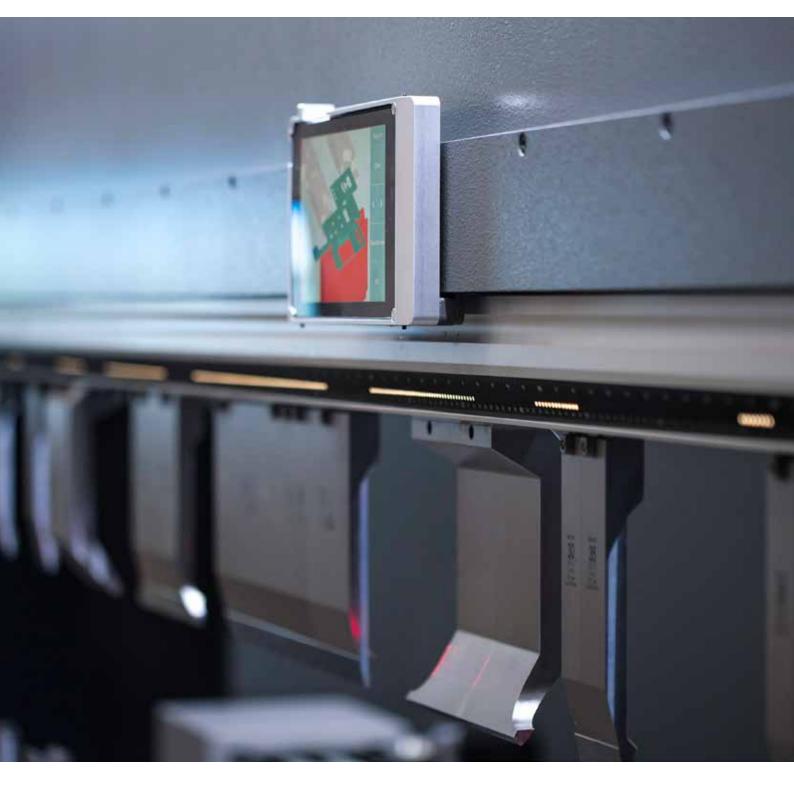


### **PRESS BRAKES**



Press Brakes SynchroMaster EuroMaster-S PressMaster

## Our Press Brakes Series

## HACO's Affordable Bending Solutions to the Highest Standards

#### Always the right choice for your application

| • | SynchroMaster Series | 4  |
|---|----------------------|----|
| • | EuroMaster-S Series  | 1  |
| • | PressMaster Series   | 18 |
|   |                      |    |

| E | quipment                         |    |
|---|----------------------------------|----|
| • | FastBEND-2D/3D MT Premium        | 24 |
| • | New Standard Tooling System      | 26 |
| • | Smart Tool Locator               | 27 |
| • | Lazersafe Optical Safety Guards  | 28 |
| • | Angle Measuring System Alfa-F    | 30 |
| • | Angle Measuring System IRIS Plus | 31 |
| • | Sheet Following Systems          | 32 |
| • | SyncView                         | 34 |

HACO's pressbrake series are the result of a decades long tradition in designing and manufacturing affordable state-of-the art bending **machines** for a wide variety of customers and applications.

HACO continues its policy of single source responsibility. Our in house developed **CNC controls** and **software solutions** have been recognized as being among the most user-friendly in the market. The new generation **Multi Touch** controls sets a new standard for an intuitive and user-friendly operator interface, introducing innovations such as Smart Draft, Step Previewer and Combined Icons.

HACO's attention for **design** and **manufacturing quality** has resulted in a worldwide reputation of long lasting production machines offering **excellent** reliability and precision.



## SynchroMaster (SRM) Entry Level Machine

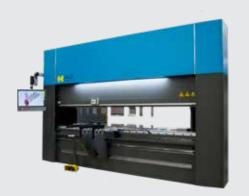
Entry level pressbrake with basic execution for operation with European Standard Tooling. Possibility to extend with straightforward options. Attractive price/quality ratio. Standard with user friendly 2D graphical control.



### **EuroMaster-S (EMS)**

Standard Multifunctional Allround machine

General level pressbrake with market oriented execution. Extensive choice of options, both basic and sophisticated. Innovative 2D Multi Touch graphical control. Excellent priceperformance ratio. Integration of advanced safety equipment.



