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Betapure™ P Series

Filter Cartridges for Oil and Gas Processing

Filtration and separation systems are a key element in the efficient operation of Oil and Gas applications. Betapure P Series filter systems, formerly known as Petro-Klean, combine the finest cartridge media with easy to use housings for the most cost effective solution to gas processing filtration.

Reduce or Eliminate Foaming

Prevention of foaming reduces expensive amine and glycol carry-over and replacement costs. Absolute-rated Betapure P filtration maintains solution quality by eliminating the solids that contribute to foaming.

Prevent Fouling of Heat Exchangers and Reboilers

A high level of solids which can be deposited on the rich/lean heat exchanger surfaces lead to fouling, higher temperatures and ultimately heat exchanger tube replacement.

Absolute-rated Betapure P filtration minimises reboiler cleaning, improves heat exchange efficiencies and reduces or eliminates costly repairs to heat exchangers and reboilers in amine and glycol systems.

What is Betapure P?

Betapure P is an easy to use filter cartridge manufactured from cellulose fibres, glass fibres and a chemically resistant thermosetting resin to produce a durable, rigid filter structure. Betapure P Series cartridges are grooved to significantly increase the surface area and extend service life. Large diameter 336 style Betapure P Series filter cartridges eliminate troublesome spring and seal assemblies by incorporating a self-energizing elastomer seal to fit 336" style housings.

Standard diameter industrial Betapure P Series products include polyethylene foam gaskets for positive sealing in double open end housings and single open end cartridges employing polypropylene caps and springs that eliminates spring and seal assemblies.

Betapure P Series cartridges are simple to install and ensure a positive seal for consistent performance during the most demanding upset conditions or pressure spikes.



Applications

Betapure P Series cartridges have been designed specifically for use in various applications in the oil and gas processing industries, i.e.:

- Amine sweetening
- Glycol dehydration systems
- Fuel Gas
- Lube oil applications
- Process and equipment protection
- Refining (kerosene, gasoline, diesel...)
- Water flood
- Enhanced oil recovery

Features and Benefits

Absolute-rated cartridge filters from 10 - 60 microns

- Distinct particle size cut-off at the specified removal rating
- Reproducible effluent quality throughout the filter's life

Beta 1000 rated throughout the cartridge life

- No bypass or unloading at high differential pressure
- Consistent product quality throughout the filter's life

Grooved surface with true graded-density structure

- Significantly longer life
- Dramatic cost savings with optimised yields

A "336" cartridge elastomer sealing system

- User-friendly, maintains integrity at high differential pressure
- Fast filter change-out and consistent product quality

No metal or plastic cores

- Easy disposal, suitable for incineration or shredding
- Reduced disposal costs

Available in 2 5/8" OD, 3" OD, 4 1/2" OD and various other lengths to 72"

- Broad range of configurations for custom sizing
- Retrofit existing housings and current applications

Figure 1: Betapure P Series graded density structure

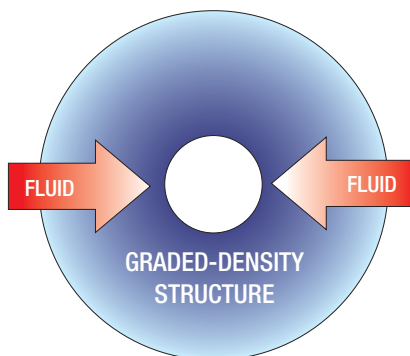
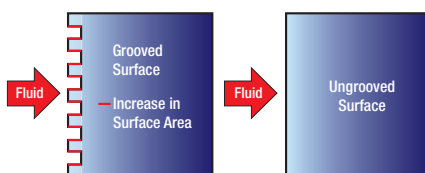
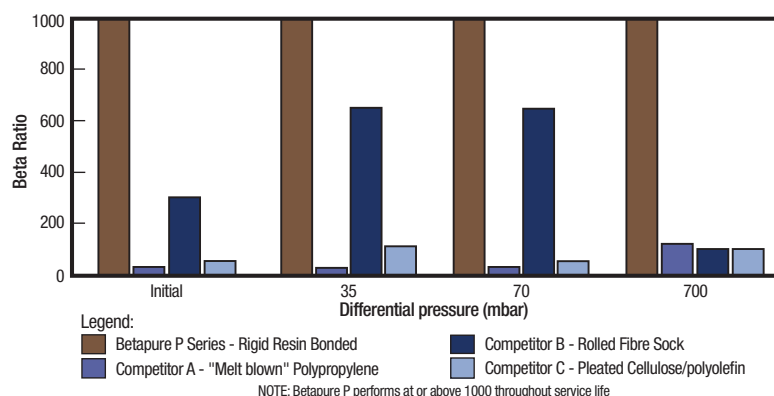


