FlexCell

Flexible bending cell.
A concrete step towards the factory of the future.

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The winning choice for bending sheet metal in the factories of today and tomorrow.

FlexCell offers the best of both worlds, combining the features of a Salvagnini panel bender and a press-brake and is the only solution of its kind on the market for getting the most out of bending.

Speed

Ensures a substantial increase in productivity thanks to the distinguishing properties of the Salvagnini panel bender and press-brake.

Flexibility

Maximises kit or batch-one processing efficiency and also proves competitive when it comes to producing small and medium-sized batches since it is designed to adapt to the changing needs of the marketplace.

Versatility

Can handle a wide variety of products, giving considerable design freedom, as its simultaneous use of the two complementary technologies ensures the whole range of bending applications is covered.

Responsiveness

Its smart production flow management helps reduce the need to hold work-in-process, improves delivery lead-time and avoids reworking.

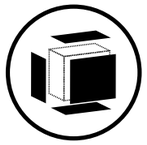
Optimization

The OPTICell software determines the optimal bending flow based on specific production requirements.

Operator coaching

Provides operators with support in cell logistics and guides them through the bending procedure, avoiding errors thanks to the OPS-FlexCell process software.

Speed

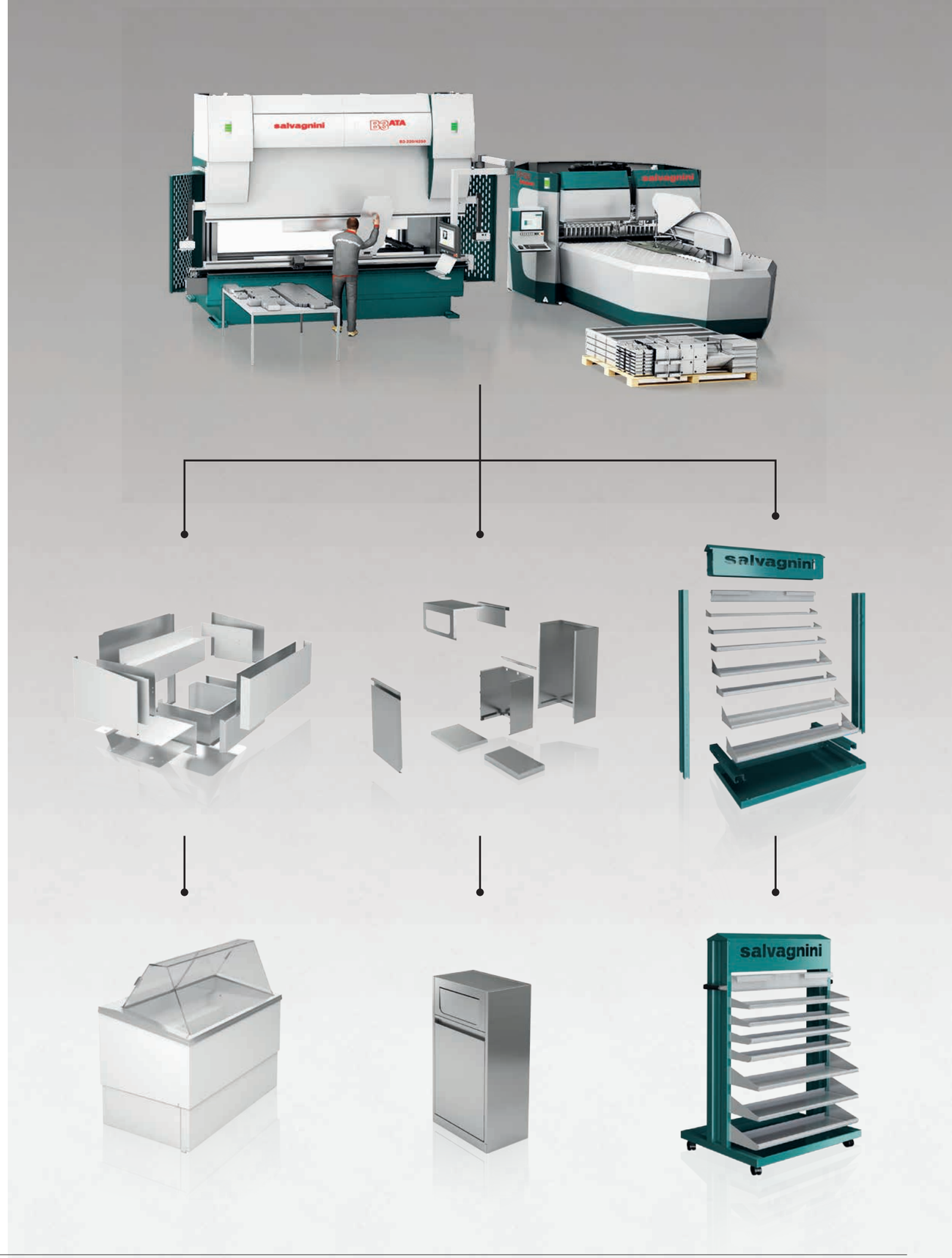


Flexibility

Versatility

Responsiveness

Operator coaching



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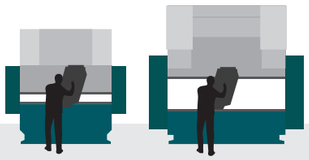
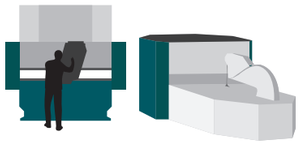
Minimum cost per bend and maximum profit.

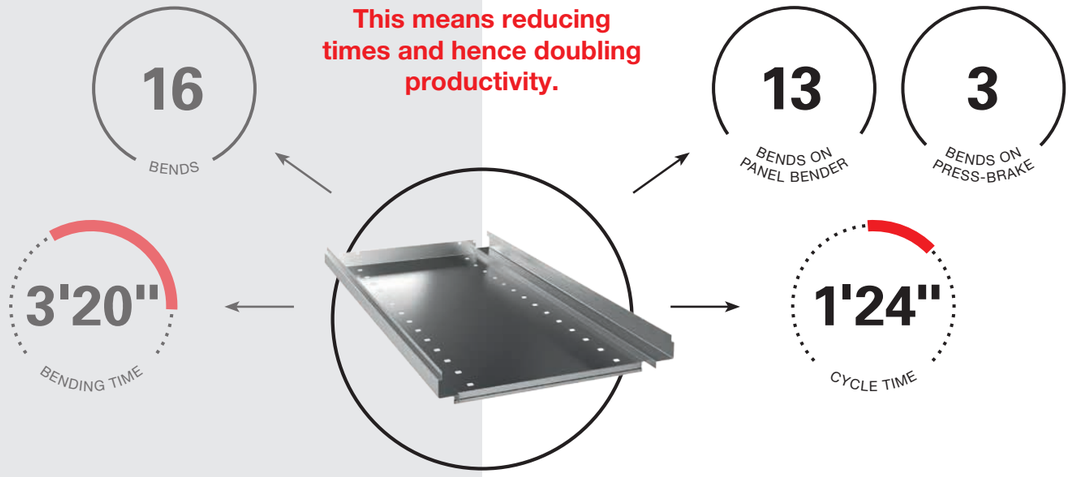