### PressMaster (PM)

Top Level High-Spec machine

Top level pressbrake with high-end specifications and execution. Increased Daylight Opening and Beam Stroke for increased bending freedom. Increased beam and backgauge speeds for high productivity. Innovative 3D Multi Touch graphical control. Possibility for extension with sophisticated options. Features accurate bending characteristics. Integration of advanced safety equipment.

#### **FOLLOW THE HACO GROUP:**

WWW.HACO.COM



TheHACOGroup



@haco\_com



The HACO Group



hacogroup

## **SynchroMaster Series**

## Your entry-level machine

## **SynchroMaster Series**

SRM

#### **BEAM CONTROL**

Beam parallelism and depth stop setting by means of bed referenced linear encoders for accurate beam position measurement, synchro module and proportional valve hydraulics

#### **EASYBEND-2D T**

Touch Screen control



**EASYBEND-2D MT**Multi Touch Screen control (optional)



ROL1 CLAMP3 (optional)



Model SRM 275 13 10 Flush Floor frame design for all models

#### **CROWNING TABLE (OPTIONAL)**

Compensates for ram and table deflection, ensuring consistent bending angles over the entire bending length.

Manual operation and CNC controlled versions (V-axis)

#### STANDARD BACKGAUGE X

Rigid backgauge for accurate sheet positioning



STANDARD EUROPEAN

Quick Manual Upper clamping

Manual bottom clamping



4 5

**ROL200 Manual or Pneumatic** 

(optional)

## **SynchroMaster Series**

## EasyBEND-2D T Control

#### **EASYBEND-2D T CONTROL**

- 18.5" colour graphic LCD display with Touch Screen Technology
- WIN10 loT operating system
- Multiple drawing methods
- Graphic simulation of work pieces with Multitasking Real Time solution Finding
- Automatic bending sequence calculation with collision control
- Automatic program generation
- Expandable up to 7 axes:
  - standard Y1 + Y2
  - standard X-axis
  - optional R-axis
  - optional X-R-Z/Z' and X-R-Z1-Z2 axes
  - optional crowning (= V-axis)
- Material library up to **30 different materials**
- Tool library with graphical visualisation for
- 30 upper and 30 lower tools
- Multi-language support
- **USB Support** (stick included) + Network board
- Remote diagnostics
- Programmable Beam Speed and Speed Change-Over Point
- **Top Death Centre (TDC)**, Back gauge Positioning with retraction





Standard Execution



#### The European Standard Tooling System has proven its flexibility, affordability and precision during the last decades in an infinite number of sheet metal working shops. A wide choice of a vast number of top and bottom tools allows for a unpredictable number of applications in various materials and thicknesses.

**EUROPEAN STANDARD (ES)** 

top tooling with Quick Manual

Clamping arrangement



#### X BACKGAUGE, expandable to X-R, X-R-Z/Z' and X-R-Z1-Z2

The SynchroMaster is standard equipped with a rigid and accurate X backgauge featuring average travelling speeds. Optional X-R (height programming), X-R-Z/Z' (symmetric finger programming) and X-R-Z1-Z2 (asymmetric finger programming) are available for increasing your range of applications.

Picture: X-R backgauge

- EasyBEND-2D control
- X Backgauge for accurate sheet positioning

Stroke X = 32", maximum speed = 945"/min Stroke R = 10", maximum speed = 236"/min (Optional)

- European Standard (ES) top clamping with Quick Manual Clamping Arrangement
- Intermediate clamping with height 6" (all models ≤ 350 Ton), height 5" HD version (all models = 440 Ton)

