HIGHLIGHTS

Sheet metal working solutions
for Factories 4.0

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FMS S4 + P4

The highly efficient sheet metal processing system.

The S4+P4 line punches, shears and bends sheet metal totally automatically, without any intermediate handling. Set-up in masked time delivers high productivity and makes kit and batch one production possible. The line is modular and can be combined with intelligent solutions for manual or automated feeding and unloading that enhance the quality and cost-effectiveness of the parts produced.

ZERO
SET-UP TIMES

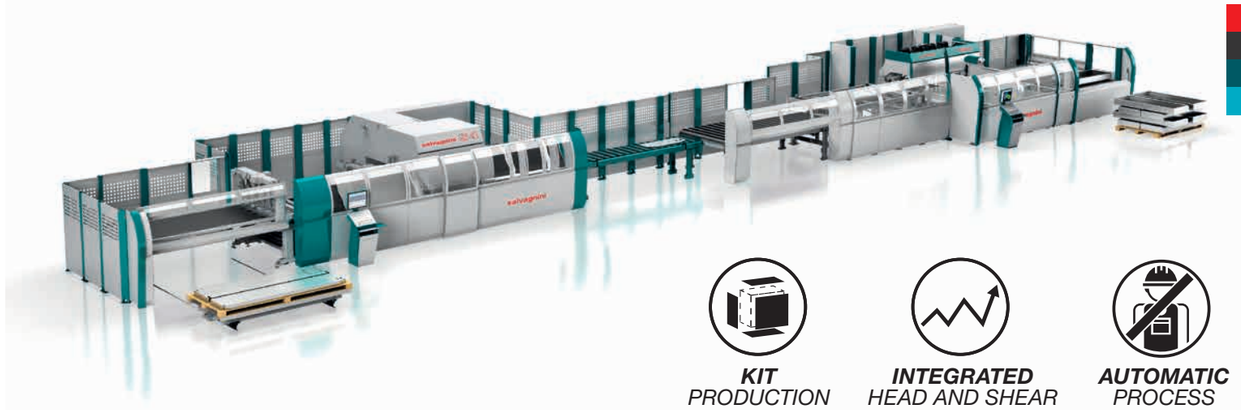
PRODUCTION
ON DEMAND

ZERO
SCRAP

AJS™ Automated Job Shop

The production system for really lean production.

In an AJS™ system, panel production through punching, shearing, laser cutting and/or bending is both automatic and flexible, satisfying a wide variety of production strategies, such as lean, kit, JIT, batch one and unattended. The different AJS systems are capable of adapting to customer requirements in terms of application sector and production mode.



KIT
PRODUCTION

INTEGRATED
HEAD AND SHEAR

AUTOMATIC
PROCESS

S4Xe Punching-shearing system

A winning solution.

The S4Xe embodies the concept of flexible automation, uniting all the operations that used to require manual intervention into a single system that cuts, loads, unloads, stacks, separates and sorts. Patented by Salvagnini, the multi-press head consists of a die-structure in which the punching stations are fitted with all the tools needed for production. No stopping is required for tool change. The shear, integrated with the multi-press head, allows scrap-free nesting and punch&cut for optimized production downstream.

Technical specifications	S4Xe.30	S4Xe.40
Maximum sheet dimensions (mm)	3048 x 1650	4064 x 1650
Speed with both axes moving simultaneously (m/min)	163	
Punching		
Punching tool change time (s)	0 (each tool is always ready for use)	
Possibility of activating two or more tools simultaneously	yes	
Maximum material thickness (mm):		
Aluminium, UTS 200 N/mm^2	5.0	
Steel, UTS 410 N/mm^2	3.5	
Stainless steel, UTS 610 N/mm^2	2.0	
Maximum number of punches in head	96 *	
Shearing		
Technology	independent or simultaneous cuts on X and Y	
Blade clearance adjustment	automatic	

