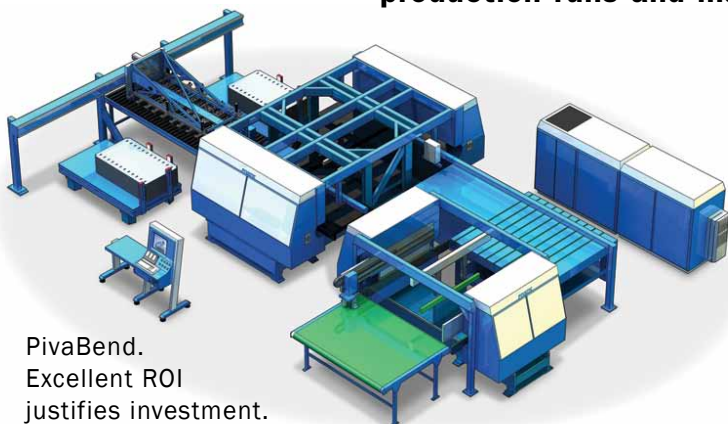


## **Pivatic Bending Center, the most versatile and efficient bender on the market.**

**Finish complex parts in one set up. More profitable because it's three times faster than its closest competitor. A long line of features makes it more efficient for both short production runs and mass production.**



PivaBend.  
Excellent ROI  
justifies investment.

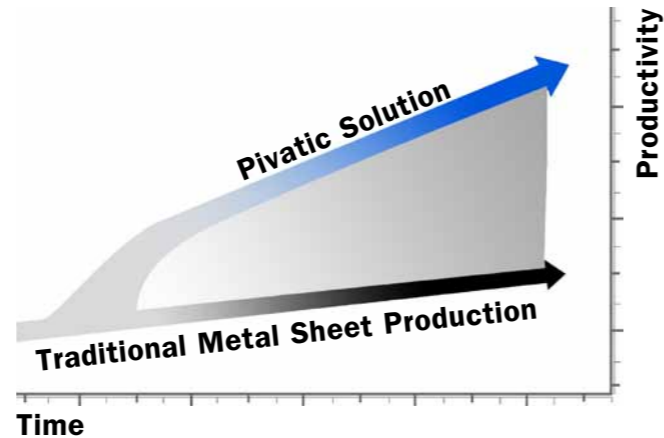


# **PIVATIC**

Flexible Sheetmetal Solutions

# PivaBend creates a leap in productivity for both small and large manufacturers.

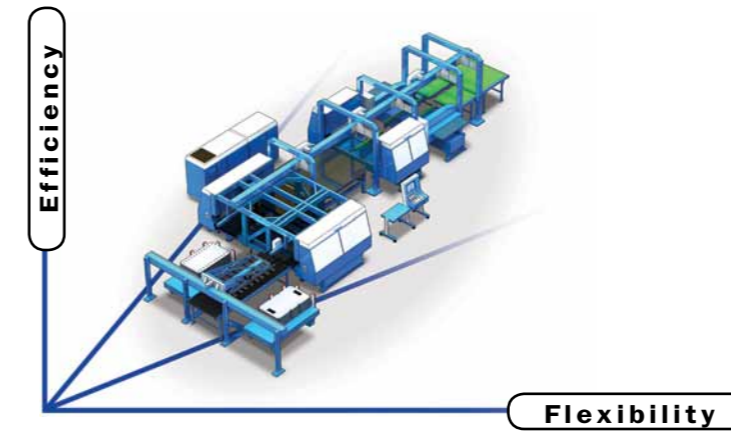
PivaBend is made for today's more demanding manufacturing needs. Smaller manufacturers will find it useful to be able to run smaller product series back-to-back fully automatically. Larger manufacturers will find that PivaBend's better cycle times produce like no other equipment. PivaBend is non-operator dependent, making it possible to run many different smaller projects 24/7.



PivaBend increases productivity more than any other traditional manufacturing method.



## PivaBend is more efficient and more flexible than other competitive technology.



### Industries that use PivaBend

- Office Furniture
- Heating & Ventilation
- Air Conditioning
- Domestic Appliances
- Shelving
- Lighting Fixtures
- Telecommunications
- Electronics
- Vehicle Accessories
- Subcontracting
- Enclosures

### Benefits:

Cycle time reduced thanks to the feature of having two sides bent at the same time.

Freely programmable sections on all four sides.

Bends both parallel sides after the same positioning for excellent accuracy and parallelism of sides.

