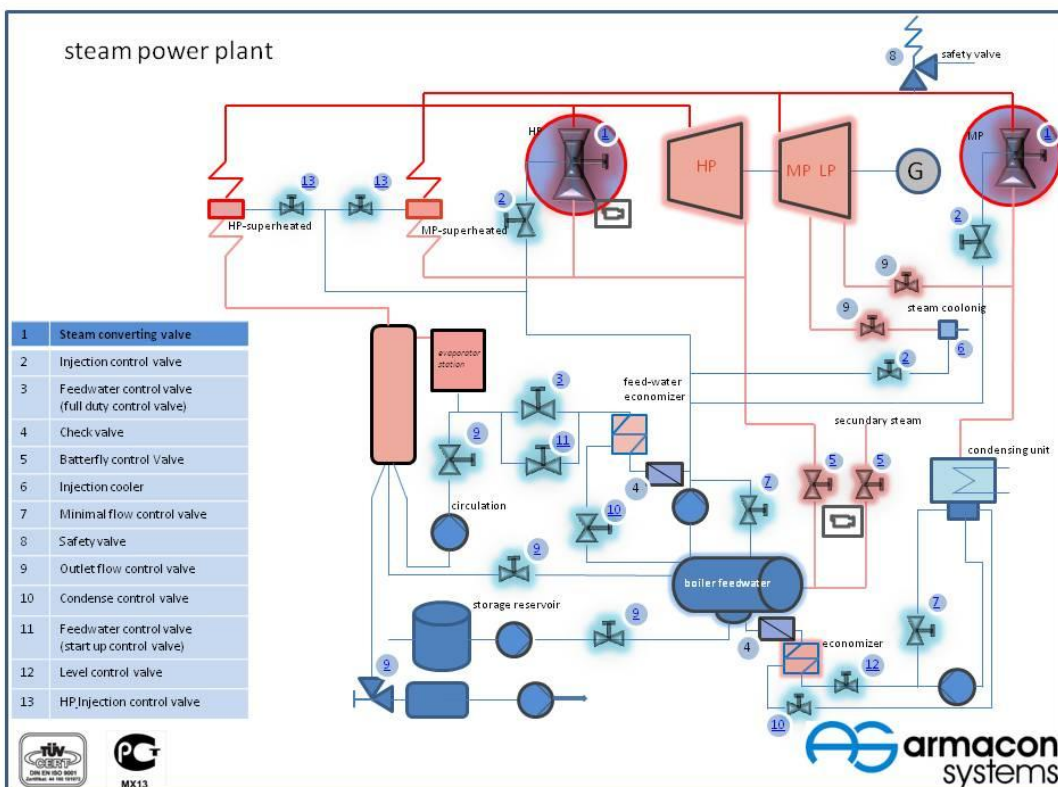


Steam converting valve



armacon-systems GmbH

Hansapark 1
D-39116 Magdeburg, Deutschland
Tel: 0391 - 244 625 0
Fax: 0391 - 244 625 11
eMail: info@armacon-systems.de

Bankverbindung

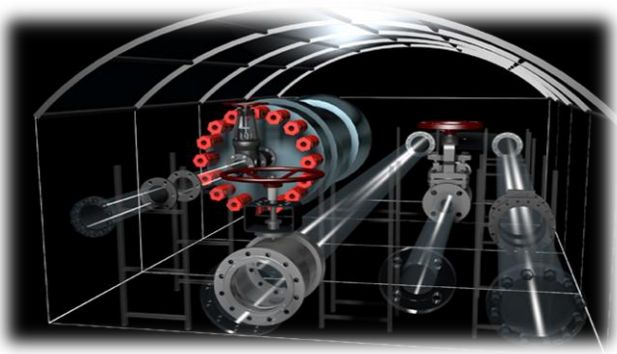
Volksbank Börde-Bernburg eG
BLZ 810 690 52.
Kto-Nr. 7324928
BIC GENODEF1WZL
IBAN DE 66 8106 9052 000 732 4928

