

Pharmaceutical : Heating Organic Solvents

The Objective

To safely and efficiently heat organic solvents from 20 °C to 70 °C using silicone oil at 100 °C, while maintaining strict pressure constraints (60 bar on the cold side, 5 bar on the hot side) and meeting sanitary design standards.

The Challenge

The customer needed to heat organic solvents from 20 °C to 70 °C using silicone oil at 100 °C. A major challenge was maintaining strict pressure limits — 60 bar on the cold side and only 5 bar on the hot side — while ensuring compliance with sanitary standards. The solution had to be both reliable and compact to fit within the facility’s constraints.

The Solution

Exergy provided a 316L stainless steel Sanitary Shell & Tube Heat Exchanger, Model 02626 (73 Series). The design featured a double tube sheet for enhanced safety, a compact 3.00” shell diameter, and 26” tube length delivering 16.16 ft² of heat transfer area.

The Results / Benefits

The Exergy heat exchanger delivered reliable heating performance, achieving the required 20 °C to 70 °C temperature rise. Its sanitary design met regulatory standards while safely handling pressure constraints. The compact footprint allowed easy integration into the customer’s system without requiring additional floor space.

Conclusion

Exergy’s heat exchanger not only met our stringent pressure and temperature requirements but also provided the sanitary compliance that was needed. Its compact size made installation seamless.



ISO 9001:2015 CERTIFIED
QUALITY MANAGEMENT SYSTEM