Figure 2: Surface area comparison



Consistent performance

The initial Beta-Ratio for all grades of Betapure P Series filter cartridges is equal to or greater than 1000 and Betapure P Series cartridges perform at or above this initial value throughout the usable (all the way to plugging) life. This defines Betapure P Series absolute filtration performance. The Beta Ratio vs. Differential Pressure in Graph 1 illustrates how competitive filters do not achieve the consistent performance of Betapure P. Filters that show a decrease in Beta Ratio as the differential pressure increases are exhibiting either unloading of previously held contaminants or a loss of filtration efficiency.



Graph 1: Beta Ratio Comparison 10 µm Cartridges

As illustrated in Graph 1, the performance of the Rolled Fibre Sock cartridges (Competitor B) exhibits contaminant unloading and a loss of filtration efficiency as differential pressure increases from 70 to 700 mbar. The Melt-Blown (Competitor A) and the Pleated Cellulose/Polyolefin (Competitor C) filters exhibit minimal contaminant retention through the test duration.

Significant Life Advantage and Consistent Performance

The rigid graded density grooved structure of Betapure P Series provides a significant life advantage over competitive products. Users of Betapure P in amine sweetening applications benefit from service life improvement 2 to 4 times greater than competitive products with amine clarity completely restored. Absolute rated Betapure P provides consistent performance at all times. Unlike many competitors, Betapure P Series does not unload or lose filtration efficiency throughout its usable life.

Rigid graded density Betapure P

Betapure P Series filter cartridges are manufactured using an exclusive process to achieve a true graded-density structure. The 3M Purification manufacturing process results in a progressively more dense centre core region creating a graded-density structure. Each fibre is locked in place by a thermosetting resin binder to create a rigid depth filter matrix that traps larger particles near the outer surface and smaller particles near the cartridge's inside diameter. The overall effect is to greatly improve cartridge service life by retaining particles and deformable contaminants in decreasing particle size ranges as the contaminant particles progress through the cartridge.

High surface area Betapure P

Betapure P Series cartridges also feature an optimised groove pattern to increase the surface area by over 65% when compared to ungrooved cylindrical cartridges. The grooved surface prevents premature blinding of the outer surface by large particles and allows full utilisation of the depth structure. Maximum surface area with a true graded-density structure means that Betapure P can provide significantly greater service life than competitive filter cartridges.

Product Specifications

Cartridge End Modifications

- Standard DOE with or without gasket
- Single open end with 222 O-ring & Spear
- Single open end with 222 O-ring & Flat Cap
- Closed cap with stainless steel Spring (R)
- For 336 style: (DOE or SOE) with compression seal
- For PG style DOE with or without gasket

Operating Conditions

- Maximum operating temperature:
 - Standard (Media Only) with Polyester end fittings: 121 °C
 - With Polyethylene foam gasket: 93 °C
 - With Elastomer Seal or Polypropylene end fittings: 82 °C
- Maximum differential pressure: 4.8 bar at 20 °C
- Recommended change-out differential pressure: 2.4 bar

Flow Rates

Table below provides flow information for Betapure P Series in aqueous fluids.

Grade	Absolute rating (µm)	Standard Industrial Cartridges		336 Style Cartridges (3"OD)	
		Specific Δp per 10" element (mbar for each litre/min)*	Recommended max. flow per 10" element (litre/min)**	Specific Δp per 36" element (mbar for each litre/min)*	Recommended max. flow per 36" element (litre/min)**
M100	10	6.3	15.1	1.1	60.5
M200	20	3.4	15.1	0.7	60.5
M300	30	2.0	18.9	0.5	75.7
M400	40	1.8	18.9	0.4	75.7
M600	60	1.6	22.7	0.27	90.8
Grade	Absolute rating (µm)	PG Style Cartridges (4 ½"OD)		PR Style Cartridges (Internal O-ring)	
		Specific Δp per 12" element (mbar for each litre/min)*		Specific Δp per 39" element (mbar for each litre/min)*	
M100	10	2.2		1.1	
M200	20	1.1		0.7	
M300	30	0.5		0.5	
M400	40	0.4		0.4	
M600	60	0.2		0.27	

* Specific aqueous pressure drop (Δp) for a 10" equivalent length cartridge.
For multiple length cartridges, divide total flow by the number of 10" equivalent.
** Optimal efficiency and service life is achieved at aqueous flow rates less than the maximum flow indicated.

