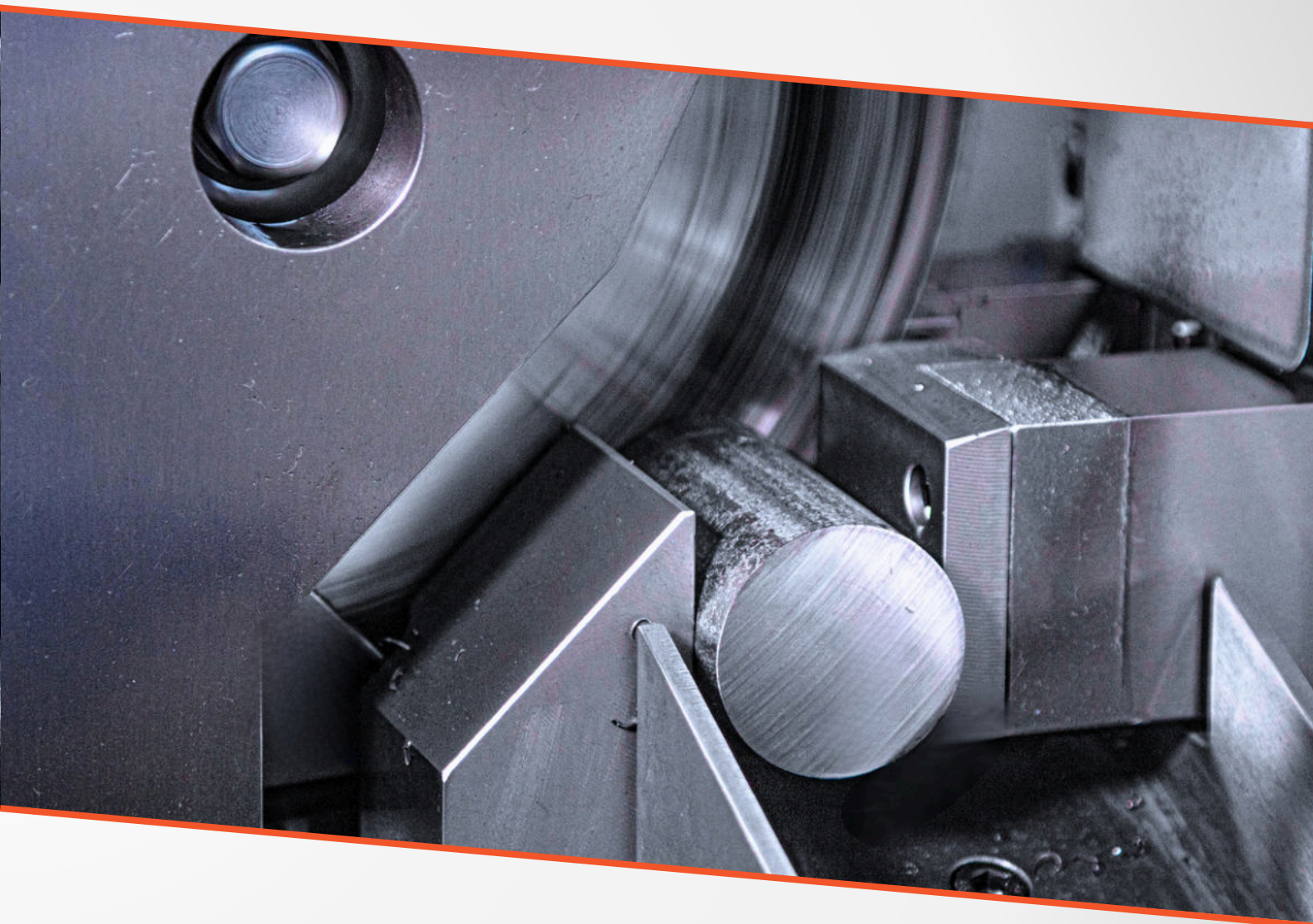




SIMAX CUTTING LINE



Simec has been manufacturing cutting machines since its establishment.

