



# PROBOND

Spiral wrapped long fibre resin bonded filter cartridge.



Parker domnick hunter's Probond cartridges have a unique proprietary two-stage filtration design to maximise particle removal and service life in viscous fluid applications.

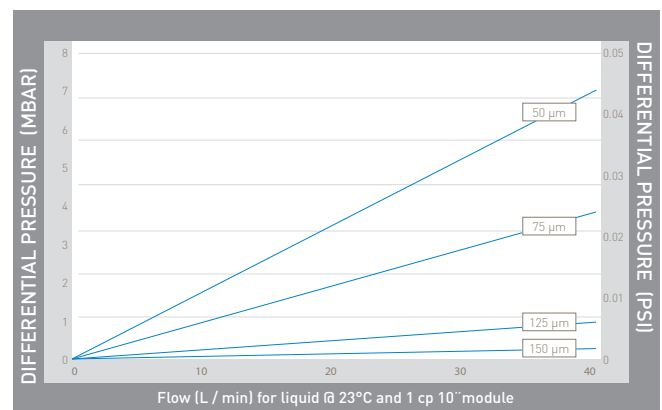
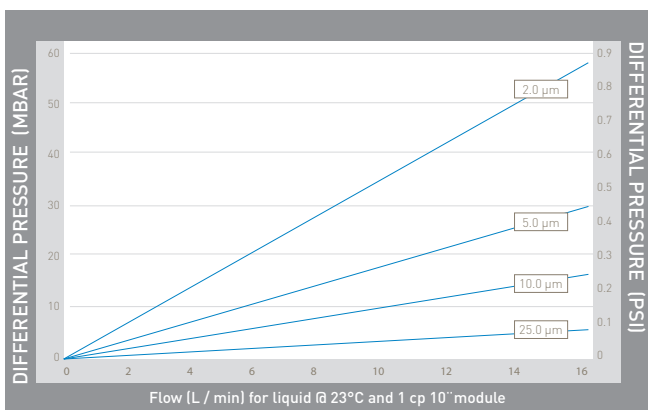
An outer spiral prefilter wrap increases cartridge strength and eliminates residual debris associated with conventional, machined, resin bonded cartridges. This outer wrap collects large particles and agglomerates whilst the inner layers control the particle removal at the rated size. Construction utilizes a phenolic resin impregnation resulting in a cartridge strong enough for use with fluid viscosities up to 3200 centipoise.

Probond filter cartridges are available in nine differentiated removal ratings from 2 to 200 micron to meet a wide range of performance requirements.

Features	Benefits
Silicone-free construction.	Eliminates adhesion problems between substrate and coating.
Extra-long acrylic fibres and phenolic resin impregnation.	Significantly reduces fibre migration and thus contamination.
Unique outer spiral wrap design.	Eliminates loose debris associated with machined products whilst capturing larger particles.

APPLICATIONS

- ✓ Paints
- ✓ Adhesives
- ✓ Resins
- ✓ Printing inks
- ✓ Chemical coatings
- ✓ Emulsions
- ✓ Plasticiser
- ✓ Oil & gas fluids
- ✓ Petroleum products





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Spiral wrapped long fibre resin bonded filter cartridge.

## Specifications

### Materials of Construction

1st stage prefilter wrap:	Polyester / acrylic Long staple fibre
2nd stage	Acrylic Long staple fibre Fibres impregnated with Phenolic bonding resin
End caps:	ABS (Acrylonitrile Butadiene Styrene) or Nylon (NTC) None on double open end style
Type of construction:	Coreless, one-piece, rigid resin bonded fibrous matrix.

### Maximum Recommended Operating Conditions

#### Flow rate:

18.9 lpm per 254mm in length (5gpm per 10" in length)

Temperature: 121°C (250°F)

Maximum recommended change out ΔP:  
3.5 bar (50 psid)

### Dimensions

Outside diameter: 65mm (2.6")

Inside diameter: 28.6mm (1.2")

Lengths: Nominal, 10, 20, 30 and 40 inch

### Recommended Maximum Differential Pressure

Temperature		Cartridge Pressure Resistance	
°C	°F	(bar)	(psid)
21	70	10	150
38	100	8.6	125
65	150	6.2	90
82	180	4.5	65
121	250	1.7	25

### Particle Removal Ratings

2µm, 5µm, 10µm, 25µm, 75µm, 125µm, 150µm and 200µm.

### Environmental / Chemical Compatibility

Classified as a non-hazardous material

- Incinerable (8000 BTU/lb)
- Crushable and shreddable
- Certified silicone-free
- Suitable for weak acids and bases (pH 5-9)
- Unsuitable for oxidizing agents
- Not recommended for FDA applications

Probond Flow Factors		Probond Length Factors	
Rating (µm)	Flow Factors	Length (in)	Length Factor
2	0.08	9	1.0
5	0.04	10	1.0
10	0.02	19	2.0
25	0.012	20	2.0
50	0.01	29	3.0
75	0.006	30	3.0
125	0.0013	39	4.0
150	0.0010	40	4.0
200	0.0005		

Flow rate and pressure drop formulas.

$$\text{Flow rate (gpm):} \\ \frac{\text{Clean } \Delta P \times \text{Length factor}}{\text{Viscosity} \times \text{Flow Factor}}$$

$$\text{Clean } \Delta P \\ \frac{\text{Flow rate} \times \text{Viscosity} \times \text{Flow Factor}}{\text{Length Factor}}$$

1. Clean ΔP is psi differential at start.
2. Viscosity is centistokes. Use conversion tables for other units.
3. Flow factor is ΔP / GPM at 1cks for 10" (or single)
4. Length factors convert flow or ΔP from 10" (single length) to required cartridge length.

## Ordering information

CARTRIDGES

PRO

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Code	Micron	Code	Length (Nominal)
2	2	9	9.75" (248mm)
5	5	10	10" (254mm)
10	10	19	19.50" (495mm)
25	25	20	20" (508mm)
50	50	29	29.50" (743mm)
75	75	30	30" (762mm)
125	125	39	39" (991mm)
150	150	40	40" (1016mm)
200	200		

Code	End Cap Configuration
Blank	DOE (w/o gaskets)
XA	Poly Extender
XB	Poly Extender/ Poly spring closed
TC	2-222 / Flat (ABS)
NTC	2-222 / Flat (Nylon)
C	Tined Steel Core
CXC	Extended Tined Steel Core

Code	Seal Material
Blank	No seal material
E	EPR
S	Silicone
N	Buna-N
T	PFA encapsulated viton [222, 226 o-ring]
V	Viton
W	Poly foam gaskets



Parker domnick hunter has a continuous policy of product development and although the Company reserves the right to change specifications, it attempts to keep customers informed of any alterations. This publication is for general information only and customers are requested to contact our Process Filtration Sales Department for detailed information and advice on a products suitability for specific applications. All products are sold subject to the company's standard conditions of sale.

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