



String Wound Cartridges Series



megafilter
FILTROS E SISTEMAS DE FILTRAGEM

String Wound Cartridge Introduction

String wound filter cartridges resembles the structure of porous outside and dense inside. Using specific technique the fiber yarn is tightly wound on porous core which contributes to good filtration result. It can effectively filter the impurities in the fluid, suspended substances, for instance, rusts, particles etc. Porosity string wound filter cartridge is an up-model products made with current international advanced technology. Advanced winding technique helps to rectify the defects of former products including large resistance and short service life etc. and reduce the utilization cost.

String Wound cartridges provide true depth filtration utilizing hundreds of tapered filtering passages of controlled size together shape. Each layer of roving contributes to true depth filtration by trapping its share of particles. Wound cartridges offer a gradual pressure Increase during cartridge life Versus surface-type media that have an abrupt flow cutoff when loaded. In addition, the Irregular outer layer reduces Surface blinding, assuring both longer cartridge life and full Cartridge utilization.

ISO9002 approved factory manufactures for wound cartridges, offering superior quality along with technical, engineering and marketing support.

String wound cartridges covers a wide application area such as Edible Oils, Concentrated Alkalis, Dilute Acids & Alkalis, Mineral Acids, Organic Acids& Solvents, HTF, Oxidizing Agents, Petroleum Oils, Photo Solutions, Potable Liquids, water, Amines, etc.

String Wound Filter Cartridges Series

Available Products

P/N CODE	MICRO RATIO									
	0.5	1	3	5	10	20	30	50	75	100
CPPW	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
CBCW	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
CFGW	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

Remarks: - Available micron ratio

Order Information

Filter Cartridge Code Identification

CPPW-Nominal ratio polypropylene string wound cartridges
 CBCW-Nominal ratio bleached cotton string wound cartridges
 CFGW-Nominal ratio fiber glass string wound cartridges

/										
CPPW	-	64	-	005	-	10	-	A	-	P
		/		/		/		/		/
		OD(mm)		Micro Rating(m)		Length (inch/mm)		ID(inch/mm)		Beam Material
		043=43mm		001=1 m		0.5=5"(127mm)		A:1-1/8" / 28mm		P: Polypropylene
		064=64mm		005=5 m		10=10"(254mm)		B:1-3/16" / 30mm		T: Tinned Steel
		068=68mm		010=10 m		10A=9-7/8"(250mm)				S4:Stainless steel 304
		115=115mm		020=20 m		20=20"(508mm)				S6:Stainless steel 316
		Customer's design can be provided		030=30 m		20A=19-3/4"(500mm)				
				050=50 m		30=30"(762mm)				
				075=75 m		30A=29-5/8"(750mm)				
				100=100 m		40=40"(1016mm)				
						40A=39"(1000mm)				
						50=50"(1270mm)				
						Other length is also available. Please contact our sales.				

Common Specifications

Wound Cartridge Flow Factors for Aqueous (water Based) Fluids (psid/gpm @ 1 cks)

Rating (m)	Polypropylene Polyester	Cotton Rayon	Glass
0.5	0.9920	2.6700	0.4980
1	0.7466	2.0157	0.4300
3	0.3342	0.6280	0.3521
5	0.2379	0.3622	0.1937
10	0.1435	0.1940	0.1435
20	0.0902	0.1106	0.1112
30	0.0699	0.0860	0.0822
50	0.0593	0.0710	0.0681
75	0.0529	0.0639	0.0607
100	0.0500	0.0622	0.0601

Wound Cartridge Flow Factors for Non aqueous (Solvent of Oil Based) Fluids (psid / gpm @ 1 cks)

Rating (m)	Polypropylene Polyester	Cotton Rayon	Glass
0.5	1.8400	1.3780	0.5100
1	1.0000	0.7521	0.4200
3	0.5824	0.3011	0.3510
5	0.3011	0.1955	0.1943
10	0.1310	0.0980	0.1427
20	0.0566	0.0355	0.1106
30	0.0210	0.0180	0.0820
50	0.0145	0.0128	0.0682
75	0.0119	0.0102	0.0610
100	0.0082	0.00645	0.0600

