

## PRESS RELEASE

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### **FLEXWAVE: Robots would choose Flexwave**

*Robots love it exact. Machine tools, automation and semiconductor production also demand ever greater precision. Therefore, there is no way around the high-quality Flexwave Strain Wave Gearboxes from Nidec Graessner.*

Flexwave - a light, compact strain wave gearbox with high precision, efficiency and torsional stiffness with low starting torque, zero backlash and high transmission ratios. The Flexwave gearboxes combine exactly these characteristics. In sizes ranging from 35 to 80, the gearboxes provide ratios of up to  $i=120:1$ . With 0.1 kg to 3.4 kg - depending on the design and size - the Flexwave units are real lightweights that with up to 346 Nm on the output side provide a very high maximum torque. Different installation kits also enable quick and safe installation.

#### **The transmission mechanism**

As soon as the cam is inserted, the flex gear and the elastic bearing take on an elliptical shape. The flex gear and the internal gear are engaged firmly at both ends of the long axis of the ellipse. As soon as the internal gear is fixed and the cam on the input side is turned clockwise, the flex gear on the output side turns counterclockwise. The respective speed is determined by the different number of teeth between the two gears.

#### **Your advantages**

- Ratios up to  $i=120:1$
- Different sizes: 35 to 80
- Selection of installation kits available in different sizes
- High precision, repeatability and torsional stiffness
- Backlash-free
- Low starting torque
- Low weight