For liquids other than water, use the following formula in conjunction with the values from column "Specific Δp per element (mbar for each litre/min)" of flow rates table. The specific pressure drop values may be effectively used when three of the four variables (Viscosity, Flow, Differential Pressure, and Cartridge Grade) are set.

$$\Delta p_{\text{clean}} = \frac{\left(\frac{\text{Total system}}{\text{l/min}} \right) \left(\frac{\text{Viscosity in}}{\text{Cp}} \right) \left(\frac{\text{Value from}}{\text{table}} \right)}{\left(\text{Number of equivalent Single Length Cartridges in housing} \right)}$$

Chemical compatibility

Betapure P Series is well suited for organic solvents including amines and glycols. In the Table on the right specific recommendations.

Betapure P waste management

Waste management is a key issue in oil and gas processing industries. Betapure P Series filter cartridges contain no metal or plastic cores. They can be incinerated, shredded, or crushed after use to reduce overall disposal costs.

Ratings & Material of Construction			
Absolute Rating (µm)	Grade	Media	Resin
10	M 100	Cellulose / Glass	Melamine
20	M 200		
30	M 300	Cellulose	
40	M 400		
60	M 600		

Chemical Compatibility		
Fluid Category	Fluid Example	Rating
Organic Solvents	Amines (DEA, MDEA, MEA) 20% - 50% up to 70 °C	R
	Glycols	R
	MEK (Methyl Ethyl Ketone)	R
	Benzene	R
	Xylene	R
	Alcohols	R
	Dimethyl Formamide (DMF)	R
Petroleum	Gasoline	R
	Kerosene	R
	Diesel Fuel	R
	Lube Oil	R
	Fuel Oil	R
	Waxes	R
Water (100 °C)	Process	R
	Produced	R
	Boiler Feed	R
	Demineraliser Feed	R
Organic Acids	Acetic (100%)	N
	Tannic (10%)	N
Inorganic Acids	Hydrochloric (Muriatic) Acid 5%	N
	Sulphuric 50%	N
	Sulphurous 5-10%	N
	Nitric	N
Brines and Aqueous Salt Solutions	Sodium Chloride	R
	Sodium Sulphate	R
	Sodium Nitrate	R
Weak Alkalis	Aluminium Hydroxide	N
	Ferric Hydroxide	N
	Magnesium Hydroxide	N
Fatty Acids - Oils	Detergents	R
	Mineral Oil	R
	Silicone Oils	R

R = Generally Recommended up to 121 °C unless otherwise noted.

N = Not recommended

The recommendations in this brochure are for general guidance only. Testing under specific application conditions is recommended. For various end modifications and multi-length cartridges, consult your local 3M Purification representative or distributor.

Betapure P Series Ordering Guide

1. Standard dimension industrial cartridges (2 5/8" OD)

Cartridge Type	Cartridge Length	Absolute Grade	Surface Type	Packaging	End Modification	Gasket Material
PT - (2 5/8" OD)	09 - 09 3/4" 10 - 10" 19 - 19 1/2" 20 - 20" 29 - 29 1/4" 30 - 30" 39 - 39" 40 - 40"	M100 - 10 µm M200 - 20 µm M300 - 30 µm M400 - 40 µm M600 - 60 µm	G - Grooved U - Ungrooved	2 - bulk	C - Code 8 (222 O-ring & spear) F - Code 3 (222 O-ring & flat cap) N - None (D.O.E.) P - Polypropylene Core Extender R - Close cap with stainless spring S - Stainless Steel Core Extender Q - Same as "R" without Spring Y - Single O-ring (40" length only)	A - Silicone (MVQ*) B - Fluorocarbon (FPM*) C - EPDM (EPDM*) D - Nitrile (NBR*) N - None** G - Polyethylene Foam** * ISO Designation ** For End Modification N, P, R and S only.

