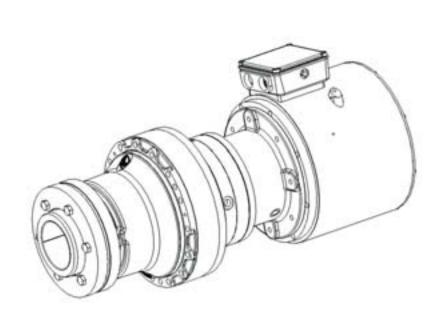
# **Oswald TF Torque Motors and Ring Generators**

#### For large torque at low speeds

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## Features

- · Direct electric drive
- · Large maximum torque
- · Low rated speed
- · Large hollow shaft
- · Extremely low noise
- No rotor losses
- · With NdFeB magnets
- · Without reduction gear, no play at direction reversal
- · Optional integrated planetary gear
- · Optional integrated axial thrust bearing

## **Features of Oswald Motors**

- · Compact, robust, high force density
- Maintenance-free or low maintenance
- · Low inertia, dynamical
- · Long life
- Made in Germany

## **Technical Specifications**

- · Torque: 100-120,000 Nm
- Power: 5-2000 kW
- · Speed: up to 3000 rpm
- Cooling: fluid
- Protection class: IP54

## Design

· Torque motor: permanent magnet motor, annular geometry with hollow shaft and rare-earth magnets

- · Direct drive, high torque at low speed (no need for gearboxes)
- · Features: compact, robust, low-maintenance, low cost, motor with excellent control properties, technically





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comparable with synchronous servomotors

· Bearings are part of motor or part of the customer's machine, axial self-aligning roleIr bearings are optional

#### Feedback Systems / Brakes / Gears

Depending on the frequency inverter and customer demands the rotor position and/or the motor speed have to be determined with suitable feedback systems. Following mounting solutions are available: Hollow shaft encoder, excentrical mounting with belt, encoder mounting on machine parts on site and mounting central on NDE. Also possible is also the mounting of brakes and gears.

## **Cooling Systems**

- Standard: liquid cooled motor (copper coolant circuit)
- Anti-corrosion protection is not required, filtering of particles larger than 100micro-m
- · Condensation of water should be avoided
- Inlet temperature of the coolant: 25°C nominal. (power level must be reduced at higher temperatures)
- · Flow rate of cooling water, water pressure and the pipe fittings according to the table or the nameplate

Contact us to adapt the electrical and mechanical design to your specific requirements.

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