(someco)

a voilàp company

SBZ SM

THROUGH FEED PROCESSING CENTERS

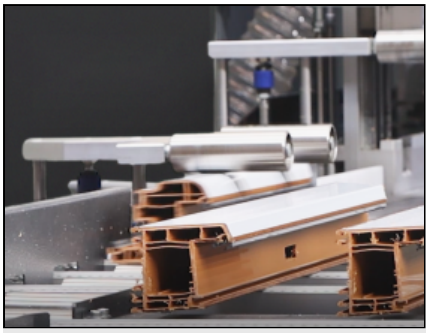


13-axis through-feed bar CNC machining centre for milling, drilling and cutting, specialising in the production of PVC window frames. The unit can be equipped with an integrated contouring module for preparing the PVC profile for welding with Seamless® technology. SBZ SM consists of an automatic magazine with a profile through-feed system, complete with gripper movement for profile clamping. Thanks to the synchronised movement of the gripper and bar magazine, the feeder returns to the start position allowing the loader to prepare the next profile at the same time. The dimensional control system for the profile section allows checking if the profile loaded by the operator is the one indicated in the machining list. The milling module, cutting module and contouring module are located in the central area of the machine. There are 7, 9 or 11 electrospindles installed on the CNC milling module which allow working on the whole edge of the workpiece, whichever way it faces. The cutting module is equipped with a Ø 500 mm blade with CNC 2-axis horizontal movement. The optional contouring module operates on 3 CNC axes by means of an electrospindle that allows milling the ends of the profiles cut at 45°. SBZ SM also includes an automatic extractor to transfer the workpiece from the cutting unit to the unloading magazine. This unit consists of a transversal belt magazine for the unloading of machined workpieces long up to 3500 mm. The machining unit is equipped with a soundproofed cabin in the central operating part which, in addition to protecting the operator, also reduces the environmental noise impact. The cabin can be connected to the swarf exhauster (optional). PVC waste and swarf are collected in 2 drawers at the base of the machining module, which, combined with a belt evacuation system, facilitate and speed up cleaning operations. The machine is supplied with an intuitive operator interface for machining list management connected to the production programming software. Industry 4.0 ready.

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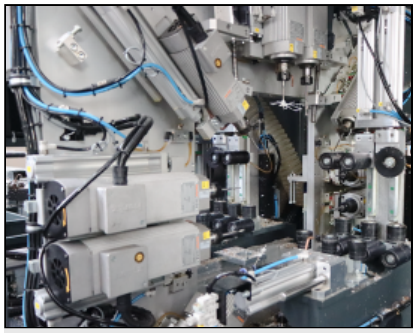
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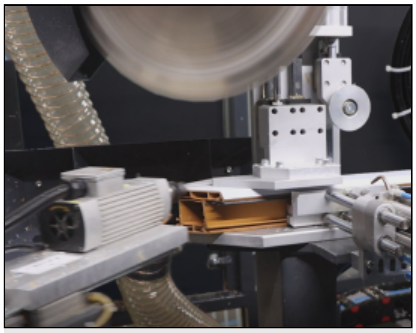
Automatic loading and unloading

The transverse belt loading and unloading table enables handling PVC profiles safely, easily and ergonomically. The table is equipped with an automatic transport system by means of an extraction gripper that deposits the machined profiles on the unloading table.



Milling unit

The milling module features 7, 9 or 11 electrospindles, of which 3 can be adjusted to perform all necessary machining operations on the PVC profile. The electrospindles are air-cooled, include an ER 25 toolholder and have a power of 1.1 kW in S1.



Cutting unit

The vertical cutting unit with down-stroking movement operates with a special Ø 500 mm blade optimised for precise cutting of gaskets. It performs cuts with NC tilting from -45° to +45°.



Ergonomics and easy programming

Simple and ergonomic operator interface. The totem has a Wi-Fi antenna for connecting the machine to the network that ensures both interconnection with the production programming, through specific drivers, and remote connection for the management of the technical service in case of need.

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SBZ SM / THROUGH FEED PROCESSING CENTERS

MACHINE SPECIFICATIONS

Number of controlled axes	13
Standard milling unit no. (SBZ SM 7 / SBZ SM 9 / SBZ SM 11)	7 / 9 / 11
Cutting unit	●
Contour unit: milling for seamless welding	○
Operating pressure (bar)	6 ÷ 8
Bar dimension check	●
Bar positioning speed (m/min)	50
Installed power (kW)	12,8
Air consumption (Nl/min)	950
Provision for installation in-line with reinforcement screwing centre	●
Programmable digital adjustment of the clamp pressure	●
Presetting for machining of PVC profiles with fiber-glass reinforcement	○

WORK AREA

Frame locking system with pneumatic vices	●
Minimum profile height (mm)	40
Minimum profile width (mm)	35
Maximum profile height (mm)	160
Maximum profile height machinable with CONTOUR module (mm)	110
Maximum width of the profile (mm)	130

