OSAKA BOILER

TECHNICAL INFORMATION

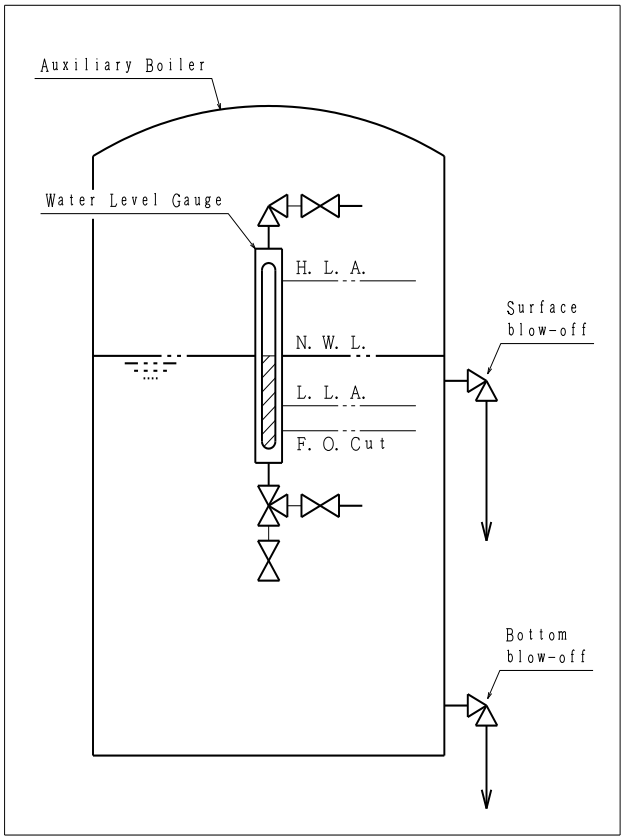
OSAKA BOILER MFG.CO.,LTD.

Blow-off of boiler water

【Subject model: Auxiliary Boiler, Composite Boiler, Steam Separating Drum】

Negligence of the blow-off of boiler water leads to corrosion accident of boiler inside, in worst case, big trouble is happened such as boiler tubes leakage etc.
Recently corrosion accident is increasing caused by insufficient blow-off operation. Therefore be sure to carry out the blow-off operation correctly as below procedure.

Blow-off of boiler water is a very important work in order to maintain the boiler in good condition.
All boilers have two blow-lines on both surface and bottom side.
The purpose of surface blow is for draining the impurities near water surface and bottom blow is for draining condensated impurities (sludge) on boiler bottom side.
Carry out the blow-off every 2 days without fail regardless of the water quality test result. And control the blow-off quantity by water level with the water level gauge.



Surface and bottom blow valve

Corrosion by blow-off shortage

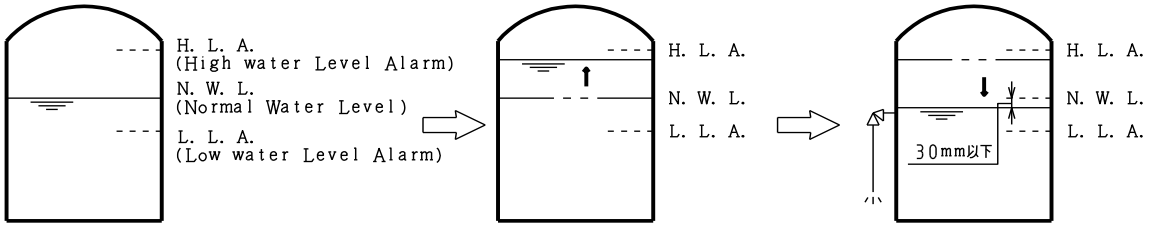
Accumulated sludge on boiler bottom side

Blow-off procedure

1. Stop the burner.
2. Change the feed water pump to ‘MANUAL’ mode.
3. Surface blowing
   1)Run the feed water pump up to near High water Level Alarm (H.L.A) then stop the feed water pump.
   2)Open the surface blow valve.
   *Turn blow-off valve handle more than 1 rotation.
   3)Blow-off the boiler water until the water level becomes minus 150mm from the level of above item 3-1) by checking water level gauge.
   *Be careful water level does not become 30mm lower than Normal Water Level(N.W.L).
4. Bottom blowing
   1)Run the feed water pump up to near High water Level Alarm (H.L.A)then stop the feed water pump.
   2)Open the bottom blow valve.
   *Turn blow-off valve handle more than 1 rotation.
   3)Blow-off the boiler water until the water level becomes minus 150mm from the level of above item 4-1) by checking water level gauge.
   *Be careful water level does not become lower than Low water Level Alarm (L.L.A).
5. Change the feed water pump to ‘AUTO’ mode.
6. Restart the burner.

Blow-off procedure

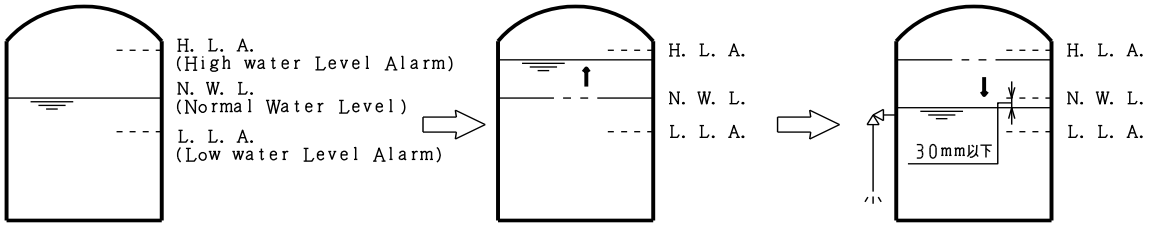
1) Surface blow-off



Raise water level from NWL up to around HLA.

Open blow-off valve, and blow off boiler water.
Blow-off quantity is 150 mm of water level shown in water level gauge.
Be careful water level does not become 30 mm lower than NWL.
If blow-off quantity does notreach 150 mm in one blow-off, repeat the same work until the total quantity reaches 150 mm.

2) Bottom blow-off



Raise water level from NWL up to around HLA.

Open blow-off valve, and blow off boiler water.
Blow-off quantity is 150 mm of water level shown in water level gauge.
Be careful water level dose not become lower than LLA.