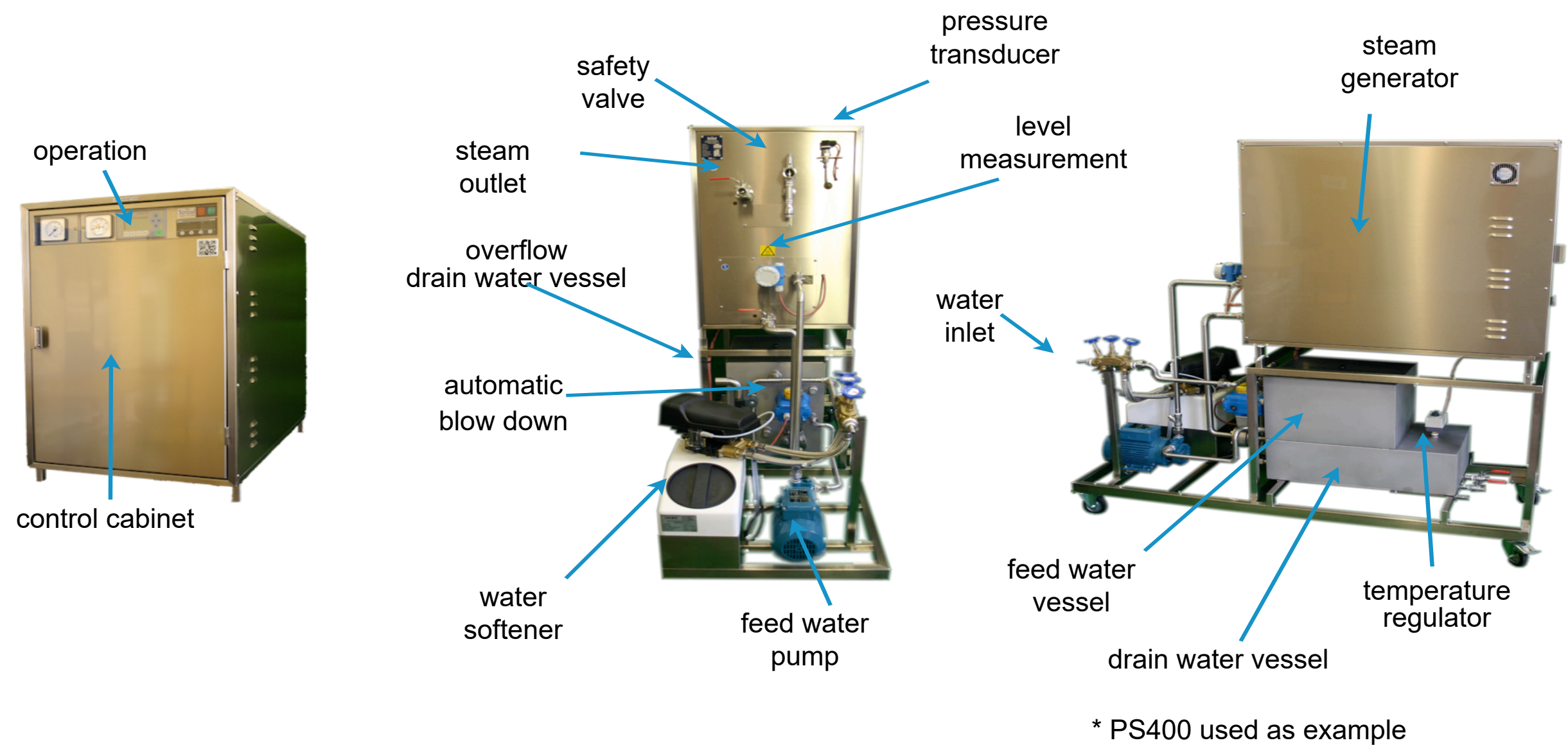


Description of the steam generator



1. Mechanical structure

The boiler body is made of stainless steel type 1.4571 and is electronically welded. There are heating elements screwed inside the boiler body. The boiler body is located in a stainless steel casing and is lined with thermal insulation. The switch cabinet is also located in the stainless steel housing. Fittings (e.g.: steam output, water intake, etc.) lie outside of the casing.

2. Method of operation

The feed water is forced through a water inlet valve in the steam generator. Once the specified water level is attained, the heating elements can be switched on. The heating control system, the mains water supply and the monitoring of the safety devices function, fully automatically, in conjunction with the pressure monitoring and the PLC. The operator can set the desired working pressure. The supplied water is heated and vaporized. Once the set pressure is attained, the heating will stop. If the steam pressure stops (e.g. due to steam extraction), heating will recommence. In the event of a fault, the heating control system will switch off and the error shown to the user in plain text. Only after the error has been eradicated and the connected system notification confirmed, can the steam generator be reactivated.

3. Optional accessories

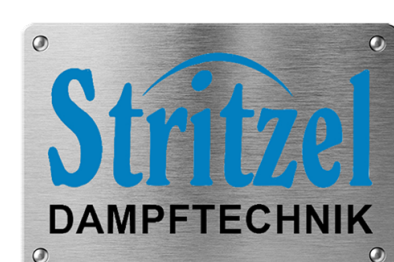
We build our steam generators using a modular system. If you have decided on a feed water tank and/or drainage tank, you will require a console, where all systems are piped together in stainless steel and thus supplied as ready to use. Our steam generators are available in mobile and stationary forms.

3.1 Feed water vessel

The feed water tank serves as a hydraulic seal. This option also includes a feed water pump, which is used for increasing the pressure. If there is not enough preliminary pressure in your feed water supply line (preliminary pressure > working pressure in the steam boiler + 1bar), a pressure increase pump will be required! The feed water pump control system is integrated into the steam generator control system, and it functions fully automatically. The feed water container is connected to the fresh water inlet.

A stainless steel float valve (preliminary pressure max. 10 bar) regulates the filling level. The water inlet valve is omitted. Furthermore, it is possible to return clean condensate into the feed water container. There are two variants of the feed water container: normal and insulated.

Larger containers can be delivered on request.



Description of the steam generator

3.2 Drainage tank

When you are operating your steam generator, salts and other minerals (sludge) can get into the body of the boiler. These unwanted substances, which can be harmful to the pressure boiler, must be rinsed out on a regular basis. The so-called blowdown must be done with the application of temperature and pressure. Since it is not permissible to drain the pressure boiler into the public water collection plumbing (max. permissible inlet temperature 50°C), we can offer you our drainage tank. The pressurized hot water is directed into this container and cooled to the desired temperature with mixed water before then being forwarded into the public plumbing. There is also the possibility of returning uncleaned condensate into the drainage tank.

3.3 Automatic blowdown

There is the option that our steam generators can be equipped with an automatic blowdown system. This should prevent the necessary blowdown from being forgotten. Elutriation occurs when the steam generator is switched off. There is also the option of programming emptying intervals according to time. The desired time can be set by you, in accordance with your processes. Naturally you can change or stop this programming at any time. The time countdown up to the blowdown is displayed on the operating display, in hours and minutes. Depending on customer requirements, there is the option of controlling the blowdown externally. During the blowdown process, the heating and the water supply are switched off. When it has ended, the steam generator will restart automatically, as long as it is not switched off.

3.4 Water softening

The steam generator should be operated with suitable water (max. 3°dH or demineralized water). If you only have town water available, we will gladly also provide you with a water softening system.

3.5 Electronic overload relay

The steam generator can, on request, be monitored via electronic load relays. In this way we guarantee optimum switching hysteresis (< 0.05 bar) and a more gentle operation of the radiators used.