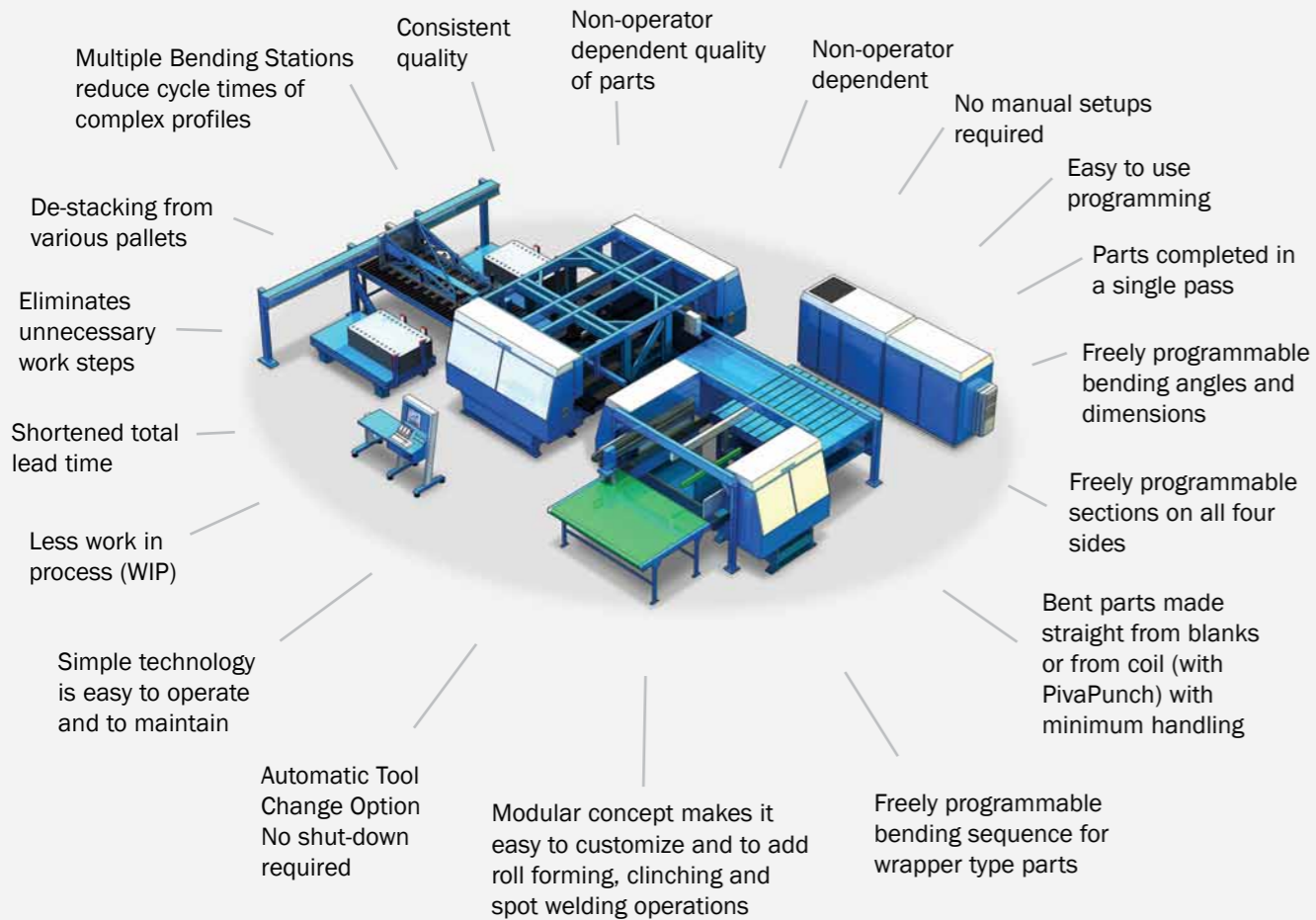
Material friendly wing forming method used, most suitable for pre-painted material.

No tool wear thanks to the bending method.

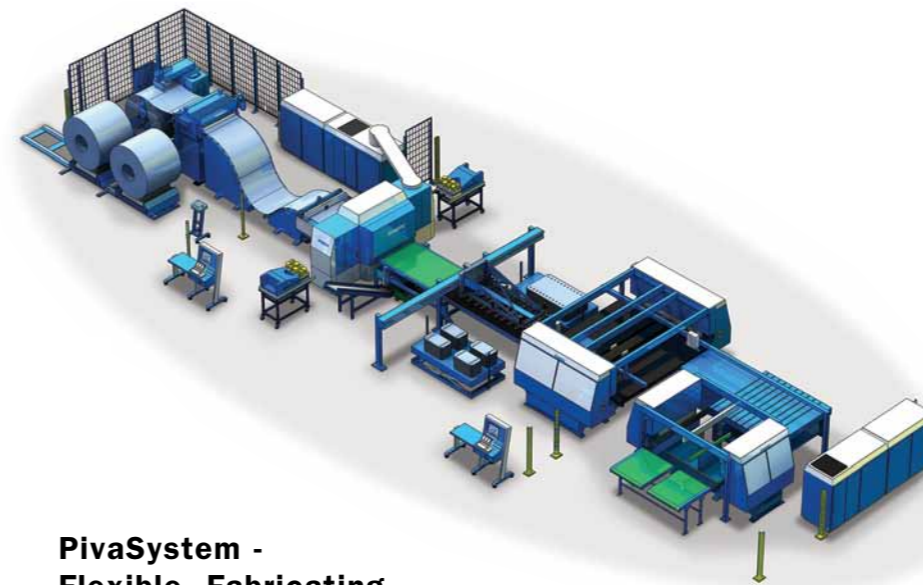
Optimized configurations for sections, panels and wrapper type products.

Equipped for welding and clinching tabs.

## A long line of excellent features and advantages promises quick ROI and long lasting profitability.



PivaBend is more **efficient** than other sheet metal forming methods because PivaBend uses one bending machine for each edge of the component and can run unattended. It's more **flexible** because angles, dimensions and sequences are all programmable. PivaBend is possible to integrate into additional processes such as punching (PivaPunch) straight from coil or roll forming equipment.



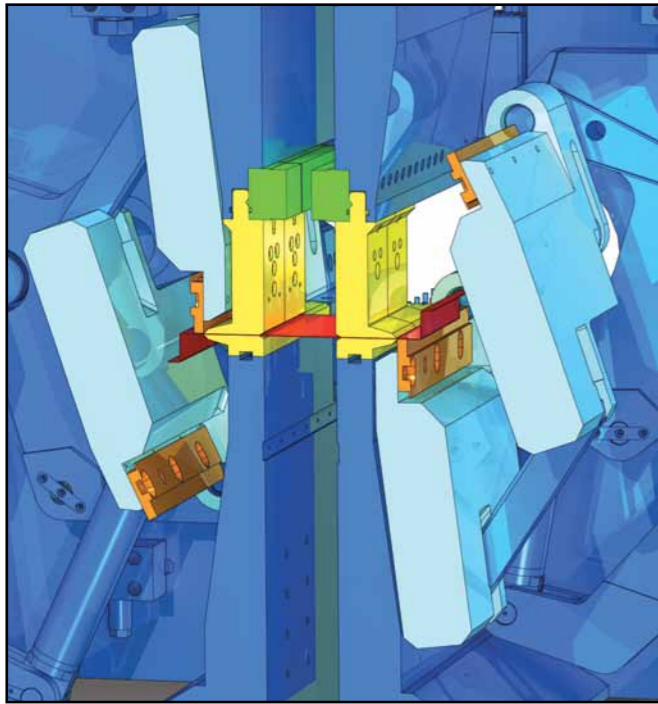
### PivaSystem - Flexible Fabricating

Integrating PivaBend with PivaPunch into our PivaSystem makes it possible to produce finished parts straight from coil automatically and at a high production speed.



