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## CW SC RC

### PRODUCT DATA SHEET

#### PURPOSE

To cool hot water or steam samples for easy handling and effective sample collection. The Chemworld Sample Cooler is suitable for use on hot water or saturated steam services. The coil is removable allowing it to be cleaned.

#### FEATURES

- Rugged construction
- Removeable coil for cleaning
- Heat exchange area - one sq. ft.
- 316 Stainless Steel cooling coil

#### SPECIFICATIONS

Coil Material	Shell & End Plate Material	Coil Pressure	Shell Pressure	Coil Pressure Drop	Shell Pressure Drop
316 LSS, ASTM A269/A249	Shell CS ASTM A106, gr B	2250 PSIG @ 750°F	450 PSIG @ 250°F	2 PSIG @ 500 CCM	3 PSIG @ 3 GPM
	Ends CS ASTM A108, gr 1018	2500 PSIG @ 500°F		8 PSIG @ 1000 CCM	8.5 PSIG @ 5 GPM
		3000 PSIG @ 250°F		20 PSIG @ 1500 CCM	

Pressure drop above is for flowing samples of water (not steam).

#### PERFORMANCE

Cooling water flow: 3 to 5 GPM

Hot Water Samples

Approach Temperature

Sample Flow (CCM)	Sample Inlet Temperature (°F)		
	200°F	400°F	600°F
500	2	4	38
1000	8	23	
1500	20	55	

Saturated Steam Samples

Approach Temperature

Sample Flow (CCM)	Sample Inlet Temperature (°F)				
	150 PSIA @ 358°F	250 PSIA @ 401°F	500 PSIA @ 467°F	750 PSIA @ 511°F	1000 PSIA @ 545°F
500	70	55	37	28	22
1000			113	95	80

- Approach temperature is added to the cooling water inlet temperature to obtain sample outlet temperature.
- Numbers given above vary with steam quality and are approximate.
- Increasing cooling water (CW) flow will reduce cooling water outlet temperature.
- Steam samples are to be throttled on the discharge of the cooler.
- Gasket materials: EPDM, max 250 F / Silicone, max 350 F
  - The gasket temperature is affected by the cooling water temperature, the sample temperature and the flow rates of both therefore the max sample inlet temperatures are not fixed.

Mounting Bracket Included  
Dimensions: 26" x 6 1/2"  
Weight: 21 1/2 pounds