

DATA
SHEET



XC High-Flow Inline Heat Exchanger

The XC Inline Heat Exchanger is now available with a high-flow option that provides the same heat transfer performance as the original but now with a reduced fluid pressure drop. With a PFA tube-side fluid path, the XC High-Flow will meet the highest cleanliness requirements to support next-generation ultra-high-purity (UHP) semiconductor node technologies. This exchanger supports both recirculating and single-pass flow applications. Ideal for heating and cooling water, acids, bases, and solvents.



Temperature:
Up to 135°C
(275°F)



Pressure:
PFA Tubing:
241kPa (34.9 PSI) at
120°C (248°F)



Exchange Area:
0.14m² (1.5 ft²),
0.23m² (2.5 ft²),
0.33m² (3.5 ft²)

Polypro Shell:
206kPa (29.8 PSI)
at 82°C (179.6°F)

PVDF Shell:
206kPa (29.8 PSI)
at 135°C (275°F)



Compatibility



YES

acids



YES

water



YES

bases



YES

solvents



NO

gases

NEW!

FEATURES

High-flow Capacity

- Large diameter tubing improves flow circulation
- High-flow option further reduces pressure drop
- Reduces sizing requirements for associated equipment

Ultra-High-Purity

- Chemistry fluid path made from high grade PFA components
- No wetted o-ring seals eliminate source for contamination
- Assembled and tested in a clean-room environment

Low-Mass Heat Exchanger

- Enables faster temperature response
- Allows for precise and stable temperature control

Compact Design

- Reduces tool design space requirements
- Facilitates retrofitting of existing tools
- Simplifies manufacturing complexity

APPLICATIONS

- Semiconductor wafer cleaning

call 1-440-974-1300 • visit processtechnology.com • or contact your local representative for more information

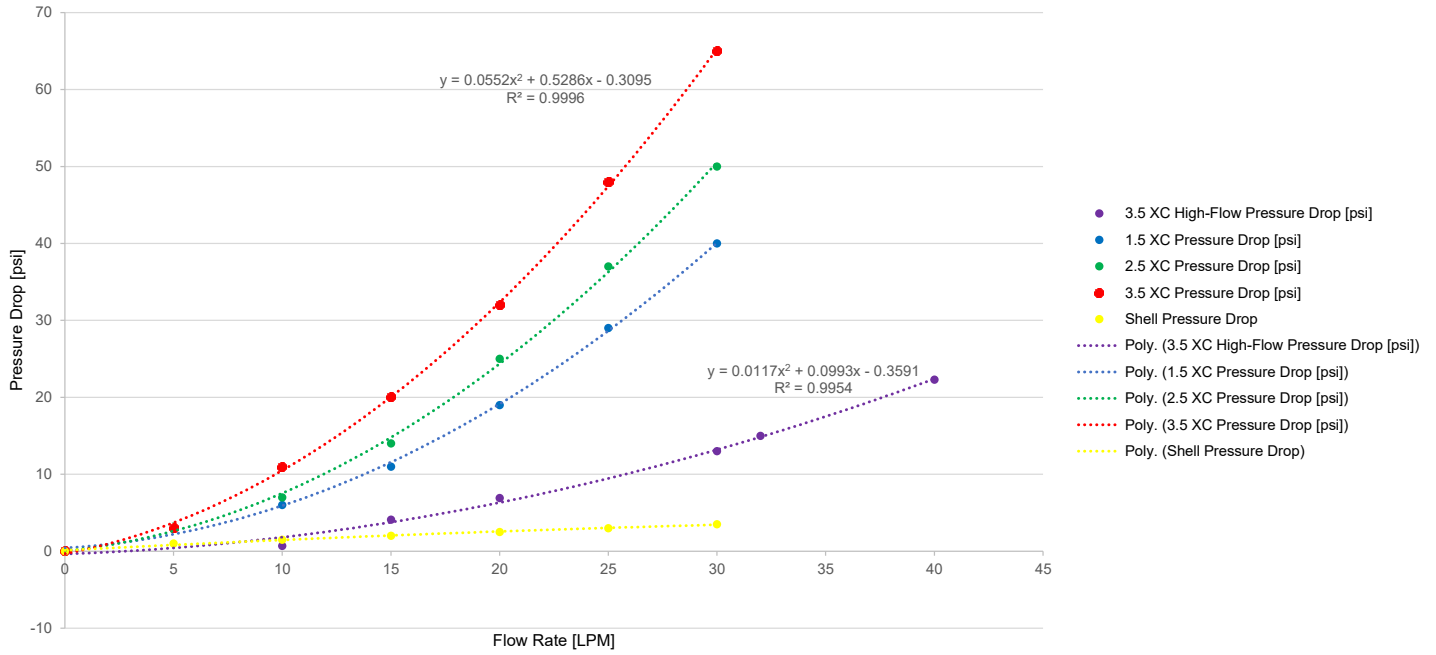
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XC High-Flow In-line Heat Exchanger