2. 336 style cartridges (3" OD)

Cartridge Type	Cartridge Length	Absolute Grade	Surface Type	Packaging	End Modification	Gasket Material
PK - (3" OD)	35 - 35 1/2" 36 - 36" 37 - 36 1/2" 72 - 72"	M100 - 10 µm M200 - 20 µm M300 - 30 µm M400 - 40 µm M600 - 60 µm	G - Grooved U - Ungrooved	2 - bulk	V - Double Open End* W - Single Open End* R - Closed Cap with Spring * with gasket material S only.	S - Elastomer Compression Seal G - Polyethylene Foam

3. PG style cartridges (4 1/2" OD)

Cartridge Type	Cartridge Length	Absolute Grade	Surface Type	Packaging	End Modification	Gasket Material
PG - (4 1/2" OD)	24 - 24" 36 - 36" 71 - 71" 72 - 72"	M100 - 10 µm M200 - 20 µm M300 - 30 µm M400 - 40 µm M600 - 60 µm	U - Ungrooved	2 - bulk	N - None (D.O.E.)	N - None G - Polyethylene Foam

3. PR style cartridges (Internal O-ring)

Cartridge Type	Cartridge Length	Absolute Grade	Surface Type	Packaging	End Modification	End Fitting	Gasket Material
PR	39 - 39"	M100 - 10 µm M200 - 20 µm M300 - 30 µm M400 - 40 µm M600 - 60 µm	G - Grooved U - Ungrooved	2 - bulk	S - Standard, Polypropylene H - High Temperature, Polyester	1 - 1.9" ID O-ring 2 - 2.2" ID O-ring	B - Fluorocarbon (FPM*) C - EPDM (EPDM*) D - Nitrile (NBR*) * ISO Designation

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3M Purification warrants it this product to be free from defects in material and workmanship during normal use for a period of one (1) year from the date of shipment from the factory. If the Product(s) is (are) defective within this warranty period, your exclusive remedy and 3M Purification's sole obligations shall be, at 3M Purification's option, to replace or repair the Product(s) or refund the original purchase price of the Product(s). This warranty does not apply to failures that result from abuse, misuse, alteration or damage not caused by 3M Purification or failure to properly follow installation and use instructions.

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This warranty gives you specific legal rights and you may have other rights which vary from state to state, or country to country.



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Betapure P Series is new name for Petro-Klean.

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For more contact addresses visit our website www.3M.eu/filtration or www.3Mpurification.com/international.

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Please note that not all models are actually produced or on stock and some model numbers and names have become obsolete. Nevertheless this should help as cross reference table chart for Cuno filters nomenclature.

