

Intercept® Liquid Filters

Advanced dual-retention, liquid filtration for critical DHF/BOE cleaning applications

Intercept® liquid filters enable best-in-class filtration for critical dilute, aqueous, and low-neutral pH cleaning applications. The 7 nm filter type ensures tighter particle retention and ultraclean filtration with consistently good flow rates.

Intercept's dual-capture mechanism utilizes both sieving and nonsieving retention technologies to retain fine particles, reduce on-wafer defects, and provide low metal, chloride, and particle counts. The hydrophilic membrane prevents sudden flow loss caused by membrane dewetting and eliminates the need for prewetting. Intercept filters meet various process requirements to deliver yield-enabling filtration for advanced applications with long filter life and improved process stability.

APPLICATIONS

- Weak acid-based process chemicals such as BOE and DHF
- Bulk chemical delivery and distribution systems
- DI water
- Single wafer tools
- Recirculating etch baths



FEATURES & BENEFITS

Retention ratings from 0.1 µm to 7 nm	Provides superior filtration for critical dilute, aqueous, and low-neutral pH cleaning applications at advanced technology nodes
Advanced membrane technology	Clean, dual-capture membrane improves process performance with fewer on-wafer defects Asymmetric membrane (7 nm [UC], 20 nm) ensures tighter particle retention while maintaining high flow rates • Hydrophilic membrane – no prewetting or flushing required • Increases process uptime • Prevents risk of chemical interactions • Minimizes risk of dewetting (and loss of flow) • M-pleat membrane area (HPM and HSM configurations) – Enables increased flow rates for critical applications
Clean filtration	Low metals, chlorides, particles Intercept UC 7 nm provides even lower metals and chlorides than previous filters

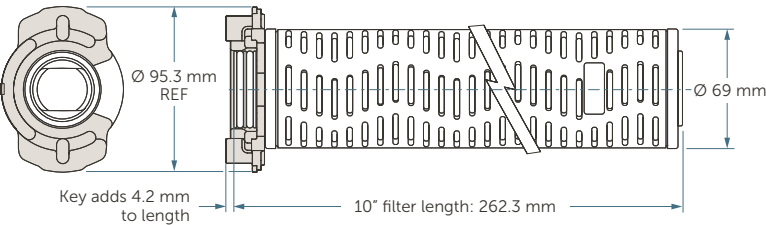
SPECIFICATIONS

TYPE		HP	HPX	HPM	HSM
Materials	Membrane	Hydrophilic ultra-high molecular weight polyethylene (UPE)			Hydrophilic polysulfone (PS)
	Supports, sleeve, core, end caps	Nonwoven high-density polyethylene (HDPE)			
	Code 0 double 2-222 O-rings	Encapsulated fluoropolymer (E-FKM) or Kalrez® 4079 and 6375			
	Chem-Line™ II disposable outer shell	N/A	Polypropylene and PFA		
	Chem-Line I disposable outer shell	N/A		PFA	
Retention rating		0.1, 0.05 µm	0.1, 0.05 µm	0.05 µm, 30 nm	20, 7 nm
Membrane surface area		10": 0.85 m ² (9.15 ft ²)	4": 0.5 m ² (5.38 ft ²) 10": 1.1 m ² (11.84 ft ²) 20": 2.2 m ² (23.68 ft ²)	10": 1.9 m ² (20.45 ft ²) 20": 3.8 m ² (40.90 ft ²) 30": 5.7 m ² (61.35 ft ²)	4": 0.6 m ² (6.46 ft ²) 10": 1.2 m ² (12.92 ft ²) 20": 2.4 m ² (23.83 ft ²)
Maximum operating conditions	Maximum forward differential pressure	0.34 MPa (3.4 bar; 50 psid) @ 25°C (77°F)			
	Maximum reverse pressure	0.21 MPa (2.1 bar; 30 psi) @ 25°C (77°F)			
	Maximum operating pressure	0.58 MPa (5.8 bar; 84 psi) @ 25°C (77°F)			
	Maximum operating temperature	70°C (158°F) @ 30 psi		70°C (158°F) @ 23 psi	