Geschäftsführerin

Dipl. Ing. Petra Wenig

Handelsregister

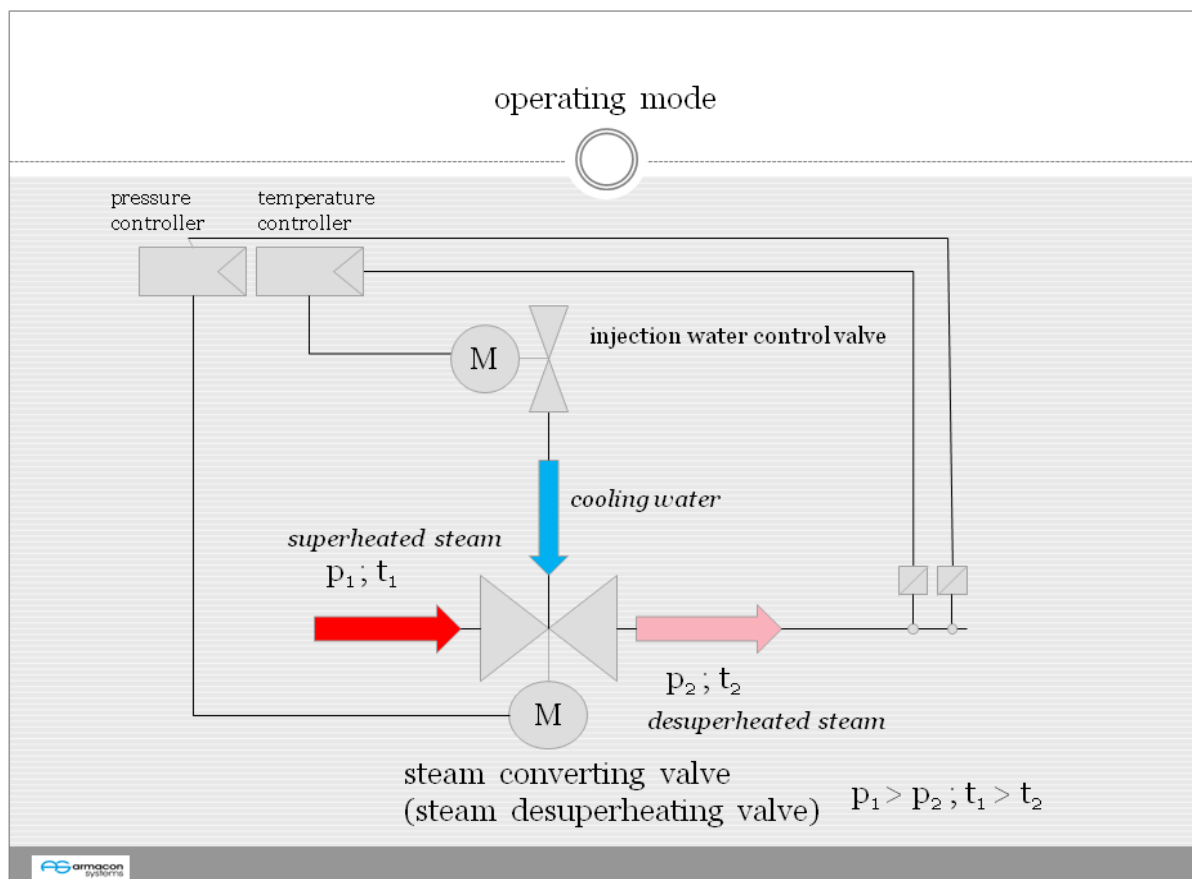
AG Magdeburg HRB 14479
USt-Id.Nr.: DE 237919303
St.-Nr.: 102/105/12921