Set up in 1987, Simec is an Italian company based in the Veneto region which specialises in the manufacture of circular saw cutting machines for tubes and bars made of steel and light alloys. Simec cutting machines are manufactured following a well defined and controlled process. Each machine is the result of several years' experience in cutting processes, continuous training of staff, updates and focus on Industry 4.0, as well as technological innovation.



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01. CUTTING UNITS

Technical Information

SIMAX	SIMAX80	SIMAX100	SIMAX150
Round Bar	min.Ø10 - max Ø80 [mm]	min.Ø20 - max Ø110 [mm]	min.Ø50 - max Ø160 [mm]
Square Bar	min. 10x10 - max 60x60 [mm]	min. 20x20 - max 75x75 [mm]	min. 40x40 - max 120x120 [mm]
Min. Cutting Length	10 [mm]	10 [mm]	10 [mm]
Max. Cutting Length	3000 [mm]	3000 [mm]	3000 [mm]
Minimum Scrap	20 [mm] con 3° Asse	20 [mm] with 3° Axis	20 [mm] with 3° Axis
Cutting Tolerance	± 0.1 [mm]	± 0.1 [mm]	± 0.1 [mm]
Blade Diameter	Ø285 - Ø300 [mm]	Ø360/Ø380 [mm]	Ø460/Ø480 [mm]
Number of Teeth	80 / 100	60 / 80 / 100	60 / 80
Blade Speed	70 ÷ 200	40 ÷ 150 m/min (with inverter)	40 ÷ 130 m/min (with inverter)
Clamp Feed Speed	30 m/min approx.	30 m/min approx.	30 m/min approx.
Advance Caliper Stroke	0 ÷ 650 [mm]	0 ÷ 800 [mm]	0 ÷ 530 [mm]
Motor Blade	11 [Kw]	15 [Kw]	15 [Kw]
Standard Cutting Plane Height	1000 [mm] approx.	1000 [mm] approx.	1000 [mm] approx.
Approximate Weight	3500 [Kg]	5000 [Kg]	6000 [Kg]
Electical Power	32 [Kw]	35 [Kw]	35 [Kw]

*Simec srl reserves the right to make technical or construction changes at any time.

Cutting Units Description:

The machine cutting unit is built **over a heavy and stable basement**. The cutting head movement is at **45° on 6 roller pads**. The head feed with **brushless motor** and ball screw to ensure constant removal of each saw tooth. The **clutch brake** mount on the gearbox, **reduce the blade vibration** and the blade guide allow a precise cut with narrow tolerance and a longer life of the tool.

The **lubrication** of the movable parts of the head and clamping devices **are centralized and automatic**.

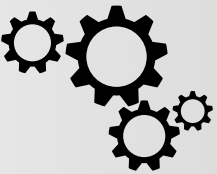
The feeding gripper, which move on a ball screw, is also controlled by brushless motor. To avoid scratching on the material during the movements, the plane of the gripper, move up and down.

All the **material clamping** are **hydraulic** with the possibility to **set the pressure**. **Low machine noise** during operation.



MECHANICALLY PERFECT

The Cutting Unit is a machine tool and has impeccable precision mechanics.



HIGH PERFORMANCE

Cutting performance are stable even after years of use, both in terms of cutting tolerance and productivity