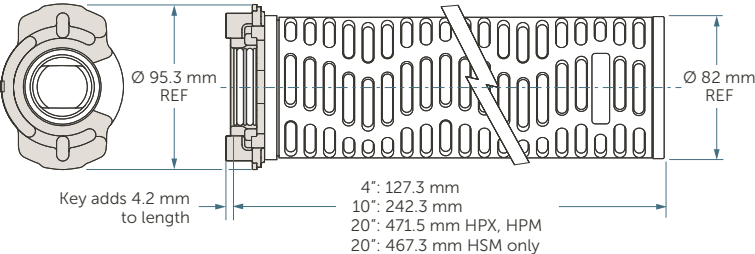
Intercept HP, HPX, HPM and HSM Cartridge Filters

DIMENSIONS

Intercept HP Cartridge Filters

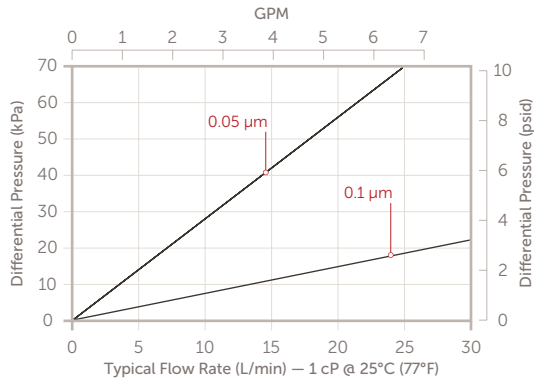


Intercept HPX, HPM and HSM Cartridge Filters

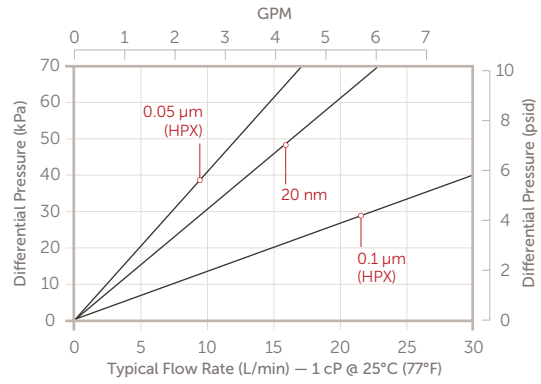


PERFORMANCE DATA

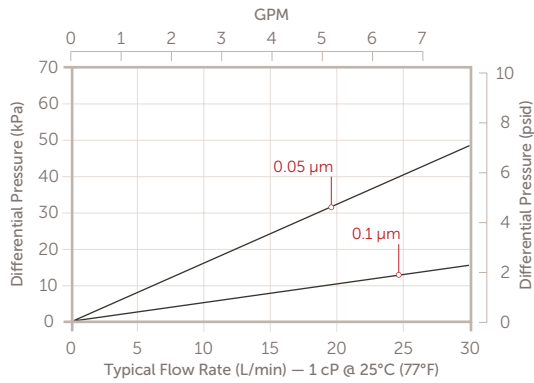
Intercept HP 10" Cartridges



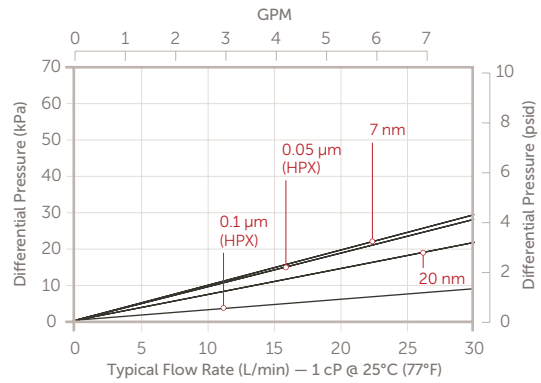
Intercept HPX, HPM and HSM 4" Cartridges



