



YILSA®

YILDIZ ENDÜSTRİYEL ARAŞTIRMA MERKEZİ

MACHINE CATALOGUE

CODE: LBA-RP

Rotary Punch Chopping and Marking

Patented Rotary Punch Chopping and Marking System



Cuts continuously moving flat strip without stopping it, using twin-drum rotary die technology, and stamps the weight and logo on it. Works with zero scrap.

**60,000
Pieces/Hour**

CAPACITY

±0.5 grams

TOLERANCE

Zero Scrap

SCRAP RATE

Rotary Punch

TECHNOLOGY



01 Overview

At the heart of the wheel weight line, the patented press-less Rotary Punch Chopping Machine removes the vibration and speed limits of conventional stop-and-go presses and processes the continuously moving metal strip with a non-stop rotary die motion.

- ✓ Capacity of 60,000 pieces per hour with a continuously rotating twin-drum die design
- ✓ Simultaneous cold stamping of the brand logo, the "Fe" mark and the weight (5 / 10)
- ✓ Energy consumption of only 1.37 kWh per 100,000 pieces
- ✓ Continuous cutting principle that, unlike guillotine cutting, does not require the material to stop
- ✓ Burr-free cutting means no separate deburring step is needed; scrap-free production
- ✓ Easy setup with Delta PLC and 7" touch HMI

02 Technical Overview

Rotary Punch Chopping & Marking: Engineering Architecture

Press-Less Continuous Rotary Punch Mechanism

With conventional guillotine and eccentric press cutting, the metal strip has to stop at every stroke; with Rotary Punch technology, the rotating punch drums move at the same speed as the material. Driven by a **3 kW AC motor** and a variable-speed AC drive, the drums divide the moving flat strip into weight segments without stopping it.

The continuous circular motion eliminates the impact and shock of press lines and gives **energy savings of up to 80%** compared with conventional press lines.

Capacity: 60,000 Pieces per Hour | Drive: 3 kW AC Motor

Weight Precision & Zero-Scrap Cutting

The die geometry produces no chips or edge scrap during cutting; because the cut weights are burr-free, **no separate deburring step is needed**. The weights are cut within **±0.5 gram tolerance** on a 60 g strip.

The completely scrap-free (0%) working principle gets the maximum yield from the raw material.

Tolerance: ±0.5 g (on a 60 g strip) | Scrap Rate: 0%, Completely Scrap-Free

Simultaneous Marking & Die Material

At the same time as cutting, the marking drums cold-stamp the company's **brand logo** in the centre of the weights and the **"Fe" mark and the 5 / 10 gram value** at the corners. No separate marking station is needed, which shortens the line.

The cutting blades are made of **1.2379 (D2) cold-work tool steel** and the marking drums of **Vanadis 4E** steel. The machine uses only **1.37 kWh** of energy per 100,000 pieces.

Blades: 1.2379 (D2) | Drums: Vanadis 4E | Energy: 1.37 kWh / 100,000 Pieces



03 Technical Specifications

Performance Data

Production Capacity	60,000 Pieces / Hour (~300 kg / Hour)
Weight Tolerance	± 0.5 g (on a 60 g strip)
Scrap Rate	0% (Completely Scrap-Free Cutting)

Power & System

Drive Motor	3 kW AC Motor + AC Drive
Energy Consumption	1.37 kWh / 100,000 Pieces
Control	Delta PLC + 7" HMI

Die Material

Cutting Blades	1.2379 (D2) Cold-Work Tool Steel
Marking Drums	Vanadis 4E

Dimensions

Width x Length x Height	600 x 800 x 1300 mm
Machine Weight	720 kg

04 Dies and Product

Cutting and marking details

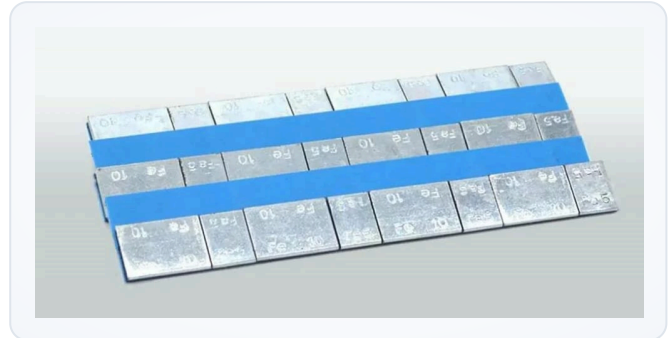
Strip width for 5 g	11.5 mm
Strip width for 10 g	23 mm
Distance between blades (cut length)	19 mm
Raw material thickness	About 3 mm
Raw material	St37 flat strip in coils (or output of the wire flattening machine)
Fitted die set	70 cutting blades + 4 marking drums

The weight is set by the strip width; the cut length is fixed by the distance between the dies.

The dies are included with the machine and delivered fitted. The marking drums print the company logo in the middle of the product and "Fe" and the weight at the corners; drums with other logos can be made on request. Additional spare dies are priced separately.

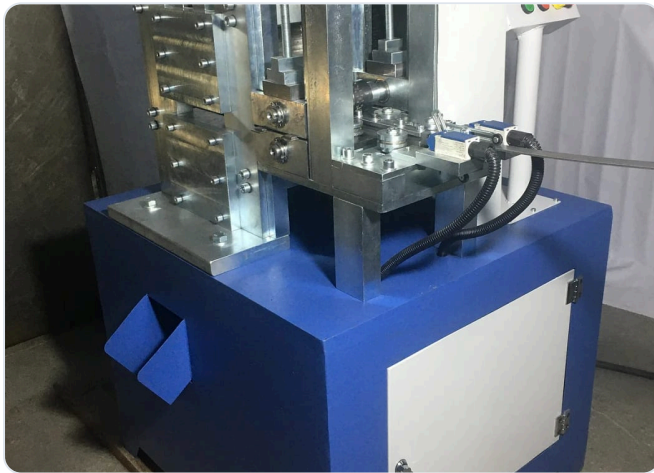


Marking drum with logo and weight, and cutting blades



5 + 10 g strips, arranged and taped

05 Images



Rotary Punch chopping and marking machine — real photo before shipment



Rotary Punch chopping and marking machine running in the workshop, with cut wheel weights in a bucket



YILSA-branded Rotary Punch chopping and marking machine — motor and twin-drum die block



Rotary Punch chopping and marking machine installed at a production plant, with HMI panel and product crates



Wheel weights from the Rotary Punch chopping and marking machine in a crate

06 In the Production Line

Wheel Weight Production Line

www.yilsa.com.tr/en/wheel-weight-production-line



01

Wire Rod Flattening



02

Rotary Punch Chopping and Marking



03

Packaging and Taping

The Wheel Weight Production Line is a fully automatic production setup that turns raw wire rod into boxed, ready-to-sell wheel weights untouched by hand. The process starts with flattening the wire rod into flat strip, continues with cutting and marking using patented Rotary Punch technology, and ends with automatic taping and packaging.



07 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 2.5–4 months from order confirmation, depending on the line 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.

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CE MARKED

100% MADE IN TÜRKİYE

PATENTED ROTARY PUNCH

PLC/HMI CONTROL

Yıldız Endüstriyel Araştırma Merkezi San. ve Tic. Ltd. Şti. · Catalogue no. YILSA-KAT-LBA-RP · October 2026. Values are for standard configurations; machines can be adapted to your product and raw material.