



# HPGN181 Series

## Hy-Pro Filter Element Upgrades

# Hy-Pro G8 Dualglass

## High Performance Filter Elements

### Performance

#### Temperature Rating

Buna: -30°F (-34°C) – 250°F (121°C)

EPR: -70°F (-57°C) – 250°F (121°C)

Viton: -15°F (-26°C) – 400°F (204°C)

#### Standard Element Collapse

ΔP 400 PSI (27.6 Bar)

### Tested to ISO Quality Standards

ISO 2941 Collapse and burst resistance

ISO 2942 Fabrication and Integrity test

ISO 2943 Material compatibility with fluids

ISO 3724 Flow fatigue characteristics

ISO 3968 Pressure drop vs. flow rate

ISO 16889 Multi-pass performance testing

### Media

G8 media pleat pack features our latest generation of graded density glass media that delivers required cleanliness while optimizing dirt capacity.

Available media selections include G8 Dualglass, Stainless Steel Mesh Media, Dynafuzz (Stainless Fiber Media), and Water Removal Media. Seal options include Nitrile (Buna), Fluorocarbon (Viton), and EPR. Call or consult the Hy-Pro online Interchange Guide at [www.hyprofiltration.com](http://www.hyprofiltration.com).

### Fluid Compatibility

Petroleum based fluids, water glycols, polyol esters, phosphate esters, HWBF. Contact Hy-Pro for seal selection assistance.

### Water Removal

Media code "A" specifies G8 Dualglass media co-pleated with water removal scrim to produce a filter that can remove water while maintaining  $\beta_{x_{[c]}} > 4000$  efficiency down to  $3\mu_{[c]}$ .

### Dynamic Filter Efficiency

DFE rated elements perform true to rating even under demanding variable flow and vibration conditions. Today's industrial and mobile hydraulic circuits require elements that deliver specified cleanliness under all circumstances. Wire mesh supports the media to ensure against cyclical flow fatigue, temperature, and chemical resistance failures possible in filters with synthetic support mesh.

### Interchange (See Interchange Guide for Exact Cross Reference and Complete Part Numbers)

#### Indufil

SUR-Z-1813-A-PX03

ECR-S-883-A-GF03

SUR-Z-1813-A-CC05

MPR-Z-883-A-CC05V

TMR-Z-1813-CC05V

VTR-Z-1813-A-GF10

VTR-S-883-A-GF10

INR-S-1823-SS180-V

INL-S-883-A-2-GF25

INR-S-1800-API-SS050-V

INR-Z-1813-A-GF25V

#### Hy-Pro

HPGN181L40-3MB

HPGN181SL20-3MB

HPGN181L40-6MB

HPGN181L20-6MV

HPGN181L40-6MV

HPGN181L40-10MB

HPGN181SL20-10MB

HPGN181SL40-10MV

HPGN181SL20-25MB

HPGN181SL40-25MV

HPGN181L40-25MV

**ΔP FACTORS**

Media Code	Element Length					
	L20		L30		L40	
	psid/gpm	bar/lpm	psid/gpm	bar/lpm	psid/gpm	bar/lpm
1M	0.087	0.006	0.057	0.004	0.043	0.003
3M	0.053	0.004	0.035	0.002	0.026	0.002
6M	0.035	0.002	0.023	0.002	0.017	0.001
10/12A	0.026	0.002	0.017	0.001	0.013	0.001
10/12M	0.022	0.001	0.014	0.001	0.011	0.001
25A	0.017	0.001	0.011	0.001	0.008	0.001
25M	0.014	0.001	0.009	0.001	0.007	0.000
*W	0.003	0.000	0.002	0.000	0.001	0.000

**Adjusted Pressure Drop**

Pressure drop factor based on viscosity 150 SUS / 32 cSt, and specific gravity = 0.86. Element ΔP varies with viscosity and specific gravity. To adjust ΔP factor for different viscosities use the following formula:

**Kinematic Viscosity in SUS:**

$$\Delta P \text{ Element} = \Delta P \text{ Curve} \times \text{Actual Viscosity SUS}/150 \times \text{Actual SG}/0.86$$