#### **Your Competitive Edge**

#### A. Excellent Value for Money

B. User Friendly EasyBEND-2D graphical control

C. Proven Profitability for Various Workload Conditions

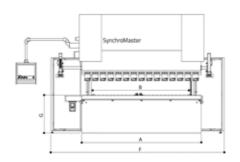
## **SynchroMaster Series**

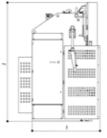
## Technical Specifications

|           | Bending<br>length | Capacity | Distance<br>between<br>housings | Gap   | Daylight<br>opening | Stroke | Table<br>Height | Fast<br>Approach<br>Speed | Max.<br>Bending<br>Speed | Fast<br>Return<br>Speed | Motor<br>Power | Length | Width | Height | Weight |
|-----------|-------------------|----------|---------------------------------|-------|---------------------|--------|-----------------|---------------------------|--------------------------|-------------------------|----------------|--------|-------|--------|--------|
|           | Α                 |          | В                               | С     | D                   | E      | G               |                           |                          |                         |                | F      | I     | J      |        |
| MODEL     |                   | Т        |                                 |       |                     |        |                 | "/min                     | "/min                    | "/min                   | HP             |        |       |        | Lbs    |
| 75 6 5    | 83                | 75       | 63                              | 15,75 | 20,47               | 10,60  | 33              | 354                       | 23,62                    | 236                     | 15             | 115    | 68    | 108    | 12346  |
| 7586      | 102               | 75       | 83                              | 15,75 | 20,47               | 10,60  | 33              | 354                       | 23,62                    | 236                     | 15             | 151    | 68    | 108    | 14991  |
| 75 10 8   | 122               | 75       | 102                             | 15,75 | 20,47               | 10,60  | 33              | 354                       | 23,62                    | 236                     | 15             | 171    | 68    | 108    | 16976  |
| 11086     | 102               | 110      | 83                              | 15,75 | 20,47               | 10,60  | 36              | 472                       | 23,62                    | 295                     | 15             | 136    | 69    | 115    | 15873  |
| 110 10 8  | 122               | 110      | 102                             | 15,75 | 20,47               | 10,60  | 36              | 472                       | 23,62                    | 295                     | 15             | 171    | 69    | 115    | 18519  |
| 110 12 10 | 144               | 110      | 124                             | 15,75 | 20,47               | 10,60  | 36              | 472                       | 23,62                    | 295                     | 15             | 193    | 69    | 115    | 22928  |
| 110 13 10 | 161               | 110      | 124                             | 15,75 | 20,47               | 10,60  | 36              | 472                       | 23,62                    | 295                     | 15             | 210    | 69    | 115    | 23369  |
| 110 14 12 | 169               | 110      | 148                             | 15,75 | 20,47               | 10,60  | 36              | 472                       | 23,62                    | 295                     | 15             | 218    | 69    | 115    | 26015  |
| 165 8 6   | 102               | 165      | 83                              | 15,75 | 20,47               | 10,60  | 36              | 472                       | 23,62                    | 295                     | 20             | 151    | 69    | 115    | 17196  |
| 165 10 8  | 122               | 165      | 102                             | 15,75 | 20,47               | 10,60  | 36              | 472                       | 23,62                    | 295                     | 20             | 174    | 69    | 115    | 20283  |
| 165 12 10 | 144               | 165      | 124                             | 15,75 | 20,47               | 10,60  | 38              | 472                       | 23,62                    | 295                     | 20             | 193    | 69    | 115    | 24251  |
| 165 13 10 | 161               | 165      | 124                             | 15,75 | 20,47               | 10,60  | 38              | 472                       | 23,62                    | 295                     | 20             | 211    | 69    | 115    | 24692  |
| 165 14 12 | 169               | 165      | 148                             | 15,75 | 20,47               | 10,60  | 38              | 472                       | 23,62                    | 295                     | 20             | 218    | 69    | 115    | 29101  |
| 22086     | 102               | 220      | 83                              | 15,75 | 20,47               | 10,60  | 36              | 378                       | 18,90                    | 283                     | 25             | 151    | 81    | 115    | 21164  |
| 220 10 8  | 122               | 220      | 102                             | 15,75 | 20,47               | 10,60  | 36              | 378                       | 18,90                    | 283                     | 25             | 171    | 81    | 115    | 23589  |
| 220 12 10 | 144               | 220      | 124                             | 15,75 | 20,47               | 10,60  | 36              | 378                       | 18,90                    | 283                     | 25             | 193    | 81    | 115    | 26896  |
| 220 13 10 | 161               | 220      | 124                             | 15,75 | 20,47               | 10,60  | 36              | 378                       | 18,90                    | 283                     | 25             | 213    | 81    | 115    | 28881  |
| 220 14 12 | 169               | 220      | 148                             | 15,75 | 20,47               | 10,60  | 36              | 378                       | 18,90                    | 283                     | 25             | 218    | 81    | 115    | 36156  |
| 275 10 8  | 122               | 275      | 102                             | 15,75 | 20,47               | 10,60  | 35              | 307                       | 18,90                    | 213                     | 25             | 171    | 89    | 115    | 28660  |
| 275 12 10 | 144               | 275      | 124                             | 15,75 | 20,47               | 10,60  | 35              | 307                       | 18,90                    | 213                     | 25             | 193    | 89    | 115    | 30644  |
| 275 13 10 | 161               | 275      | 124                             | 15,75 | 20,47               | 10,60  | 35              | 307                       | 18,90                    | 213                     | 25             | 213    | 89    | 115    | 33731  |
| 275 14 12 | 169               | 275      | 148                             | 15,75 | 20,47               | 10,60  | 35              | 307                       | 18,90                    | 213                     | 25             | 218    | 89    | 115    | 36817  |
| 275 16 13 | 197               | 275      | 159                             | 15,75 | 20,47               | 10,60  | 37              | 307                       | 18,90                    | 213                     | 25             | 246    | 89    | 115    | 52470  |
| 275 20 16 | 236               | 275      | 199                             | 15,75 | 20,47               | 10,60  | 43              | 307                       | 18,90                    | 213                     | 25             | 285    | 89    | 115    | 67241  |
| 350 10 8  | 122               | 350      | 102                             | 15,75 | 24,40               | 16,53  | 35              | 236                       | 18,90                    | 224                     | 30             | 171    | 87    | 137    | 37479  |
| 350 12 10 | 144               | 350      | 124                             | 15,75 | 24,40               | 16,53  | 35              | 236                       | 18,90                    | 224                     | 30             | 193    | 87    | 137    | 42990  |
| 350 13 10 | 161               | 350      | 124                             | 15,75 | 24,40               | 16,53  | 35              | 236                       | 18,90                    | 224                     | 30             | 210    | 87    | 137    | 46297  |
| 350 14 12 | 169               | 350      | 148                             | 15,75 | 24,40               | 16,53  | 35              | 236                       | 18,90                    | 224                     | 30             | 218    | 87    | 137    | 50706  |
| 350 16 13 | 197               | 350      | 159                             | 15,75 | 24,40               | 16,53  | 37              | 236                       | 18,90                    | 224                     | 30             | 246    | 87    | 137    | 60627  |
| 350 20 16 | 236               | 350      | 199                             | 15,75 | 24,40               | 16,53  | 43              | 236                       | 18,90                    | 224                     | 30             | 285    | 87    | 137    | 71650  |
| 440 10 8  | 122               | 440      | 102                             | 15,75 | 24,40               | 16,53  | 41              | 213                       | 16,54                    | 142                     | 50             | 161    | 101   | 156    | 57320  |
| 440 12 10 | 144               | 440      | 124                             | 15,75 | 24,40               | 16,53  | 41              | 213                       | 16,54                    | 142                     | 50             | 183    | 101   | 156    | 63934  |
| 440 13 10 | 161               | 440      | 124                             | 15,75 | 24,40               | 16,53  | 41              | 213                       | 16,54                    | 142                     | 50             | 200    | 101   | 156    | 68343  |
| 440 14 12 | 169               | 440      | 124                             | 15,75 | 24,40               | 16,53  | 41              | 213                       | 16,54                    | 142                     | 50             | 208    | 101   | 156    | 70548  |

