

Universal De-burring & finishing system for processing ferrous and non-ferrous materials.

The machines of this series are available with constant working height for in-line operations.

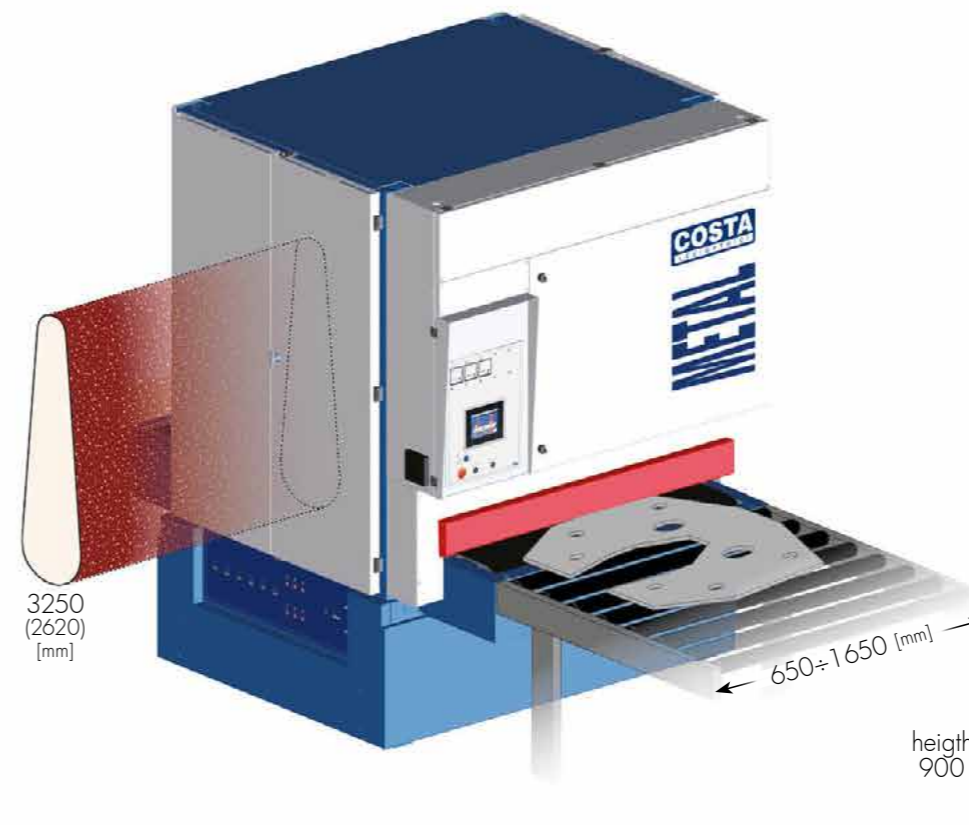
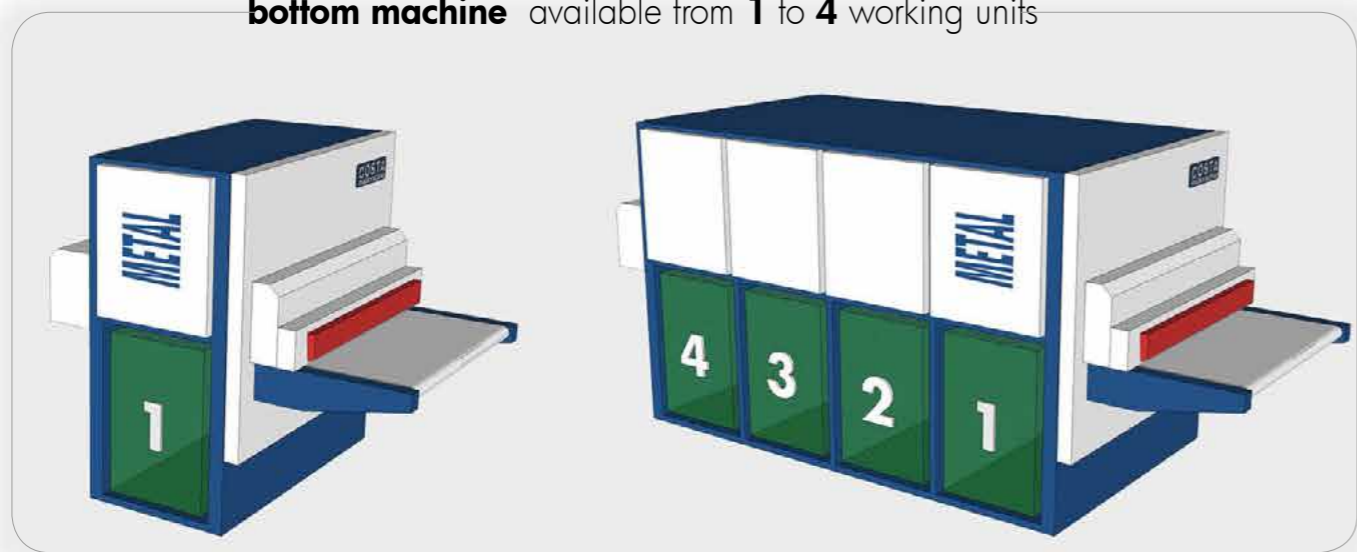
The working widths available are from 650 mm to 1650 mm. The 2620 mm long abrasive belts guarantee an excellent and consistent surface finishing as well as a longer life of the same, thus reducing the operating cost.

Thanks to its modularity it is possible to configure your own "WORKING CENTER" choosing from different available operating units and customizes it accordingly to the individual needs and type of processing.

The frame is engineered to hold from 1 to 4 internal working units plus one external unit.

The high rigidity of the structure and the feed table combined with the high-tech mechanical and electronic parts make this series the perfect "MACHINING CENTER" for your operation.

bottom machine available from 1 to 4 working units



This series combines the heavy-duty technology of industrial grinding machines with working units dedicated for deburring applications.

Available in working widths from 650 mm to 1650 mm, these machines can be equipped with 1 and up-to 5 internal working units, and up to 2 external units. Different levels of finish can be achieved in one pass by combining more working units in one frame.

The 2620 - 3250 mm length abrasive belts guarantee a professional finish and consistent surface roughness, also on the most difficult materials.

The longer abrasive belts become even more important in polishing operations to extend abrasive lifetime while maintaining a constant level of abrasion.

The SB250 brush units, with quick extraction system, can add a Scotch-Brite™ finish to stainless steel, aluminium, etc.

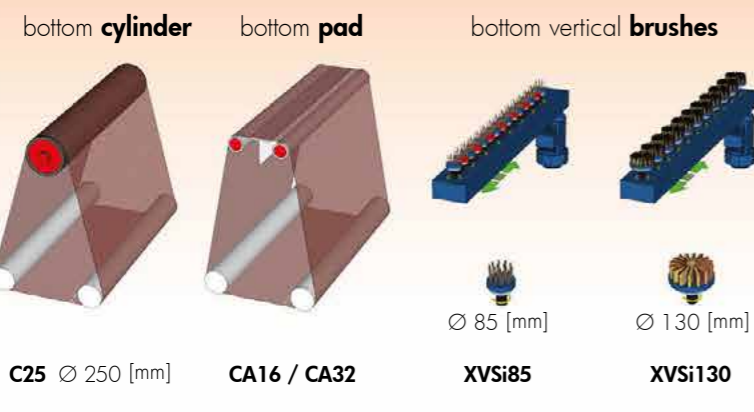
It is therefore possible to deburr, polish, and brush finish at an industrial level with one machine only.

top machine available from 2 to 5 working units



Bottom working units

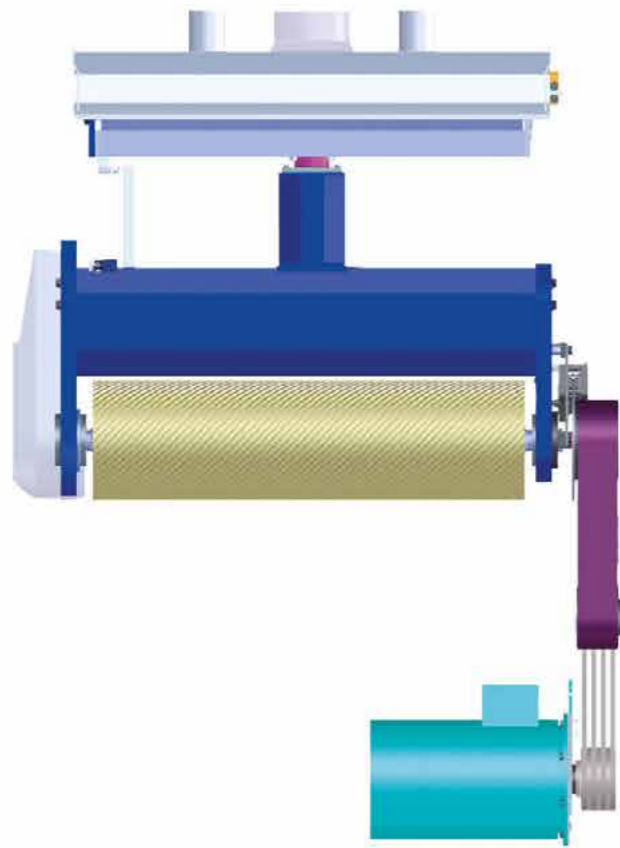
suitable for installation in any position inside the frame



Top working units

suitable for installation in any position inside the frame





Heavy-duty rigid supporting beam to sustain the working units and the sanding belt tensioning system. The working units are adjustable from right to left to maintain the parallelism with the feed table.

