Since rubber cannot be over- or under- compressed, hose life and pump efficiency are both increased.

### Watson-Marlow Bredel hoses offer:

- Consistent tolerances, quality and shimming
- Improved life from reduced friction
- Excellent suction performance
- High pressure capability
- Volumetric accuracy
- Exceptional performance when handling highly viscous liquids

The hose is available with four different liner materials to suit a wide range of chemical compatibilities:\*

1. **Natural rubber** – highly resilient with excellent abrasion resistance and mechanical strength. Resistant to dilute acids and alcohols. Liquid temperature range from -20° C (-5° F) to 80° C (175° F)
2. **Hypalon** – Excellent chemical resistance, recommended for strong oxidizing products like concentrated acids, alkaline liquids and oxygen generating substances such as hydrogen peroxide temperature from -10° C (14° F) to 80° C (176° F)  
Note: Pump speed may be limited with hypalon hose
3. **Buna N (NBR)** – FDA, USDA and 3A approved. Highly abrasion and wear resistant. Compatible with oils, fats, alkalines and detergents. Suitable for a wide range of food applications. Liquid temperature range from -10° C (20° F) to 80° C (175° F)
4. **EPDM** – excellent chemical resistance, especially to concentrated acids, ketones and alcohols. Liquid temperature range from -10° C (20° F) to 80° C (175° F)

\* Consult Watson-Marlow Bredel technical services for details on operation up to 90° C (195° F). Please consult your Watson-Marlow/Bredel representative for further details on chemical compatibility.

By configuring the right combination of pump and hose, Watson-Marlow Bredel hose pumps can meet the flow, pressure and temperature characteristics of any application.

Hose Bore (mm)	Wall Thickness (mm)	Tolerance on Wall Thickness (+/- mm)	Maximum Working Pressure (psi)	Burst Pressure (psi)	Flow Variation over Working Life
10	10.5	0.40	110	1090	+/- 1%
15	10.5	0.40	110	1090	+/- 1%
25	14.1	0.20	230	1090	+/- 1%
32	14.5	0.20	230	1015	+/- 1%
40	13.2	0.20	230	1015	+/- 1%
50	15.0	0.20	230	940	+/- 1%
65	17.1	0.20	230	940	+/- 1%
80	21.0	0.25	230	870	+/- 1%
100	22.0	0.25	230	800	+/- 1%

### Watson-Marlow Bredel Pumps