

W

SERIE

COSTA
LEVIGATRICI
METAL

WET MACHINES

working widths: 湿式マシン
600 - 1100 - 1300 - 1600 - 2000 mm



 **COSTA**
LEVIGATRICI

ENG

WET SANDING

ぬれた砂

For wet sanding we intend those operations made with sanding belts + brushes + other surface processing media, where the dust-waste generated by these working units is carried away by a flood of water coolant.

The water coolant is collected into a tank positioned just under the feed table, and from there in a filtering system that is separating the water from the waste. The cleaned water coolant is then recycled into the machine cooling system.

The machine is completed in the rear side with a set of wringing rubber rollers with a hot air blowing system for pre-drying the surface of processed work pieces.

A big advantage of the wet system is the possibility of heavy utilization of sanding belts to remove heavy burrs, their long lasting time (compared to dry sanding); the water coolant sprayed is keeping the abrasive media cool and clean at all time, and (most important) especially the work pieces are always kept cool and in good thickness tolerance and flatness.

The metal waste is taken away by the coolant and is separated by the filtering system.

Internal partition made in stainless steel plates positioned between the working units; are easily extractable for maintenance operations.

メンテが容易な構造



Cleaning/cooling system, obtained with one set of jets of coolant spraiend onto the working units.

All pipes of the system are in stainless steel with inserted special jets; the pipes are quickly detachable for maintenance.

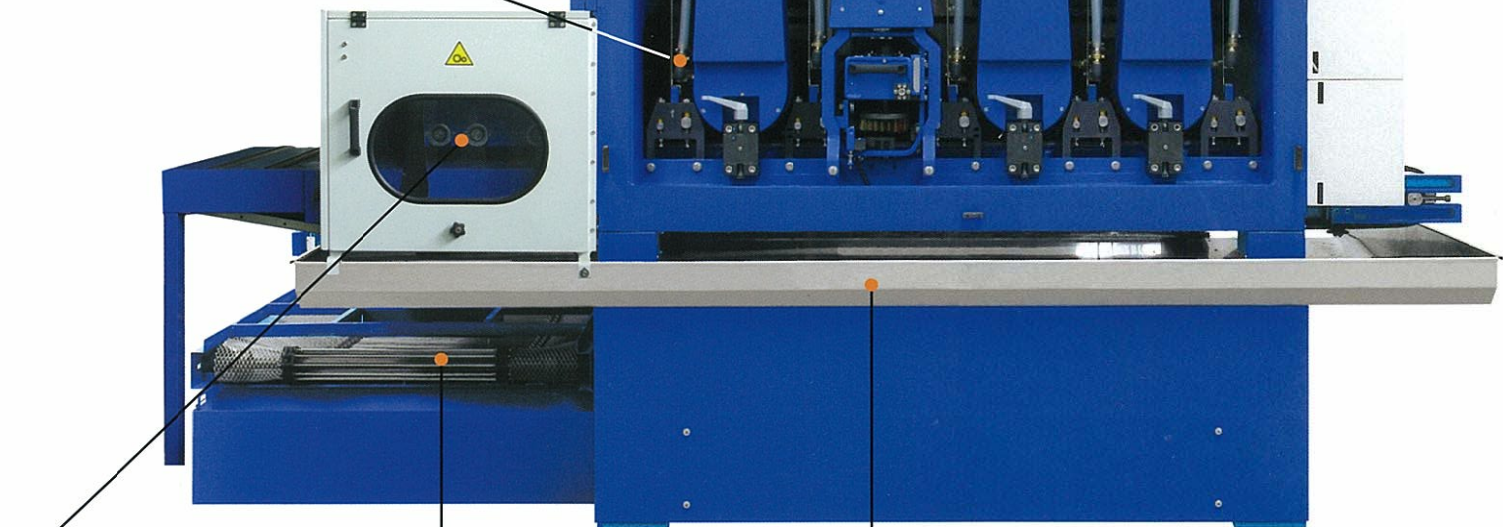
Emergency stop in case of lack of coolant.