Disk brakes with pneumatic clamps. They are equipped with non ferrous brake pads to avoid sparks.

Transmission with Poly V belt system with double pneumatic tensioning system for high power motors.

Transmission with V Belts with mechanical / pneumatic tensioning system.

Motors with power exceeding 30 kW are positioned outside machine frame.

Motors with power up to 30 kW are positioned inside machine frame.

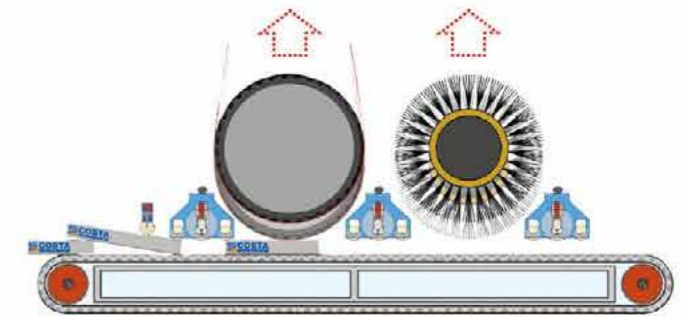
Pressure units

The safe traction of the work-pieces is determined by the rigidity of the pressure units. At the same time these units must be able to adapt to the thickness variation of work-pieces.



Safety in-feed sensing roller for over thickness limit

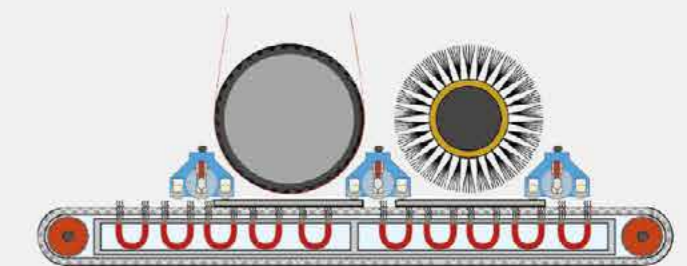
Two switches installed onto the infeed sensing roller, allow this safety device to stop the feed and exclude all the working units if the roller detects a work-piece having thickness exceeding the programmed value.



optional devices

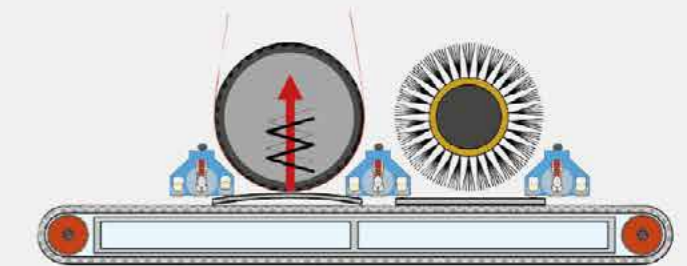
Magnetic Hold System

A series of magnetic elements are inserted in the feed table, either in the full width or in a partial section of the machine width. The magnets create a stronger hold and a better traction of smaller work-pieces.



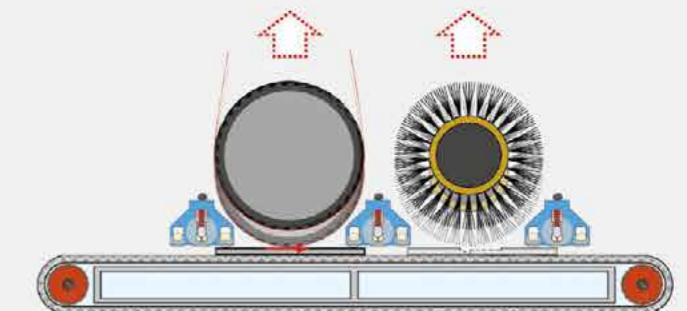
Floating Cylinder

Cylinder unit is equipped with floating system to allow the processing of warped work pieces.



Feed with Automatic Return Cycle

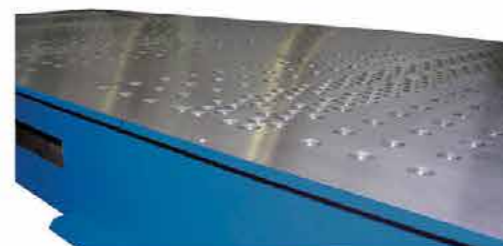
It allows the return of the processed parts through the reverse of the feed direction and the automatic exclusion of all working units.



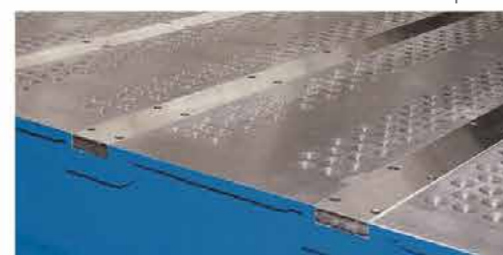
The feed belt is made of rubber, with different properties depending upon the application required. The feed belts may have different rigidity, shape and profiles, and they can be punctured when installed in conjunction with a vacuum feed table.

Feed belt cleaning blowers (JFB)

The feed belt cleaning blowers are positioned under the feed belt. They are connected to a timed entry system that enables automatically the blowing of air + water moisture to maintain a high grip of parts on the feed belt.



Feed tables surface with intakes for vacuum plant



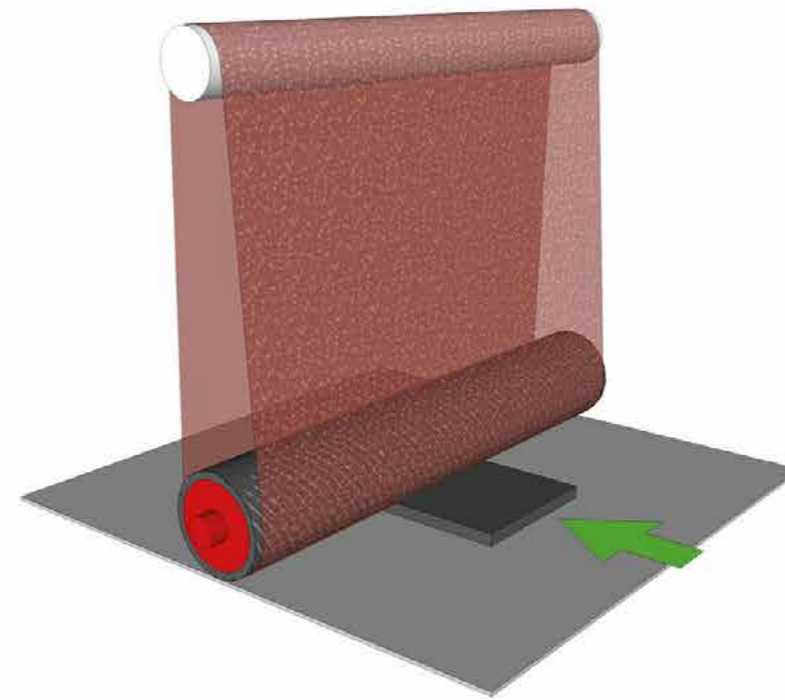
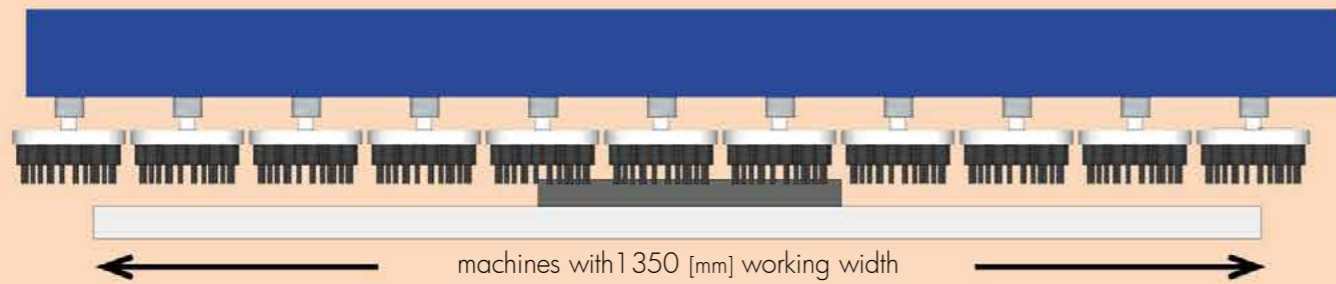
Our feed tables are manufactured with high rigidity T1 steel (300/400 Brinell) to ensure grinding-deburring precision tolerance (+ - 0,025mm). The surface is grinded to a very low roughness to maximize feed belt life. Our feed tables can be equipped with vacuum system to guarantee the hold-down and traction of small and oily parts.