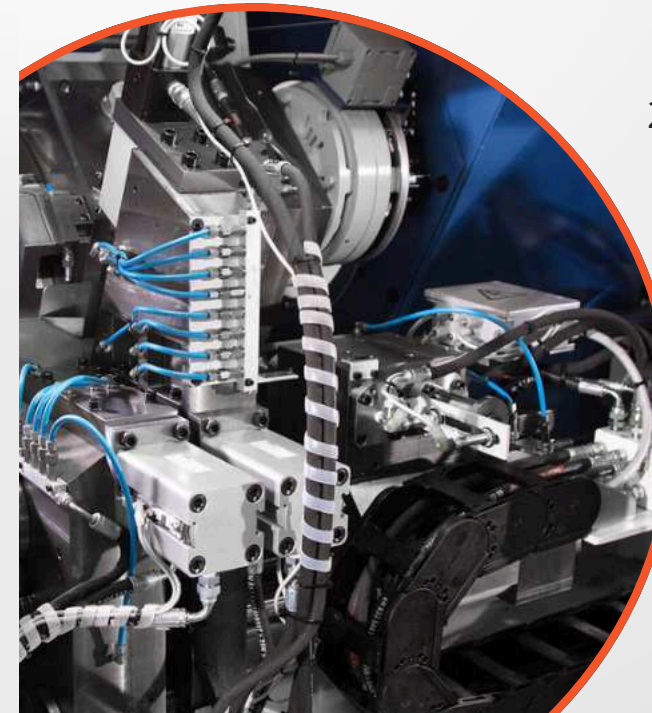
24 h NO STOP

24-hour non-stop work, 7 days a week

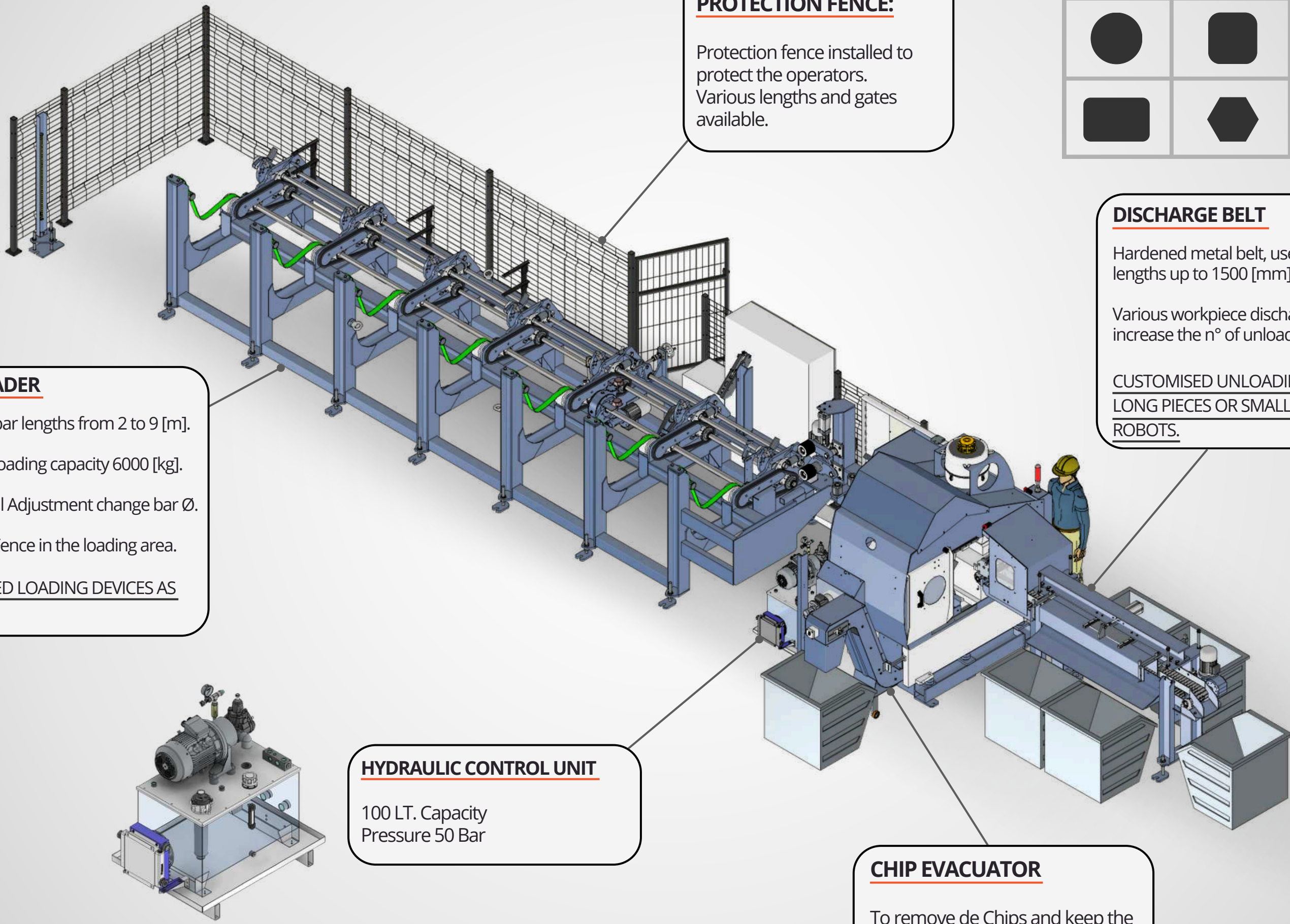


LONG BLADE LIFE

The life of the cutting blades is longer compare to the other machines on the market.