PK35M100G2VS	PK36M100G2VS	PK37M100G2VS	PK72M100G2VS	PK37M400U2WG	PK72M300U2RS	PK36M600G2VG	PK35M100
PK35M100G2VG	PK36M100G2VG	PK37M100G2VG	PK72M100G2VG	PK37M400U2RS	PK72M300U2RS	PK36M600G2WS	PK35M100
PK35M100G2WS	PK36M100G2WS	PK37M100G2WS	PK72M100G2WS	PK37M400U2RS	PK72M400G2VS	PK36M600G2WG	PK35M100
PK35M100G2WG	PK36M100G2WG	PK37M100G2WG	PK72M100G2WG	PK37M600G2VS	PK72M400G2VG	PK36M600G2RS	PK35M100
PK35M100G2RS	PK36M100G2RS	PK37M100G2RS	PK72M100G2RS	PK37M600G2VG	PK72M400G2WS	PK36M600G2RS	PK35M100
PK35M100G2RS	PK36M100G2RS	PK37M100G2RS	PK72M100G2RS	PK37M600G2WS	PK72M400G2WG	PK36M600U2VS	PK35M100
PK35M100U2VS	PK36M100U2VS	PK37M100U2VS	PK72M100U2VS	PK37M600G2WG	PK72M400G2RS	PK36M600U2VG	PK35M100
PK35M100U2VG	PK36M100U2VG	PK37M100U2VG	PK72M100U2VG	PK37M600G2RS	PK72M400G2RS	PK36M600U2WS	PK35M100
PK35M100U2WS	PK36M100U2WS	PK37M100U2WS	PK72M100U2WS	PK37M600G2RS	PK72M400U2VS	PK36M600U2WG	PK35M100
PK35M100U2WG	PK36M100U2WG	PK37M100U2WG	PK72M100U2WG	PK37M600U2VS	PK72M400U2VG	PK36M600U2RS	PK35M100
PK35M100U2RS	PK36M100U2RS	PK37M100U2RS	PK72M100U2RS	PK37M600U2VG	PK72M400U2WS	PK36M600U2RS	PK35M100
PK35M100U2RS	PK36M100U2RS	PK37M100U2RS	PK72M100U2RS	PK37M600U2WS	PK35M600G2WG	PK35M600G2RS	PK35M100
PK35M200G2VS	PK36M200G2VS	PK37M200G2VS	PK72M200G2VS	PK37M600U2WG	PK35M600G2RS	PK35M600U2VS	PK35M200
PK35M200G2VG	PK36M200G2VG	PK37M200G2VG	PK72M200G2VG	PK37M600U2RS	PK35M600U2WS	PK35M600U2VG	PK35M200
PK35M200G2WS	PK36M200G2WS	PK37M200G2WS	PK72M200G2WS	PK37M600U2RS	PK36M300U2RS	PK37M300U2RS	PK35M200
PK35M200G2WG	PK36M200G2WG	PK37M200G2WG	PK72M200G2WG	PK72M400U2WG	PK36M300U2RS	PK37M300U2RS	PK35M200
PK35M200G2RS	PK36M200G2RS	PK37M200G2RS	PK72M200G2RS	PK72M400U2RS	PK36M400G2VS	PK37M400G2VS	PK35M200
PK35M200U2VS	PK36M200U2VS	PK37M200U2VS	PK72M200U2VS	PK72M600G2VS	PK36M400G2WS	PK37M400G2WS	PK35M200
PK35M200U2VG	PK36M200U2VG	PK37M200U2VG	PK72M200U2VG	PK72M600G2VG	PK36M400G2WG	PK37M400G2WG	PK35M200
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PK35M200U2RS	PK36M200U2RS	PK37M200U2RS	PK72M200U2RS	PK72M600G2RS	PK36M400U2VS	PK37M400U2VS	PK35M200
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PK35M300U2VS	PK36M300U2VS	PK37M300U2VS	PK72M300U2VS	PK36M400U2RS	PK35M400U2RS	PK35M400G2WS	PK35M300
PK35M300U2VG	PK36M300U2VG	PK37M300U2VG	PK72M300U2VG	PK36M400U2RS	PK35M600U2RS	PK35M400G2WG	PK35M300
PK35M300U2WS	PK36M300U2WS	PK37M300U2WS	PK72M300U2WS	PK36M600G2VS	PK35M400U2VS	PK35M400G2RS	PK35M300
PK35M300U2WG	PK36M300U2WG	PK37M300U2WG	PK72M300U2WG				
PK35M300U2RS	PK35M400G2RS						
PK36M100	PK37M100	PK72M100	PK35M400	PK36M400	PK37M400	PK36M200</	

Netherlands

The below 3M Cuno Betapure P-series cartridge filters are all the models that are potentially possible in all variations. Please note that not all models are actually produced or on stock and some model numbers and names have become obsolete. Nevertheless this should help as cross reference table chart for Cuno filters nomenclature.