Interchangeable inserts in hardened or ceramized steel (opt.)

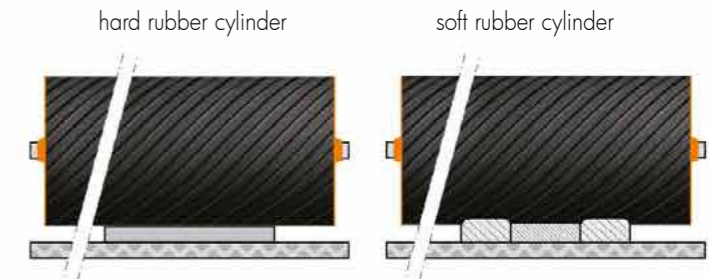
They are positioned under the working units and can be extracted easily for maintenance. The inserts can be equipped (opt.) with liquid cooling system (complete with heat exchanger), an important feature needed when the process requires to hold very high precision tolerances.



Backing pads with hardened steel pins for **HEAVY SLAG REMOVAL**

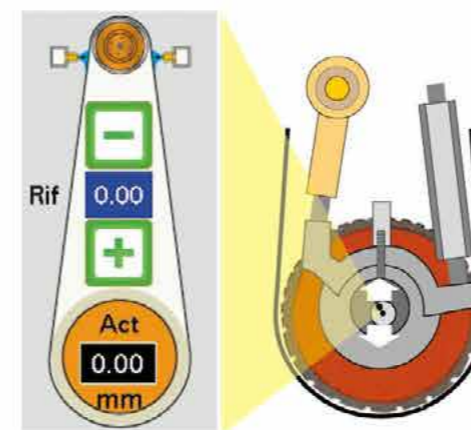


Working unit with cylinder \varnothing 200 / 250 / 330 mm.
Cylinder covered with special rubber, oil and heat resistant with special high temperature bearings for high cutting speed applications.



Pneumatic Grit-set + Stand by

Device for adjusting the cylinder height in relation to the grain of the abrasive belt used. It is equipped with a 9 position revolver selector and pneumatic stand by.



Electronic Grit-set (opt.)

System for centesimal positioning of the cylinder height in relation to the abrasive belt grit. Includes pneumatic stand by. Centesimal read-out display on the main control panel.



Air jet blowers

Oscillating unit for an efficient cleaning of sanding belts, it activates only when the workpiece is being processed.



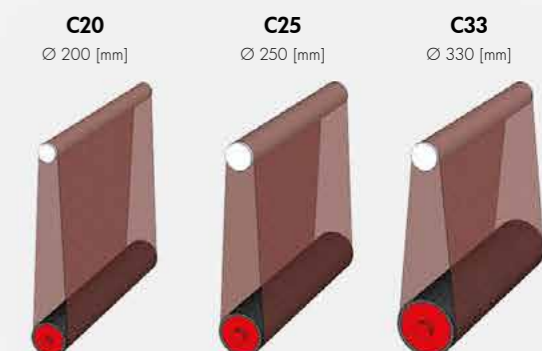
Sanding belt tracking

Electronic belt tracking photocell complete with self cleaning system.

Safety micro switch

To stop the machine in case of abrasive belt mis-tracking or breakage.

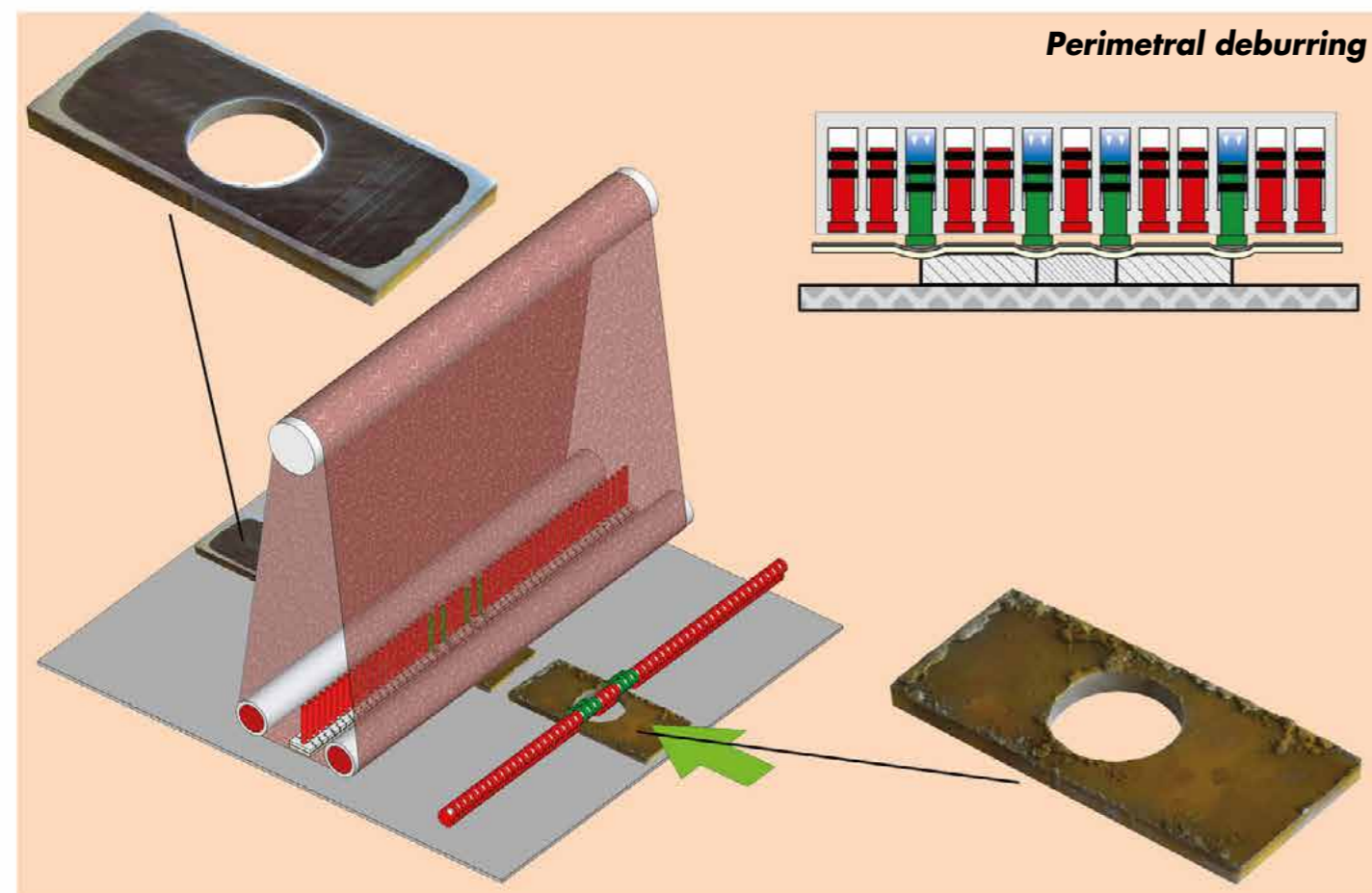
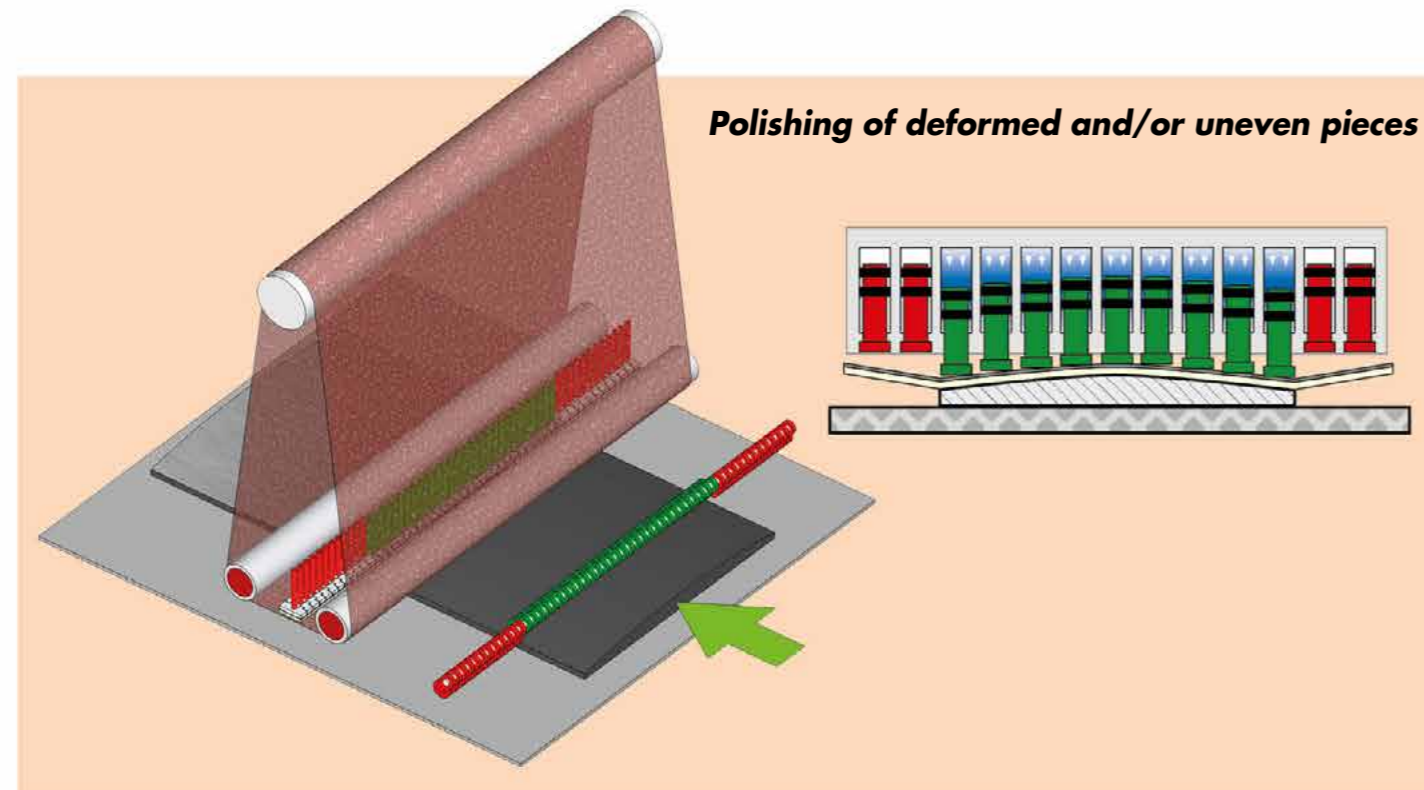
available units



