

CFP series PES membrane

CFP series PES membrane

Eco Grade PES Pleated Filter Cartridges

CFP series - PES Eco Grade Pleated Filter Cartridges use the hydrophilic polyethersulfone (PES) membrane, which is with extreme low extractables and non-fiber releasing.

The CFP series - PES Eco Grade Pleated Filter Cartridges have a broad chemical compatibility and better stability. This series is suitable for the filtration of bioburden reduction.



Features

- High flow rate
- High-durability PES membrane and other PP assemblies
- Broad chemical compactivity (pH 1-14)
- Special hydrophilic materials

Applications

- Large volume parenterals (LVP)
- Biological reagent filtration
- Ophthalmics filtration
- Aseptic filtration for detergent and disinfectant

Guarantees

- All filter cartridges are manufactured in 10,000-degree clean room
- Manufactured according to ISO9001:2015 certified quality management system
- Gross integrity

Dimension

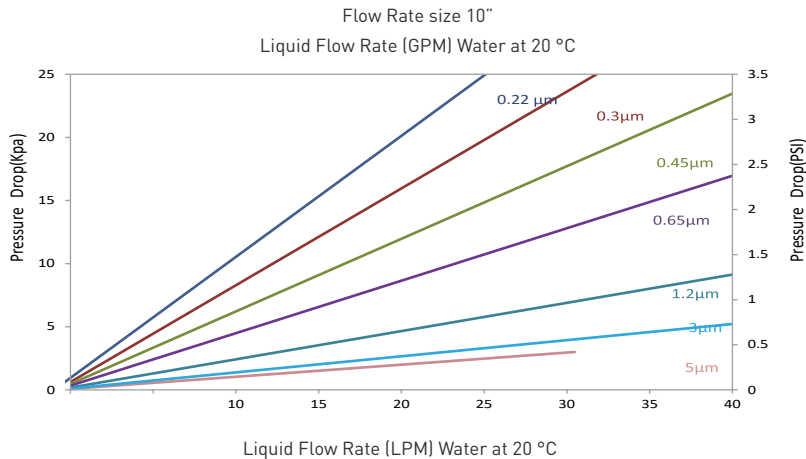
OD	69 mm (2.72")
Length	5", 10", 20", 30", 40"

Material of Constructions

Media	Polyethersulfone (PES)
Support/Diversion	Polypropylene
Core/Cage/End Cap	Polypropylene

Performance

Max Operating Temperature	80 °C
Max. Operating DP	4.0 bar @20 °C
	2.4 bar @80 °C (Forward)
SIP	25 °C / 30 min



Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System

Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121°C for plastics
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

Eg.=> CFPPS0022Z050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PS = PES	0022 = 0.22µm	Z = Eco Gr	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S= Standard Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded) P = PSU reinforcement (Endcap G1, G2, only)	0 = Rev.0
		0045 = 0.45µm		10 = 10"		E2 = 213/Flat	S = SS Steel	E = EPDM		
		0065 = 0.65µm		20 = 20"		H1 = 222/Fin		V = Viton		
		0120 = 1.2µm		30 = 30"		H2 = 222/Flat		F = E-FKM		
		0300 = 3µm		40 = 40"		H5 = 222/Spear Fin				
		0500 = 5µm				K1 = 222 Ext/Fin				
						K2 = 222 Ext/Flat				
						G1 = 226/Fin				
						G2 = 226/Flat				
						G5 = 226/Spear Fin				

CFP series PES membrane

High Asymmetric PES Pleated Filter Cartridges

CFP series High Asymmetric Polyethersulfone (PES) pleated filter cartridges are made of hydrophilic high asymmetric polyethersulfone membrane, can provide exceptionally high flow rate and long service life for processing large fluid volumes. It has excellent retention of microorganisms for superior protection of final filters. This characteristic especially suits for Food and Beverage filtration.



Features

- Broad pH compatibility allows the use of filters in a wide range of fluids
- Bioburden reduction efficiency for process with variable bioburden applications with high flow requirements
- 100% integrity tested during manufacture
- Low extractables

Applications

- Food and beverage filtration
- Reduce biological load
- High flow process requirements
- Protection final filters or downstream equipment and systems such as tangential chromatographic

Integrity Test		
Micron	Bubble Point $\geq$ (Water)	Diffusion Flow $\leq$ (10"Ø69mm)
0.22 μ m	3.2 bar	35ml / min @ 2.76 bar
0.45 μ m	2.1 bar	35ml / min @ 1.70 bar
0.65 μ m	1.32 bar	24ml / min @ 1.1 bar

