SHEET LINES

"TRAIN OF SHEETS 3600"

During the course of more than 30 years in the manufacture of machinery, our premise has always been the quality of our products. We know that perfection does not exist, but we are sure that we strive for it with perseverance and determination.

In the last decade, our evolution has taken us to the technological top at international level, being to date, the first company to manufacture production lines in all the sectors in which we are represented.

Thank you for trusting in our perseverance

CEO - José Ferrando García

DESCRIPTION

Machine for the production of sheets in their entirety.

Starting from a roll which forms the height of the sheet, the longitudinal selvedges are made from 12 m/m to 120 m/m.

The cut is made by pressure in the programmed measure.

Once the garment has been cut, it is moved to the side seams area where the seams are hemmed from 12 to 50 m/m. on both sides, and the garment is labelled, starting towards the programmed folding, which once folded is stacked on a belt between 1 to 10 units per pile.

TECHNICAL CHARACTERISTICS

- STRUCTURE

  Formed steel structure. Currently, all Jofesa machines are manufactured with the structure finished in electrogalvanised and fire-lacquered paint.

- LIGHTING

  Lighting with 5050 LED strip lights, with RGB colour change (green, blue and red) throughout the machine, which increases communication between operator and machine. Energy saving and environmental protection.

- CONTROL

  New OMRON SYSMAC automation platform. Currently all Jofesa machines are installed with this new platform from the smallest to the largest machines with the same controller, which provides the speed, flexibility and scalability necessary for today's industry.

  This allows us to expand our machines without the need to change the installation. The controller, based on the new INTEL CPUs, integrates drive, logic, safety and vision all programmed from the same software with 128 axis / 250 µs cycles.

  Our machines have two communication buses:

  > • Ethercat (Can based on Ethernet): the fastest machine network on the market, with which we connect to all machine devices without the need for complicated wired installations.

• Ethernet-Ip: a very robust and fast industrial Ethernet bus to which the machine's touch terminals are connected, from which all the machine's settings and parameters are controlled and selected, and which we can connect to our customers' network to collect all the necessary information (Industry 4.0).

Each module of the machine has its own control panel, which communicates with the CPU via a single ethercat cable. The servomotors, inputs, outputs, safety, machine vision and all the pneumatics are controlled via this bus.

The sysmac platform also integrates the safety solution, both the safety controller (specific safety CPU) and the safety inputs/outputs are freely distributed throughout the machine, simplifying the installation, as well as the monitoring of the safety status on the touch terminals.

- MOTORISATION

The heart of our machines are the Accurax G5 servo systems, the perfect combination of control and mechanics. The control of movements is mainly carried out by servomotors. All the drivers that control the servomotors, in addition to the Ethercat bus, incorporate a safety input in accordance with performance level D of ISO13849-1.

They are controlled by a Motilon Control CPU, allowing us to perform interpolations, Cam tables or electronically connect axes with each other, making the most difficult tasks easy.

In addition, where a servomotor is not necessary and a simple motor is sufficient, this will always be controlled by MX2 series drives, with open-loop torque control, which allows us to control them from speed 0, with safety inputs to disconnect the motors when the safeties are open.

- DETECTION AND VISION

Our colour or contrast sensors are also integrated into Sysmac and connected via the Ethercat machine bus, allowing us to program, configure and visualise any photocell from the touch terminals, as well as providing ultra-fast response speeds.

- PNEUMATICS

Pneumatic motion control is also integrated, based on the fully configurable and scalable FESTO-MPAL terminals and connected via the Ethercat machine bus. All solenoid valves can be activated manually from the machine's touch terminals and the actuation times can be adjusted.

Approximately 90% of the pneumatic actuators are manufactured exclusively for the required actuations, with a patented pneumatic system (COMPAC SYSTEMS) that optimises the space and application of the system, facilitating changeover and maintenance with its own changeover system.

- SOFTWARE MAINTENANCE

All this with a single software from which everything is controlled and which can be accessed via the internet to monitor changes to the programme or maintenance tasks.

