



# BOOKLET



**Machinery to automate production processes**



## MACHINES AND EQUIPMENT FOR TYRE RETREADING

Laser engraving for sidewall engraving LE1S	3
Tread grinding unit EB-TGU1	4
Tread grinding unit with lifter EB-TGU1-L	5
Automatic buffer CR500	6
Crater Tyre robot for holes handling CT4.0	7
Automatic Feeding System automatic loading for straight monorail AFS10	8
Controlled stretch builder BL1	9
Cushion gum chuck extruder for truck EX1	10
Stretch builder with extruder EXB1	11
Stretch builder with extruder and cutter EXB2	12
Stretch builder with extruder, cutter and sidewall extruder EXB3	13
Robot to handle holes and repairs OTR REN63	14
Robot for regrooving and grooving GRV35	15
Robot for regrooving and grooving GRV63	16
Robot Repair Station hammer system for repairs RRS63	17
Building machine C250	18
Painting cabin for truck and small OTR CV-2000	19
Compact painting cabin for truck CV-1800	20
Standard cementing cabin CSB1N	21
Cementing cabin CSB1A ATEX	22
Mobile vertical Envelomatic EVL-600	23
Rotary tilting table TBS-700	24
Motorized rotary tilting table TBRM-700	25
Inspection machine for monorail DPM-800	26
Support workstation for tools and wheels for holes workstation SPM-100	27
Holes workstation SC-200	28
Manual cutter for rolls of cushion gum, calendered and foil TGR-1000	29
Monorail plants MNV-300	30
Exhaustion plant A12-2 with 2 exhausting points +1 rasp L=12m	31
Exhaustion plant A12-1 with 1 exhausting point rasp L=4m	32

## Laser engraving for sidewall engraving LE1S



Machinery with fiber laser system to engrave any type of writing: QR code, barcode, logos, numbers, letters, drawings and files that can be imported from outside or created with the CAD system on board. The machine is equipped with a 30W fiber laser with the possibility of also using a UV type laser. The writing field is limited to a diameter of 150mm. The machine has the ability to rotate the tyre with a joystick to identify the correct engraving area. With another command, it is possible to raise or lower the laser to center it correctly on the side to be written. The laser is also equipped with a system that projects the desired lettering directly onto the side of the tyre. To be more precise in positioning, a pneumatic system will always support the laser at an optimal distance.

- Dimensions 1600x1000 H=1500
- Weight 350kg
- Hose Ø80 for smoke exhaustion connection
- Installed power 5kW 400V
- Motorized roller for tyre rotation
- Remote assistance
- Recipe book on machine board
- Use and maintenance manuals in English and Italian
- Certifications UL and CE

## Tread grinding unit EB-TGU1



Machine for grinding the PCT pre-molded tread head with a locking system and a pneumatic cylinder. The starting of the grinding wheel takes place by means of a two-hand control with the possibility of adjusting the depth of cut with a handwheel.

- Dimensions 800x900 H=1300
- Weight 280kg
- Smoke exhaustion tank Ø60
- Installed power 3.5kW 400V
- Equipped with self-ventilating wheel
- Max width 450mm
- Pressing device for PCT locking
- Two-hands control
- Use and maintenance manuals in English and Italian
- Possibility of connection to tables to cut standard band
- Certifications UL and CE

## Tread grinding unit with lifter EB-TGU1-L



Machine for grinding the PCT pre-molded head with a pneumatic cylinder locking system and the starting of the grinding wheel by means of a two-hand control. The depth of cut is adjustable by means of a handwheel. The machine has a roller conveyor for loading the roll of pre-molded tread that can be moved to a convenient position for use by means of a pneumatic cylinder system.

- Dimensions 800x900 H=1300
- Weight 320kg
- Smoke exhaustion tank Ø60
- Installed power 3.5kW 400V
- Equipped with self-ventilating wheel
- Max width 450mm
- Pressing device for PCT locking
- Two-hands control
- Pneumatic manual control for PCT roller loading
- Use and maintenance manuals in English and Italian
- Possibility of connection to tables to cut standard band
- Certifications UL and CE



## Automatic buffer CR500

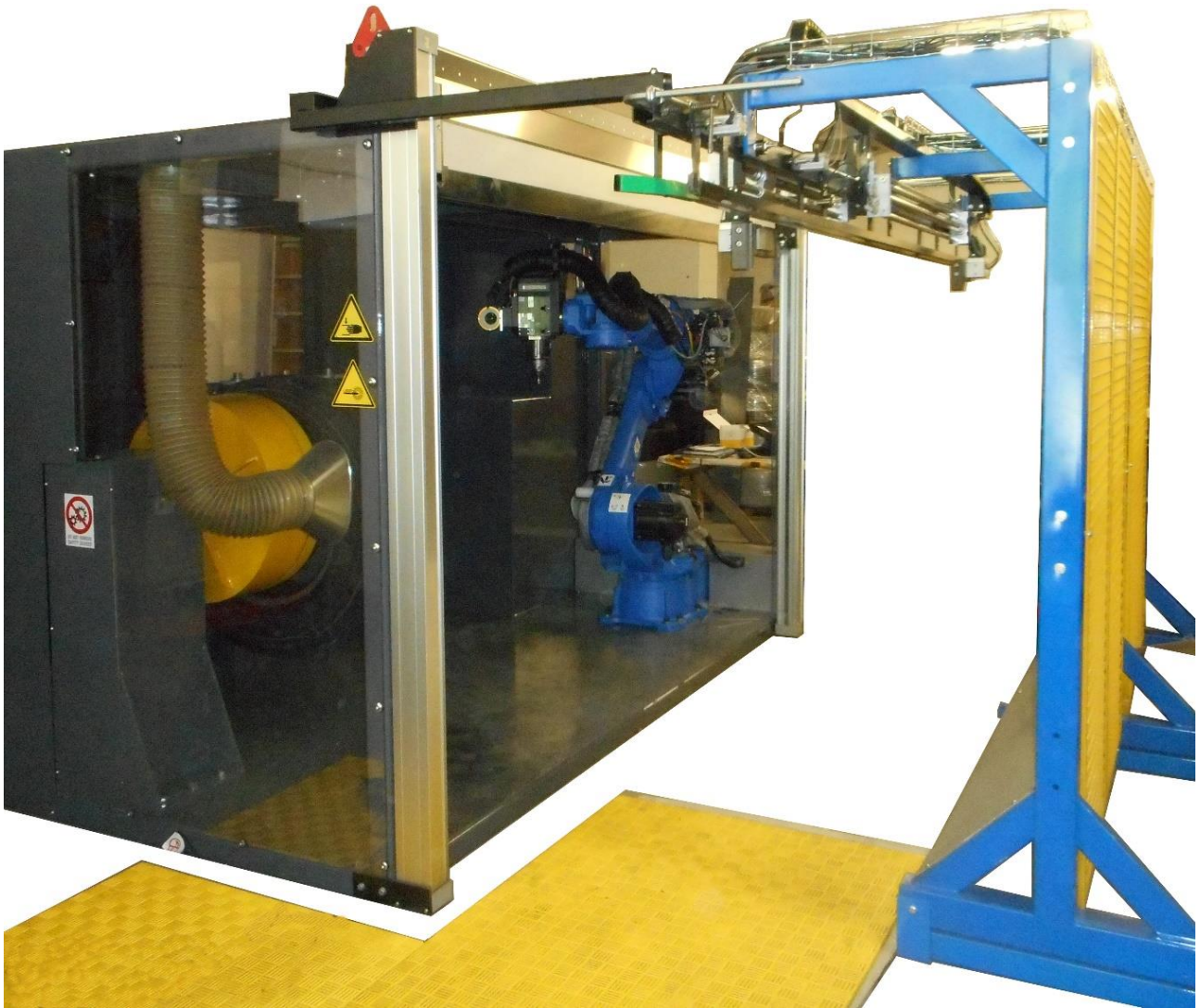


Automatic buffing machine for truck tyres from 16" to 24", with automatic tyre loading, interchangeable beads, laser circumference measurement system, double motor brush group, material evacuation system by means of a screw, removal of the tread by means of a cutter and basket to perform the necessary roughness (RMA) with minimal removal.