02. MACHINE COMPONENTS



BARS LOADER
Loader for bar lengths from 2 to 9 [m].
Maximum loading capacity 6000 [kg].
One Manual Adjustment change bar Ø.
Protection Fence in the loading area.
CUSTOMISED LOADING DEVICES AS OPTION.

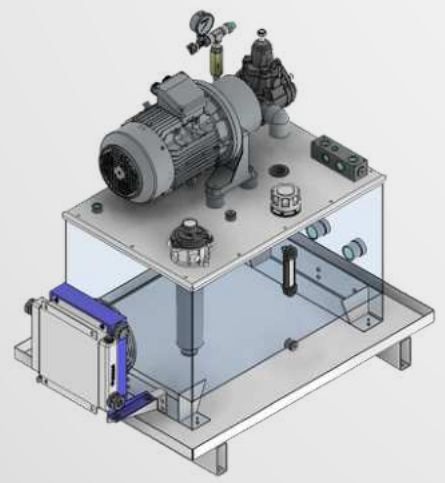
PROTECTION FENCE:
Protection fence installed to protect the operators.
Various lengths and gates available.

SECTIONS:

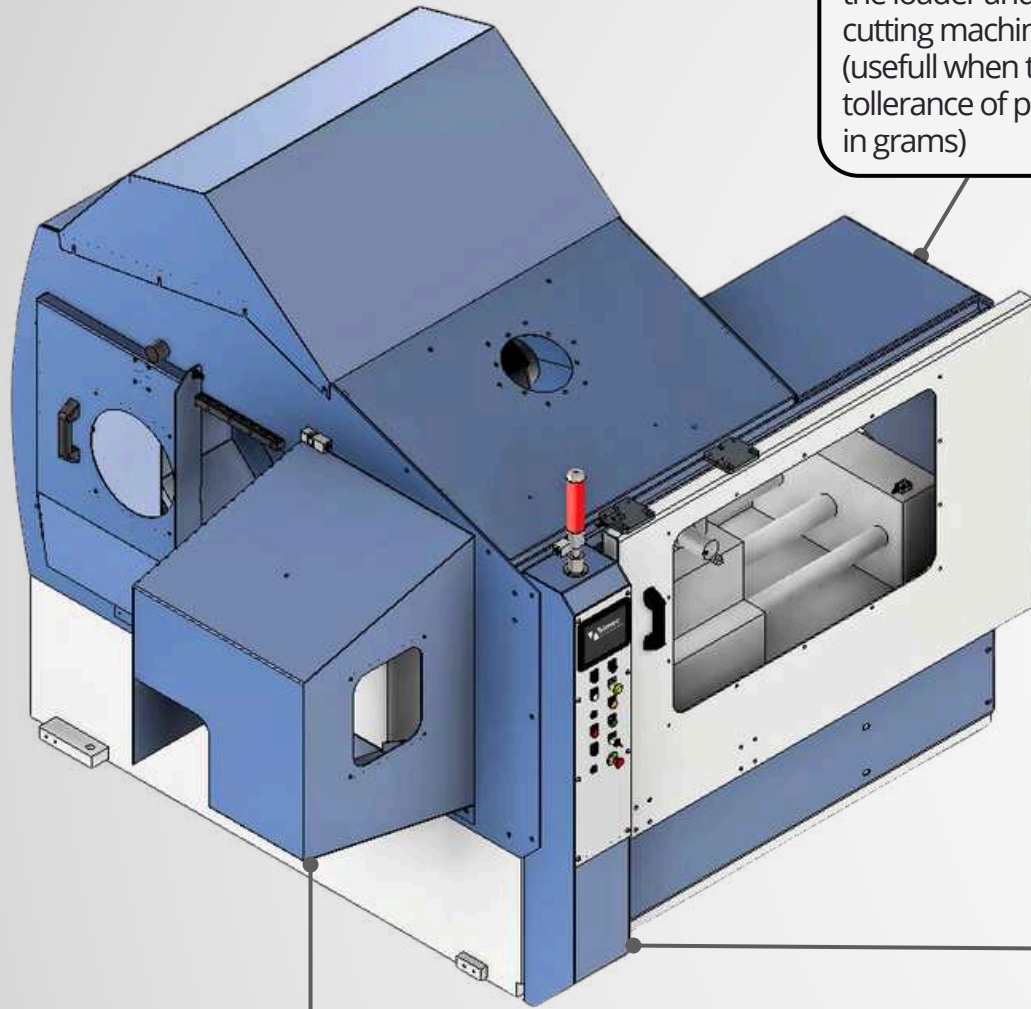
DISCHARGE BELT
Hardened metal belt, used for workpiece lengths up to 1500 [mm] (as standard)
Various workpiece discharge positions to increase the n° of unloading position.
CUSTOMISED UNLOADING DEVICES FOR LONG PIECES OR SMALL PARTS USING ALSO ROBOTS.

