



DESCRIPTION

Sample cooler provides the most cooling efficiency allowing it to be suitable for most applications in liquid, gas or steam process. All the materials are constructed in stainless steel which provides rugged and longer life span.

From standard 0.11 to 0.45 m² heat exchange area is providing the most flexible usage for different applications.

The removable shell design can be easy maintenance and cleaning after period of usage. For the applications of corrosive environment, other materials are available upon request, please consult factory.

APPLICATIONS

- Steam & Water Analysis Systems.
- Point of use cooling / sampling
- Grab Sampling systems.

FEATURES

- Dual helical coil design, providing maximum heat exchange area.
- Compact design minimizes cooling water needs.
- Removable outer Shell enclosure, providing easy maintenance and clean.
- Highest efficiency sample cooler commercially available.
- Exotic materials, such as titanium, Inconel® and Hastelloy® on the tube side and Monel®, cupronickel and stainless steel on the shell side are available.

ORDERING INFORMATION

SAMPLE COOLER	SC-
Cooling area 1 0,11 m ² / 1,2 ft ² 2 0,22 m ² / 2,4 ft ² 3 0,35 m ² / 3,8 ft ² 4 0,45 m ² / 4,8 ft ² 100 Special cooling area (To Specify)	
Sample tubing A 1/4"OD x 0,035" B 1/4"OD x 0,049" C 1/4"OD x 0,065" D 3/8"OD x 0,035" E 3/8"OD x 0,049" F 3/8"OD x 0,065" G 1/2"OD x 0,049" H 1/2"OD x 0,065" XX Special size (To Specify)	
Material tubing 10 SS316 11 Alloy 625 12 Alloy 825 13 Hastelloy C-276 14 SS316 Sulfinert 50 Others (To Specify)	
Shell Material K SS304 L SS316 M Alloy 625 N Alloy 825 P Hastelloy C-276 R Others (To Specify)	

NOT ALL COMBINATIONS ARE AVAILABLE
 Please check availability for different combinations out of the standard references

STANDAR COOLERS (usually in stock)

MODEL	Cooling Area	Tube Material Size / Rating	Shell material rating	Weight Kgs (lb)
SC-1-B-10-K	0.11 m ² 1.2 ft ²	316SS 1/4"OD x 0.049" 245bar(g) [3553 psi(g)] @ 540°C (1004°F)	304SS 30 bar (435 psi) @ 200°C (392°F)	5 (11)
SC-1-B-10-L			316SS 30 bar (435 psi) @ 200°C (392°F)	
SC-2-B-10-K	0.22 m ² 2.4 ft ²	316SS 1/4"OD x 0.049" 245bar(g) [3553 psi(g)] @ 540°C (1004°F)	304SS 30 bar (435 psi) @ 200°C (392°F)	7 (15,4)
SC-2-B-10-L			316SS 30 bar (435 psi) @ 200°C (392°F)	
SC-3-F-10-K	0.35 m ² 3.8 ft ²	316SS 3/8"OD x 0.065" 215bar(g) [3118 psi(g)] @ 540°C (1004°F)	304SS 30 bar (435 psi) @ 200°C (392°F)	11 (24,25)
SC-3-F-10-L			316SS 30 bar (435 psi) @ 200°C (392°F)	
SC-4-F-10-K	0.45 m ² 4.8 ft ²	316SS 3/8"OD x 0.065" 215bar(g) [3118 psi(g)] @ 540°C (1004°F)	304SS 30 bar (435 psi) @ 200°C (392°F)	12 (26,45)
SC-4-F-10-L			316SS 30 bar (435 psi) @ 200°C (392°F)	

*All coolers are supplied with bracket in SS304



DESCRIPTION

The cooler consists of a stainless steel coil, through which the sample flows, and a stainless steel body, through which cooling water flows in the opposite direction.

FEATURES

- Compact design with double helicoidal coil
- Very close approach temperatures in sample with the cooling water entry.
- Coil in one piece to ensure low maintenance (no joints).
- Easy maintenance: Coils can be cleaned in-place.
- Others material, please consult.