SPECIFICATIONS

Sizes	0.14m ² (1.5 ft ²) of exchange area 0.23m ² (2.5 ft ²) of exchange area 0.33m ² (3.5 ft ²) of exchange area
Standard Features	13mm (0.5 inch) PFA tubing, 0.76mm (0.030 inch) wall thickness All welded construction (shell) 147.5mm (5.8125 inch) diameter polypropylene or PVDF shell Internally baffled for enhanced heat performance U" factor (depending on flow rate): 142-284 J/(s x m ² x °C) = 25-50 BTU/(hr x ft ² x F) Shell-side drain connection
Fluid Connections	Tube, Shell, & Drain: Flared connections standard, choose sizes and other options when ordering (see model tree)
Maximum Pressure/ Temperature	PFA Tubing: 241kPa (34.96 PSI) at 120°C (248°F) Polypro Shell: 206kPa (29.8 PSI) at 82°C (179.6°F) PVDF Shell: 206kPa (29.8 PSI) at 135°C (275°F)
Options	19mm (0.75 inch) Super 300 Pillar Type connection Custom sizes based on application Heavy-wall PFA tubing, 15.7mm (0.062 inch) wall thickness

XC HIGH-FLOW PRESSURE DROP

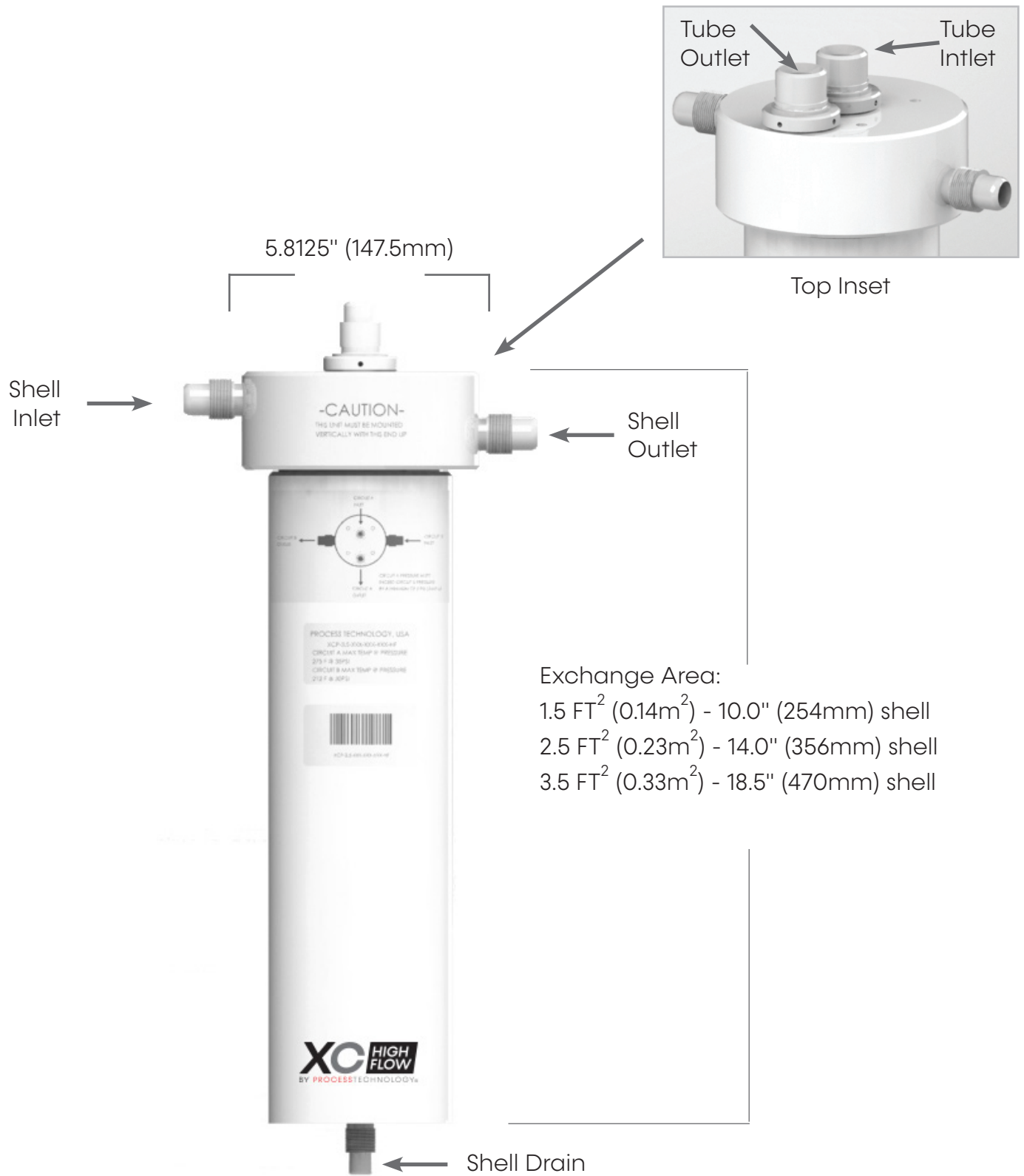


MODEL NUMBER BREAKDOWN

XC and XC High-Flow Series Model Tree

Model	Material	Exchanger Area	A Circuit Connections (Tube)	B Circuit Connections (Shell)	Drain Connection	Options
