HP780 Series

Pleated Filter Element Upgrade for Hydac DiMicron N15*** Series

Hy-Pro G7 Dualglass

High Performance Filter Elements

Performance

Temperature:	-45f to 225f, -43c to 107c (buna) -20f to 250f, -29c to 120c (viton)
Element collapse	150 psid (10 bar)

Four Element Lengths Available!

Stop stacking elements and sacrificing valuable media surface area. Hy-Pro offers the HP780 series in 4 continuous element lengths which improves performance by creating lower media flow density, minimizing leak points, increasing effective surface area, yielding lower clean element pressure drop, longer element life and making filter element service easier.

Media

G7 media pleat pack features our latest generation of graded density glass media that delivers required cleanliness while optimizing dirt capacity.

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.

Fluid Compatibility

Petroleum based fluids, water glycols, polyol esters, phosphate esters, HWBF

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

Water Removal

Media code "A" specifies G7 Dualglass media co-pleated with water removal scrim to produce a filter that can remove water while maintaining $\beta x_{[c]} > 1000$ efficiency down to 1μ / $2.5\mu_{[c]}$.

High Strength Metallic Endcaps

High strength metal end caps (Nickel coated steel) Bright nickel coated steel end caps include bayonet style locking tabs for secure installation between element and housing and multiple stacked elements.

Hy-Pro Filtration . 12955 Ford Drive . Fishers, IN 46038 . Ph 317.849.3535 . Fx 317.849.9201 . www.filterelement.com

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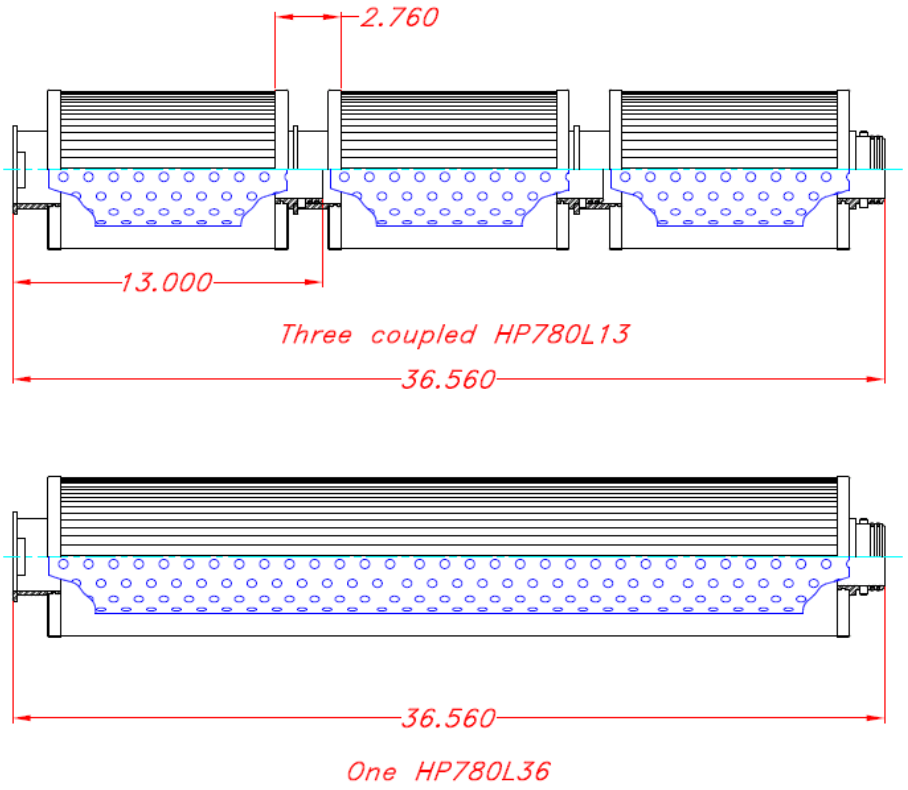
STACKING ELEMENTS VS CONTINUOUS LENGTH ELEMENTS



