

APPLICATIONS

The Metron range of feeding machines provides an advanced solution for the new requirements of large and small industrial laundries, as it enables items of different dimensions, weight, type of item and fabric to be handled.

Metron feeding machines are a radical alternative to existing machines on the market.

The direct feed-in technology, combined with the precise measurement of each individual item, enables ideal control of the item during all work phases and ensures maximum quality, flexibility and high levels of productivity.

FEED-IN TECHNOLOGY

A number of unique devices are planned within the company:

Clamp group: this is the heart of the machine. It offers controlled, very smooth, stable movements that faithfully reproduce hand movements.

The locking surface of the clamps is very large (38x110 mm) in order to protect the most delicate of items.

The squeezing force is limited to allow fabric removal without tearing in emergency situations.

Before opening the clamp (which can be swivelled to check uneven thicknesses), a special pneumatic cylinder rotates the clamp by 90° until it is in contact with the surface of the feed-in belt.

The **coupling stations** offer ergonomically ideal working conditions for operators:

- Vertical position of the clamp
- Bottom-up movement
- No mechanical contact
- Safe automatic start-up

Item release mode: the large locking surface and synchronised horizontal position of the automatic feed-in belt section minimise stress on fabrics and enable the processing of particularly difficult items.

Automatic weight compensation device: where the ratio between fabric elasticity and weight/dimension exceeds the critical threshold, an automatic underpressure compensation device is activated which uses different modes to prevent the item from being deformed.

Device for measuring items: This is a very fast and sensitive direct mechanical sensor.

The programmes can be used for large sizes and normal fabrics and offer a reading speed of 2.4m/sec and a maximum speed before positioning of 4m/sec.

SPREADING OUT PROCESS

The machines are equipped with powerful suction equipment distributed across 4 independent circuits, and fed by an equal number of aspirators, whose discharges are channelled into two soundproofed filtered ducts. The equipment feeds the new automatic suction nozzle, designed for 1- and 2-lane operation, and the item gripping surface of the automatic section of the feed-in conveyor.

Spreading-out brushes: housed in the suction nozzle are 4 spreading-out brushes with a special double movable combing blade that brings the fabric into contact with the brushes after being combed out.

This new technique allows:

- Optimal use of the wiper blades
- The complete removal of dust
- The immediate launching of the next item after the previous combing out
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Suction blade: controlled by a programme, this operates on the opposite side and, together with the brushes, exerts an efficient combing action on the fabric along the length and width of the item.

Air jets: special air jets control the camber of the treated part.

CONFIGURATIONS

Working width: 3000 - 3300 - 3500 mm

Feed-in: direct/indirect into the flatwork ironer - feed-in speed synchronised with the flatwork ironer.

Positions: 2-3-4 laterally positioned independent workstations.

Processing: 1-2 lane full bypass for manual feed in

Production cycle: 3 seconds/item in the 1-lane configuration (if the product being processed allows it). The duration of the cycle, with identical linen quality, depends only on the width of the item.

Maximum item width: 3200 mm

Minimum item width: 1000 mm

Maximum item thickness: 6 mm

Accessories:

- **Cross belt in the release area:** checks for defective edges in the 1-track configuration.
- **Hydraulic lifting device for the direct feed-in belt:** allows access to the flatwork ironer for maintenance work.

EQUIPMENT - SECURITY DEVICES - INTERFACES

The eight clamps are controlled by an identical number of brushless drives, which are in turn managed by a Pizzardi electronic device, wired using canbus technology.