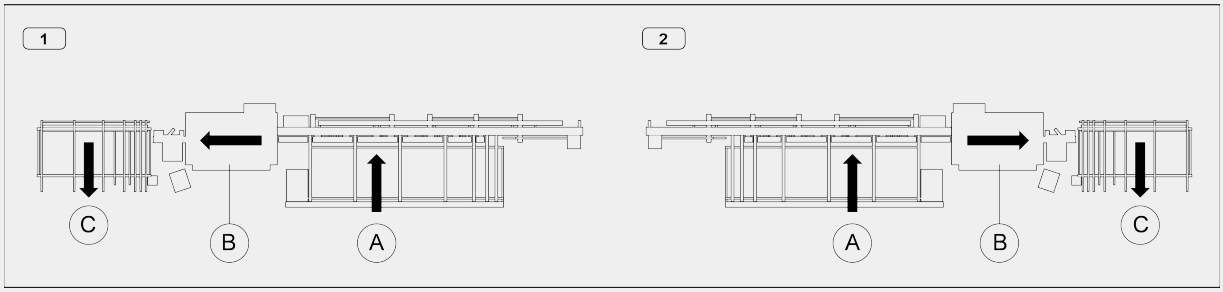
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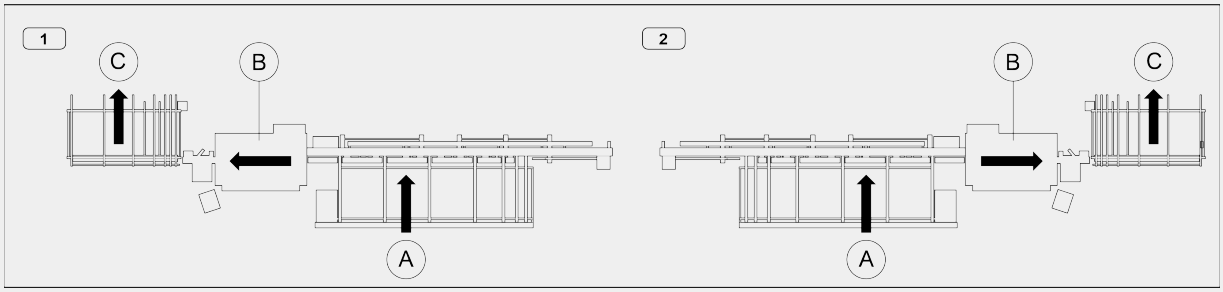
LAYOUT

"C" configuration (loading and unloading on the same side)



1 - Right feed 2 - Left feed

"S" configuration (loading and unloading on opposite sides)



1 - Left feed 2 - Right feed

A – Loading magazine
B – Milling and cutting unit – optional provision for seamless machining
C – Unloading magazine

LOADING UNIT: PROFILE POSITIONING

Loading feeder with 2 controlled axes gripper	●
Maximum loadable length (mm)	6.500
Minimum loadable length (mm)	600
Maximum length that can be machined on a single workpiece (mm)	6.000
Maximum workpiece length that can be cut (mm)	3.000

MILLING UNIT

Maximum power in S1 (kW)	1,1
Maximum speed (rpm)	18.000
Electrospindles adjustable with NC	3
Electrospindles in fixed position (SBZ SM 7 / SBZ SM 9 / SBZ SM 11)	4 / 6 / 8

MILLING UNITS WORKING CAPACITY

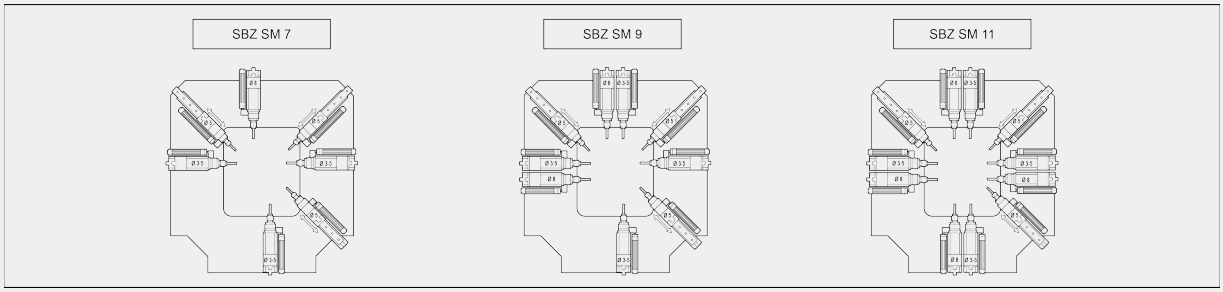
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MILLING UNITS WORKING CAPACITY

Electrospindle configuration



Loading side view

VERTICAL CUTTING UNIT

Blade diameter at carbide-tipped (mm)	500
NC blade positioning	-45° ÷ +45°
Blade motor power (kW)	2,2
Specific blade design for perfect cutting of gasket	●

CONTOUR UNIT FOR SEAMLESS WELDING (optional)

Electrospindle with air cooling	●
Maximum power in S1 (kW)	1,1
Maximum speed (rpm)	18.000
Toolholder	ER 25
Toolholder diameter (mm)	12
Tool diameter (mm)	6
Maximum machinable profile height (mm)	110
Maximum machinable profile width (mm)	130
NC axis no. of Contour module	3
Electronic unit rotation	-45° ÷ +45°

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UNLOADING UNIT

Belt unloading magazine for workpieces of up to 3.500 mm	●
Belt magazine unloading depth (mm)	1.800
Transfer belt to the unloading table	●
Maximum scrap length unloadable in rear waste basket by trap-door (mm)	275
Maximum scrap length unloadable in front waste basket by conveyor belt (mm)	276 ÷ 400
Minimum cutting length unloadable on the unloading table (mm)	350
Default cutting length unloadable on the loading table (mm)	3.500

Included ● Available ○

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