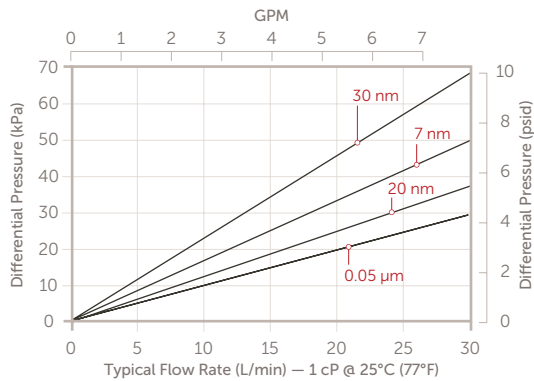
Intercept HPX 10" Cartridges



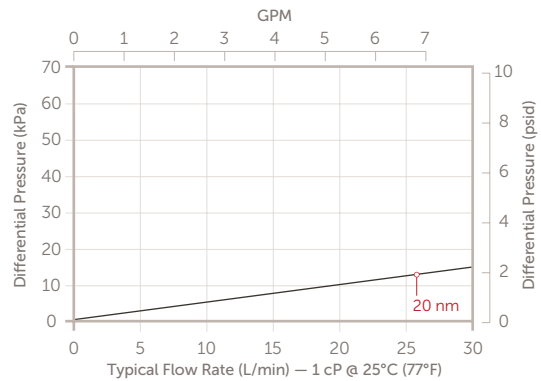
Intercept HPX, HPM and HSM 20" Cartridges



Intercept HPM and HSM 10" Cartridges



Intercept HSM 30" Cartridges



This information serves as a guide. Please contact your local representative to confirm part numbers.

Intercept HP and HPX Cartridge Filters: part number

IHA **O** **P**

Key
K = PFA Chemlock key (optional) for use with Chemlock housing only

O-ring
LT = E-FKM (HP)
LK = Kalrez 4079 (HP)
O1 = E-FKM (HPX)
K1 = Kalrez 4079 (HPX)

Cartridge length
S = 4" (HPX only)
1 = 10"
2 = 20" (HPX only)

Retention rating
Y = 30 nm (HPX 4" only)
Z = 0.05 μ m
V = 0.1 μ m

Intercept HPM and HSM Cartridge Filters: part number

IHA **O** **M** **1**

Key
K = PFA Chemlock key
(optional) for use
with Chemlock
housing only

O-ring
O = E-FKM
K = Kalrez 4079
R = Kalrez 6375

Cartridge length
S = 4"
1 = 10"
2 = 20"
3 = 30"

Retention rating
X = 20 nm
Y = 30 nm (10" or 20" only)
Z = 0.05 μ m (10" only)

Intercept UC Cartridge Filters: part number

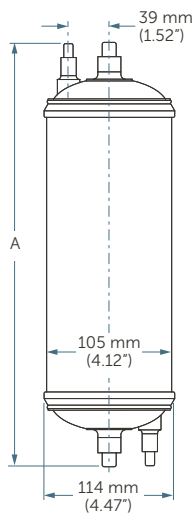
IHAMC M1

- Key**
K = PFA Chemlock key (optional) for use with Chemlock housing only
- O-ring**
O = E-FKM
R = Kalrez 6375
- Cartridge length**
S = 4"
1 = 10"
2 = 20"
- Retention rating**
M = 7 nm (HSM only)

Intercept Disposable Filters

DIMENSIONS

Chem-Line II (PP) Disposable Filters

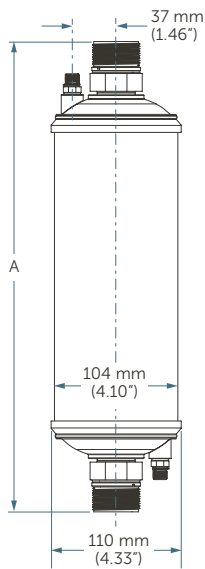


A		
Inlet/outlet size	4" disposable filter with Flaretek® fittings	10" disposable filter with Flaretek fittings
3/8"	237 mm (9.32")	350 mm (13.77")
1/2"	247 mm (9.72")	360 mm (14.17")
3/4"	247 mm (9.72")	360 mm (14.17")
1"	257 mm (10.12")	370 mm (14.57")

Vent/drain all versions: 1/4"

Chem-Line II (PFA) Disposable Filters

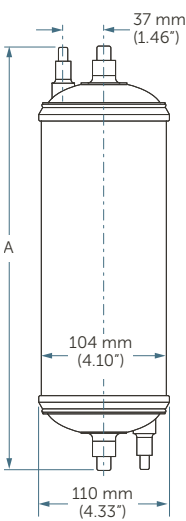
Super 300 Type Pillar® Fittings



Inlet/outlet size	10" filter
1/2"	355 mm (13.96")
3/4"	364 mm (14.31")
1"	397 mm (16.62")