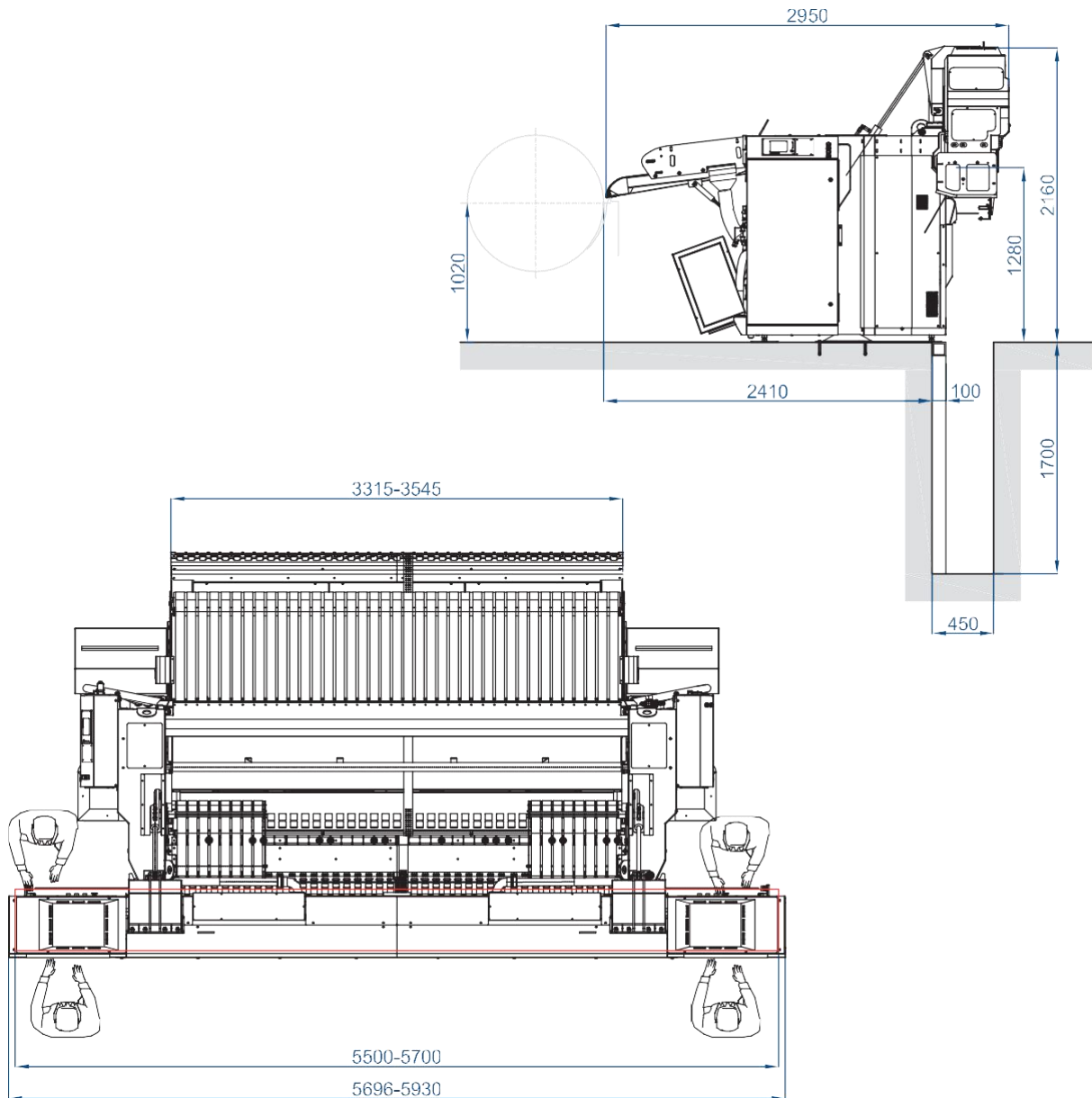
The control terminal consists of a 6" graphic touch panel equipped with a PS2 socket for an optical barcode reader as well as a smart card reader.

Two serial lines 232 and 485 have been included to establish communications with the machines in the last phases; as for the terminal, it has been designed to be implemented as part of our Mati supervision system.

The study of the operators' safety devices was very meticulous: all the workstations are controlled by certified safety photocells.



TECHNICAL DETAILS



TECHNICAL INFORMATION

Electrical power	19 kW
Electrical voltage	3x400V+T - 50Hz
Air consumption	6 bar
Weight 4000 kg / - 8810	600 NI/min
	4000 kg (3300)
	4200 kg (3500)