- Dimensions 2900x2250 H=2630
- Weight 5.6t
- Smoke exhaustion hose Ø180
- Installed power 34kW 400V 49A
- Equipped with standard rims 22.5"
- Optional rims 16", 17.5", 18", 19.5", 20" e 24"
- Processable tyres from 16" to 24" maximum width 510mm
- Use and maintenance manuals in English and Italian
- Completely closed by automatic door
- Automatic tyre loading
- Online assistance
- Certifications UL and CE

[DISCOVER MORE](#)

## Crater Tyre robot for holes handling CT4.0



Fully automatic robot system for the identification and processing of craters on truck tyres. The machine is completely closed to prevent the escape of processing particles and expels particles and fumes through the suction. The robot system is able to automatically load the tyre from the monorail, take it inside the cell, scan it with a 3D system and, once the defects have been detected, work them with traditional tools available on the market.

- Dimensions 3600x2400 H=2300
- Weight 3.8t
- Multi diameter mechanical chuck
- Tyre housing from 16" to 24" x maximum width 500mm
- Average processing 4 seconds per hole of 20x20
- Minimum detection 2x2 H=0.5 settable from parameter
- Processable tyres from 16" to 24" x width 560mm
- Online assistance
- Use and maintenance manuals in English and Italian
- Certifications UL and CE

[DISCOVER MORE](#)

## Automatic Feeding System automatic loading for straight monorail AFS10

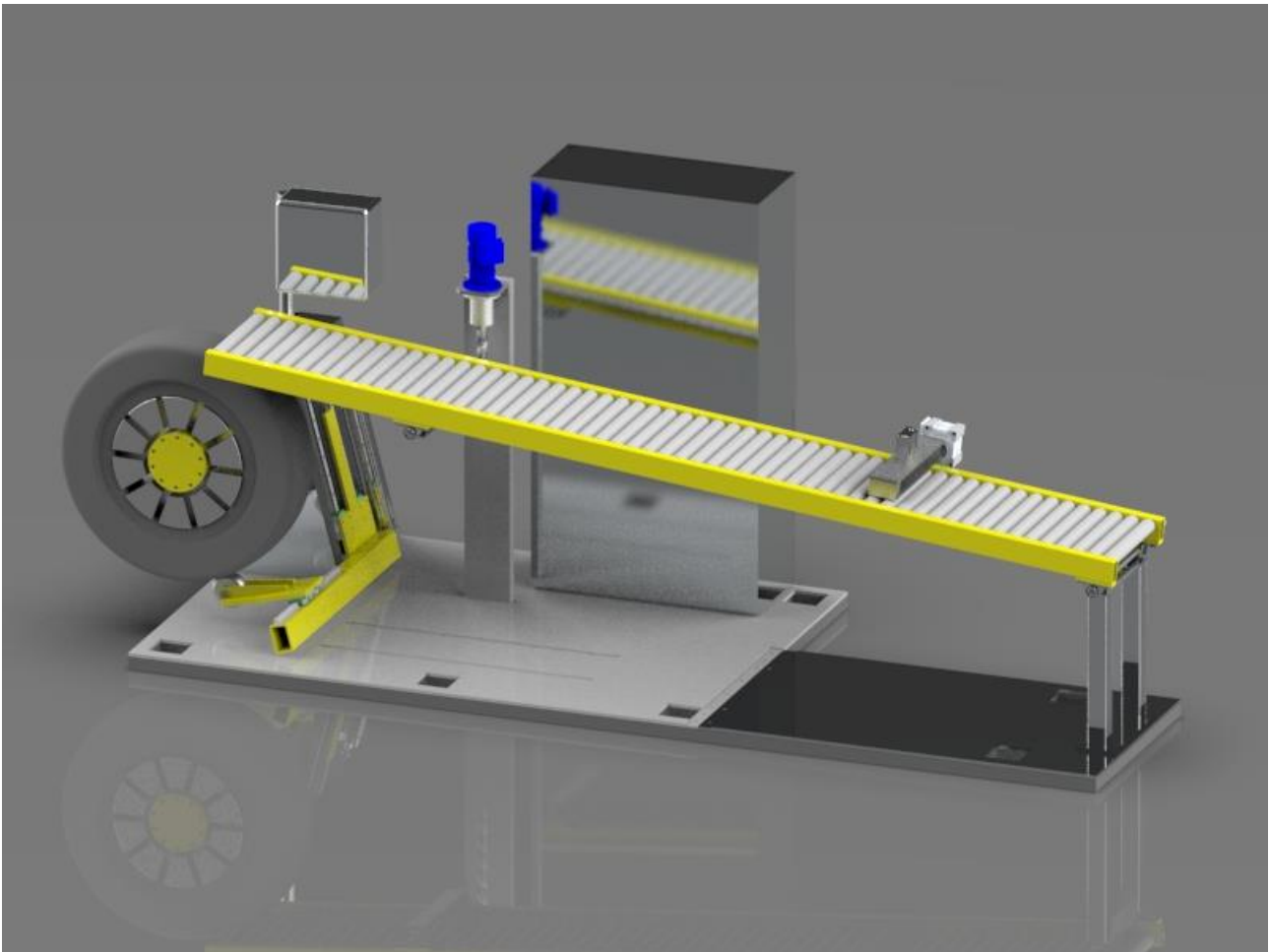


Automatic system for the enslavement of the CT4.0 crater robot. The operator accumulates the freshly buffed tyres on a straight monorail, the shuttle automatically searches for the first hook and with a chain system delivers it to the CT4.0 crater robot (in the photo there is a 10m straight version but curves or rings are also available).

