

SINCE  
1988

Sheet metal  
working  
machines

SMART® BEC-2000

SERVO Electric Panel Bender

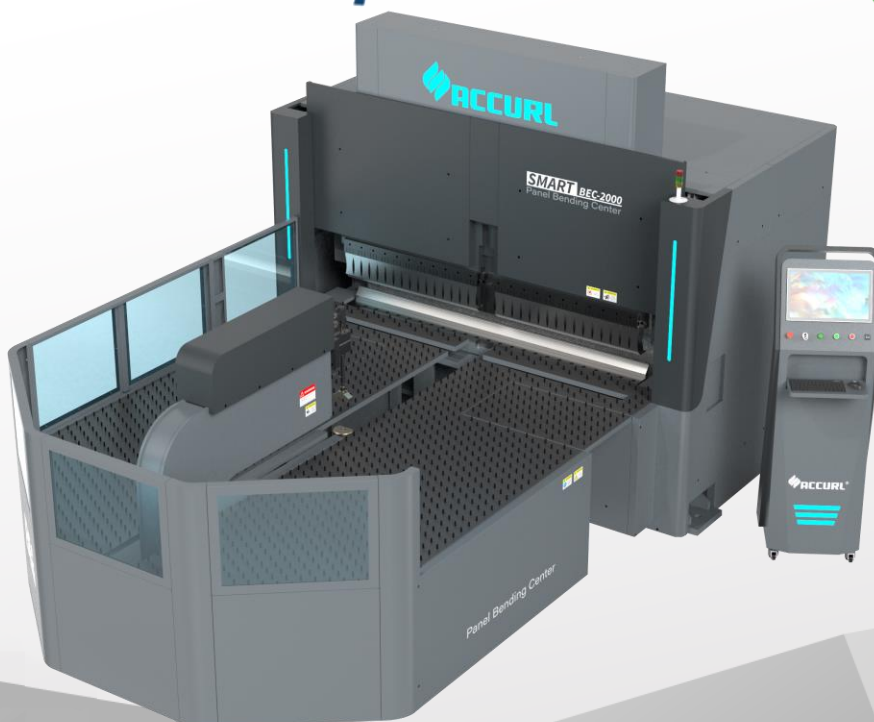
Complete Range of Professional  
Best Bending Solution

**BEND  
TECHNOLOGIES**



Energy in  
Efficient Use

4.   
INDUSTRY



## CREATING THE VALUE OF SUCCESS:

### [ Vision ]

The company that provides fun and joy

### [ Mission ]

Creating the value of success through customer satisfaction

### [ Core Value ]

Challenge · Change · Creativity · Content · Credibility



Challenge

Change

Creativity

Content

Credibility

Sheet metal  
working  
machines



## WHY CHOOSE PRODUCT OF THIS FAMILY ?

### Innovative Modular Design:

- <Our machines can also be combined with automation modules to create a complete system for the whole working process.
- <Customized solutions at a reasonable price, from basic to high end machine.

### Experience:

- <33 years of experience and more than 12,000 installed machines.
- <An expert R&D team committed to research the most competitive technology for our customers.

### More Varied Solutions for Bending

- <Sustainability and social responsibility are characteristics of modern companies and add to competitiveness.
- <Comprehensive range of basic tools in stock and modified solutions according to customer needs

### ACCURL High Quality Equipment:

- <The critical parts of the Accurl press brakes are manufactured in Germany.
- <We rely on our quality and therefore give our press brakes a 3-year warranty.

### After-Sales Service:

- <Original ACCURL spare parts to guarantee full performance and prolonged durability.
- <Wide range of consultation services on machine operation, programming and maintenance.