Wound Cartridge Length Factors

Length (in)	Length Factor
10	1.0
20	2.0
30	3.0
40	4.0
50	5.0

$$\text{Flow Rate (gpm)} = \frac{\text{Clean } \Delta P \times \text{Length Factor}}{\text{Viscosity} \times \text{Flow Factor}}$$

$$\text{Clean } \Delta P = \frac{\text{Flow Rate} \times \text{Viscosity} \times \text{Flow Factor}}{\text{Length Factor}}$$

Notes

1. Clean ΔP is PSI differential at start.
2. Viscosity is centistokes.
3. Flow Factor is $\Delta P/GPM$ at 1 cks for 10 in (or single).
4. Length Factors convert flow or ΔP from 10 in (Single length) to required cartridge length.

Nominal Removal Ratings

- @ 90% efficiency from 0.5 m to 150 m

Maximum Recommended Operating Conditions

- Change Out ΔP : 30 psi (2.1 bar)
- ΔP @ Ambient Temperature: 60 psi (4.1 bar)
- Flow Rate: 10 gpm (38 lpm) per 10 in length
- Temperature (See table below)

Dimensions

- 1-1/8 in ID x 2-7/16 OD
1-3/16 in ID x 2-7/16 OD
- 5 in to 50 in lengths are available.
- Special sizes available through samples

Maximum Operating Temperature @ 35 psid

Cartridge Material	Metal Core	Polypropylene Core	Glass-Filled Polypropylene
Cotton	250° F (121°C)	120° F (49°C)	-----
Glass	750° F (402°C)	-----	-----
Polypropylene	200° F (93°C)	120° F (49°C)	200° F (93°C)
Polyester	275° F (135°C)	120° F (49°C)	-----
Rayon	250° F (121°C)	120° F (49°C)	-----

Note: Refer Material Selection Guide for additional compatibility information.
Polyester and Rayon will be specially ordered for customer required.

All polypropylene String Wound Cartridges

CPPW series all polypropylene string wound depth filter cartridges are an improved conventionally wound cartridges manufactured with high precision computerized machinery from China. Our equipment makes achieving precision patterns for consistent filtration.

Features

- A broad range of media provide excellent compatibility with a variety of organic solvents, animal oils, petroleum and vegetable oils.
- Multiple length cartridges minimize change out time, eliminate spacers and are available to fit competitive filter vessels.
- Continuous strand winding geometry provides.
- One-piece metal extended center core option eliminates the need for cartridge guides in all competitive and HSTC multi-cartridge vessels.
- A special snap-in extender is available for polypropylene cores.
- Materials are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.
- Various O-ring and end cap options are available.

Applications

- Edible Oils
- Concentrated Alkalis
- Dilute Acids & Alkalis
- Mineral Acids
- Organic Acids & Solvents
- HTF
- Oxidizing Agents
- Petroleum Oils
- Photo Solutions
- Potable Liquids
- Water
- Prefilter for Membranes
- Amines

Order information

Please see Page 4



Specifications

Nominal Removal Ratings

- Up to 90% efficiency from 0.5 μ m to 100 μ m

Maximum Recommended Operating Conditions

- Change Out ΔP : 30 psi (2.1 bar)
- ΔP @ Ambient Temperature: 60 psi (4.1 bar)
- Recommend Design Flow Rate :
(Water @ ΔP 3PSI)
 - 0.5~1 m 4gpm (15lpm) /10 inch length
 - 3~10 m 6gpm (23lpm) /10 inch length
 - 20~100 m 8gpm (30lpm) /10 inch length
- Maximum Temperature:
 - Core Material: 200°F (93°C)
 - Polypropylene: 120°F (49°C)
 - Glass filled polypropylene: 200°F (93°C)

Dimensions

- 1-1/8 in ID x 2-7/16 OD
- 1-3/16 in ID x 2-7/16 OD
- 5 in to 50 in lengths are available.
- Special sizes are available according to samples.

Bleached Cotton String Wound Cartridges

Bleached cotton is made of natural fibers . It is the safest material for high temperature process of edible oil. CWBC string wound depth filter cartridges are an improved conventionally wound cartridges manufactured with high precision computerized machinery. Our equipment makes achieving precision patterns for consistent filtration. CBCW is widely adopted for the edible oil and other potable fluid Filtration processes.