- System length for straight monorail of 10m
- Applicable to any type of monorail (subject to verification)
- Shuttle with sensor to identify the hook
- Pneumatic cylinder on the shuttle
- Moving speed 300mm/s possibility to reach 700mm/s
- Online assistance on PLC
- Use and maintenance manuals in English and Italian
- Certifications UL and CE



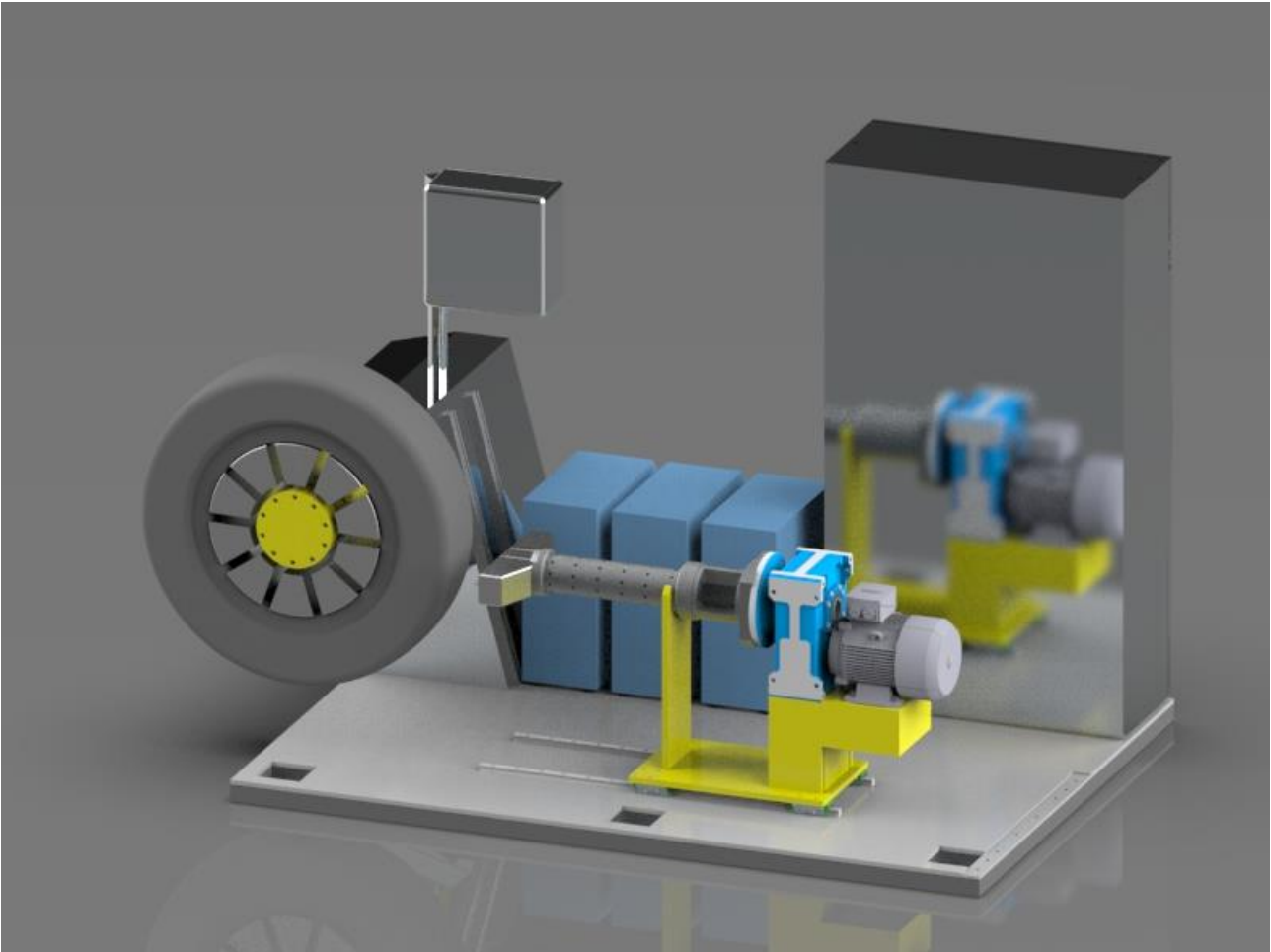
## Controlled stretch builder BL1



Modular packaging machine with controlled stretch. New generation machine with 3D scanning system of the profile, gripping hand for controlling the tread stretch, roller conveyor automatically adaptable according to the diameter of the tyre, hydraulic unit for opening the expandable mandrel with rolling unit. Remote control and assistance, ready for Industry 4.0.

- Dimensions 5000x1800 H=1950
- Weight 3.4t
- Hydraulic expandable chuck
- 19" touch screen
- Automatic adjustment of roller conveyor height
- Gripper for stretch control
- Equipped with standard chuck 22.5" x 230
- Processable tyres from 17.5" to 24"
- Online assistance
- Use and maintenance manual in Italian or English
- Certifications UL and CE

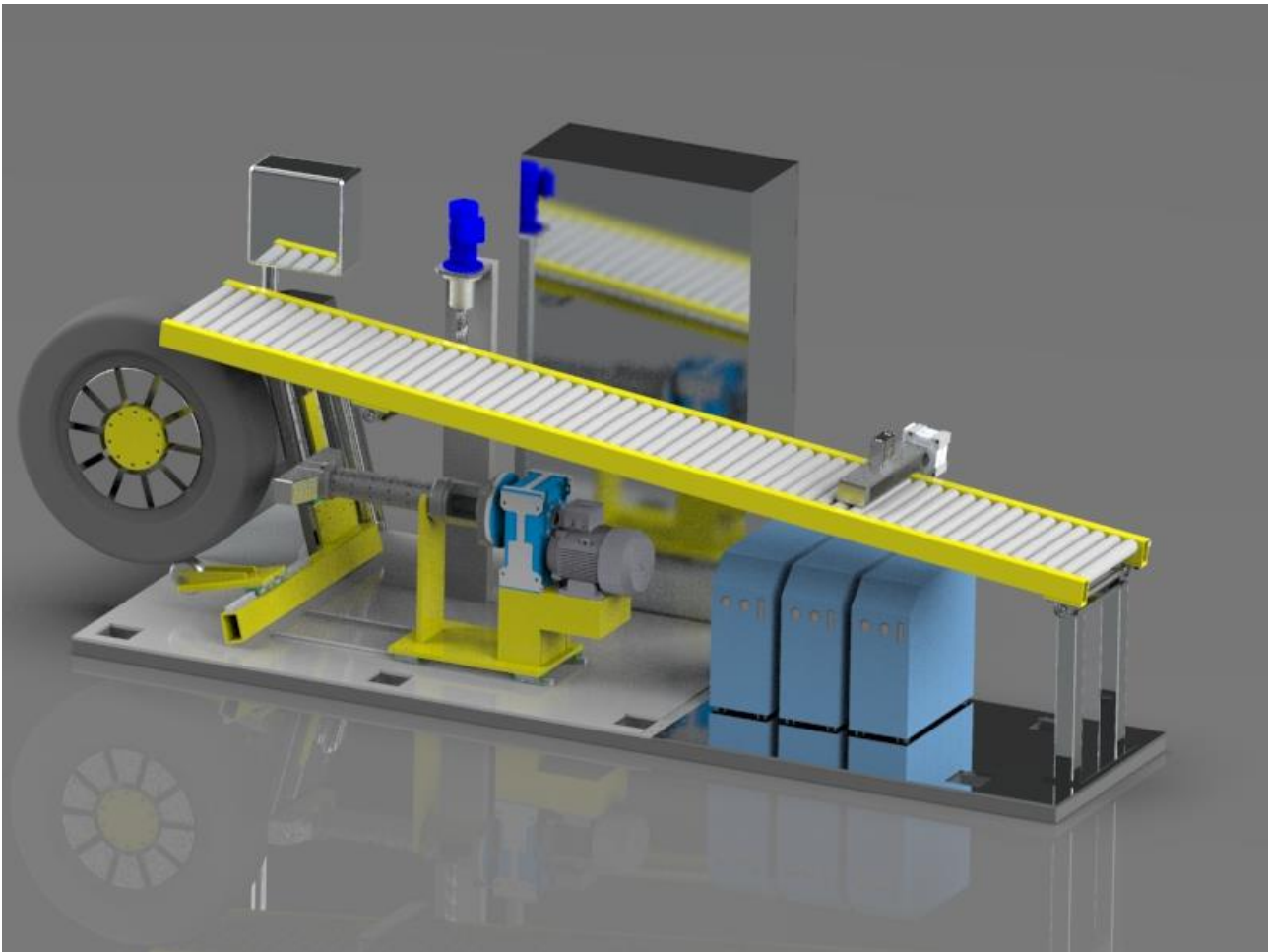
## Cushion gum chuck extruder for truck EX1