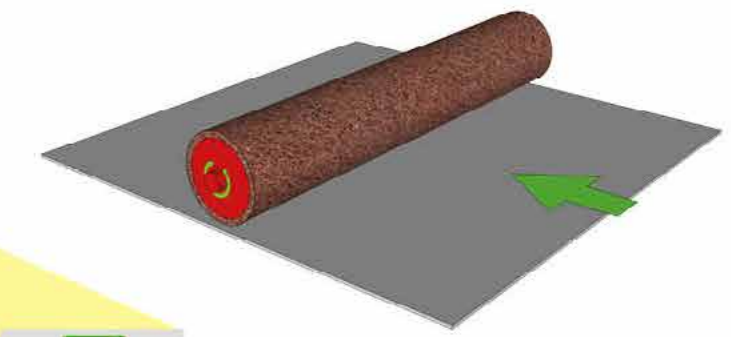
The perimetral deburring unit is composed of an identification system of the geometrical shape of the workpiece to be deburred. It is controlled by a PLC which activates a series of pneumatic sections (with 32 mm or 16 mm definition) that apply the necessary pressure on the abrasive belt on the perimeter of the workpiece only, thus removing the burrs, or in all geometric shape for a perfect finishing also on uneven surfaces. The advanced system management via PLC allows to vary the amplitude and the pressure of the working area as required.

The main benefits of this working unit are:

- to **process only the edges** (with control of width) to facilitate the welding operations;
- to **remove only the burrs** without affecting the remaining surface (significant power and sanding belts savings);
- **high capability to deburr / polish warped workpieces** thanks to the excursion control of each section of the unit (up to 6mm).



The Scotch-Brite™ brushes are used for finishing and reducing the roughness after the treatment with abrasive belts. Our brushes are installed inside the machine frame, they are available with diameters of 180 / 250 mm, they can be equipped with oscillation and feature high power motors.



Motorized height adjustment of the brush unit, with electronic control of the height quota and centesimal read-out on the control panel.

High frequency lateral oscillation system.



Types of available brushes

S18 / S25 - Stainless Steel brush

F2 - Brush with abrasive strips

SB18 / SB25 - Scotch-Brite™ brush



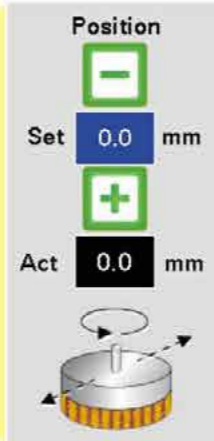
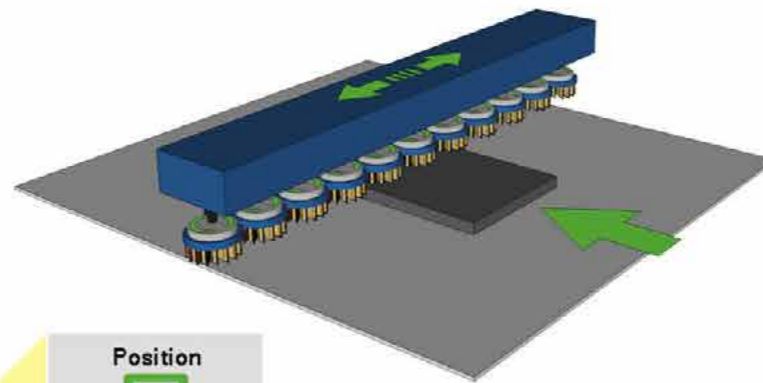
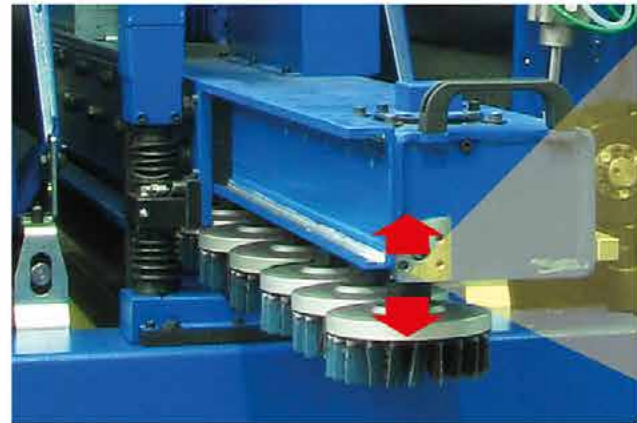
XVS - top unit

It is composed of a series vertical brushes, rotating at high speed (inverter controlled) and oscillating side-ways at adjustable rate of oscillation.

Combining the vertical axis rotation with high frequency oscillation allows to achieve a perfect deburring in all directions with a single working unit.

The XVS unit is ideal for a multitude of operations: deburring, oxide removal, edge rounding, etc.