Dimension

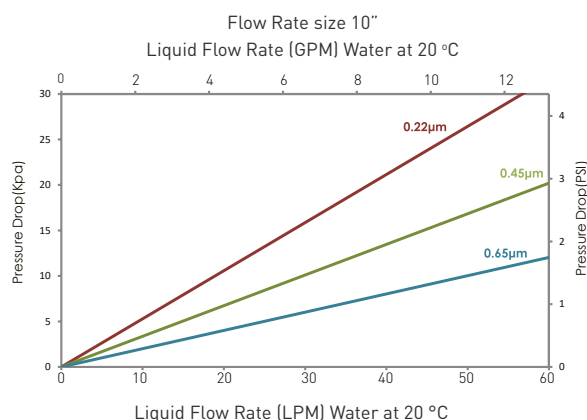
Diameter	69 mm (2.72")
Length	5", 10", 20", 30", 40"

Quality

- Validated with B. diminuta (ATCC 191463) at 10^7 /CM² (0.22 μ m)
- Each membrane filter element has been individually tested for integrity
- Individual element is tracked by serial number
- Manufactured according to ISO 9001:2015 certified quality management system
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121 °C

Effluent quality

- Non-fiber releasing
- Meets TOC and water conductivity per USP Purified Water, pH per USP Sterile Purified Water.



Material of Constructions

Media	PES
Support	PP
Cage/Core/End	PP
Connection Adaptor	SS Insert, PSU Insert
	O-Ring Silicone, EPDM , Viton®

Performance

Operating Conditions

Max Operating Temperature	80 °C
Max. Operating DP	4 bar @ 21°C, 2.4 bar @ 80 °C

Sterilization

Autoclave Sterilization	121 °C, 60 Min
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Filtration Area

Ø 69mm	0.65 m ² / 10" Filter cartridges
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Extractables

10" Filter Cartridges	< 20mg
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Eg.=> CFPPS0010S050AD0PSS0

ORDERING INFORMATION												
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision		
CFP = Pleated Cartridge Filter	PS = PES	0010 = 0.1µm	G = Gen Purpose	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypropylene	S = Silicone	S= Standard	0 = Rev.0		
		0022 = 0.22µm		10 = 10"		E2 = 213/Flat		S = SS Steel			E = EPDM	
		0045 = 0.45µm		20 = 20"		H1 = 222/Fin					B = NBR	Y = SS reinforcement
		0065 = 0.65µm		30 = 30"		H2 = 222/Flat					V = Viton	(Endcap D0, E2, K1, K2, excluded)
				40 = 40"		H5 = 222/Spear Fin					F = E-FKM	
								K1 = 222 Ext/Fin				
				K2 = 222 Ext/Flat								
				G1 = 226/Fin								
				G2 = 226/Flat								
				G5 = 226/Spear Fin								

CFP series PES membrane

Asymmetric PES Pleated Filter Cartridges

The CFP series Asymmetric Polyethersulfone (PES) Pleated Filter Cartridges are designed to provide greater bacteria and particle removal at high flow rates and low pressure drops in a wide range of biological fluids. It offers the greatest assurance of filtration performance, stability, and service life. All components of the filter cartridge comply with FDA regulations for food contact use.



Features

- Durable PES and PP components
- Highly porous asymmetric membrane
- Excellent chemical compatibility
- Low extractables
- 100% integrity tested during manufacture

Applications

- Large infusion (LVP), small injection (SVP), eye drops sterilization filtration
- Sterilization filtration of biological product
- Sterilization filtration of antibiotic aqueous solution
- Cleaning fluid and disinfectant sterilizing filtration

Dimension

Diameter	69 mm (2.72")
Length	5", 10", 20", 30", 40"

Material of Constructions

Media	PES
Support	PP
Cage/Core/End	PP
Connection Adaptor	SS Insert, PSU Insert
O-Ring	Silicone, EPDM, Viton®

Quality

- Validated with B. diminuta (ATCC 191463) at $10^7/\text{CM}^2$ (0.22 μm)
- Each membrane filter element has been individually tested for integrity
- Individual element is tracked by serial number
- Manufactured according to ISO 9001:2015 certified quality management system
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121°C

Performance

Operating Conditions

Max Operating Temperature	80 °C
Max. Operating DP	4 bar @ 21 °C , 2.4 bar @ 80 °C