SPECIFICATIONS

Model:	SC-1-B-10-K	SC-1-B-10-L
Colling area:	0,11 m ² (1,2 ft ²)	
Tube material / size:	316SS 1/4"OD x 0,049"	
Tube rating:	245bar(g)[3553 psi(g)] @ 540°C (1004 °F)	
Shell material	304 SS	316 SS
Shell rating:	30 bar (435 psi) @ 200°C (392°F)	
Weight:	5 Kg (11lb)	
Optimal flow service:		
Single fase:	1000 cc/min	
Condensing heat transfer:	700 cc/min	

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*These references correspond to standard references, usually in stock. For other combinations, please consult.

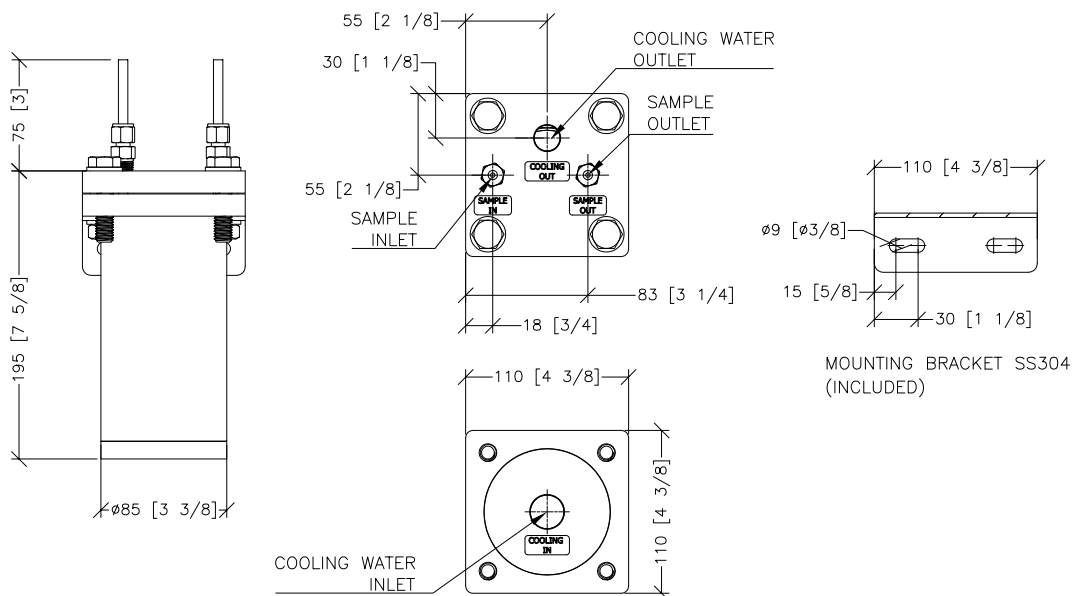
CONNECTIONS

Name	Size & Type
Sample Inlet	1/4" OD Tube
Sample Outlet	1/4" OD Tube
Cooling water inlet	3/4" NPT(f)
Cooling water outlet	1/2" NPT(f)

SPARE PARTS

Name	Part#
Cover "O" ring for SC-1 / SC-2	CL20

DIMENSIONS



Units: mm [Inches in brackets]

Due to continuous improvements, Manvia reserves the right to change the design and specifications without notice



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- Coil in one piece to ensure low maintenance (no joints).
- Easy maintenance: Coils can be cleaned in-place.
- Others material, please consult.

SPECIFICATIONS

Model:	SC-2-B-10-K	SC-2-B-10-L
Colling area:	0,22 m ² (2,4 ft ²)	
Tube material / size:	316SS 1/4"OD x 0,049"	
Tube rating:	245bar(g)[3553 psi(g)] @ 540°C (1004 °F)	
Shell material	304 SS	316 SS
Shell rating:	30 bar (435 psi) @ 200°C (392°F)	
Weight:	7 Kg (15,4 lb)	
Optimal flow service:		
Single fase:	1800 cc/min	
Condensing heat transfer:	1100 cc/min	