** Maximum number of punches depends on head configuration*

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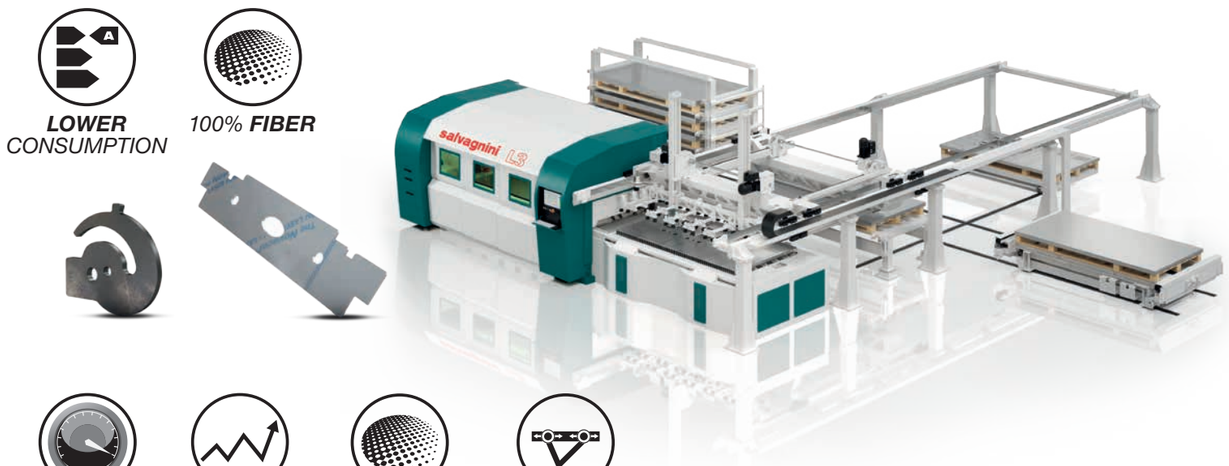
L3 | **L5** 2 models for versatile, high-quality production runs with competitive costs per part.

The L3 and L5 fiber laser cutting systems with electronic sources deliver reduced running costs and eliminate both optical path and laser gas. They feature an airplane-type structure that confers solidity and precision, and a head with a single optic for high-quality cutting over the entire range of materials. The proprietary controller and exclusive TRADJUST function automatically calculate the modulation of the cutting parameters as a function of changes in direction, speed and acceleration.

	L3				L5		
Fiber laser source (W)	2000	3000	4000	6000	2000	3000	4000
Cutting capacity (thicknesses)							
Steel (S185JR, S235JR, RAEX 250 C LASER) (mm)	0.5 - 15	0.5 - 20	0.5 - 20	0.5 - 25	0.5 - 15	0.5 - 20	0.5 - 20
Stainless steel (AISI 304, X5CrNi18-10 1.4301) (mm)	0.5 - 10	0.5 - 12	0.5 - 15	0.5 - 20	0.5 - 10	0.5 - 12	0.5 - 15
Aluminium (Al 99.5 EN AW 1050A) (mm)	0.5 - 8	0.5 - 10	0.5 - 15	0.5 - 20	0.5 - 8	0.5 - 10	0.5 - 15
Copper (Cu-ETP CW004A H040 EN1652) (mm)	0.5 - 5	0.5 - 8	0.5 - 8	0.5 - 8	0.5 - 5	0.5 - 8	0.5 - 8
Brass (CuZn37 CW508L H055 EN1652) (mm)	0.5 - 5	0.5 - 6	0.5 - 8	0.5 - 8	0.5 - 5	0.5 - 6	0.5 - 8
Maximum power consumption (kW)	16	18	21	29	16	18	21



P1 Productivity with 8m² and just 3 kW.

The electric panel bender P1 features patented cinematics of the bending group offering the possibility of manufacturing a wide range of pieces, even those not feasible with other panel bender models. It automatically bends in less than 2 seconds with universal bending tools that do not require retooling in total safety for the operator. P1 also produces without interruption single batches or kit, if equipped with the ATA blankholder tool.

Maximum bending length (mm)	1250
Maximum bending height (mm)	127
Maximum thickness and bending angle steel, UTS 410 N/mm² (mm)	1.60 (±90°)
Maximum thickness and bending angle stainless steel, UTS 660 N/mm² (mm)	1.30 (±90°)
Average consumption (kW)	3.0

P2lean The lean and flexible panel bender.

The P2lean is the ideal solution for flexible bending. It only requires operation intervention for loading and unloading; it can handle both kit and batch one production thanks to the universal tool that adapts during the cycle; it only uses electric actuators, keeping in-cycle consumption below 5 kW (P2lean-2116); thanks to the adaptive MAC 2.0 technology it compensates for any variation in material quality in cycle, ensuring consistent quality of parts.

