

Hansen Industrial Transmissions commits to be a pioneering innovator. The production of high performance gear units stems from an interactive partnership with our clients, the end users and the actively engaged manpower of our global enterprise. Embracing design, manufacturing and customer services, Hansen has grown into a world leader in its field. Today, we set standards for both product and working environment, inciting a knowing environment to seize all new and inspiring technologies.

See our worldwide sales & service network at [www.hansentransmissions.com](http://www.hansentransmissions.com)



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## powerful solutions for water treatment





Hansen P4 gear units are at the heart of the product range for water treatment applications. With torque ratings up to 1100 kNm for both vertical, horizontal, parallel and right-angle shaft arrangements, Hansen P4 units offer top quality yet economical solutions with an exceptional flexibility to customer specifications and required options.

COMPLETE AND POWERFUL SOLUTIONS FOR WATER TREATMENT

Our rivers and canals are becoming a natural habitat for fauna and flora again, thanks to the biological treatment of waste waters and the extraction of nutrients as nitrogen and phosphor. With thousands of drive packages for aerators and screw pumps, installed worldwide, Hansen is a very important player in the water treatment industry. Our products carry the ISO 9001 quality certificate and can be found working reliably under the most severe conditions. They are manufactured by using the latest in design and production techniques. Energy efficiency, low running costs and low noise levels are always high on the list of customer priorities. Our concern for environmental issues has directly led to incorporating these priorities into the development of our gear products. This has resulted in a complete fine tuned range of drive products for water treatment applications.

water treatment



■ AERATOR DRIVES

We produce drives for common, turbine-carrousel - and brush aerators: severe applications for any gear unit. The drywell construction guarantees oil tightness at the low speed shaft. In- and output shafts are sealed against ingress of water, dust or sludge. Hansen Oil-Lock™ and labyrinth seals offer extra protection where required. We also provide the required bearing configuration for every overhung load situation. A range of heavy duty bearing assemblies is available. Combined with the extended bearing span - a standard feature in our P4 gear units - optimum stability under load is ensured. All Hansen aerator drives are protected against humid environments by an extra final anti-corrosive coating.



■ SCREW PUMP DRIVES

Gear units operate at an inclined position when driving screw pumps - typically at an angle between 30 and 45 degrees - so special precautions for sealing and lubrication must be considered. Hansen gearboxes are designed specially for use in screw pump applications and are supplied in parallel or right angle executions. A backstop prevents the residing water in the screw pump from rotating the pump backwards. V-belt drives connect the motor with the high speed shaft of the gear unit. Protection guards can be made according to EC Machinery Directive or OSHA (USA) standards.



■ BRUSH AERATOR DRIVES

Hansen P4 gear units can be adapted to drive brush aerators. For these drives the motor is mounted vertically on a horizontal housing design, ensuring that the motor is kept away from the water. The gear unit can include either single or double low-speed shaft extensions to drive the partially submerged brushes. Positioned vertically, the gear unit has an extended service piping so that aeration, oil refills and maintenance can be done from a service platform. A rigid weatherproof lantern housing brings the motor above the service platform.



WHY HANSEN?

- Hansen matches the drive to the application and offers proven reliability under the most severe conditions.
- Carburised and ground gearing of both bevel and helical gears excels in strength, torque capacity, surface durability and low noise performance.
- Large overhung load capacity of the gear unit.
- The Hansen P4 extended bearing span ensures stronger shaft support.
- The housing design ensures smooth transition of forces from the centre bore to the mounting feet.
- Integrated product features, e.g. rigid lantern housing seamlessly connects the gear unit with the motor.
- Continuous oil circulation through the bearings ensures a long, trouble-free working life for the gear unit.
- Hansen's unique Oil-Lock system™ offers a maintenance-free sealing on high-speed shaft extensions.
- The drywell prevents oil leakage on vertical down shafts.
- The internal construction of the gear unit housing allows for simple and complete oil drainage.
- Adapted gear units for brush aerators: different service tubing at the service level that may include a centralised grease nipple for labyrinth lubrication, suction tube for oil drainage, extended dipstick and extended air breather.
- The larger units can be easily inspected and serviced on the spot, thanks to covers above the oil level.
- One-stop-shopping for complete drive package solutions.
- In-depth engineering support and complete documentation before and after the order.
- Hansen's global service capability significantly reduces downtime.