Ventilator for the pre-drying unit.

前段階の乾燥ユニットのベンチレーター

Filtering unit installed on top of the machine, to absorb the mist generated in the working process, and to separate and recover the coolant.

機械上部にあるフィルタリングユニット



Pre-drying of processed work-pieces

処理製造品の前段階の乾燥

Filter for the separation of the coolant from the metal waste

ダストをフィルターにかける

A stainless steel tank is positioned all around the top frame and the feed table to prevent water leakage

漏水を防ぐステンレスのタンク

The main motors of the working units are fitted in a position above the level of coolant for an higher degree of safety.



Pre-drying system in machine outfeed; made by one set of rubber covered rollers and two set of hot air jet blowers (top & bottom) to eliminate water remains on the surface of workpieces.

プレ・ドライニングシステム



クーラント・フィルタリング・システム
Coolant filtering system. - Positioned in the rear side of machine is collecting the coolant from the main tank positioned under the feed table. It is equipped with an automatic feeding of the filtering tissue with automatic discharge of the waste in a separate tank.



スクラップ自動磁気セパレーター (オプション)

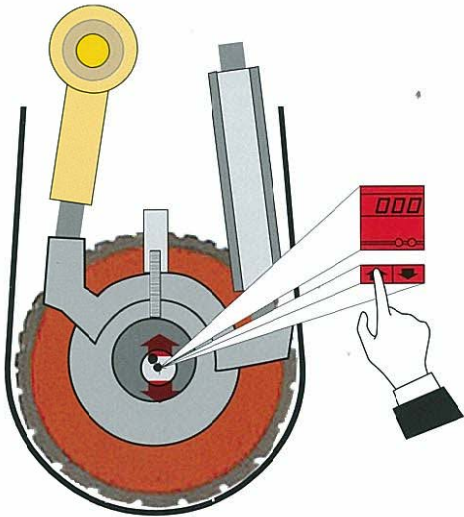
Automatic Magnetic Separator of scraps (optional).
It is Installed with filtering system, to separate magnetic scraps from non-magnetic materials.
In order to keep the plant clean from clogging.

C250

Working unit with cylinder \varnothing 250 mm.
Cylinder covered with special rubber, oil and heat resistant or in alternative with steel surface and helicoidal grooves for cooling.

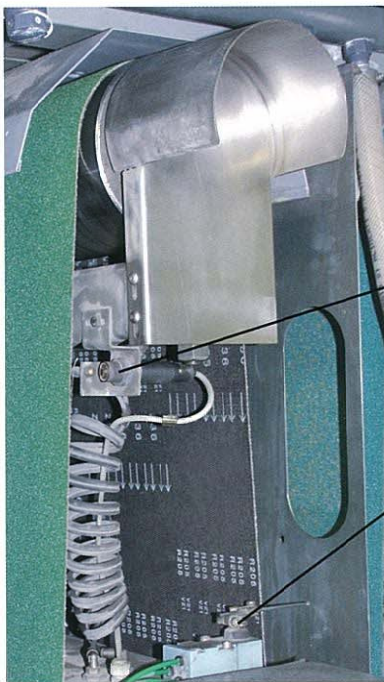
Y250

Heavy-duty working unit, for very heavy utilization.
Contact cylinder \varnothing 250 mm and tension roller for high speed.
Special bearings for high speed - with special labyrinths and permanent greasing.



Electronic Grit set

System for centesimal positioning of depth of deployment of cylinder in relation to the abrasive belt grit and amount of take away. Read-out and centesimal setting from control panel. Pneumatic Stand-by.

