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Emerson Impact Partner

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Improve Plant Performance & Protect Vital Equipment With the Fisher™ TBX-T Desuperheater and Our Nozzle Inspection, Testing & Replacement Program

How Long Have You Been Operating With Severely Damaged Nozzles?

It may be time to consider an ongoing inspection and replacement program for your nozzles, and perhaps a new desuperheater.

The steam that you're producing in your power plant may not be at the required conditions for all applications. The sizing, selection, and application of the proper desuperheating or steam conditioning equipment are critical to:

- Improve thermal efficiency of heat transfer processes by using steam near saturation
- Control unintentional superheat from pressure reduction of the steam
- Protect downstream equipment and piping from elevated temperatures and pressures

In addition, we recommend a regular and ongoing Maintenance Program to check nozzles for plugging or other problems every 18 months and replace them every 36 months.

Outdated Equipment & Much Needed Service Led To Severe Pipe Damage

It had been several years since this customer looked into their desuperheater and nozzle health. During one of their own inspections, they noticed that a pipe liner had detached and started traveling downstream. When it got to the nozzle to cool the steam temperature, it was eating away at the nozzle, causing unwanted holes and pouring water into their pipe. This not only damaged the pipe, but could have also affected their instruments downstream, resulting in thermal inefficiencies and potentially more critical issues.

The Experitec team recommended upgrading to a Fisher TBX-T Desuperheater, which has a superior design featuring a 2-nozzle minimum on the outside so as to not interfere with steam velocity and allow multiple access points. Our service team also advised setting up a Maintenance Program including inspecting the nozzles every 18 months and keeping extra nozzles on hand, so they can easily be replaced in the field.

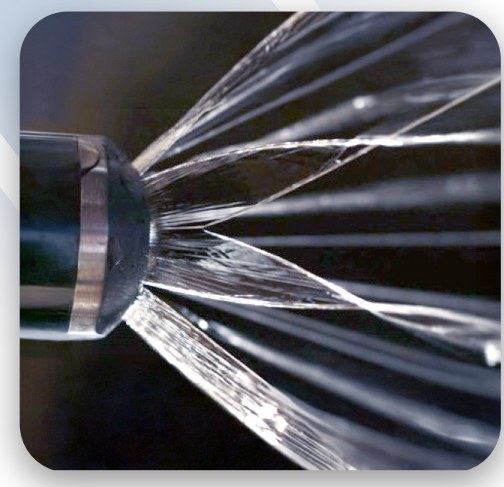
Advantages of the Fisher TBX-T Desuperheater

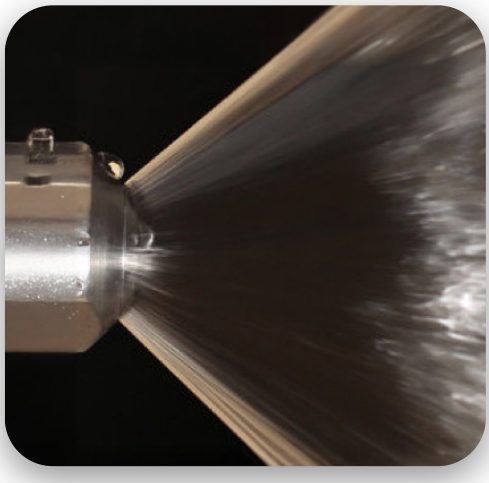
The unique TBX-T design incorporates a spraywater manifold of variable geometry AF nozzles that produce a spray pattern over a wide operating range. These nozzles are strategically placed to achieve mixing and quick vaporization at all flowing conditions.

EXPERITEC POWER HOUSE

Don't Let the Health of Your Nozzles Ruin Your Day or Your Downstream Equipment

Experience The Experitec Difference





✓ Precise Steam Temperature Control

Provides accurate and responsive control of steam temperature through attemperation, improving overall process efficiency and equipment protection.

✓ Turbulent Flow Mixing

The nozzle design promotes efficient atomization and mixing of cooling water with superheated steam, reducing thermal gradients and potential damage downstream.

✓ High Turndown Capability

Accommodates a wide range of steam flow and temperature conditions, making it suitable for dynamic process requirements.

✓ Internal Water Injection

Water is introduced directly into the steam flow through internal nozzles, enhancing control accuracy and responsiveness.

✓ Compact, In-Line Design

Simple and space-saving construction allows for easy installation and integration into existing piping systems without major layout changes.

✓ Customizable Nozzle Configuration

Can be tailored for specific flow conditions and performance requirements, increasing flexibility for end users.

Spraywater Nozzle Testing & Replacement Program

- Time-based inspection & replacement with rotating spares
- Onsite testing using our nozzle testing rig
- In-depth repair report including pictures, videos, & future recommendations
- Replacement parts stocked at our warehouse
- Materials review & upgrade
- Additional diagnostics & repair of control valves
- Any manufacturer's desuperheater or nozzle can be tested

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