Vent/drain all versions: 1/4"

Flaretek Fittings

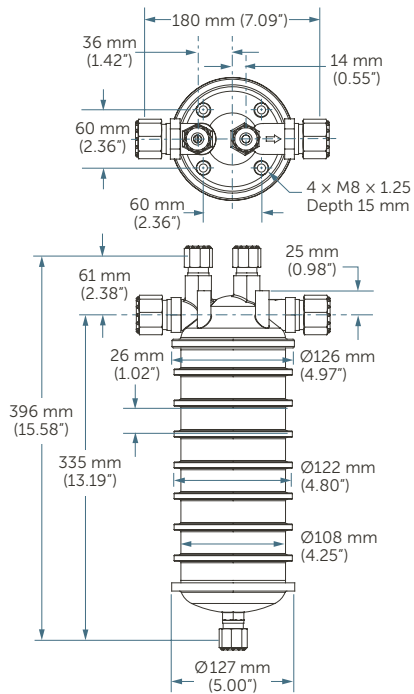


Inlet/outlet size	10" filter
1/2"	370 mm (14.58")
3/4"	373 mm (14.68")
1"	382 mm (15.02")

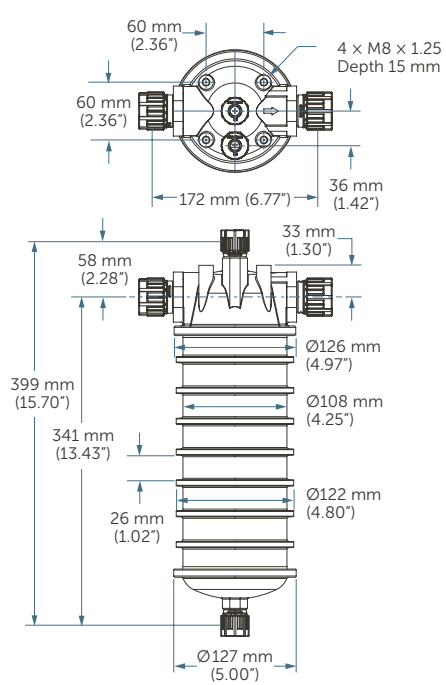
Vent/drain all versions: 1/4"

Chem-Line I Disposable Filters

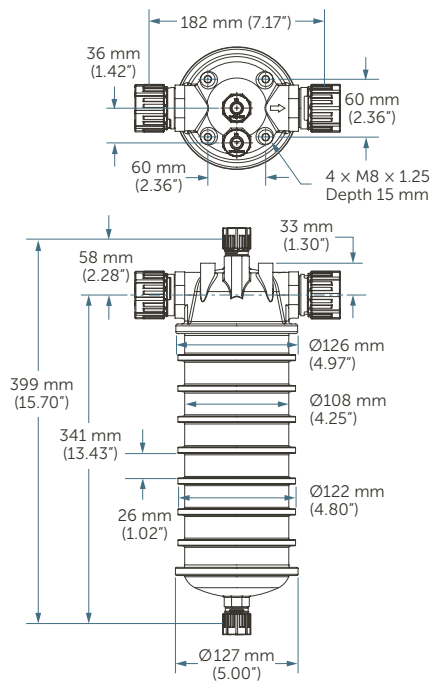
TH: T-line 3/4" Super Type Pillar Fittings



3S: T-line 3/4" Super 300 Type Pillar Fittings



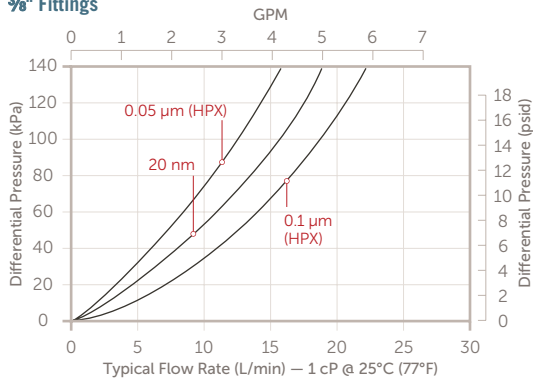
4S: T-line 1" Super 300 Type Pillar Fittings