HYDRAULIC CONTROL UNIT
100 LT. Capacity
Pressure 50 Bar

CHIP EVACUATOR
To remove de Chips and keep the cutting area clean at all times.




03. DEVICES AND ACCESSORIES




OPTIONAL MEASUREMENT SYSTEM

Measuring system for bar section detection. Positioned between the loader and the cutting machine. (usefull when the tollerance of pieces is in grams)



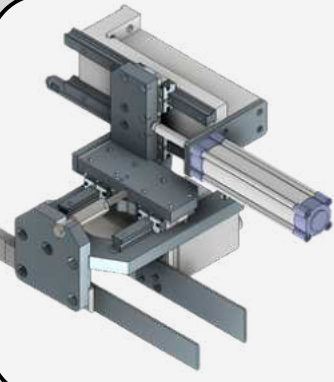
CONTROL PANNEL

Siemens electronics. Available different operator panels depending on the machine chosen. Simple operator-machine interface with intuitive menu programming.



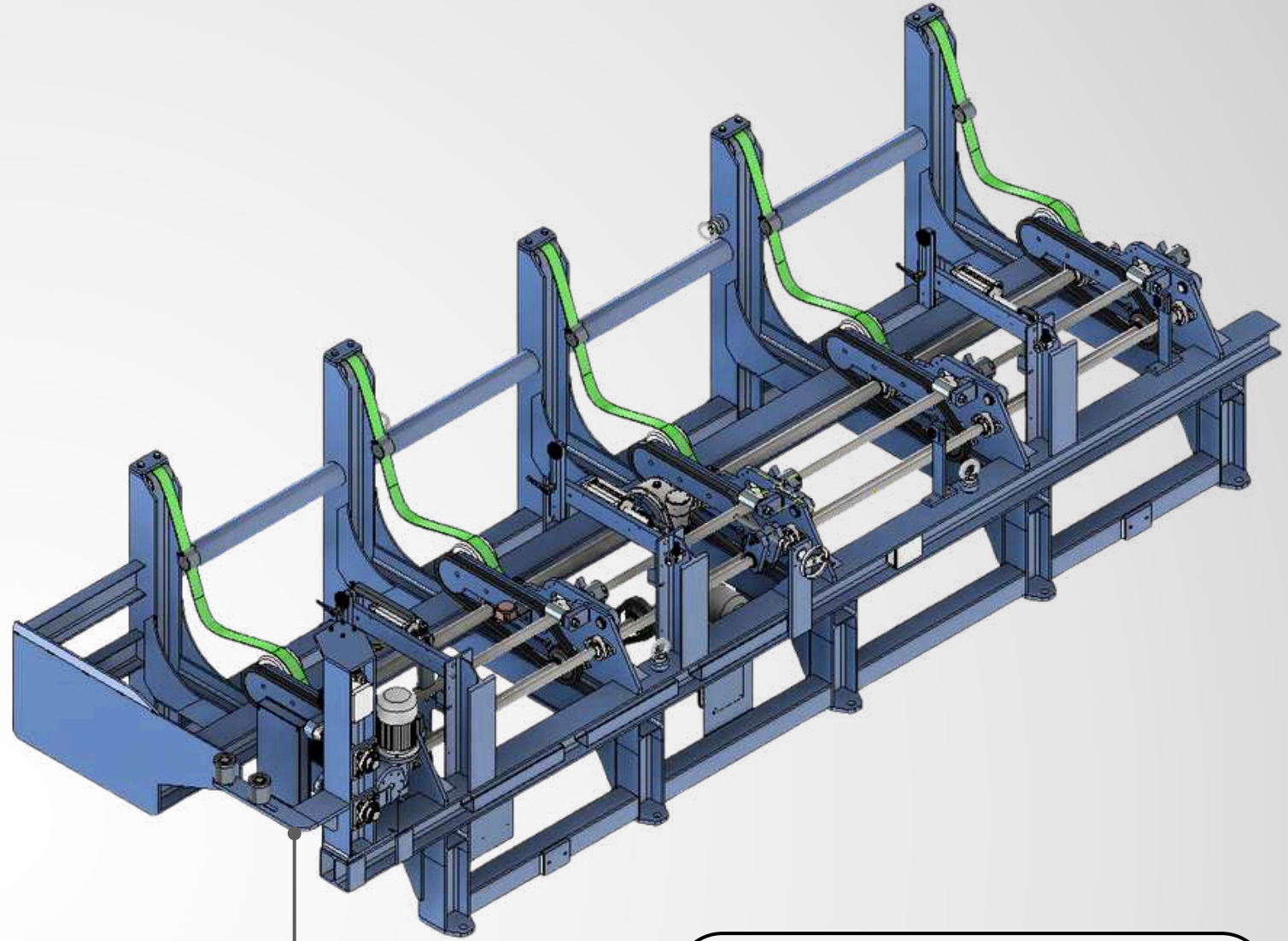
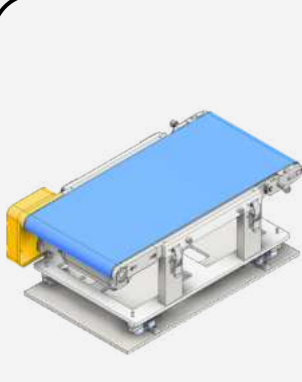
THIRD AXIS