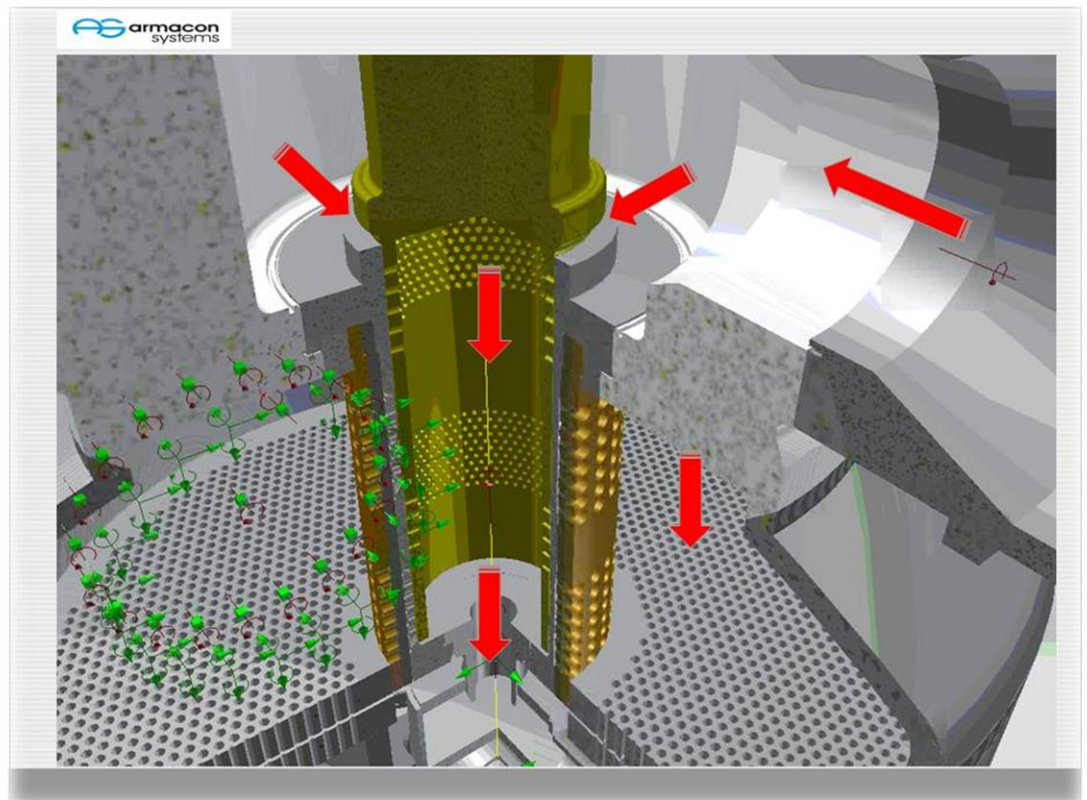
