

DOUBLE HELIX SAMPLE COOLER

MODEL - C9
ASC-SS316
ASC-Inconel
ASC-Monel



PRODUCT DESCRIPTION

Sample cooling is necessary for analysis of steam, water and process fluids at elevated sample pressure, temperature and flow. Sample cooler is front commander in any sampling panel to condition the sample to desired temperature. Conditioned sample is used to facilitate grab sample for laboratory records or for online analytical measurements and analysis. Double Helical Coil, full counter-flow 5 pass design sample cooler is most suitable to cool high sample temperature of steam, water, hydrocarbon, oil, brine, gases. Compact size and extremely high heat transfer properties due to 3Ts design- high temperature difference, forced turbulence and time lag. Best sample outlet approach temperature close to 1 Deg C to 5 Deg C these coolers are ideal for use in centralized sampling system(Shelter), Steam and Water Analysis System(SWAS), Stand Alone sampling panel in field, Water Treatment Plant, Desalination Plant and Stand Alone Cooler for Quick Manual Sampling. The design as per International Standards ASME PTC 19.11 Std, EPRI, VGB and ISO 5667-7. Design and manufactured as per ASME Sec. VIII, ASME D1191 and available IBR CE, TUV, PED certification.

SAMPLE COOLER

● Sample ● Measure ● Analyze ● Steam ● Water ● Process

FEATURES

- **COMPACT DESIGN:** Double Helical coil with baffle inside shell.
- **FORCED COUNTERFLOW:** Insures maximum thermal efficiency with minimum coolant.
- **REMOVABLE SHELL:** Easily removable shell due to two piece design.
- **STAINLESS STEEL CONSTRUCTION:** Base model is of SS316/316L coil and SS304 Shell-construction.
- **OPTIONAL** coil material available in Inconel 825, Superduplex SS, & Monel & Titanium.
- No Asbestos - Gaskets are of asbestos free materials so safe for health hazards.
- For shell available MOC is Carbon Steel, SS316, Inconel and Super duplex SS.
- Inbuilt safety relief valve available on request.
- Inbuilt shell cleaning plug.
- Auto shell cleaning facility available on request.
- On request - Teflon coating, special coating shell and pipe.

SAMPLE COOLER SPECIFICATIONS

MODEL NO.	DESIGN		DESIGN	TEMP(C) SHELL	MATERIAL		HEAT TRANSFER SHELL	WEIGHT APPROX
	PR.COIL (PSI)	PR.SHELL (PSI)			COIL	SHELL		
C9-ASC-0-0-06	3500	150	540	343	1/4"O.D. 316/316L	SS304	1.2 FT2 [0.11 M2]	6 Kgs
C9-ASC-0-0-12	3500	150	540	343	1/4"O.D. 316/316L	SS304	2.4 FT2 [0.22 M2]	8 Kgs
C9-ASC-0-0-18	3500	150	540	343	1/4"O.D. 316/316L	SS304	3.5 FT2 [0.33 M2]	12 Kgs
C9-ASC-0-1-06	3500	150	540	343	3/8"O.D. 316/316L	SS304	2.4 FT2 [0.22 M2]	7 Kgs
C9-ASC-0-1-12	3500	150	540	343	3/8"O.D. 316/316L	SS304	3.5 FT2 [0.33 M2]	10 Kgs
C9-ASC-0-1-18	3500	150	540	343	3/8"O.D. 316/316L	SS304	4.7 FT2 [0.44 M2]	14 Kgs
C9-ASC-2-0-06	3500	150	660	343	1/4"O.D. INCONEL 625	SS304	1.2 FT2 [0.11 M2]	6 Kgs
C9-ASC-2-0-12	3500	150	660	343	1/4"O.D. INCONEL 625	SS304	2.4 FT2 [0.22 M2]	8 Kgs
C9-ASC-2-0-18	3500	150	660	343	1/4"O.D. INCONEL 625	SS304	3.5 FT2 [0.33 M2]	12 Kgs
C9-ASC-2-1-06	3500	150	660	343	3/8"O.D. INCONEL 625	SS304	3.5 FT2 [0.33 M2]	10 Kgs
C9-ASC-2-1-12	3500	150	660	343	3/8"O.D. INCONEL 625	SS304	4.7 FT2 [0.44 M2]	14 Kgs

SAMPLE COOLER

• Sample • Measure • Analyze • Steam • Water • Process

REQUIRED PARAMETERS FOR SAMPLE COOLER SELECTION

SAMPLE	
Temperature	560 °C (working)
Pressure	250 Kg/cm
Quality	Turbine inlet steam

Cooling water	Example
Inlet temperature	36 °C (max)
Inlet pressure	3.5 Kg/cm
Outlet pressure	Open to atmosphere
Quality/chloride content	Less than 35ppm

Note: Please check the chloride content in cooling water for chloride more than 35 PPM, special models are available on request.