It is inserted between the cut and the belt to allow the unloading of workpieces with short lengths and reduce the length of the scrap.



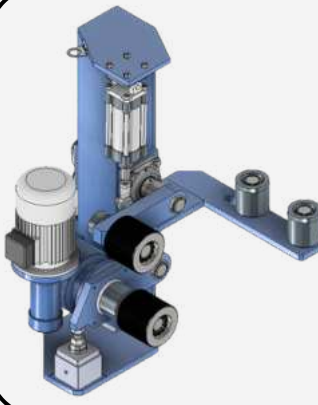
OPTIONAL WEIGHT SCALE

During the unloading phase, a scale can be installed to weigh the cut pieces and decide accordingly in which position to unload them.



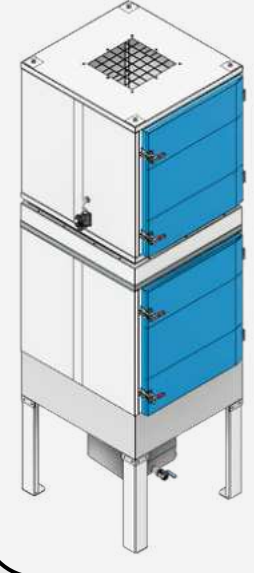
ROLLER PRESSURE

Optional Device used for bar advancement from the loader to the machine



SMOKE EXTRACTOR

The purifer is designed for the extraction and filtration of fumes and oily mist.



Simec ↔ NISHIJIMAX

Simax cutting machines are a collaborative product between Simec srl (Italy) and Nishijima (Japan).



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📱 SCAN ME