

RoboDrive Standard Motors (Spring 2016)

Examples of TQ Standard Motors with Gear Drives

ILM-PG & Neugart Planetary Gears

The ILM-PG motor-gear unit provides one standardized drive solution in combination with Neugart's powerful planetary gears. Depending on the number of stages, we can cover transmission ratios from 1:3 up to 1:512. The gears offer a minimal backlash. The units are highly robust and have a lifetime lubrication.



All performance characteristics of the gear in speed and torque are achieved in the combination with RoboDrive technology. Combinations of RoboDrive motors and Neugart gears can be tailored to given requirements. It is also possible to use the Neugart precision gears and flange gear boxes.

- Large range of transmission ratios (1:3 - 1:512)
- Very high efficiency (97%)
- Low backlash
- High output torque
- Low noise level
- Lifetime lubrication
- Flexible assembly (Flange or Housing)

ILM-CYK & Eppinger Cycloid Gears

The ILM-CYK gear motor unit is the first compact drive system with a hollow shaft and a cycloid gear. The cycloid gear combines high precision with outstanding stiffness and overload resistance. The torsional stiffness is up to 3 times higher in comparison to planetary or Harmonic Drive® gears. The gear has a minimal backlash. The integrated output bearing can withstand high radial and axial loads and also withstands tilting torques. You can utilize all the advantages of the gear motor in combination with our RoboDrive technology, e.g. higher dynamics due to a stiffer powertrain. Combinations of RoboDrive motors and Eppinger gears can be tailored to customer requirements.

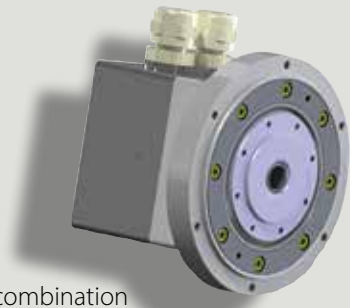


ILM-CYK & Eppinger Cycloid Gears (Continued)

- Very high torsional stiffness
- Very compact form
- Very low backlash <math>< 1.5 \text{ arc min}</math>
- High efficiency
- High overload factor
- Robust output bearing
- High reliability and availability
- Long lifetime

ILM-HD & Harmonic Drive® Gears

The integrated ILM-HD motor-gear unit with hollow shaft is a powerful and highly precise servo-solution in the low-voltage range. The gear technology of Harmonic Drive® provides highest precision without backlash in a compact lightweight construction. In combination with our RoboDrive technology, the Harmonic Drive® gears can be used up to their peak power. Due to the outstanding dynamics of this motor and the very low gear elasticity and inertia it is possible to precisely control the powertrain.



- Very high absolute and repetitive accuracy
- Large hollow shaft
- Very compact and low weight design
- Outstanding life-long precision
- High dynamics
- Optimal design-in solution