**Kinematic Viscosity in cSt:**

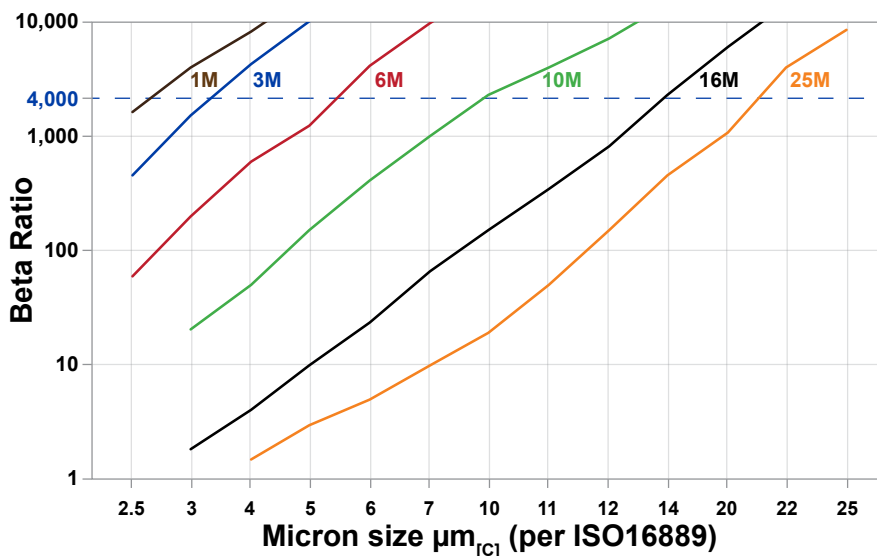
$$\Delta P \text{ Element} = \Delta P \text{ Curve} \times \text{Actual Viscosity cSt}/32 \times \text{Actual SG}/0.86$$

**Centistoke to SUS conversion:**

$$1 \text{ cSt} = 4.63 \text{ SUS}$$

**FILTER ELEMENT MEDIA PERFORMANCE**

**Glass Media Filtration Efficiency (Beta Ratio) vs Micron Size**



Efficiency, Apparent Dirt Holding Capacity, H<sub>2</sub>O Capacity Numbers Based on Viscosity 150 SUS (32cSt) at 100°F (40°C)



FILTER ELEMENT PART NUMBER BUILDER

HPGN181  L  -

Table 1 End Cap and Support Tube Material	
Code	
Omit	Plated Carbon Steel
S	Stainless Steel

Table 2 Overall Length	
Code	
20	~19.821" (~50.345 cm)
30	~29.830" (~75.768 cm)
36	~36.375" (~92.392 cm)
40	~39.508" (~ 100.350 cm)

Table 3 Media Selection	
Code	
1M	$\beta_{3[c]} \geq 4000$
3M	$\beta_{4[c]} \geq 4000$
3A	$\beta_{4[c]} \geq 4000$ + Water Removal
3SF*	$\beta_{4[c]} \geq 4000$ Dynafuzz
6M	$\beta_{6[c]} \geq 4000$
6A	$\beta_{6[c]} \geq 4000$ + Water Removal
6SF*	$\beta_{6[c]} \geq 4000$ Dynafuzz
10M	$\beta_{11[c]} \geq 4000$
10A	$\beta_{11[c]} \geq 4000$ + Water Removal
10SF*	$\beta_{11[c]} \geq 4000$ Dynafuzz
25M	$\beta_{22[c]} \geq 4000$
25A	$\beta_{22[c]} \geq 4000$ + Water Removal
25SF*	$\beta_{22[c]} \geq 4000$ Dynafuzz
25W*	25 $\mu$ Nominal Wire Mesh
40W*	40 $\mu$ Nominal Wire Mesh
50W*	50 $\mu$ Nominal Wire Mesh
74W*	74 $\mu$ Nominal Wire Mesh
149W*	149 $\mu$ Nominal Wire Mesh
250W*	250 $\mu$ Nominal Wire Mesh

Table 4 Seal	
Code	
B	Nitrile (Buna)
V	Fluorocarbon (Viton)
E-WS**	EPR + Stainless Steel Support Mesh (Skydrol Specific Fluid Applications)

\*\*For Phosphate Ester use Viton®

\*Limited availability (call factory)

