

**YILSA®**

YILDIZ ENDÜSTRİYEL ARAŞTIRMA MERKEZİ

MACHINE CATALOGUE

CODE: BK

Cut-to-Length Unit

Cut-to-Length System with Feeder, Pneumatic Guillotine and Run-Out Table



A pneumatic guillotine unit with a PLC-controlled feeder cuts the flattened strip to the required lengths and drops it onto the run-out table.

**Pneumatic
Guillotine**

CUTTING

PLC + HMI

CONTROL

Loop Pit

FEEDING

Run-Out Table

COLLECTION



01 Overview

An integrated PLC-controlled feeder and cutting system that cuts the flattened strip from the wire flattening unit to the required lengths and transfers it to the run-out table.

- ✓ Fast, clean cutting with a pneumatically driven guillotine shear
- ✓ Easy setting of the cut length on the PLC and HMI screen
- ✓ The wire flattening machine never has to stop, thanks to the loop pit
- ✓ Cut strips are collected neatly on the run-out table

02 Technical Overview

Cut-to-Length Automation with Pneumatic Guillotine Drive & PLC Control

Loop Pit & Stop-and-Go Feeder

The **loop pit** between the wire flattening machine and the feeder is a buffer zone where the flattened strip accumulates. While the feeder works stop-and-go, the wire flattening machine keeps producing **without ever stopping**.

After each cut, the feeder quickly advances the strip back into position and reduces the build-up in the loop.

Feeding: Loop Pit + Feeder | Flattening: Continuous

Pneumatically Driven Guillotine Shear

When the strip reaches the required length, the system stops and the cut is made by the **pneumatically driven guillotine shear**.

The cut length is set to order and adjusted by the operator on the screen.

Cutting: Pneumatic Guillotine | Length: Set on Screen

PLC Control & Run-Out Table

The feeder and cutting system work as one integrated unit managed by the **PLC control system**; it automatically takes the strip, advances it by the set length and cuts it.

Cut parts are directed to the **run-out table**, which keeps the strips neatly stacked and easy for the operator to collect.

Control: PLC + HMI | Collection: Run-Out Table



03 Technical Specifications

Cutting Specifications

Cutting Type	Pneumatically driven guillotine shear
Cut Length	Adjustable to order
Collection	Run-out table

Automation & System

Control	PLC + HMI
Feeding	Loop pit + feeder

04 Working Principle

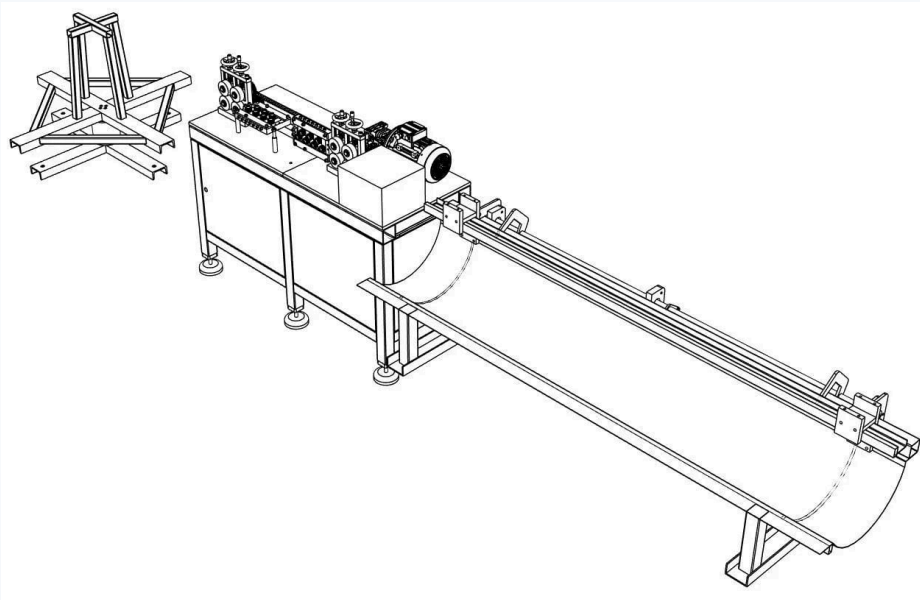
- 1 The flattened or straightened wire/strip reaches the feeder through the loop.
- 2 The feeder advances the material to the cut length entered on the screen and stops.
- 3 The pneumatic guillotine engages and makes the cut.
- 4 A pneumatic drop cylinder releases the cut piece onto the curved drop table, where the pieces are stacked neatly.
- 5 The system automatically continues with the next cut.

05 Wire Straightening and Cut-to-Length System

The same feeder, pneumatic cutter and curved drop table are also built as a stand-alone system that straightens coiled wire and cuts it to length, combined with a horizontal passive uncoiler and a multi-roll straightening unit. The system is controlled by a Delta HMI screen and PLC.

Wire straightening and cutting systems we have quoted

Feature	Round wire	Square wire
Input wire	Ø3.5 – 5 mm steel wire	4 × 4 mm SAE 1006/1008 square wire
Production speed	—	40 m/min (factory setting)
Cut length	2 – 3 m (set on the HMI)	2 – 3 m (set on the HMI)
Straightening	Multi-roll straightening unit	Multi-roll straightening designed for square section
Cutting	Pneumatically driven	Reinforced pneumatic cutting unit
Motor power	1.1 kW	1.5 kW
Control	Delta HMI + PLC, Delta VFD	Delta HMI + PLC, Delta VFD



Wire straightening and cut-to-length system — uncoiler, straightening, cutting and curved drop table



06 In the Production Line

Wire Flattening Line

www.yilsa.com.tr/en/wire-flattening-line



01

Wire Rod Flattening



02

Cut-to-Length Unit

The Wire Flattening Line is a compact, highly efficient system that flattens wire rod to the required section and thickness and cuts it to the required lengths. Because it uses wire rod instead of ready-made flat strip, it saves up to 40% on raw material costs.

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 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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