## ACCURL PANEL BENDING BEC SMART SERIES:

*Servo-electric technology: our experience in your hands*

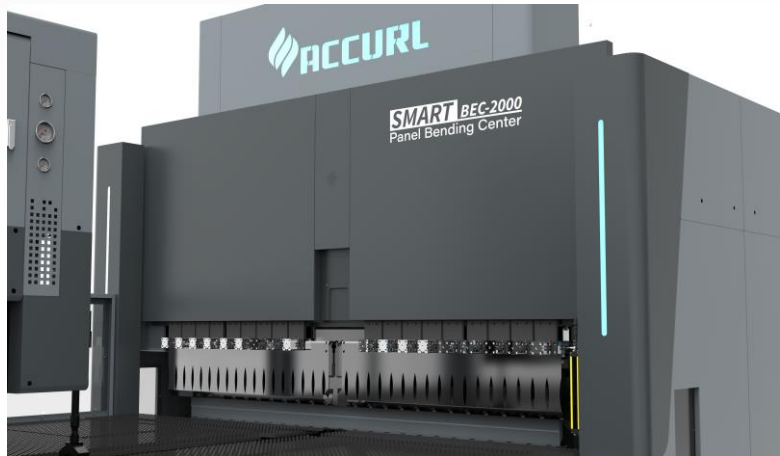
ACCURL has launched its new **BEC SMART** panel bender, designed to satisfy the most demanding market needs. With an innovative design, this is the result of more than 35 years of ACCURL's own know-how in the field of bending

### NEW AUTOMATIC PANEL BENDER BENDING SOLUTIONS:

- ACCURL BEC SMART Smart automatic panel bender has been designed with a modular concept, so that it may incorporate a large range of accessories and offer fully automated solutions.

- The BEC Smart bending cell is a revolutionary bending solution thanks to the "safety integrated" concept that allows the operator to focus only on value-added operations, aided by visual devices and sound signals.

- Its compact layout and combined loading and unloading sequence guarantee high productivity, constituting a very important investment for anyone looking for a flexible and semi-automatic panel bender.



### Perfectly equipped for sensitive Bending Energy efficient solutions:

- **Extra blank holder tool**

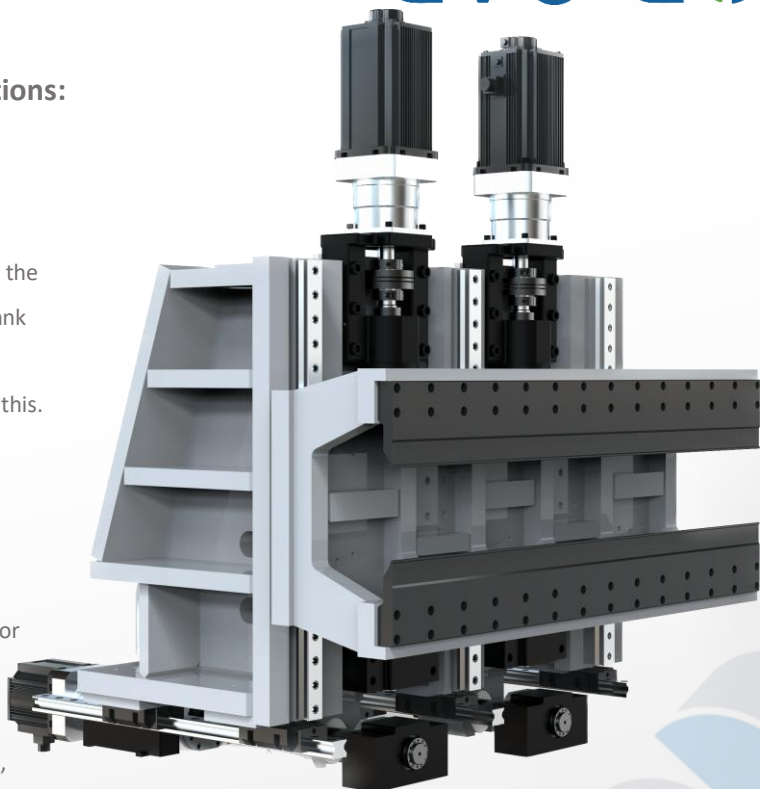
With additional upper blank holders, you can also produce very narrow profiles or components with formed sections near the bending lines. If required, the machine automatically swivels in the ENW extra blank holder from above. The available standard blank holders do not need to be replaced or modified for this.

- **Connections:**

- Compact Solution
- 100% Full Servo-Electric System
- Electrical Energy Savings
- Regular Production Independent From the Operator

- **Angle drive**

With its ingeniously simple continuous path control, the innovative angle drive of the **SMART BEC** Center ensures maximum accuracy. The interaction between two axes provides the ideal traverse path to protect the surface of your component. The drive design also makes your **SMART BEC** Center particularly robust for everyday industrial applications.



The operator has only to load blanks and unload finished components while the BEC panel bender takes care of the rest.



