



Pressure grouting machine SF25 compact

The pressure grouting machine SF25 compact - segment forming machine - is used for the pressing of:

- shells with cables or sleeves
- cases with plugs
- sleeves and pipes
- sensors with cables

The motorised press guarantees a form-fit connection which helps achieve, among other things, better strain-relief, anti-twist protection or shielding.

A typical example is the implementation of sensor sleeves which mechanically protect connection leads from being pulled out and seal them at the same time. This procedure also allows crimping of plugs into sensor sleeves. Wall thicknesses of 0.2 mm up to 1.0 mm with a diameter of 3 – 25 mm are possible.

The segment forming machine SF25 compact was designed especially for components which are inserted into the machine vertically from the top or from the bottom between the jaws. It is used mainly in areas with limited space as well as part or complete automation units, e.g. workpiece carrier feed with lift-in assembly, robotic loading and pick-and-place systems.

Machine setup

The handling of the machine is very simple. The work piece is inserted into the opening, usually positioned with the help of a stopper, which assures that it does not move while the jaws move axially towards the work piece. The corresponding working parameters can be stored and managed in the machine control system. The user interface allows easy and logical operation. All essential processes are electronically monitored and the data is stored in the control system.

However this can also be done by a superordinate system control.

This ensures high process safety and reproducibility.

[more about the machine design of the SF25 compact press machine](#)

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Basic machine

- basic module with fastening holes for the reception of all functional components consists of: base panel with carrier for servomotor, gearing and encoder
- setup (consisting of connecting member, lever and jaw guide conduct) available in 2 versions:
- option 1 – narrow model designed for wall thicknesses of up to 1mm
- option 2 – reinforced model designed for wall thicknesses from 1mm up to ca. 2 mm
- jaws (forming tools), flat or circular presses, possible number of jaws: 6, 8, 12 or 16

Protection measures

- covering of drive mechanism
- protective tube at back of forming head prevents reaching inside
- protective cover at front of forming head; easy insertion of parts guaranteed
- front protection also available with light grid
- emergency stop immediately stops all movements

Control system / Software

- VIPA Speed7 SPS with user panel Siemens TP700 comfort; S7 and TIA portal V13
- data sets selectable via user panel (by means of bar code scanner if desired)
- data bank for product specific parameters

- 3 access levels for machine control (user, service and administrator)
- language can be chosen as requested (default German and English, other languages with extra charge)
- control cabinet installed into frame

Frame

- holds all machine components
- welded and coated steel frame with 4 rotatable wheels, 2 with locking brake
- aluminium section optional

Machine documents

- documentation, hazard analysis, CE mark

Optional components – additions

The standard segment forming machine SF25 compact can be equipped with different optional additions and functions to upgrade it, for example, to a semiautomatic press with process monitoring.

[for more information on components and additions to pressure grouting machine SF25 compact, see here](#)

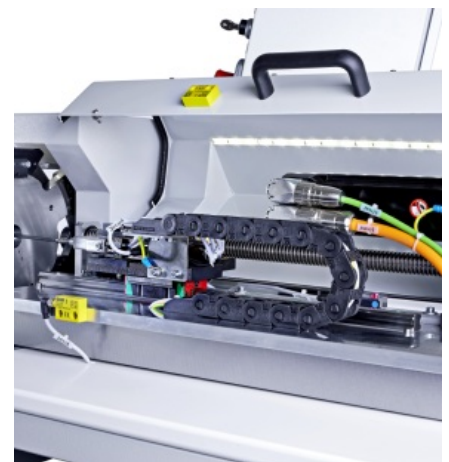
Manual positioning

- stopper is set into position manually
- one position per data set possible
- position reading via encoder and display on OP
- component position is registered by a sensor at the stopper
- machine is started automatically or via pedal switch



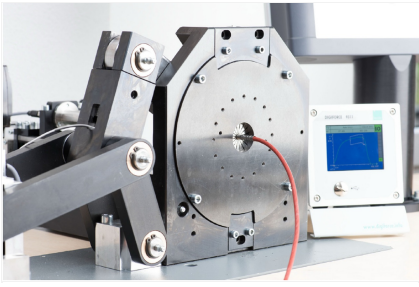
Motor-driven positioning

- data sequence freely programmable (max. 30 commands per data set)
- several press positions per data set programmable
- stopper is motor-driven into position by selection of data set
- position displayed on OP
- component position is registered by a sensor at the stopper
- machine is started automatically or via pedal switch



Load-displacement monitoring

- DMS sensor in connecting link calculates load in lever
- graphic display of loads on separate measuring device
- OK and NOK evaluation



Height adjustable frame

- desktop mounted on height adjustable legs
- height adjustable up to 300 mm
- 4 rotatable wheels, 2 with locking brake



Light curtain

- protection to guarantee free access for loading of segment forming machine
- obstacle recognition
- initial inspection

Nonstandard models

- machine can be adjusted according to requirements
- integration of machine into entire machine complex possible
- further alternatives possible

Technical data

Measurements	Standard	670 x 600 x 250 mm (length x width x height)
Die data	number of jaws	6 / 8 / 12 / 16
	jaws	hardened
	possible press diameter	3 – 25 mm
	possible wall thickness	0,2 - 1 mm, depending on material
	max. crimp length	up to 20 mm
Power supply	net 3 x L / PE 400V / 50Hz	
Output	3 kVA	
Current	8,2 A	
Pre-fuse	max. 16 A	
Cable cross section	5 x 2,5mm ²	
Compressed air	not required	
Weight	Ca. 250 kg	
Repeat accuracy	±0,05mm	
Cycle time	ca. 3 – 8 sec.	