

# KOOL-X™

## Ultra High Purity Tube-and-Shell Heat Exchanger

For applications where temperature stability, high purity, corrosion resistance, and reliability are of critical importance.



APPLIED INTEGRATED SYSTEMS

# KOOL-X™

## Ultra High Purity Tube-and-Shell Heat Exchanger

Introducing *Kool-X™*, Applied Integrated Systems' ultra high purity, tube-and-shell heat exchanger system for single pass or re-circulation applications where temperature stability, high purity, corrosion resistance, and reliability are of critical importance.

The *Kool-X™* series has an all Teflon flow path that is ideal for virtually all chemicals and can be used for heating, cooling, and condensing applications. AIS's unique Spiral-Core™ technology allows for ultimate heat transfer efficiency and provides a continuous, smooth, flow path, without any sharp corners or crevices where contaminants can accumulate.

### Features and Benefits

- **ULTRA HIGH PURITY**  
All Teflon *Plug-Flow™* flow path with no o-rings, no pipe threads, and no metal exposure eliminates any potential for contamination and assures the highest purity level is maintained.
- **BUILT IN INTELLIGENCE**  
Optional proportionally operated flow control valve can be integrated into the cooling or heating fluid circuit assuring tight temperature accuracy is achieved.
- **SPIRAL-CORE™ TECHNOLOGY**  
AIS's proprietary Spiral-Core™ technology provides high heat transfer efficiency and a continuous, smooth, process flow path, without any sharp corners or crevices where contaminants can accumulate.
- **HIGHLY EFFICIENT**  
Innovative Spiral-Core™ technology allows for highly efficient heat transfer area that can be sized to meet virtually any requirement.
- **100% FLUID STREAM SEPARATION**  
Unique design assures both fluid streams are completely separated eliminating any potential for cross contamination.
- **FLEXIBLE DESIGN**  
Modular design approach allows for a wide range of heat transfer surface area, physical shapes, plumbing connections, mounting styles... all configured around your preference.
- **HIGH RELIABILITY**  
The *Kool-X™* product series has been engineered and manufactured with the highest quality components in the market resulting in years of maintenance free operation.
- **USER FRIENDLY**  
Intuitive design makes it simple to install and operate.
- **SAFETY**  
Optional process thermocouple and shell overpressure relief valve. CE, SEMI compliance.

## Specifications

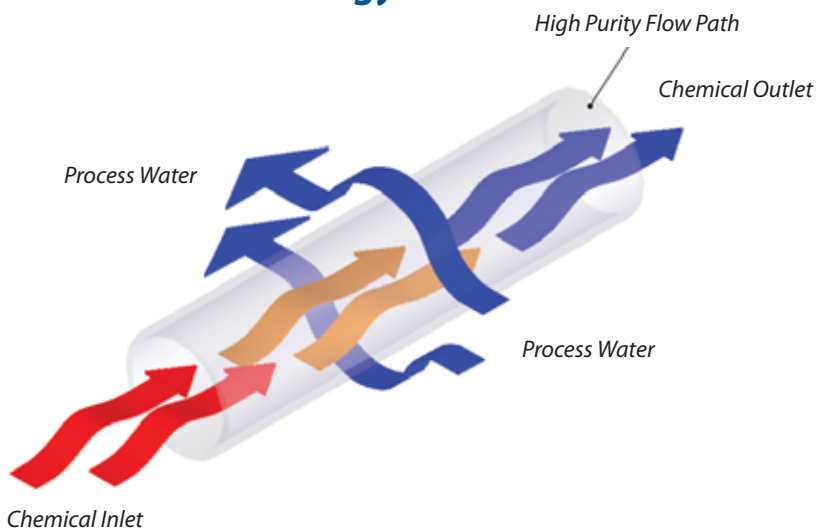
Tube Material	Teflon (PFA)
Shell Material	Polypropylene (other materials available)
Heat Transfer Area	Up to 100 m2 (1,076 ft2)
Max. Tube Pressure	Up to 689 Kpa (100 psig)*
Max. Shell Pressure	Up to 689 Kpa (100 psig)*
Fluid Connections	¼" to 2.0", Flare, Pillar, NPT, Tri-Clamp
Enclosure Material	Polypropylene, CPVC, others
Temperature Accuracy	±0.5°C (with integrated flow valve)
Compliance	SEMI, CE
Warranty	12 months

\* Pressure rating will vary with temperature. Consult factory for additional information.

\*\* Integrated flow control valve option requires a separate control module which can be provided by AIS.

*Applied Integrated Systems reserves the right to change specifications without notice.*

## Flow Path Technology



## Options

- Size of heat transfer area
- Shell material
- Process water filtration
- Process chemical filtration: 5", 10", or 20"
- Physical shape and mounting configuration
- Enclosure with integrated flow control valve
- Process thermocouple
- Extended warranty
- Additional options upon request

For more information, contact AIS at: [sales@appliedintegratedsystems.com](mailto:sales@appliedintegratedsystems.com)





# KOOL-X™

---

## ORDERING INFORMATION

Please contact one of our product specialists with your application requirements.

You may also e-mail us at [sales@appliedintegratedsystems.com](mailto:sales@appliedintegratedsystems.com)



## CONTACT US

498 Lindbergh Avenue, Livermore, CA 94551, U.S.A. Tel: (925) 447-0162 Fax: (925) 447-0174

[www.appliedintegratedsystems.com](http://www.appliedintegratedsystems.com)

Printed in the U.S.A. 3/2010