## PANEL BENDING BEC SMART SERIES:

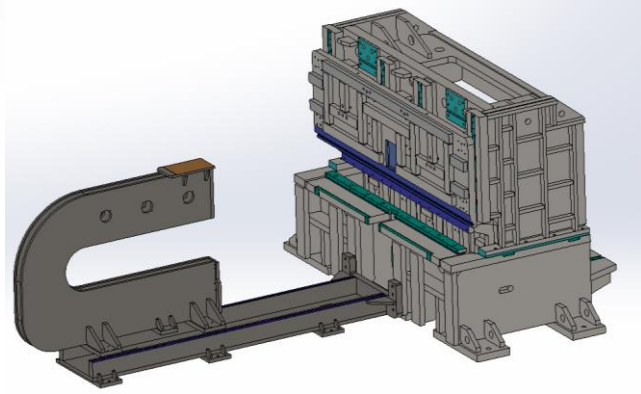
*The servo motor controls the movement of the positioning L-block, which is fast and accurate*

- Maximum comfort for the operator thanks to the lack of physical barriers and work surfaces that can be lowered to facilitate the loading of small or medium-sized parts.

### Adapted Automation:

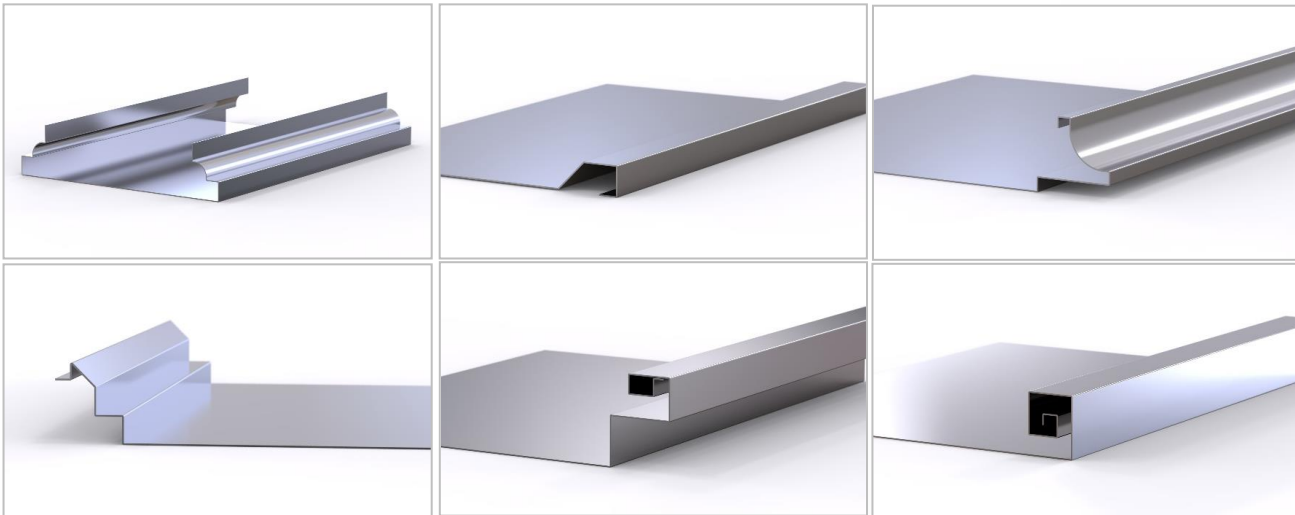
- Modular design allows incorporating additional systems to enable complete automation such as different loading and unloading systems or other ACCURL Sheet Metal equipment.

- The frame adopts a high-precision temperature-controlled furnace, which is tempered, heat-treated, annealed and modulated according to the temperature curve corresponding to the material, which ensures the lasting stability of the overall accuracy of the machine tool.



