

# Stand Alone - DSH

The Masoneilan desuperheater is designed to reduce the temperature of steam by injecting a finely atomized stream of water into a highly turbulent mixing area.

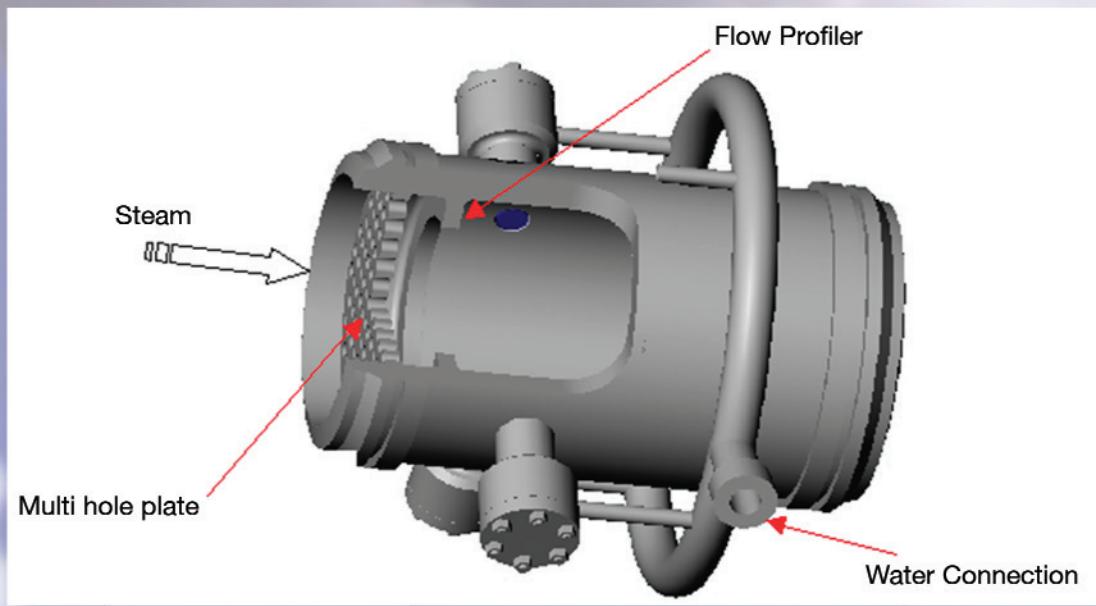
Using technology that has been proven through years of steam conditioning installations, the DSH design removes all nozzles and water connections from inside the steam line and away from the high thermal stress zones. By injecting the water from the pipe wall, thermal shock on the desuperheater is reduced as the equipment is no longer subject to the inherent temperature swings inside the pipe.

Masoneilan uses patented Flow Profiler technology to minimize the required downstream distance prior to the location of the temperature control

sensor. This patented feature further reduces the thermal stress on the surrounding piping system by moving the heat transfer area to the center of the pipe, and away from the pipe wall.

For installation flexibility, the DSH design is available with flanged or welded end connections. The design is also available with an optional in-line diffuser, which is used to further enhance turbulence and breakup high velocity steam jets. Due to the simplicity of the design, and no moveable parts, the DSH can be installed either horizontally or vertically in any piping orientation.

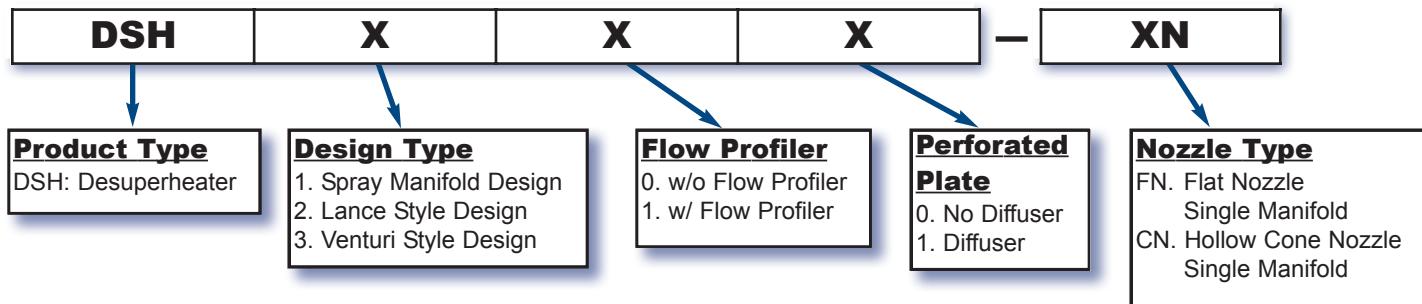
The DSH technology provides higher efficiency piping designs, reduces thermal stress, and improves process and temperature control for in-line desuperheating systems.



**Experience... Knowledge... & Technology.... IN CONTROL..!**  
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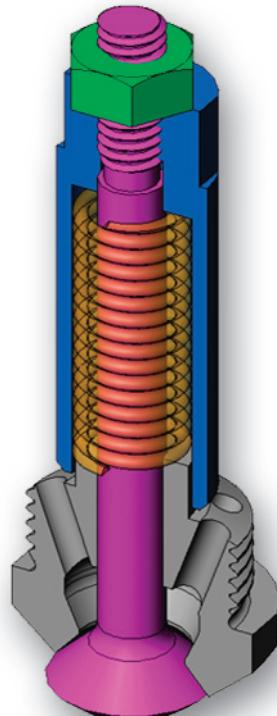
Masoneilan®

## Masoneilan, Stand-Alone DSH



# Variable Orifice Spray Nozzles

Masoneilan achieves a wide range of controllable operation by using a variable orifice, spring loaded spray nozzle. During low-flow operation, the Masoneilan spring loaded nozzles provides a fine aerosol spray of water into the steam line by cracking the nozzle off the seat. This provides proper atomization of the spray water, even at micro-levels of flow. As the required flow rate increases, the water pressure lifts the nozzle plug further off the seat and opens the orifice to provide a full conical spray pattern. The Masoneilan spring loaded nozzle provides in excess of 50:1 turndown under ideal conditions.



The Masoneilan DSH desuperheater is a customer engineered product. Design features may vary in order to provide a Flexible, BEST FIT solution for each application. For specific product information, please consult the factory and provide complete application process data.

