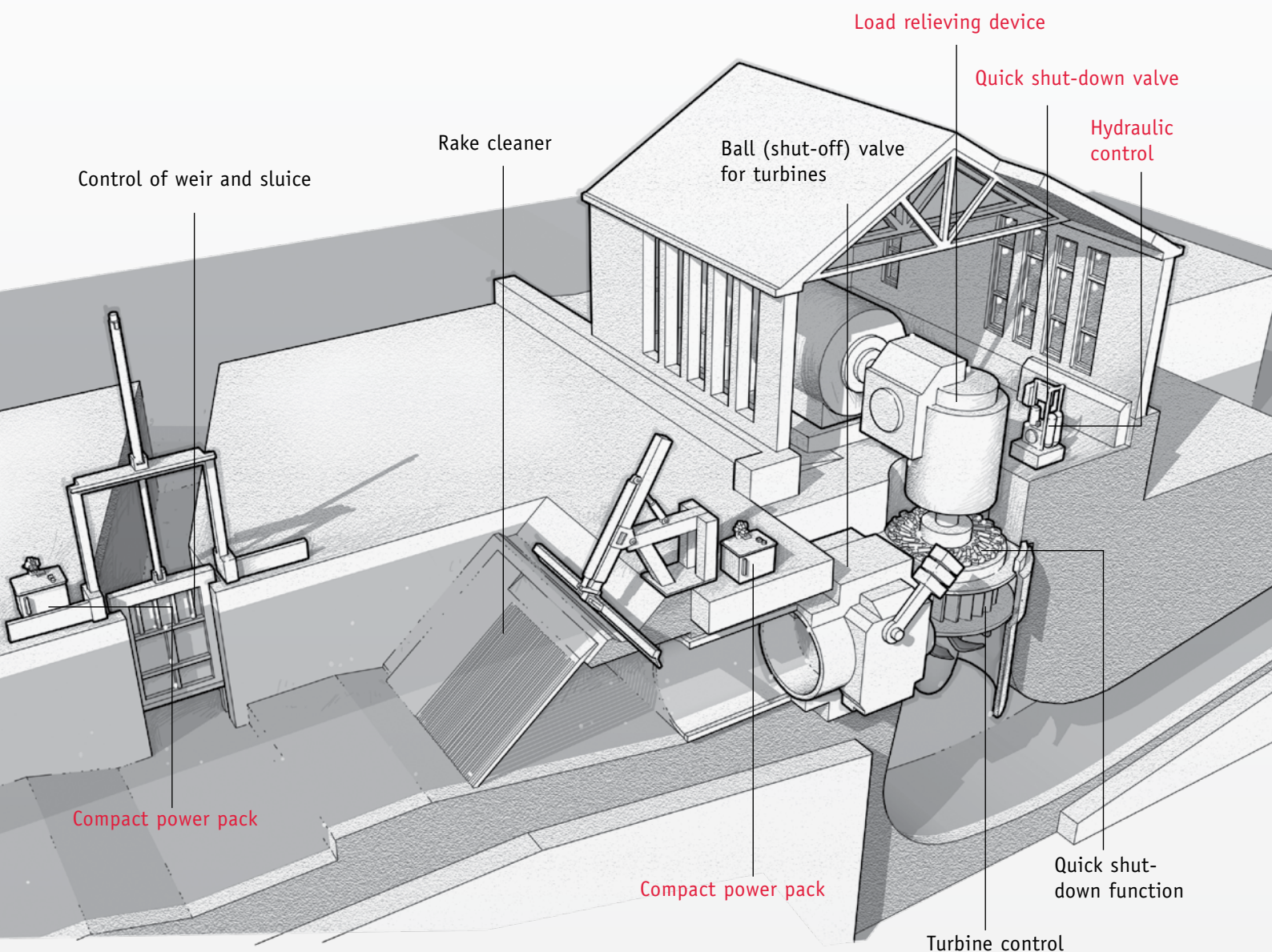


Making efficient use of Renewable energy sources.



Turbines and generators in hydroelectric plants should be able to convert up to 90% of flowing water's kinetic energy into electricity. HAWE Hydraulik's reliable and durable hydraulic components can help ensure you not just achieve this level of efficiency, but maintain it over the long term. That way, you can make the most efficient and cost-effective possible use of this renewable natural energy source.

