

# Model 61 Boiler Blowdown System



ELECTRO-CHEMICAL DEVICES



# What does the Model 61BBS do?

- ❖ Model 61 BBS
  - The Model 61 uses the Conductivity of the Boiler Water to optimize the blowdown cycles of a boiler.
- ❖ Saves Money vs. manual blowdown cycles.
  - Minimizes the amount of make-up water used (\$) and the energy used to heat it (more \$).
  - Minimizes scaling and corrosion problems, reducing maintenance (more \$).





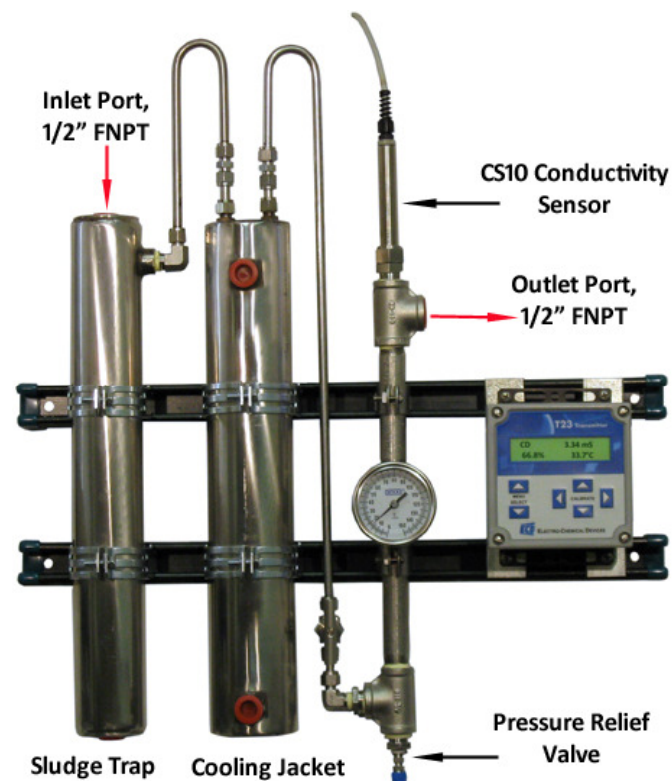
# What is the Model 61 BBS?

## ❖ System Components

- Instrument, T23 transmitter is standard
- Sample Conditioning Assembly (SA)
- CS10 Conductivity Sensor
- Pre-assembled on 1" U-channel rack

## ❖ Options

- Dual measurements: pH and Conductivity
- Intrinsically Safe, Explosion Proof transmitter, Model T28
- Single or Dual channel Controller, Model C22

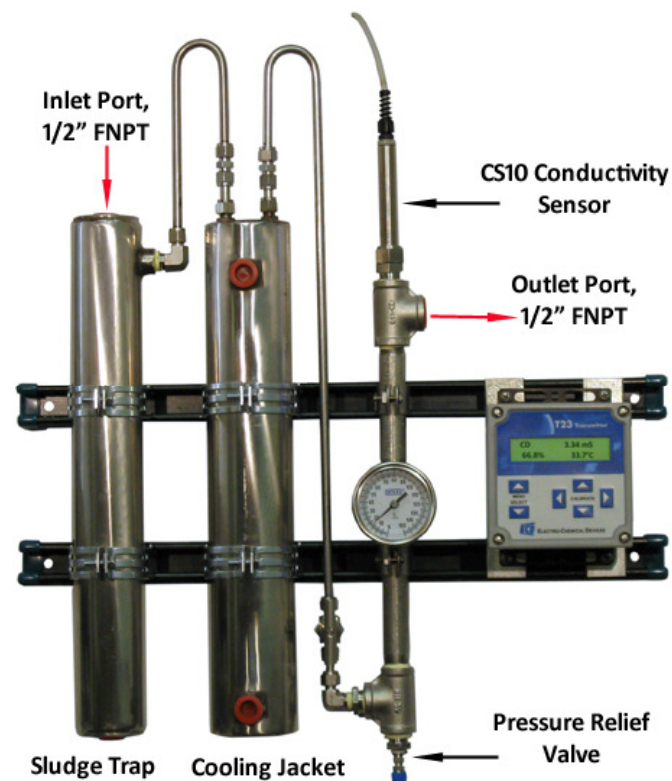




# Model 61 Sample Assembly (SA)

## ❖ Sample Assembly

- All wetted materials are 316 Stainless Steel
- Sediment/Sludge Trap
- Sample Cooling Jacket
- Needle Valve for flow adjustment (temp. control)
- Pressure Relief Valve
- Temperature Gauge
- Sample Point & Outlet

