



ErgoCut Punching Machines

Plastics
Technologies
in Motion.

The FRIMO *ErgoCut* is an extremely compact and ergonomically designed punching machine that is very well suited for trimming complex and large plastic components such as instrument panels, door panels, center consoles and armrests in large scale production. The *ErgoCut* is barely 2.5 m high, which makes it ideal for installation in confined spaces.

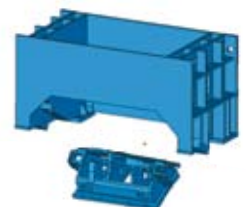
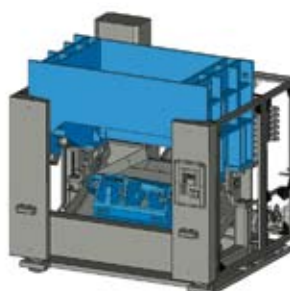
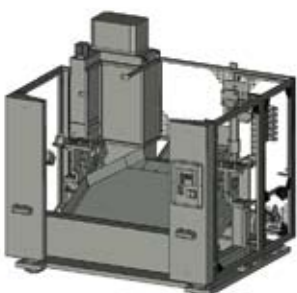


Operating cycle

The operator places the part e.g. an instrument panel on the product fixture of the lower table and starts the cycle. The lower table pivots up and the tool

is locked in place. The punch units in the upper part of the tool carry out the cutting operations. In the basic version the machine can drive up to four

independent punching circuits. The waste falls through the bottom dies onto a waste conveyor.



Compact and ergonomic design

Versatility of application

The *ErgoCut* punching machine was developed specifically for the universal use with different punching processes in confined spaces:

- Cut-through with cold knife and die
- Kiss cut with serrated knife into a rubber pocket
- Kiss cut steel knife to steel die
- Kiss cut against substrate
- Special applications: Hot knife cutting, Kiss cut in a recessed groove

The processes listed are suitable for hard plastics, such as Noryl, SMA, SMC, ABS, GMT, LFT, wood fiber/natural fiber composites or hybrids such as GMT with sheet metal, and equally for soft plastics such as PVC and TPO films, EPDM, PU foam, PU sprayed and RIM skins, textiles or decorative materials and carpets.

The selection and specification of the optimal punching process depends on the composition of the materials concerned and is determined in a modern application center.

Safety features

Hazardous areas of the machine are effectively sealed off with cladding and protective grilles. The maintenance areas are accessible through monitored security ports. The operating area is protected by an accident prevention safety light barrier. A speed-regulated hydraulic pump (frequency converter controller) minimizes the noise emissions of the machine.

Technical data

Dimensions (WxDxH)	approx. 2.800 x 2.800 x 2.480 mm
Table size	approx. 1.600 x 1.120 mm
Table pivoting range	25°/30°
Punching force of punching modules in the upper tool	9 to 90 kN
Product retainer in the lower tool	
Operating pressure (hydraulic)	250 bar max.
Operating pressure (pneumatic)	6 bar
Connected power	approx. 18,5 kW

Control features

- Manual or automatic operation
- Adjustable pump run-on time
- Part counter (per shift)
- Error reports
- Operating status reports
- Data interface
- Entry and modification of machine data (password-protected)
- Display of pressure and quantity curves
- Activation of test functions (password-protected)
- Machine status display for the machine operator
- Display of the current program step
- Language selection
- Remote access via modem



Product example

Benefits *ErgoCut*

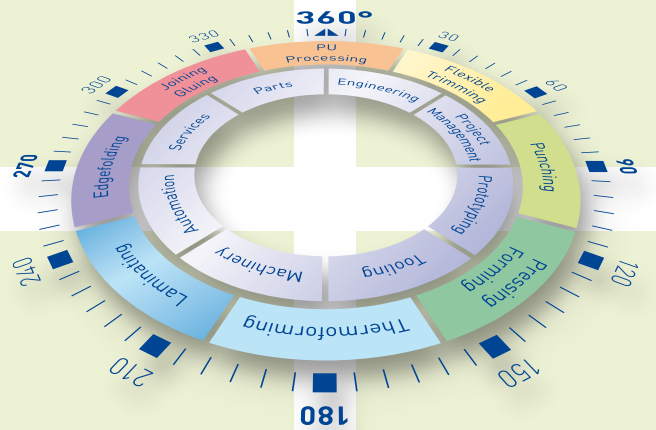
- Suitable for all punching processes
- Short cycle times
- Very compact design
- Ergonomically optimized feed and operation
- Low total weight
- Integrated waste removal
- Comprehensive basic configuration
- Extensive safety features

Benefits punching technology

- High economic efficiency
- Short cycle times
- No soiling of the component
- 100% reproducible and highly precise cutting results
- Long tool life
- Maximum availability
- High level of process safety and reliability



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