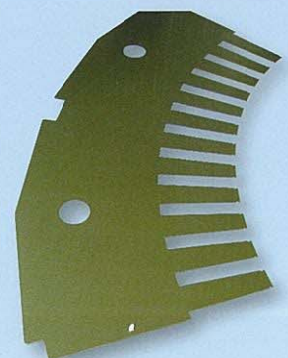
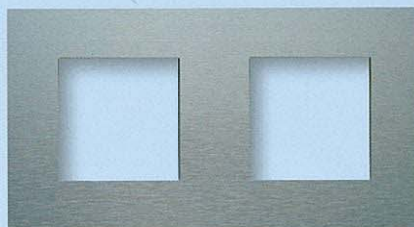


SANDING BELT CENTRING

Electronic photocell with cleaning system (air jet blower) for sanding belt centring.

SAFETY MICRO SWITCH

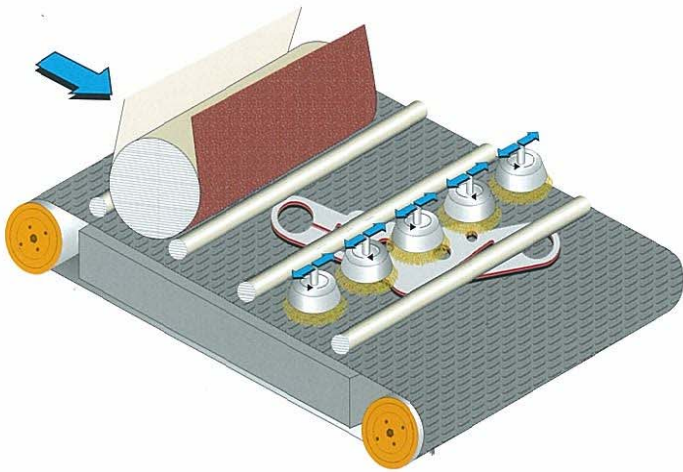
To stop the machine in case of abrasive belt exit or breakage.



XVS

Multifunction unit with vertical brushes

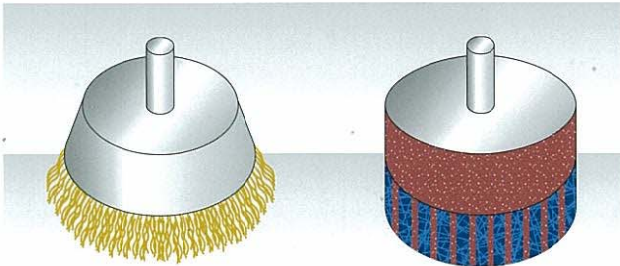
垂直ブラシ付きのマルチユニット



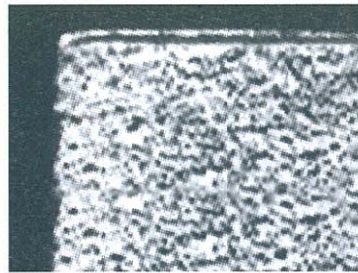
This unit is composed by a series of standard vertical brushes, rotating at high speed (inverter controlled) and oscillating side-ways at adjustable rate of oscillation.

The pressure rollers, positioned very close to the XVS unit, guarantee the same quality and efficiency also to small work-pieces.

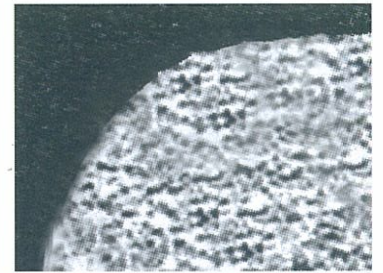
The unit is utilized for a series of operations mainly on the sides and on the edges of the work-pieces, both for deburring, for oxi-cleaning and for edge rounding.



Various type of steel / stainless steel brush (according to different jobs) Various type of abrasive brush (according to different jobs)



Before XVS deburring



After XVS deburring

XVS is completely extractable, for quick and easy change of brushes; it is utilizing standard brushes (at low buying cost) and specific brushes with different diameters for special utilization.

These units can be positioned in any position inside our machines-frames, in number variable depending on the feed speed required.