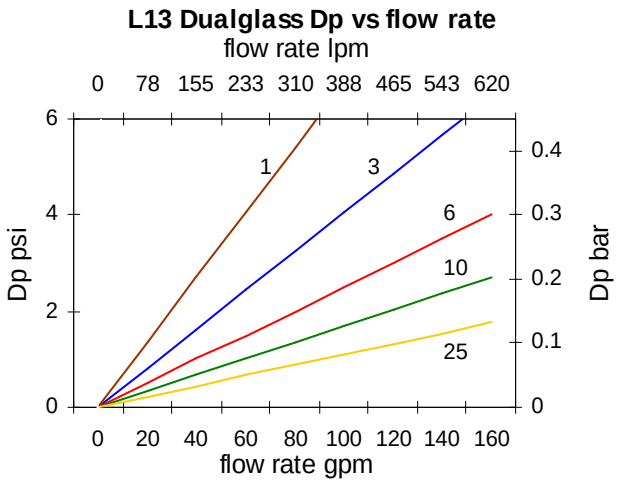
Continuous Elements!

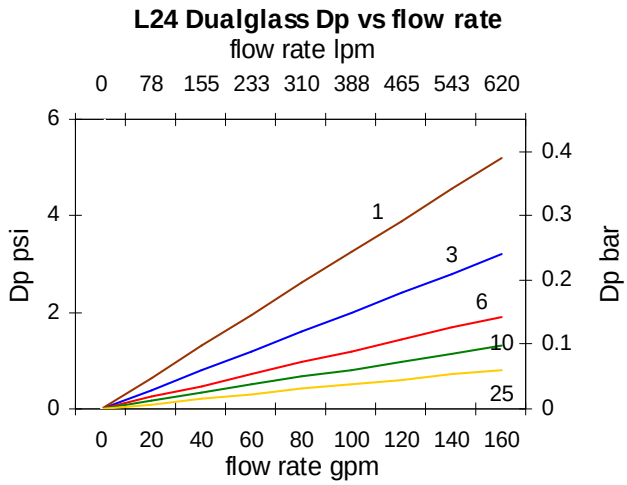
Stop stacking elements and sacrificing valuable media surface area. Hy-Pro offers the HP780 series in 4 continuous element lengths which improves performance by creating lower media flow density, minimizing leak points, increasing effective surface area, yielding lower clean element pressure drop, longer element life and making filter element service easier.

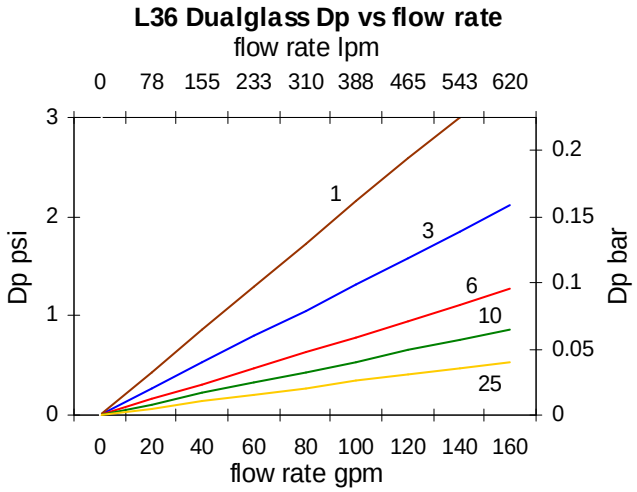
Original Number	Surface Area Ft^2 (M^2)	Hy-Pro Number	Surface Area Ft^2 (M^2)	Hy-Pro Number (Continuous)	Surface Area Ft^2 (M^2)
N15*M** x 1	18.0 (1,67)	**HP780L13 x 1**	33.0 (3,06)	**HP780L13**	33.0 (3,06)
N15*M** x 2	36.0 (3,34)	**HP780L13 x 2**	66.0 (6,13)	**HP780L24**	74.0 (6,87)
N15*M** x 3	54.0 (5,01)	**HP780L13 x 3**	99.0 (9,19)	**HP780L36**	115.3 (10,72)
N15*M** x 4	72.0 (6,68)	**HP780L13 x 4**	122.0 (12,2)	**HP780L48**	149.7 (13,74)

