

**YILSA®**

YILDIZ ENDÜSTRİYEL ARAŞTIRMA MERKEZİ

MACHINE CATALOGUE

CODE: RPOP01

Omega Ventilation Profile Machine

Omega Ventilation Profile Punching Machine with Rotary Punch



Punches the hole pattern of ventilated omega profiles in the flat sheet strip before bending, non-stop, with synchronised male and female die drums.

Up to 17 m/min

PUNCHING SPEED

2 mm

SHEET THICKNESS

143 – 253 mm

SHEET WIDTH

**HMI touch
screen**

CONTROL



01 Overview

Ventilated omega profiles are made with a regular hole pattern for airflow in construction and industrial applications. The machine punches this pattern in the flat sheet strip before the profile is bent.

- ✓ The hole pattern is punched in the flat strip before bending, without stopping the sheet
- ✓ Adjustable drum position for unformed sheet widths of 143–253 mm
- ✓ HMI touch screen, automatic and manual operation, fault diagnosis and error log
- ✓ Synchronised male and female die drums; burr-free, regular hole pattern
- ✓ 6 mm regrinding allowance on male and female dies; dies are easily removed via set screws

02 Technical Overview

Continuous Punching of Omega Profiles Before Bending

Synchronised Male and Female Die Drums

In YILSA's patented **Rotary Punch** technique, the drums carrying the male and female dies rotate at the same speed as the sheet, and the holes are punched as the sheet flows. Because the sheet is not stopped, punching speeds of **up to 17 m/min** are reached.

Because the drum position is adjustable, different unformed sheet widths from **143 to 253 mm** can be processed on the same machine.

Punching Speed: up to 17 m/min | Sheet: 2 mm, 143 – 253 mm

Dual Drive and Smart Control

The machine is driven by **2.2 kW, 0.75 kW and 0.75 kW** AC motors via speed control units. The dual-drive design keeps the sheet flowing smoothly between the drums.

Operation is automatic or manual via the **HMI touch screen**, with built-in fault diagnosis, error log and maintenance tracking.

Drive: 2.2 + 0.75 + 0.75 kW AC | Control: HMI

Easy Maintenance

The dies are made of **1.2379 (D2) tool steel** at 58–60 HRC and removed one by one via set screws. Thanks to the **6 mm regrinding allowance** on the male and female dies, the height of a resharpened die is easy to reset.

The machine measures 2 × 1.5 × 1.5 m and weighs about 1.7 tonnes.

Dies: 1.2379 (D2), 58–60 HRC | Regrinding Allowance: 6 mm



03 Technical Specifications

Punching Capacity

Punching Speed	Up to 17 m/min
Sheet Thickness	2 mm
Unformed Sheet Width	143 – 253 mm
Product	Ventilated (perforated) omega profile

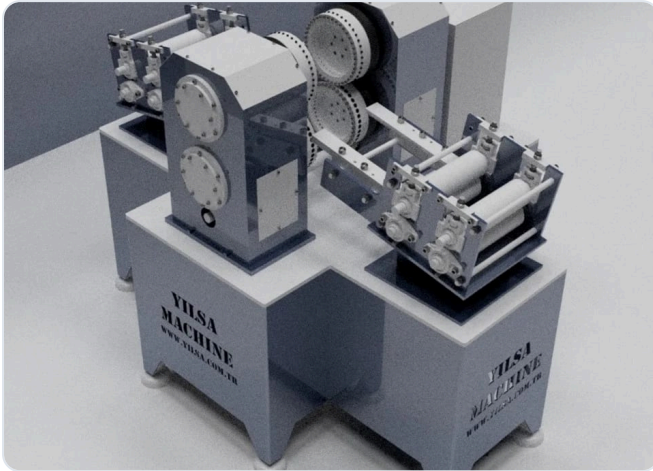
Power & Control

Drive	2.2 kW + 0.75 kW + 0.75 kW AC motors
Speed Adjustment	Speed control units
Control	HMI touch screen; automatic / manual mode
Fault Monitoring	Built-in fault diagnosis, error log and maintenance tracking

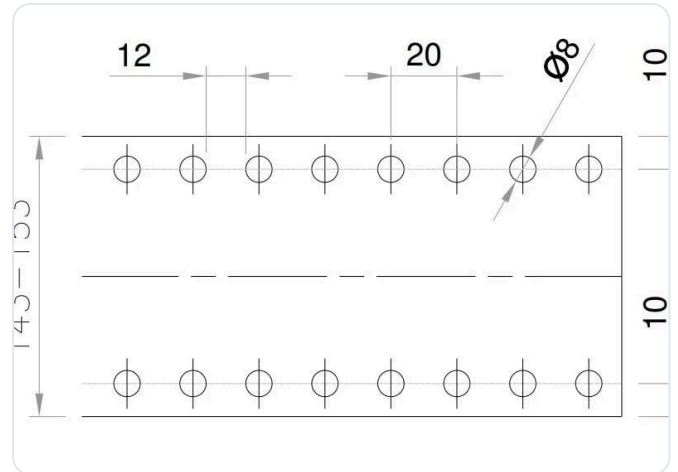
Dies & Frame

Die Material	1.2379 (D2) tool steel, 58–60 HRC
Regrinding Allowance	6 mm on male and female dies
Machine Dimensions	2 × 1,5 × 1,5 m
Weight	~1,700 kg

