



XC BOILER BLOWDOWN SYSTEMS

Heat Recovery Product

***Automatic Continuous Blowdown
Heat Recovery for Boiler Systems***



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Features

- 1 to 6 boilers in the same recovery unit
- Typically recovers 90% of heat lost during blowdown
- Quick payback in energy savings
- Boiler pressure ratings from 35 to 250 psig (2.4 to 17.2 barg)

Description

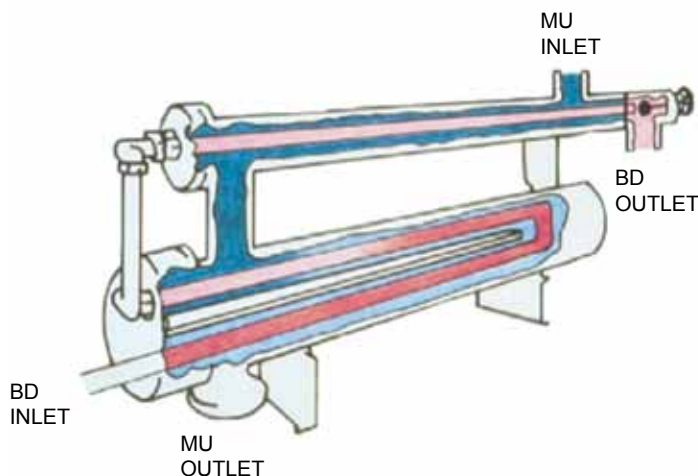
Sentry Model XC boiler blowdown systems provide the best performance of any heat recovery product available.

The XC is specifically designed to eliminate the twin hazards of blowdown systems: FLASH STEAM - which destroys heat exchangers, valves and piping and OVERHEATED MAKEUP - which scales up the heat exchanger, and liberates dissolved gases which corrode the exchanger, piping and deaerator inlet.

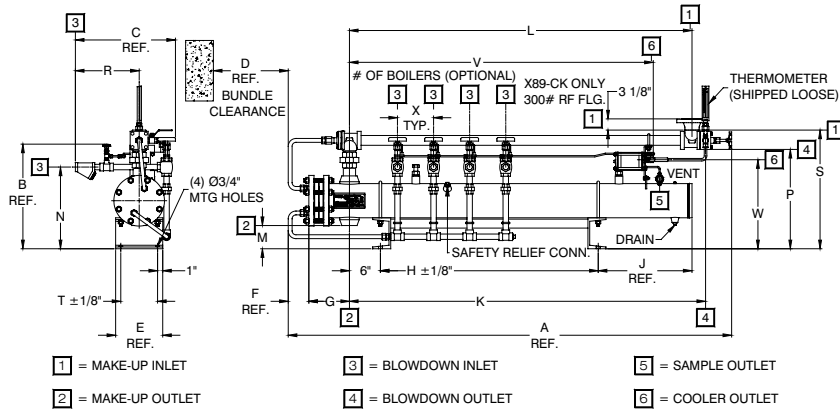
All systems are completely pre-piped for a broad range of boiler(s) capacities and installation is simple.

How It Works

1. The Automatic Proportional Control Valve uses a direct acting thermostatic tube working against an adjustable seat. The (cold) makeup water flows between the inner and outer tubes automatically regulating blowdown to be concurrent with and proportional to makeup flow. It also virtually ensures that no blowdown occurs without proportional makeup flow. The (warm) blowdown water flows through the inner thermostatic tube.
2. The efficient counterflow heat exchanger comes completely piped as part of the system. The stainless steel tube bundle is specifically designed to withstand thermal shock, water hammer, abrasive materials and high water velocities. All units are ASME stamped.



TECHNICAL DATA



MODEL	MAX. # OF BOILERS	DIMENSIONS (INCHES) - TOLERANCE IS $\pm 1/4$ " EXCEPT AS NOTED											
		A	B	C	D	E	F	G	H	J	K	L	M
X43-CM	3	53"	18.38"	18.5"	28"	7"	4"	7.5"	16.5"	9.31"	35.75"	33"	4.5"
X46-CM	4	80"	18.38"	18.5"	64"	7"	4"	7.5"	38.5"	23.31"	62.62"	60"	4.5"
X66-CLM	5	82.5"	20.38"	18.5"	64"	9.12"	4"	8"	38.5"	23.5"	62.62"	60"	4.38"
X69-CLM	5	125.5"	20.38"	18.5"	100"	9.12"	4"	8"	64.5"	33.5"	107.5"	105"	4.38"
X89-CKM	6	126"	24.38"	18.5"	100"	11.12"	4"	9.5"	64.5"	32.31"	104.5"	96.5"	4"

MODEL	DIMENSIONS (INCHES) - TOLERANCE IS $\pm 1/4$ " EXCEPT AS NOTED							CONNECTIONS - FPT					
	N	P	R	S	T	V	W	X	1	2	3	4	6
X43-CM	13.5"	16.5"	11.5"	20.5"	5"	27.06"	15.5"	5"	1 1/2	1 1/2	3/4	3/4	1/4
X46-CM	13.5"	16.5"	11.5"	20.5"	5"	56.06"	15.5"	7"	1 1/2	1 1/2	3/4	3/4	1/4
X66-CLM	15.5"	19.5"	11.5"	23.5"	7.12"	56.25"	18"	7"	2	2	3/4	3/4	1/4
X69-CLM	15.5"	19.5"	11.5"	23.5"	7.12"	92.25"	18"	7"	2	2	3/4	3/4	1/4
X89-CKM	21"	24.5"	11.5"	29.87"	9.12"	92.06"	22.5	7"	3	3	3/4	1	1/4

SPECIFICATIONS

Automatic Proportional Control Valve has a brass thermostatic tube; steel and ductile iron outer shell and connections; heat treated stainless steel seat and plunger; blowdown outlet thermometer. The Control has a manually adjustable set point range for makeup/blowdown ratios of 3/1 to 50/1.

Sample Cooler is a counterflow Sentry Model TRB4222 to discharge blowdown sample at maximum of 120°F (49°C). Tube side is stainless steel, rated at 2000 psi/850°F (138 bar/454°C). Shell side is stainless steel, rated at 250 psi/450°F (17.2 bar/232°C). The shell can be removed without disconnecting piping. Cooler is equipped with isolation valves and inter-connecting piping.

Counterflow Heat Exchanger has (a) removable U-tube bundle; 19 ga. 304 stainless steel tubes; U-bends 1.5 times thicker than tubes; rear supporting baffle, (b) steel shell side with anti-vibration hold down clamps, (c) ASME Boiler and Pressure Vessel Code stamping for 250 psig/400°F (17.2 bar/204°C) rating, (d) interconnecting piping of steel and stainless steel, and (e) supporting stands of steel.

Balancing Valves for each boiler are bronze 300 psi (21 bar) V-Port with one bronze 250 psi (17.2 bar) strainer per valve.

Finish is blue Polyurethane enamel.

WARNING

It is solely the responsibility of the end-user, through its own analysis and testing, to select products and materials suitable for their specific application requirements, ensure they are properly installed, safely applied, properly maintained, and limit their use to their intended purpose. Improper selection, installation, or use may result in personal injury or property damage.



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