Spindle underlayer extruder. New generation machine with 3D scanning system of the profile, extruder  $\text{Ø}60$  with pegs, regulation of the extrusion dimension automatically adjusted according to the profile, 3 thermoregulators for temperature control, hydraulic unit for controlling the advancement of the extruder on the tyre and for opening the expandable mandrel. Remote control and assistance, ready for Industry 4.0.

- Dimensions 3000x1800 H=1950
- Weight 3t
- Hydraulic expandable chuck
- 19" touch screen
- Equipped with standard chuck 22.5" x 230
- Processable tyres from 17.5" to 24"
- Max extrusion width 450mm
- Extrusion speed about 85mm/s (according to the compound)
- Online assistance
- Use and maintenance manual in Italian or English
- Certifications UL and CE

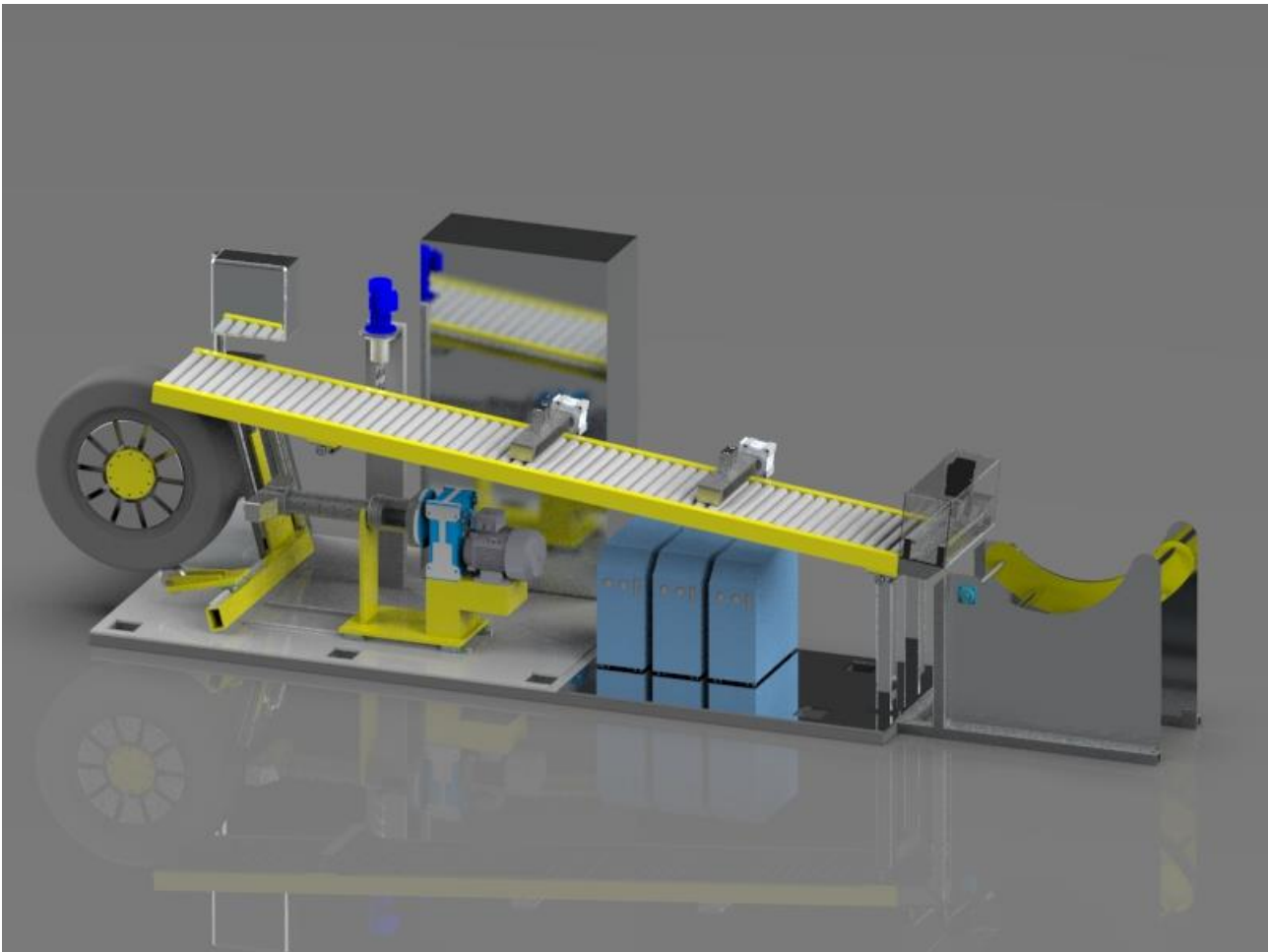
## Stretch builder with extruder EXB1



Modular packaging machine with controlled stretch complete with extruder. New generation machine with 3D scanning system of the profile, gripping hand to control the stretching of the tread, roller conveyor automatically adaptable according to the diameter of the tyre, extruder Ø60 with pegs, adjustment of the extrusion size automatically adjusted according to the profile, 3 thermoregulators for temperature control, hydraulic unit for controlling the advancement of the extruder on the tyre and for opening the expandable mandrel with rolling unit. Remote control and assistance, ready for Industry 4.0.

- Dimensions 5000x1800 H=1950
- Weight 4.2t
- Hydraulic expandable chuck
- 19" touch screen
- Automatic adjustment of roller conveyor height
- Gripper for stretch control
- Equipped with standard chuck 22.5" x 230
- Processable tyres from 17.5" to 24"
- Max extrusion width 450mm
- Extrusion speed about 85mm/s (according to the compound)
- Online assistance
- Use and maintenance manuals in Italian or English
- Certifications UL and CE

