

In Focus: Cutting the Costs of Energy

Ever-increasing demands on energy and production management require a vast fund of specialist knowledge. It is therefore highly reassuring that you can rely on competent and experienced partners such as GESTRA. Considering a flash-vessel system installed in a chemical plant as example, GESTRA's competence and efficiency as a true solutions provider is once more evidenced.

The plant engineers working for the company in question were looking for better ways to utilize the 6 t/h of condensate (16 bar) and to return it to the energy cycle. In addition, it was also essential to cut the time required for planning and commissioning to a minimum. To accomplish this aim the company had to farm out some of the project work to external specialists. GESTRA was one of the companies asked to submit a proposal. Having received the relevant operational data, we made a complete study and came up with the following workable solution:

- Step 1:** Flash evaporation of 6 t/h of condensate (from 16 bar down to 4 bar). Utilization of the resulting flash steam (600 kg/h) in the 4 bar steam system.
- Step 2:** The condensate (4 bar) produced during the flashing process (cf. step 1) is brought together with the condensate coming from the steam system and the pressure is reduced to 1.1 bar. The total amount of 15 t/h of condensate produces approx. 1 t/h of flash steam, which will be utilized for process heating with the aid of a plate-type heat exchanger.

After the pressure drop the condensate is pumped into the condensate tank and returned to the system.

Calculated min. annual savings:

1 ton of boiling hot condensate	= DM 5.50
6 t/h	= DM 33
8.000 operating hrs./year	= DM 264,000

The arguments for our proposal were so convincing that we were given the contract. It took us only a fortnight to prepare all necessary drawings and specifications for assurance that the unit and its upstream and downstream connections will accurately fit and function in their appropriate locations. Everything went according to schedule.

The compact-design unit (3 x 4.5 m) consists of two flash vessels, condensate pumps, safety valves, steam traps, shut-off and non-return valves, level controls, indicators and control cabinets, with all parts being completely mounted, interconnected, wired and insulated.

The customer can now easily install the unit and connect it to his established piping. Of course our application engineers are also available to help you clear every installation hurdle.

If you want to save energy, phone us.



Flash vessel before delivery



Flash vessel installed on-site

GESTRA – The Steam Experts

Interested? Please contact Mr Wolfgang Blanke, GESTRA GmbH, SBL4,
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