

AX *Grinding/Brushing Machines*



*The modular concept
for modern polishing lines*



Concepts

The new Imeas' **AX** machines represent the state of the art for polishing of flat materials, such as coils, sheets and plates; the flexible design is the key factor of their success.

The **AX**s are based on the well-proven concept of modular design that simplifies the layout and makes possible to add more units at any time; this concept reduces the stock of spare parts, minimizing maintenance and operational costs, too.

Each module is built around a very sturdy, monolithic frame designed to absorb all the working loads: in this way greater forces can be applied to process a wide range of materials such as cold- and hot-rolled stainless steel, aluminum and others.

The **AX** family of machines includes different models designed to fit any need our customers may have:

- **AXN**, top grinding unit for no.3 and no.4 finish
- **AXNI**, bottom unit for no.3 and no.4 finish
- **AXR**, top unit for ScotchBrite™ effect
- **AXHL**, top module for *hair-line* (HL) effect

Every model is available either as “dry” or “wet” processing: the former using only air to remove the dust produced during the process, the latter using a water-based emulsion instead. To reach an even higher flexibility, it's possible to mix dry and wet modules, too!



Highlights

INCREASED FLEXIBILITY

The new **AX** polishing machines can be used to process a wide range of materials, including stainless steel, copper, brass, aluminum and various types of plastic and composites.

COIL & SHEETS COMBINED

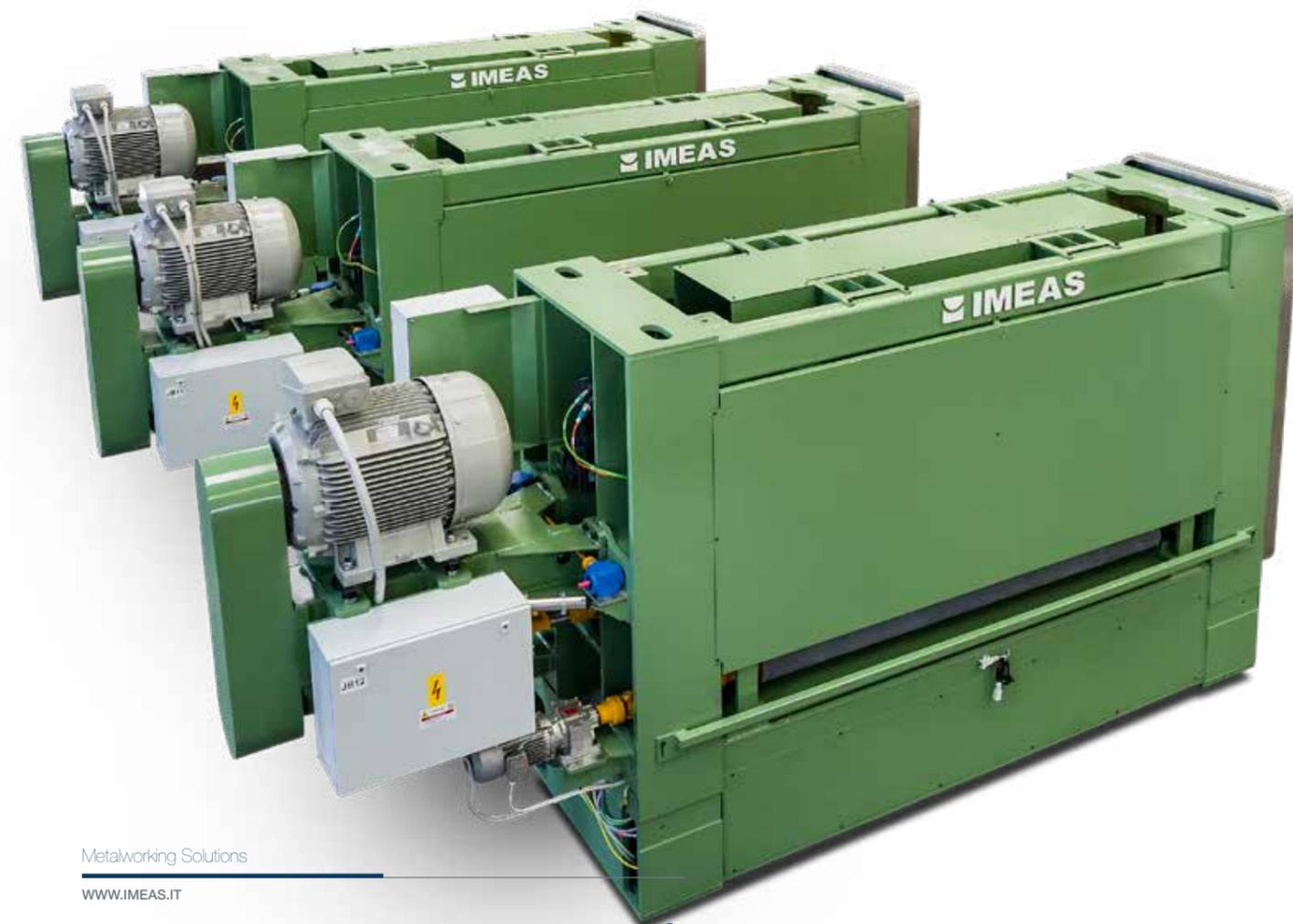
The **AX** series is designed to process both coil and sheets, and it is also possible to realize combined lines for both applications, switching from coil to sheet with the touch of a button.