Betapure P series standard

PT09M100G2C	PT10M100G2C	PT19M100G2C	PT20M100G2C	PT29M100G2C	PT30M100G2C	PT39M100G2C	PT40M100G2C	PT93M400U2R	PT40M400U2R	PT10M400U2R	PT10M400U2N
PT09M100G2F	PT10M100G2F	PT19M100G2F	PT20M100G2F	PT29M100G2F	PT30M100G2F	PT39M100G2F	PT40M100G2F	PT93M400U2S	PT40M400U2S	PT10M400U2S	PT09M400U2N
PT09M100G2N	PT10M100G2N	PT19M100G2N	PT20M100G2N	PT29M100G2N	PT30M100G2N	PT39M100G2N	PT40M100G2N	PT93M400U2Q	PT40M400U2Q	PT10M400U2Q	PT30M400U2N
PT09M100G2P	PT10M100G2P	PT19M100G2P	PT20M100G2P	PT29M100G2P	PT30M100G2P	PT39M100G2P	PT40M100G2P	PT93M400U2Y	PT40M400U2Y	PT10M400U2Y	PT29M400U2N
PT09M100G2R	PT10M100G2R	PT19M100G2R	PT20M100G2R	PT29M100G2R	PT30M100G2R	PT39M100G2R	PT40M100G2R	PT93M600G2C	PT40M600G2C	PT10M600G2C	PT20M400U2N
PT09M100G2S	PT10M100G2S	PT19M100G2S	PT20M100G2S	PT29M100G2S	PT30M100G2S	PT39M100G2S	PT40M100G2S	PT93M600G2F	PT40M600G2F	PT10M600G2F	PT19M400U2N
PT09M100G2Q	PT10M100G2Q	PT19M100G2Q	PT20M100G2Q	PT29M100G2Q	PT30M100G2Q	PT39M100G2Q	PT40M100G2Q	PT93M600G2N	PT40M600G2N	PT10M600G2N	PT20M600U2N
PT09M100G2Y	PT10M100G2Y	PT19M100G2Y	PT20M100G2Y	PT29M100G2Y	PT30M100G2Y	PT39M100G2Y	PT40M100G2Y	PT93M600G2P	PT40M600G2P	PT10M600G2P	PT20M600U2P
PT09M100U2C	PT10M100U2C	PT19M100U2C	PT20M100U2C	PT29M100U2C	PT30M100U2C	PT39M100U2C	PT40M100U2C	PT93M600G2R	PT40M600G2R	PT10M600G2R	PT20M600U2R
PT09M100U2F	PT10M100U2F	PT19M100U2F	PT20M100U2F	PT29M100U2F	PT30M100U2F	PT39M100U2F	PT40M100U2F	PT93M600G2S	PT40M600G2S	PT10M600G2S	PT20M600U2S
PT09M100U2N	PT10M100U2N	PT19M100U2N	PT20M100U2N	PT29M100U2N	PT30M100U2N	PT39M100U2N	PT40M100U2N	PT93M600G2Q	PT40M600G2Q	PT10M600G2Q	PT19M600U2N
PT09M100U2P	PT10M100U2P	PT19M100U2P	PT20M100U2P	PT29M100U2P	PT30M100U2P	PT39M100U2P	PT40M100U2P	PT93M600G2Y	PT40M600G2Y	PT10M600G2Y	PT19M600U2P
PT09M100U2R	PT10M100U2R	PT19M100U2R	PT20M100U2R	PT29M100U2R	PT30M100U2R	PT39M100U2R	PT40M100U2R	PT93M600U2C	PT40M600U2C	PT10M600U2C	PT19M600U2R
PT09M100U2S	PT10M100U2S	PT19M100U2S	PT20M100U2S	PT29M100U2S	PT30M100U2S	PT39M100U2S	PT40M100U2S	PT93M600U2F	PT40M600U2F	PT10M600U2F	PT19M600U2S
PT09M100U2Q	PT10M100U2Q	PT19M100U2Q	PT20M100U2Q	PT29M100U2Q	PT30M100U2Q	PT39M100U2Q	PT40M100U2Q	PT93M600U2N	PT40M600U2N	PT10M600U2N	PT40M400G2Q
PT09M100U2Y	PT10M100U2Y	PT19M100U2Y	PT20M100U2Y	PT29M100U2Y	PT30M100U2Y	PT39M100U2Y	PT40M100U2Y	PT93M600U2P	PT40M600U2P	PT10M600U2P	PT40M400G2Y
PT09M200G2C	PT10M200G2C	PT19M200G2C	PT20M200G2C	PT29M200G2C	PT30M200G2C	PT39M200G2C	PT40M200G2C	PT93M600U2R	PT40M600U2R	PT10M600U2R	PT40M400U2C
PT09M200G2F	PT10M200G2F	PT19M200G2F	PT20M200G2F	PT29M200G2F	PT30M200G2F	PT39M200G2F	PT40M200G2F	PT93M600U2S	PT40M600U2S	PT10M600U2S	PT40M400U2F
PT09M200G2N	PT10M200G2N	PT19M200G2N	PT20M200G2N	PT29M200G2N	PT30M200G2N	PT39M200G2N	PT40M200G2N	PT93M600U2Q	PT40M600U2Q	PT10M600U2Q	PT39M400G2Q
PT09M200G2P	PT10M200G2P	PT19M200G2P	PT20M200G2P	PT29M200G2P	PT30M200G2P	PT39M200G2P	PT40M200G2P	PT93M600U2Y	PT40M600U2Y	PT10M600U2Y	PT39M400G2Y
PT09M200G2R	PT10M200G2R	PT19M200G2R	PT20M200G2R	PT29M200G2R	PT30M200G2R	PT39M200G2R	PT40M200G2R	PT93M400U2R	PT40M400U2R	PT09M400U2R	PT39M400U2F
PT09M200G2S	PT10M200G2S	PT19M200G2S	PT20M200G2S	PT29M200G2S	PT30M200G2S	PT39M200G2S	PT40M200G2S	PT93M400U2S	PT40M400U2S	PT09M400U2S	PT39M400U2F
PT09M200G2Q	PT10M200G2Q	PT19M200G2Q	PT20M200G2Q	PT29M200G2Q	PT30M200G2Q	PT39M200G2Q	PT40M200G2Q	PT93M400U2Y	PT40M400U2Y	PT09M400U2Y	PT39M400U2F