FlexCell ensures you get an extremely competitive cost per part and makes the cell unbeatable in terms of fast return on investment, efficiently solving the critical issues typically associated with the traditional bending cell.





The traditional bending cell.		The flexible bending cell.
*The tendency towards smaller batch sizes generates **inefficiencies in bending departments,** either as a result of continuous retooling interrupting production or because of press-brake over-capacity aimed at reducing set-up frequency.*	→	*Automatic press-brake and panel bender tool set-up in masked time means **production** can run **smoothly and without interruption,** even in the case of batch-one production.*
***Profit** from the bending process gets **smaller and smaller** and is responsible for aggressive price policies in the marketplace.*	→	*Offering high-speed manufacturing and flexibility, FlexCell ensures a highly **competitive cost per bend and hence cost per part.***
*Manual bending is more prone to errors and makes it harder to ensure consistent **repeatability** in terms of **quality** and **time.***	→	*Operations on the panel bender are performed automatically and the process software ensures **precise control of production flow times.***
The bending technologies available offer different, non-compatible ranges of feasibility.	→	*Having two complementary technologies working in synergy means that all restrictions on bending feasibility are removed.*
Machine data often has to be managed and transferred manually.	→	***OPS FlexCell** software manages, schedules and records all the production data without error in masked time, without tying up resources, and provides the required KPIs.*

This means reducing times and hence doubling productivity.

