Research & Development : Static Mixer

The Objective

To provide reliable mixing during heat transfer within a pharmaceutical R&D laboratory. The customer required a compact, sanitary, and high-performance solution where conventional heat exchangers could not simultaneously achieve both mixing and efficient thermal control.

The Challenge

The laboratory experiments demanded both precise thermal regulation and effective fluid mixing in a confined space. Standard exchangers lacked the ability to provide mixing while maintaining high pressure, temperature ratings, and material certifications. Maintenance-free operation was also critical.

The Solution

The laboratory experiments demanded both precise thermal regulation and effective fluid mixing in a confined space. Standard exchangers lacked the ability to provide mixing while maintaining high pressure, temperature ratings, and material certifications. Maintenance-free operation was also critical.

The Results / Benefits

The integrated static mixer enabled simultaneous heat transfer and fluid mixing within the R&D lab setup. The compact and sanitary design achieved high reliability, eliminated maintenance requirements, and met full material certification standards. The customer benefited from improved experimental consistency and efficiency.
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Conclusion

Exergy’s static mixer solution demonstrated the ability to integrate mixing and heat transfer in a compact, sanitary exchanger. This case highlights Exergy’s capability to tailor designs for pharmaceutical R&D applications requiring multifunctional performance in constrained spaces.

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QUALITY MANAGEMENT SYSTEM