SOLUTIONS FOR A WORLD UNDER PRESSURE.

HAWE
HYDRAULIK

HAWE Hydraulik: the right choice for safety and cost-efficiency.

Making optimum use of a free, almost endless resource.

Hydropower is both the cleanest and the oldest form of renewable energy, and is used successfully in many parts of the world. But every project has different circumstances and different requirements. In particular, the most suitable type of turbine will vary depending on the water's height of fall and rate of flow.

Whether you are planning a low, medium or high-head plant, our tried-and-tested solutions can significantly reduce your development and installation costs. What's more, our durable and high-pressure-resistant control systems enable maintenance-free operations over a long period, delivering faster amortization of your capital expenditure.



Picture: Markus Haack - Fotolia.com

Reliable and durable components for safety-critical functions.

HAWE Hydraulik offers modular turnkey solutions for both pressurized oil supply and the various hydraulic control systems found in hydroelectric plants – systems whose smooth operation is critical to both safety and profitability.

We have drawn on all our experience in hydroelectric power and other renewables such as wind and solar to create our modular solutions. As a result, you can quickly and easily put together a combination of tried-and-tested components to meet your exact requirements. This delivers benefits in terms of cost, availability and ease of maintenance.

The range of equipment which we provide hydraulics for includes:

- Sluices and weirs
- Shut-off devices
- Turbine control systems (for Kaplan, Pelton and Francis turbines)
- Emergency shutdown valves
- Cleaning rakes
- High pressure relief systems

The power of teamwork.

HAWE Hydraulik's extensive experience and unrivalled expertise make us a perfect partner when it comes to durable, low-maintenance control systems for renewable energies. Our rigorously tested, pre-calibrated turnkey systems can significantly reduce your development and installation costs, speed up installation, and minimize the risk of malfunction – giving you guaranteed reliability and efficiency from day one.



Picture: Wikipedia

Flexibility and control, when and where you need it.

HAWE Hydraulik's reliable, robust and cost-effective modular hydraulic control solutions give you total flexibility, supreme ease of use and maximum efficiency. Our product range includes:

Plug-and-play solutions for your precise needs:

We provide a full service for hydraulic systems, covering all your needs from initial planning and development through to putting into operation. If you want, we can even program the electronic control systems for you.

- Operating pressure (p_{max}): 200 bar
- Flow rate (Q_{max}): 20 l/min



Compact power packs for distributed control systems:

Combining the hydraulic pump, oil-immersed motor and valve control system saves space and makes it possible to build distributed control systems. Various modular systems are available to suit differing electricity requirements and reservoir capacities.

- Operating pressure (p_{max}): 700 bar (Radial piston pump)
- Flow rate (Q_{max}): 139 l/min (Gear pump)



Durable, reliable pumps:

Combining high efficiency, compact dimensions and robust design for a long life cycle, our radial piston pumps can deliver pressures of up to 700 bar and have up to 14 individual outlets.

- Operating pressure (p_{max}): 700 bar
- Flow rate (Q_{max}): 91.2 l/min



Wide selection of spool and seated valves:

With our modular system, you can choose between individual spool and seated valves and space-saving valve banks: for example, the bank for emergency shut-downs comprises a leak-free seated valve, and a 4/3 or 4/2 directional spool valve for nozzle adjustment. Additional functions can easily be incorporated. All components are also available with a standard DIN 24 340 connection pattern.

- Operating pressure (p_{max}): 400 bar
- Flow rate (Q_{max}): 20 l/min



Accumulator size tailored to your needs:

By altering the piston length, the piston accumulator can be adjusted to the requirements of your system. This type of accumulator is also extremely reliable and easy to maintain. Bladder accumulators are of course also available if preferred.

- Operating pressure (p_{max}): 250 bar
- Nominal volume (V_{max}): 50 l



End-to-end service.

With five sales offices in Germany, 14 subsidiaries worldwide and around 30 expert partner companies, HAWE Hydraulik is bound to have a presence in your area.

HAWE Hydraulik offers the following benefits:

- Comprehensive individual advice and assistance
- Customized solutions
- Products designed and manufactured using state-of-the-art technology
- Many years of experience and expertise in hydraulic products and their uses
- Tailored service and maintenance contracts
- Layout, set-up, and maintenance/service on-site.

If you have any questions, please get in touch. Our experts are always happy to help.

