

Chemical Mixing Reactor™ (CMR)

designed for rapidly mixing coagulants into water

Introducing Mazzei's

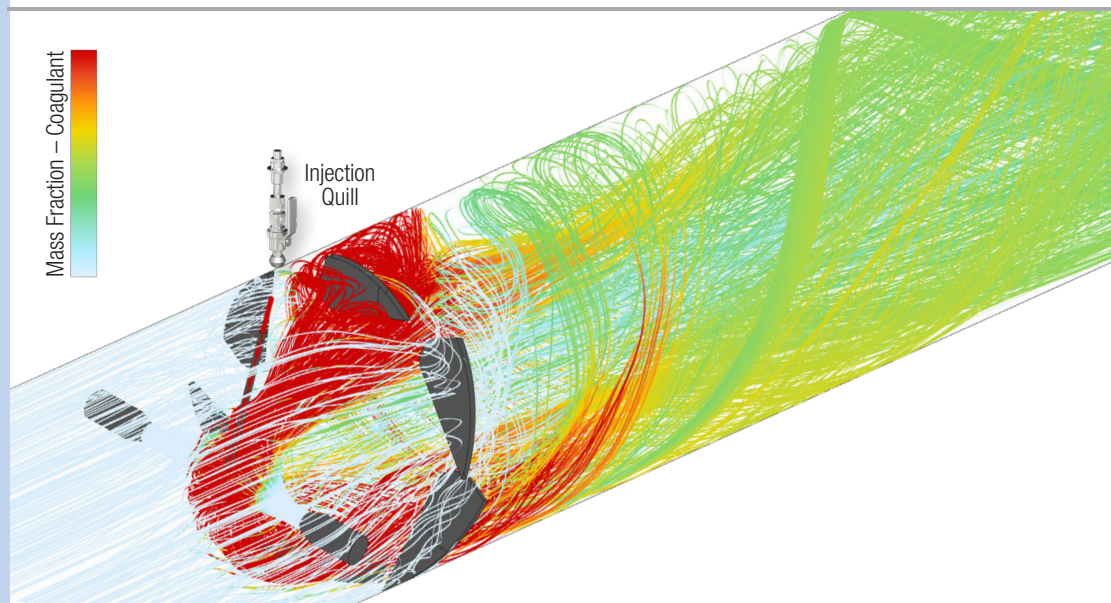
Chemical Mixing Reactor™ (CMR)

The Mazzei Chemical Mixing Reactor (CMR) was specifically designed to rapidly mix coagulants into a mainline flow. It was engineered based on the Mazzei Pipeline Flash Reactor™ (PFR), a proven solution for mixing and contacting which has been installed in numerous municipal facilities worldwide.

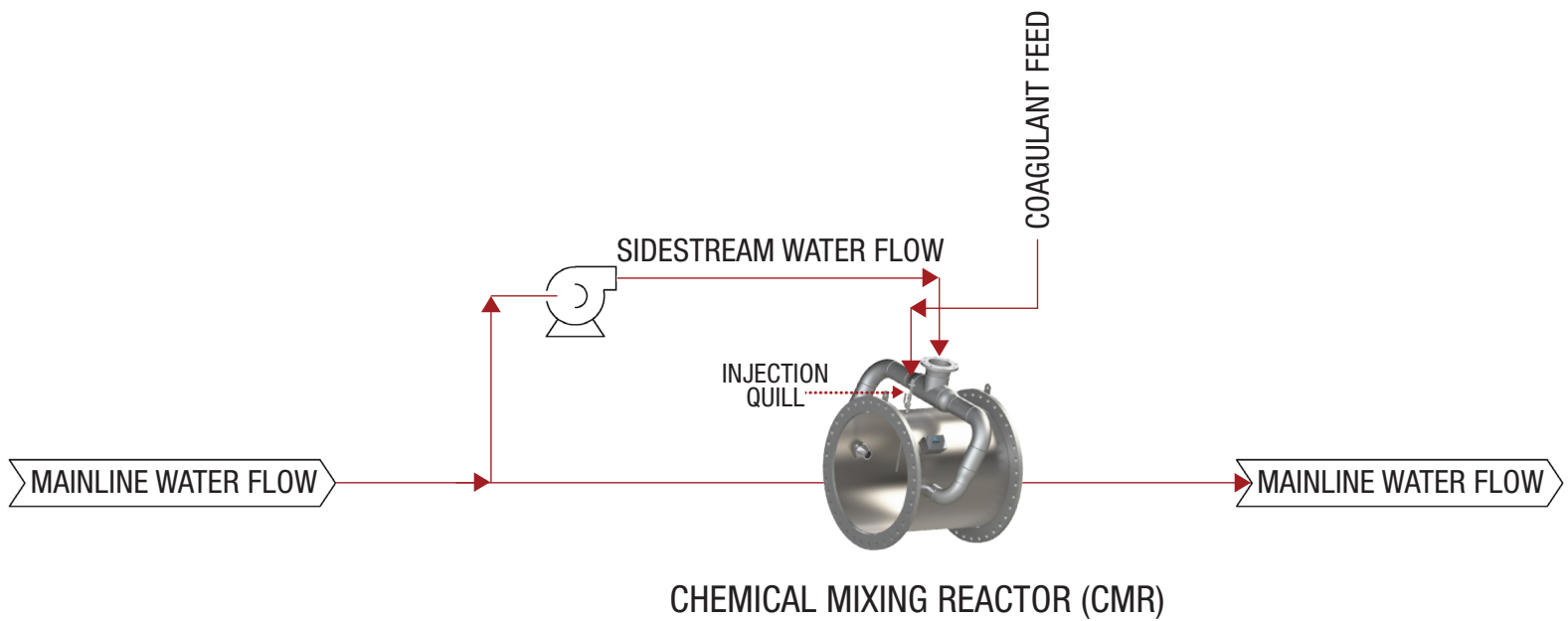
Drawing on over forty years of design expertise, in-house computational fluid dynamics (CFD) modeling, and extensive physical testing, the Mazzei CMR was created. Using CFD modeling ensures optimized performance and instills confidence in the

CMR's reliability with consulting engineers and facility owners alike.

With its highly effective mixing, the CMR eliminates the need for excessive coagulant usage which is often required to compensate for poor mixing, leading to cost savings and a reduction in solids handling requirements. Improved coagulation results in reduced turbidity and total organic carbon (TOC), improving water quality and UV transmittance for both settled and filtered water.



*World Leader
in Mixing and
Contacting
Technologies*



Benefits of Mazzei Chemical Mixing Reactor:

- ▶ The CMR's nozzle-based system achieves exceptional mixing while causing almost no mainline pressure loss, even in facilities with widely varying mainline flow rates.
- ▶ Upon injection, the chemical immediately enters a highly turbulent zone and rapidly disperses into the bulk water flow.
- ▶ The CMR contains no moving parts and requires zero routine maintenance.
- ▶ With its compact design, the CMR is perfect for retrofit applications where space is limited.
- ▶ Improved coagulation results in operational benefits such as extended filter run-times, increased unit filter run volume (UFRV), and more effective disinfection.
- ▶ With no traditional static mixing elements, obstruction to the mainline flow is prevented, eliminating potential issues such as unacceptable pressure losses or accumulation points for debris.



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