Specifications subject to modifications without prior notice







## **SynchroMaster**

## EasyBEND-2D MT (Optional)

#### EasyBEND-2D MT control

- 18.5" multi colour Multi Touch screen
- Standard 2D visualisation
- · Automatic or manual bending
- Execution of generated 2D-programs
- USB interface
- Network + offline functions
- Multi-language support
- Remote diagnostics



**Point to Point** drawing method & Real Time solution calculation during building up the workpiece design



**STEP PREVIEWER:** bar with possibility of horizontally scrolling of the bending steps



**Intuitive Interface** with combined numerical-graphical user interface



**SMART DRAFT**: innovative drawing method for generating 2D workpieces



**COMBINED ICONS:** multiple functionalities by means of one single icon



**Intuitive Interface** with program overview and possibility of operator messages

8 STATE OF THE PROPERTY OF THE

## SynchroMaster

## Optional equipment

# **SynchroMaster** Optional equipment

#### X-R BACKGAUGE



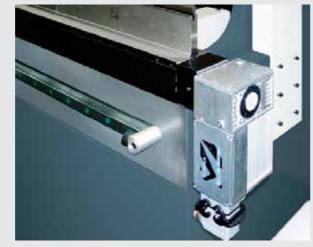
#### **MANUAL CROWNING**

Manual Anti-Deflection table for European Standard Bottom tooling



#### **CNC CROWNING**

Motorised CNC controlled anti-deflection table for European Standard and single V-dies