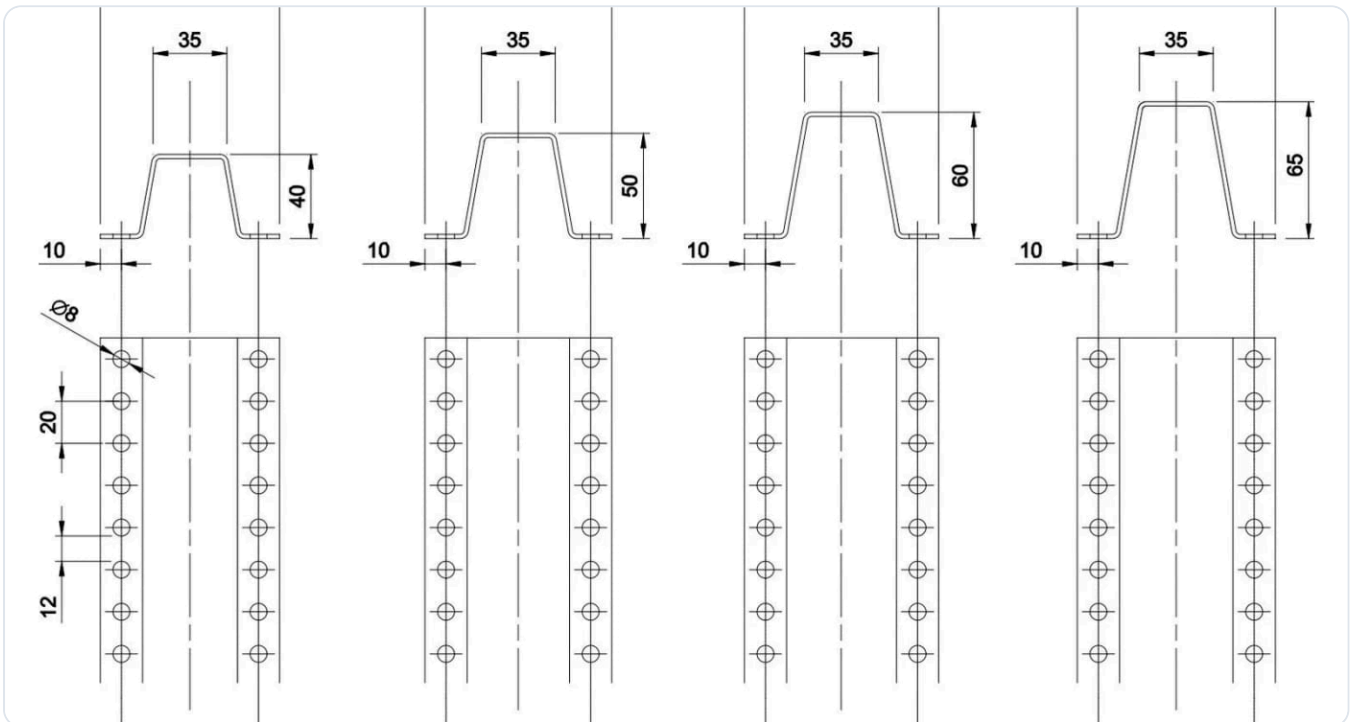
04 Images



Omega Ventilation Profile Machine (RPOP01) — dual-drive Rotary Punch punching unit



Omega ventilation profile hole pattern — Ø8 mm holes, 12 and 20 mm spacing, technical drawing



Omega profile sections of different heights and hole layout — technical drawing



05 Service and Support

Acceptance test

Before delivery, the machine is tested at the YILSA plant under the buyer's supervision with test material supplied by the buyer; it is delivered once it produces the specified product.

Installation and training

Training takes 1 day at our plant in Denizli, with hands-on installation, operation and maintenance. Thanks to its compact, single-body (monolithic) design, the machine is easily installed and commissioned at the buyer's own plant.

Warranty

Mechanical parts carry a 1-year warranty, excluding misuse. Dies and blades are wear parts and are not covered by the warranty.

Spare dies and drawings

Heat-treatment and material certificates are supplied for the dies. Spare dies are made for a fee; die drawings are shared on request.

Technical support

Technical support is provided, with on-site service when needed. Travel and accommodation costs for on-site service are paid by the buyer.

Compliance and delivery

CE marked; designed in line with Machinery Directive 2006/42/EC, EN ISO 12100:2010 and EN 60204-1:2018; 100% made in Türkiye. Delivery time is stated in the quotation, depending on the configuration.

Raw material must meet the specifications given by YILSA. The values in this catalogue are for standard configurations; machines can be adapted to your product drawing and raw material.



Machine and line solutions built for your production

Since 1992 in Denizli, Türkiye, we have been designing and building Rotary Punch technology, cable tray systems, wheel weight lines and wire processing machines. Share your product drawing and raw material, and we will prepare a configuration and quotation for you.

PHONE

+90 549 430 00 20
Landline: +90 (258) 371 37 17

E-MAIL

omer.yildiz@yilsa.com.tr

WEB

www.yilsa.com.tr

ADDRESS

Zafer Mah. Zafer Cad. No:61, 20020 Merkezefendi / Denizli – Türkiye

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100% MADE IN TÜRKİYE

PATENTED ROTARY PUNCH

PLC/HMI CONTROL

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