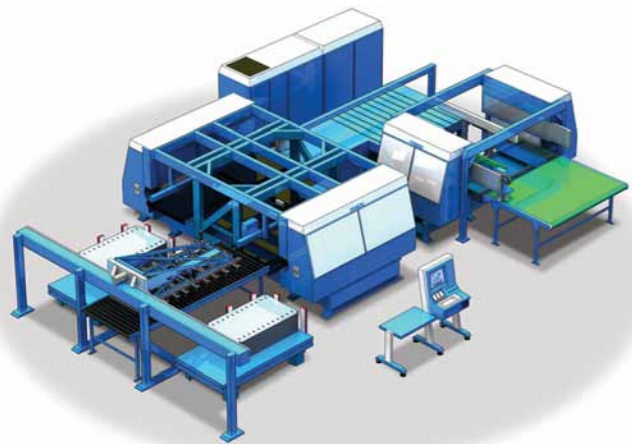
Flexible Sheetmetal Solutions

## The bending methods and the modular line concept make PivaBend suitable for many different applications.



The types of bending methods utilized by PivaBend are suitable for use with materials with sensitive surfaces like pre-painted steel and aluminum. The material moves between stations and are clamped and folded without being scratched or dented. The material is firmly clamped into place and cannot move during the bending process while the folding tools follow the material without moving over the surface. This ensures a continuous production and no costly scratches or rejects.

## The PivaBend line concept optimizes material flow and productivity.



Punched blanks are either transported straight from a PivaPunch Center or loaded from pallets.

Bent parts are discharged either by hand, using a robot for palletizing, or transported straight to a welding cell or assembling line.

The multi-station solutions are designed either in straight lines or at an angle depending on the factory layout.

### Part programming

Pre-programmed sections of all sides are stored in the line controller and combined with the blank size data for each CNC program.

## PivaBend concept for the production of different types of parts.



### Section type parts

The sides are bent in two folders set accurately parallel. Sections are freely programmable.



### Panel type parts

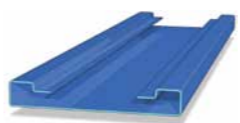
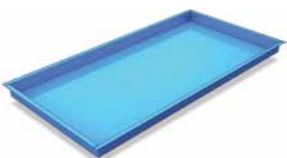

The ends are bent in a second bending station. All four edges are freely programmable. The Hold Down Tools are set for the part width either by hand or automatically.



### Casings type parts

The box bending is carried out in a third station. In case there are no negative bends on ends, wrappers are completed in two bending stations.

## Technical Specifications

Sections	Blank length mm	Sheet thickness Up to mm	Min. Free Width mm	Return Flange mm
	300 - 2 250	0,80	100	40
	300 - 2 250	1,50	125	40
	300 - 3 000	1,25	150	40
	Blank width up to 1 500 mm.			
Panels	Blank Size up to mm	Sheet Thickness up to mm	Min. Free Width/Length mm	Return Flange on sides/ends mm
	1250*2250	0,80	100/300	40/35
	1250*2250	1,50	125/300	40/35
	1500*2250	0,80	100/300	40/35
	1500*2250	1,50	125/300	40/35
	1250*3000	1,25	150/300	40/35
	1500*3000	1,25	150/300	40/35
The maximum height of bends is 120 mm. When corner tools are used maximum height is up to 80 mm.				
Casings	Section Width up to mm	Sheet Thickness up to mm	Min. Free Width mm	Return Flange on ends mm
	1500	1,25	300	30

Other specifications on request.



Flexible Sheetmetal Solutions

## PivaBend Bending Stations

Pivatic offers a line of panel bender stations. Each station is different and performs a specific number of tasks. The stations are made as modules and can be combined into more complex manufacturing centers. This spread describes the functions and advantages of **PivaBend FLN**, **PivaBend FLW**, **PivaBend FSW**, **PivaBend FSO**.