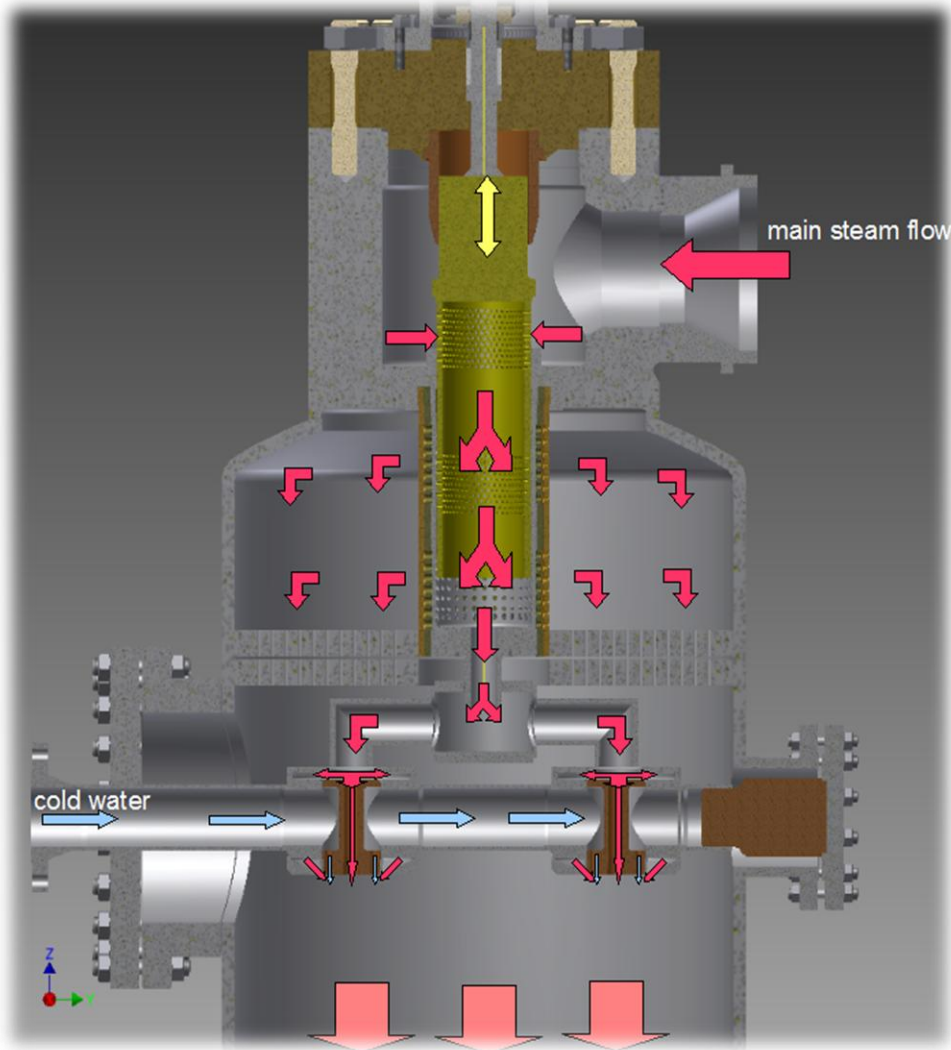


