

SAMPLE COOLERS



WATERS EQUIPMENT SAMPLE COOLERS are full counterflow, heat exchangers designed for use with high temperature/high pressure boiler water and steam analysis systems. Due to their compact size and extremely high heat transfer properties, Waters Sample Coolers are ideal for use in centralized sampling systems or as stand alone coolers for point-of-use applications.

FEATURES

- STAINLESS CONSTRUCTION:** All parts are made of 304/316 stainless steel to resist corrosion and to insure years of service at 100% duty cycle. Inconel coil available.
- FORCED COUNTERFLOW:** Insures maximum thermal efficiency with minimum coolant.
- SIMPLE INSTALLATION:** Includes mounting bracket and connection labeling.
- REMOVABLE SHELL:** Two-piece design facilitates shell removal and reassembly.
- COMPACT DESIGN:** Double wound coil and baffle design ensures maximum thermal efficiency.
- NO ASBESTOS:** Field proven non-asbestos sealing gasket helps protect plant personnel.

SPECIFICATIONS

MODEL NUMBER	DESIGN PRESSURE		DESIGN TEMPERATURE		MATERIAL		HEAT TRANSFER SURFACE	WEIGHT*
	COIL	SHELL	COIL	SHELL	COIL	SHELL		
W9150	5000 PSI	450 PSI	1000°F	650°F	1/4" O.D. 316SS	304SS	2.4 FT ²	15 LBS.
W9250/60	5000 PSI	450 PSI	1000°F	650°F	3/8" O.D. 316SS	304SS	3.5 FT ²	29 LBS.
W9155	5000 PSI	450 PSI	900°F	650°F	1/4" O.D. Inconel 600	304SS	2.4 FT ²	16 LBS.
W9255/65	5000 PSI	450 PSI	850°F	650°F	3/8" O.D. Inconel 600	304SS	3.5 FT ²	30 LBS.

TEST PRESSURES: COIL – 7500 PSI; SHELL – 675 PSI

*TARE WEIGHT INCLUDING MOUNTING BRACKET

PERFORMANCE DATA (APPROACH TEMPERATURES –°F)

INLET COOLANT TEMP. (°F) + APPROACH = OUTLET SAMPLE TEMP. (°F)

MODEL W9150/5 SAMPLE COOLER*

WATER

FLOW CC/M	SAMPLE TEMPERATURE –°F				SAMPLE Δ P
	200	300	500	700	
500	.4	.5	.8	1.5	4.0
1000	.9	1.5	2.0	4.5	15.0
1500	2.0	3.0	5.5	11.0	28.0
2000	4.5	7.5	15.0	37.0	47.0

STEAM

FLOW CC/M	SAMPLE PRESSURE – PSIG				SAMPLE Δ P
	250	700	1550	3100	
500	3.5	2.1	1.6	.5	4.0
1000	22.0	10.0	6.5	4.0	15.0
1500	NR	50.0	28.0	14.0	28.0
2000	NR	NR	NR	45.0	47.0

MODELS W9250/5 & W9260/5 SAMPLE COOLERS**

WATER

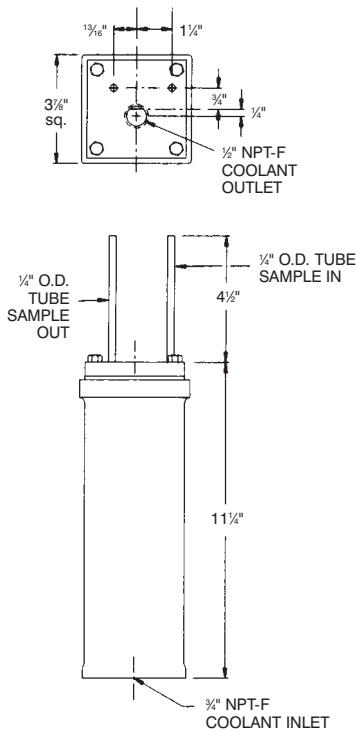
FLOW CC/M	SAMPLE TEMPERATURE –°F				SAMPLE Δ P
	200	300	500	700	
500	.5	.6	.9	2.0	.7
1000	.8	1.0	1.8	3.8	2.2
2000	2.2	3.3	6.0	15.0	7.5
3000	6.0	10.0	20.0	35.0	15.5

STEAM

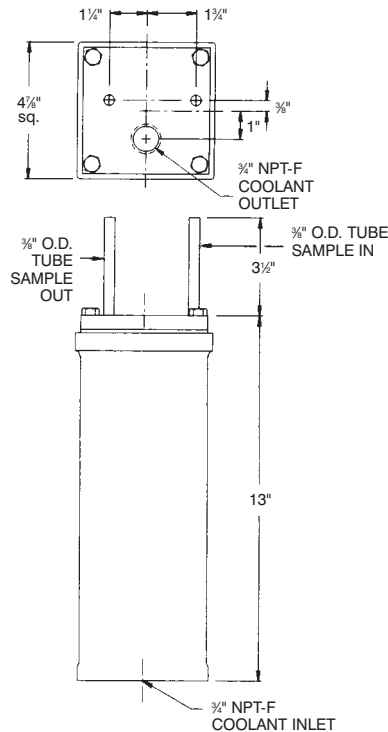
FLOW CC/M	SAMPLE PRESSURE – PSIG				SAMPLE Δ P
	150	500	1500	3100	
500	3.0	2.0	2.0	1.5	1.5
1000	14.0	6.0	5.0	3.5	4.0
1500	75.0	20.0	12.0	8.5	8.0
2000	NR	65.0	14.0	20.0	15.0

NOTES: *Requires 7 GPM Coolant Flow Rate **Requires 12 GPM Coolant Flow Rate NR – Not Recommended, Consult WATERS EQUIPMENT CO.

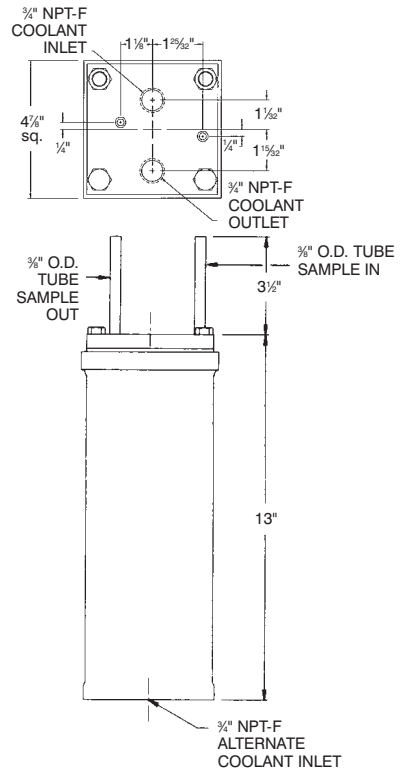
MODEL W9150/W9155



MODEL W9250/W9255



MODEL W9260/W9265



The Waters Equipment expertise goes beyond Sample Coolers. We also design and manufacture:
 Total Plant Water and Steam Analysis Systems • Sample Conditioning Modules
 Pressure Reducers • Refillable Resin Cartridges • Portable Samplers



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