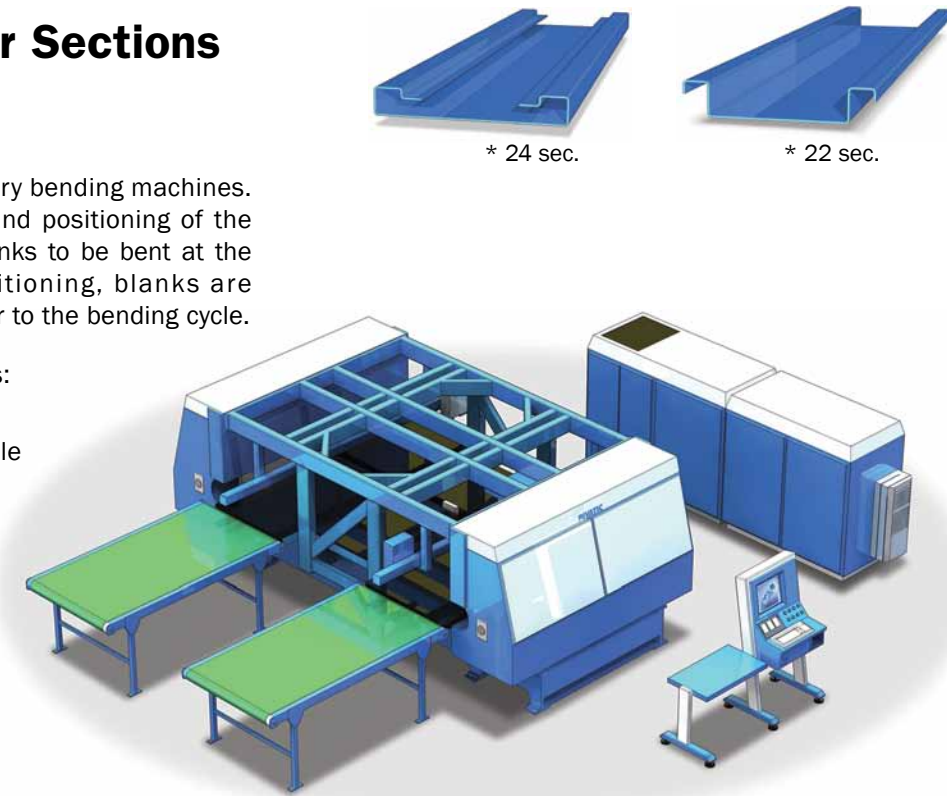
## PivaBend Centers for Sections

### PivaBend FLN for sections.

PivaBend FLN consists of two stationary bending machines. It has CNC feeders for transporting and positioning of the work piece. This layout allows two blanks to be bent at the same time. To ensure correct positioning, blanks are positioned against corner notches prior to the bending cycle.

PivaBend FLN has several advantages:

- PivaBend FLN is versatile.
- PivaBend FLN is set up for versatile production and handles short and long, narrow and wide parts.
- Different sections can be run after each other without manual set ups.

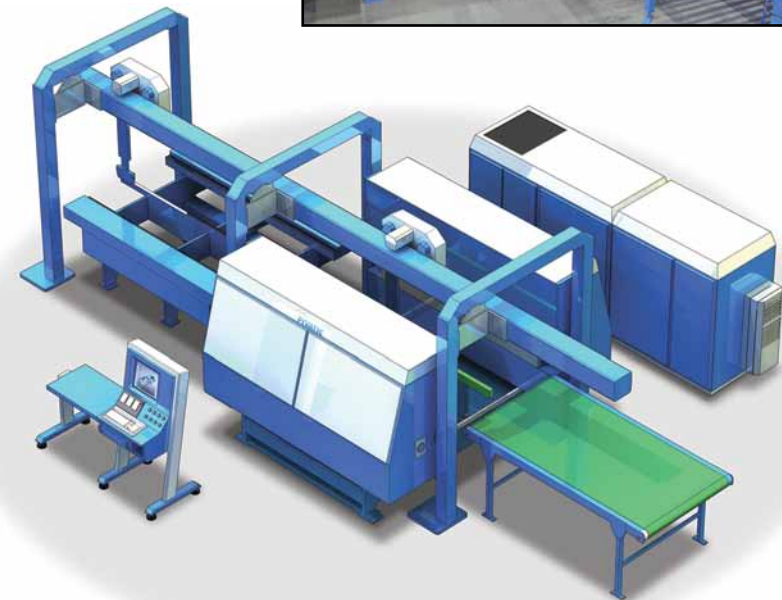


### PivaBend FLW for sides of shelves and panels.

PivaBend FLW consists of a separate positioning device, two traversing bending machines and CNC feeders for transportation of blanks. Both sides are bent simultaneously for reduced cycle time. Blanks are referenced prior to bending leading the tolerances to the first bend.

PivaBend FLW is fast and flexible.

- PivaBend FLW is set up for variable parts.
- Multiple stations can be set up for increased output.
- Different sections can be run after each other without manual set ups.



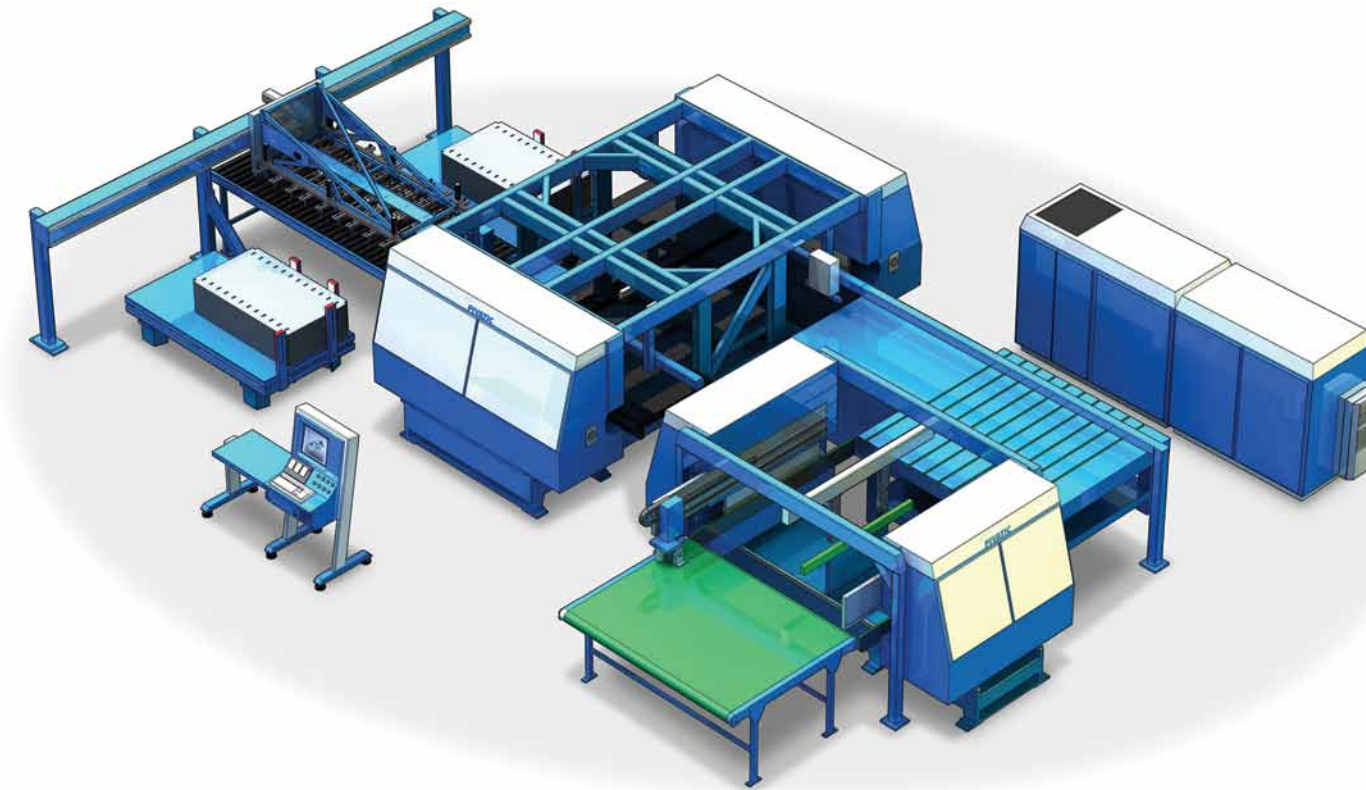
\* Times are based on FLN225/FSW125 model machine

