

DETAILS:

914-2000 CALENDER FOR HOT-MELT LAMINATING

Very versatile calender specially designed for bonding / laminating / full-coating a large range of substrates (woven and or knitted textiles, non-woven textiles, foams and other non-textile materials) by using any thermoplastic polymer (in granules form) or reactive (in appropriate drums). The polymer, melted by means of an appropriate extruder / fuser, is applied directly to one substrate by means of an engraved cylinder / flat cylinder (coating). In case of bonding process the second substrate can be added and calendered together, and eventually cooled down in exit thanks to an appropriate cylinder connected to a chiller unit

CENTRAL MACHINE BODY

Ergonomic solid and robust structure composed of iron shoulders machined with numerical control machines, where the following devices are installed

ENGRAVED CYLINDER

- Engraved cylinder Ø350 mm (13,78"). for the polymers distribution. This cylinder is chrome plated in order to support the friction with the doctor blade and it is heated by electric armoured resistances, which are immersed in diathermic oil bath.
- The working temperature, electronically controlled with a is adjustable from room temperature up to 230°C.
- This cylinder works in absence of air (Monti Antonio S.p.A. system) so that to grant no oil oxidation and a long life to the heating elements.
- This cylinder is chrome-plated, motorized, equipped with quick release head for easy replacement
- Doctor blade for the distribution of the melted polymer, complete with aluminium plate heated (Monti Antonio S.p.a.system), isolated and coated with a special Teflon for anti-sticking purposes
- Complete with movable lateral seals for adjustment of the coating width

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PRESSING CYLINDER FOR ENGRAVED CYLINDER

- Silicon coated pressing cylinder $\varnothing 340$ mm (13,39"), installed on self-aligning supports in order to grant a perfect contact with the engraved cylinder.
The rotation of this cylinder is granted by motorisation while its pressure by two pneumatic pistons fed with compressed air with adjustable pressure up to 6 Kg/cm .
- On the each piston (one per side) acts one actuator which allows to control precisely the distance of the pressing cylinder in relationship the engraved one (gap adjustable up to mm.50)
- It is foreseen the possibility of installing a chiller unit (optional) for the cooling of this cylinder (rotating head for the circulation of the chilled water already included).

UPPER PRESSING CYLINDER

- Teflon coated (anti-sticking treatment) pressing cylinder, $\varnothing 260$ mm (10,24") , heated by electric armoured resistances in diathermic oil-bath
- The working temperature is controlled electronically, and it is adjustable from the room temperature up to 230 °C.
- This cylinder works in absence of air (Monti Antonio S.p.A. system so that to grant no oil oxidation and a long life to the heating elements.
- The rotation of this cylinder is granted by motorization while its pressure by two pneumatic pistons fed with compressed air with adjustable pressure up to 6 Kg/cm . On the each piston (one per side) acts one actuator which allows to control precisely the distance of pressing cylinder in relationship to of the underlying pressing cylinder (gap adjustable up to mm.50)

MECHANIC SPEED

The machine is equipped with motors which allow a mechanic speed from 2 to 60 m/min.(standard machine)

MOTORIZATIONS

- All movements are supplied by means of asynchronous motors, three phase, servo ventilated, which transmit movements to roller with reduction gears.
- The motor of the pressing cylinder re.9 has "master" function. All other motors have "slave" functions.

- The speed of all motors is synchronized and any variation registered by the “master” is effecting automatically on all “slaves”.
- The control of all motors is done by vector inverters, with plc.

ELECTRIC/ELECTRONIC CONTROL PANEL

- The cabinet is in metal sheet, with protection IP54, and it includes all inverters, contactors, etc.
- The cooling of the cabinet is by means air conditioning which grants perfect temperature and humidity control.

TEMPERATURE CONTROL

- The temperature of all oil heated cylinders is guaranteed by means of feelers with thermal resistance of 100 ohm at 20°C, which transfer the measurement to the PLC to automatically administrates very precisely these functions.
- The same process is used for the doctor blade heating.

AUTOMATION

It is controlled by a SIEMENS PLC, complete with : digital inputs and outputs, control of analogical inputs for the temperature control, serial control of movable operator panel (front and rear).

- Movable operator panel : colours LCD touch-screen with TFT – resolution 640x480 pixel, screen 10,4”, complete with Ethernet plug.

TECHNICAL DATA

- Adjustable working width up to mm 1800 (70.87”)
- Working speed adjustable from 2 to 60 m/min.
- Installed power of complete machine: to be confirmed
- Average electric consumption of the complete machine: to be confirmed
- Compressed air pressure: 6-8 Bar
- Machine produced according to CE rules
- Customs tariff: 84 51 80 80

914-A01 PRESSING GROUP WITH SMALL SPREADER ROLLER, MOTORIZED

914-A02 FREE UNWINDER FOR FOAM ROLLS + RAMP FOR ACCUMULATION

914-A03 UNWINDING DEVICE FOR FABRIC ROLLS

914-A04 MOTORIZED ROLLER CONVEYOR TO ACCOMPANY THE FOAM

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914-A05 **UPPER OPENING/ALIGNING ROLLER WITH SLATS, INCLUDING SCROLL ROLLER AND MANUAL BRAKE**

- Motorised roller with slats to spread the materials and eliminate eventual pleats as well as align them thanks to high precision optical reading.
- Thanks to its motorisation, this slats roller can be used for controlling the tension of the material in entry.
- Device complete with scroll roller and manual brake

914-A06 **LOWER OPENING/ALIGN. ROLLER WITH SLATS, MOT.**

- Motorised roller with slats to spread the materials and eliminate eventual pleats as well as align them thanks to high precision optical reading.
- Thanks to its motorisation, this slats roller can be used for controlling the tension of the material in entry..
- This roller is suitable to textiles in general.



914-A07 **N°2 MOTORIZED TANGENTIAL UNWINDER FOR FABRIC/NON-WOVEN WITH LITTLE J-BOX**

914-A08 **EXTERNAL AXIAL WINDER WITH BRUSHLESS MOTOR AND DANCING ROLLER SYSTEM, INCLUDING AREA FOR**

A SIMPLE ACCUMULATION SYSTEM

914-A09

ADDITIONAL PNEUMATIC SHAFT FOR THE EXTERNAL AXIAL WINDER

914-A10

PUR FUSER, N°1 – 200 Kg.

- Drum melter of 200 liters for fusing reactive polymers and having a capacity of 50/60 Kg/h. It is equipped with two heated tubes and pertaining heads (duly isolated) to keep the the polymers melted until the distribution device
- Installed power: 30 Kw



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SUMMARY - PROFORMA INVOICE

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