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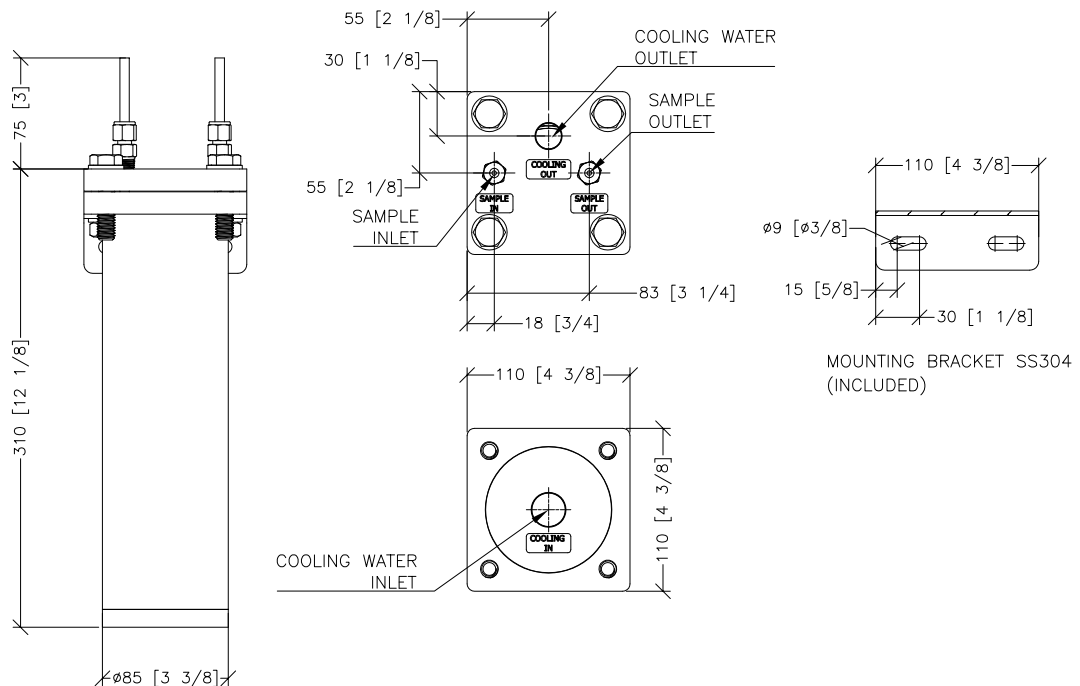
CONNECTIONS

Name	Size & Type
Sample Inlet	1/4" OD Tube
Sample Outlet	1/4" OD Tube
Cooling water inlet	3/4" NPT(f)
Cooling water outlet	1/2" NPT(f)

SPARE PARTS

Name	Part#
Cover "O" ring for SC-1 / SC-2	CL20

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- Easy maintenance: Coils can be cleaned in-place.
- Others material, please consult.

SPECIFICATIONS

Model:	SC-3-F-10-K	SC-3-F-10-L
Colling area:	0,35 m ² (3,8 ft ²)	
Tube material / size:	316SS 3/8"OD x 0,065"	
Tube rating:	215bar(g)[3118 psi(g)] @ 540°C (1004 °F)	
Shell material	304 SS	316 SS
Shell rating:	30 bar (435 psi) @ 200°C (392°F)	
Weight:	11 Kg (24,25 lb)	
Optimal flow service:		
Single fase:	3500 cc/min	
Condensing heat transfer:	2000 cc/min	

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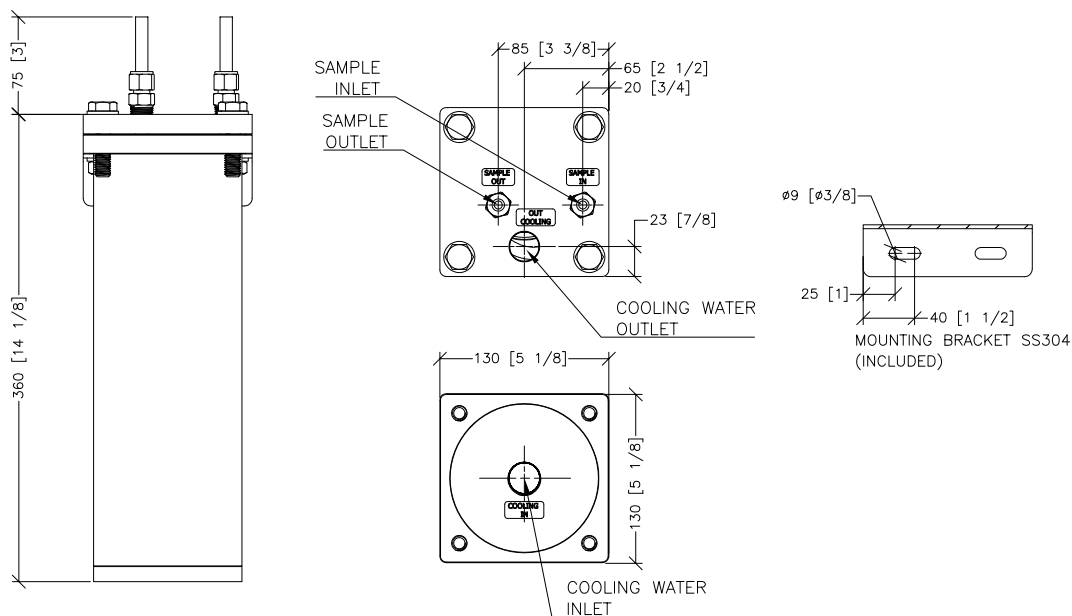
CONNECTIONS

