

SURGE TANKS



Boiler Book
05/2017



The Cleaver-Brooks Surge Tank products provide additional storage time and a means to handle volume swings in condensate returns. By collecting intermittent condensate returns and supply water at a relatively constant volume while limiting discharge to drain, a surge tank compensates for the unpredictability of condensate return volume. Contact your local Cleaver-Brooks authorized representative for component sizing information.

By collecting condensate for re-use in the boiler, surge tanks can reduce dependence on cold, untreated raw water to replace boiler system losses. Dedicated surge tanks are required when intermittent peak loads of condensate can exceed the surge capacity of the deaerator.

The surge tank receives returning condensate and is supplemented by raw make-up water to maintain the desired operating level. Condensate and make-up water mix into a blend temperature as determined by the percentage of each. The surge tank is vented to atmosphere.

Surge tanks are designed to work with the deaerator. They can be packaged with transfer pumps, stand and controls of the same sturdy construction as the deaerator. Custom arrangements are also available. Contact local Cleaver-Brooks authorized representative for component and sizing information.

Surge tanks are used when gravity or pumped condensate returns do not have enough pressure to enter the deaerator on their own. Water and treatment costs are reduced by recycling condensate that has already been treated.

Integrated control automatically introduces cold water makeup to supplement condensate only when necessary to meet boiler demand. This translates into reduced fuel costs for heating boiler feedwater.

FEATURES AND BENEFITS

ASME Heads:

- Assures vessel quality in materials and fabrication.

1/4" Thick (Minimum) Shell:

- Quality construction.
- Longer material life.

Boosts Condensate Return Pressure:

- Acts as a collecting point for low pressure and gravity returns.
- Allows pumping of returns to a pressurized vessel.

Accepts Gravity Returns:

- Vessels are vented to atmosphere, therefore providing no pressure resistance that would inhibit gravity return.

PRODUCT OFFERING

Model Number	Flooded Capacity (Gallons)
SRG-260	260
SRG-300	300
SRG-450	450
SRG-600	600
SRG-900	900
SRG-1200	1200
SRG-1400	1400
SRG-1800	1800
SRG-2200	2200
SRG-2500	2500
SRG-3000	3000
SRG-3500	3500
SRG-4000	4000
SRG-4500	4500
SRG-5000	5000
SRG-6000	6000
SRG-7000	7000
SRG-8000	8000
SRG-9000	9000
SRG-10000	10000

Standard Equipment

- Surge tank
- Thermometer
- Gauge glass
- Required tapings and manway

Optional Equipment

- ASME code tank
- Water level controller with make-up valve
- Three valve bypass and strainer
- Suction shutoff valve
- Suction strainer
- Discharge check valve
- Discharge shutoff valve
- Discharge pressure gauge
- Discharge manifold
- High water alarm
- Low water alarm
- Low water pump cut off
- Condensate diffuser tube
- Control panel
- Transfer pump and motor
- Recirculation orifice or relief valve
- Insulation and lagging
- Chemical feed quill
- Stand
- Packaging
- Fully packaged, factory piped and wired
- Magnesium anode
- Half packaged, suitable for field erection with interconnecting piping and wiring by others
- Seismic construction