Sterilization

Autoclave Sterilization	121°C , 60 Min
SIP	135°C , 30 Min , 20 cycles

Filtration Area

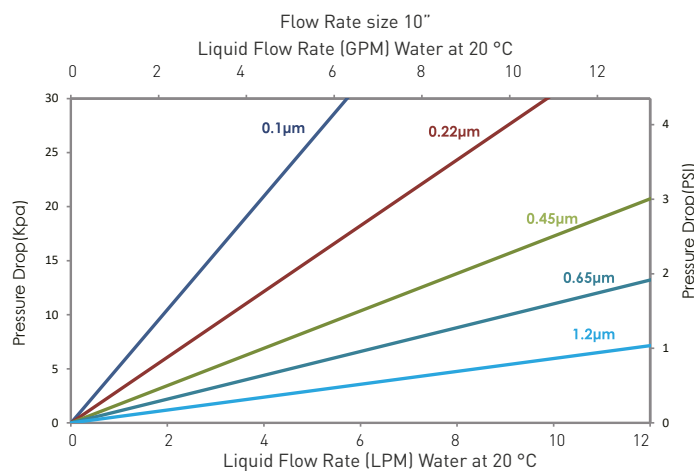
Ø 69mm	0.65 m ² / 10" Filter cartridges
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Extractables

10" Filter Cartridges	< 20 mg
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Effluent quality

- Non-fiber releasing
- Non-pyrogenic per USP Bacterial Endotoxins (<0.25 EU/mL)
- Meets TOC and water conductivity per USP Purified Water, pH per USP Sterile Purified Water



Integrity Test		
Micron	Bubble Point ≥ (Water)	Diffusion Flow ≤ (10" Ø69 mm)
0.1 µm	4.8 bar	25 ml / min @ 4.475 bar
0.22 µm	3.2 bar	25 ml / min @ 2.76 bar
0.45 µm	2.1 bar	25 ml / min @ 1.70 bar
0.65 µm	1.32 bar	12 ml / min @ 1.1 bar

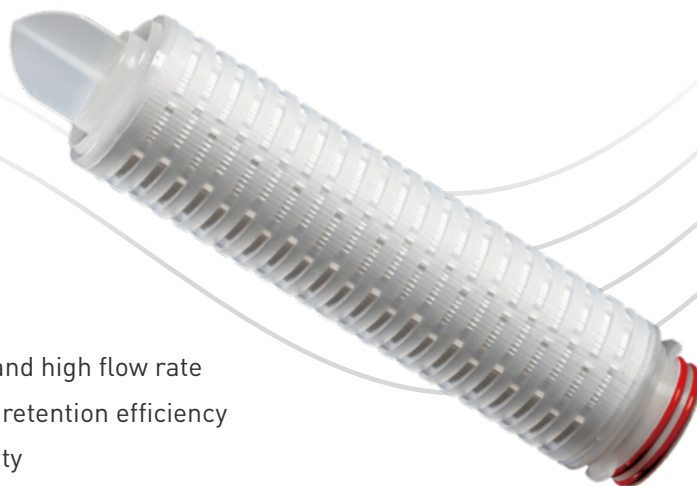
Eg. => CFPPS0010S050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge Filter	PS = PES	0010 = 0.1µm	S = Ster Grade	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypropylene	S = Silicone	S= Standard	0 = Rev.0
		0004=0.04µm		10 = 10"		E2 = 213/Flat	S = SS Steel	E = EPDM		
		0022 = 0.22µm		20 = 20"		H1 = 222/Fin		B = NBR	Y = SS reinforcement	
		0045 = 0.45µm		30 = 30"		H2 = 222/Flat		V = Viton	(Endcap D0, E2, K1, K2, excluded)	
		0065 = 0.65µm		40 = 40"		H5 = 222/Spear Fin		F = E-FKM		
		0120 = 1.2µm				K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
						K2 = 222 Ext/Flat				
						G1 = 226/Fin				
		G2 = 226/Flat								
		G5 = 226/Spear Fin								

CFP series PES membrane

High Flow Rate PES Pleated Filter Cartridges

CFPPS-Y series PES membrane cartridges are designed for sterilizing filtration in the pharmaceutical industry and food & beverages. With its optimised internal structure, it adopts innovative pleating technology in filter membrane production, which increases effective filtration area and flow rate. Compared with the CFPPS-S series, CFPPS-Y filter cartridges deliver a longer service life, reducing replacement frequency and operational costs.