## Stretch builder with extruder and cutter EXB2

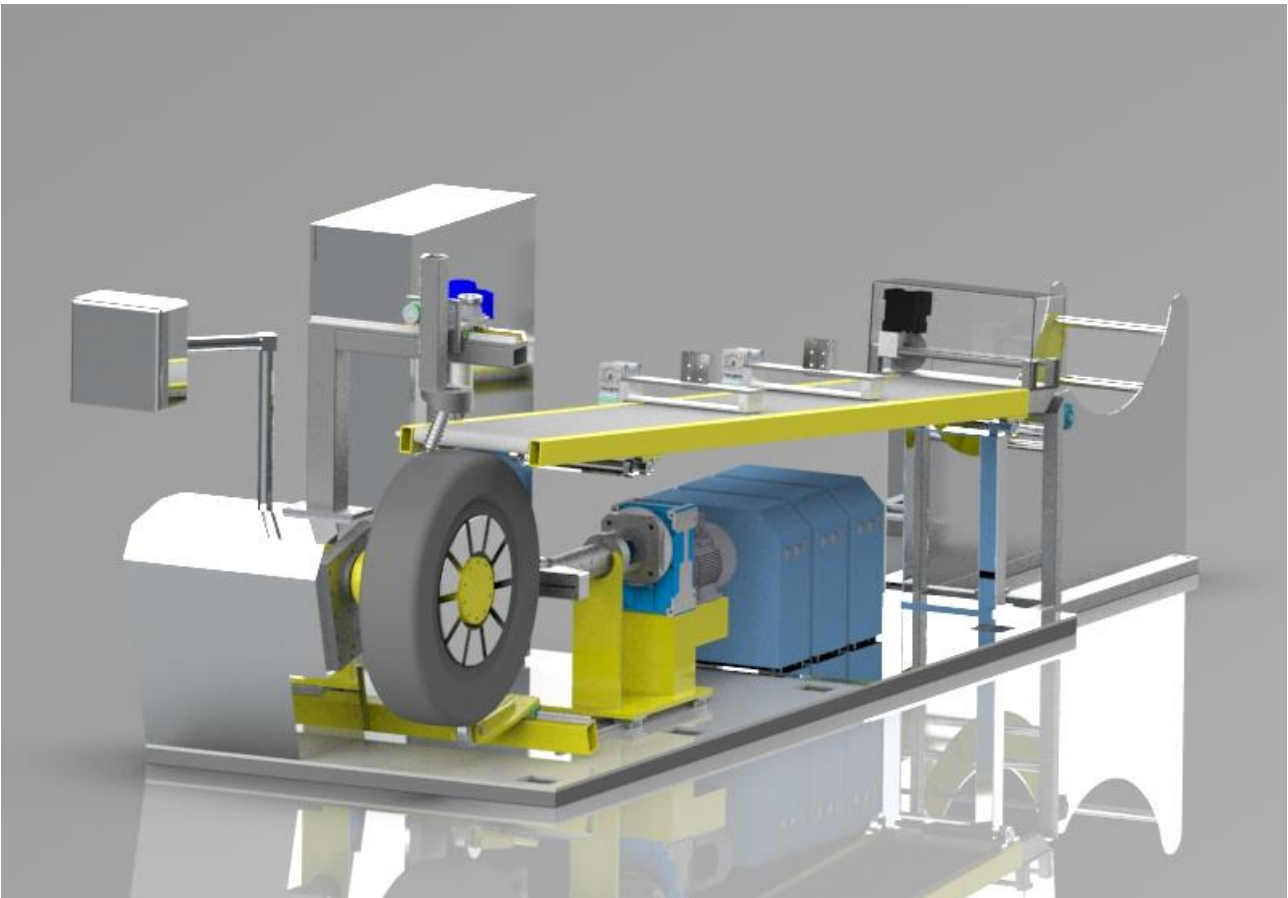


Modular packaging machine with controlled stretch complete with extruder, rotary cutter, tilting PCT roll loader, double gripper, new generation machine with 3D profile scanning system, double gripping hand: one for gripping the tread from the cutter and one for checking ironing. Roller conveyor automatically adaptable according to the diameter of the tyre, extruder Ø60 with pegs, automatic extrusion size adjustment according to the profile, 3 thermoregulators for temperature control, hydraulic unit for controlling the advancement of the extruder on the tyre and for the opening of the expandable mandrel with rolling unit. Remote control and assistance, ready for Industry 4.0.

- Dimensions 6500x1800 H=1950
- Weight 4.8t
- Hydraulic expandable chuck
- 19" touch screen
- Automatic adjustment of roller conveyor height
- Double gripper for stretch control
- Cutter with rotary blade
- Tilting PCT roller load
- Equipped with standard chuck 22.5" x 230
- Processable tyres from 17.5" to 24"
- Max extrusion width 450mm
- Extrusion speed about 85mm/s (according to the compound)
- Online assistance
- Use and maintenance manuals in Italian or English
- Certifications UL and CE



## Stretch builder with extruder, cutter and sidewall extruder EXB3



Full optional modular packaging machine with controlled stretch complete with extruder, rotary cutter, tilting PCT roll loader, double gripper for ironing, extruder above the tyre for the sides, new generation machine with 3D scanning system of the profile with double gripping hand: one for gripping the tread from the cutter and one for controlling the stretch. Roller conveyor automatically adaptable according to the diameter of the tyre, extruder Ø60 with pegs, automatic extrusion size adjustment according to the profile, 3 thermoregulators for temperature control, 40kg/hour extruder for the sides, hydraulic unit for controlling the advancement of the extruder on the tyre and for the opening of the expandable mandrel with rolling unit. Remote control and assistance, ready for Industry 4.0.

- Dimensions 6500x1800 H=1950
- Weight 5.1t
- Hydraulic expandable chuck
- 19" touch screen
- Automatic adjustment of roller conveyor height
- Double gripper for stretch control
- Cutter with rotary blade
- Tilting PCT roller load
- Equipped with standard chuck 22.5" x 230
- Processable tyres from 17.5" to 24"
- Max extrusion width 450mm
- Extrusion speed about 85mm/s (according to the compound)
- Small extruder 40kg/hour
- Online assistance
- Use and maintenance manuals in Italian or English
- Certifications UL and CE

## Robot to handle holes and repairs OTR REN63



Robot system for processing craters and repairing OTR tyres from 24" to 63" with expandable spindle locking system, KUKA anthropomorphic robot, liquid-cooled electro-spindle including chiller, 9-position tool rack with automatic guards, nets and gates protection, joystick system for identifying defects to be machined and the possibility of repeating a machining program with a programmable step.

- Dimensions 8000x4500 H=5000
- Easy and quick programming
- Tools rack of 9 positions
- Electro chuck of 18kW liquid cooled
- Total weight 28t
- Processable tyres from 25" to 63" x maximum width 1.8m
- Chucks provided for tyres of 45", 49", 51", 57", 63"
- Online assistance
- Use and maintenance manual in English and Italian
- UL and CE certifications

[DISCOVER MORE](#)