## PivaBend Centers for Panels

### PivaBend FSW for Panels

The integration of the basic station with the FSW station results in extremely short cycle times because practically all 4 sides are bent at the same time. Profiles of all sides are freely programmable. Different parts can

be run in batches and in sequence on a made-to-order basis. The only set up: Hold Down Tools are changed in a couple of minutes without any hand tools thanks to the clamping system.



### Hold Down Tool set up for different part widths:

1. The Standard solution - Hold Down Tools are changed in a couple of minutes without any hand tools thanks to the clamping system.
2. Automatic Tool Change System eliminates the manual change of the Hold Down Tools and different parts are run after each other non-stop.
3. Depending on the dimensions, HD Tools are set with cylinder functions too.
4. Dedicated HD Tools are used for specified part families to eliminate manual set ups.

Bending tools for conical parts and for features like welding tabs are engineered according to the parts involved.

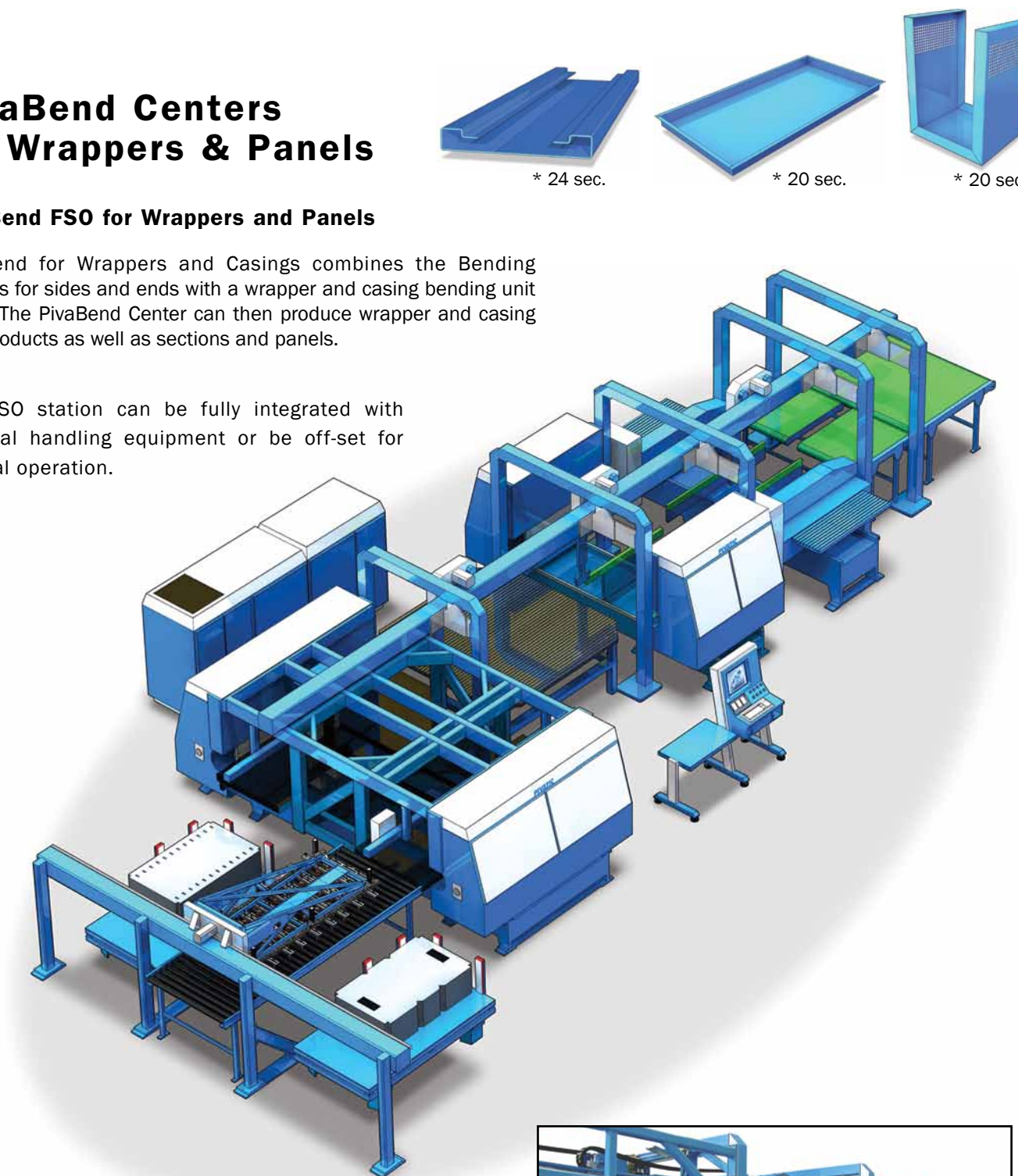
\* Times are based on FLN225/FSW125 model machine

## PivaBend Centers for Wrappers & Panels

### PivaBend FSO for Wrappers and Panels

PivaBend for Wrappers and Casings combines the Bending stations for sides and ends with a wrapper and casing bending unit (FSO). The PivaBend Center can then produce wrapper and casing type products as well as sections and panels.