Features

- Large effective filtration area and high flow rate
- Highly consistent porosity and retention efficiency
- Excellent chemical compatibility
- 100% integrity test

Applications

- Large infusion (LVP), small injection (SVP), eye drops
- Active pharmaceutical ingredients
- Biological products
- Food & beverages
- Beer & wine
- Distilled spirits
- Process water

Dimension

Diameter	69 mm (2.72")
Length	5", 10", 20", 30", 40"

Material of Constructions

Media	Polyethersulfone
Support	Polypropylene
Cage/Core/End	Polypropylene
Connection Adaptor	SS Insert, PSU Insert
Seal Material Options	Silicone, EPDM, FKM

Quality

- Validated with *Brevundimonas diminuta* (ATCC 19146) at 107CFU/cm² (0.22µm)
- 100% Integrity Tested.
- Individual element is tracked by serial number
- Manufactured according to ISO 9001:2015 certified quality management system
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121°C

Performance

Operating Conditions

Max Operating Temperature	80 °C
Max. Operating DP	4 bar @ 20 °C , 2 bar @ 80 °C

Sterilization

Autoclave Sterilization	125°C , 30 Min, 30cycles
SIP	125°C , 30 Min , 30 cycles

Filtration Area

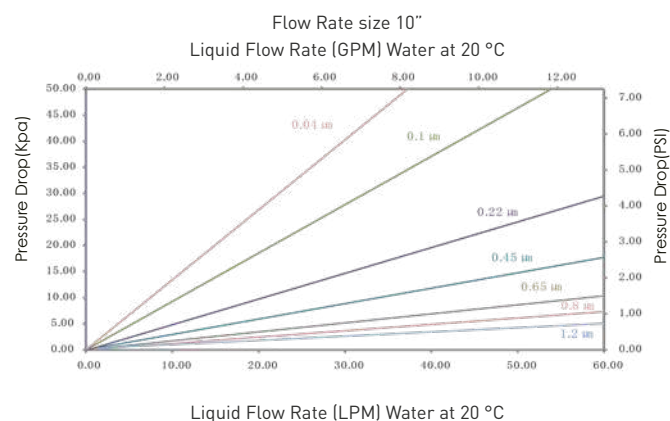
Ø 69mm	0.8 m² / 10" Filter cartridges
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Extractables

10" Filter Cartridges	< 20 mg
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Effluent quality

- Non-fiber releasing
- Non-pyrogenic per USP Bacterial Endotoxins(<0.25EU/mL)
- Meets TOC and water conductivity per USP Purified Water, pH per USP Sterile Purified Water.



Integrity Test		
Micron	Bubble Point ≥ (Water)	Diffusion Flow ≤ (10" Ø69 mm)
0.1 µm	4.8 bar	35 ml / min @ 3.90 bar
0.22 µm	3.2 bar	35 ml / min @ 2.76 bar
0.45 µm	2.1 bar	35 ml / min @ 1.70 bar
0.65 µm	1.32 bar	17 ml / min @ 1.1 bar

Eg.=> CFPPS0004Y050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge Filter	PS = PES	0004=0.04µm	Y=P Ster Gr	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypropylene	S = Silicone	S= Standard	0 = Rev.0
		0010 = 0.1µm		10 = 10"		E2 = 213/Flat	S = SS Steel	E = EPDM		
		0022 = 0.22µm		20 = 20"		H1 = 222/Fin		V = Viton	Y = SS reinforcement	
		0045 = 0.45µm		30 = 30"		H2 = 222/Flat			(Endcap D0, E2, K1, K2, excluded)	
		0065 = 0.65µm		40 = 40"		H5 = 222/Spear Fin				
		0080 = 0.8µm				K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
		0120 = 1.2µm				K2 = 222 Ext/Flat				
						G1 = 226/Fin				
						G2 = 226/Flat				
						G5 = 226/Spear Fin				

CFP series PES membrane

Double Layer Asymmetric PES Pleated Filter Cartridges

CFP series Double Layer Asymmetric PES Pleated Filter Cartridges is constructed of highly asymmetric polyether-sulfone membrane and support layer. Unique double layer hydrophilic polyethersul-fone makes it have excellent filtration performance and reliable bacteria intercepting ability. It is especially used in pharmaceutical industry with stringent requirement. All components of filter cartridge comply with FDA regulations. This filter can withstand repeated steam sterilization.

