

HSC90 Heat Exchanger

HSC90-01
01/00

Staitech

HSC90 Heat Exchanger

The HSC90 heat exchanger utilises a compact series of polished tubes within a shell to achieve heat transfer duties up to 30KW. Manufactured in 316L stainless steel, the HSC90 is designed to be free-draining and is suitable for both cooling and heating applications in high purity steam and water service such as point-of-use cooling and general heat transfer duties. The HSC90 is also suitable for heat transfer duties where the heating medium is steam.

The unit is designed for in-line mounting using Tri-Clamp® compatible connections. A choice of either threaded or Tri-Clamp® compatible heating/cooling medium connections allows the unit to be removed from service easily for cleaning or inspection.

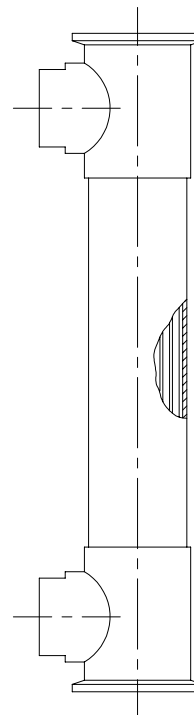
All surfaces wetted by the flow medium are available with either a 0.5 micron Ra finish, or electropolished having a maximum surface finish of 0.25 microns Ra.

Features offered by the unit include:

- 316L stainless steel construction - suitable for high purity steam and water systems.
- High efficiency design - results in compact, easy to install unit.
- Free draining - eliminates possibility of flow medium retention.
- Zero maintenance - low cost of ownership.

Product specification

Material	316L stainless steel, nickel-alloy brazed
Heat transfer tubes	3.2mm O.D. x 0.32mm
Maximum operating pressure	Shell side - 55 bar Tube side - 80 bar
Maximum operating temperature	425°C
Maximum steam pressure	8.5 barg
Maximum average temperature difference	70°C
Surface finish:	
Wetted surfaces	0.5 microns Ra or 0.25 microns Ra & electropolished
External body	Polished
Connections:	
Models HSC90-01, 02 & 03	
Inlet/outlet	1-1/2" Tri-Clamp® compatible
Cooling medium	1/2" NPT or 3/4" Tri-Clamp® compatible
Models HSC90-04, 05 & 06	
Inlet/outlet	2-1/2" Tri-Clamp® compatible
Cooling medium	1" NPT or 1-1/2" Tri-Clamp® compatible



Product selection

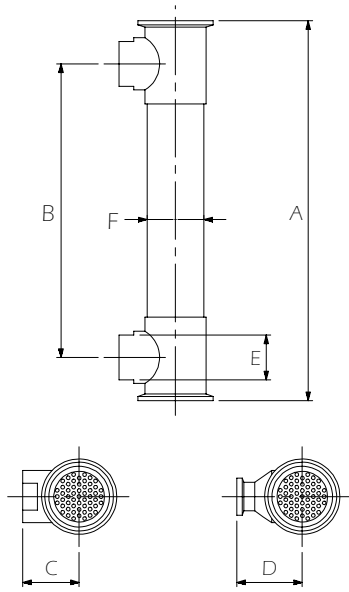
Six sizes of HSC90 are available. Product selection is dependent on the variables highlighted in the sizing check list.

Model	Heat transfer area - m ²	Tube count	Tube volume dm ³
HSC90-01	0.133	55	0.09
HSC90-02	0.203	55	0.12
HSC90-03	0.272	55	0.16
HSC90-04	0.394	163	0.26
HSC90-05	0.601	163	0.36
HSC90-06	0.806	163	0.47

Sizing information check list:

- Application
- Process medium inlet/outlet temperatures
- Heating/cooling medium inlet temperature
- Heating/cooling & process medium pressures
- Allowable process medium pressure loss
- Process medium flow rate
- Available heating/cooling medium flow rate
- Heating/cooling medium connection type
- Surface finish

Dimensions - See overleaf for dimensions



Dimensions(mm)

Model	A	B	C	D	E	F	Weight(kg)
HSC90-01	255	197	38	44	30	38	1.1
HSC90-02	382	324	38	44	30	38	1.4
HSC90-03	509	452	38	44	30	38	1.8
HSC90-04	255	180	57	63	41	63	3.5
HSC90-05	382	308	57	63	41	63	4.2
HSC90-06	509	434	57	63	41	63	5.0