



## **STEAM PUMPS FOR SINGLE FACERS. SPPSF**

When dealing with light weight papers and especially with small flutes, it is convenient (it can even be indispensable) to regulate pressure in the Single Facers.

The use of electro pneumatic steam pumps for condensate recovery in Single Facers makes compatible closed circuit condensate recovery at pressure with totally free pressure regulation in Single Facers.

The operation of an electro-pneumatic steam pump is very easy:

When the level controller detects that condensate in the injection tank has reached its maximum level, injection valve (VI) automatically opens and pushes condensate, with life steam, to the Condensate Recovery Unit (boiler house) through the high pressure condensate recovery.

While life steam injection is taking place, the aspiration tank buffers coming condensate. If, after having ended the injection cycle, condensate in the aspiration tank reaches its maximum level, the decompression valve (VD) opens during 5 seconds in order to decompress the condensate tank and enable condensate flow from the aspiration tank to the condensate tank.

Furthermore, there is a degasification spiral in each tank that continuously allows the air and rest of incondensable gases deareation.

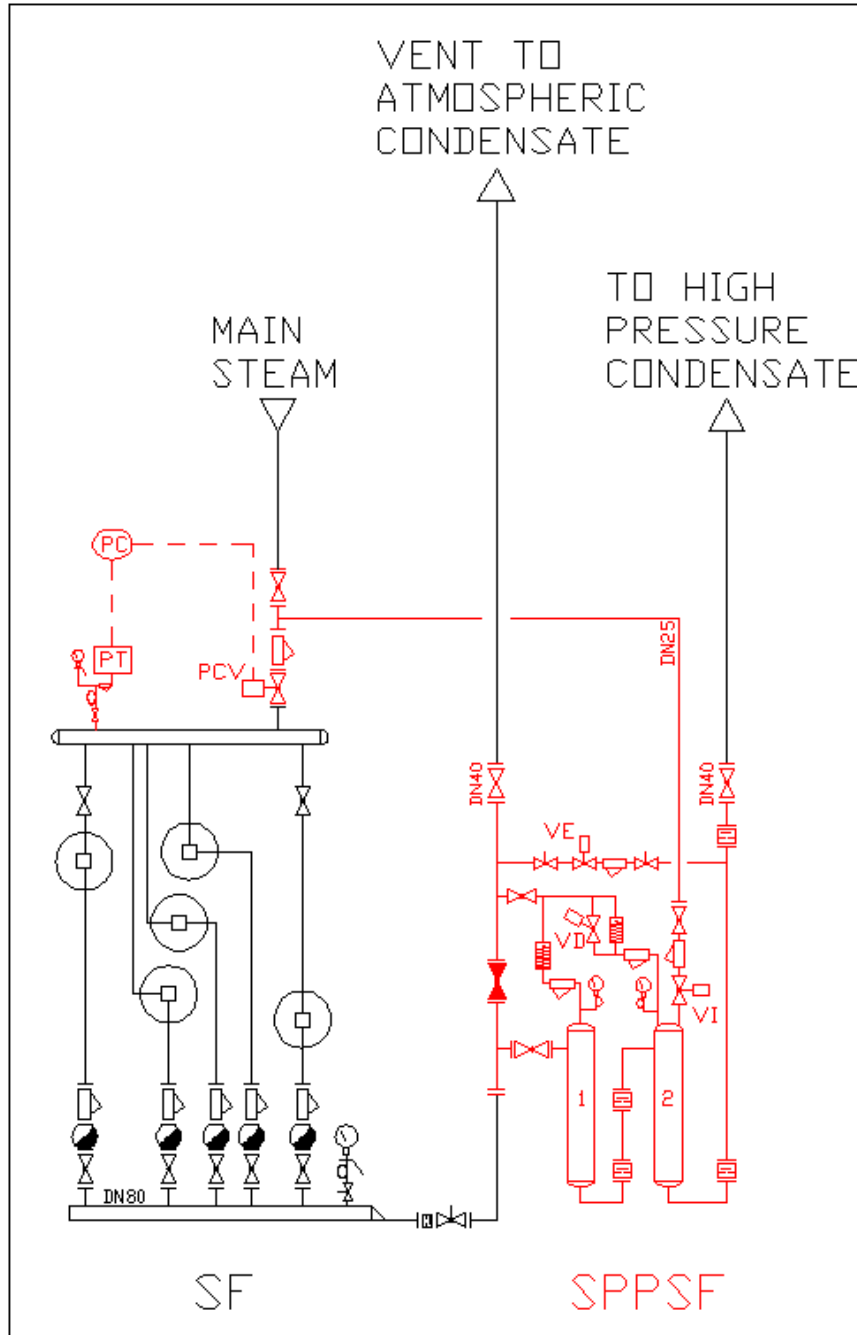
Therefore, the condensate recovery system with electro-pneumatic steam pump works as per the following cycles (these times may change from plant to plant):

- Filling cycle: 2 to 7 minutes.
- Injection cycle: 5 to 10 seconds.
- Decompression cycle: 3 to 5 seconds.
- The filling cycle starts again.

This equipment has a VE valve whose only aim is to deviate the condensates from the single facer up to the atmospheric condensate recovery at night when the steam supply to the corrugator is closed, or in the morning during start ups when a minimum pressure in the steam supply has not been reached yet.

The steam pump for single facer has an active control of the differential pressure between the single facer and the aspiration tank. The differential pressure control eventually acts over the VD valve, in case it falls below the set point.

The whole process is electrically and digitally controlled by a PLC. The materials used (check valves, VI, VD, pressure differential transmitter, spirals, etc.) are of good quality and with no need of maintenance.





## STEAM PUMP FOR SINGLE FACER

