ParMax™ Multi-Cartridge Filter Vessel

ASME code, high-flow capacity vessel

ParMax™ multi-cartridge filter vessels are designed to accept ParMax filter cartridges for flows of up to 500 gpm (1892 lpm) each 60″ length. They provide significant size and capital cost reduction compared with vessels containing conventional size filter cartridges. The horizontal design and coreless cartridge configuration make cartridge change fast and easy. ParMax filter elements are inside/out flow direction and are available in either 20″, 40″ or 60″ length. Actual flow rate is dependent on fluid viscosity, micron rating, contaminant, media type and inlet velocity. Consult ParMax cartridge flow charts for each application.

Contact Information

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Benefits

- Horizontal design makes cartridge change easier and quicker without need for elevated platform. Vertical orientation is also available.
- Large diameter cartridge yields high flow rate per cartridge resulting in fewer cartridges and smaller, lower cost vessels.
- Inside-out flow direction captures contaminates on the inside of the filter which makes changing cartridges less messy and quicker.
- Built to ASME Boiler And Pressure Code to insure integrity.
- Cartridges have external O-ring for positive seal
- Available in carbon steel, 304L stainless steel and 316L stainless steel for a wide variety of applications. Other alloys also available.
- O-ring cover seal for quick and positive vessel cover sealing.
- Cover locating pin for quick and accurate alignment.
- Available in 150 PSI and 300 PSI pressure ratings: custom pressure ratings available.

Applications

- Reverse Osmosis Filtration
- Potable Water
- Process Water
- Edible Oils
- Lubricants
- Coolants
- Cutting Oils
- Solvents
- Chemicals

ParMax™ Filter Vessel

ParMax Filter Cartridges

- One six-inch diameter cartridge can handle up to 500gpm flow (60” length)
- The inside-to-outside flow allows for a high contaminant holding capacity
- High-flow and long filter life
- Ideal choice for a wide variety of critical process applications

Standard Design

The best of pleated and large diameter technologies are combined in Parker’s ParMax™ high-flow filter cartridges. The unique layered construction provides excellent retention across a wide range of flux rates. ParMax cartridges are available with polypropylene and microfiberglass media in absolute (99.98%) ratings from 1 to 90 microns.

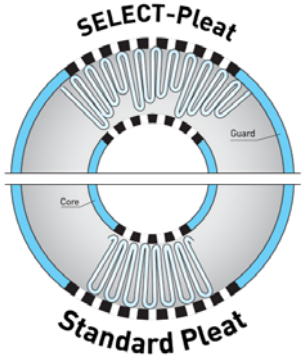
SELECT Design

The unique layered construction and staged pleating of the ParMax™ Select cartridges provide improved dirt-holding capacity and retention across a wide range of flux rates. ParMax Select cartridges are available with polypropylene pleated depth media and microfiberglass media in absolute (99.98%) ratings from 1 to 90 microns.

Typical Aqueous Flow Rates

Optimal Flow Rate	Surface Area (ft^2)	Flux Rate (gpm/ft^2)
20″ Cartridge	**120 GPM**	
Standard	25	4.80
Select	32	3.75
40″ Cartridge	**240 GPM**	
Standard	50	4.80
Select	62	3.87
60″ Cartridge	**360 GPM**	
Standard	75	4.80
Select	94	3.83
Recommended Max. Flow Rate	**Surface Area (ft^2)**	**Flux Rate (gpm/ft^2)**
20″ Cartridge	**175 GPM**	
Standard	25	7.00
Select	32	5.47
40″ Cartridge	**350 GPM**	
Standard	50	7.00
Select	62	5.65
60″ Cartridge	**500 GPM**	
Standard	75	6.67
Select	94	5.32

Using higher flow rates than optimal can result in reduced cartridge efficiency and life as well as system filtrate velocities exceeding 10 feet per second.



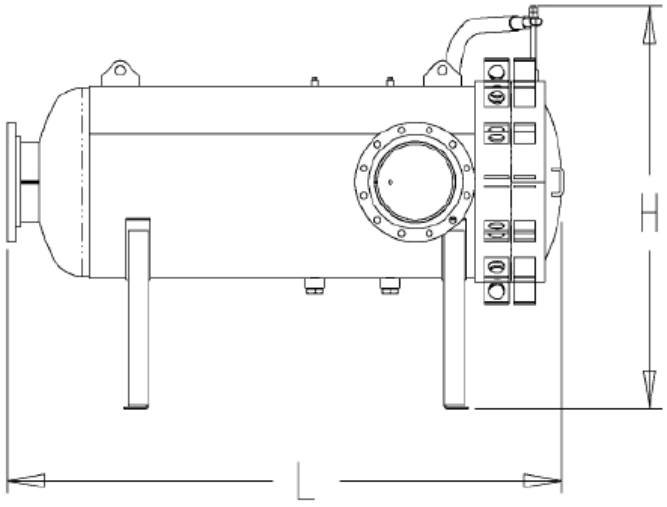
With Select Pleating, there is more open area on the inside of the cartridge for additional contaminant-holding capacity.