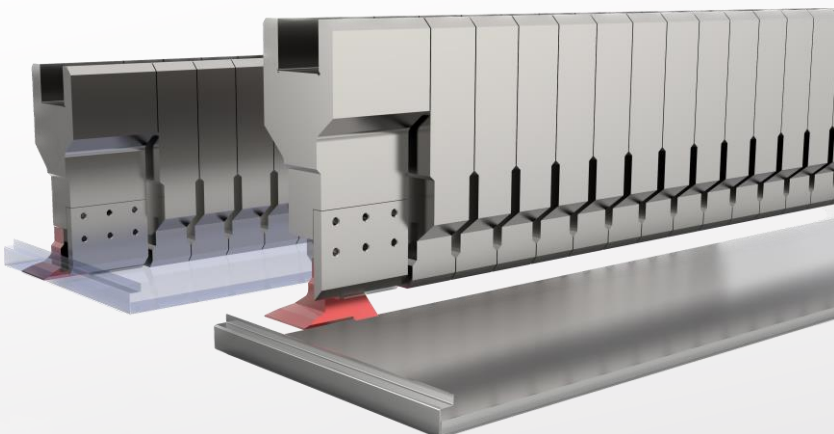
### UNIVERSAL TOOLING

The Flexible Panel Bender bends the sheet metal with one universal tooling, able to bend various complex shapes.



### HORN BLANK HOLDER:

Nestings with inner edges can be produced easily with the horn blank holders. The "horns" extend and retract automatically at an angle. This means that the upper blank holder can move downwards without causing a collision between the tool and the bend.



ACCURL  
BENDER



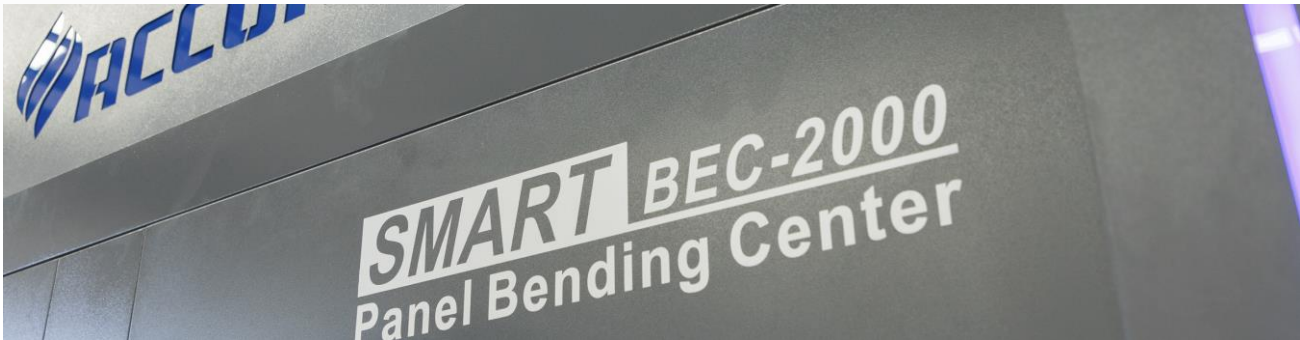
## RELIABLE & EXPERIENCED CONTROL:

*Over 35 years of experience in Top level Bending Controls*

ACCURL® has chosen the very powerful new generation TULUS BEND® controller of panel bender from Accurl, since 2020. and the ACCURL design and the high quality of all the construction details, guarantee prestigious performances and long product life user for panel bender.

## TULUS-BEND-TOUCH-SERIES

### GRAPHICAL CONTROL:



## STATE OF THE

### ART FLEXIBLE SOLUTIONS:

The TULUS BEND® control combines solid fundamental panel bender control functionality with the latest of enhancements increasing productivity next to highest accuracies, ease-of-use for the operator it makes today's press brakes more versatile than ever. Integration of machines in the manufacturing process chain is what it is all about.

## OVER 33 YEARS OF EXPERIENCE IN TOP LEVEL CNC CONTROLS!!

The TULUS BEND® offers **2D Programming** that includes **automatic bend sequence calculation** and collision detection, and **full 3D machine setup** with multiple tool stations giving true feedback on the product feasibility and handling (Supports direct import of graphic Step, IGES drawings).

### \*ADVANTAGE

- 21" high resolution colour TFT(touch screen)
- Full Windows application suite
- Modusys compatibility
- 2D graphical touch screen mode
- Arc bending angle, the application range is 0-360°
- USB, peripheral interfacing
- Support 3D CAD product import
- Support for Industry 4.0 connectivity(Optional)
- Shop floor control and Job list functionality



### INTEGRATION:

- Interfacing for machine integration with a diversity of partnering systems in the application.

