

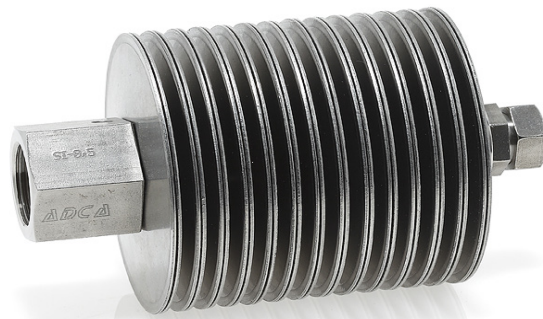
STEAM INJECTORS SI20

DESCRIPTION

The SI20 is a series of direct steam injectors designed for low noise heating of still or flowing mediums, inside basins and vessels.

Steam enters through the inlet connection and passes along the center of the device through holes in the inner rings until reaching the element plates, where most of the steam condenses. The condensate is then discharged at low velocity through the hundreds of serrated apertures in the periphery of the element plates and into the cool medium.

Under heavy loads if any steam passes through the periphery of the element plates, it will do so in very small jets, thus condensing in the surrounding liquid with very little noise and vibration.



MAIN FEATURES

Quiet operation.

Corrosion-resistant stainless steel construction.

No moving parts.

OPTIONS: Complete system including vacuum breaker and self acting temperature regulator.
Different capacities and designs available under request.

USE: Heating via direct steam injection.

AVAILABLE MODELS: SI20-4, SI20-5,5 , SI20-7 and SI20-8,5.

SIZES: 3/4".

CONNECTIONS: Female threaded ISO 7 Rp.

INSTALLATION: Horizontal or vertical installation.
See IMI – Installation and maintenance instructions.

LIMITING CONDITIONS

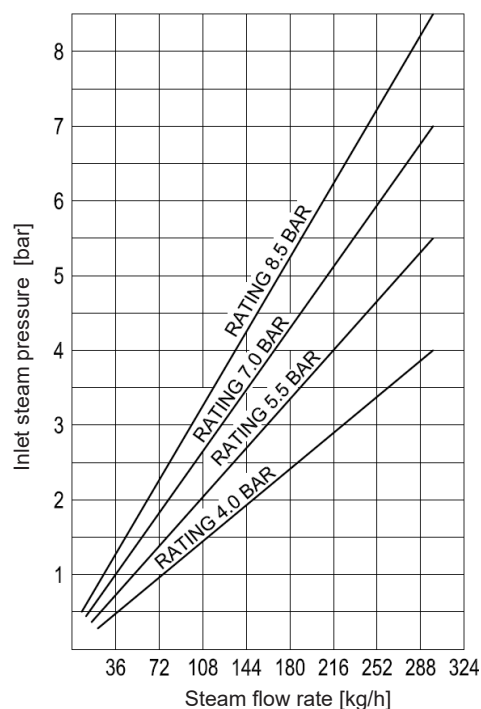
Maximum operating pressure	8,5 bar
Maximum operating temperature	180 °C

HOW TO SIZE

Example

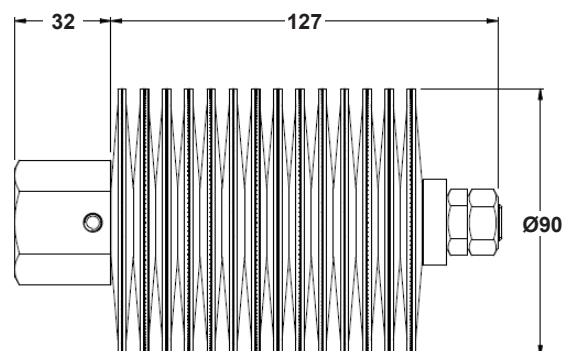
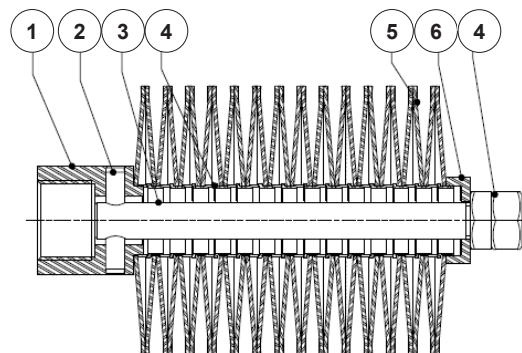
Application requires injection of 950 kg/h of saturated steam, which is readily available at a pressure of 5 bar. Assuming a 20% pressure drop across the self acting temperature regulator, the steam supply to the injectors will be of 4 bar. From the capacity chart, the injector will process 293 kg/h at 4 bar, and 950 divided by 293 equals 3,24. Three injectors will barely cope, so it is recommended to install four SI20 injectors, to safely meet the demand.

CAPACITY CHART
(with vessel at atmospheric pressure)



MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Inlet housing	AISI 304 / 1.4301
2	Pin	AISI 301 / 1.4310
3	Tie-rod	AISI 304 / 1.4301
4	Inner rings	AISI 304 / 1.4301
5	Element plates	AISI 304 / 1.4301
6	Retaining plate	AISI 304 / 1.4301
7	Retaining nut	AISI 304 / 1.4301



TYPICAL INSTALLATION

POS. N°	DESIGNATION
1	ADCA SI20 Steam injector
2	ADCATrol Control valve with electro-pneumatic positioner
3	ADCA Bronze globe valve
4	ADCA Y strainer
5	ADCA Vacuum breaker
6	ADCATrol Pt100 temperature sensor
7	ADCATrol process controller
8	Temperature indicator

