

SCREWDRIVING
AND FASTENING
SYSTEMS WITH
AUTOMATIC FEEDING

STÖGER
AUTOMATION

SES/SEM series

High-performance
automatic screwdrivers
with automatic feeding



Our high-performance SES/SEM series automatic screwdrivers enjoy intelligent functions that provide you with clear-cut benefits: the entire screwing unit does not move thanks to the integrated stroke movements, just the screwdriver tool moves up and down. This preserves the drive and sensors. The unit is designed for extremely high cycle times, since only small masses are moved. The screwdriver units can be used for all screwing positions and are therefore just as suited to stationary use as they are for operation on positioning systems and robots, in rotary table and transfer systems. The system recognizes errors and issues a NOK message. The connecting element is discharged at the same time so that the automatic screwing process is not interrupted.



THE ADVANTAGES AT ONE GLANCE:

- + Slim design, also suitable for narrow screwdriver spacings
- + Drive-preserving functionality thanks to the integrated lifting movements for a long service life
- + Sensor system is not moved due to the integrated stroke movement and thereby preserved
- + Tool change in 10 seconds without the need for additional tools
- + Quality enhancement due to verifiability of the screw connection
- + Virtually maintenance-free systems
- + Documentation of the tightening results
- + Bit stroke freely adjustable, nose piece is retained shortly before coming into contact with the component, thus avoiding damages to the component
- + Monitoring of the screw-in depth, torque and angle of rotation
- + Free selection of the drive: pneumatic, electric, with torque transducer etc.

Automatic screwdrivers for screws



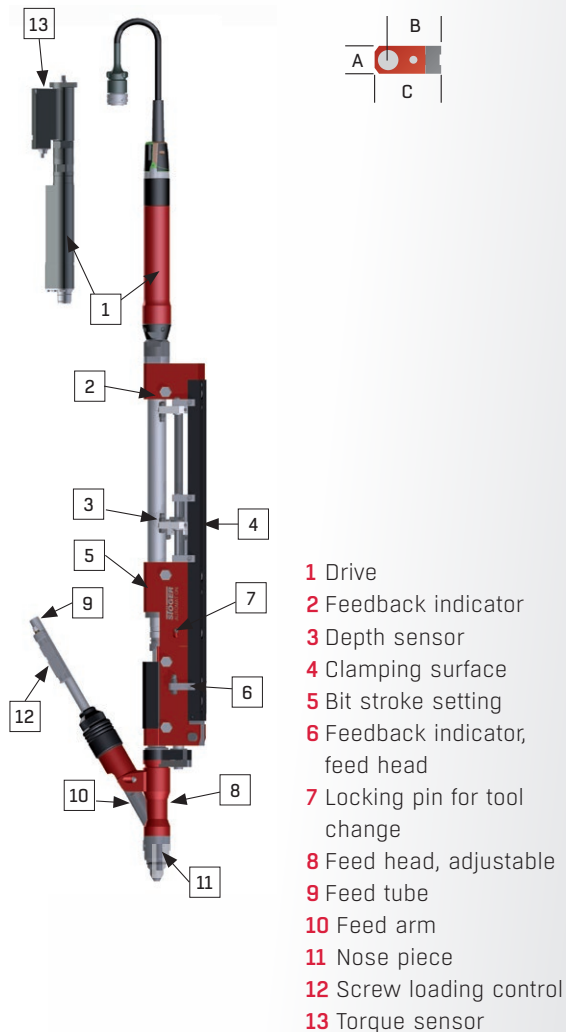
Technical data

	SES 1601	SES 2001	SES 2501	SES 3201	SEV 2001	SEV 2501	SEV 3201
Screw headØ max.	7*	11*	15*	24*	10*	14*	23*
Screw size	M2 - M4*	M2 - M5*	M4 - M6*	M5 - M10*	M2 - M5*	M4 - M6*	M5 - M10*
Torque (Nm)	0.03-1.6	0.2-4.5	0.5-12	1.0-45	0.2-4.5	0.5-12	1.0-45
Feed stroke (mm); depending on model	15 or 30	25 or 50	35 or 70	50 or 100	approx. 80	approx. 80	approx. 80
Vacuum version	no	no	no	no	yes	yes	yes
A (mm)	25	30	38	50	56	62	72
B (mm)	42	58	68	86	80	95	110
C (mm)	55	73	87	111	97	114	135