ブラシユニット

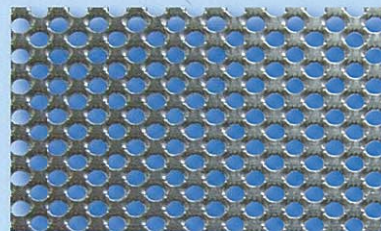
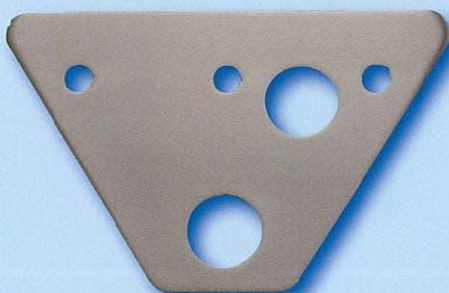
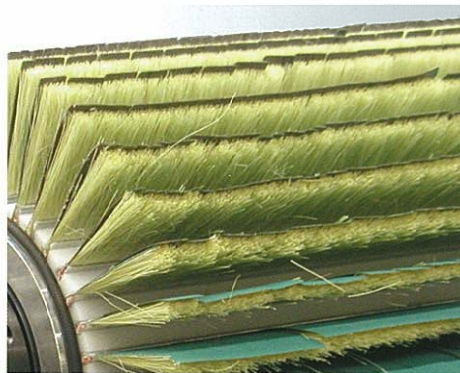
Stainless steel, Abrasive Strips and Scotch-brite™ brushes are needed to eliminate the sharp-edges as well as the longitudinal sanding belt streaks. Positioned inside the machine frame, with a diameter of 250 mm, oscillating and driven by high power motors.



Motorized height adjustment for brush units with electronic control of position and centesimal read-out in control panel.



High frequency lateral oscillation system of the brush units, needed to eliminate sharp-edges on workpieces of all shapes and to have better finishing surfaces.



送り装置



ROLLERS table feed system

ローラーテーブルフィードシステム

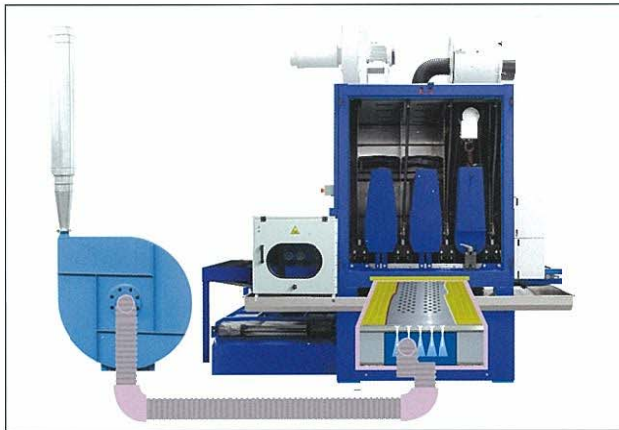
Feed system with rollers diameter 200 mm - covered with nitrilic rubber. Are set in opposition to the top pressure rollers. Directly connected to individual gearboxes are linked by cardan joints to the main driving shaft.



RUBBER BELT feed system

ラバーベルト・フィードシステム

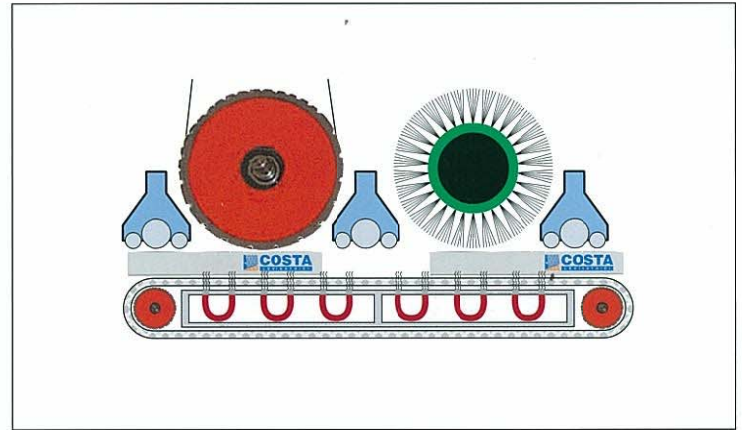
The workpieces are fed on a heavy-duty rubber feed belt. The drive is secured by a traction cylinder rubber covered of big diameter, driven by a motorvariator of appropriate size according to machine features, inverter controlled.