### USER-FRIENDLY

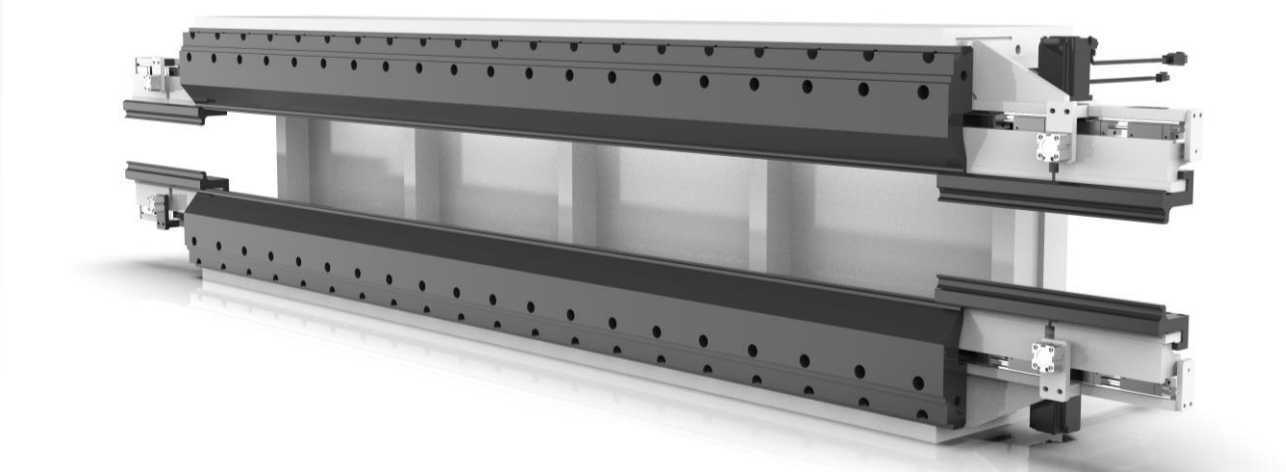
- TULUS BEND® touch navigation offers proven user friendliness and consistency ensuring highest possible user-efficiency.

### EMBEDDED RELIABILITY

- The TULUS BEND®-Touch controls feature the embedded, realtime Windows operating system for maximum reliability. Smooth start-ups ensured, even after instant shut-off.

## ACCURL® Extra Auxiliary Bending Tools AST\*:

- The extra bending tools can be set up automatically in order to bend flanges or offset bends. When necessary, the tools automatically move to the correct position from their parked position, and process the sheet without using the remaining bending tools.

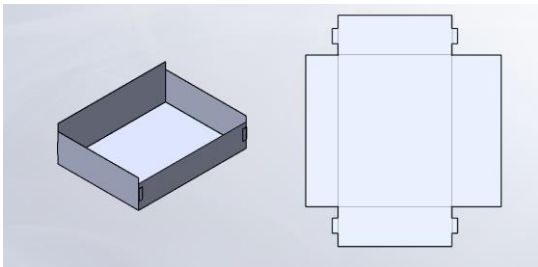


- The AST tools are used to make bends along a broken bending line, or shorter than the side being bent. i.e., where individual sections of a blank edge need to be bent. This function can only be used on machines with AST tools fitted.

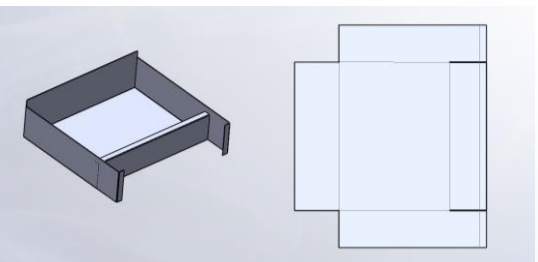
### UNIVERSAL BENDING TOOLS PROIDE

#### MAXIMUM VERSATILITY\*:

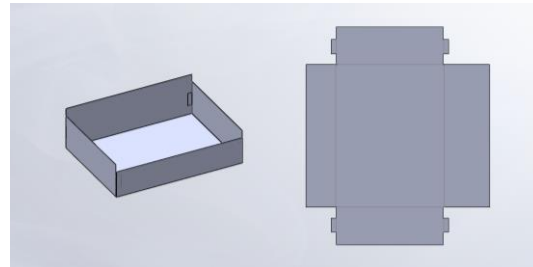
**Example:** Lugs on the outside of a box