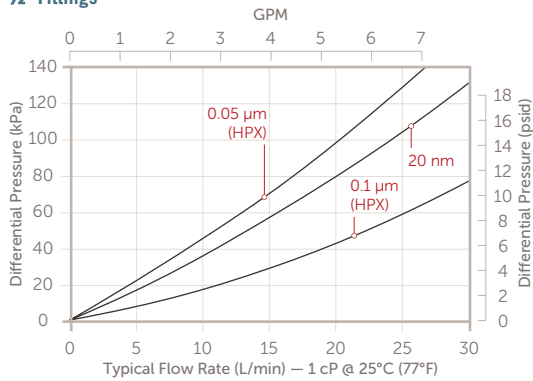
PERFORMANCE DATA

Intercept HPX and HSM 4" Disposable Filters

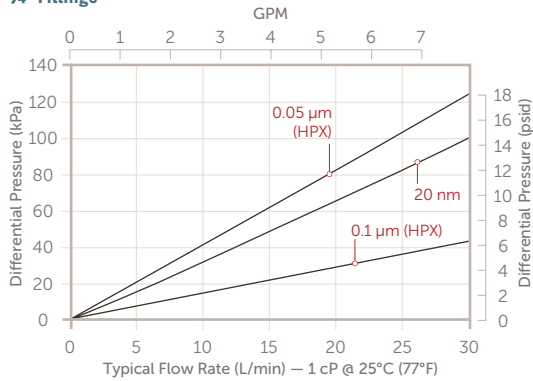
3/8" Fittings



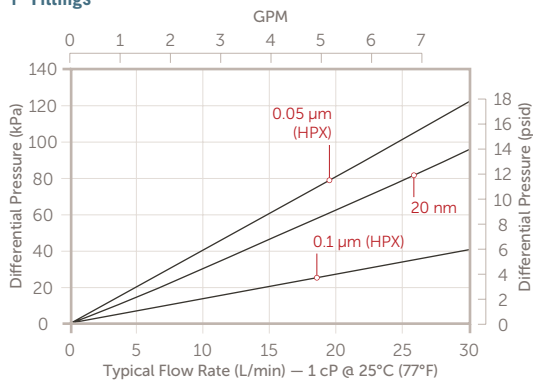
1/2" Fittings



3/4" Fittings

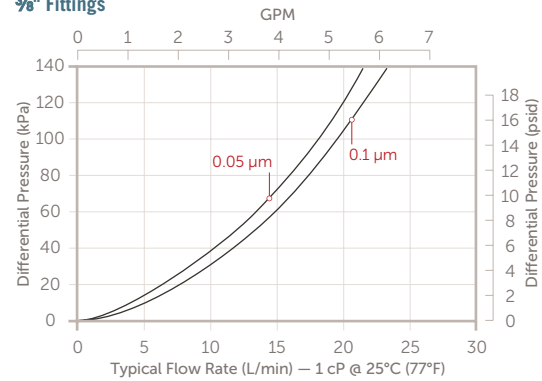


1" Fittings

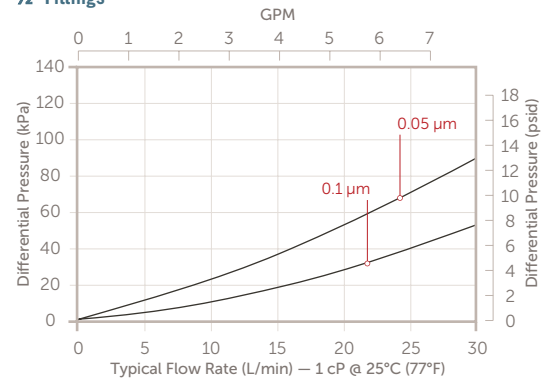


Intercept HPX 10" Disposable Filters