VACUUM HOLD SYSTEM (opt.)

バキューム固定システム(オプション)

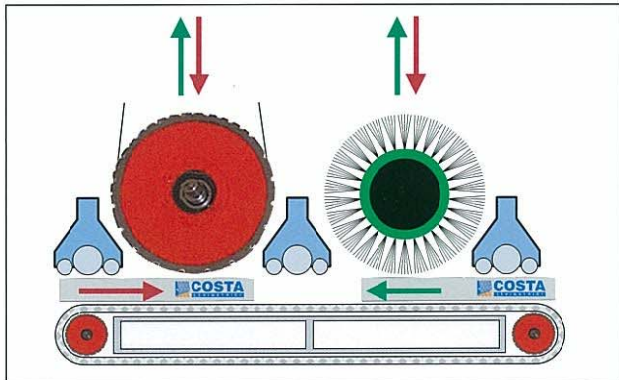
An high speed electroventilator creates a vacuum hold under each working unit to secure the traction of sliding material or of workpieces smaller than the distance between the pressure units.



MAGNETIC HOLD SYSTEM (opt.)

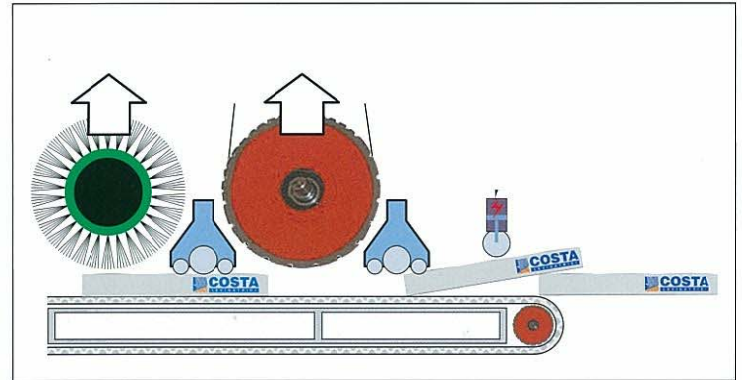
マグネット固定システム(オプション)

The magnetic elements are inserted in the feed table, either in the full width or in a partial width of the machine, to create a stronger hold of smaller work-pieces.



AUTOMATIC CYCLE OF RETURN OF WORK-PIECES (opt.) 自動ワークリターン

To allow a second sanding pass, via automatic lifting of the working units in the return-cycle and re-positioning for the working cycle.



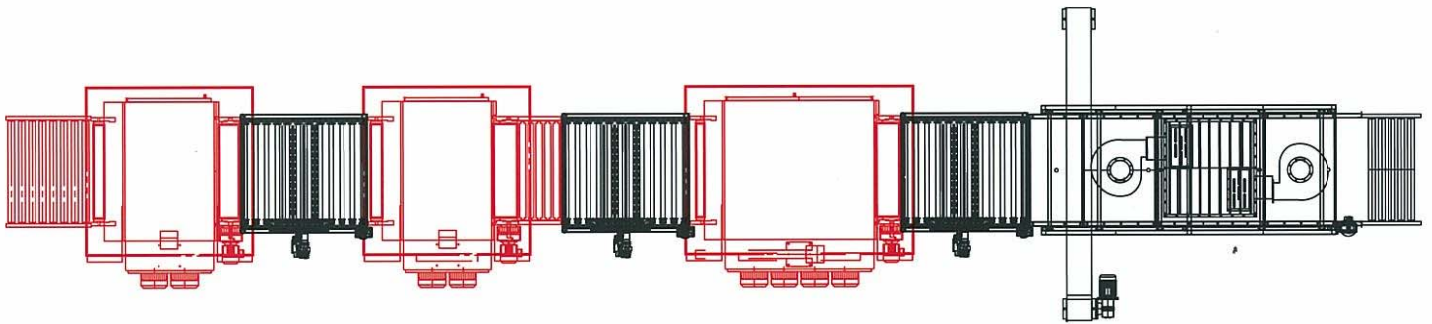
SAFETY IN-FEED SENSING ROLLER FOR OVER THICKNESS LIMIT 板厚検知システム

