

cyber[®] force motors linear actuators

reliable
compact
precise



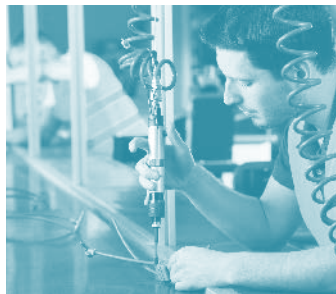
Your Applications

WITTENSTEIN – Products that know no limits



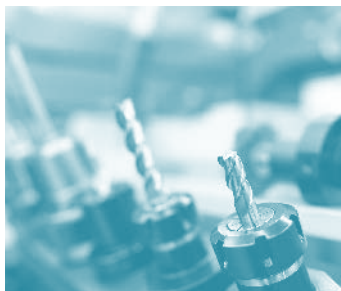
Joining

Electromechanical cylinder with high accuracy for mating and pressing in processes that require careful monitoring of position and force.



Assembly

Used in manual work stations or in automated production lines with the benefits of a very compact size.



Positioning

Precise positioning of tools, even in rough environmental conditions.



Adhering and Dispensing

Low maintenance and weight optimized linear actuators with the highest reliability for adhering and dispensing systems.

Quality and Reliability

even in rough environmental conditions

High Temperature

Operating environments up to 300°C / 572°F

Radiation

Radiation fields up to 10⁷ Gy

Clean Room

ISO Class 5

Vacuum

Operating pressure down to 10⁻⁸ mbar with extremely low outgassing

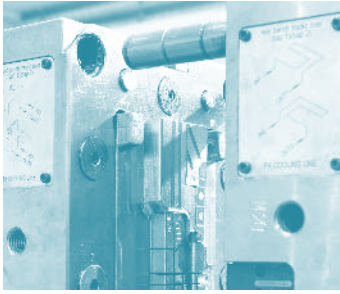
ATEX

Flameproof enclosure for dust and gas protection according to IEC 60079

Food and Beverage Industry

Multiple stage enclosure with food grade lubrication and protection class up to IP69K





Injection Molding

Very compact and energy efficient actuators with a long lifetime for ejector, injector, closing and dispensing axes.



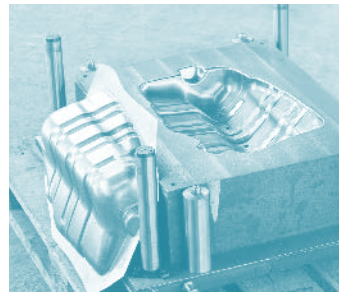
Welding and Riveting

Servo motor controlled welding and riveting tongs allow for shorter cycle times and energy consumption.



Bending and Stamping

Variable, force monitored motion for ambitious bending and stamping tasks.



Deep-Drawing

Tension or compression reshaping of film or sheets via high compact and powerful linear actuators.

Excellent Solutions for complex motion tasks

Compactness

- Fully integrated unit consisting of a motor, ball screw, encoder and brake for minimal space
- Servo motors with high power density and overload capacity

Precision

- Reproducible, monitored processes through precise force, speed and position control

Customization

- Individual calculations and design by our linear motion experts
- Great support during design and development phase
- Support during start up

Reliability

- Only high quality components and materials are used
- Every motor is tested (electrical, mechanical and functional)
- Stress tests and customer specific service life tests are available on request