## Robot for regrooving and grooving GRV35



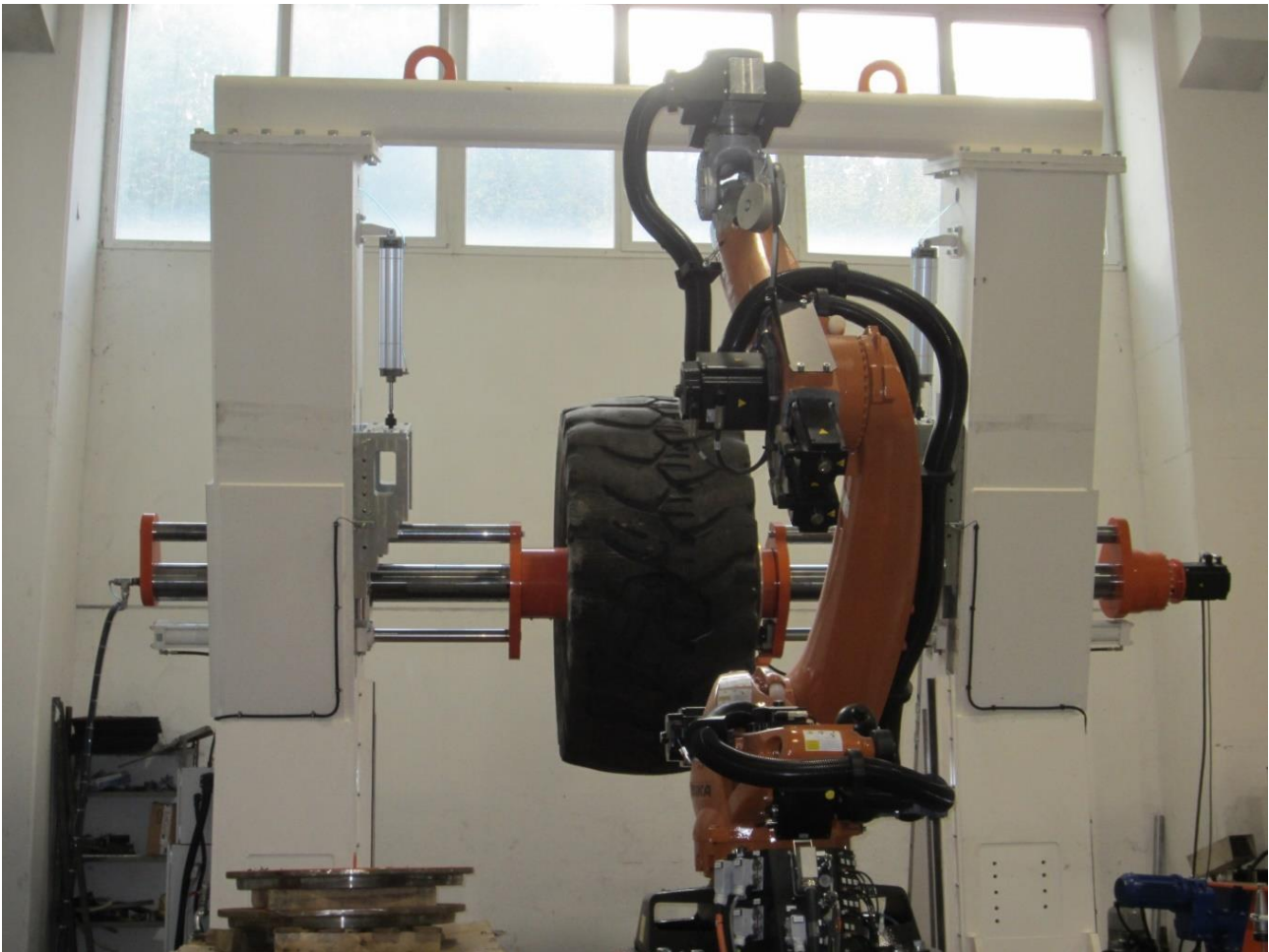
Robot system for carving and regrooving of existing or new grooves, also suitable for repairs of OTR tyres from 24" to 35" with interchangeable plate fitting system, KUKA anthropomorphic robot, electrospindle with liquid cooling chiller, 9 tool rack positions, safety nets and gates, joystick system to determine the start on the sculpture to be worked with the possibility of repeating the machining program at a programmable step. Possibility to choose the tool path by placing the tool at the bottom of the recess and acquiring the various points of the path: the system will connect each point creating the desired figure and then repeated for the programmed number of times.

- Dimensions 3500x3100 H=4000
- Laser pointer system to determine the start of the groove
- Easy to use software and graphic interface
- Weight 16t
- Equipped with pairs of rims 25" et 33"
- Processable tyres from 25" to 35" x width 1100mm
- Online assistance
- Use and maintenance manuals in English and Italian
- Certifications UL and CE

[DISCOVER MORE](#)



## Robot for regrooving and grooving GRV63



Robot system for carving and regrooving of existing or new grooves, also suitable for repairs of OTR tyres from 24" to 63" with interchangeable plate fitting system, KUKA anthropomorphic robot, electrospindle with liquid cooling chiller, 10 tool rack positions, safety nets and gates, joystick system to determine the start on the sculpture to be machined with the possibility of repeating the machining program at a programmable step. Possibility to choose the tool path by positioning the laser pointer in the vertex of the recess and acquiring the various points of the path: the system will connect each point creating the desired figure, then machined individually or repeated for the programmed number of times. Possibility of using the CAD-CAM system for different figures or complex excavations (optional).

- Dimensions 5500x8900 H=5600
- Weight 22t
- Tools rack of 10 positions
- 19" touch screen
- Easy and quick programming
- Possibility to execute working by joysticks
- Equipped with standard rims 51", 57" and 63"
- Equipped with cutters for grooving  $\varnothing 30 \times 60$  e  $\varnothing 40 \times 100$
- Equipped with cutters for holes and repairs  $\varnothing 125 \times 60^\circ$  and  $\varnothing 105 \times 50^\circ$
- Kit of 500 spare blades
- Processable tyres from 25" to 63" x width 1.8m
- Online assistance
- Use and maintenance manuals in English and Italian
- Certifications UL and CE

[DISCOVER MORE](#)



## Robot Repair Station hammer system for repairs RRS63



Robot system for hammering hot rubber to fill previously machined craters, suitable for repairs of OTR tyres from 35" to 63". With keying system with interchangeable spindles, KUKA anthropomorphic robot, swing hammer mounted on a pneumatic reaction system, protective nets and gates, double joystick system to determine the polygonal or circular figure to be beaten with the possibility of repeating the machining programs with programmable step. Possibility to choose the tool path by acquiring the various points of the path with the laser: the system will connect each point creating the desired figure, which must be a closed polygonal shape, then executed and linked to other figures or repeated for the programmed number of times.

- Dimensions 5500x8900 H=5600
- Weight 25t
- 19" touch screen with simple programming
- Generation of the tool path in short time
- Selection of the tool path for working with double joystick
- Customization of the path during processing with the automatic robot
- Equipped with standard rims 51" et 63"
- Processable tyres from 25" to 63" x width 1.8m
- Online assistance
- Use and maintenance manuals in English
- Certifications UL and CE

[DISCOVER MORE](#)

## Building machine C250



Manual packaging and rolling machine with interchangeable mandrel. The machine is equipped with a hydraulic unit for opening the spindle and rolling, the packaging in this case is done by hand by rotating the tyre with the pedal and centering the tread with the reference laser pointer. The rolling cycle is automatic.

- Dimensions 1500x1500 H=1800
- Weight 0.9t
- Centering laser
- Hydraulic chuck 19.5, 22.5, 230
- Rotation pedal control
- Processable tyres from 17" to 24" x width from 200 to 500
- Use and maintenance manuals in English and Italian
- Certifications UL and CE

## Painting cabin for truck and small OTR CV-2000



Automatic painting machine with tyre loading and unloading from the same door. The system uses conical rollers for centering the tyre and is equipped with an electric fan. The machine is ATEX certified zone 2 and 21, it has the possibility to paint the sides of a small earth-moving machine up to a maximum of Ø1700 and width 700.

