



iNTEL MAKiNA
INDUSTRY AND TRADING CORP.

CS 520

Automatic Vertical Screwing Machine

□ Last updated: September 11, 2026



Description

Used for fast and precise screwing of Reinforcement Steel into PVC door and window profiles. PVC profile with Reinforcement Steel positioned is manually placed on the screwing unit table and the screwing process is initiated with a pedal. The profile is manually advanced until the screwing process is completed.

Highlights

- ✓ Sensor-based automatic screw position detection
- ✓ Two screws simultaneously
- ✓ Automatic screwdriver charging
- ✓ Product unloading after completion
- ✓ Screwing capability for 8 different profile widths
- ✓ Fully automatic PLC-controlled screw fastening unit
- ✓ Automatic stop after screwing
- ✓ Protective sensor to prevent misuse
- ✓ Height adjustment sensor for special screws
- ✓ Profile support bracket

- ✓ Manual screw feeding via hopper
- ✓ Average screwing speed: 1.7 sec./piece
- ✓ Long-term use with protective head screwing

Machine Components



FRAME

CS 520 Frame is the main machine cabinet chassis specially designed for profile screwing and processing systems, featuring an ergonomic and rigid structure.

Upper Processing Table and Line Layout

Linear Rail Guide Bearings: Linear rail channels extending to the right and left on the upper precision-machined metal plate allow towers or vise groups to slide smoothly along the horizontal axis.

Transition Slots and Connection Holes: Circular openings for pneumatic hose, cable and vertical shaft passages, along with threaded bolt hole arrays for unit fastening.

Frame Design and Aesthetic Cover

Embossed Front Covers: Aesthetic cover plates with "CS - 520" model engraved on the front surface and stainless steel/metallic strip with screw figure in the center.

Side Service and Maintenance Cover: A wide gray cover on the side panel provides easy access to internal pneumatic valve groups and electrical/electronic assemblies.

Panel, Assembly and Vibration Damping

Main Switch and Air Gun: An emergency/main power switch (yellow-red) on the side surface and an air gun bracket for machine cleaning.

Vibration Damping Feet: Four corner-mounted height-adjustable rubber-based reinforced feet keep the machine level and reduce vibration.



UPPER GROUP

CS520 Upper Group is a dual-head screwing and processing center that combines two fully automatic screwing towers, feeding units, control panel and profile support table in a single integrated structure.

Dual Screwing Tower and Feeding System

Dual Automatic Screwing Heads: Two vertical screwing towers are positioned on the right and left sides. Each tower features an independent screwing motor, vertical advance cylinder and protective cover housings.

Integrated Feeding Units: Two independent screw storage and sorting hoppers are located above the screwing towers. They automatically sort screws and deliver them to the lower chucks via air blast.

Control Panel and Operator Interface

HMI Touchscreen: A touchscreen control panel connected to a rotating support arm and emergency stop button are located on the right side. Allows easy adjustment of process parameters, screw quantities and positions.

Ergonomic Orientation: Control panel and support arms are angled for easy operator access.

Profile Support and Alignment Table

Perforated Work Table: A perforated delrin/metal work surface at the front allows profiles to slide easily and be positioned without scratching.

Pressure Rollers and Guides: Vertical rollers and yellow alignment bar located immediately behind the table keep profiles centered and perpendicular during screwing.



LOADING TABLE

CS 520 Loading Table is an independent roller conveyor unit that enables long and heavy aluminum or PVC profiles to be smoothly fed, advanced and aligned to the processing center.

Roller and Conveying Surface

Wear-Resistant Rollers: Black roller/roller groups evenly spaced along the line prevent profile surface scratching and allow material movement with minimal force.

Open Ladder-Type Frame: Features an open-section upper frame structure that optimizes profile contact area and prevents chip accumulation.

Side Guide Channels: High-edge profile barriers prevent the profile from slipping or falling to either side during movement.

Frame and Foot Structure

Rigid Profile Body: Robust welded steel profile construction providing high load capacity.

Triangle-Reinforced Support: Triangle reinforcement plates at foot connection points balance axial loads and moments created by long profiles.