Name	Size & Type
Sample Inlet	3/8" OD Tube
Sample Outlet	3/8" OD Tube
Cooling water inlet	3/4" NPT(f)
Cooling water outlet	3/4" NPT(f)

SPARE PARTS

Name	Part#
Cover "O" ring for SC-3 / SC-4	CL30

DIMENSIONS



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- Compact design with double helicoidal coil
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- Coil in one piece to ensure low maintenance (no joints).
- Easy maintenance: Coils can be cleaned in-place.
- Others material, please consult.

SPECIFICATIONS

Model:	SC-4-F-10-K	SC-4-F-10-L
Colling area:	0,45 m ² (4,8 ft ²)	
Tube material / size:	316SS 3/8"OD x 0,065"	
Tube rating:	215bar(g)[3118 psi(g)] @ 540°C (1004 °F)	
Shell material	304 SS	316 SS
Shell rating:	30 bar (435 psi) @ 200°C (392°F)	
Weight:	12 Kg (26,45 lb)	
Optimal flow service:		
Single fase:	5000 cc/min	
Condensing heat transfer:	2000 cc/min	

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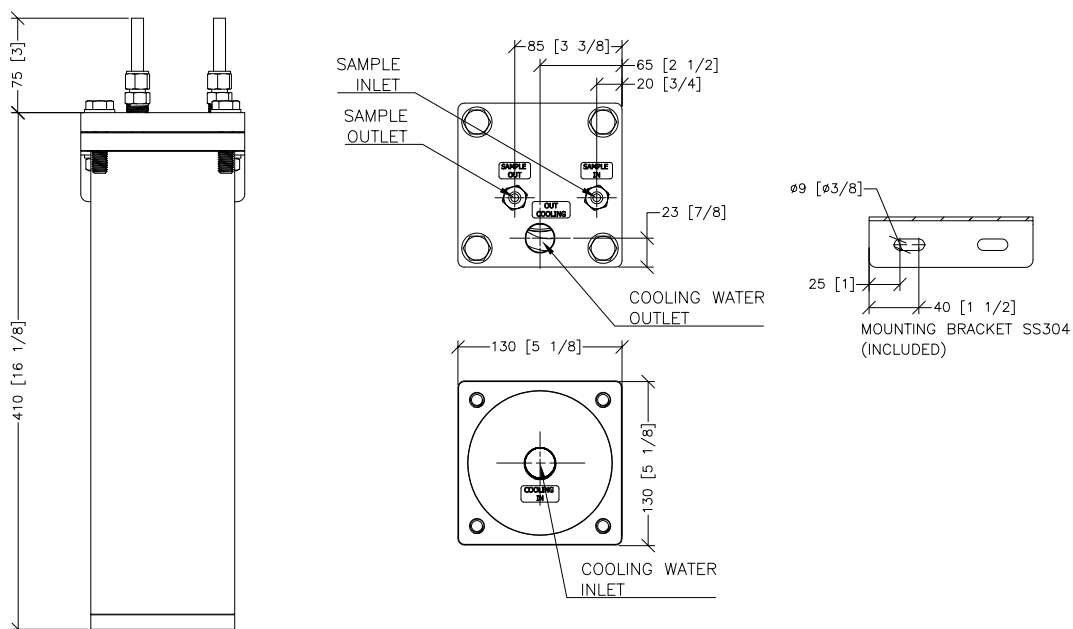
CONNECTIONS

Name	Size & Type
Sample Inlet	3/8" OD Tube
Sample Outlet	3/8" OD Tube
Cooling water inlet	3/4" NPT(f)
Cooling water outlet	3/4" NPT(f)

SPARE PARTS

Name	Part#
Cover "O" ring for SC-3 / SC-4	CL30

DIMENSIONS



Units: mm [Inches in brackets]

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