	P2lean-2116	P2lean-2516	P2lean-2120	P2lean-2520
Maximum bending length (mm)	2180	2500	2180	2500
Maximum bending height (mm)	165	165	203	203
Maximum bending force (kN)	330	660	330	660
Maximum sheet bending force (kN)	530	1060	530	1060
Minimum thickness (mm)	0.4	0.5	0.4	0.5
Maximum thickness and bending angle steel, UTS 410 N/mm² (mm)	3.2 (±90°)	3.2 (±90°)	3.2 (±90°)	3.2 (±90°)
Maximum thickness and bending angle stainless steel, UTS 660 N/mm² (mm)	2.5 (±90°)	2.5 (±90°)	2.5 (±90°)	2.5 (±90°)
Maximum thickness and bending angle aluminium, UTS 265 N/mm² (mm)	4.0 (±120°)	4.0 (±120°)	4.0 (±120°)	4.0 (±120°)
Average consumption (kW)	5.0	9.0	5.0	9.0

Panel benders

P4 The widest range of Panel Benders at your service.

Each P4 Panel Bender works with universal bending tools that require no machine stops or set-up times, and thanks to the proprietary MAC 2.0 technology, the Panel Bender automatically adapts to material variations, ensuring consistent quality of parts.
With over 30 years of experience, Salvagnini offers the very widest range of Panel Benders.

ZERO
SET-UP TIMES

MAC 2.0
TECHNOLOGY

UNIVERSAL
BENDING TOOL

	P4lean-2116	P4lean-2120	P4-2225	P4lean-2516	P4lean-2520	P4lean-3216	P4lean-3220	P4-3125	P4lean-3816	
Maximum bending length (mm)	2180	2180	2200	2500	2500	3200	3200	3100	400-3200	3200-3850
Maximum bending height (mm)	165	203	254	165	203	165	203	254	165	
Maximum bending force (blades) (kN)	330	330	440	660	660	660	660	510	660	
Maximum bending force (blankholder) (kN)	530	530	660	1060	1060	1060	1060	780	1060	
Maximum thickness and bending angle steel, UTS 410 N/mm^2 (mm)	3.2 (± 90°)	3.2 (± 90°)	3.2 (± 90°)	3.2 (± 90°)	3.2 (± 90°)	3.2 (± 90°)	3.2 (± 90°)	3.2 (± 90°)	3.2 (± 90°)	2.5 (± 125°)
Maximum thickness and bending angle stainless steel, UTS 660 N/mm^2 (mm)	2.5 (± 90°)	2.5 (± 90°)	2.0 (± 90°)	2.5 (± 90°)	2.5 (± 90°)	2.5 (± 90°)	2.5 (± 90°)	2.0 (± 90°)	2.5 (± 90°)	2.5 (± 90°)

Values refer to standard machines. Salvagnini reserves the right to modify data without prior notice.

Press-brakes

B3 Energy and speed optimization for high productivity.

Thanks to proprietary technology, the B3 press-brake range delivers high degrees of productivity, accuracy and safety yet keeps consumption low. The high-dynamic (direct-drive) and KERS energy recovery systems achieve higher speeds and accelerations with the same consumption.
The ATA device installed on the B3 press-brake allows tool length to be changed and adjusted automatically, making bending of both batch one and parametric parts possible.

KIT
PRODUCTION

KERS

HYBRID
TECHNOLOGY

Model	60/2000	100/3000	135/3000	135/4250	170/3000	170/4250	170/4250XL	220/3000	220/4250	220/5100	320/3000	320/4250	320/5100	400/4250
Max. power (tonnes)	60	100	135	135	170	170	170	220	220	220	320	320	320	400
Max. speed (mm/s)	250	250	250	250	250	250	250	250	250	250	220	220	220	220

ROBOformER The perfect solution for all production requirements.

UNMANNED
PRODUCTION

EASY
PROGRAMMING

VERSATILE

The ROBOformER is a synthesis of automation and flexibility. The dynamics of the electric press-brake and the integration of robot and connections make unprecedented levels of productivity possible. The ROBOformER can go quickly from drawing to end product, with a single controller, a single program and no need for robot teaching. Eliminating dead times and optimizing the bending process, it is the perfect solution for all production requirements.

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Laser cutting

L3 L5

Punching

S4Xe SL4

Panel forming

P1 P2lean P4

Bending

B3 ROBOformER

Systems

AJS® FMS S4 + P4 FlexCell

Logistics

MTW MD MBT MV LTW