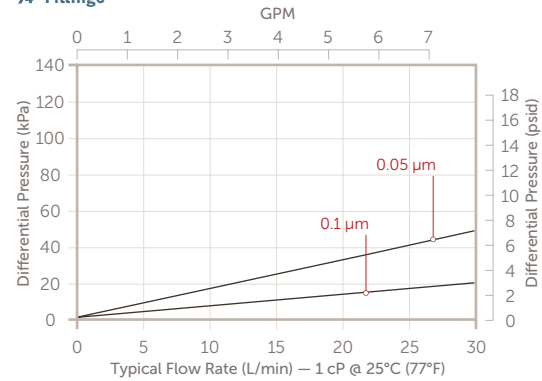
3/8" Fittings



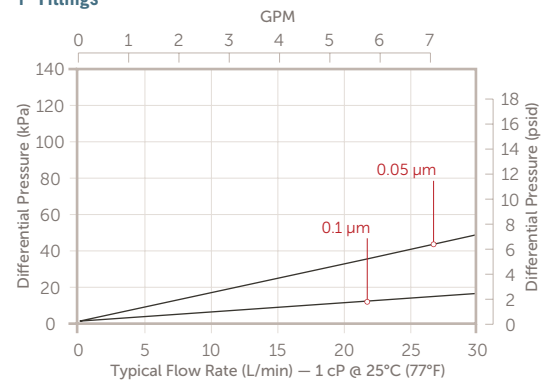
1/2" Fittings



3/4" Fittings

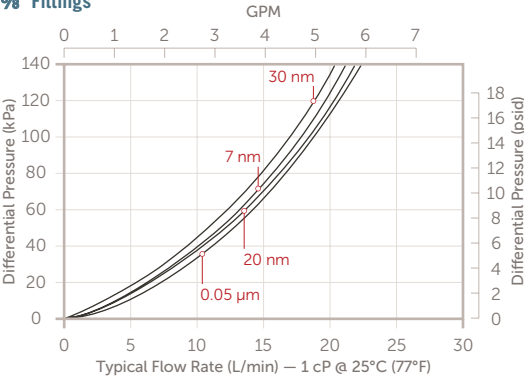


1" Fittings

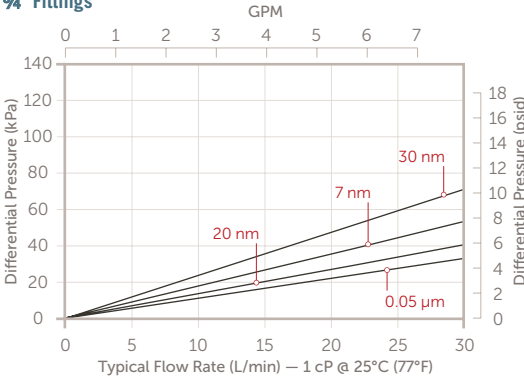


Intercept HPX and HSM 10" Disposable Filters

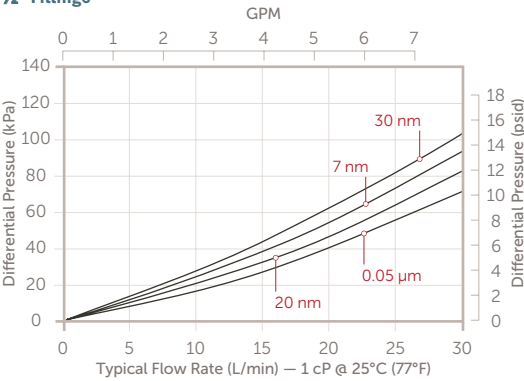
3/8" Fittings



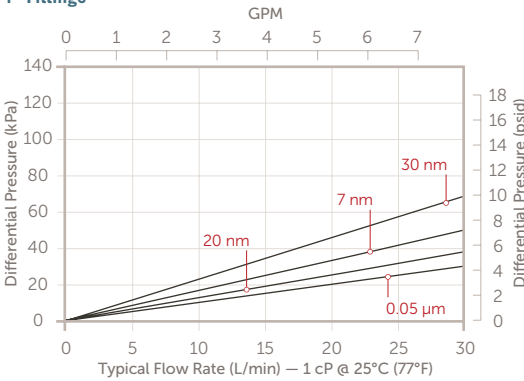