ParMax™ Filter Vessel

Design Specifications (All dimensions are inches)

Model *Material of Construction (C, G or S)	Cartridge Qty. in Vessel	H Overall Height (Horizontal)	L Overall Length (Horizontal)	Vessel Nominal Diameter	Optimal Inlet/Outlet Size	Max. Flow (gpm/ft²)†	Empty Vessel Weight‡ (lbs.)
40 INCH CARTRIDGE(S) - HORIZONTAL DESIGN							
PX * U0140H03F	1	43.0	60.2	8.0	3	350	250
PX * U0340H06F	3	58.4	69.8	16.0	6	1,050	694
PX * U0540H08F	5	59.0	77.0	20.0	8	1,750	935
PX * U0740H10F	7	60.0	79.7	22.0	10	2,450	1106
PX * U0840H10F	8	61.0	79.9	24.0	10	2,800	1248
PX * U1240H12F	12	64.0	88.4	30.0	12	4,200	1672
PX * U1540H14F	15	65.0	90.8	32.0	14	5,250	1938
PX * U1940H16F	19	67.3	94.5	36.0	16	6,650	2593
60 INCH CARTRIDGE(S) - HORIZONTAL DESIGN							
PX * U0160H04F	1	43.0	81.3	8.0	4	500	325
PX * U0360H08F	3	58.4	91.8	16.0	8	1,500	756
PX * U0560H10F	5	59.0	99.0	20.0	10	2,500	1070
PX * U0760H10F	7	60.0	99.7	22.0	10	3,500	1181
PX * U0860H12F	8	61.0	101.9	24.0	12	4,000	1389
PX * U1260H14F	12	64.0	109.7	30.0	14	6,000	1834
PX * U1560H16F	15	65.0	112.9	32.0	16	7,500	2113
PX * U1960H18F	19	67.3	116.5	36.0	18	9,500	2828

†Actual flow rate is dependent on fluid viscosity, micron rating, contaminant, media type and inlet velocity. Consult media flow charts for each application.
‡Shipping weights and dimensions are for 150 PSIG nominal design only. 40″ & 60″ refer to nominal cartridge length.

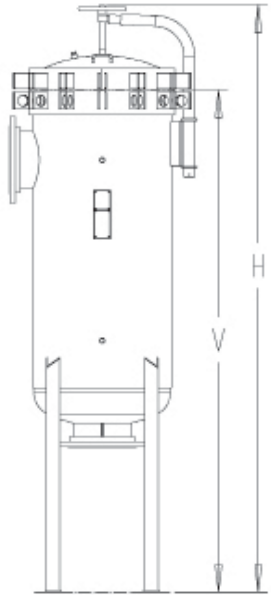


ParMax™ Filter Vessel

Design Specifications (All dimensions are inches)

Model *Material of Construction (C, G or S)	Cartridge Qty. in Vessel	H Overall Height (Vertical)	V Access Height (Vertical)	Vessel Nominal Diameter	Optimal Inlet/Outlet Size	Max. Flow† (gpm/ft²)	Empty Vessel Weight‡ (lbs.)
40 INCH CARTRIDGE(S) - VERTICAL DESIGN							
PX * U0140V03F	1	69.4	65.5	8.0	3"	350	250
PX * U0340V06F	3	94.3	81.9	16.0	6"	1,050	694
PX * U0540V08F	5	106.3	90.0	20.0	8"	1,750	935
PX * U0740V10F	7	115.2	98.8	22.0	10"	2,450	1106
PX * U0840V10F	8	115.5	98.8	24.0	10"	2,800	1248
PX * U1240V12F	12	129.0	110.3	30.0	12"	4,200	1672
PX * U1540V14F	15	135.0	115.8	32.0	14"	5,250	1938
PX * U1940V16F	19	143.6	123.4	36.0	16"	6,650	2593

†Actual flow rate is dependent on fluid viscosity, micron rating, contaminant, media type and inlet velocity. Consult media flow charts for each application.
‡Shipping weights and dimensions are for 150 PSIG nominal design only. 40" & 60" refer to nominal cartridge length.



Maximum Operating Conditions

Material of Construction	Max. Operating Pressure (psi @ 250 °F)†	Max. Design Temp.††	Connection type
Carbon Steel	150psi (10.3bar)	250°F (121°C)	F
Carbon Steel	300psi (20.7bar)	250°F (121°C)	H
304 Stainless Steel	150psi (10.3bar)	250°F (121°C)	F
304 Stainless Steel	300psi (20.7bar)	250°F (121°C)	H
316 Stainless Steel	150psi (10.3bar)	250°F (121°C)	F
316 Stainless Steel	300psi (20.7bar)	250°F (121°C)	H

† Operating temperature limited by standard O-ring material and exterior paint.

Ordering Information

PX ☐ **U** ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Material	
Code	Description
C	Carbon Steel
G	304L Stainless Steel
S	316L Stainless Steel

Design	
Code	Description
U	ASME Code

Cartridge Qty.	
Code	Amt.
01	1
03	3
05	5
07	7
08	8
12	12
15	15
19	19

Cartridge Length	
Code	Inches
40	40
60	60

Vessel Orientation	
Code	Description
H	Horizontal
V	Vertical*

*60" vertical not recommended.

Optimal Inlet/Outlet Size	
Code	Inches
03	3
04	4
06	6
08	8
10	10
12	12
14	14
16	16
18	18

Inlet/Outlet Connection Type	
Code	Description
F	ANSI 150 lb. flange
H	ANSI 300 lb. flange

F=150 PSI vessel design
H=300 PSI vessel design

Finish	
Code	Description
C	Painted
B	Glass Bead Blast
P	Passivated

C is valid for carbon steel design only.

B & P are valid for stainless steel design only.

Specifications are subject to change without notification.
For User Responsibility Statement, see www.parker.com/safety