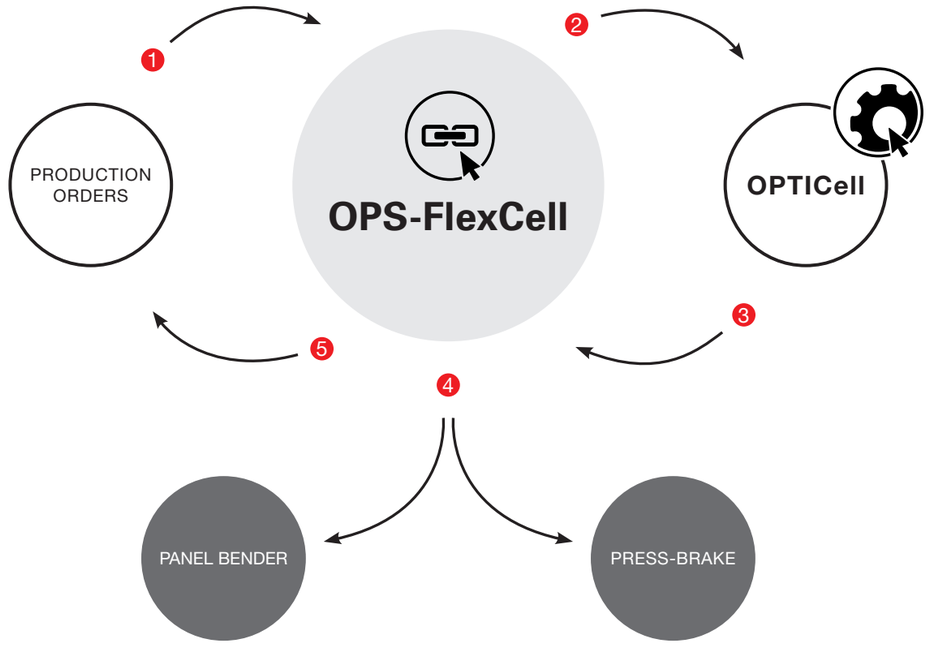


Estimated cycle time in its bending department is 3'20".

FlexCell time including l/u 1'24".

FlexCell, designed for the Industry 4.0 factory

FlexCell is the intelligent combination of two **stand-alone machines** that communicate seamlessly with each other through a **single software system that orchestrates the production flow.**
FlexCell is designed for the future, to evolve and meet the demands of ever-changing manufacturing trends. It has been designed for easy integration with automatic handling devices and to be ready for Industry 4.0.



1. **data** on parts to be processed **imported** with OPS-FlexCell,
2. **data processed** with OPTICell,
3. **optimal bending sequence** determined with OPTICell,
4. OPS-FlexCell manages the automatic flow on the **machines,**
5. OPS-FlexCell returns **feedback** on production.

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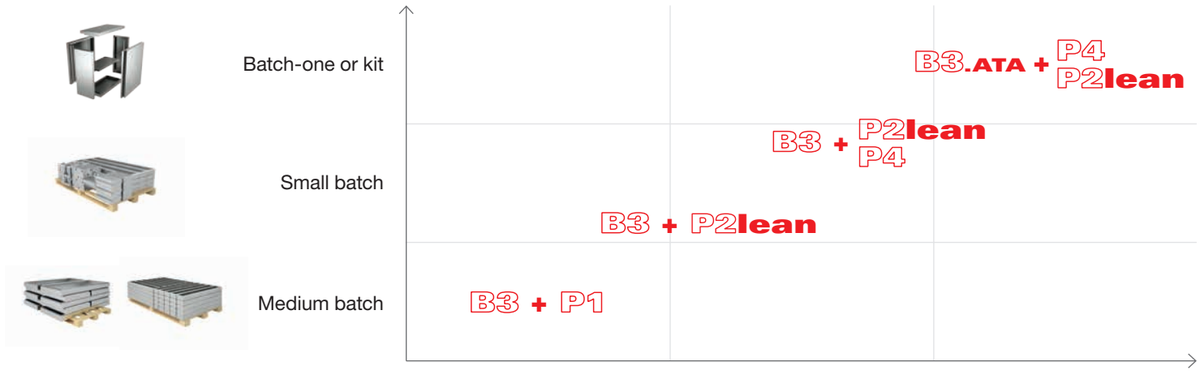
Configurable, to meet all manufacturing requirements.

