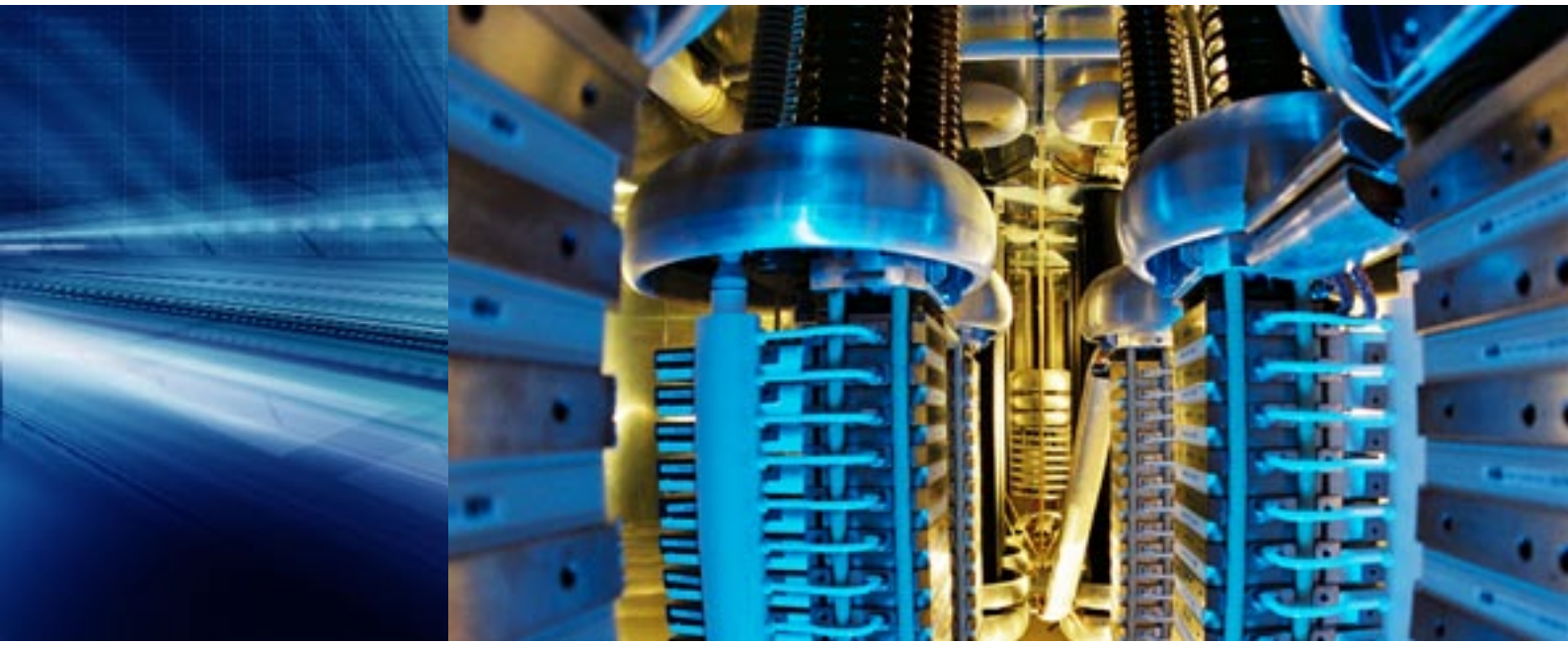
Power Transmission



SwedeWater

Pure water cooling for safe power

Optimize safety with pure-water cooling from SwedeWater

Contributing to safe power around the world is part of SwedeWater's driving force and something we take great pride in. We design, build, deliver and support customized pure-water cooling systems with guaranteed operational performance to the international power industry.

