SL4

Punching and fiber laser cutting system:
the shortest path from design to production.

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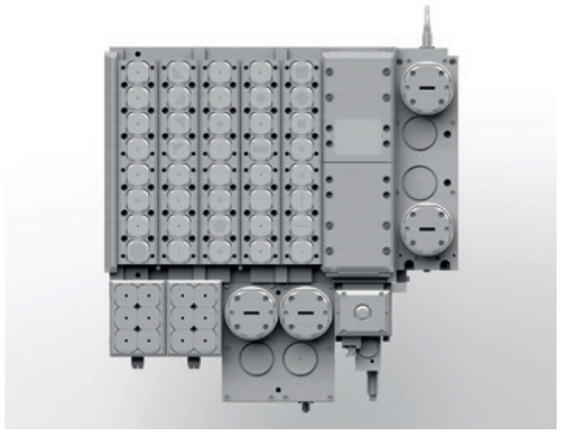
4 Salvagnini features in one machine, for demanding manufacturing.

Designed to satisfy the increasing demanding needs in terms of flexibility, the SL4 is the Salvagnini solution that combines 4 different features in a single compact structure: the S4 punching system, the fiber laser cutting, the flexible Salvagnini automation and the proprietary programming software.

Multi-press head and manipulator ensure precision and productivity.

The patented **multi-press** head controls every tool and allows either independent either multiple operations without any need to stop for tool changes, with great benefits in terms of cycle time and tools wear.



Multi-press head (H2 type)

The **manipulator** moves on guides constrained to the lower part of the “C” structure, providing extremely high positioning accuracy; it consists of a light mobile element and independent pincers to provide an efficient centring cycle and high process reliability. The long stroke also makes it possible to machine sheets measuring 3,000 mm x 1,500 mm without repositioning, allowing high productivity and incomparable machining accuracy.

Modular automation for all manufacturing requirements.

The loading/unloading devices available allow the SL4 to be configured for working stand-alone or in-line or to be integrated into a flexible manufacturing cell or an automated factory.

The software makes the programming easy and intuitive.

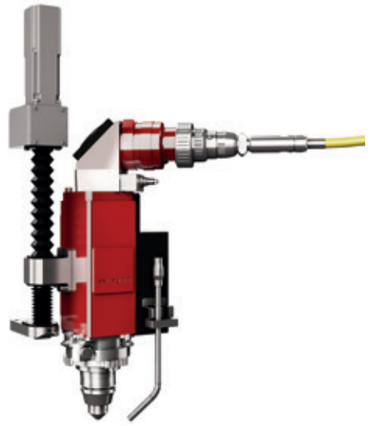
Its simplicity of use is guaranteed by the proprietary CAMSL4 and NESTSL4 programming software, which make it possible to develop the drawings and automatically assign punch or laser machining and subsequent automatic nesting.

Freedom in design.

The fiber optic laser carries out all the sheet cutting operations. The flexibility and speed of this technology eliminates all constraints associated with geometry, scrap and machinability, and also reduces operating and maintenance costs.

The 2000 or 3000 W fiber laser source makes it possible to achieve high linear cutting speeds as well as absolute precision when making irregular contours.

The machine therefore adopts the maintenance simplicity and extreme cost-effectiveness of the machining operations typical of Salvagnini fiber laser machines.



Maximum Process Efficiency.

- The unique operating mode includes the complete destruction of the skeleton during the cycle and the unloading of the single parts, allowing in-line production or automatic stacking.
- Thanks to the optimized management of the material, SL4 features no scrap “dead zone” and virtual absence of sheet trimming, that means waste practically eliminated.
- The punching head allows to perform embossings up to 16 mm height or tapping, while the fiber laser allows the cut of articulated contours and to enhance the system flexibility.
- The consumption of the entire SL4 system is low, thanks to the reduced consumption of the fiber source and to the technological innovations applied.

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Technical data

Machine	SL4.30	SL4.40
Technical specifications		
Max length of incoming sheet (mm)	3048	4064
Max width of incoming sheet (mm)	1524	1524
Min length of incoming sheet (mm)	370	370
Min width of incoming sheet (mm)	300	300
Max diagonal of incoming sheet (mm)	3408	4340
Max length of outgoing sheet (mm)	3048	4064
Max width of outgoing sheet (mm)	1524	1524
Min length of outgoing sheet (mm)	250	250
Min width of outgoing sheet (mm)	80	80
Max thickness of metal sheet (punching):		
Mild Steel (410 N/mm^2) (mm)	3.5	
Stainless steel (580 N/mm^2)(mm)	2.0	
Aluminium (265 N/mm^2) (mm)	5.0	
Min thickness of sheets (mm)	0.5	

Type of multi-press head	H2	H3	H4	H5	H6
Max. no. of punches in head	76	96	72	64	84

Cutting	
Technology	fiber laser cutting
Sorce	fiber
Maximum power (W)	2000, 3000
Max thickness of metal sheet (laser cutting) (mm)	4.0
Assist gas	Nitrogen, compressed air

Dynamics	
Maximum speed (m/min):	
X axis	132
Y axis	96
Speed with both axes moving simultaneously (m/min)	163
Maximum acceleration (m/s^2):	
X axis	30
Y axis	15

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