Dynamics

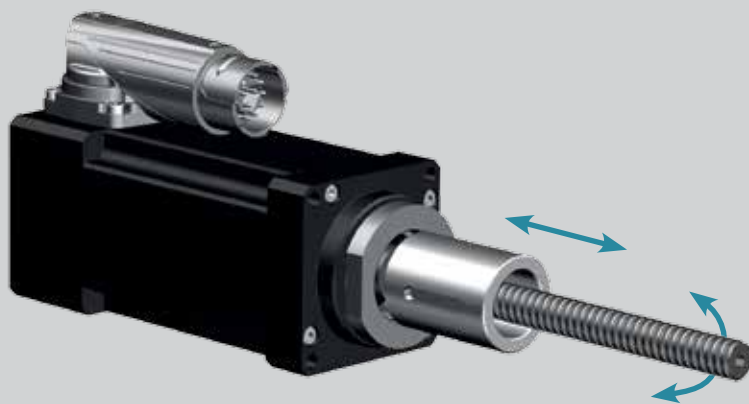
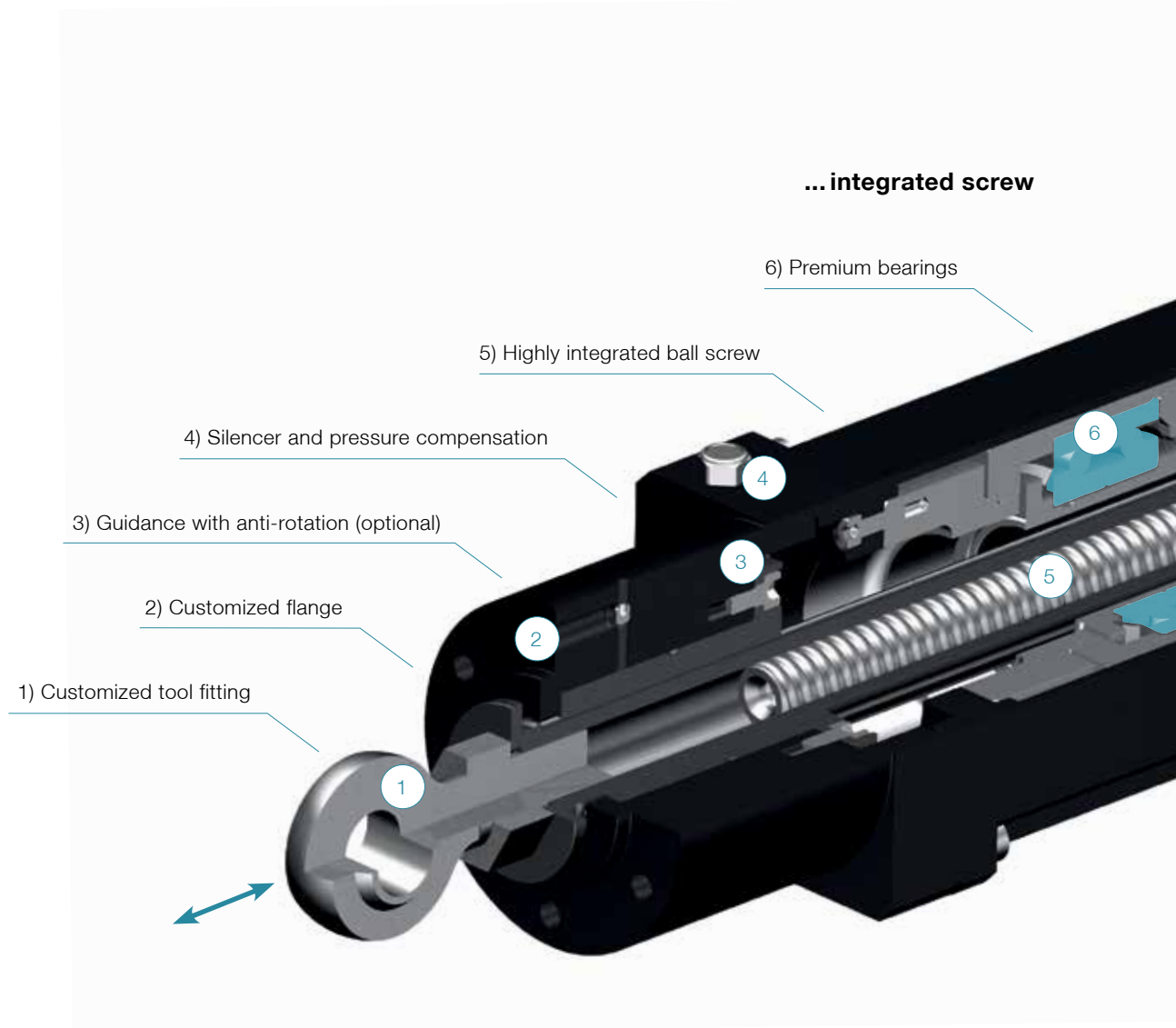
- Reduced cycle times due to very high dynamic performance and careful optimization

Service

- Development, design and assembly in Germany
- 24h service
- Testing and certification (CE, UL, ATEX,...) from a single source



Highly Compact linear actuators with ...