- Dimensions 3200x1500 H=2600
- Weight 750kg
- Automatic pneumatic door opening
- Processable tyres from Ø minimum 700 x width 200 to Ø maximum 1700 x width 700
- Airless tank of 50l
- Use and maintenance manual in English and Italian
- Certifications UL and CE

### Compact painting cabin for truck CV-1800



Automatic painting machine with tyre loading and unloading from the same door. The system uses conical rollers for centering the tyre and is equipped with an electric fan. The machine is ATEX certified zone 2 and 21, suitable for painting tyres from 16" to 24".

- Dimensions 2000x1500 H=1800
- Weight 450kg
- Pneumatic door opening
- Paint tank of 25l
- Processable tyres from 16" x width 200 to 24" x width 500
- Use and maintenance manuals in Italian and English
- Certifications CE and ATEX



### Standard cementing cabin CSB1N



Cementation cabin to be inserted in the monorail with pneumatic lifting system for the extraction of the hook, compressed air frame system around the window to prevent the escape of gases generated by the spray of the gun. Pneumatic control for lifting the arm and pedal for rotating the tyre.

- Dimensions 1470x1500 H=2680 (electric fan excluded)
- Weight 260kg
- Tyre upstroke downstroke control
- Cement tank of 25l
- Spraying gun
- Processable tyres from 15" x width 200 to 24" x width 500
- Use and maintenance manuals in Italian and English
- Certification CE (machine not ATEX)

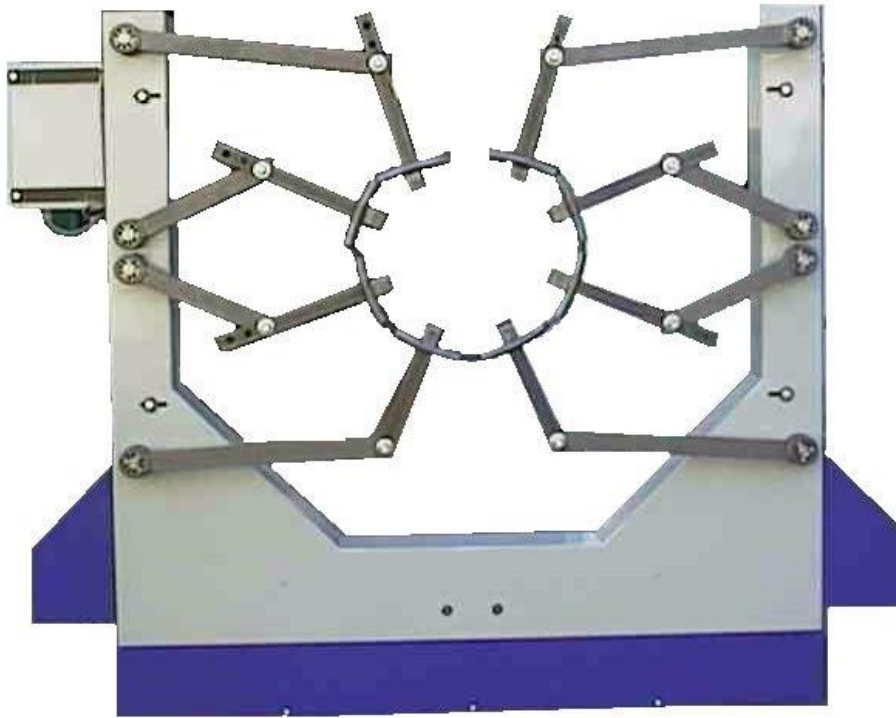
### Cementing cabin CSB1A ATEX



ATEX certified cementation cabin to be inserted in the monorail with pneumatic lifting system for the extraction of the hook, compressed air frame system around the window to prevent the escape of gases generated by the spray of the gun. Pneumatic control for lifting the arm and pedal for rotating the tyre.

- Dimensions 1470x1500 H=2680 (electric fan excluded)
- Weight 260kg
- Upstroke/downstroke control with pneumatic cylinder
- Cement tank of 25l
- Spraying gun
- Processable tyres from 15" x width 200 to 24" x width 500
- Use and maintenance manual in English and Italian
- Certifications CE and ATEX

### Mobile vertical Envelomatic EVL-600



Equipment for mounting envelopes with vertical position adjustment for centering the tyre.

- Dimensions 2400x800 H=2000
- Weight 570kg
- Power supply 400V 1.5kW
- Pneumatic supply 8bar
- Range from Ø500mm to Ø1555mm
- Vertical range 200mm
- Use and maintenance manuals in English and Italian
- Certifications CE

**Rotary tilting table TBS-700**



Tilting table on both sides and rotating discs for the assembly of envelopes.

- Dimensions 2000x1350 H=1500
- Weight 230kg
- Disks of Ø1250
- Admitted weight per platen 150kg
- Use and maintenance manual in Italian and English
- Certifications CE according to machines and equipment directive



## Motorized rotary tilting table TBRM-700



System with tilting table controlled by a pneumatic cylinder and central bead for centering the tyre. The rotation takes place by means of a pedal control. There is also a pneumatic cylinder with a rigid bristle brush to help roll the side leaf.

- Dimensions 1500x800 H=1500
- Weight 240kg
- Disk of Ø900
- Admitted weight per platen 120kg
- Use and maintenance manual in English and Italian
- Certifications UL and CE

## Inspection machine for monorail DPM-800



Manual inspection system for checking and repairing tyres on monorail with controls and movements through pneumatic cylinders.

- Dimensions 700x4000 H=1000
- Weight 250kg
- Range from 700mm to 1200mm
- Use and maintenance manuals
- Certifications CE according to machines and equipment directive

**Support workstation for tools and wheels for holes workstation SPM-100**

Support to be applied to any monorail to deposit all the tools for the operators of the crater stations, connectable to the suction system. The opening of the suction ducts is activated only when the operator removes the tool to be used from its housing. There is also a pressure regulator for the correct pressure for the tools.

- Dimensions 500x500 H=1800
- Weight 150kg
- Pneumatic supply 8bar
- Pressure regulator connector 3/8"
- Use and maintenance manuals
- Certifications CE

## Holes workstation SC-200



Crater station to be coupled to a monorail or can be used individually with mobile arm operated by a pneumatic cylinder. The rotation control of the pneumatic traction pedal takes place via a gearmotor for each roller.

- Dimensions 1500x1600 H=2200
- Weight 145kg
- Power supply 400V
- Pneumatic supply 8bar
- Rollers pedal rotation
- Lifting with pneumatic control
- Use and maintenance manuals



## Manual cutter for rolls of cushion gum, calendered and foil TGR-1000



Equipment for manual cutting of rolls of substrate, calendered or side leaf. Positioning takes place by means of a manual knife following a position indicator (meter). The rotation is done by means of a gearmotor controlled by a pedal and locking by a manually expandable shaft.

