

## SMALL BOILER OPERATING PROCEDURE

### Blowdown:

1. Make sure there is enough water in glass (at least 1/3 of the way up the sight glass).
2. Open main DI water valve (orange valve) and DI water valve into small boiler. The DI water is running at 30 psi. If glass is full and DI water pump is on then turn power OFF because something is probably wrong.
3. Turn main power switch in the back ON.
4. Turn main switch in front panel ON.
5. Make sure main steam valve is closed.
6. Wait until pressure reaches 10-15 psi (**DO NOT BLOWDOWN ABOVE 20 psi**).
7. Turn off both heating element switches labeled on the front control panel.
8. Put autoclave gloves on and be careful when blowing down sight glass contents.
9. Put bucket under sight glass to collect blowdown water.
10. Open water gauge drain ball valve halfway for ~3 seconds and then close. Do this twice. The purpose of this is to purge the water in the sight glass although it will not look empty during this procedure.
11. Completely open tank blowdown valve for ~5 seconds and then close.

### General Operation:

12. Turn ON both heating element switches labeled on the front control panel.
13. Once the pressure is 30 psi the light in the front panel switches will turn off. The steam from the boiler should be ready for use in 25-30 min.
14. Then OPEN the main steam valve slowly at about half a turn every 3 seconds.

### Shutdown:

1. CLOSE boiler main steam valve.
2. Turn power switch in front panel OFF
3. Turn main power switch OFF in the back.
4. Leave DI water valves OPEN.