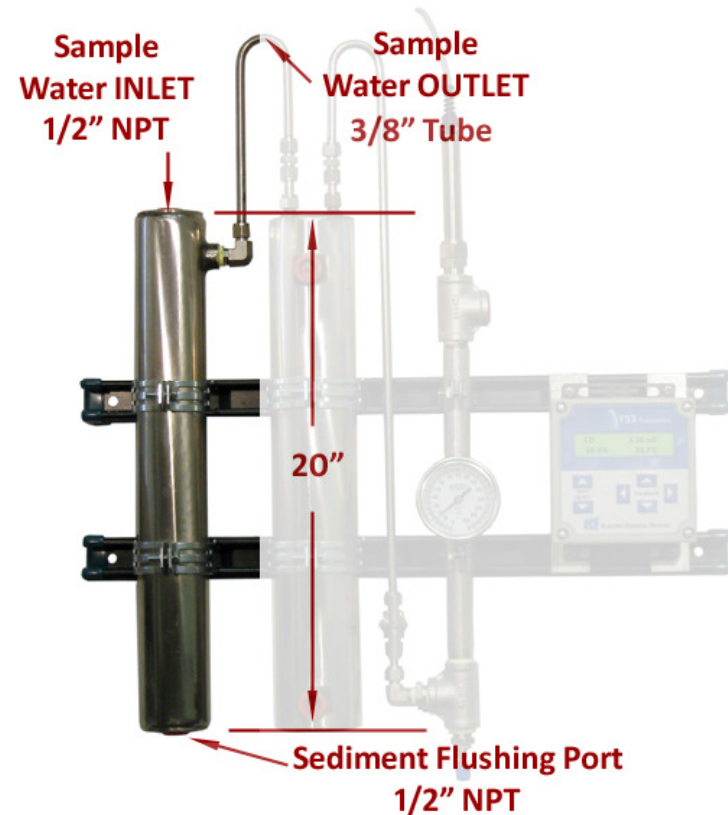




# Model 61 SA, Sediment Trap

## ❖ Sediment Trap

- Removes particulate matter from the sample stream.
- 1/2" NPT Inlet connection for the boiler water feed.
- The water enters from the top into a 1"OD x 15" down tube.
- Then flows back up to a 3/8" tube outlet.
- 1/2" Flushing Port at the bottom to remove sediment.