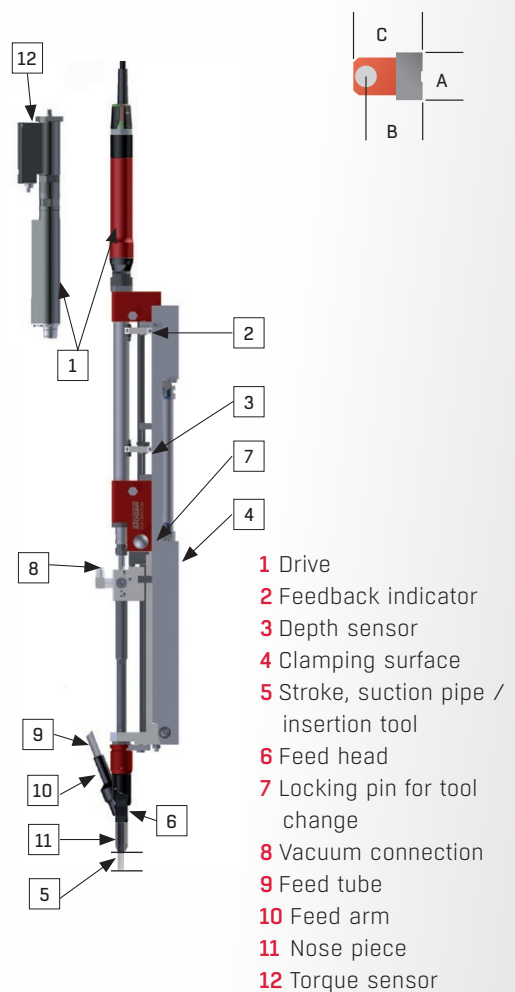
* Standard; other sizes possible

Modules

SES



SEV (Vacuum version)



Automatic nutrunners



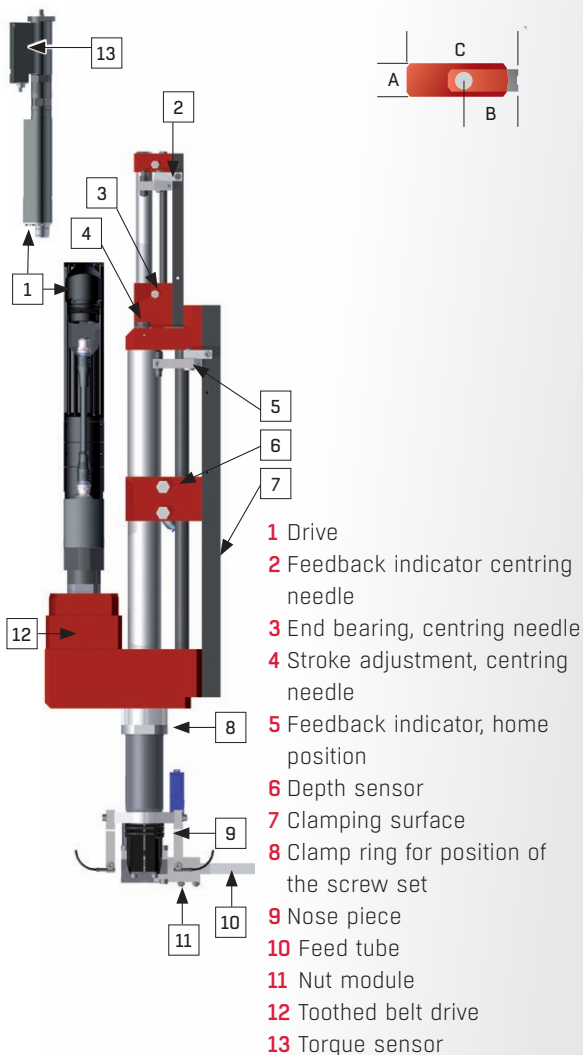
Technical data

	SMZ 32	SEM-V 1601	SEM-V 2001	SEM-V 2501	SEM-V 3201
Nut size (max.)	M8*	M4	M6	M8	M12
Torque (Nm)	1.0–45	0.03–1.6	0.2–4.5	0.5–12	1.0–45
Vacuum version	no	yes	yes	yes	yes
Controlled centring needle	yes	no	no	no	no
Overstroke (mm)	50	approx. 40-60	approx. 60	approx. 80	approx. 100
A (mm)	50	25	30	38	50
B (mm)	82	42	58	68	86
C (mm)	189	55	73	87	111