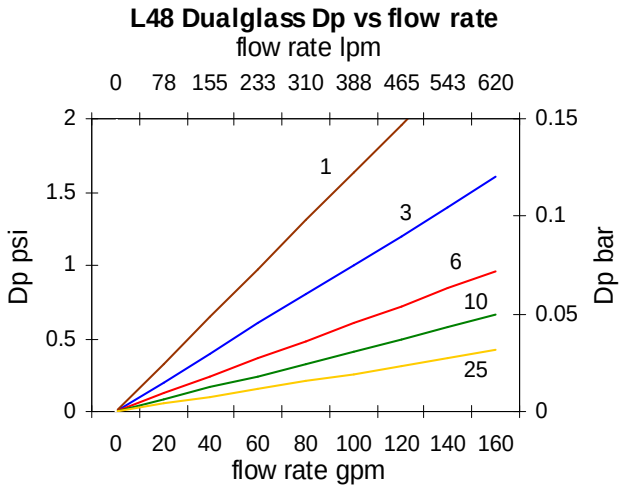
Original Number	Hy-Pro Number	Original Number	Hy-Pro Number
N15DM002	HP780L13-3MV	N15DM002 x 3 Stacked	HP780L36-3MV
N15DM010	HP780L13-10MV	N15DM010 x 3 Stacked	HP780L36-10MV
N15DM005	HP780L13-6MV	N15DM005 x 3 Stacked	HP780L36-6MV
N15DM020	HP780L13-20MV	N15DM020 x 3 Stacked	HP780L36-20MV
N15AM002	HP780L13-3AV	N15AM002 x 3 Stacked	HP780L36-3AV
N15AM005	HP780L13-6AV	N15AM005 x 3 Stacked	HP780L36-6AV
N15AM010	HP780L13-10AV	N15AM010 x 3 Stacked	HP780L36-10AV
N15AM020	HP780L13-20AV	N15AM020 x 3 Stacked	HP780L36-20AV
N15DM002 x 2 Stacked	HP780L24-3MV	N15DM002 x 4 Stacked	HP780L48-3MV
N15DM010 x 2 Stacked	HP780L24-10MV	N15DM010 x 4 Stacked	HP780L48-10MV
N15DM005 x 2 Stacked	HP780L24-6MV	N15DM005 x 4 Stacked	HP780L48-6MV
N15DM020 x 2 Stacked	HP780L24-20MV	N15DM020 x 4 Stacked	HP780L48-20MV
N15AM002 x 2 Stacked	HP780L24-3AV	N15AM002 x 4 Stacked	HP780L48-3AV
N15AM005 x 2 Stacked	HP780L24-6AV	N15AM005 x 4 Stacked	HP780L48-6AV
N15AM010 x 2 Stacked	HP780L24-10AV	N15AM010 x 4 Stacked	HP780L48-10AV
N15AM020 x 2 Stacked	HP780L24-20AV	N15AM020 x 4 Stacked	HP780L48-20AV

FILTER ELEMENT FLOW vs PRESSURE DROP









Pressure drop curves based on oil viscosity of 150 SSU, and specific gravity = 0.9. Dp across element is proportionally related to viscosity and specific gravity. For new DP use the following conversion formula:
DP element = DP curve x Actual Viscosity/150 x Actual SG/0.86

