

Hydropower

Optimised mechanical power transmission solutions for the hydropower industry



Optimised solutions tailored to our customers' exact specifications

As reliance on renewable energy increases, we recognise the need to drive hydropower, wave and tidal energy sources. Having manufactured gear systems for the hydropower industry for a combined 80 years, David Brown Santasalo has installations across Central Europe, Scandinavia and North America.

We partner with our customers to identify exact requirements and engineer a long standing solutions that fit specific their applications and duty cycles. With our longstanding engineering expertise founded on almost 300 years in the global gears and transmissions industry, we provide equipment that is built for maximum reliability, durability and operational efficiency.

Our product portfolio comprises gear systems for both small and large hydro power stations, with power ratings up to 15MW. David Brown Santasalo hydropower gear systems are suitable for all types of turbines, independent of the shaft direction.

In addition to newly designed gearboxes, we also provide a range of gearbox support services, including inspection, repair and tailored maintenance programmes. Whatever turbine you operate; we can provide the support you need to keep your hydro plant running at full capacity.



Highly efficient, flexible and quality assured solutions for hydro plant operators

David Brown Santasalo's hydropower gear units have been designed in collaboration with leading turbine manufacturers for longstanding reliability and easy installation and maintenance. David Brown Santasalo gear systems are available for vertical, horizontal and inclined turbines and feature increasing ratios and helical teeth. Our robust design ensures bearings can absorb the axial force of the turbine, moving it through the gear housing and into the foundations. As a result, separate bearings for the turbine are not necessary.

The turbine shaft is connected to the gearbox either with a flange connector, an OK coupling or a shrink disc. In addition, between the generator and the gearbox, a flexible disc or tooth couplings are used.



Horizontal, one stage, vertical turbine system

- Custom built, speed increasing designs combining strength and dependability
- Power range from 100 kW to 15 MW
- Output speeds from 500 to 1000 rpm
- Input speeds from 30 to 250 rpm



Parallel shaft, two stage system

- Speed increasing gearboxes combining strength and reliability for maximum availability
- Power range from 100 kW to 15 MW
- Output speeds from 500 to 1500 rpm
- Input speeds from 30 to 250 rpm



Parallel shaft, one stage system

- Power range from 100 kW to 15 MW
- Flexible, speed increasing designs for ultimate reliability
- Output speeds from 500 to 1000 rpm
- Input speeds from 30 to 250 rpm



Two stage, vertical system

- The 2LV Range comprises durable speed increases for the utmost reliability
- Power range from 100 kW to 15 MW
- Output speeds from 500 to 1500 rpm
- Input speeds from 30 to 250 rpm

We also supply:

- · Hydraulic units
- · Flexible gear couplings
- Base frames



Global gearing. Local support.

Our global approach with local delivery is core to our service and repair offering and we're committed to an ever increasing service centre presence that focuses first and foremost on customer needs. With service and repair teams based globally, we are primed to deal with any problem you may encounter at anytime, anywhere in the world.



Manufacturing & service

Australia Canada China Finland India South Africa UK

Service centres

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Finland France Malaysia Russia Sweden Turkey







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