- MANUALS AND REGULATIONS

Manuals and CE regulations and a CD with all the components of the machine in three dimensions is included, which allows maintenance and changes to be made, visualising the components without having to dismantle the machine.
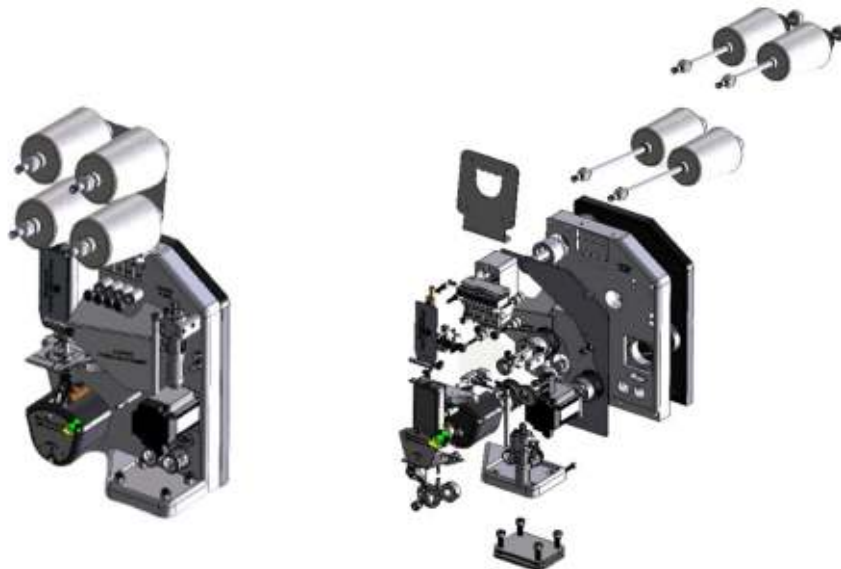
- SEWING GROUPS STICH...

  - Machine developed by Jofesa Imagine Systems, SLU, with all the needs required for automation.
  - Quick connection and head exchange in 3 minutes.
  - Repair of any element in no more than 5 minutes
  - No oil sump (oil mist lubrication)
  - Pneumatic needle cooling - Pneumatic clutch lifter
  - Integrated thread detectors - Integrated thread holders
  - Integrated positioning
  - Servo motor G5 OMRON
  - Working speed 3,500 rpm on 1 needle
  - 3 bobbin cases with "Non Stop" system

- … O SEWING GROUP STICH-CHAIN-C-2-1.5 (Optional 1)

  - Machine developed by Jofesa Imagine Systems, SLU, with all the needs required for automation.
  - Quick connection and head exchange in 3 minutes.
  - Repair of any element in no more than 5 minutes
  - No oil sump (oil mist lubrication)
  - Air cooling of the needle
  - Pneumatic foot lifter
  - Integrated thread detectors.
  - Integrated thread holders. - Integrated positioning.
  - OMRON G5 Servo Motor
  - Speed 4000 rpm. 2 chain pins.

- … O STICH-CANILLA SEWING GROUP (Optional 2)

- MINI-RI STOKER

  - Labeller developed by JOFESA IMAGINE SYSTEMS, SLU with the capacity to apply 3 rolls of labels.
  - 1-2-3 label folding programming
  - 1-2-3 label cutting programming
  - Cut mark detection
  - Final detection of labels, etc...

- LONGITUDINAL ALIGNERS D.60

    - Pneumatic aligners designed by JOFESA IMAGINE SYSTEMS, SLU. Capable of aligning with an accuracy of ± 1m/m
    - Controlled by control and alarm management.

- COLOUR DETECTORS (Optional)

It aligns the cut of the garment to one stripe of the pattern across the width of the fabric.

- FABRIC FEEDER

This production line is equipped with a roller feeder that pulls the fabric from the roll or jumbo roll, capable of pulling a roll of 500 m/m diameter (for jumbo rolls 1,500 m/m diameter with external stand), depending on the thickness of the fabric.

- E-6 TRANSVERSE EDGERS

The transverse edger is an important part of the JOFESA IMAGINE SYSTEMS, SLU design system capable of passing the thickness changes that exist between the crossing of the transverse and horizontal edges, leaving a perfect finish.

