

Process Heating Solutions Worldwide



Desuperheater Series DS

Description

The Pick desuperheater is water spray type with single nozzle. The nozzle is positioned at the center of the desuperheater. Water is sprayed axially, in the direction of steam flow. Conical insert with themal sleeve increases velocity to promote rapid absorption of water, while isolating the housing from thermal stress.

This design provides a simple, cost effective method of cooling steam to within 10°C of saturation temperature. Spray type desuperheaters are appropriate for applications having relatively stable steam and cooling water throughput (up to 3:1 turndown).

Pick can provide the desuperheater only or complete system with cooling water flow control valve and instrumentation.

Who Can Use a Pick Desuperheater?

Any plant that needs to reduce the temperature of superheated steam toward saturation level:

- Refineries
- Power Generation
- Chemical & Petrochemical
- Pulp & Paper Mills

Why a Pick Desuperheater?

- Simple Design
- No Moving Parts
- Easy to Install & Service
- Low Pressure Drop

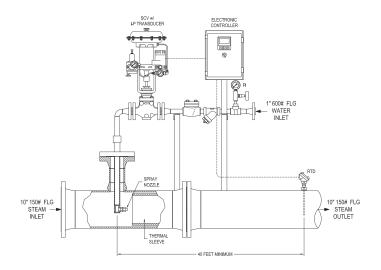
Desuperheater Standard Design

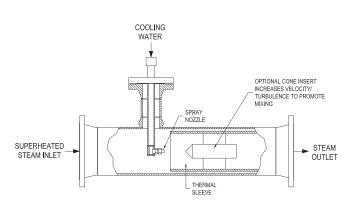
Construction

Standard housing is carbon steel with ANSI flanges. 304SS or 316 SS optional.

Fabricated to match customer's steam pipe diameter and flange ratings.

Thermal sleeve isolates housing from cooling water spray to prevent thermal stresses from being generated in the pipeline. Cone insert increases steam velocity and turbulence to promote rapid mixing.





Shown with cooling water control valve and temperature controller.

Sizing

Model number is determined by temperature reduction of steam in °F.

Model Number	∆ T Steam
DS020	1-40°F
DS060	41-80°F
DS100	81-120°F
DS140	121-160°F
DS180	161-200°F
DS220	201-240°F
DS260	241-280°F
DS300	281-320°F
DS340	321-360°F
DS380	361-400°F
DS420	401-440°F
DS460	441-480°F
DS500	481-520°F

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