The FSO station can be fully integrated with material handling equipment or be off-set for manual operation.



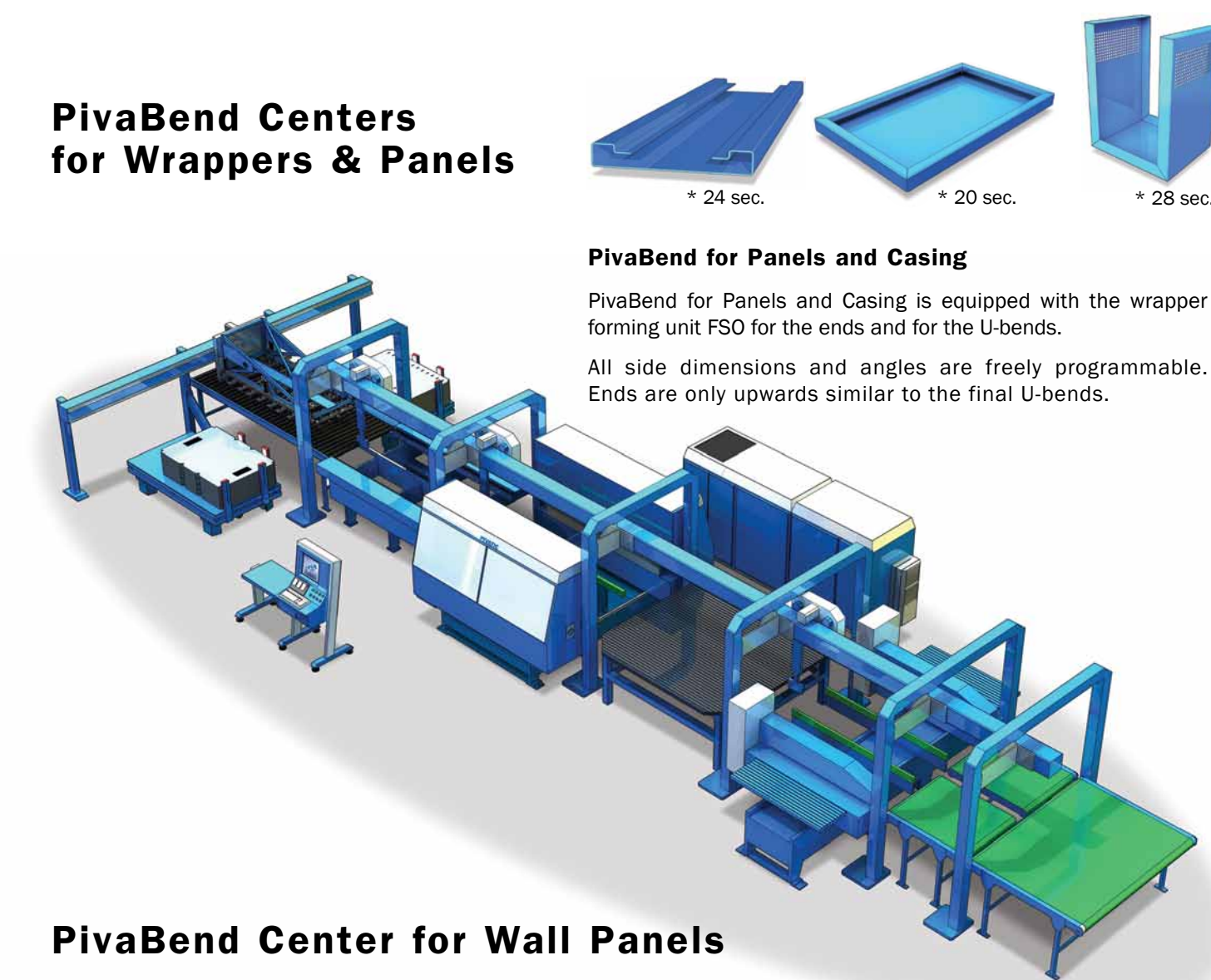
\* Times are based on FLN225/FSW125 model machine

## PivaBend Centers for Wrappers & Panels

### PivaBend for Panels and Casing

PivaBend for Panels and Casing is equipped with the wrapper forming unit FSO for the ends and for the U-bends.