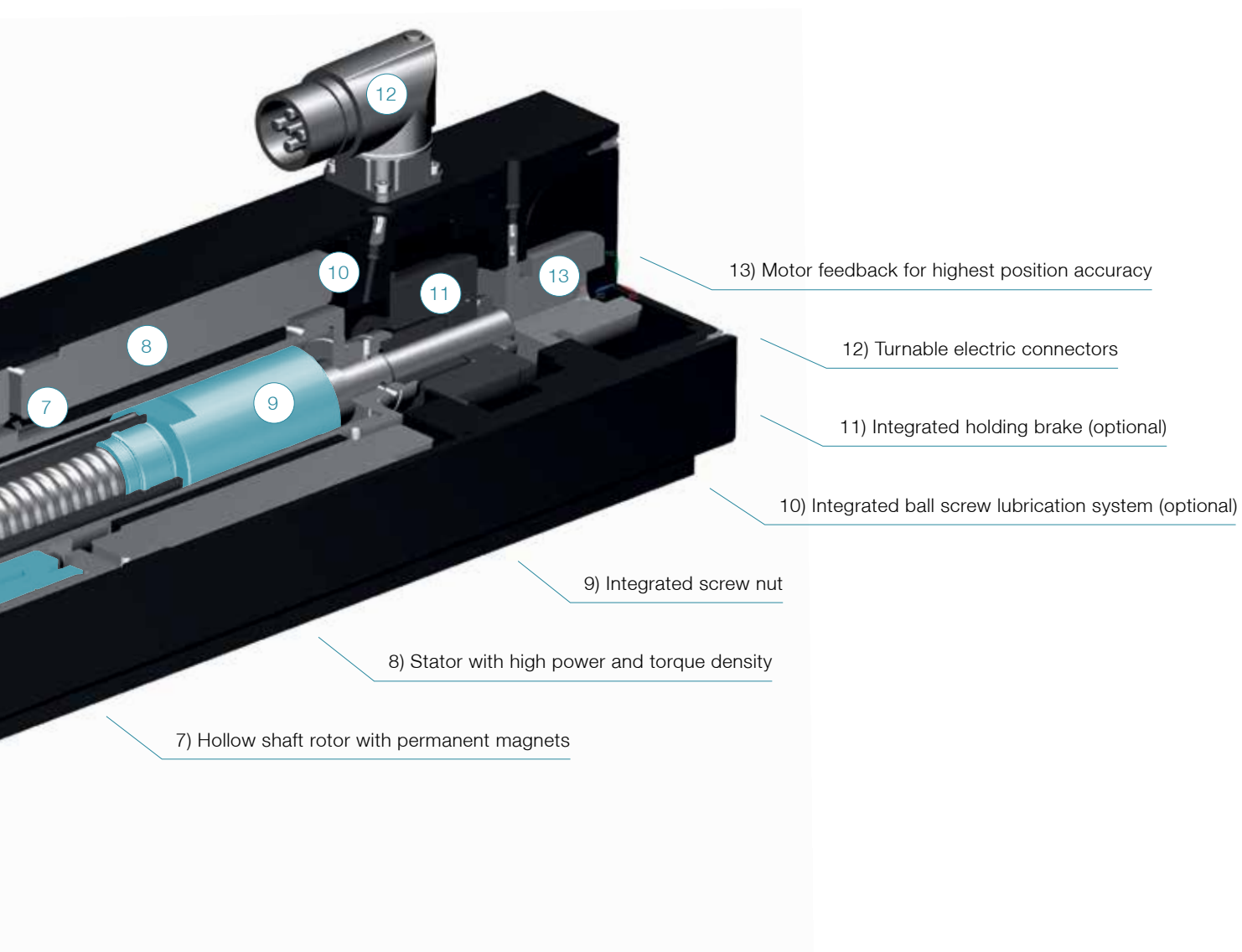


... directly driven screw

Ready-to-mount motor with directly driven ball screw for inexpensive solutions.

The rotor shaft of the high torque servo motor is combined with a ball screw.

Ideal for highly dynamic applications through minimal inertia.