Operating Principle

The steam pressure is reduced by one or several throttling steps and, simultaneously, the steam is cooled down by injection of cooling water. In the case of high pressure differences additional throttling stages are built in to reduce the noisiness.

The reduction in the temperature of the steam is realised by the injection of cooling water through different injection constructions. The cooling water is evaporated and cools down the steam to the set temperature. According to the proportions of steam flow rate, the injected cooling water quantity, and its original temperature the desired temperature of the cooled steam at the output section is assured.

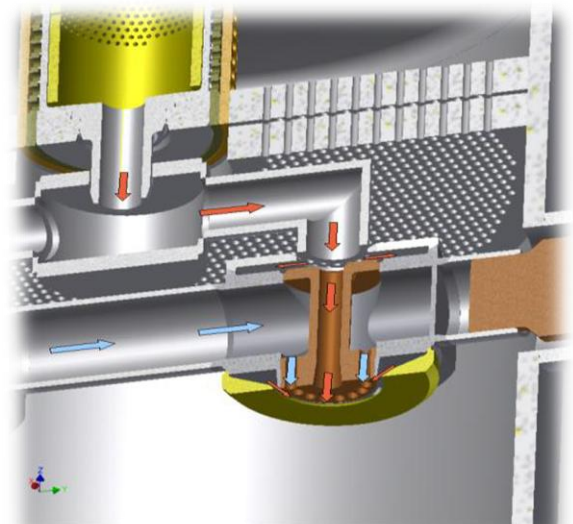
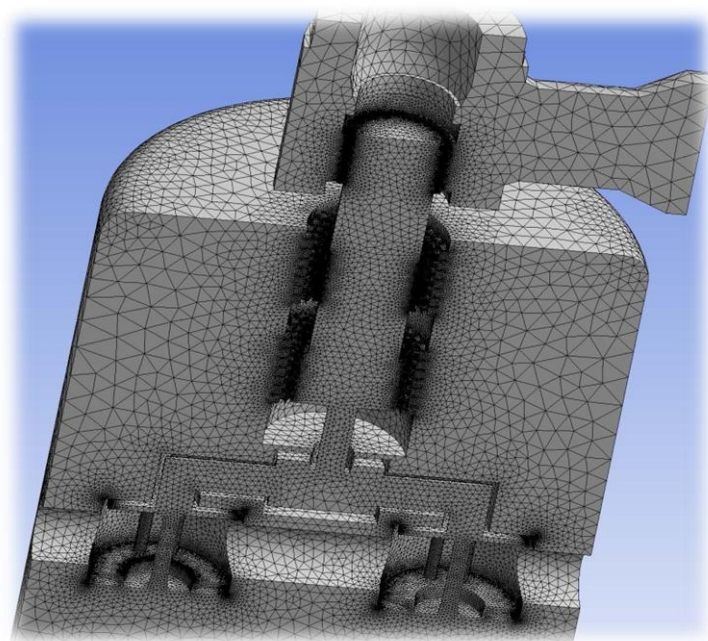
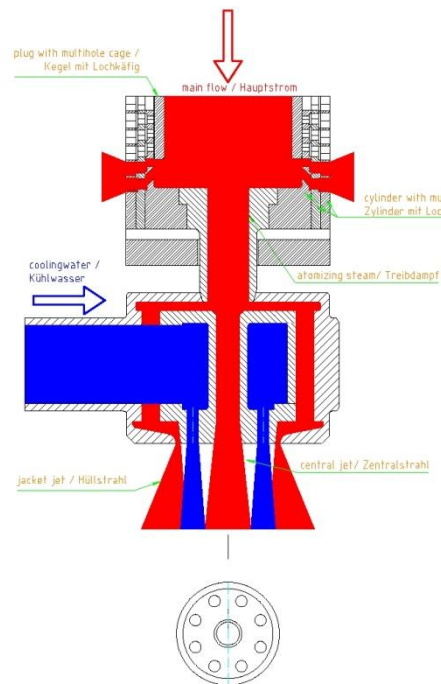


