



Chipless cutting machine RS25CNC

The chipless cutting machine RS25CNC is used for the cutting of burr-free pipe sections out of plastic, steel or non-ferrous metals.

- $\varnothing 3 - \varnothing 25$ mm
- up to 1 mm wall thickness separable
- repeat accuracy 0.05 mm
- moulding cycle approx. 1 - 5 sec. depending on material and wall thickness

Machine setup

The chipless cutting machine RS25CNC represents a consistent enhancement of existing systems for the production of pipe sections.

The handling of the machine is very simple. The pipe is inserted into the opening, usually positioned with the help of a pneumatic gripper, and moves stepwise towards the appointed cutting position.

The pipe stands still while the radially closing cutting parts are turning around the pipe axis.

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.

Basic machine

- basic module for the reception of all functional components consists of:
- main base plate with vertical assembly block
- drive system: 2 servomotors with toothed belt discs/toothed belt (2 CNC axes)
- recirculating ball screw with screw nut and double thrust bearings, adaption to shaft guide of cone ring for closing of cutting tools
- main ball screw mounted free of play by means of spring system for reception of tool holding disc
- includes protection cover with gas spring, handle and security sensor
- cutting head available in 2 versions:
 - option 1: 3 cutting part holders with product specific rollers
 - option 2: 1 cutting part holder with product specific rollers and 1 counter roll holder with counter roller
- servo drive enables exact control of driving parts

Positioning unit

- automatic infeed of pipe (section length) with servo axis and gripper

Protection measures

- protection door at front of cutting head
- front protection also available with light grid
- includes protection cover with gas spring, handle and security sensor over drive system
- emergency stop immediately stops all movements

Control system

- VIPA Speed7 SPS with user panel Siemens TP700 comfort; S7 and TIA portal V13

- parameterisation and user software installed
- control cabinet installed into frame
- additional buttons for start, stop and emergency stop
- pedal button for release of forming process by operator
- data sets selectable via user panel (by means of bar code scanner if desired)

Software

- data display on user interface
- calibration instructions are set up and selectable at all times via button
- standard databank for product specific parameter with 50 data sets (expandable up to 4,000)
- 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)

Frame

- holds all machine components
- standing work station, length x width x depth approx. 1,010 x 1,010 x 890 mm
- working height approx.. 1,123 mm
- 4 rotatable wheels, 2 with locking brake
- welded and coated steel frame, colour can be chosen as requested
- desk top made of steel or wood

Optional components – additions

Handheld barcode scanner

- data set selection via handheld barcode scanner
- 1D or 2D codes
- with rack



Height adjustable frame

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



External data protection with HSDBASE software

- software for reading process data from SPS, e.g. current operator
- storage and back-up of any selected data from OP on server/individual PC
- data collection controllable in different modes (cyclic, change in value etc.)
- connection of machine to company network via TCP/IP-address
- reading of data in different formats, e.g. *.csv, access, mySQL etc.

Transport, instruction and operation setup at customer's premises

- transport to customer is carried out by Fichter formtec GmbH
- setup and start of operation carried out by Fichter formtec GmbH
- instruction approx. 2 hours on customer's premises
- production support approx. 1 hour on customer's premises

Nonstandard models

- machine can be adjusted according to requirements
- integration of machine into entire machine complex
- edges on component parts can be beaded
- further alternatives possible

Machine documents

Documentation

- user and maintenance manuals
- lists of parts, spare parts and working parts
- electric diagram
- specimens: 1 x paper, 1 x CD; language: German or English
- production drawings of parts and source codes of software are not included
- transfer of documentation after starting of machine

Hazard analysis, CE mark

- hazard analysis is carried out and documented
- machine / unit delivered with CE mark

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