This edger has internal dragging through a servo controlled from the touch screen.

- SYMPHIN CUTTING SYSTEM CS-1" (in cross section)

An efficient system developed to generate a clean cut. This system cuts the 3600 in as little as 1" and adds a NON-STOP automatic sharpener.

- AXIS-3300 FOLDING MACHINE

This folding machine designed by JOFESA IMAGINE SYSTEMS, SLU to adapt to the end of our production lines is capable of folding the garment in both transverse and longitudinal directions. The operator can program an infinite number of folds in both directions and fully integrated with the system.

- INTERFACE AND TOUCH SCREEN

Touch screens (3 units per machine) on which you control...

  - Cutting length
  - m/m stitch
  - Machine speed
  - Selvedge width
  - Tucked fabric
  - Primary pleats
  - Secondary pleats
  - Bundle units
  - Number of pieces
  - Production per hour
  - Consumption level, etc...

- INTERNAL SETTINGS (For keyed maintenance managers)

  - Adjustments of sensors, times, speeds, limitations, etc...

- CONFIGURATIONS (Activate and deactivate items such as...)

  - Fabric detectors
  - Yarn detectors
  - Activate and deactivate heads
  - Colour centring devices (if fitted)
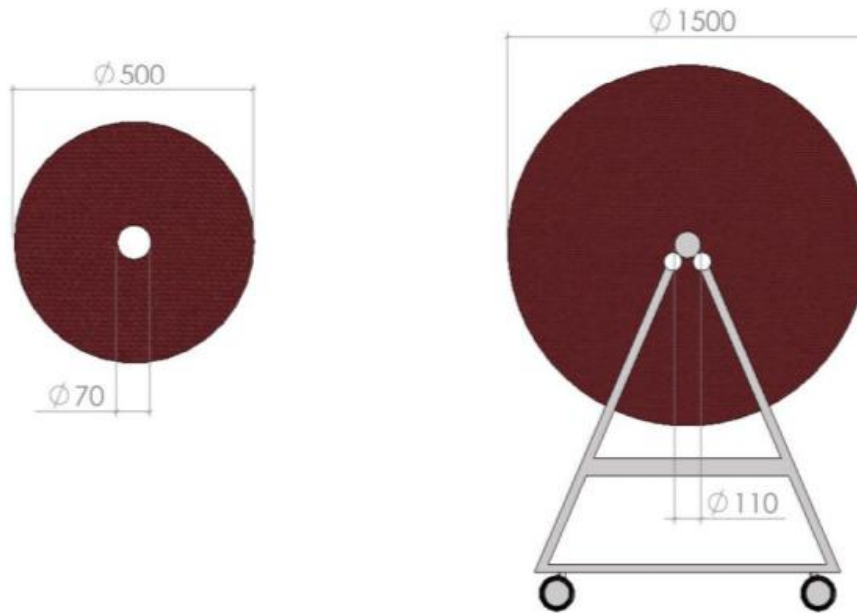 - Aligners, etc...

- MANUAL MOVEMENTS

  - Fabric feed, back feed, raising and lowering of sewing rollers
  - Labelling, cutting, sharpening
  - Tape feed
  - Folding, etc...

MEASUREMENTS AND PRODUCTION

➤ WOVEN FEEDER FOR ROLLS OF 500 m/m diameter (for Jumbo rolls of 1500 m/m diameter with external stand).

➤ SIDEWALL DEVELOPERS FROM 20 TO 100 m/m WITH WASTE EXTRACTOR (if fitted).

➤ LONGITUDINAL BOTTOM EDGES 12 120m/m machine made - STIICH 1 needle.

➤ EDGING OF UPPER PART 12-120 m/m. made with 1-needle STITCH machine.