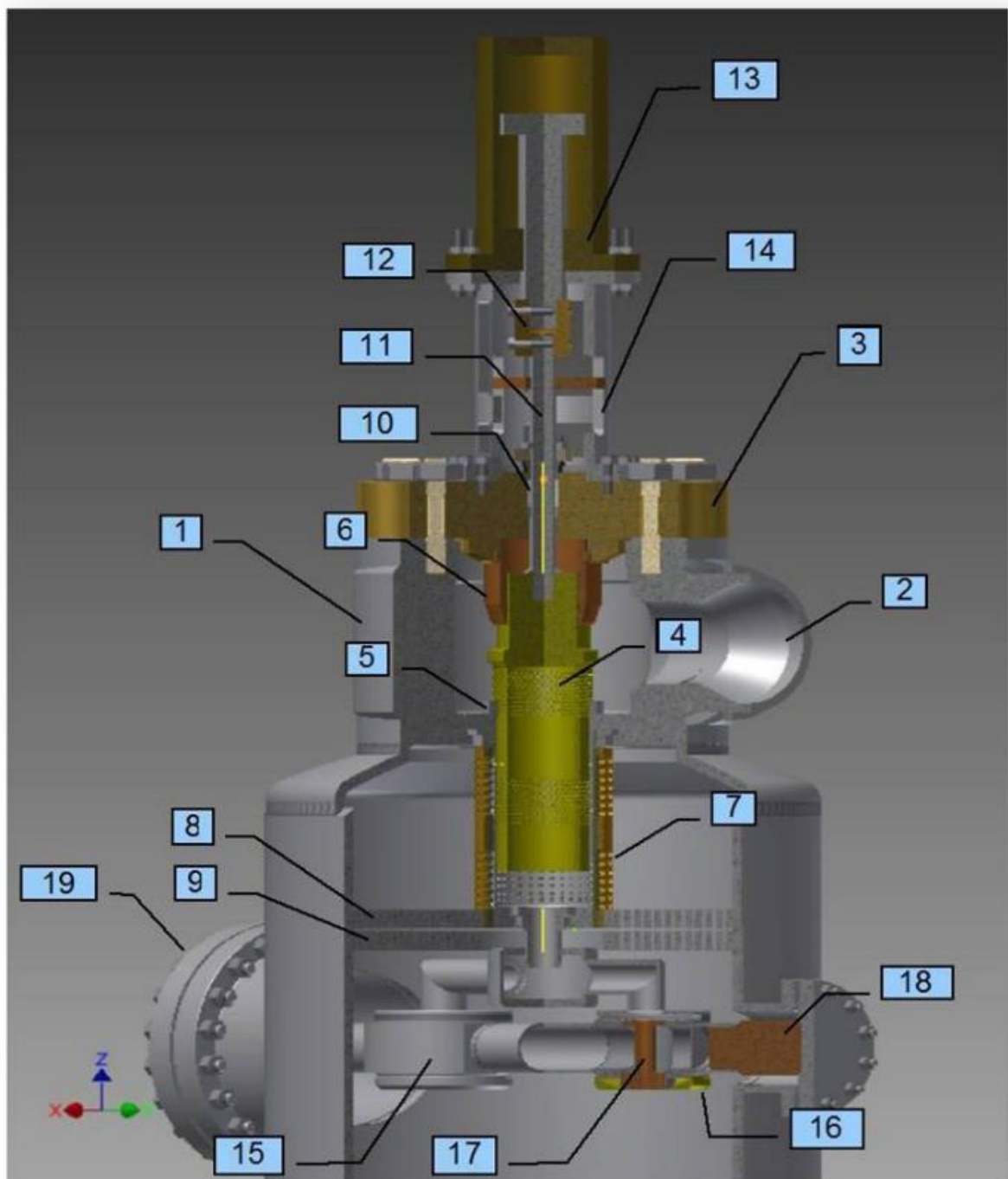


Motive Steam Injection

The main part of the motive steam injection-system is the motive steam cooling nozzle. The cooling nozzle is distinguished due to its centrally mounted position in the steam flow and the complete encasement of the cooling water by motive steam.

Here, the steam is taken from the main steam flow. The motive steam casing has a higher flow velocity than the water drops of the injection water. Due to the high velocity potential an excellent heat transfer is achieved so that the drops vaporise quickly and do not form a saturated steam coat. Thereby, the evaporation passage is optimally short. The motive steam is taken out after the ported cone and there is no need for an additional motive steam valve. Being accelerated to supersonic speed the central motive steam stream impacts the cooling water and atomises it into little drops. Further outside the foggy cooling water is encompassed by another conically shaped steam stream. This stream functions like a protective layer and impedes contact between water drops and pipe wall. Like this, thermal shock and consequently material fatigue of the pipe wall is securely circumvented. The motive steam cooling nozzle allows for a precise temperature control over a very big load range to the smallest amounts of steam.





- 1. body
- 2. pipe connection
- 3. cover
- 4. plug with multihole cage
- 5. seat
- 6. guiding bush
- 7,8,9. silencer
- 10. sealing

- 11. stem
- 12. coupling
- 13. hydraulic unit
- 15,16. cooling unit
- 17. cooling nozzle
- 18. trunnion
- 19. flange cooling water connection

nominal diameter	inlet	outlet
	DN25-600 / 1"-24"	DN 50-2500 / 2"-1000"
pressure	PN64-420 / Class150-2500	PN10-300 / Class150-2500
material	1.0460-1.5415-1.7335-1.7380-1.4903-1.4901-1.4931	
pipng connection	welding ends or flange	
pressure reduction	multiple- stanges across stem, seat bush, orifice plate and hole bush	
characteristic	Equal percent / linear / modified	
actuator	electric-pneumatic-hydraulic	

