Grundfos in boiler feed systems
Boiler feed with Grundfos

The production of steam and hot water is one of the world's largest industries. Grundfos is pleased to be the preferred supplier of pumps for boiler feed systems for these industries.

Grundfos pumps are reliable, efficient and cover a wide performance range. As an experienced consultant in the implementation of boiler feed systems, we engage in a process of close partnership and dialogue to find the best solution for your system.

Grundfos is a global enterprise with a worldwide service network. When you export or need on-the-spot advice in a particular part of the world, we have the technical expertise close by.

Your partnership with Grundfos has three benefits

› **Pump solutions**
  Tap into a pool of global expertise of pumps for all applications

› **Know-how**
  Be a part of the future of pump technology

› **Cooperation**
  Enter a continuous dialogue between your needs and our custom-built solutions
Constant innovation is the force

Boiler feed demands systems from right across the range - scale, pressure, temperature, inlet conditions etc. Grundfos has one of most extensive product ranges of pumps for this purpose. The force behind these solutions is constant innovation.

High pressure is essential

High pump pressure is crucial in boiler feed systems. To provide the best possible solutions, Grundfos has redesigned the CR pump to allow it to withstand very high system pressures. The high-pressure pump range offers unique, very compact, high-speed pumps that provide the highest pressures available.

Excellent performance in low NPSH conditions

By performing in low NPSH conditions the system is capable of more reliable operation. This helps with poor inlet conditions as well as with cavitation problems. The Grundfos CR series is the right choice for these purposes.

Handling high temperatures

For boiler feeding, it is essential that liquids at temperatures of 180°C can be handled without damaging the shaft seal. The Grundfos CR(N) Air-Cooled Top pump has an integrated air-cooled pump top which separates the shaft seal chamber from the chamber stack.

Energy savings

Producing steam for industrial boilers consumes a lot of energy. If the pump speed is reduced by 20% using integral electronic frequency inverters, the energy consumption is reduced by 50%. Grundfos has developed CR pumps that are unique in this field.

Grundfos is not only a pump specialist but also a system consultant

We have pumps for boiler feeding and condensate pumping as well as for water treatment.

The advantages of dealing with only one full-line supplier are obvious:

- We have both the products and the expertise to optimise the performance and the reliability of whole systems.
- A Grundfos installation is user-focused and maintenance-friendly.
- Customised solutions.

Systems knowledge is the power

At Grundfos, we make every effort to document our knowledge and our competencies within each specific industry. We are therefore able to supply just the right pump with the right control and communications systems when required, optimising performance and minimising Cost of Ownership.

For boiler feed purposes, speed-regulated pumps are an option. No feed water valve is fitted. Instead, the pump is regulated directly by means of a level controller, thereby keeping the water level in the boiler constant at all times. This means improved steam quality and savings on pump energy consumption. For make-up water production, Grundfos supplies pressure pumps type, CRN, BM, for softening water, or for the more advanced treatment types.

Thanks to the extensive product range, Grundfos commands a strong position within the area of boiler feed. This applies to the treatment of feed water, the pumping of condensate and boiler feed.

The diagram shows a typical steam boiler. The speed-regulated boiler feed pumps in this system are directly operated via a level sensor placed in the steam boiler.
Working together to find the ideal solution

We have an entire department of highly skilled engineers dealing exclusively with the modification of our existing pumps to suit the individual customer’s specific requirements. Through dialogue and the pooling of our expertise with that of the customer, we are able to identify and implement the most beneficial and effective solution.

Understanding

As innovators, we must understand the demands you put on a pump; we must learn exactly how your processes work. Only then can we apply our extensive knowledge of materials, pumps and pumping systems to design the ideal pump for you.

Design

We have the most comprehensive ranges of pumping solutions on the market. But, we’re not going to stop there! After listening very closely to user needs, our top designers extend functionality and incorporate elements from across our product range. Then we can match each individual customer’s requirements.

Testing

Jointly with our customers, we test our solutions, both under the most extreme conditions and specifically in the environment in which you will use the pump.

Production

Grundfos exerts tight control over every aspect of production. Nothing is left to chance, because these are the pumps you will be using. All our production facilities meet the same high quality and environmental standards – wherever they are in the world.

Technical support

Our global operation means that help, after-sales service and training are nearby - wherever you are in the world. In addition, we have produced the latest in our pump selection tool, WinCAPS. This database contains all the information you need for finding the right pump for a certain job. And both WinCAPS and your online Grundfos library, WebGold, contain everything you need to succeed for using your pump.