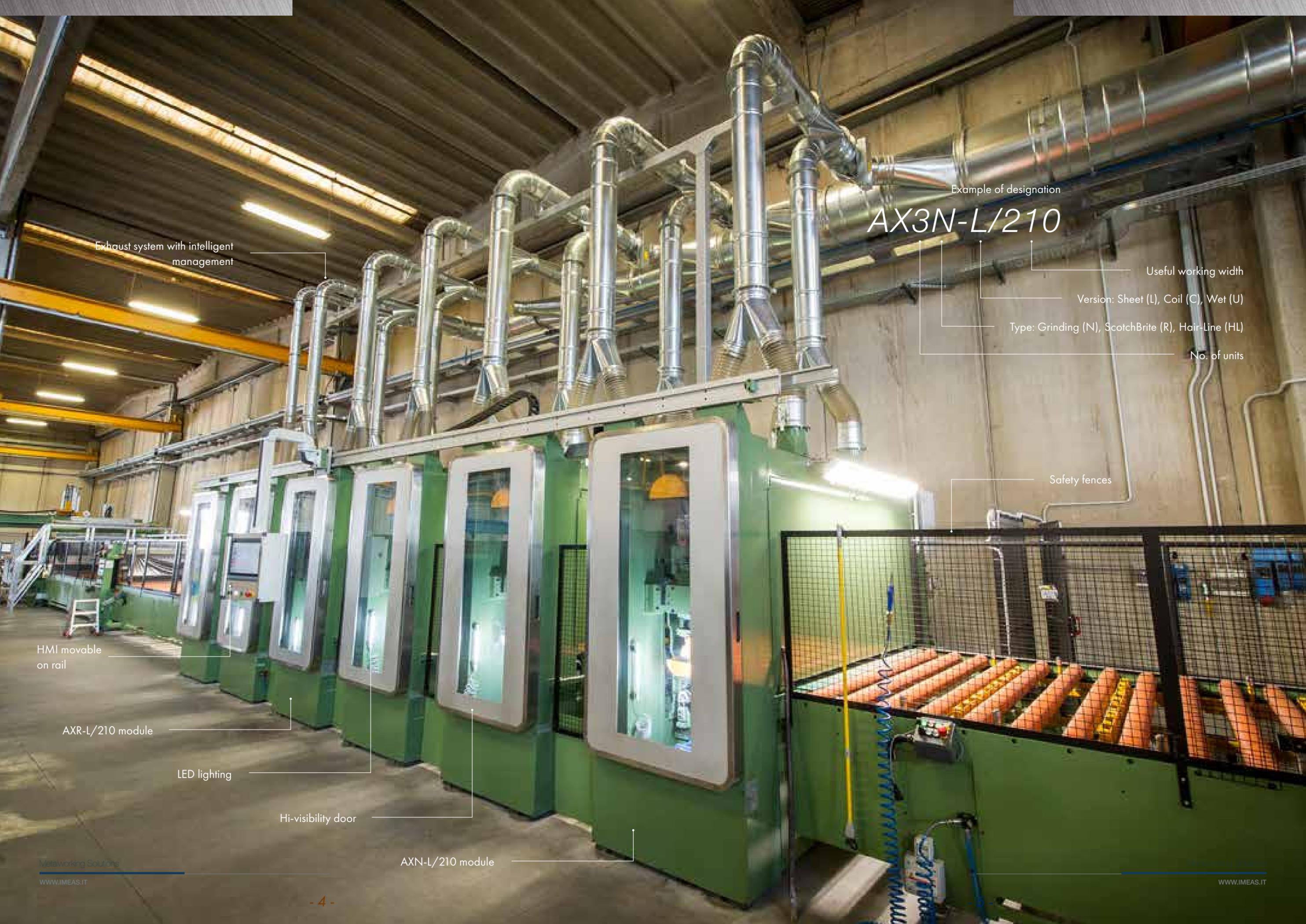
GRAPHICAL INTERFACE

The redesigned operator panel interface sets the **AX** apart from all other competing machines: engineered to be intuitive and easy to use, all functions have been grouped in well recognizable, stylized icons and rearranged in a logical order that follows the natural work flow of the machine. Operators have full control over working parameters, consumables and recipes management.

