

High Capacity Filter Vessels Process - Pipeline - Pigging



WARCO high performance, absolute rated filtration systems set the standard for demanding corrosive chemical process filters. WARCO highly engineered, high capacity pipeline and pigging filter designs withstand the harshest chemistries for providing many years of reliable service life.



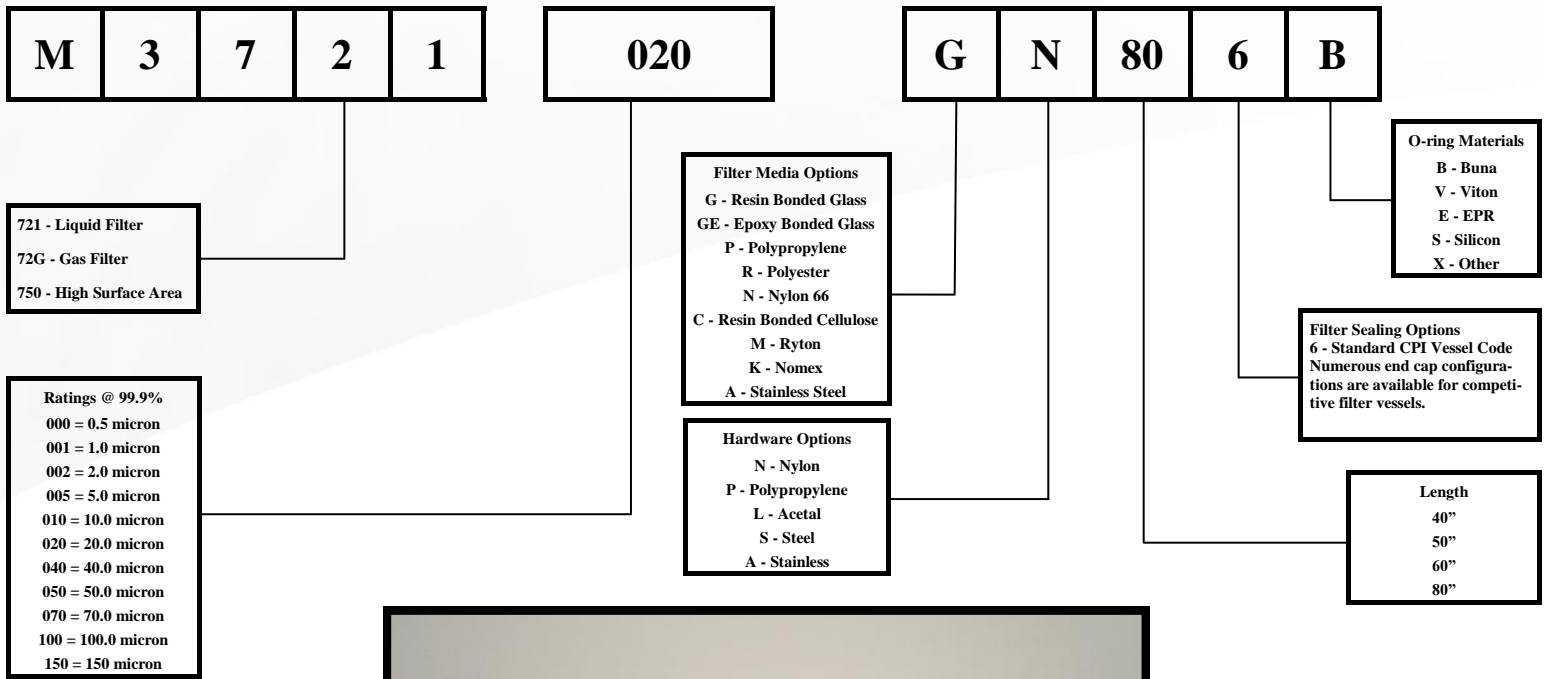
**Transmission Pipelines
LPG , LNG / Black Powder
Pigging Filter Vessels
Produced Water Injection
Barge Loading Stations
Large Amine Systems**

Series M3 Filters

Absolute Pressure Rated Filter Vessels™

www.warcoinc.net - www.m3filters.com

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Achieving high flows with high solids loading has typically required oversized, inefficient filter designs. Filtering at low micron levels poses further challenges.

WARCO High Performance filters meet this challenge with the highest flow and solids capacities available. Flow capabilities exceeding 600 gpm, with solids loading up to 75 lbs per single 80" element.

Performance

- Based on vessel diameter, Warco Filters™ can hold up to 11 times more solids.
- Warco Filters™ can handle up to five times more flow.
- Each Warco 80" filter can match the solids holding of 65 standard 30" depth cartridges.
- Warco Filters™ flow pattern is inside to outside. All solids are captured within the filter element with no residual material in the vessel for cleaner and faster change-outs.

Maximize Up Time

Fewer filter change-outs means less costs associated with labor, disposal, and fluid losses associated with dated filtering methods. The dramatic difference in performance of Warco High Performance filters offers a rapid R.O.I. while maximizing productivity.

Design Configurations

Lengths include 40", 50", 60" & 80"

Filter media is available in glass fiber, polypropylene, polyester, nylon, ryton, cellulose, nomex, and stainless steel.

Optional element support structures include nylon, polypropylene, acetal, and metal.

Micron ratings from 0.5 to 150 microns (@ 99.9+ % absolute).

Temperature capability to 450°F.

WARCO High Capacity Filter Vessels are made with the highest level of engineering and quality. Design pressures are available to 2220 psig with sizes to meet almost any flow requirement.

With their superior solids holding most users prefer horizontal vessels when using WARCO 60" or 80" High Capacity Filters. WARCO vessels are available as skid mounted units, or with saddles or legs as required.

Quick opening closures are a standard on horizontal vessels. Also included are pull bars, lift lugs, fork lift slots, and heavy duty full bore nozzles.

WARCO also offers economical single element vessels for less flow rates. Both horizontal and vertical vessels are available. An 8" diameter WARCO vessel containing a single 80" filter can handle up to 500 gpm flow and match the solids holding of a larger 24" diameter vessel with standard 40" depth filters.



Vertical vessels are also an option for 40" High Capacity Filters. Existing cartridge and bag filter vessels can be upgraded to WARCO High Capacity Filters with minimal changes to existing piping and foundation.

Ideal for Pipeline Pigging

The solids generated in pipeline pigging can overwhelm standard filter systems. The slug of solids in front of a pig can cause rapid filter plugging and filter failure. Standard filter systems will require numerous change outs, often in a short period of time. WARCO filter systems are a leader in pipeline pigging filtration. A 24" diameter WARCO vessel with 80" filters and can flow over 4,900 gpm (7,000 bl/hr) in LPG and can remove a slug of solids exceeding 300 lbs. The result is less filters required. Filter change outs are also faster when using WARCO vessels. Each vessel is equipped with a quick opening closure which is safe and easy to operate. WARCO filter cartridges are easily installed and have a zero bypass seal. There are no seal nuts or springs required. Solids are trapped inside WARCO filter cartridges and not jarred loose during operation or liquid evacuation. The result is a cleaner vessel interior and a reduced need to wash the vessel between change-outs. **Quick Opening Closure Horizontal vessels for 60" & 80" length filters**

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Authorized

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