APPLICATION STANDARDS

American	ASTM section VIII Div I and ASTM PTC 19.11
German	VGB codes

Ordering Information

API Double Helix Sample Cooler

0 : SS 316 Coil
1 : Monel 400 coil
2 : Inconel 625 coil

0 : 1/4" OD Connection
1 : 3/8" OD Connection

06 : 6m coil
12 : 12m coil
18 : 18m coil

0 : NIBR
1 : IBR
2 : Coil - ASME

0 : SS304 - Shell
1 : SS316 - Shell
2 : SS316L - Shell
3 : Inconel shell

1. PED
2. U Stamp
3. No Certificate

Cooler

A

B

C

D

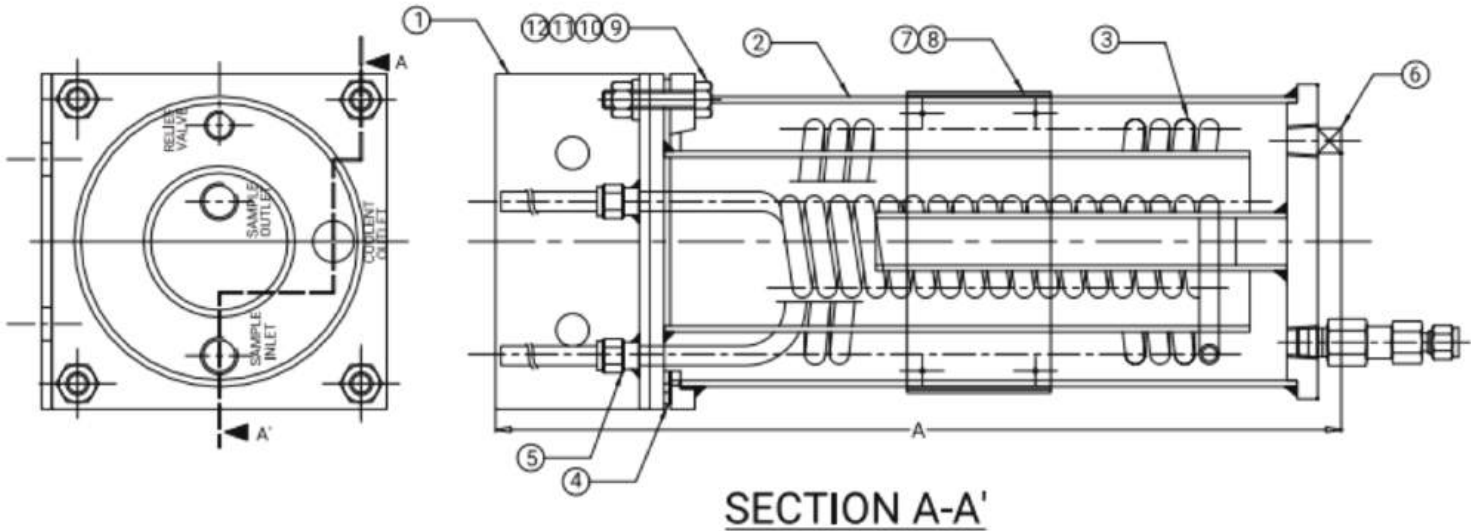
E

F



SAMPLE COOLER

• Sample • Measure • Analyze • Steam • Water • Process



COOLER DETAILS

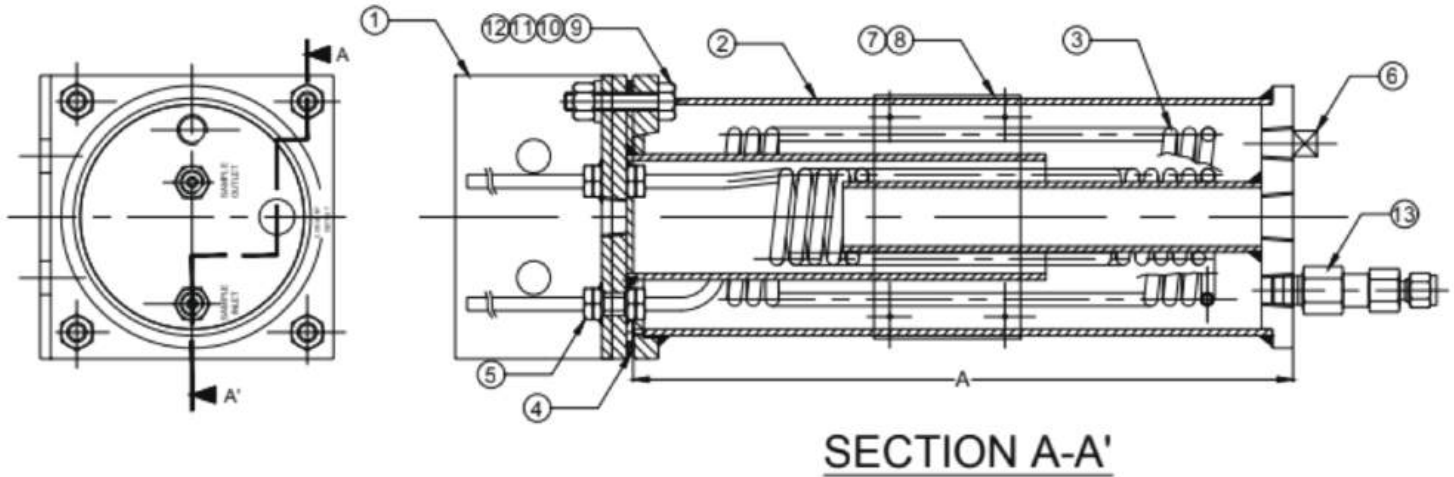
Sr. no	Sample Cooler	Coil Length	Shell Length (A)
1	C9-ASC-0-06	6 mtr	330mm
2	C9-ASC-0-12	12 mtr	380mm
3	C9-ASC-0-18	18 mtr	440mm

COOLER DETAILS

Sr. no	Description	Model
1	TOP FLANGE ASSY	SS304
2	SHELL ASSY	SS304
3	SAMPLE COIL	SS304
4	GASKET	NON ASBESTOS
5	WELD CONNECTOR	SS316/SS316L
6	1/4"NPT PLUG	SS316
7	SPECIFICATION LABEL	SS304
8	HAMMER DRIVE RIVET	SS304
9	BOLT HEX HDM	SS304
10	NUT HEX HDM	SS304
