

TWO SHIFT OPERATION POWER PLANTS

In modulating and start-stop operated power plants many issues are found in drain- and blow down valves.

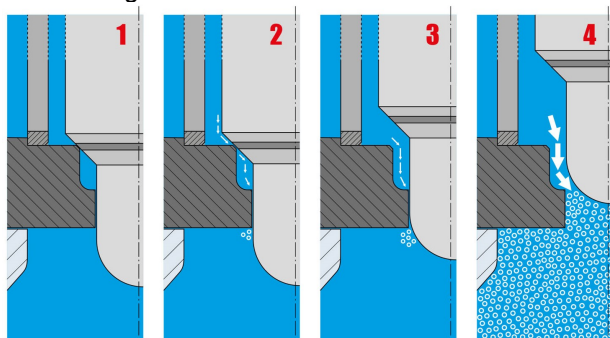
DRAIN CONTROL VALVES

The correct performance of the drain system is imperative on a station where the system is expected to perform multiple stop-start cycles. Moreover the need to keep the boiler “tight” during the night, enabling a hot start in the morning. This requires non-leaking drain and blow down valves.

THE ACTUAL SITUATION

The problem seen at the drain control valve is flashing. By reducing the pressure the condensate mass flow transfers into a water/steam mixture. The volume will extremely increase and will be very erosive. The valve body and the downstream piping will be damaged quickly.

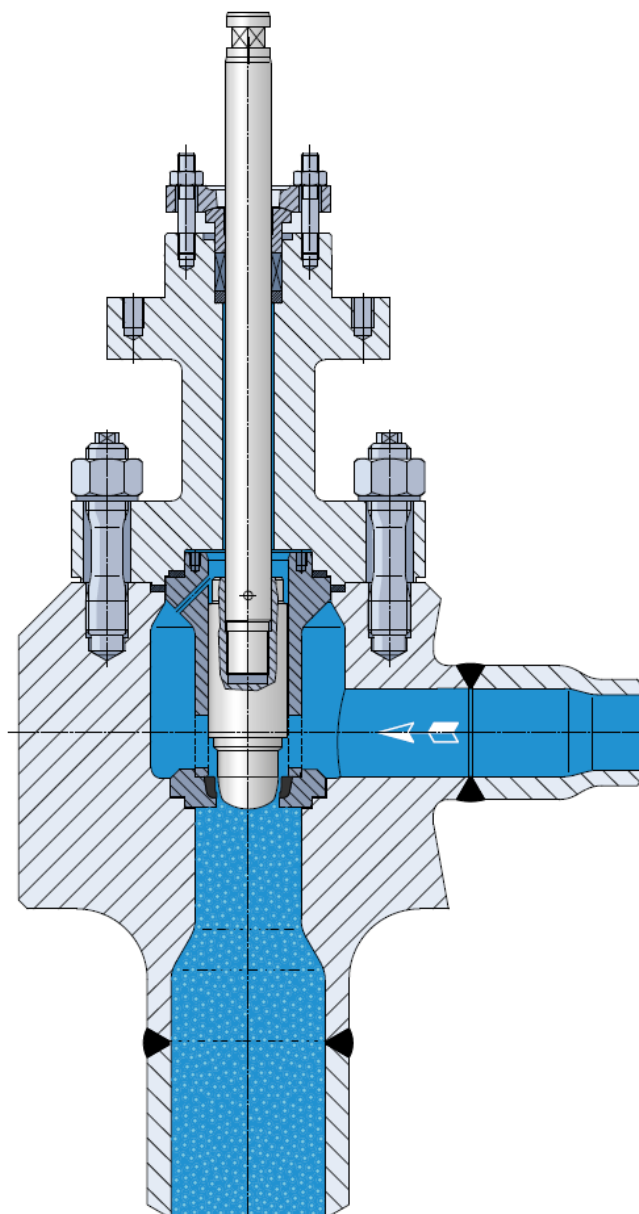
The solution is found in an angle type valve with a easy to change trim with separated sealing and control edge.



Separated sealing and control seat

THE “ADVANCED VALVE” SOLUTION:

1. The **separated seating and control area**
2. The **fully stellite seat**, cheap and easy to maintain.
3. The downstream **outlet increased diameter** reduces the steam/water velocity.
4. An **angle type valve** for this application.
5. A **straight pipe run** downstream of the valve is recommended.
6. available in **F12, F22 and P91**
7. for all actuators



Typical drain valve, separated seat and control, clamped trim, forged body, increased diameter at the outlet,

The big advantage of this valve is the separation of the different functions, control and isolation, and the possibility to change the trim quickly.

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