XC Series	P = Polypro Chamber	1.5 = .14m ² (1.5ft ²)	A = 1/2" Flared	A = 1/2" Flared	A = 1/2" Flared	THK = .062" wall exchanger tubing.
	K = Kynar PVDF Chamber	2.5 = .23m ² (2.5ft ²)	B* = 3/4" Flared	B* = 3/4" Flared	B = 3/4" Flared	
	X = PTFE Chamber**	3.5 = .33m ² (3.5ft ²)	C = 1" Flared	C = 1" Flared	C = 1" Flared	SS = 316SS FNPT union half.
			S = 3/8" Flared	D = 3/8" FNPT (via union)	S = 3/8" Flared	Primarily intended for PP shells with FNPT connections (options D & F). Without it, max pressure is reduced to 25 psi.
			T = 3/8" Super 300 Pillar	F = 1/2" FNPT (via union)	T = 3/8" Super 300 Pillar	
			U* = 25mm union	S = 3/8" Flared	U* = 25mm union	
			V = 1/2" Super 300 Pillar	T = 3/8" Super 300 Pillar	V = 1/2" Super 300 Pillar	P = PFA Ferrule (standard is PVDF)
			W* = 3/4" Super 300 Pillar	U* = 25mm union	W* = 3/4" Super 300 Pillar	HF = XC High Flow Version (**Not available in PTFE)
				V = 1/2" Super 300 Pillar	X* = 1" Super 300 Pillar	
				W = 3/4" Super 300 Pillar	Y = 1/4" Super 300 Pillar	
				X = 1" Super 300 Pillar	Z = 1/4" Flared	
				O = 3/8" Pipe size stub	No drain = Blank	
				G = 1/2" FNPT (direct connect)		

DIMENSIONS



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