

**YILSA®**

YILDIZ ENDÜSTRİYEL ARAŞTIRMA MERKEZİ

MACHINE CATALOGUE

CODE: DS

Straightener Feeder

Sheet Straightening and Feeding Unit



A unit that flattens sheet from the uncoiler with straightening rolls and feeds it with pinch rolls, in sync, to the next unit of the line (press, guillotine, roll former); built in different widths and thicknesses to suit the line.

0.3 – 6.0 mm

SHEET THICKNESS

50 – 1250 mm

WORKING WIDTH

0 – 45 m/min

FEED SPEED

1.1 – 4 kW

MOTOR POWER



01 Overview

The straightener feeder flattens sheet from the coil and passes it to the next unit of the line in a controlled way. Width, thickness, motor power and cutting equipment are chosen to suit the line.

- ✓ Flat, stable sheet feeding with straightening and pinch rolls
- ✓ Precise feeding with a speed- and position-controlled AC motor
- ✓ Optional integrated hydraulic or eccentric guillotine shear for cut-to-length
- ✓ Accurate alignment of the sheet to the rolls with entry and exit guides
- ✓ Stop-and-go operation synchronised with a press, guillotine or roll former via loop sensors
- ✓ Speed, length and production parameters managed from a PLC and HMI touch screen

02 Technical Overview

Roll-Type Sheet Straightening and Synchronised Feeding

Straightening and Pinch Rolls

Waviness in the sheet caused by uncoiling is removed by the **straightening rolls**, and the sheet is driven into the line by the **pinch rolls**. The standard arrangement is **5 straightening + 4 pinch rolls** with a roll diameter of **Ø70 mm**.

The unit processes sheet **0.3 – 6.0 mm** thick; working width is **50 mm to 1250 mm** depending on the model. Entry and exit guides align the sheet accurately to the rolls.

Sheet: 0.3 – 6.0 mm | Width: 50 – 1250 mm | Rolls: 5 + 4, Ø70 mm

Speed- and Position-Controlled Feeding, Loop Synchronisation

A speed- and position-controlled AC motor of **1.1 – 4 kW** feeds the sheet at an adjustable speed of **0 – 45 m/min**.

The unit runs in sync with the machines before and after it via **loop sensors**; in press and guillotine applications that need stop-and-go, it advances the sheet by the set length in each cycle. Speed, length and production parameters are managed from the **PLC + HMI** touch screen.

Speed: 0 – 45 m/min | Motor: 1.1 – 4 kW | Control: PLC + HMI

Optional Guillotine Cut-to-Length or Direct Press Feeding

The unit can optionally be fitted with a **hydraulic or eccentric guillotine shear**; the shear cuts sheet **up to 2 mm** at **up to 50 cuts per minute**, to the length entered on the screen.

On press lines, the sheet is fed directly to the press's punching, cutting and bending stations without a guillotine.

Cutting: Optional Guillotine | On Press Lines: Direct Feeding



03 Technical Specifications

Straightening

Sheet Thickness	0.3 – 6.0 mm
Working Width	50 – 1250 mm (depending on model)
Standard Roll Arrangement	5 straightening + 4 pinch rolls, Ø70 mm
Roll Pressure Adjustment	With adjustment levers
Sheet Alignment	Entry and exit guides

Drive & Control

Motor Power	1.1 – 4 kW AC
Feed Speed	0 – 45 m/min (speed-controlled)
Feed Type	Speed- and position-controlled, stop-and-go
Control	PLC + HMI touch screen
Synchronisation	Via loop sensors

Cut-to-Length (Optional)

Type	Hydraulic or eccentric guillotine shear
Cutting Capacity	Sheet up to 2 mm
Cutting Speed	Up to 50 cuts per minute
Cut Length	Set on screen



04 Configuration in the Cable Tray Line

In the cable tray line, the straightener feeder works on the same frame as the Rotary Punch; it flattens and feeds the punched sheet and cuts it to length with the integrated guillotine shear.

Straightening / feeding (500 mm line)

Working width	500 mm
Rolls	5 × Ø70 mm straightening + 4 × Ø70 mm pulling
Drive	4 kW AC motor
Feeding speed	24 m/min
Synchronisation	Loop control with feedback

Guillotine shear

Type	Eccentric mechanism (hydraulic option)
Blade length	800 mm
Cutting capacity	Sheet up to 2 mm
Cutting speed	Up to 50 cuts per minute
Drive	4 kW AC motor
Cut length	Multiples of 50 mm; standard 2400 mm (lengths such as 2500 and 3000 mm can also be cut)

In the transfer press line the unit is used without a guillotine: the sheet is fed straight into the transfer press and cut in the press.

05 In the Production Line

Cable Tray Production Line

www.yilsa.com.tr/en/cable-tray-production-line

01

Uncoiler



02

Rotary Punch Punching



03

Straightener Feeder



04

Roll Forming

The Cable Tray Production Line punches galvanised or black coil sheet without stopping it, straightens it, cuts it to length and roll-forms it into the final cable tray profile. Running 4–6 times faster than conventional press lines, it produces about 1,400 metres of perforated sheet per hour and can be run by a single operator.

This line uses the 9-roll model with guillotine shear; the sheet is cut to length before roll forming.

Transfer Press Line

www.yilsa.com.tr/en/transfer-press-line

01

Uncoiler



02

Straightener Feeder



03

Transfer Press

The Transfer Press Line is a monolithic system in which the uncoiler, straightening/feeding, punching, cutting and bending units are combined automatically on a single main frame. Parts are moved between stations by a 2-axis linear robot. Standard and heavy-duty wall bracket top parts in different lengths from 100 mm to 600 mm, and the tray hanger profiles used in threaded-rod ceiling systems, are produced from a single coil width and a single die set — just by changing the recipe on the screen. Any faults are signalled by warning lights.

This line uses the model without guillotine; the sheet is fed straight into the transfer press and cut in the press.



06 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.

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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-DS · October 2026. Values are for standard configurations; machines can be adapted to your product and raw material.