➤ STICH MACHINE MADE SIDEWORK 1 needle 12 m/m. to 50 m/m. needles (with end docking)

➤ COLOUR DETECTORS (OPTIONAL)

➤ CS-1" CUTTING SYSTEM

➤ LABELLING

- o Roll width from 15 m/m up to 30 m/m
- o Single label length from 50 m/m up to 110 m/m
- o Folded label length from 25 m/m up to 55 m/m
- o Number of label rolls - 3 per labeler

➤ PROGRAMMABLE LONGITUDINAL FOLDING WITH NUMBER OF FOLDS, DIRECTION AND SIZE
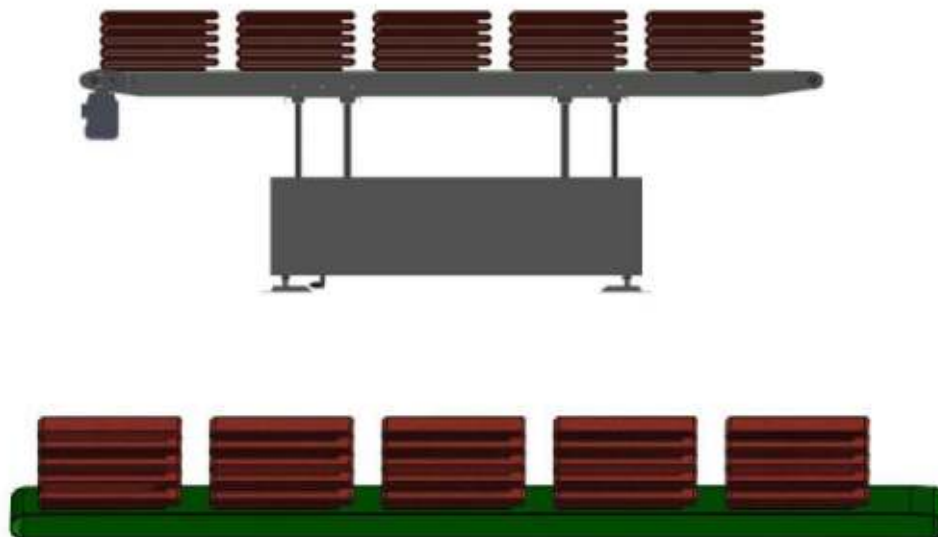
➢ THE NUMBER OF PLIEGUES IS UNLIMITED, the only limitation is the fabric.

Derecha   Izquierda
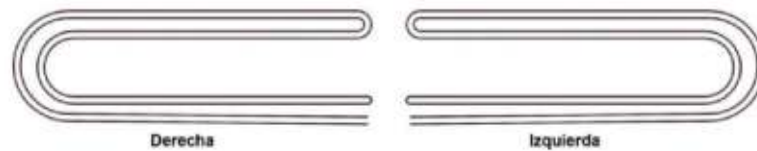
➢ PROGRAMMABLE CROSS FOLDING WITH NUMBER OF FOLDS, DIRECTION AND SIZE.
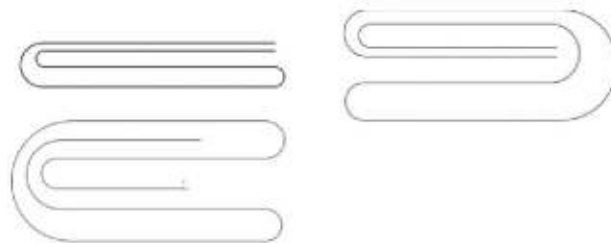
➢ STACKING OF GARMENTS, PROGRAMMABLE FOLDING FROM 1 TO 10 UNITS ON A CONVEYOR BELT.

CONSUMPTION AND PRODUCTION

- ➤ Roll width 3600 m/m (fabric cutting measurement)
- ➤ Cutting length 3600 m/m (fabric cutting dimension)
- ➤ Output - 300 pcs/h. Priced with a made-up garment 1400 m/m
- ➤ Production - 210 pcs/h. Priced with a ready-made garment 3000 m/m
- ➤ Power consumption - 3,5 KW
- ➤ Pneumatic consumption - 362 l/m
- ➤ Voltage 220/380 v

PLANS AND DIMENSIONS

Descripción: TREN AURIGA SABANAS 3600
Material:
Tipo:
Observaciones: --
Fecha:
Acabado
Cantidad: --
Escala: 1:75