

SCREWDRIVING
AND FASTENING
SYSTEMS WITH
AUTOMATIC FEEDING

STÖGER
AUTOMATION

KOLIBRI

Automatic screwdriver
for miniature screws
with automatic feeding



With the KOLIBRI – an automatic screwdriver for miniature screws with an automatic feed unit – a screwdriving system has been developed, which perfectly satisfies the demand for high cycle times with the automatic feeding of micro screws. In the basic version, the KOLIBRI consists of 2 screwdriver spindles, a bar magazine, process control and an integrated feed unit. Due to the extremely good size/power ratio of the drive, the distance between the two screwdriver spindles is very small. The complete screwdriving unit with feeder unit and controller in the version for transfer systems requires a base area of less than 0.4 m² and is therefore the most space-saving unit of its kind. The cycle rate is almost doubled through the use of 2 screwdriver spindles. As such, cycle times from 0.8 seconds with torques of less than 0.05 Nm are possible.

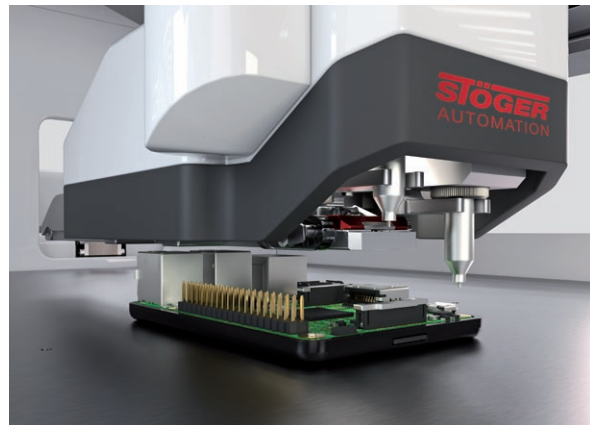


In parallel to the screwing process, the screws are made available in a buffer section. The magazine automatically loads again in 1.5 sec., the filling process itself takes just a fraction of a second. The KOLIBRI can be used in transfer systems and as a screwing cell with manual equipment, or it can be operated as a modified version on robots.

ALL ADVANTAGES AT ONE GLANCE:

- + For screws from M1
- + Cycle times from 0.8 sec.
- + Space-saving due to intelligent design
- + Quality enhancement due to verifiability of the screw connection
- + Screwing with reference to the parameters screw-in depth, torque and angle of rotation possible
- + Virtually maintenance-free systems

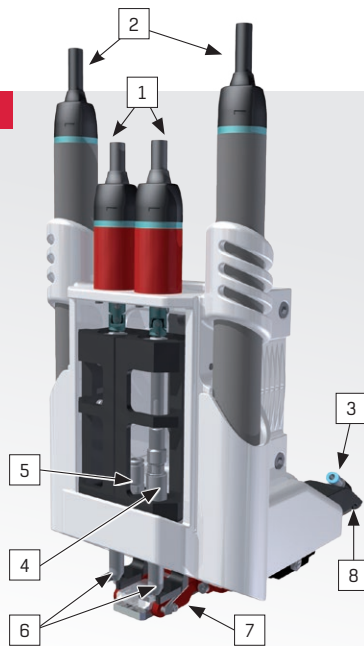
Example image of the KOLIBRI with X/Y axis system



Modules

Screwdriving unit

- 1 Rotation drive
- 2 Linear drive
- 3 Feed air connection
- 4 Screwdriver spindle
- 5 Vacuum connection
- 6 Vacuum tube with screwdriver tool
- 7 Magazine
- 8 Docking unit for feed unit

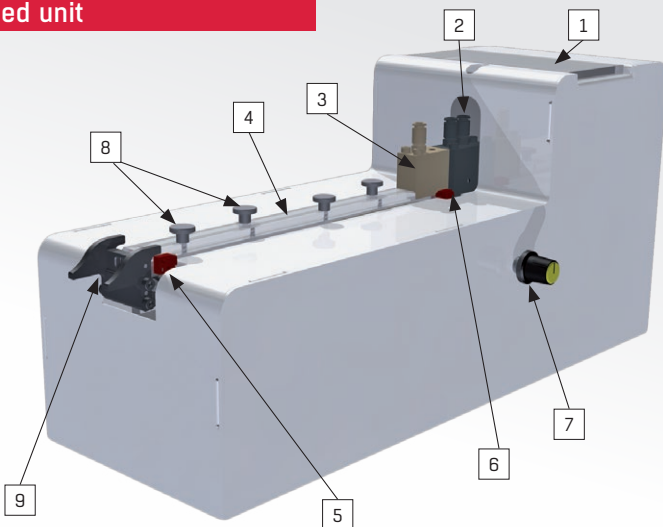


Technical data

Screwdriving unit

Dimensions W x L x H [mm]	130 x 240 x 265
Screw shank size	M1 - M3 (from diameter 0.04" up to 0.12")
Torque range [N·cm]	< 7
Driving speed [min ⁻¹]	< 2,000 RPM
Feed stroke [mm]	< 15
Force (feed stroke) [N]	33 - 11
Speed linear drive [mm/s]	< 450
Cycle time [s]	from 0.8
Magazine capacity [pcs] (depending on screw size)	105 (M1)
Supply voltage [V]	48
Weight [kg]	2.6

Feed unit



Feed unit

Dimensions W x L x H [mm]	135 x 395 x 180
Sorting performance [screws/min]	< 75
Capacity of buffer section [pcs] (depending on screw size)	95 (M1)
Supply voltage [V]	230
Weight [kg]	6.5 (14.3 Pound)

- 1 Filler opening
- 2 Discharge lock
- 3 Feed air connection
- 4 Buffer section
- 5 Fill level control min.
- 6 Fill level control max.
- 7 Potentiometer
- 8 Quick fasteners
- 9 Magazine docking module