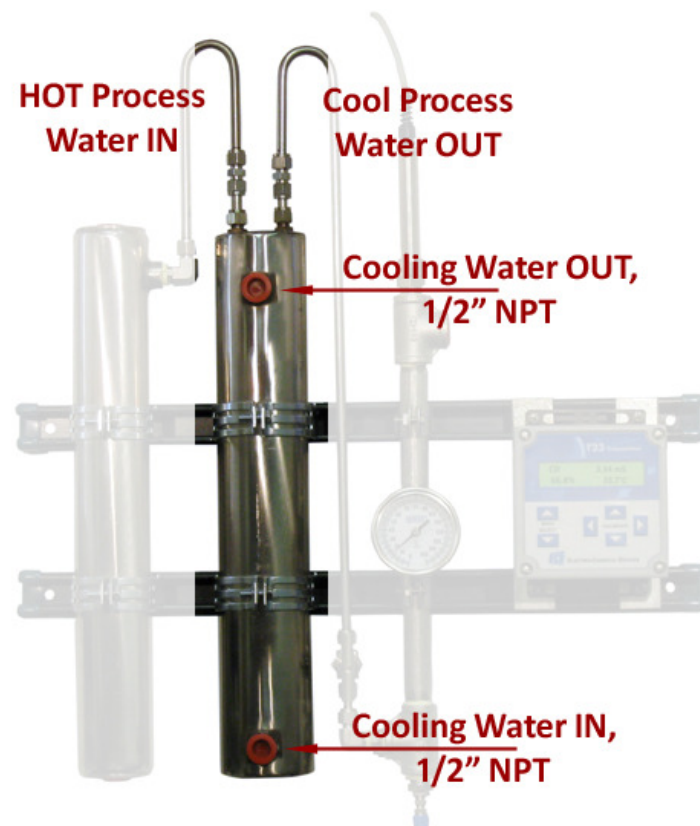




# Model 61 SA, Cooling Jacket

## ❖ The Cooling Jacket

- HOT sample water comes in (up to 600°F)
- Sample flows through 20 ft. of coiled tubing immersed in the cooling water.
- COOL sample leaves (below 125°F)
- Requires 3-5 GPM of Cooling water

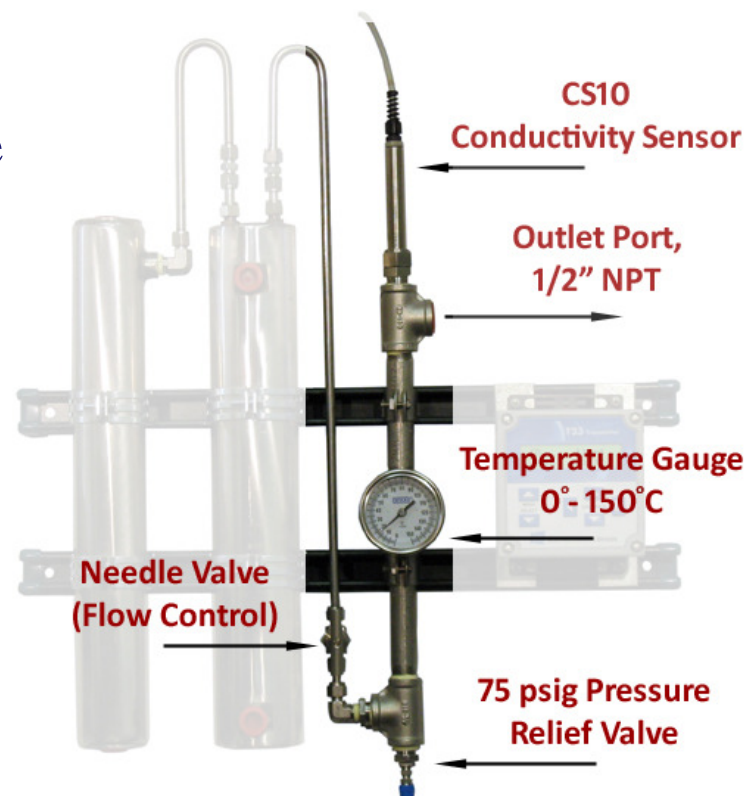




# Model 61 SA, Temperature Control

## ❖ Temperature Control

- A Needle Valve controls the sample flow through the system.
- Slowing the flow increases the resident time of the sample in the cooling jacket.
- Adjust the flow to drop the temperature of the sample to below 125°F.
- Pressure Relief valve protects the sensor(s) from blowout due to an over pressure condition.





# Model 61 Instruments

## ❖ Transmitter or Controller

- Model C22, 110/220 VAC line powered, dual Input, multiple outputs (pH, Cond., Temp, PID), Alarm Relays, Timers and Logic functions
- Model T23, two wire, 4-20 mA transmitter (standard), conductivity output only
- Model T28, Intrinsically Safe, Explosion Proof, 2 wire, 4-20 mA transmitter (optional), Conductivity output only

Model C22 Controller



Model T23 Transmitter



Model T28 Transmitter







# Model 61 BBS Key Features

- ❖ High Pressure/High Temperature Sample Conditioning System.
- ❖ Single or Dual sensor Input
- ❖ Not Just for Boiler Water, it is suitable for any process that needs conditioning to make the measurement more reliable.
- ❖ Any combination of pH, ORP, Conductivity, Ion Selective or Dissolved Oxygen Electrodes
- ❖ Rack Mounted System for easy installation





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