3/4" Fittings



1/2" Fittings



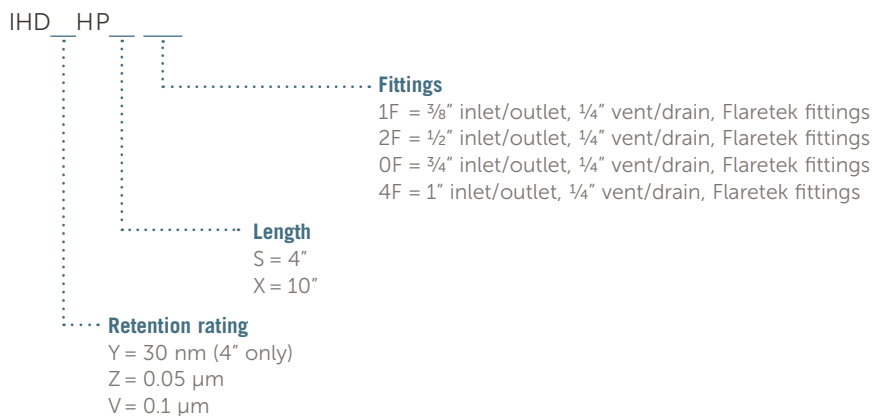
1" Fittings



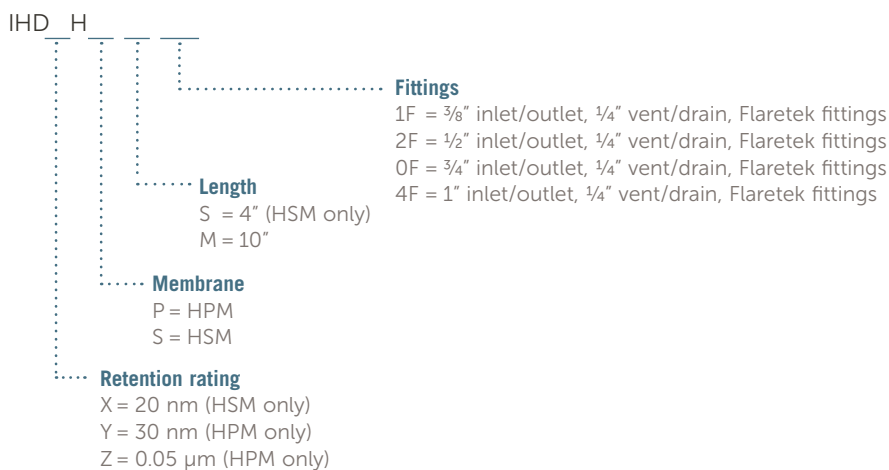
ORDERING INFORMATION

This information serves as a guide. Please contact your local representative to confirm part numbers.

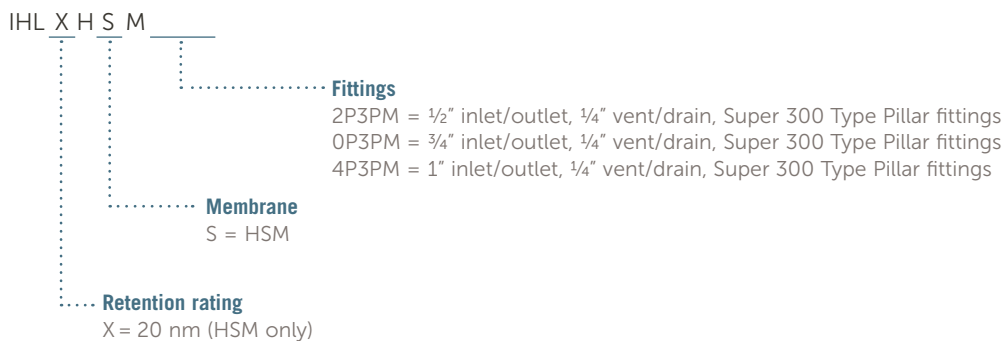
Intercept HPX Chem-Line II (PP) Disposable Filters: part number