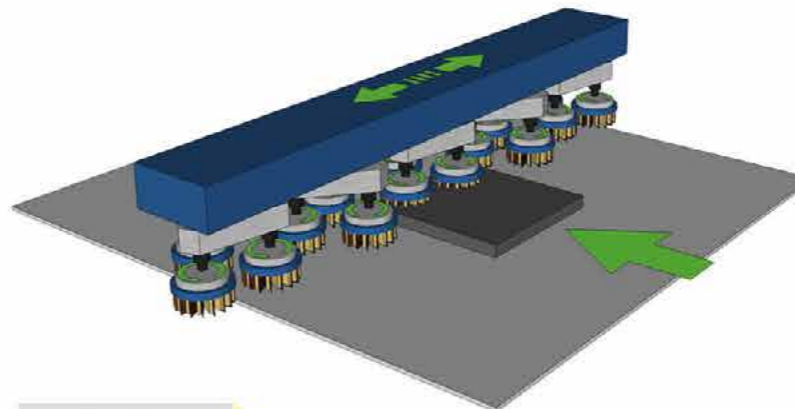
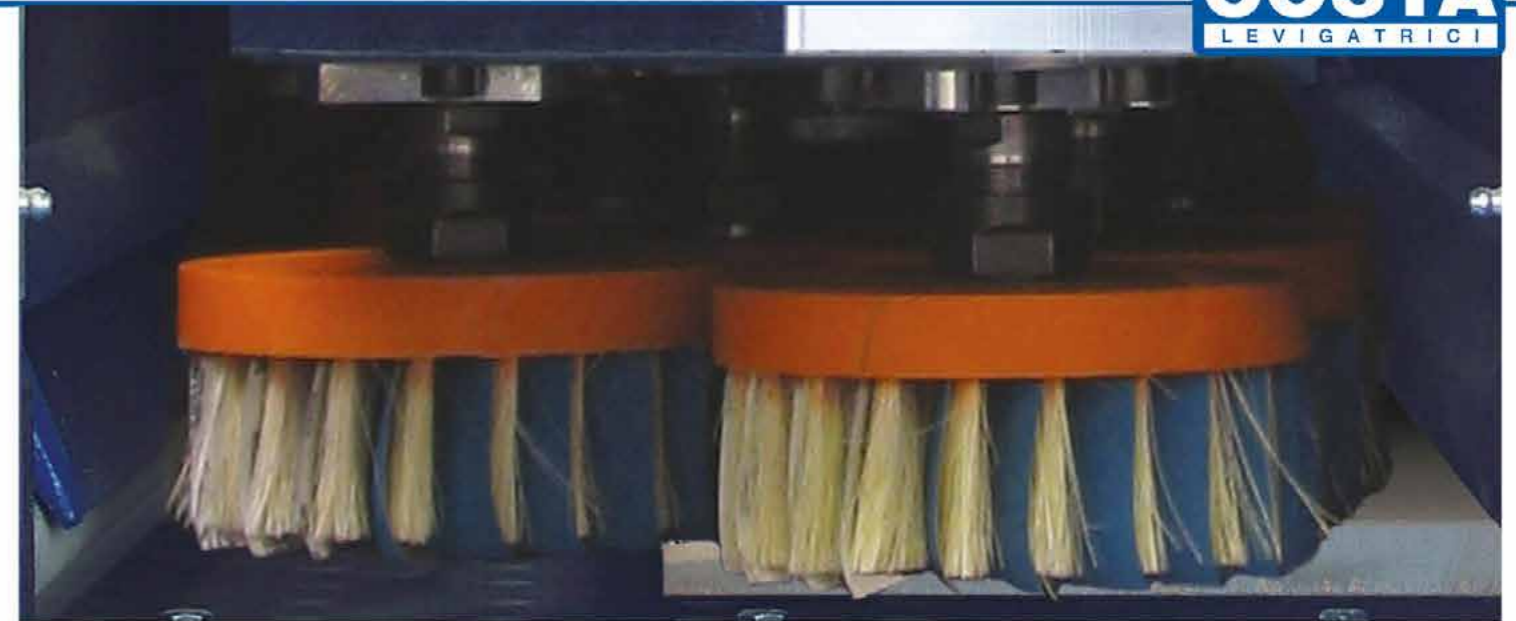
The flexibility of the abrasive brush cups ensures a perfect burr removal also on upformed parts, and on material with protective film, galvanized, pre-painted, zinc coated, etc.



The working pressure adjustment is electronically controlled through the main panel. The pressure units are adjacent to the brush unit to reliably process small parts.

The XVS unit is extractable to simplify the tool change and regular maintenance.

It is designed to operate with standard, low-cost, brush cups as well as more specialized, custom-made, brushes.



The working pressure adjustment is electronically controlled through the main panel.

The orbital brushes rotate on their axe and at same time they rotate in number of three (inverter controlled).

Furthermore, by combining the rotation with high frequency oscillation covering all working surface, we will achieve a perfectly homogeneous rounding on the edges of any geometrical shape.

The R unit is extractable to facilitate brush tool replacement and maintenance operations.

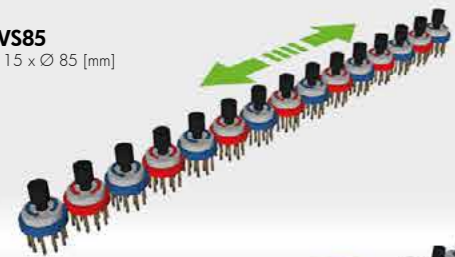
The R unit is designed to operate with standard, low-cost, brush cups as well as custom-made brushes for special applications.

Depending upon the work type and feed speed, we can configure more R units in sequence.

available units for machines with 1350 [mm] working width

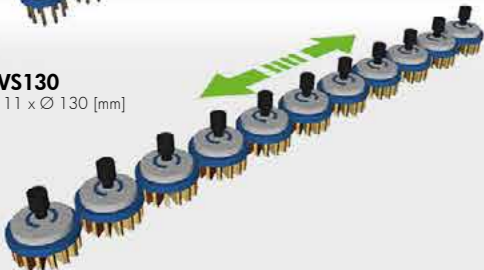
XVS85

n° 15 x Ø 85 [mm]



XVS130

n° 11 x Ø 130 [mm]



XVSi - bottom unit

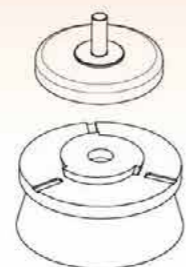
It is installed in the rear side of the machines and it has the same features of the "XVS" unit.

It can be used in combine with the top unit to process the pieces both sides in one single pass.

If it is not required any bottom process the unit can be excluded by closing the machine, in this case it's possible to process also small parts.



