

**PROCESS
TECHNOLOGY**

XC Series In-line Heat Exchanger

The XC Series in-line fluoropolymer heat exchanger is designed for the most demanding chemical heating or cooling applications. Typical industries served include semiconductor, FPD, MEMS, and biomedical.

SPECIFICATIONS:

Service: In-line chemical heat exchanger with all fluoropolymer wetted surfaces (tubing side) for virtually any wet chemistry application.

Sizes:

- 1.5 ft² (.14m²) of exchange area
- 2.5 ft² (.23m²) of exchange area
- 3.5 ft² (.33m²) of exchange area

Standard Features:

- ½-inch (12mm) heavy wall PFA tubing, .030" (.76mm) thick
- All welded construction (shell)
- 4½-inch (114mm) diameter polypropylene shell
- Internally baffled for enhanced heat exchanger performance
- "U" factor (depending on flow rate): 25-50 BTU/(hr x ft² x °F) = 142-284 J/(s x m² x °C)
- Shell-side drain connection

Fluid Connections:

- Fluid (tube): ½-inch (12mm) male flare PFA
- Shell: ¾-inch (19mm) male flare PFA
- Shell drain: ¼-inch (6mm) male flare PFA

Maximum Pressure/Temperature:

- Tube (PFA): 35 PSIG (241 kPa) at 120°C (250°F)
- Shell (PP): 30 PSIG (207 kPa) at 82°C (180°F)
- Optional shell (PVDF): 30 PSIG (206 kPa) at 135°C (275°F)

Warranty: One year

Options:

- ¼-inch (6.4mm) to ¾-inch (19mm) Super Pillar 300 Type® connections
- Custom sizes based on application
- PVDF shell

Note: Vacuum breakers are recommended for steam heating applications. Please consult factory for reduced pressure steam applications. Pulsation dampeners recommended.

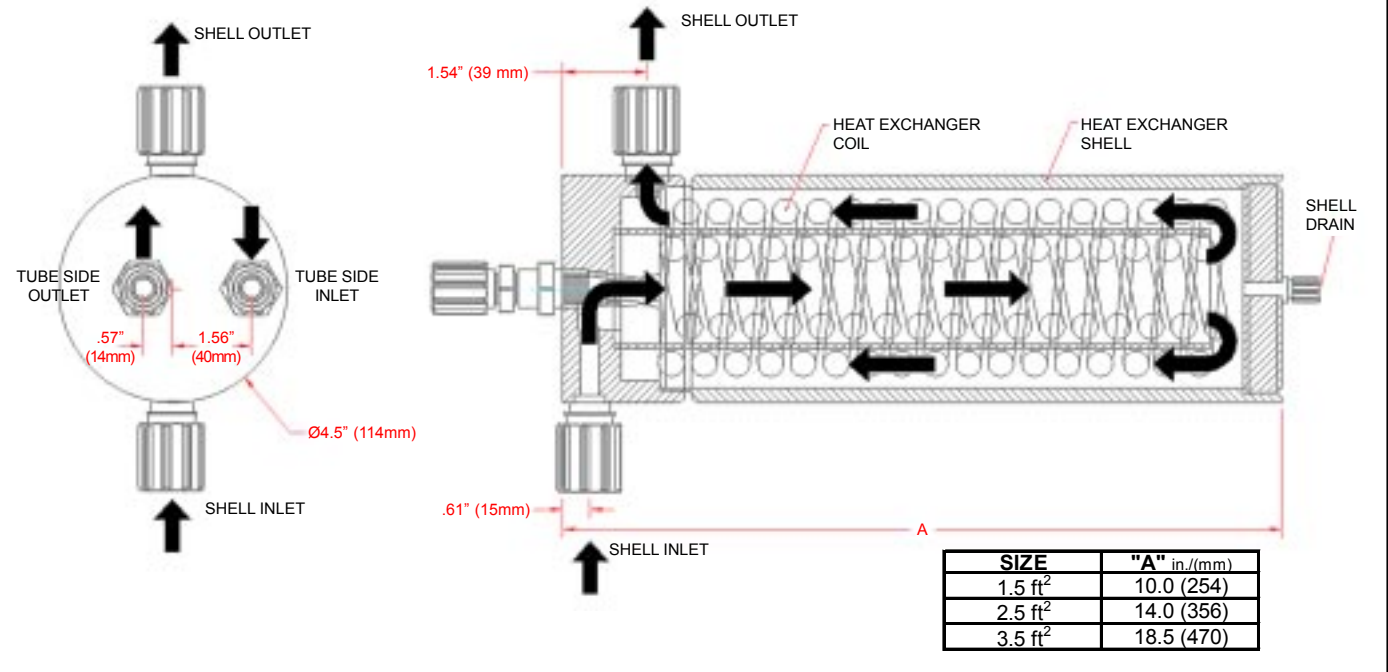


XC in-line heat exchanger (cutaway for illustrative purposes)

FEATURES AND BENEFITS:

- **Exceptionally clean performance:** Cleanroom assembled and tested to ensure the highest manufacturing standards.
- **Leak free operation:** Integral inlet/outlet for single point fluid connections simplifies installation and greatly reduces the potential for chemical leaks.
- **Outstanding performance:** Heavy wall, large diameter tubing improves circulation and minimizes pressure drop.
- **Compact size:** Less surface area required for same BTU exchange compared to most other fluoropolymer exchangers.
- **Rugged construction:** Thick wall, welded construction provides extremely long service life.
- **Outstanding chemical compatibility:** All tube-side parts are fluoropolymer and compatible with most chemistries for virtually unlimited process options. Shell is available in polypropylene (standard) or PVDF construction.

XC Cutaway



Super 300 Type Pillar® is a registered trademark of Nippon Pillar Packing Co. LTD.

Tube Pressure Drop