To stop the feed belt in case extra-thick work pieces are fed in to the machine

“Pendular” Grinding and Polishing machines 研磨機

振り子式

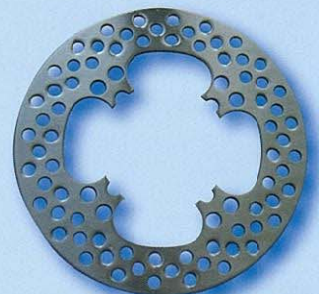
Pendular machine for hot roll Stainless Steel, Aluminum and Titanium parts and sheets



3台の湿式マシン (WSP) で構成された自動化ライン

Automatic LINE, composed by three wet machines WSP for grinding parts of the automotive industry.

The line is also complete with 3 washing units after each machine.
The discharge of the waste is made by a lateral channel that carries away the waste (scraps) into a ladder-dredge that separates the solid waste from the coolant.
The extraction of the waste (scraps) is automatic, just before the drying station, while the coolant is re-conveyed to the centralized filtering system.
The work-pieces are finally treated in an hot air oven for the final drying process.



Polishing machines for flat bars & tubes

フラットバーとパイプの研磨機



4 units polishing machines in width 600 mm for plates, bars and square tubes; controlled by PLC Vision installed in a seoparate cabinet.

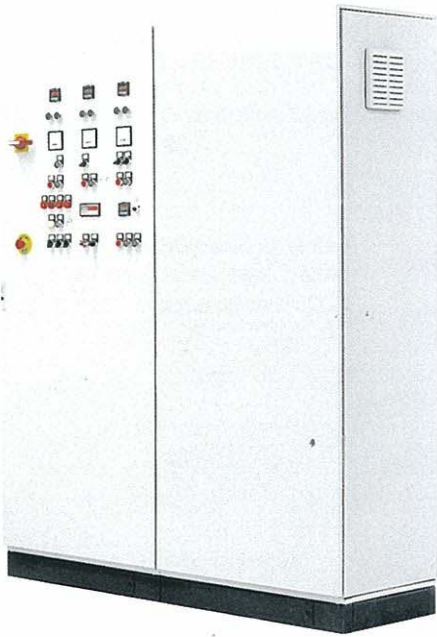


5 units polishing machines with an automatic extraction of metal waste directly from the main recovery tank of the machine to a separate container (optional). This equipment is recommended for heavy duty operations in presence of high take away of material; in fact the system separates the solid components of metal waste from the coolant before reaching the paper-filtering system. In this way the plant remains clean from clogging.



Electric & Electronic control system

電子制御システム



Electromechanical push button panel (standard) 電子押しボタンスイッチ(標準)

Standard control panel with start-stop button, potentiometer for variable cutting and feeding speed settings; centesimal digital display to visualize the depth of deployment of working groups. Centesimal thickness programmer up to 15 positions.

PC3 (opt.)

Personal computer positioned in a separate cabinet, operating in Windows XP™, is complete with Costa sanding Manager for machine control with the possibility to connect via internet our Costa Service Manager. Can be used as master in line with others PC/PLC (recommended for machine working on line)



PLC VISION (opt.)