Height-Adjustable Vibration Feet: Rubber-based feet on threaded shafts at four corners can be raised for leveling on uneven floors and vibration reduction.



DISCHARGE TABLE

CS 520 Discharge Table is an automated discharge conveyor unit designed to safely unload profiles after processing or screwing is complete, transfer them to adjacent areas and accumulate them.

Discharge and Pneumatic Push Mechanisms

Pneumatic Push Pistons: Pneumatic cylinders/pushers connected to a shaft at the rear of the roller conveyor automatically push finished profiles forward to the collection area.

Linear Sliding/Positioning Group: A black-striped linear block mechanism located between the push cylinders supports axial alignment and orderly discharge of profiles.

Roller Conveyor and Collection Table

Wear-Resistant Rollers: Sequential black roller groups allow easy profile movement and prevent surface scratching.

Inclined Profile Accumulation Table: An inclined wide sheet metal surface integrated into the front of the table allows pushed profiles to slide down safely for storage and easy operator retrieval.

Frame and Safety Equipment

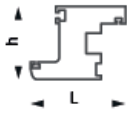
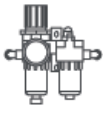
Rigid Steel Frame: Robust support structure fabricated from high-strength box profiles.

Emergency Stop Button: A red emergency stop button is located at an easily accessible point below the front profile of the table.

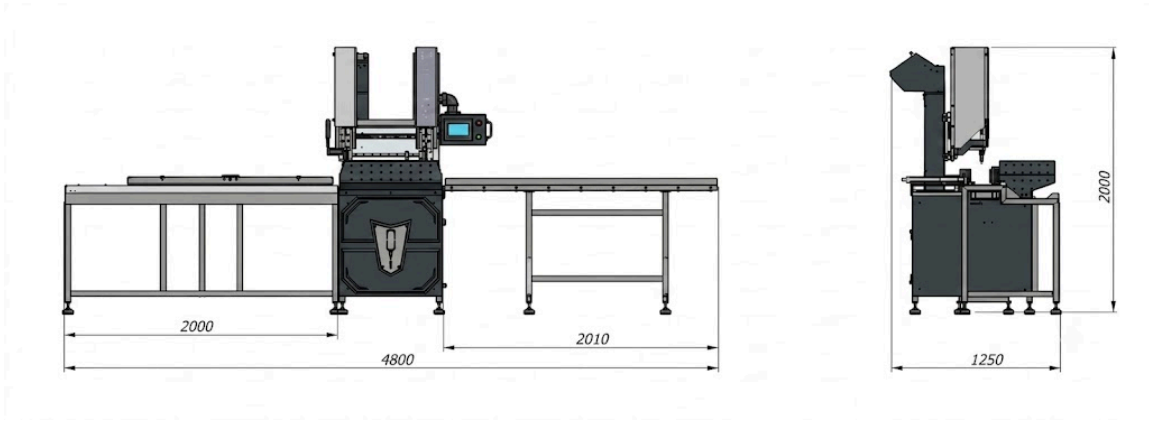
Vibration Damping Feet: Four height-adjustable rubber-based feet with floor adjustment capability keep the table level.

Technical Drawings

Technical Drawing 1

TECHNICAL DATA							
TECHNICAL FEATURES							
CS 520	0.37 kW 380V 50Hz	0.55 kW 3000 rpm	D = 9 mm h = 22 mm d = 3 mm	Lmax= 160mm Hmax=150mm Lmin= 40mm Hmin=40mm	6-8 Bar	1250x4800x2000 mm	260 kg

Technical Drawing 2



Technical Specifications

Technical Specifications

Motor Power	0.37 kW - 0.55 kW
Motor Speed	3000 rpm
Air Pressure	6-8 Bar
Air Consumption	30 Lt/d
Voltage	380V 50 Hz
Weight	260 Kg
Length	4800 mm
Width	1250 mm
Height	2000 mm



iNTEL MAKİNA
INDUSTRY AND TRADING CORP.

Kayapa Organized Industrial Zone, Mavi St. No:45/45 Nilüfer,
BURSA/TURKIYE

+90 (224) 504 30 32 | info@intelmakina.com
www.intelmakina.com