



# Pressure grouting machine – SF50

The pressure grouting machine SF50 - segment forming machine - is used for:

- grouting / pressing of shells with cables or sleeves
- grouting / pressing of cases with plugs
- grouting / pressing of sleeves and pipes
- grouting / pressing of 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.

For workers of rotationally symmetric components the segment forming machine SF50 represents a consistent enhancement of existing systems for the pressing of pipes, pipe ends, sleeves, shells, armatures and many other applications.

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 1.0 mm up to approx. 2.0 mm with a diameter of 3 – 50 mm are possible.

## Machine setup

The handling of the pressure grouting 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. This ensures high process safety and reproducibility.

[for more information on the machine setup of pressure grouting machine SF50, see here](#)

### 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
- jaws (forming tools), flat or circular press, possible number of jaws: 8

### Protection measures

- covering of drive mechanism
- forming head protected on both sides by cover or protective tube
- 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
- three 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 SF50 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 SF50, see here](#)

## Model - SF25CNC/SF50CNC

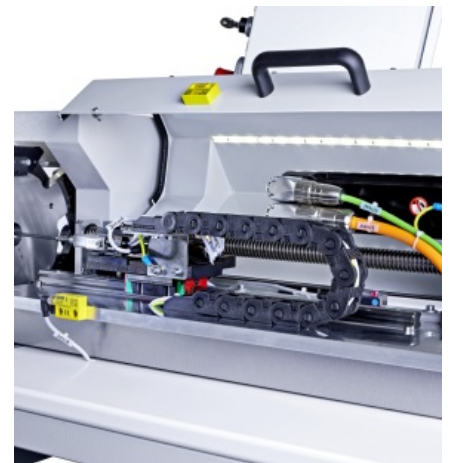
### Manual positioning

- 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



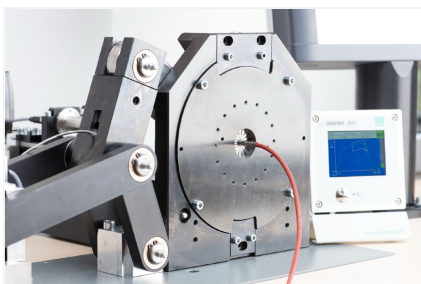
### Motor-driven positioning

- 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

- load cell in toggle lever 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 of 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

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### Pressure Grouting Machine - Segment Forming Machine SF50

Measurements	Standard	1.250 x 1.700 x 1.635 mm (length x width x height)
Die data	number of jaws	8
	jaws	hardened
	possible press diameter	3 – 50 mm
	possible wall thickness	0,2 - 2 mm, depending on material
	max. crimp length	up to 30 mm
Power supply	net 3 x L / PE 400V / 50Hz	
Output	3 kVA	
Current	8,2 A	
Pre-fuse	8,2 A	
Leistungsquerschnitt 5 x 2,5mm $\leq$		
Cable cross section	not required	
Weight	Ca. 820 kg	
Cycle time	Ca. 3 – 8 sec.	
Repeat accuracy	$\pm$ 0,05 mm	