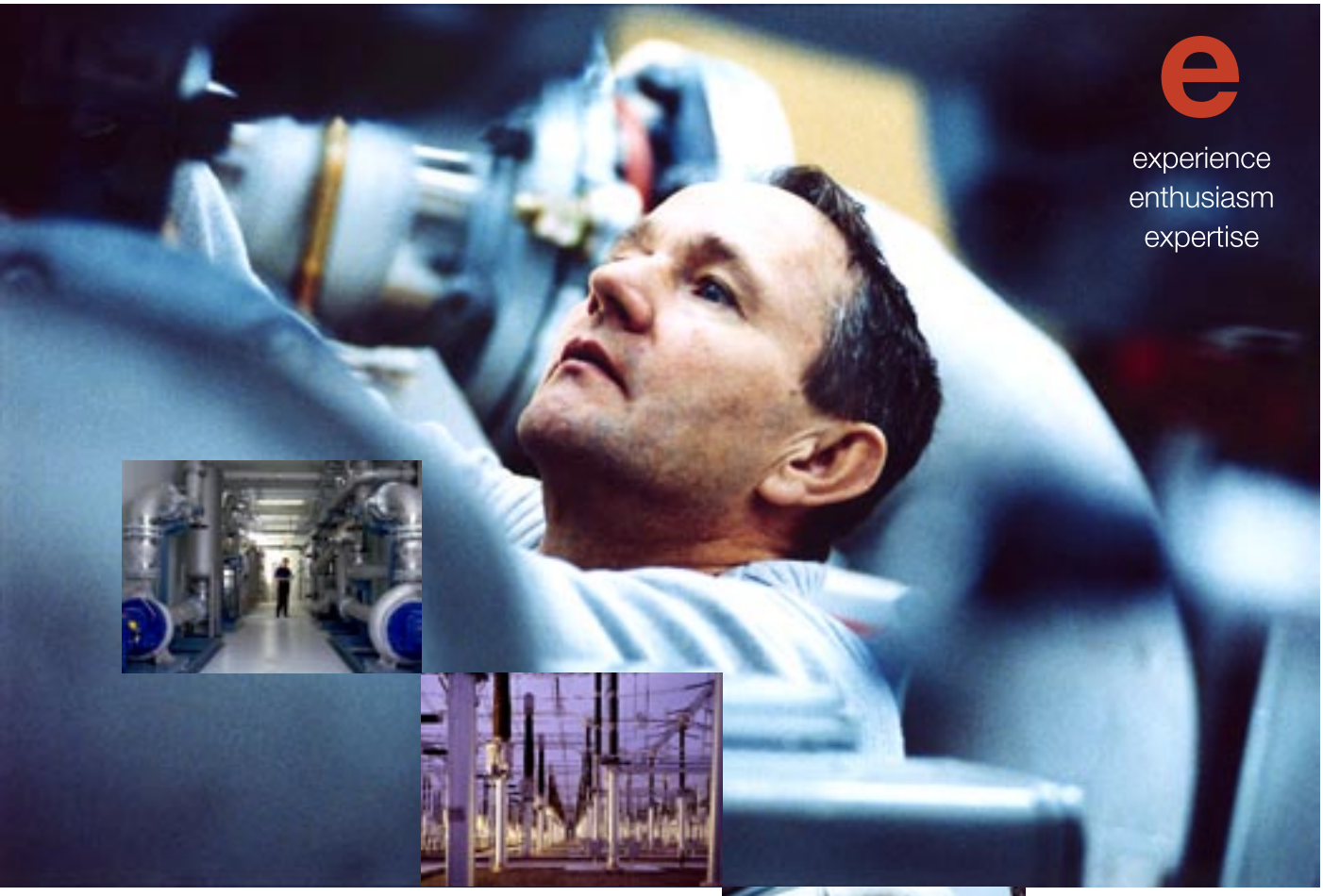
Power technology makes the world go around. But to keep it spinning, the transmission and generation of power must be reliable. An essential component for optimizing and safeguarding energy flow is the cooling system.

Pure-water cooling for HVDC and SVC.
For more than two decades, Swedewater has designed and delivered pure-water cooling to most of the HVDC and SVC systems in operation around the world.

HVDC systems require flawless quality and reliability to achieve the stable conversion of alternating current to direct current and vice versa. To optimize operational performance, all our cooling systems for HVDC are designed with high redundancy, both in components and control. The water purity in general and low conductivity in particular are other important quality factors we put much effort into.

An SVC system needs pure-water cooling to achieve stable voltage, and to increase the quality of power transmission. High quality in components and workmanship are equally important for SVC installations. In addition, we strive to meet customer requirements for short leadtimes and on-time-delivery. For that reason, we have developed a modular concept with a ready-made basic design and modules for pumps, heat exchangers, treatment circuit, etc, which can be combined to meet project specific requirements. This saves time and cost, while also giving the added benefit of reliability that comes from re-using well-known solutions.

Built-in container solutions.
A time-saving and cost-effective way to get a pure water cooling system into operation, is to build the cooling plant directly into a container. SwedeWater customizes the plant according to your requirements. If needed, the container can be equipped with, for example, insulation, ventilation, lighting, heating and air conditioning.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experience
enthusiasm
expertise

Three Gorges – Changzhou, China
The first of several large HVDC cooling systems in China, delivered to ABB in 2000. Our scope of supply also included evaporative coolers and raw-water treatment with reverse osmosis for spray-water supply.

Sasaram, India
A large cooling system for a back-to-back HVDC installation in India, delivered to Alstom (now Areva) in 2001. A special feature of this system was emergency cooling at power loss, achieved by means of a compressed air system and a pneumatic pump.

Tian Guang, China
A pure-water cooling system for a TCSC installation in China, delivered to Siemens in 2003. The system is equipped with a pressurized expansion tank and designed to overcome the problems of an elevated converter in relation to the cooling unit location.

Holly Statcom, USA
A hybrid cooling system for an SVC in the US, delivered to ABB in 2004. The design is made with direct cooling, using dry liquid coolers, in combination with a chiller which is active only at high ambient temperature. This solution allows for operating the converter at lower temperature.

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