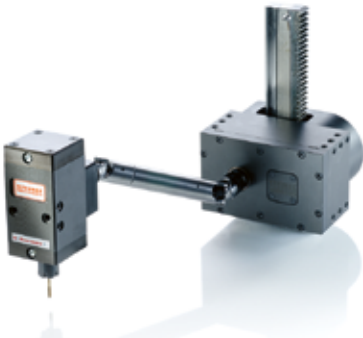



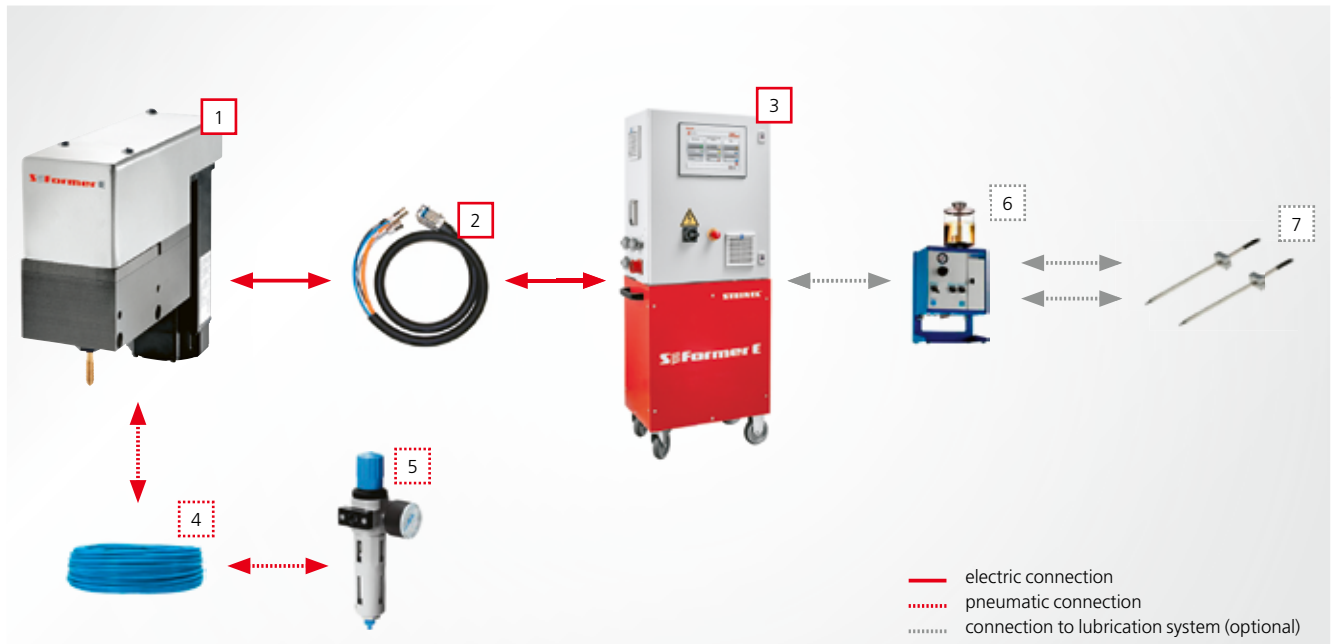
# Tapping units

## S-Former Z, S-Former E

With the specially designed tapping units S-Former Z (mechanical) and S-Former E (electronic) for punching and bending tools, STEINEL has made two systems available. The decision on the best system variant to use is made according to the specific requirements. We will be happy to help you with the selection, as well as the integration in your tool.

Application fields/features	S-Former Z	S-Former E
		
Drive	mechanical via press stroke	electrical via AC Servodrive
Activation	via tool stroke	via external control unit
max. press speed depending on the process parameters (strokes/min)	150	E0 = 160 E1.1 = 110 E1.2 = 80 E2 = 70 E3 = 50
Use in progressive stamping tools	✓	✓
Use as autonomous unit, e.g. for rotary indexing tables (assembly station), in production lines	–	✓
Use in presses, punching machines	✓	✓
Tapping at any angle	✓	✓
Process monitoring	–	✓
Use of carbide taps	✓	✓
installable on blank holders	✓	✓
installable on movable mounting	✓	✓
installable on lower plate	✓	✓
Use in various tools	–	✓
various thread sizes with a unit	–	✓

## S-Former E



The S-Former E is an electronic system for process-integrated tapping. The AC Servodrive integrated within the tapping unit head drives the roll tap. The movement of the roll tap to the part is done pneumatically and the tap moves into the material itself as a result of its pitch. The PLC control regulates and monitors the servo drive and thus the tapping.

For the design of the S-Former, information about the process is required. For inquiries, a corresponding form is available. It can be found at:

**[www.steinel.com](http://www.steinel.com) » Tapping units » S-Former E » S-Former E enquiry**

### Technical features

- permanent process monitoring and quality checks
- Logging, archiving and processing of the monitoring results
- The S-Former E can be integrated within any production lines.
- Tapping at any angle possible
- parallel work with different tapping unit head sizes/ thread sizes
- automatic recognition of the connected tapping unit head types to avoid errors during setup
- individual programming of the individual tapping unit heads
- Teach in support during programming
- unlimited number of freely configurable programming
- 12" touch display
- German/English menu instructions as standard, additional languages optional
- detailed help and information texts stored in the control unit

- optional remote maintenance module
- user administration for the approval of individual functions

### The S-Former E consists of






- 1** up to 4 tapping unit heads (E0 to E3) in parallel operation, in variable compositions
- 2** cable set per tapping unit head
- 3** control cabinet, control unit for up to 4 tapping unit heads
- 4** pneumatic supply per tapping unit head
- 5** compressed air maintenance unit with pressure reducer
- 6** minimal quantity lubrication system/other lubrication system (optional)
- 7** spray nozzles (optional)

### Technical note

Incomplete machine in accordance with Machinery Directive 2006/42/EC with emergency stop function

## S-Former E

Five tapping unit head sizes cover the thread area from 1 mm to 26 mm diameter. The tapping units are powered by powerful AC Servodrives providing up to 2.25 kW (400 V).

S-Former E	E0	E1.1	E1.2	E2	E3
					
Ø thread [mm]	1-4	4-8	4-8	6-16	8-26
Ø tap shaft [mm]	1-4	4-8	4-8	6-12	8-16
max. tap path [mm]	20	30	30	40	50
Number of strokes [stroke/min]*	Up to 160	Up to 110	Up to 80	Up to 70	Up to 50
max. torque $M_F$ [Nm]	2	8	14	20	40
Rotation speed $n_F$ [t/min]	Up to 5000	Up to 3250	Up to 2777	Up to 2500	Up to 1000

\* 120° feed and fixing angle (which corresponds to a thread form angle of 240°), steel < 600 N/mm<sup>2</sup>; F = roll tap