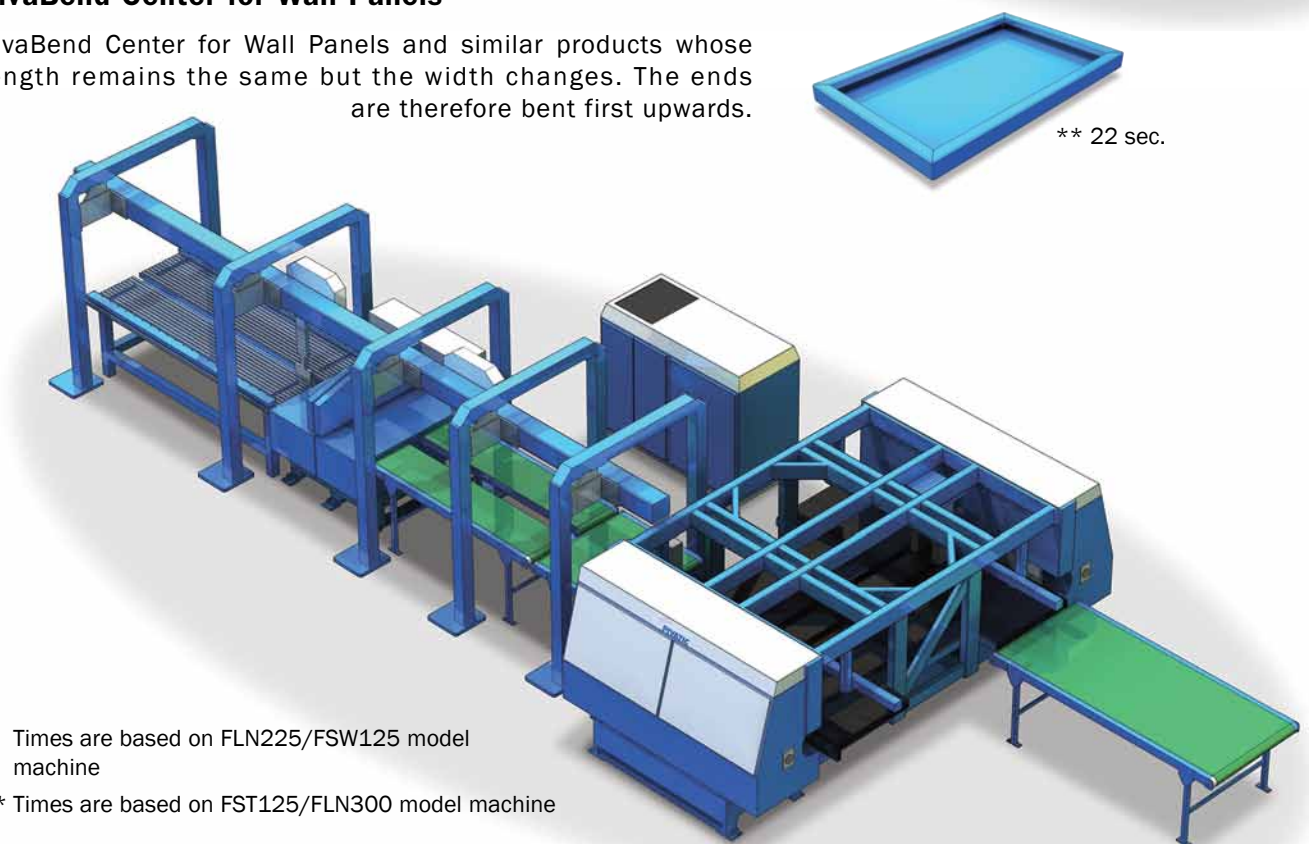
All side dimensions and angles are freely programmable. Ends are only upwards similar to the final U-bends.



## PivaBend Center for Wall Panels

### PivaBend Center for Wall Panels

PivaBend Center for Wall Panels and similar products whose length remains the same but the width changes. The ends are therefore bent first upwards.