COSTA-Lock System

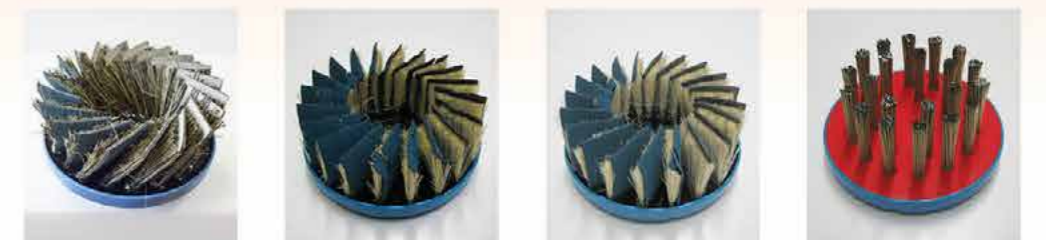


Chuck Ø 10mm shaft

Top vertical brush

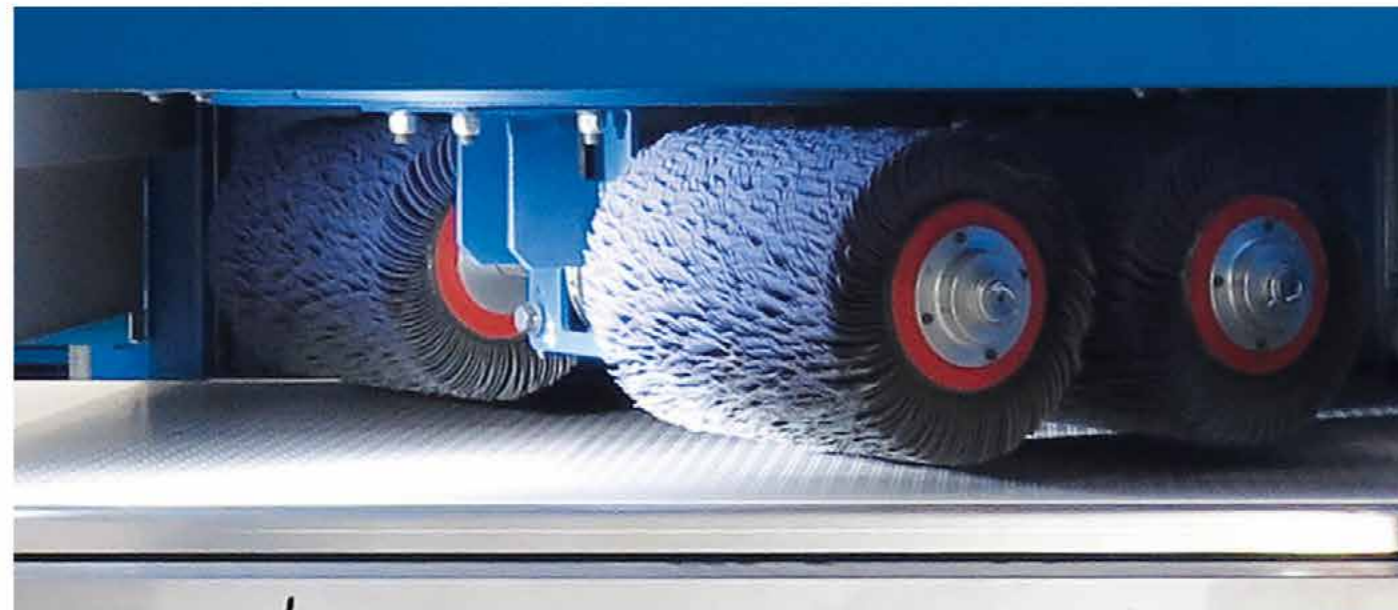
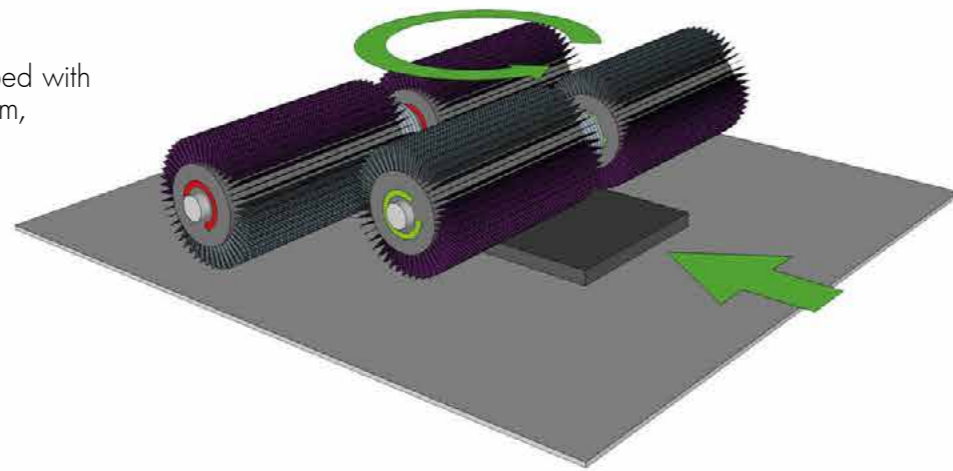


Different types of top vertical brushes available, for all kind of processing.



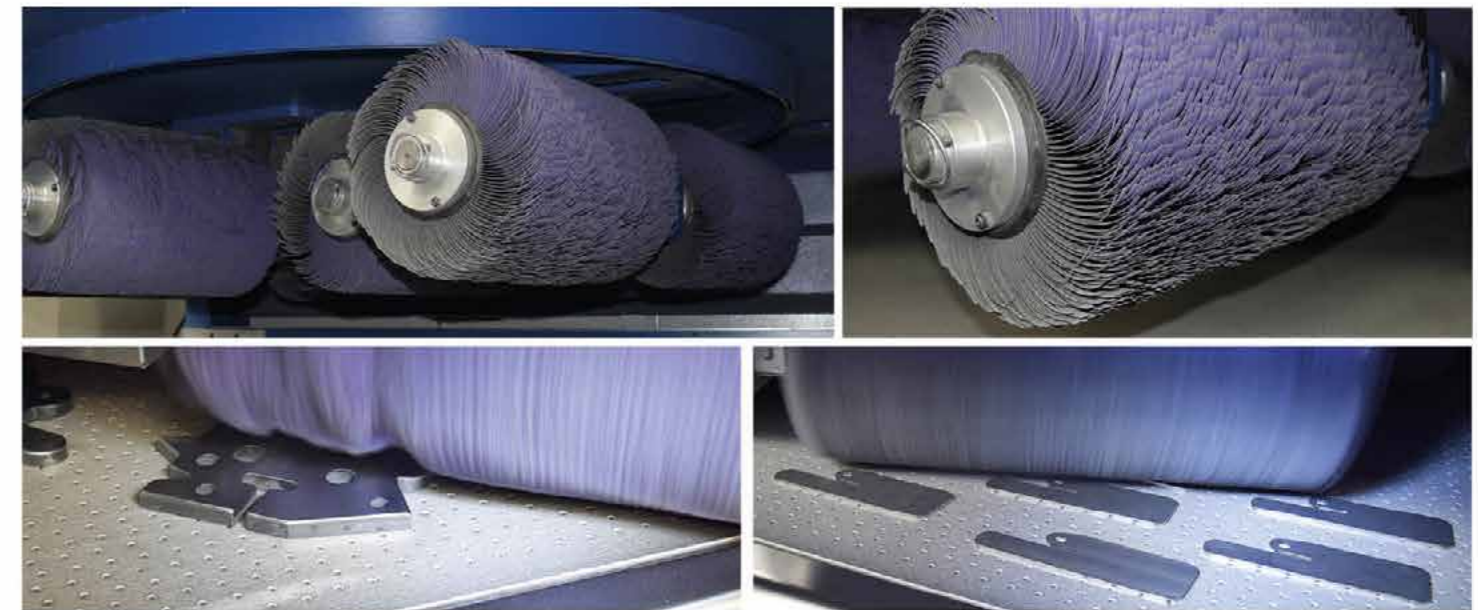
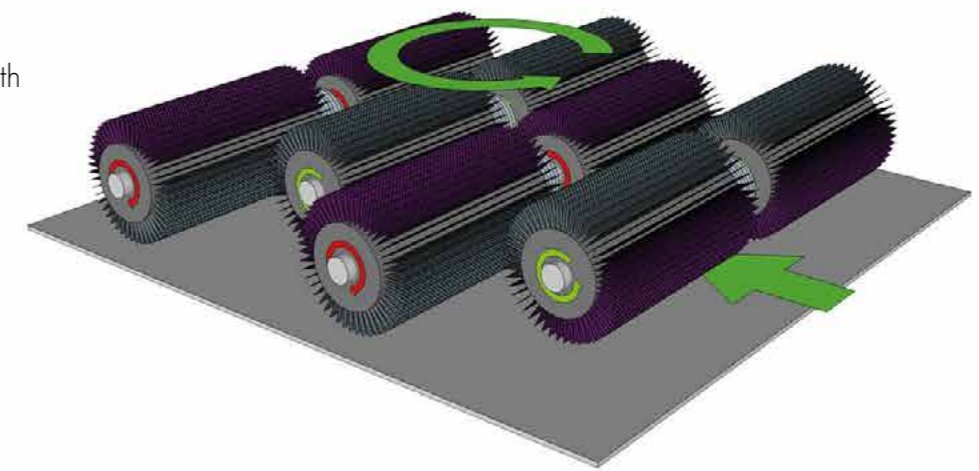
"RBC4" Unit

Rotating unit on vertical axis equipped with 4 counter-rotating brushes Ø 300mm, mounted on horizontal axis

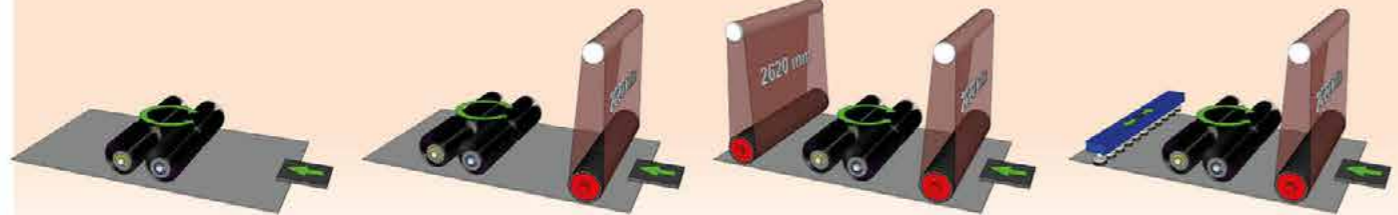


"RBC8" Unit

Rotating unit on vertical axis equipped with 8 counter-rotating brushes Ø 350mm, mounted on horizontal axis