FlexCell configurations to suit different batch sizes

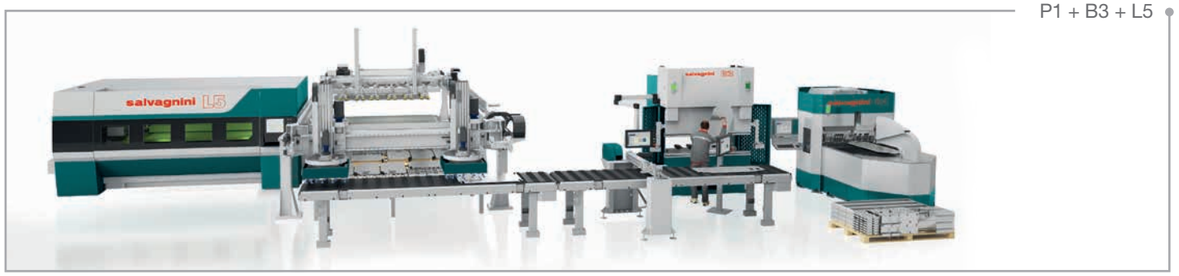


Modular and easily integrated into FMCs and Industry 4.0 factories

S4 + B3 + P1

L5 + ADL + MTW + B3 + P2lean

P1 + B3 + L5

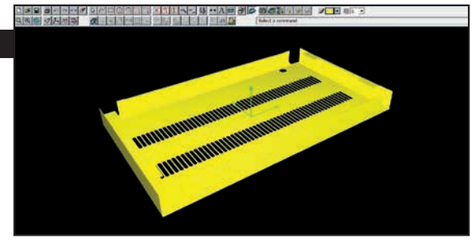


Error-free optimized flow.

OFFICE SOFTWARE

Edit.P4 2.0 and CAMSTUDIO

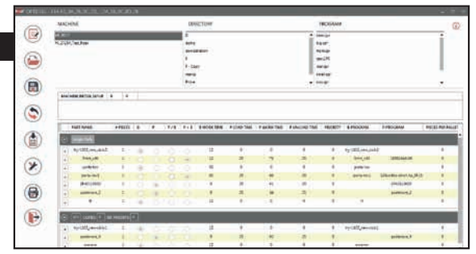
Generate press-brake and panel bender programs in a simple and intuitive way based on 3D files.



MACHINE SOFTWARE

OPTICell

Analyses the part programs and determines the optimal bending sequence based on estimated bending and set-up times.



INTEGRATION SOFTWARE

OPS-FlexCell

Manages communication between the panel bender and press-brake, automatically loading programs in the sequence determined by OPTICell. Helps the operator perform the job without risk of error and can be integrated with the customer's ERP.

CHECKLIST

Efficient flexibility: *a new concept in cell-based manufacturing.*
FlexCell achieves targets that might have seemed mutually exclusive until now, namely maximizing the efficiency, productivity and flexibility of a manufacturing cell.

Limitless creativity: *to complete all types of bend.*
Having two generally complementary technologies means that all restrictions on bending feasibility are removed.

Guided operation: *a complete management system.*
OPS-FlexCell is the management software that optimizes the production flow sequence based on the bends to be made and guides the operator, making his job easier and reducing the risk of error.

Fast return: *added value.*
The synergy of technologies orchestrated by OPS-FlexCell enhances the features of the Salvagnini bending systems, resulting in an even more competitive cost-per-bend and making the cell unbeatable in terms of the speed of return on investment.

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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

Automatic Storage Systems

MTW MD MBT MV LTW