Intercept HPM and HSM Chem-Line II (PP) Disposable Filters: part number

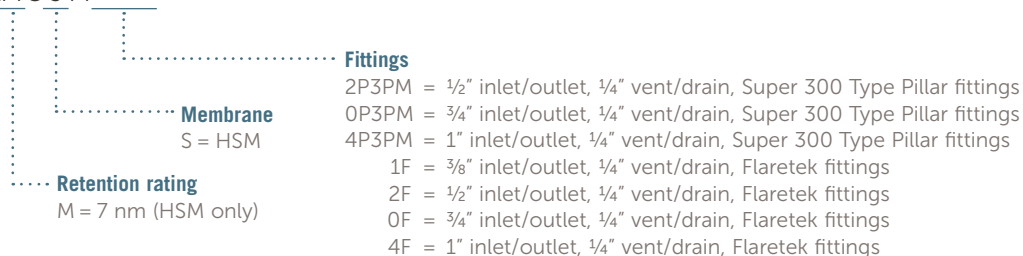


Intercept HSM Chem-Line II (PFA) Disposable Filters: part number



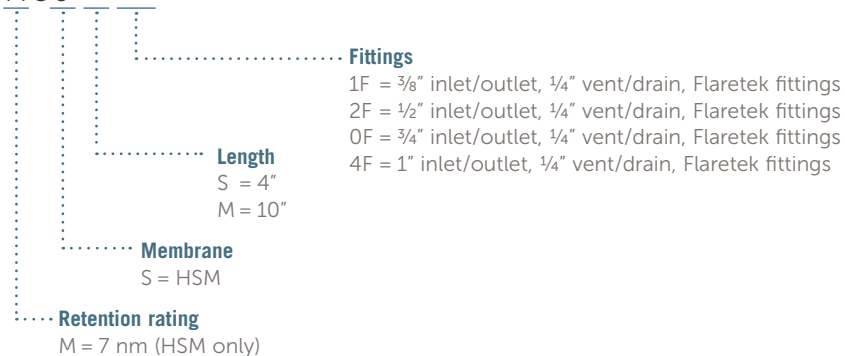
Intercept UC Chem-Line II (PFA) Disposable Filters: part number

I H L M C S M



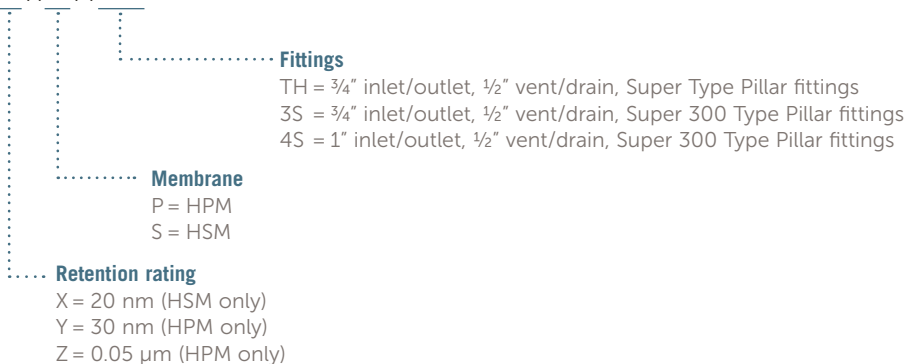
Intercept UC Chem-Line II (PP) Disposable Filters: part number

I H D M C S



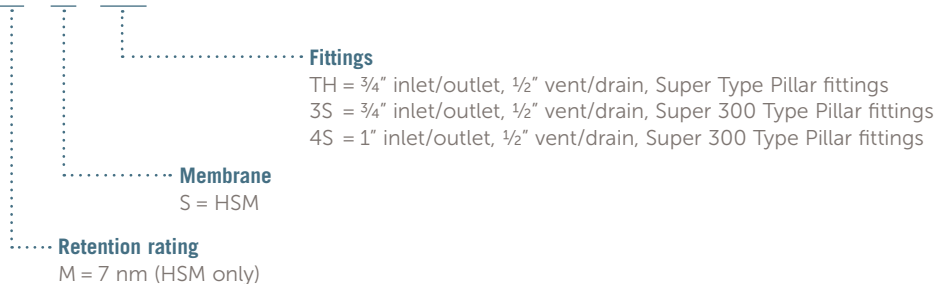
Intercept HPM and HSM Chem-Line I (PFA) Disposable Filters (10" only): part number

I H P H M



Intercept UC Chem-Line I (PFA) Disposable Filters (10" only): part number

I H P M C S M



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