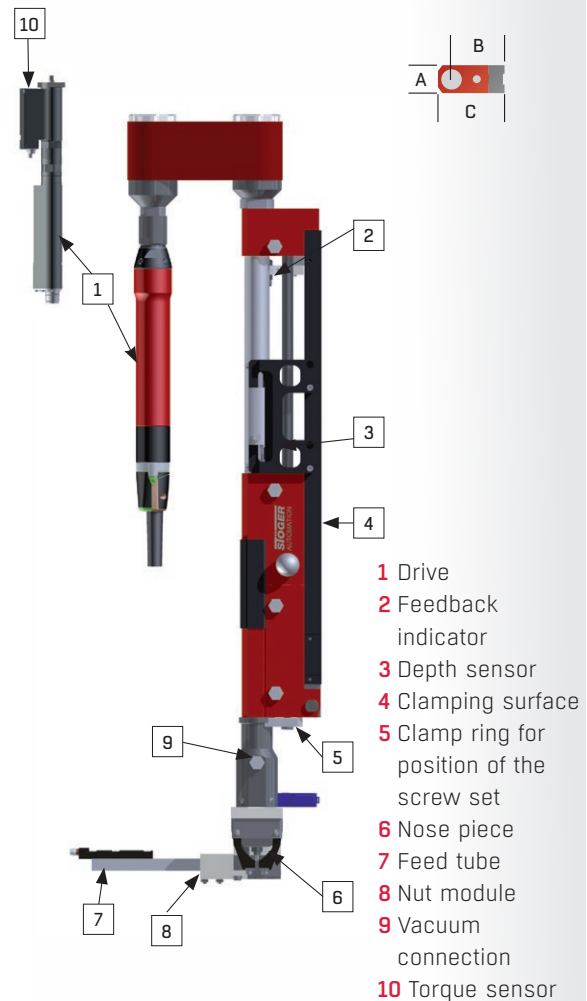
* Standard; other sizes possible

Modules

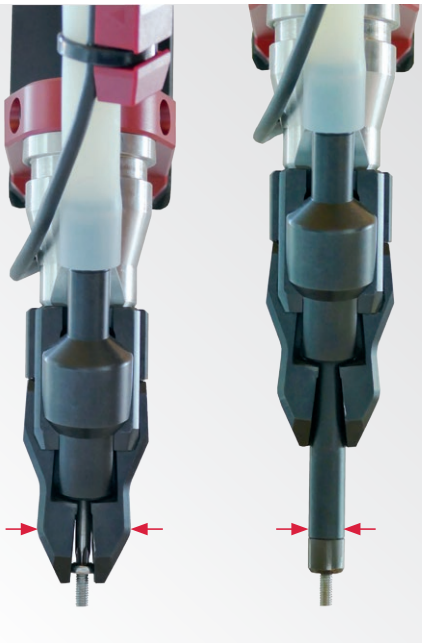
SMZ 32 (with controlled centring needle)



SEM-V (Vacuum version)



Vacuum module function



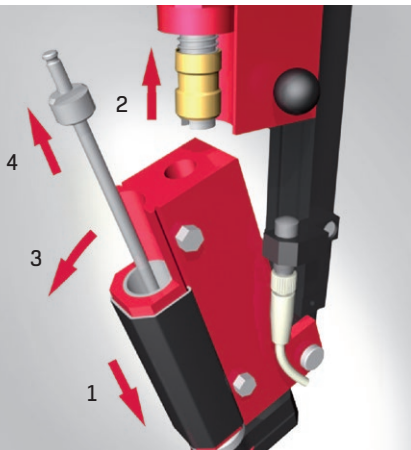
The screwdriver tool is enclosed by a tube in which a vacuum is generated. It retains the screw and facilitates depositing at the screw location. The screwdriver tool extends and screws in the screw. The space requirement around the screw location is reduced significantly since the diameter of the tube is only approx. 1-2 mm larger than the screw head diameter.



Interfering edges

Interfering edges are single- or multi-sided contours or superstructures, which are found at the screw location or in close proximity (20 mm diameter and up to 1,000 mm in height). If you are not sure as to whether your component is designed for automated handling, we will be happy to help you in customizing the screw location.

User-friendly maintenance



- + Feed arm detachable without tools, important to eliminate interference with deformed screws
- + Simple adjustment of the depth sensor with adjusting wheel

Tool change in under 10 seconds

- 1 Push the protection cap downwards
- 2 Release quick fastener
- 3 Swivel out feed stroke
- 4 Replace tool



Drive

- + Open drive concept
- + All brands possible
- + Optionally with angle drive for reducing the space requirement
- + With or without torque transducer and rotational angle measurement



Controller

Depending on the requirement and selection of the drive, all conventional control parameters can be queried and evaluated, such as the torque, screw-in or rotational angle,

torque threshold. All values can be saved and documented permanently via a PC software. This facilitates extensive evaluations as well as a PCA (process capability

analysis) of the system. We would be happy to assist you in creating a MCA (machine capability analysis).

CAD data of all models are available under www.stoeger.com/en/downloads.html under file "automatic screwdrivers"

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