Most common versions



MD6 B

- Deburring
- Edge Rounding

MD6 CB

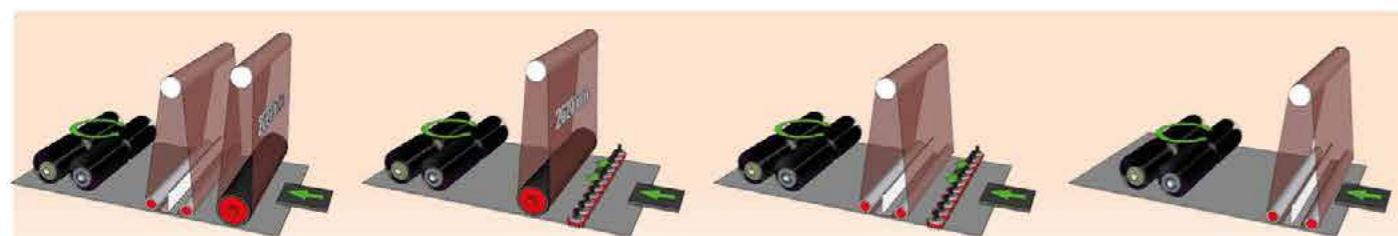
- Deburring
- Edge Rounding

MD6 CBC

- Deburring
- Edge Rounding
- Finishing

MD6 CBV

- Deburring
- Edge Rounding
- Oxide skin removal



MD6 CTB

- Deburring
- Edge Rounding

MD6 DCB

- Deslagging
- Deburring
- Edge Rounding

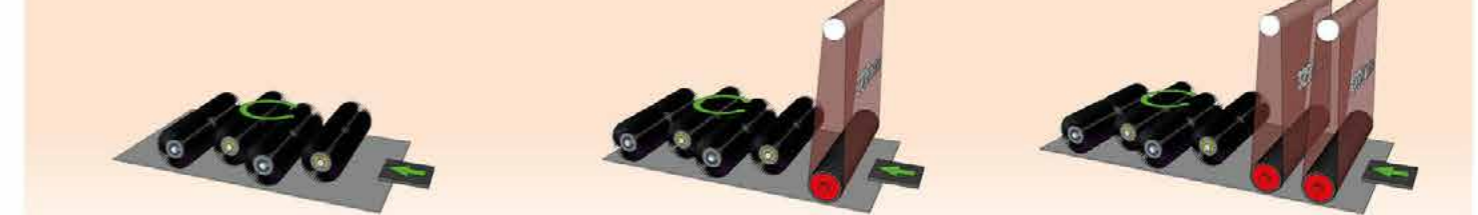
MD6 DTB

- Deslagging
- Deburring
- Edge Rounding

MD6 TB

- Deburring
- Edge Rounding

Most common versions



MD7 B

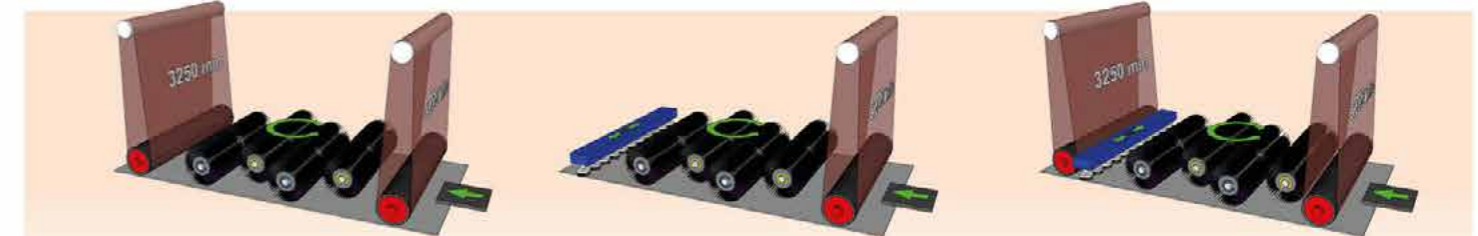
- Deburring
- Edge Rounding

MD7 CB

- Deburring -Finishing
- Edge Rounding

MD7 CCB

- Slag Removal
- Deburring-Finishing
- Edge Rounding



MD7 CBC

- Deburring
- Edge Rounding
- Finishing

MD7 CBV

- Deburring -Finishing
- Edge Rounding
- Oxide skin removal

MD7 CBVC

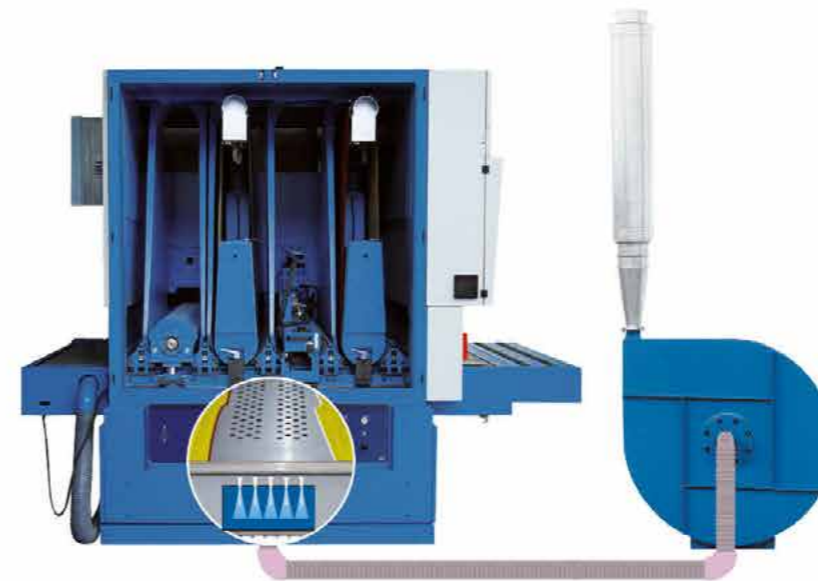
- Grinding-Deburring
- Edge Rounding
- Oxide skin removal
- Finishing

Cleaning brushes / Scotch-Brite™

SB18 - SB25: Oscillating unit can be equipped with different motor power and with frequency drive.

The brushes can be:

- vegetal fibers for the dust removal;
- scotch-brite™
- with interchangeable inserts;
- steel, stainless steel, or Tynex .



Vacuum hold system

A high speed electroventilator creates a vacuum hold under each working unit to secure the traction of sliding material or of workpieces smaller than the distance between the pressure units.

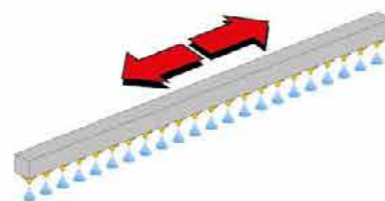


Loading/unloading table

The bearing balls table makes all loading/unloading operations easier, giving the possibility to move the workpieces smoothly and with high speed transfer.

Oscillating cleaning blowers for processed parts (JL)

Timed oscillating unit for the removal of dust from the workpieces.



Quick-fit

automatic arm extension to facilitate the insertion of sanding belt of length 3250 mm.

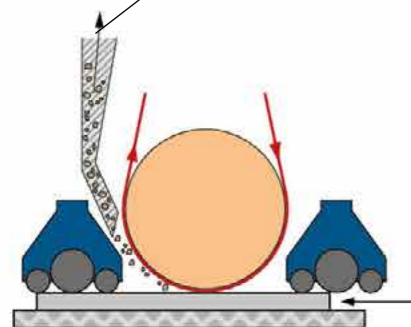
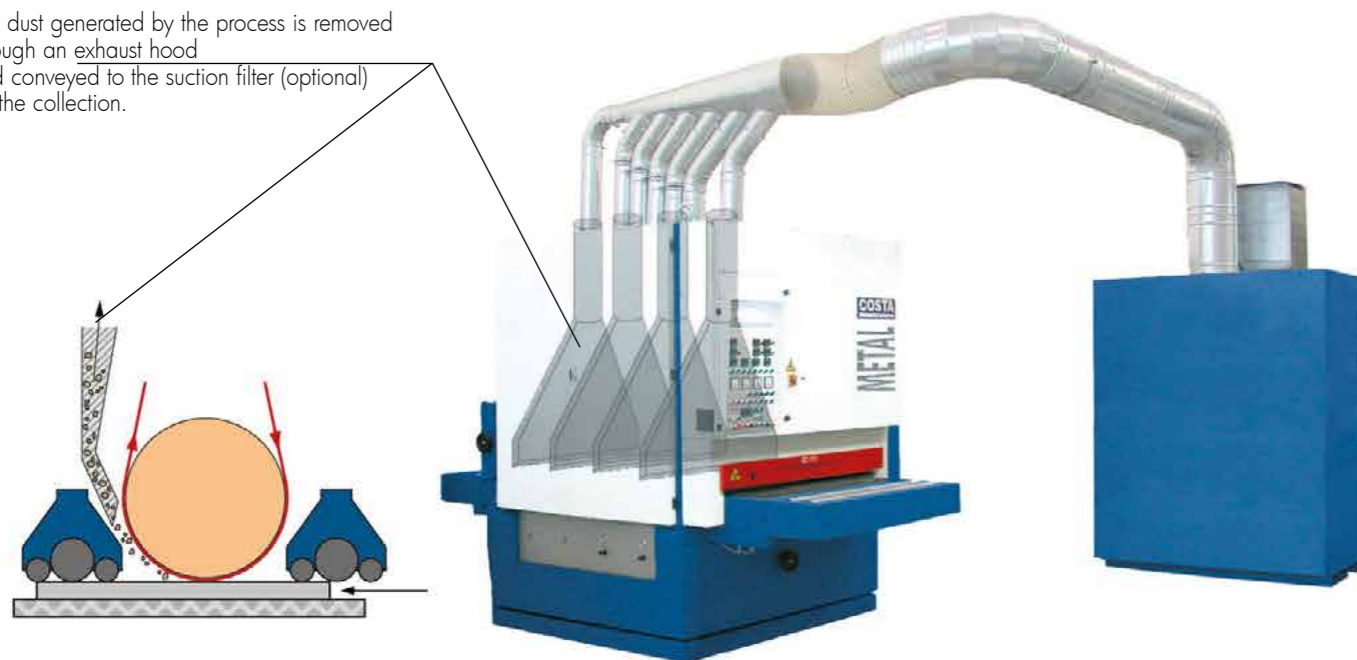
Air jet blowers

Oscillating unit for an efficient cleaning of sanding belts, it activates only when the workpiece is being processed.