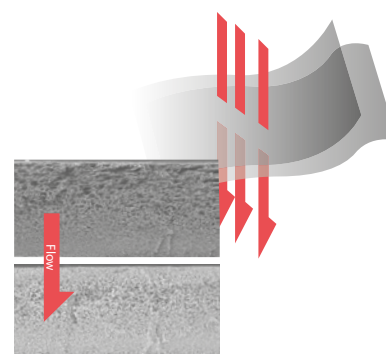
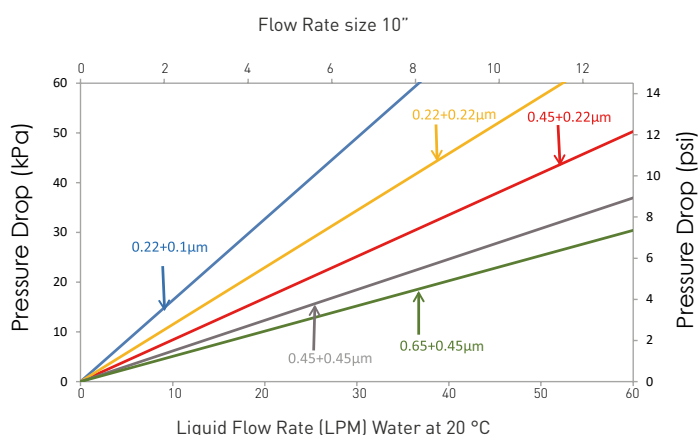


Features

- Unique double layer hydrophilic polyethersulfone with double security makes it have reliable bacteria intercepting ability, increasing filtration safety factor by more than 10 times
- Large effective filtration area makes the filter longer service life and lower cost
- Broad chemical compatibility (PH1-14) , it is suitable for various pharmaceutical filtration
- Structure Stabilization, it can withstand sterilization cycle with 50 times
- 100% integrity test ensures absolute sterilization
- Low protein adsorption
- ISO9001:2015 certified Quality Management System

Quality

- Validated with B. diminuta (ATCC 191463) at $10^7/\text{CM}^2$ (0.22 μm)
- Each membrane filter element has been individually tested for integrity
- Individual element is tracked by serial number
- Manufactured according to ISO 9001:2015 certified quality management system
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121 °C



Applications

Pharma - Particles filtration, bacterium filtration, API (Active Pharmaceutical Ingredient) filtration, Food and Beverage - Water filtration, Wine and Sparkling Wine filtration, Spirits filtration.

Material of Constructions

Media	PES
Support	PP
Cage/core/end cap	PP
Sealing	Silicone, EPDM, NBR, Viton®, Teflon®, E-FKM

Dimension

Outer Diameter	69 mm (2.72")
Length	5", 10", 20", 30", 40"

Performance

Operating Conditions

Max Operating Temperature	80 °C
Max. Operating DP	4.0 bar @ 20 °C
	2.4 bar @ 80 °C

Sterilization

Autoclave Sterilization	121 °C , 60 min
SIP	125 °C , 30 min

Filtration Area

Ø 69mm	0.65 m ² / 10"
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Extractables

10" Filter Cartridges	< 20 mg
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Effluent quality

- Non-fiber releasing
- Non-pyrogenic per USP Bacterial Endotoxins (<0.25EV/mL)
- Meets TOC and water conductivity per USP Purified Water, pH per USP Sterile Purified Water.

Integrity Test		
Membrane pore size	Bubble Point ≥ (Water)	Diffusion Flow ≤ (10" Ø69mm)
2201 = 0.22/0.1µm	4.8 bar	25ml/min @ 4.475 bar
2222 = 0.22/0.22µm	3.2 bar	20ml/min @ 2.76 bar
0422 = 0.45/0.22µm	3.2 bar	25ml/min @ 2.76 bar
0404 = 0.45/0.45µm	2.1 bar	20ml/min @ 1.70 bar
0604 = 0.65/0.45µm	2.1 bar	25ml/min @ 1.70 bar

Eg. => CFPPS2201P050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge Filter	PS = PES	2201 = 0.22/0.1µm	P = Premier	05 = 5"	0A = OD: 69 mm	D0 = DOE	P = Polypropylene	S = Silicone	S = Standard	0 = Rev.0
		2222 = 0.22/0.22µm		10 = 10"		E2 = 213/Flat				
		0422 = 0.45/0.22µm		20 = 20"		H1 = 222/Fin				
		0404 = 0.45/0.45µm		30 = 30"		H2 = 222/Flat				
		0604 = 0.65/0.45µm		40 = 40"		H5 = 222/Spear Fin				
						K1 = 222 Ext/Fin				
						K2 = 222 Ext/Flat				
						G1 = 226/Fin				
						G2 = 226/Flat				
						G5 = 226/Spear Fin				

Y = SS reinforcement
(Endcap D0, E2, K1, K2, excluded)

P = PSU reinforcement
(Endcap G1, G2, only)