CONSTANT FINISHING

To assure a smooth and homogeneous surface finishing meter after meter, all **AX** modules are equipped with Imeas' Constant Load Technology, which adapts the abrasive belt and ScotchBrite™ positions to maintain the main motors loads within the thresholds defined by the operator. This is also useful to compensate the wearing of the abrasives.





Example of designation
AX3N-L/210

Useful working width

Version: Sheet (L), Coil (C), Wet (U)

Type: Grinding (N), ScotchBrite (R), Hair-Line (HL)

No. of units

Exhaust system with intelligent management

Safety fences

HMI movable on rail

AXR-L/210 module

LED lighting

Hi-visibility door

AXN-L/210 module

Highlights

QUICK CHANGE BILLY-ROLL

As an option, each **AX** module can be equipped with a fast change system that allows to swap a worn-out Billy-roll in few minutes, reducing downtime and increasing the line productivity.

NEW FEEDING SYSTEM

The **AX** machines are equipped with a redesigned feeding system which uses two motors to drive the in-feed and out-feed rolls independently: this simplify the mechanics, offers better speed synchronization and improves the processing of thin sheets.

The new feeding system also offers the capability to process plates up to 15mm: by simply typing the thickness on the HMI interface, the machine will do all the necessary setups.

HI-PERFORMANCE SCOTCHBRITE™

The high performances of **AXR** machines are achieved through a patented oscillation system which realizes a true sinusoidal movement of the ScotchBrite™ roll at very high speed. It offers a wide range of adjustments as well, so that it is easy to find the optimal settings to always produce a perfect surface.

Each **AXR** module is also equipped with an expandable shaft that reduces the changing time to a mere five minutes.

An integrated dressing device is part of the ScotchBrite™ unit: very helpful to maintain the brush roll always sharp, the dressing device can be used even during the process to increase production.



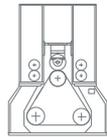
OTHER KEY FEATURES

- Main motors up to 110 kW on **AXN & AXNI** and up to 18 kW on **AXR**
- *Full Control Belt* technology (FCB) for improved and precise abrasive belt tracking ^{New}
- Wider processing range to satisfy every production need
- Redesigned feeding system with independent motors for improved material handling ^{New}
- Increased productivity due to reduced maintenance and simplified setup
- HMI interface for easiness of use and increased productivity
- Fast change Billy roll (as option!) ^{New}
- New front door designed for easy access to all serviceable parts ^{New}
- Integrated LEDs lighting to inspect the material during the process ^{New}

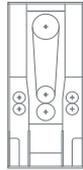
STANDARD FEATURES

- Frames made of electro welded steel, stress relieved, CNC milled
- Safety PLC, Siemens S7 type with ProfiNET™
- High efficiency motors
- Wide screen with touch panel graphical interface
- Long-life grease lubricated bearings
- On-board pneumatic plant with emergency tank, lockable inlet, manometer and pressure adjustment
- PLC Allen-Bradley (as option¹)

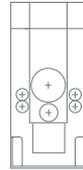
Technical Data Sheet



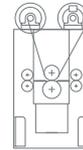
AXNI



AXN



AXR



AXHL

Model	AXNI	AXN	AXR	AXHL
No. of working units	One bottom	One top	One top	One top
Process type	Bottom grinding	Top grinding	Brushing	Hair-line
Versions	Sheets (L), Coils (C), Dry or Wet (U) process			
Useful widths	1600 - 2100 mm			
Contact roll diameter	240 mm	240 mm	n/a	240 mm
ScotchBrite™ diameter	210mm inside; 450mm outside			
ScotchBrite™ performance	700 cycle/min; 0-25 mm amplitude			
Thickness range	0,4-4,0 on coils; 0,4-15,0 mm on plates (others on request)			
Machine opening	50 mm			
Feeding speed	up to 50 m/min			
Main motors	up to 110 kW	up to 110 kW	up to 18 kW	n/a
Abrasive belt length	2800 mm	2800 mm	n/a	100 m (coil)
Machine weight ⁽²⁾	8500 kg	8000 kg	6500 kg	6000 kg

NOTES

1. Some of these features may be available at extra price.
2. Weight refers to the 1600mm working width model.

IMEAS spa reserves the right to change any data without notice.