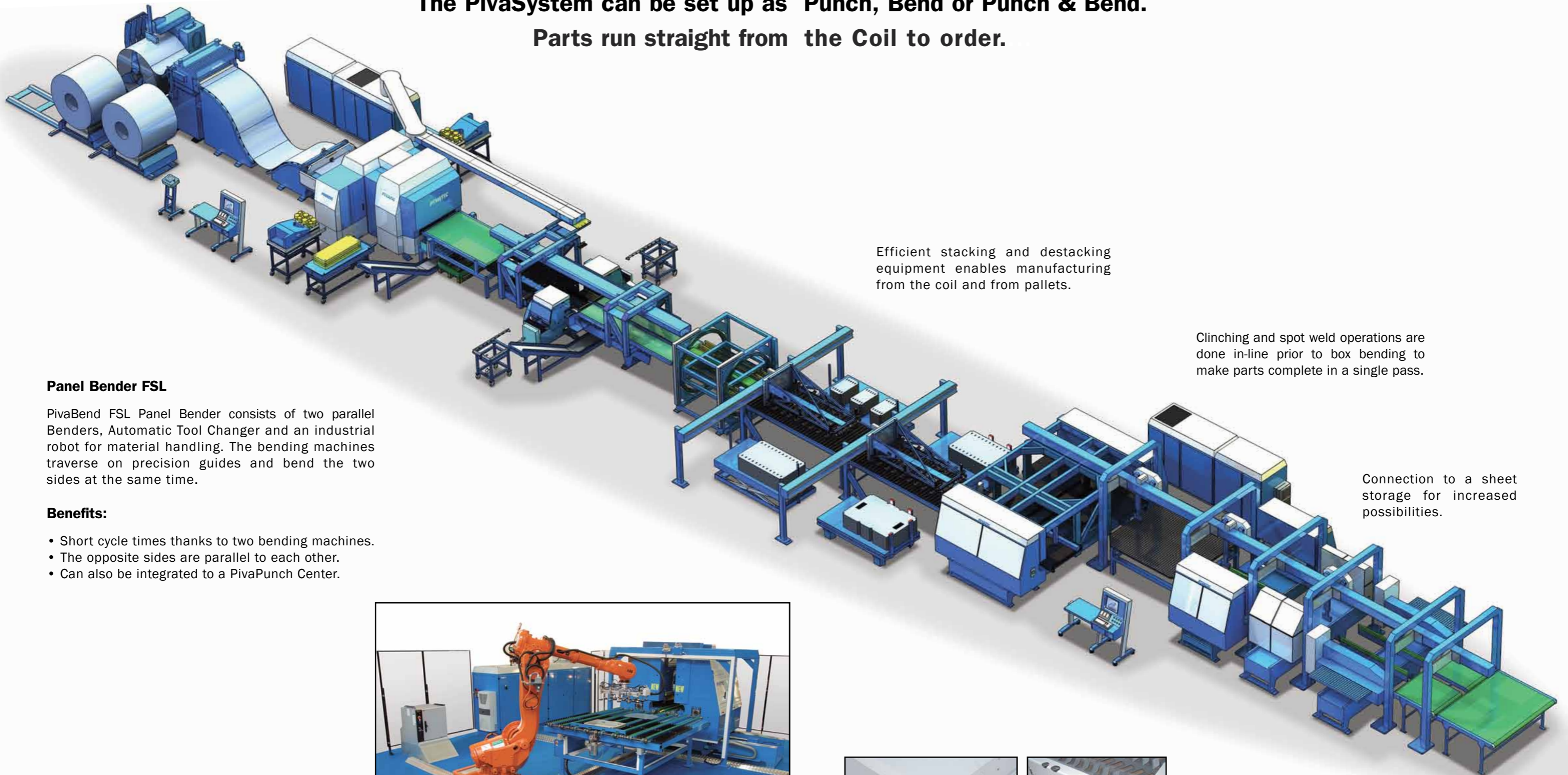


\* Times are based on FLN225/FSW125 model machine

\*\* Times are based on FST125/FLN300 model machine

# PivaBend Stations are Modular Units that are Integrated into Customized Solutions.

The PivaSystem can be set up as **Punch, Bend or Punch & Bend.**  
Parts run straight from the **Coil to order.**



Efficient stacking and destacking equipment enables manufacturing from the coil and from pallets.

Clinching and spot weld operations are done in-line prior to box bending to make parts complete in a single pass.

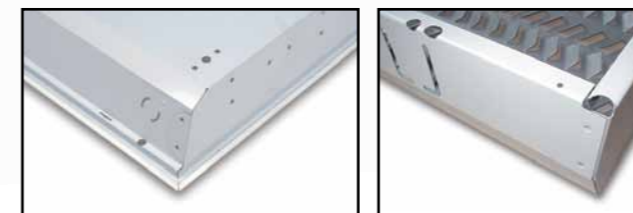
Connection to a sheet storage for increased possibilities.

## Panel Bender FSL

PivaBend FSL Panel Bender consists of two parallel Benders, Automatic Tool Changer and an industrial robot for material handling. The bending machines traverse on precision guides and bend the two sides at the same time.

### Benefits:

- Short cycle times thanks to two bending machines.
- The opposite sides are parallel to each other.
- Can also be integrated to a PivaPunch Center.



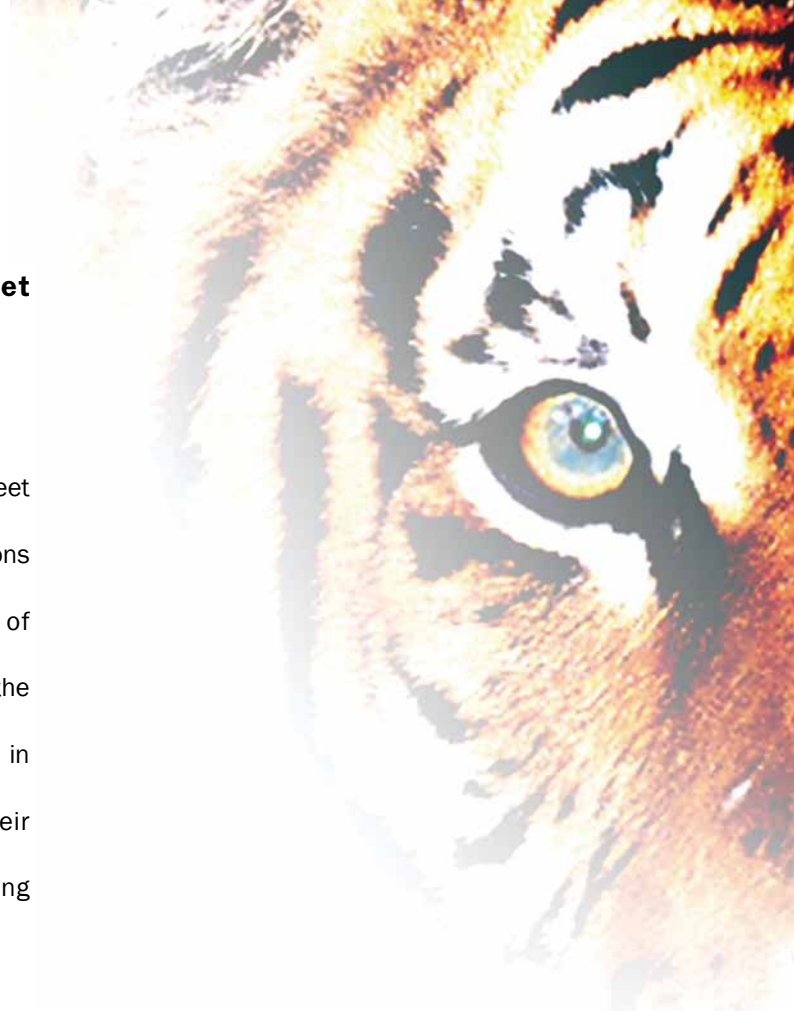
Pivatic offers unique solutions that complete parts after bending including spot weld and clinching operations.



Flexible Sheetmetal Solutions

**Pivatic empowers productivity in sheet metal fabrication.**

Pivatic is a global provider of high-end solutions for sheet metal manufacturers. We base our service and solutions on more than 100 years of being on the forefront of the metal forming industry. Our solutions are at the top of today's industry and give our customers a leap in productivity that leads to a healthy return on their investments. Pivatic is a pioneer in manufacturing solutions based on coil.



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