The PLC panel VISION enable the visualization in a touch-screen monitor of the actual setup data and operation of the machine, and to store many complete working programmes. Possibility to program the thickness and feed speed adjustment only, if required.

This system is especially useful for UNIVERSAL DEBURRING AND POLISHING.

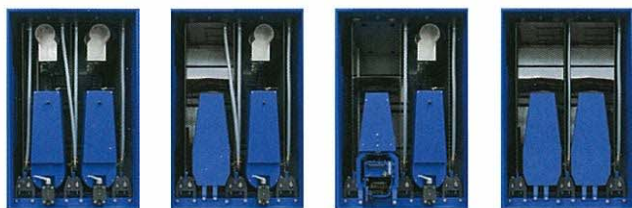
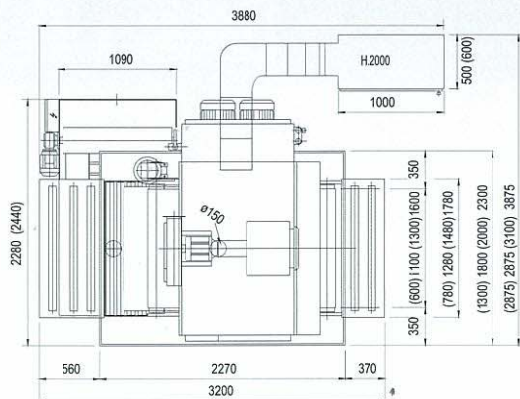


PCM (opt.)

Personal computer with touch screen, operating in Windows XP™, is complete with a Costa Sanding manager programme for machine control.

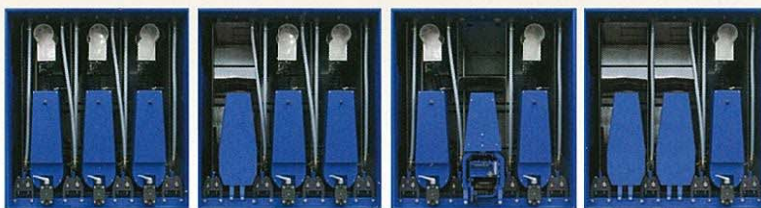
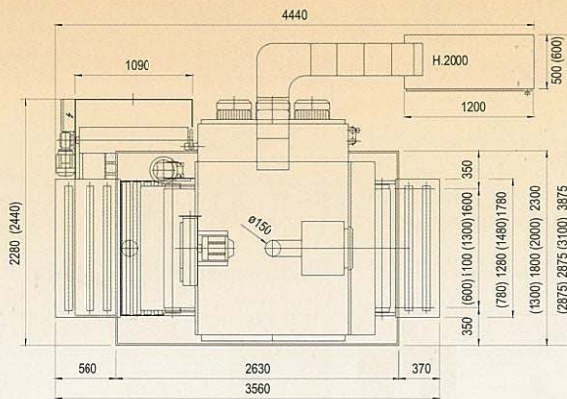
(recommended for machine working off line)