PT09M200G2Y	PT10M200G2Y	PT19M200G2Y	PT20M200G2Y	PT29M200G2Y	PT30M200G2Y	PT39M200G2Y	PT40M200G2Y	PT93M400U2N	PT40M400U2N	PT09M400U2N	PT39M400U2F
PT09M300G2C	PT10M300G2C	PT19M300G2C	PT20M300G2C	PT29M300G2C	PT30M300G2C	PT39M300G2C	PT40M300G2C	PT93M600U2C	PT40M600U2C	PT10M600U2C	PT20M400U2C
PT09M300G2F	PT10M300G2F	PT19M300G2F	PT20M300G2F	PT29M300G2F	PT30M300G2F	PT39M300G2F	PT40M300G2F	PT93M600U2F	PT40M600U2F	PT10M600U2F	PT20M400U2F
PT09M300G2N	PT10M300G2N	PT19M300G2N	PT20M300G2N	PT29M300G2N	PT30M300G2N	PT39M300G2N	PT40M300G2N	PT93M600U2N	PT40M600U2N	PT10M600U2N	PT19M400G2Q
PT09M300G2P	PT10M300G2P	PT19M300G2P	PT20M300G2P	PT29M300G2P	PT30M300G2P	PT39M300G2P	PT40M300G2P	PT93M600U2P	PT40M600U2P	PT10M600U2P	PT19M400G2Y
PT09M300G2R	PT10M300G2R	PT19M300G2R	PT20M300G2R	PT29M300G2R	PT30M300G2R	PT39M300G2R	PT40M300G2R	PT93M600U2R	PT40M600U2R	PT10M600U2R	PT19M400U2F
PT09M300G2S	PT10M300G2S	PT19M300G2S	PT20M300G2S	PT29M300G2S	PT30M300G2S	PT39M300G2S	PT40M300G2S	PT93M600U2S	PT40M600U2S	PT10M600U2S	PT19M400U2F
PT09M300G2Q	PT10M300G2Q	PT19M300G2Q	PT20M300G2Q	PT29M300G2Q	PT30M300G2Q	PT39M300G2Q	PT40M300G2Q	PT93M600U2Q	PT40M600U2Q	PT10M600U2Q	PT10M400G2Q
PT09M300G2Y	PT10M300G2Y	PT19M300G2Y	PT20M300G2Y	PT29M300G2Y	PT30M300G2Y	PT39M300G2Y	PT40M300G2Y	PT93M600U2Y	PT40M600U2Y	PT10M600U2Y	PT10M400G2Y
PT09M300U2C	PT10M300U2C	PT19M300U2C	PT20M300U2C	PT29M300U2C	PT30M300U2C	PT39M300U2C	PT40M300U2C	PT93M400U2R	PT40M400U2R	PT09M400U2R	PT39M400U2F
PT09M300U2F	PT10M300U2F	PT19M300U2F	PT20M300U2F	PT29M300U2F	PT30M300U2F	PT39M300U2F	PT40M300U2F	PT93M400U2S	PT40M400U2S	PT09M400U2S	PT39M400U2F
PT09M300U2N	PT10M300U2N	PT19M300U2N	PT20M300U2N	PT29M300U2N	PT30M300U2N	PT39M300U2N	PT40M300U2N	PT93M400U2Q	PT40M400U2Q	PT09M400U2Q	PT39M400U2F
PT09M300U2P	PT10M300U2P	PT19M300U2P	PT20M300U2P	PT29M300U2P	PT30M300U2P	PT39M300U2P	PT40M300U2P	PT93M400U2Y	PT40M400U2Y	PT09M400U2Y	PT39M400U2F
PT09M300U2R	PT10M300U2R	PT19M300U2R	PT20M300U2R	PT29M300U2R	PT30M300U2R	PT39M300U2R	PT40M300U2R	PT93M600G2C	PT40M600G2C	PT10M600G2C	PT20M400U2C
PT09M300U2S	PT10M300U2S	PT19M300U2S	PT20M300U2S	PT29M300U2S	PT30M300U2S	PT39M300U2S	PT40M300U2S	PT93M600G2F	PT40M600G2F	PT10M600G2F	PT19M400U2N
PT09M300U2Q	PT10M300U2Q	PT19M300U2Q	PT20M300U2Q	PT29M300U2Q	PT30M300U2Q	PT39M300U2Q	PT40M300U2Q	PT93M600G2N	PT40M600G2N	PT10M600G2N	PT20M600U2N
PT09M300U2Y	PT10M300U2Y	PT19M300U2Y	PT20M300U2Y	PT29M300U2Y	PT30M300U2Y	PT39M300U2Y	PT40M300U2Y	PT93M600G2P	PT40M600G2P	PT10M600G2P	PT20M600U2P
PT09M400G2C	PT10M400G2C	PT19M400G2C	PT20M400G2C	PT29M400G2C	PT30M400G2C	PT39M400G2C	PT40M400G2C	PT93M600G2R	PT40M600G2R	PT10M600G2R	PT20M600U2R
PT09M400G2F	PT10M400G2F	PT19M400G2F	PT20M400G2F	PT29M400G2F	PT30M400G2F	PT39M400G2F	PT40M400G2F	PT93M600G2S	PT40M600G2S	PT10M600G2S	PT20M600U2S
PT09M400G2N	PT10M400G2N	PT19M400G2N	PT20M400G2N	PT29M400G2N	PT30M400G2N	PT39M400G2N	PT40M400G2N	PT93M600G2Q	PT40M600G2Q	PT10M600G2Q	PT19M600U2N
PT09M400G2P	PT10M400G2P	PT19M400G2P	PT20M400G2P	PT29M400G2P	PT30M400G2P	PT39M400G2P	PT40M400G2P	PT93M600G2Y	PT40M600G2Y	PT10M600G2Y	PT19M600U2P
PT09M400G2R	PT10M400G2R	PT19M400G2R	PT20M400G2R	PT29M400G2R	PT30M400G2R	PT39M400G2R	PT40M400G2R	PT93M600U2C	PT40M600U2C	PT10M600U2C	PT19M600U2R
PT09M400G2S	PT10M400G2S	PT19M400G2S	PT20M400G2S	PT29M400G2S	PT30M400G2S	PT39M400G2S	PT40M400G2S	PT93M600U2F	PT40M600U2F	PT10M600U2F	PT19M600U2S
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M100	PT39M100	PT40M100	PT09M400	PT10M400	PT19M400	PT20M400
PT09M100	PT10M100	PT19M100	PT20M100	PT29M100	PT30M10						