Features

- Natural media provide excellent compatibility with a variety of animal oils, petroleum and vegetable oils. It is the safest products for the application of edible oil process.
- Optional core covers and end treatments assure fiber migration control.
- Multiple length cartridges minimize change out time, eliminate spacers and are available to fit competitive filter vessels.
- Continuous strand winding geometry provides performance consistency.
- One-piece metal extended center core option eliminates the need for cartridge guides in all competitive and HSTC multi-cartridge vessels.
- Bleached Cotton, FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.

Applications

- Edible Oils
- Oxidizing Agents
- Petroleum Oils
- Photo Solutions
- Potable Liquids

Order information

Please see Page 4



Specifications

Nominal Removal Ratings

- Up to 90% efficiency from 0.5 μ m to 100 μ m

Maximum Recommended Operating Conditions

- Change Out ΔP : 30 psi (2.1 bar)
- ΔP @ Ambient Temperature: 60 psi (4.1 bar)
- Recommend Design Flow Rate :
(Water @ ΔP 3PSI)
 - 0.5~1 m 4gpm (15lpm) /10 inch length
 - 3 ~10 m 6gpm (23lpm) /10 inch length
 - 20~100 m 8gpm (30lpm) /10 inch length
- Maximum Temperature :
Core Material:
 - Polypropylene: 120°F (49°C)
 - Metal: 250°F (121°C)

Dimensions

- 1-1/8 in ID x 2-7/16 OD
- 1-3/16 in ID x 2-7/16 OD
- 5 in to 50 in lengths are available.
- Special sizes are available according to samples.

Fiber Glass String Wound Cartridges

Heat Transfer Fuel (HTF) and other similar process require the high temperature standing capacity of filtration media. Fiber glass has been regarded as the best choice for this typical process. CFGW series fiber glass string wound depth filter cartridges are specially designed for this application. The Maximum Temperature up to 750°F (402°C) provide the best stability in this filtration process.

Features

- ◆ High temperature standing ability satisfy the critical applications such as HTF , Petroleum Oil.
- ◆ The pure fiber glass which treated with special alkaline free process. Variety chemical process.
- ◆ Optional core covers and end treatments assure fiber migration control.
- ◆ Multiple length cartridges minimize change out time, eliminate spacers and are available to fit competitive filter vessels.
- ◆ Continuous strand winding geometry provides performance consistency.
- ◆ One-piece metal extended center core option eliminates the need for cartridge guides in all competitive and HSTC multi-cartridge vessels.
- ◆ A special snap-in extender is available for polypropylene cores.
- ◆ Materials are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.
- ◆ Various O-ring and end cap options are available.

Applications

- ◆ Heat Transfer Fuel
- ◆ Oxidizing Agents
- ◆ Petroleum Oil

Order information

Please see Page 4



Specifications

Nominal Removal Ratings

- ◆ Up to 90% efficiency from 0.5 m to 100 m

Maximum Recommended Operating Conditions

- ◆ Change Out ΔP : 30 psi (2.1 bar)
- ◆ ΔP @ Ambient Temperature: 60 psi (4.1 bar)
- ◆ Recommend Design Flow Rate :
(Water @ ΔP 3PSI)
 - 0.5~1 m 4gpm (15lpm) /10 inch length
 - 3~10 m 6gpm (23lpm) /10 inch length
 - 20~100 m 8gpm (30lpm) /10 inch length
- ◆ Maximum Temperature :
Core Material:
Metal: 750°F (402°C)

Dimensions

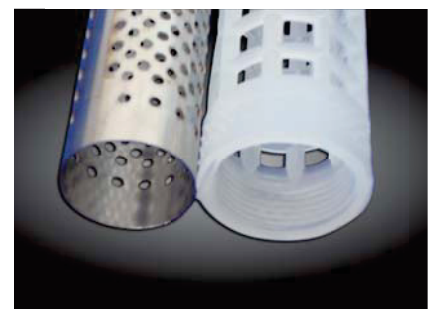
- ◆ 1-1/8 in ID x 2-7/16 OD
1-3/16 in ID x 2-7/16 OD
- ◆ 5 in to 50 in lengths are available.
- ◆ Special sizes are available according to samples.