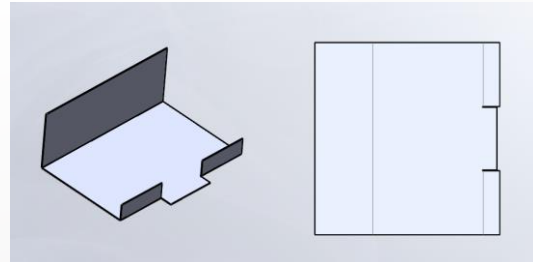
**Example:** Bend center section on edge of a blank



**Example:** Lugs on the inside of a box



**Example:** Bend sections symmetrical to the centerline of the machine on edge of a blank



- Sometimes for special production needs, such as panels with complex bending profiles, it is industrially necessary to use special tools such as AST.

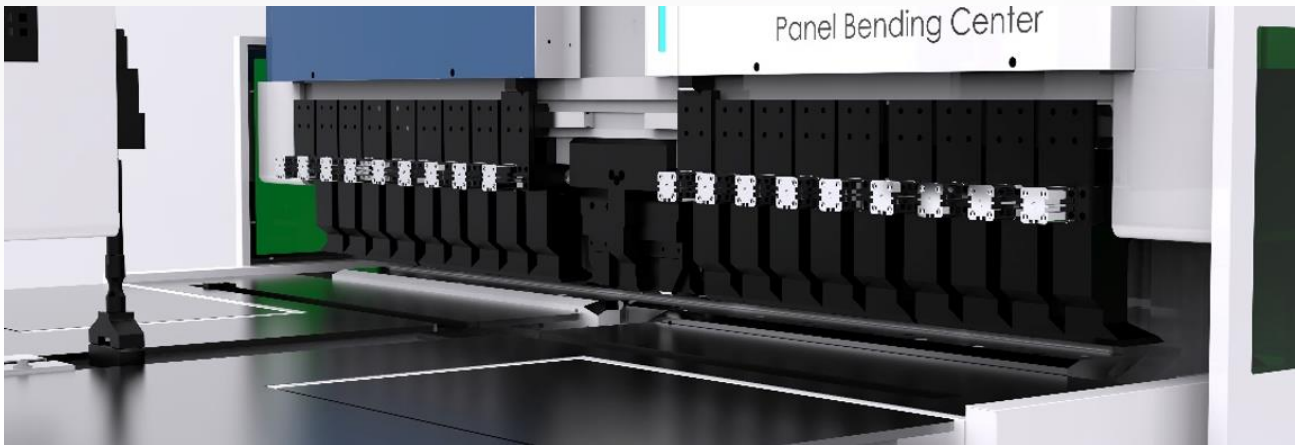
#### BENDING SAMPLES:

The AST blades can be positive (for making upward tabs) or negative (for making downward ones). The AST can be setup either automatically or manually, depending upon application needs.

ACCURL

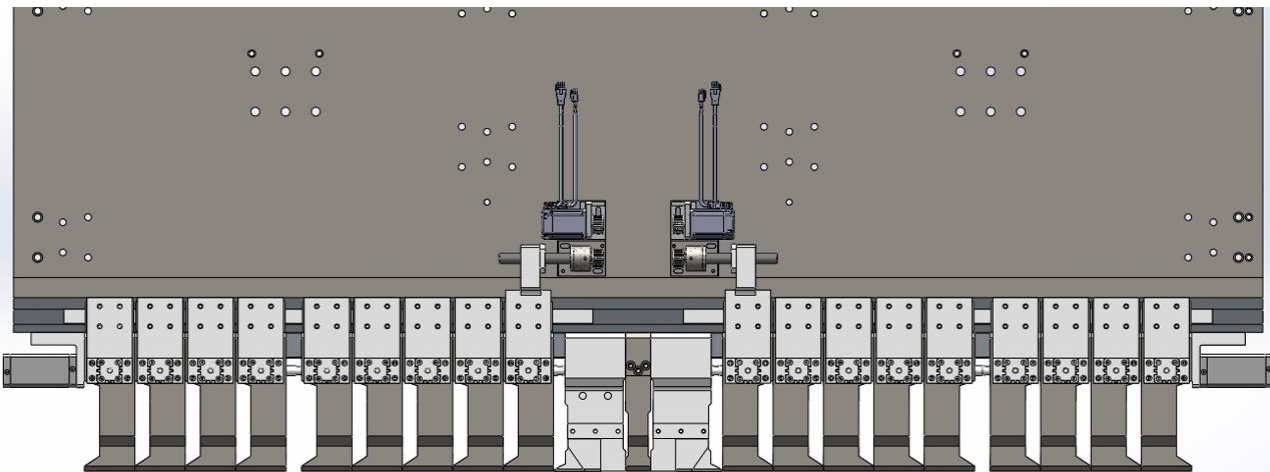
## ACCURL® Automatic Tooling Change Section System\*:

- It uses universal bending tools which automatically adapt in-cycle to the panel geometry, without machine down times or manual retooling, allowing batch-one or kit productions..



### FLEXIBLE AUTOMATION:

- Quickly and fully automatically, this moves, handles, grips and rotates the sheet metal throughout the whole machining cycle. It requires no manual interventions during the cycle. The operator positions the sheet metal on the worktable and collects the product after bending, performing only the loading and unloading operations.



### CONFIGURATION:

NAME	CONFIGURATION	ITEM	BRAND
Feeding Type	Arm Hold Dual Rotate	Controlling System	ACCURL/SYNTEC
Table Type	Brush	Servo Motor/Driver	SYNTEC/INOVANCE
CNC Axes	11	Motor Reducer	SYNTEC/INOVANCE
Speed Adjustment	Standard	Ball Screw	YIGONG
Senior Command	Standard	Bearing	NACHI
Arc Command	Standard	Linear Guide	HIWIN/PMI
HEM Command	Standard	Electric Component	Schneider
Robot Connection	Standard	Coupling	MIKIPULLEY

## ACCURL® BENDING ROBOT CELL FOR SMART BEC\*:

Automation Robotic Bending Solutions ,Better performances, higher speed, more productivity:

- ACCURL panel bender can be used in a robotic cell, either completely robotic, or when a robot and an operator can alternatively use the CNC machines.

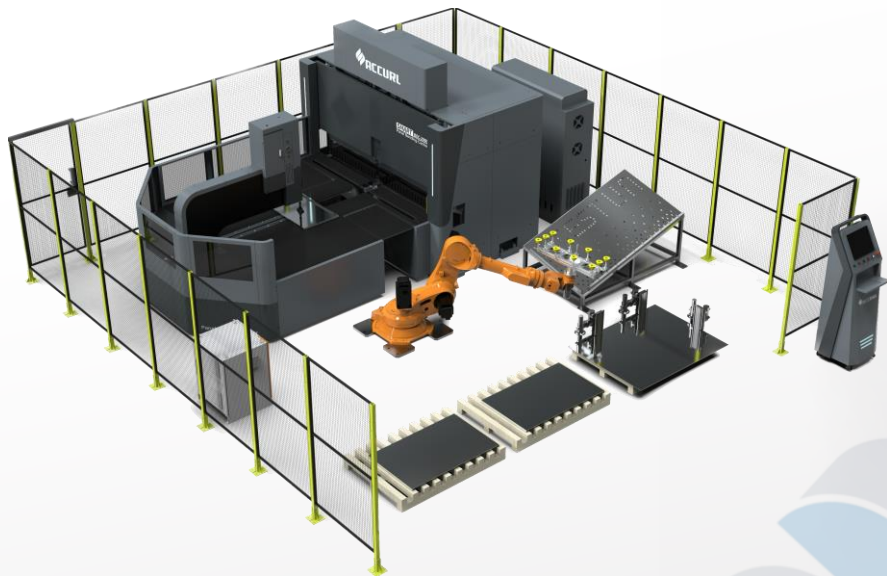


### AUTOMATION ELECTRIC

#### PRESS BRAKE:

Thanks to the ACCURL Bending robot and automatic loading/unloading devices, the cell with two levels of automation - process and operation - is a reliable solution for unattended production, even at night.

