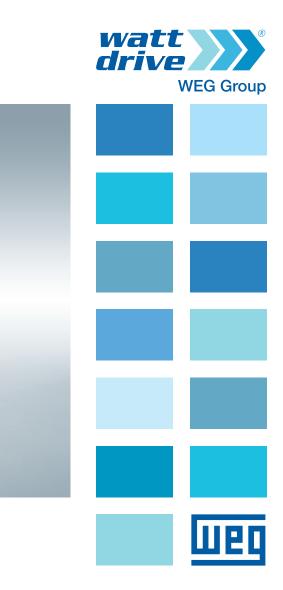
# **Drive Systems**

# Agitator Gearboxes

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- High efficiency (IE2, IE3)
- Special sealing system
- Reinforced bearing
- Compact design
- Reliable and robust









### Watt Drive agitator drives - Reliable operation for rough industrial use under varying climatic conditions

For outdoor installation, drives used as agitator gearboxes are exposed to extreme environmental influences like chemicals, humidity and dirt. In order to further increase functionality and resistance of the drives, Watt Drive offers its customers various options, beginning with special varnishes for low- or high-temperature designs, the gear motors are adapted to this particular application.

The Watt Drive agitator gearboxes are available in following type series:

- Shaft mounted geared motors
- Parallel shaft geared motors
- Helical bevel gear motors

#### **Output option**

- Output shaft,
- Hollow shaft and
- Hollow shaft with shrink disc

#### **Reinforced bearing**

In contrary to a standard bearing arrangements, taper roller bearings with wider bearing distances are used for agitator applications because of higher loads on the bearings. This is achieved by installing the bearing in the heavy duty agitator flange. The taper roller bearing in the flange is grease lubricated. As the drives are mostly designed for non-stop operation, very high lifespans can be expected.

#### Sealing

The seal system of the agitator gearboxes is protecting the agitating medium from contamination of gear oil. Basically it consists of 3 independent seal points. On possible leakage, caused by seal ring wearout, the oil runs over a drip plate into a reservoir which can be indicated by an oil-sight glass or an oil sensor (optional).

Large radial and axial forces are absorbed by external agitator bearings, which are very cost-effective. Watt Drive agitator gearboxes with its reinforced bearings at considerable wider bearing distance, offer construction possibilities at which in many cases a separate bearing of the agitator shafts can be left out. The high-torque drives thus are suitable for applications like, e.g.: surface aerators, agitators, mixers, extruder etc.

Reinforced bearingSealing

### Watt Drive Agitator Gearboxes -Energy efficient drive packages for the environmental industry

In times of ever growing energy costs and energy consumption, the constant efficiency increase of drive components has become a central leading issue. Highly efficient gear motors with reduced power losses, compact dimensions and various options for the environmental industry, lower the accruing operating costs.



Shaft mounted geared motors AR.

*Power:* 0,12 - 30 kW *Torque:* 400 - 2.800 Nm *Ratio:* 4 - 4.000 *Power:* 0,12 - 55 kW *Torque:* 5.000 - 14.000 Nm *Ratio:* 4 - 18.800

Parallel shaft geared motors FR.

#### Helical bevel geared motors KR.

**Power:** 0,12 - 55 kW **Torque:** 1.000 - 14.000 Nm **Ratio:** 5,7 - 8.600

#### **Customer Advantages**

- Low life-circle costs through high efficient drive technique (IE2/IE3)
- Geometry optimised gearings improve the energy balance of the gears
- Compact, versatile gear housings save installation spaces
- Long life span through robust designed system components
- Little system losses, thus smaller radiant heat
- Modular system for the solution of customer specific applications

#### **Corrosion prevention and surface protection**

If agitator drives are to be installed outside or in humid locations, measures against corrosion should be taken. The WATT EUSAS® motors can optionally be equipped with additional protective measures according to higher climatic requirements. The gear motors are protected by various varnish systems.

- Brakes in corrosion-protected design
- Protection cap (SD)
- Stainless name plates
- Stainless vent plug
- Shafts out of stainless material

- Condensate water drainage hole
- Climatic protection
- Motors with anti-condensation heating
- Surface protection LA0 to LA6

Agitator drives according to ATEX 95

The agitator gearboxes can as well be implemented in explosion-prone areas according to ATEX 95. The drives comply with all requirements for equipment used in explosion-prone areas. Agitator gearboxes with system adapters can be equally used in the categories M2, 2 and 3 as the standard drives.



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