Air treatment systems

The dust generated by the process is removed through an exhaust hood and conveyed to the suction filter (optional) for the collection.



Wireless caliper

Automatic thickness setting by means of Electronic Wireless Caliper; using this Caliper, the operator will be able to measure the work pieces being processed and send the information to the PLC VISION just with a simple click.



B-lock

An automatic pneumatic system locks the support of the working units to the machine frame with a precision conical coupling. This operator-friendly device helps reducing the sanding belt changing time while assuring an absolutely safe locking of the working unit.



Electromechanical Panel

Control panel positioned in front of the machine with:

- push-buttons for all motors and ammeter readers of power utilization of the working units.
- digital positioner with read-out of the thickness; adjustment with decimal accuracy;
- emergency stop and reset;
- range change switch for the variation of the feed speed;
- diagnostic leds of electric-pneumaticsafety problems.

optional devices



Barcode reader

This device allows to associate, via a gun reader, a bar code to a program saved on PLC.

PC-NC: Computer control with interconnecting possibilities

Computer controlled machine, with touch screen monitor mounted in a separate column or positioned on a top swinging support at 90°.

This is a PC working position integrated in the company network.

The PC control system allows to pre-set all the working programs; besides the usual controls of the machine, it can also supply complete production data such as: number of pieces processed, working time per each code, square meter produced, compressed air, volume of dust extraction, electric power consumption, etc..

Through a modem we have the possibility to connect directly Costa Service for help and service.



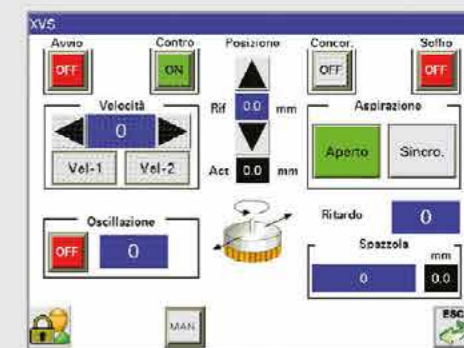
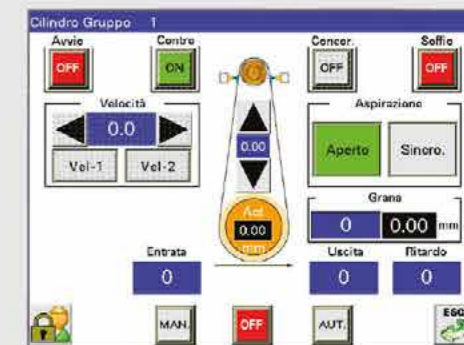
top swinging support at 90°

PLC VISION

The PLC panel VISION enables the visualization in a **touch-screen monitor** of the actual setup data and operation of the machine, and to store many complete working programs. The power saving features (standard) allow the use of the machine with maximum efficiency in respect of the environment.



touch screen monitor



Slag removal



Deburring & Edge rounding (up to 2,5 mm)



Oxide removal & edges rounding



Deburring, Polishing & Scotch-Brite™ Finishing



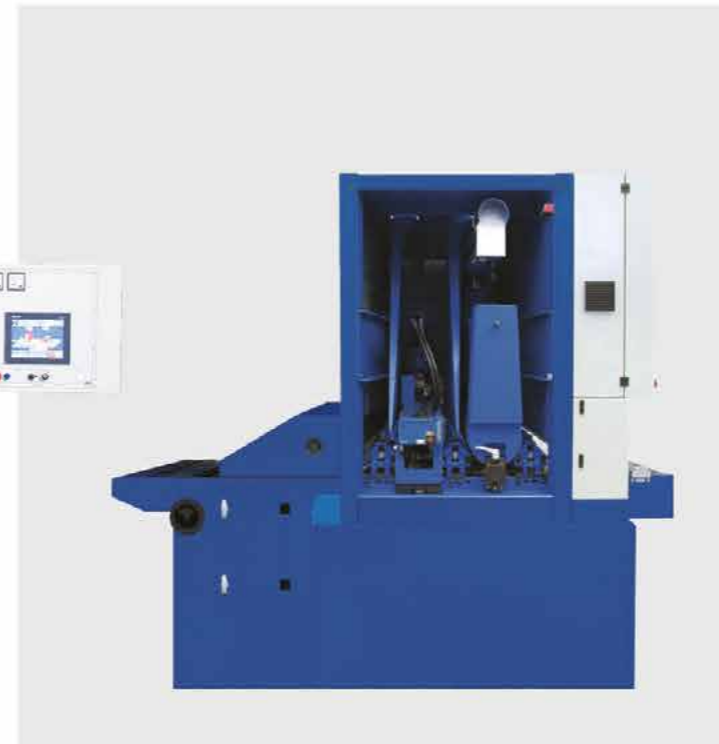
machine equipped with:

- 1° "deslagging" unit (XDS)
- 2° electronic sectioned pad (CA32)
- 3° orbital multi-brushes unit (XRS130)



machine equipped with:

- 1° cylinder Ø 250 mm (C25)
- 2° Rotating unit with 8 counter-rotating brushes Ø 350 mm (B8)



machine equipped with:

- 1° cylinder Ø 250 mm (C25)
- 2° multi-function vertical brushes unit (XVS130)
- 3° bottom multi-function vertical brushes unit (XVS85)



machine equipped with:

- 1° cylinder Ø 250 mm (C25)
- 2° orbital multi-brushes unit (XRS130)
- 3° cylinder Ø 250 mm (C25)
- 4° Scotch-Brite™ Brush (SB25)

Location: Italy - Veneto



Airports

Venezia: 90 Km - 1h drive
Treviso: 75 Km - 1,5 h drive
Verona: 65 Km - 45 min drive
Bologna: 160 Km - 2h drive

Train Station

Vicenza: 30 km - 30 min drive

Car Directions

To the Factories in Sandrigo
Highway A31 - Exit Dueville - 3,5 km

To the Main Office in Schio
Highway A31 - Exit Thiene-Schio - 13 Km



Headquarter of Schio

Via Venezia, 144
36015 Schio

Factory of Sandrigo 2

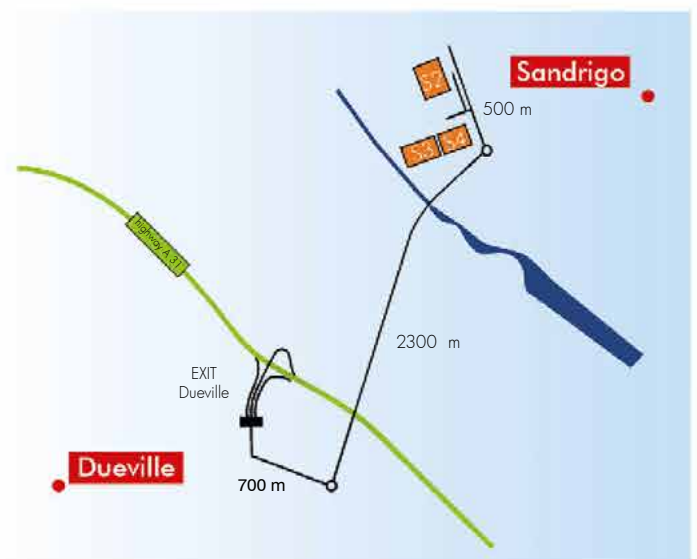
Via G.Galilei, 5
36066 Sandrigo

Factory of Sandrigo 3

Via Galvani, 3-5
36066 Sandrigo

Factory of Sandrigo 4

Via Galvani, 1
36066 Sandrigo



We reserve the right to change features without any notice



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