11	PLAIN WASHER	SS304
12	SPRING WASHER	SS304
13	SAFETY RELIEF VALVE	SS316

SAMPLE COOLER

• Sample • Measure • Analyze • Steam • Water • Process



COOLER DETAILS

Sr. no	Sample Cooler	Coil Length	Shell Length (A)
1	C9-ASC-1-06	6 mtr	350mm
2	C9-ASC-1-12	12 mtr	400mm
3	C9-ASC-1-18	18 mtr	460mm

COOLER DETAILS

Sr. no	Description	Model
1	TOP FLANGE ASSY	SS304
2	SHELL ASSY	SS304
3	SAMPLE COIL	SS304
4	GASKET	NON ASBESTOS
5	WELD CONNECTOR	SS316/SS316L
6	1/4"NPT PLUG	SS316
7	SPECIFICATION LABEL	SS304
8	HAMMER DRIVE RIVET	SS304
9	BOLT HEX HDM	SS304
10	NUT HEX HDM	SS304
11	PLAIN WASHER	SS304
12	SPRING WASHER	SS304
13	SAFETY RELIEF VALVE	SS316

CONTACT US



MANUFACTURER

ITALY

Autocontrol Process Instrumentation SRL

📍 Via Vittorio Veneto , 23 Cap
20010 – Bernate Ticino (MI) Italy

✉ sales.europe@autocontrolpi.com

🌐 www.autocontrolpi.com

INTEGRATOR

UAE

Autocontrol Process Instrumentation FZC

📍 Plot No. 1H-08B, P.O.Box 51722
Hamriyah Free Zone, Phase1,
Sharjah, United Arab Emirates

✉ sales.uae@autocontrolpi.com

🌐 www.autocontrolpi.com