The below 3M Cuno Betapure P-series cartridge filters are all the models that are potentially possible in all variations.
Please note that not all models are actually produced or on stock and some model numbers and names have become obsolete.
Nevertheless this should help as cross reference table chart for Cuno filters nomenclature.

Betapure P PG STYLE

PG24M100U2NN	PG36M300U2NN	PG71M600U2NN	PG24M100	PG36M200	PG71M300
PG24M100U2NG	PG36M300U2NG	PG71M600U2NG	PG24M100	PG36M200	PG71M300
PG24M200U2NN	PG36M400U2NN	PG72M100U2NN	PG24M200	PG36M300	PG71M400
PG24M200U2NG	PG36M400U2NG	PG72M100U2NG	PG24M200	PG36M300	PG71M400
PG24M300U2NN	PG36M600U2NN	PG72M200U2NN	PG24M300	PG36M400	PG71M600
PG24M300U2NG	PG36M600U2NG	PG72M200U2NG	PG24M300	PG36M400	PG71M600
PG24M400U2NN	PG71M100U2NN	PG72M300U2NN	PG24M400	PG36M600	PG72M100
PG24M400U2NG	PG71M100U2NG	PG72M300U2NG	PG24M400	PG36M600	PG72M100
PG24M600U2NN	PG71M200U2NN	PG72M400U2NN	PG24M600	PG71M100	PG72M200
PG24M600U2NG	PG71M200U2NG	PG72M400U2NG	PG24M600	PG71M100	PG72M200
PG36M100U2NN	PG71M300U2NN	PG72M600U2NN	PG36M100	PG71M200	PG72M300
PG36M100U2NG	PG71M300U2NG	PG72M600U2NG	PG36M100	PG71M200	PG72M300
PG36M200U2NN	PG71M400U2NN		PG72M600	PG72M600	PG72M400
PG36M200U2NG	PG71M400U2NG		PG72M400		

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The below 3M Cuno Betapure P-series cartridge filters are all the models that are potentially possible in all variations. Please note that not all models are actually produced or on stock and some model numbers and names have become obsolete. Nevertheless this should help as cross reference table chart for Cuno filters nomenclature.

Betapure P PR STYLE

[illegible]

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