FILTER ELEMENT PART NUMBER GUIDE

table 1 table 2 table 3

HP780L ___ - ___ ___

table 1 code	**element length**
13	13" Nominal
24	24" Nominal
36	36" Nominal
48	48" Nominal

table 2 code	**media selection**
1A	$\beta 2.5_{[c]} = 1000$ ($\beta 1 = 200$) + H_2O Removal
1M	$\beta 2.5_{[c]} = 1000$ ($\beta 1 = 200$)
3A	$\beta 5_{[c]} = 1000$ ($\beta 3 = 200$) + H_2O Removal
3M	$\beta 5_{[c]} = 1000$ ($\beta 3 = 200$)
6A	$\beta 7_{[c]} = 1000$ ($\beta 6 = 200$) + H_2O Removal
6M	$\beta 7_{[c]} = 1000$ ($\beta 6 = 200$)
10A	$\beta 12_{[c]} = 1000$ ($\beta 12 = 200$) + H_2O Removal
10M	$\beta 12_{[c]} = 1000$ ($\beta 12 = 200$)
22A	$\beta 22_{[c]} = 1000$ ($\beta 25 = 200$) + H_2O Removal
22M	$\beta 22_{[c]} = 1000$ ($\beta 25 = 200$)

table 3 code	**seal**
B	Nitrile (buna)
V	Fluorocarbon
E-WS	EPR

TB780-010108

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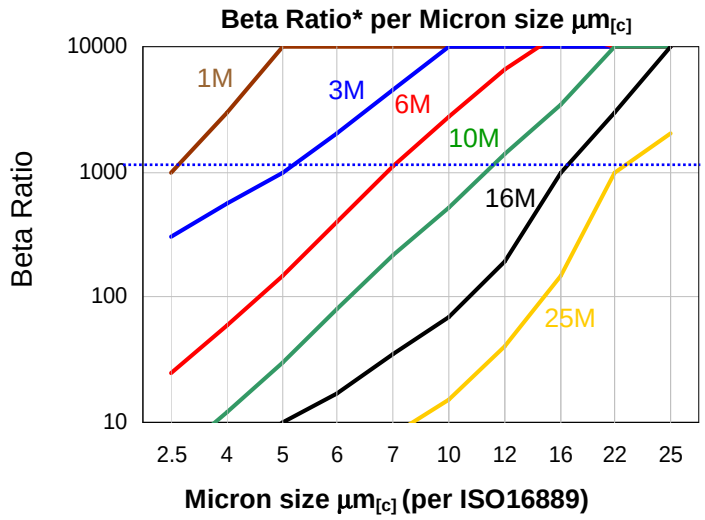
HY-PRO FILTRATION

FILTER ELEMENT MEDIA PERFORMANCE



*Efficiency, Apparent dirt holding capacity, and H2O capacity numbers based on viscosity 150 SUS (32 cTs) at 70 gpm flow rate (call for assistance with different viscosity or flow rate conditions)

WATER REMOVAL - BULK OIL OR DIESEL FUEL CONDITIONING

Hy-Pro Element	Capacity H_2O	
	Liters	Ounces
HP780L13-*A*	5.0	169
HP780L24-*A*	11.2	380
HP780L36-*A*	17.4	590
HP780L48-*A*	22.5	765

Fluid volume: 250 gallons, 1000 liters
Initial ppm H_2O: 12000 ppm, Final ppm H_2O: < 50 ppm

A power plant planned to use a vacuum dehydrator to remove the water from 1000 liters of hydraulic oil. Dehydrator rental was expensive and required one month minimum. As an alternative Hy-Pro element HP8314L39-6AB (A media = G7 Dualglass + water removal) was applied. Hy-Pro estimated that 2 elements would bring the ppm levels below the target. After the second element was removed the ppm level was below 50 ppm H_2O. A third element was installed but did not reach terminal Δp before the fluid was determined to be free of water and ready for use.

Water PPM ~ Ounce conversion:
Moisture (PPM) X Fluid volume (Gallons) X .0001279 = Ounces of Water