Available versions with frame with 2 working units



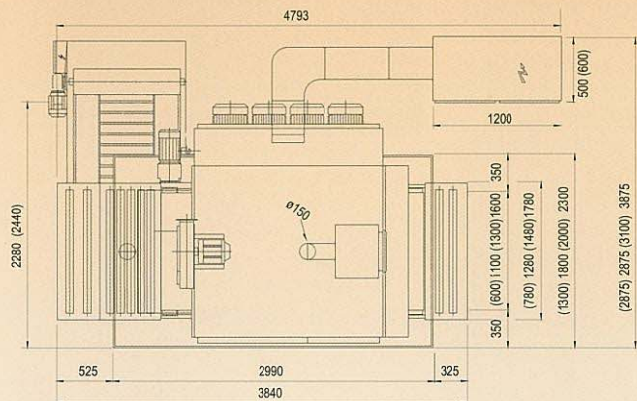
CC CS CV SS

Available versions with frame with 3 working units



CCC CCS CVC CSS

Available versions with frame with 4 working units



CCCC CCLS

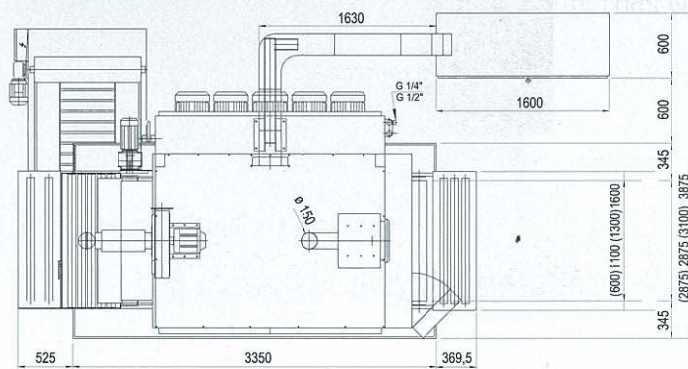


CCSS CCVC

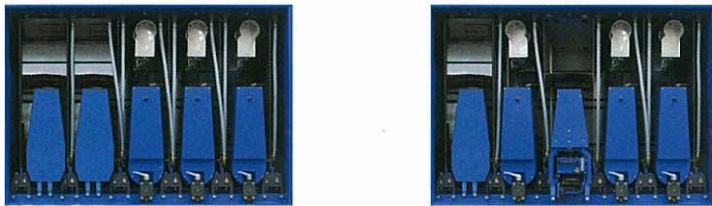


CVCS CVVC

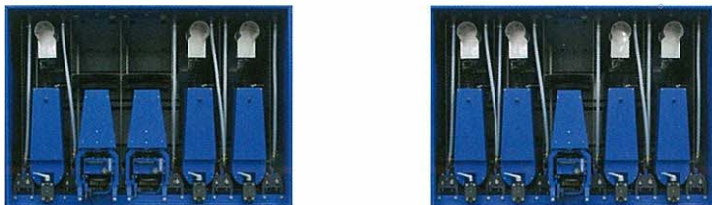
Available versions with frame with 5 working units



CCCCC CCCCCS



CCCSS CCVCS



CCVVC CCVCC

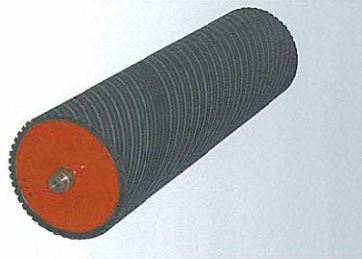
W SERIE

COSTA
LEVIGATRICI
METAL

C

C250

Y250



Cylinder units Ø 250 mm
Belt length 2620 mm

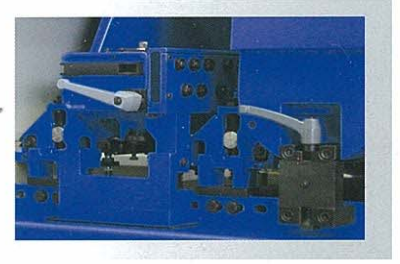
S

Ø 250 mm



Stainless Steel Brush

V



completing our product lines 完成されたライン

Deburring
Machines

MA - MA2 - MAF - MSA2



MSH3 - MSH2



Polishing / Brushing
Machines



MAR - MHR3 - MKR3 - MKR4 - MKR93 - MKR94

Wide-special
Machines



COMBINED Bottom+Top - EXTRA WIDTH

We reserve the right to change features without any notice

 **COSTA**
LEVIGATRICI

COSTA LEVIGATRICI S.p.A.
Via Venezia, 144 - 36015 Schio (VI) Italy
Tel. (+39)0445-675000 - Fax
(+39)0445-675110
www.costalev.com - info@costalev.com