- Dimensions 1450x430 H=1200
- Weight 156kg
- Drive by means of an expansible shaft up to Ø250
- Central shaft of 50 and 105 (adjustable according to customer's requirements)
- Manual blade cut
- Use and maintenance manual
- Certification CE

### Monorail plants MNV-300

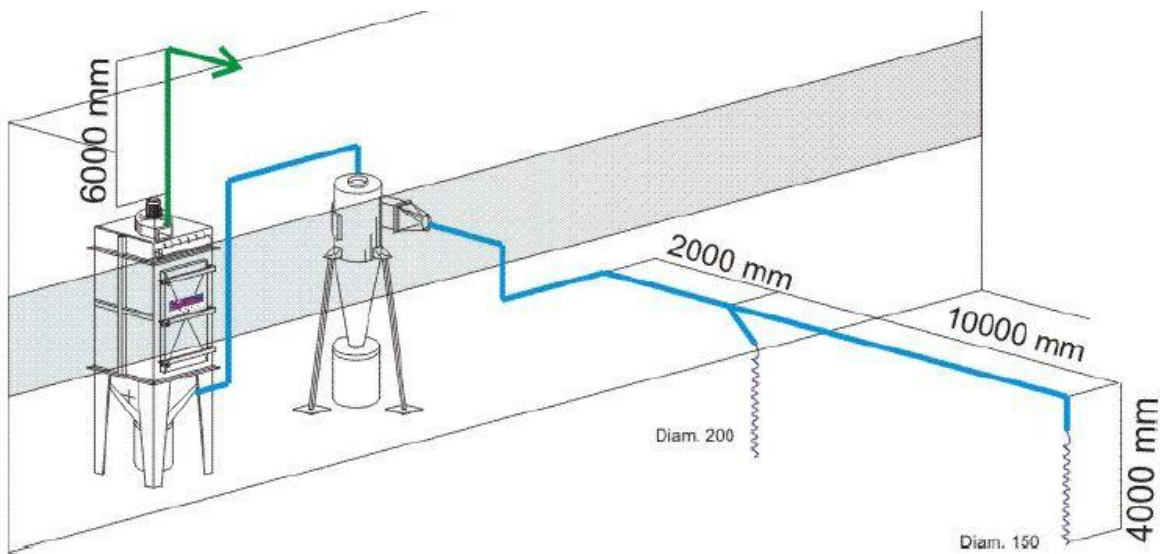


Complete monorail systems, studied and designed according to customer needs, supply of vacuum systems, cranes for handling tyres, hooks for supporting tyres, saddles for autoclaves, connection between monorail and autoclave and various equipment for retreading cold and hot.

Complete systems suitable for all types of production needs in the tyre retreading sector, in addition to the design service for the study of the customer's layout.

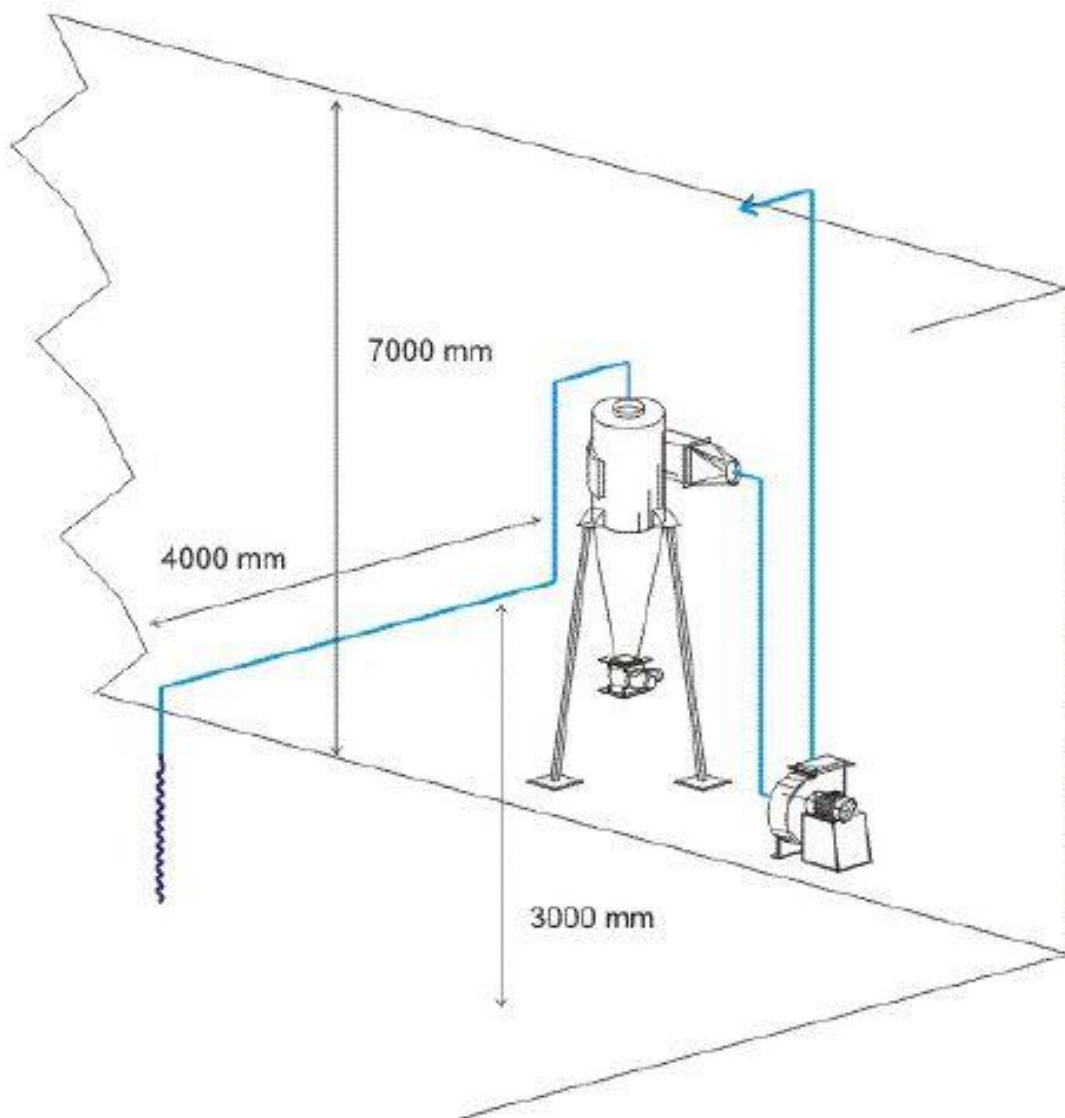
All the plants will be evaluated on the basis of the layout created to measure according to the customer's production plant, as will all the equipment and machinery to be inserted.

**Exhaustion plant A12-2 with 2 exhausting points +1 rasp L=12m**



- Weight 1650kg
- 1 exhausting point d=150
- 1 exhausting point d=200
- 1 cyclone
- 1 electric fan 7.5kW
- 1 silencer
- 1 chimney release pipe
- 12m straight piping
- 4 curves 90°
- 1 big-bag
- 1 rotovalve
- 1 filter group of 48 sleeves with pneumatic shaking
- Use and maintenance manuals
- Certifications CE and ATEX

**Exhaustion plant A12-1 with 1 exhausting point rasp L=4m**



- Weight 1350kg
- 1 exhausting point d=200
- 1 cyclone
- 1 electric fan 5.5kW
- 1 silencer
- 1 chimney release pipe
- 6m piping for rasp connection
- 1 big-bag
- 1 rotovalve
- Use and maintenance manuals
- Certifications CE and ATEX





Go Energy S.r.l. · VAT number 02037330228



+39 0464466331



tecnico@goenergysrl.com



Rovereto (TN)



goenergysrl.com



Facebook



LinkedIn



GOenergy