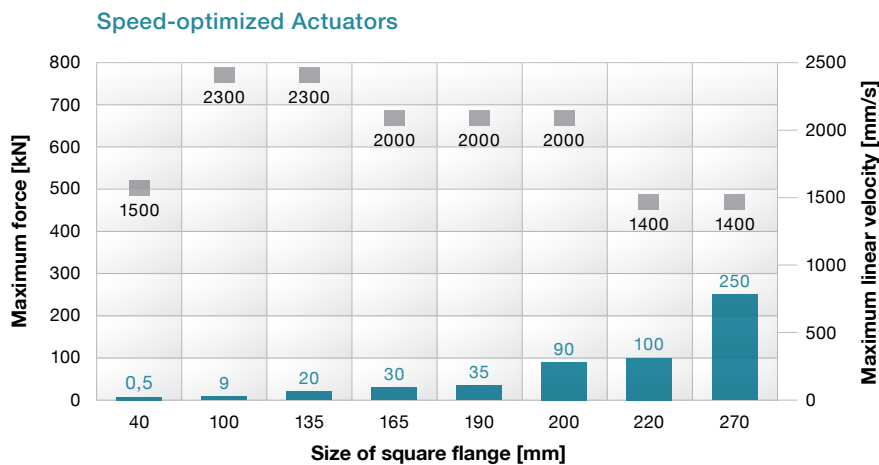
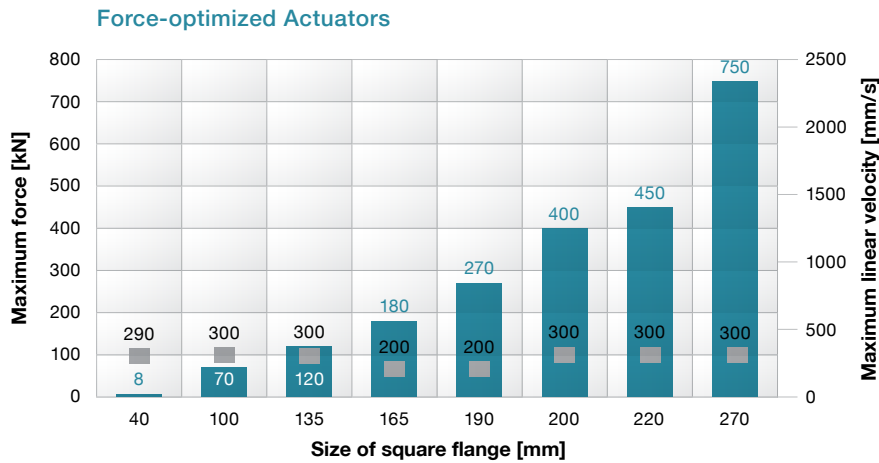
... endless screw

Moving the ball screw through the hollow shaft motor provides an “endless” stroke.

Ideal for highly compact solutions with a long travel range.

Wide Range of Motors

our base for customized solutions



Your Application

Customized design for your duty cycle to find the ideal balance between force and speed.

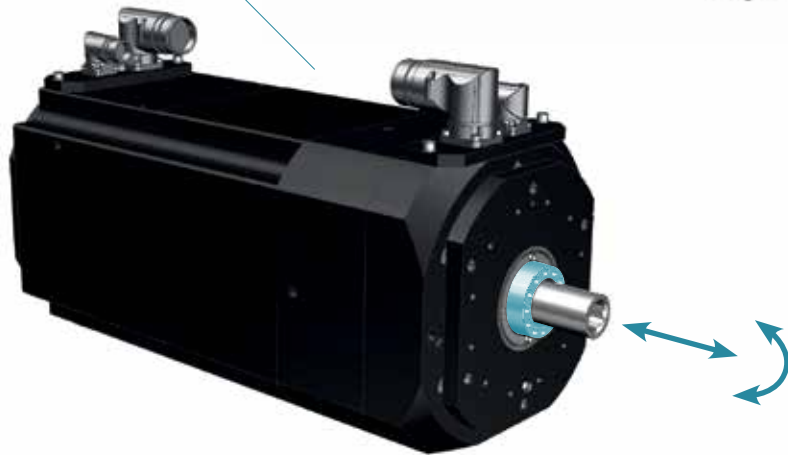
■ = Maximum force
■ = Maximum velocity

Options

- All standard feedback systems available
- Integrated holding brake
- Water cooling with filtered or unfiltered water
- Integrated rotation prevention
- Tool Holder
 - According to DIN
 - Spherical
 - Customized
- Assembly Flange
 - Wall mounting
 - Flange mounting
 - Spherical mounting
- Customized threaded screw
 - Ball screw
 - Planetary roller screw
 - Trapezoid threaded screw
- Patented lubrication system
 - No disassembly needed
 - Service during operation
 - Maintenance free system

Combined Linear Rotary Actuators for independent rotary and linear motion

With two mechanically separated piston rods:
Compact actuators with high force density for short stroke applications



With one combined piston rod:
High dynamic actuators for long stroke applications



Typical applications

Injection Molding

Plasticizing and injecting of plastic

Rotation:

Drives the plasticizing screw to melt the plastic

Linear Motion:

Injecting the plastic into the mould

Bottle Closer „Capper“

Screws caps on filled bottles in high speed

Rotation:

Torque and position controlled rotation to safely screw the caps on the bottles

Linear Motion:

Pressing of the preheated caps on the bottle threads

Controlled Welding and Soldering

Welding and soldering of complex contours with high position accuracy of the welding/soldering head

Rotation:

Turning of the welding/soldering head

Linear Motion:

Linear motion of the welding/soldering head



cyber motor

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