Economical Filtration solutions with String wound depth

CWM Filter cartridge offer a wide range of fibers and core materials. Roving is wound onto a center core for strength. The diagonal pattern of the media forms a tight, interlocking weave.

CWM are manufactured with high precision computerized machinery, offering superior quality along with technical, engineering and market support.

Nominal removal ratings from 1 m to 100 m are available.



Features

- CWM provide excellent compatibility with a variety of organic solvents, animal, petroleum and vegetable oils.
- Optional core covers available to assure fiber migration control.
- Multiple length cartridges minimize change out time, eliminate spacers and are available to fit competitive filter vessels.
- Cotton and polypropylene materials are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.
- Continuous strand roving geometry provides performance consistency.
- Extended center core option eliminates the need for cartridge guides in competitive and HSTC multi-cartridge vessels.
- FDA grade Polypropylene (DOE only) certified to ANSI/NSF 61 standard for contact with drinking water components.

Applications

- Concentrated Alkalis
- Dilute Acids & Alkalis
- Organic Acids & Solvents
- Mineral Acids
- Oxidizing Agents
- Petroleum Oils
- Lubricants
- Potable Liquids
- Water
- Prefilter for R.O. Membranes
- Amine

CWM Filter Cartridges

Specifications

Material of Construction

- Polypropylene
- Cotton

Nominal Removal Ratings

- Up to 90% efficiency from 0.5 m to 100 m

Maximum Recommended Operating Conditions

- Change Out ΔP : 30 psi (2.1 bar)
- ΔP @ Ambient Temperature: 60 psi (4.1 bar)
- Recommend Design Flow Rate :
(Water @ ΔP 3PSI)
 - 0.5~1 m 4gpm (15lpm) /10 inch length
 - 3~10 m 6gpm (23lpm) /10 inch length
 - 20~100 m 8gpm (30lpm) /10 inch length

Dimensions

- 1-1/8 in ID x 2-7/16 OD
- 1-3/16 in ID x 2-7/16 OD
- 5 in to 50 in lengths are available.
- Special sizes are available according to samples.

Maximum Operating Temperature @ 35 psid

Cartridge Material	Metal Core	Polypropylene Core	Glass-Filled Polypropylene
Polypropylene	250°F (121°C)	120°F (49°C)	-----
Cotton	200°F (93°C)	120°F (49°C)	200°F (93°C)

Note: Refer Material Selection Guide for additional compatibility information.

Order Information

CWM - 64 - PA 005 PP - 10 - A - P
 / / / / / / / /

Code	OD(mm)	Fiber Material	Micro Rating (m)	Cover Material	Length (inch/mm)	ID(inch/mm)	Core Material
	043=43mm	PA: Polypropylene (industrial grade)	001=1 m	NA: No cover	0.5=5"(127mm)	A:1-1/8" / 28mm	P: Polypropylene
	061=64mm	PB: Polypropylene (utility grade)	005=5 m	PP:Nowoven polypropylene	10=10"(254mm)	B:1-3/16" / 30mm	T: Tinned Steel
	068=68mm	PDA: Polypropylene (FDA grade)	010=10 m	PE:Nowoven polyester	10A=9-7/8"(250mm)		S4:Stainless steel 304
	115=115mm	CA: Cotton (White)	020=20 m		20=20"(508mm)		S6:Stainless steel 316l
	Customer's design can be provided	CB: Cotton (Natural)	030=30 m		20A=19-3/4" (500mm)		
		CDA: Cotton (FDA grade)	050=50 m		30=30"(762mm)		
			075=75 m		30A=29-5/8" (750mm)		
			100=100 m		40=40"(1016mm)		
					40A=39" (1000mm)		
					50=50"(1270mm)		
					Other length is also available. Please contact our sales.		



megafilter
Filtros e sistemas de filtragem

Fone: +55 41 3081 3050

E-mail: vendas@megafilter.com.br

Site: <https://www.megafilter.com.br/>

Rua Silvio Pinto Ribeiro, 1625 – Quississana, São José dos Pinhais – PR
CEP 83085-400