1	Panel Bender
2	5-axis Robot
3	Pneumatic gripper
4	Moving axis
5	Loading pallet
6	Centering table
7	Turn-over table
8	Stacking table
9	Electrical system
10	Safety fence



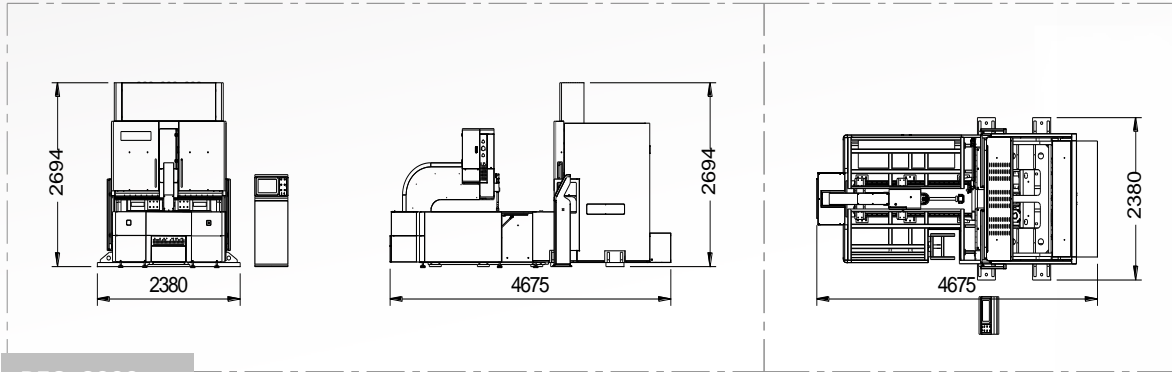
#### CONNECTIONS:

- Loader from a precentred pack.
- Cartesian feeder with controlled axes.
- Unloader.
- Carousel unloader.
- Roller-surface unloader for pallets and crates.
- Un-intrusive machine integration with sensors to back gauge fingers and bending beam which follow the programmed sequence of the Accurl panel bender.

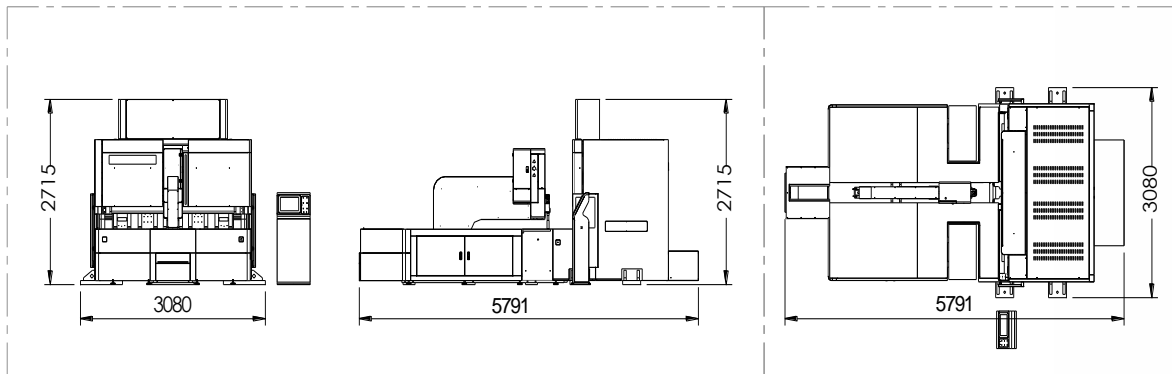


## MACHINE LAYOUT:

BEC-1400



BEC-2000



## TECHNICAL FEATURES:

### Excellent dimensional characteristics:

Name		Unit	BEC SMART-1400	BEC SMART-2000	BEC SMART-2500
Max. Bending Length		mm	1400	200	25
Max. Sheet Width		mm	1500	1500	1500
Max. Bending Height		mm	170	170	170
Min. Workpiece Size		mm	110x200	110x200	110x200
Min. Workpiece Size		mm	110	110	110
Min. Radius		mm	1.2	1.2	1.2
Bending Angle		°	±180	±180	±180
Max. Bending Speed		s/bending	0.5	0.5	0.5
Min. Sheet Thickness		mm	0.35	0.35	0.35
Max. Sheet Thickness	SS	mm	1.2	1.2	1.2
	MS	mm	1.5	1.5	1.5
	AL	mm	2.0	2.0	2.0
Dimensions (L×W×H)		mm	3100x5300x2600	3100x6050x2600	3100x6050x2600
Full Power		Kw	45	45	45
Working Voltage		V	380V ± 10%	380V ± 10%	380V ± 10%