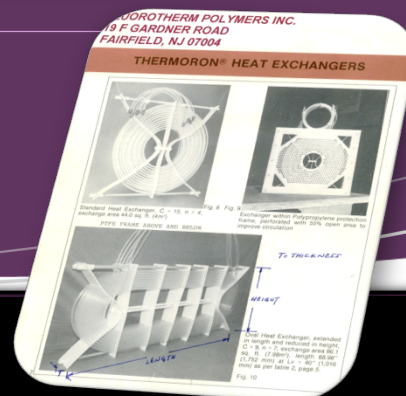


FLUOROTHERM POLYMERS

“A UNIVERSE OF POSSIBILITIES”

FLUOROTHERM™

Fluorotherm manufactures corrosion resistant products from PTFE, TFE, FEP, PFA, MFA and other



Letter From Fluorotherm

To Our Valued Customers:

Fluorotherm started out as a specialty manufacturer of fluoropolymer products in 1992, under the aegis of Norton Performance Plastics, now St. Gobain Performance Polymers. That was 16 years ago!

With a strong R&D background in fluoropolymers, gained by our key people during their employment with DuPont; we have continued to progress toward a wider product range, including tubing manufacturing, to serve a broad range of applications in diverse markets.

Now, not only have we moved to expand our operations here in the US and overseas, but are responding to customer demand more than ever. Our newest products include:

- Expanded tubing line to cover a broad range of sizes in PTFE, FEP, PFA, ETFE and PVDF
- Immersion Coil Heat Exchangers in high temperature usage PVDF frames and either FEP or PFA tubing
- Custom fabricated tube products with flared, flanged, and custom shapes

We hope that you will join us in helping Fluorotherm pave a successful path for the future. We are grateful to all of our customers for their continued support.

Graciously,

Prabhat Shukla

Prabhat Shukla, President

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Thermally Conductive H2 and FEP Tubing

Fluorotherm introduces Thermally Conductive H2 PFA and FEP fluoropolymer tubing to significantly enhance the heat transfer rate for cooling and heating applications.

This tubing is incorporated in Fluorotherm heat exchangers that are used in a broad range of industries such as steel, metal finishing, galvanizing plants and chemical processing applications.

The tubing composition has been optimized to provide the best combination of thermal conductivity and strength while retaining the basic non-stick property of fluoropolymers. Optimization relates to the nature of the fillers, purity, shape factors, and loading, among others. Fluorotherm H2 tubing has been proven and characterized by field tests. The thermal conductivity, based on field testing data, ranges from about 2 to 2.5 times that of natural plastic.

Our H2 heat exchangers are lower profile and require significantly less space than other plastic heat exchangers for a given heat load. For example, sulfuric acid recovery and recycling in galvanizing operations requires half the amount of H2 surface area compared to PVDF or polypropylene heat exchangers. In addition, Fluorotherm heat exchangers are relatively easily cleaned by virtue of the geometry of the Fluorotherm heat exchangers and the inherently non-stick property of H2 tubing.



Fluorotherm's H2 and FEP Tubing

Fluorotherm's Fabrications: Customized Coils

Fluorotherm supplies tubing coils and profiles shaped to specific configurations in accordance with customer requirements.

Some of these profiles have specially flanged or flared ends that must adapt to standard or custom fittings. Tubing material may be PTFE, FEP, PFA, ETFE or PVDF. A major reason for a shape requirement is the need to avoid connectors that disrupt a fully swept or sanitary fluid flow.

The shape has to accurately conform to the field requirement and must meet exacting length criteria; therefore factors such as linear shrinkage have to be accounted for. Tubing coils are generally used where flexibility is needed - one example would be spray hoses for DI water in semiconductor fab-facilities. Of course, there are many other reasons why flexible coils are needed.



Fluorotherm's New Weblog

Fluorotherm has successfully pioneered into the area of blogging! Not only will our news be provided on our blog, but any comments and questions will be answered by Fluorotherm's engineers.

Enjoy Fluorotherm's new blogging service as a way to have all your technical and general questions answered as well as speak to our other customers.

Visit Fluorotherm's Blog [HERE](#)

Fluorotherm FAQs

General FAQs

What are some Shell and Tube Heat Exchanger benefits?

Sanitary Shell & Tube Heat Exchanger For Ultra-Pure Environment Heat Transfer with PTFE, FEP or PFA tubing coil housed in CPVC shell.

The tube side fluid flows through an ultrapure, chemically inert fluoropolymer pathway. The unit can be operated in true counterflow or in parallel flow mode. The unidirectional shell and tube side flows allow for complete purging of the unit after a batch operation is completed. Also, since there is no flow reversal, the formation of stagnant pockets is eliminated during continuous or batch operation.

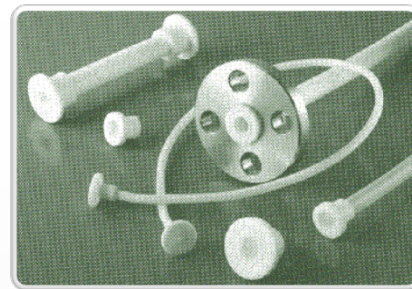
Key Benefits

1. Ultimate in ultra-purity and chemical inertness
2. Unidirectional shell and tube side flows allow for complete purging
3. of the unit - stagnant pockets are eliminated during continuous or batch operation.
4. Unit can be operated in true counterflow or in parallel flow mode.

Be sure to check out all of Fluorotherm's capabilities online at www.fluorotherm.com

Suggestions or Comments?

If you would like to comment on the Fluorotherm Newsletter and/or write a review about a Fluorotherm product please e-mail sales@fluorotherm.com



Customer

"Fluorotherm has exceeded our expectations with the wonderful, wonderful job you have done. The quality of your (PTFE tubing) product has pleasantly surprised everybody here. We look forward to doing business with Fluorotherm." - JH, Rhode Island.

"Your (PTFE/FEP tube) heat exchangers last very long. That's why we don't buy enough of them" - DS, Michigan.

"I have one less thing to worry about after Fluorotherm (FEP tubing) Heat Exchangers replaced our old tank(s) heating system. We are saving money. I will be happy to recommend your products" - GB, Pennsylvania.

"The (PFA tube coil) heat exchangers are working perfect. Your equipment and our workmanship made the replacement of (graphite block exchangers) a success. The (bath) temperature is the highest it has ever been." - RR, Pennsylvania

"I am very pleased with your product (PFA tubing heat exchanger) performance. We are going to replace the existing units with your coil heat exchangers as they come due" - RH, South