#### FRONT STOP TYPE I

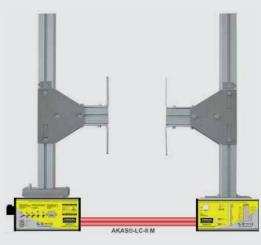


## OPTICAL SAFETY GUARDS DSP AND FIESSLER AKAS ® LC-II M

The CE regulation allows only Fast Approach Speed when applying an optical safety guard moving with the closing beam.

This guard is mounted to the beam and can be adjusted manually in height.

When detecting an obstacle within the protected area around the tip of the upper tooling, the system interrupts the downward movement instantaneously.







## **EuroMaster-S Series**

## Your allround bending machine

## **EuroMaster-S Series**



#### **BEAM CONTROL**

Beam parallelism and depth stop setting by means of bed referenced linear encoders for accurate beam position measurement, synchro module and proportional valve hydraulics

## INTUITIVE FASTBEND-2D MT PREMIUM CONTROL

- Multi Touch Technology on 21.5" screen
- Intuitive Operator Interface
- Smart Draft
- Multi-Tasking
- Step Previewer
- Combined Icons
- Auto Tooling
- Pendant arm with optional height adjustment



## EUROPEAN STANDARD TOP TOOLING WITH QUICK MANUAL CLAMPING

Picture: New Standard Top and Bottom Tooling (optional)





ROL1 CLAMP3 (optional)



ROL200 Manual or Pneumatic (optional)

#### **CROWNING TABLE**

Compensates for ram and table deflection, ensuring consistent bending angles over the entire bending length. Standard CNC controlled (V-axis).

#### 2-AXES X-R BACKGAUGE

Rigid and High Speed backgauge for accurate sheet positioning



#### 2 SHEET SUPPORTS WITH GUIDING



## **EuroMaster-S Series**

### Standard Execution

## **EuroMaster-S Series**

Standard Execution



## INTUITIVE FASTBEND-2D MT PREMIUM CONTROL

The application of Multi Touch technology reduces the number of keyboard- and button actions to an absolute minimum. The innovative Smart Draft, Design/Bending Multitasking, Step Previewer and Combined Icons features allow the operator a straightforward, intuitive control of the entire production cycle.



## EUROPEAN STANDARD (ES) TOP TOOLING with

Quick Manual Clamping arrangement and CNC controlled Anti Deflection Table with clamping for ES dies

The European Standard Tooling System has proven its flexibility, affordability and precision during the last decades in an infinite number of sheet metal working shops. A wide choice of a vast number of top and bottom tools allows for an unpredictable number of applications in various materials and thicknesses.



#### HIGH SPEED X-R-BACKGAUGE

A rigid and accurate backgauge is an absolute condition for precision. High speed is an absolute condition for production output and short cycle times. The EuroMaster's X-R backgauge (and optional X-R-Z/Z' and X-R-Z1-Z2 versions) offers both. Manual finger width adjustment from the front.

FastBEND-2D MT Premium control

Smart Draft + MultiTasking + Step Previewer + Combined Icons + Auto Tooling

21.5" Multi Touch screen

· High Speed X-R Backgauge for accurate sheet positioning

Stroke X = 32", speed = 2362"/min

Stroke R = 10", speed = 590"/min

- European Standard (ES) top clamping with Quick Manual Clamping Arrangement
- Intermediate clamping with height 6" (all models ≤ 350 Ton),
   height 5" HD version (all models = 440 Ton)
- · CNC controlled Anti Deflection Table (Crowning) for ES dies, including nute for clamping single-V dies
- · 2 Sheet Supports 29,5" with guiding, manually adjustable in height
- · LED illumination of the bending area

#### **Your Competitive Edge**

- A. Outstanding Price-Performance Ratio
- B. State-Of-The-Art User Friendly 2D Multi Touch Control
- C. Highest Part Precision

## **EuroMaster-S Series**

## Technical Specifications

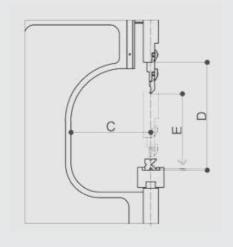
Daylight Opening - Stroke - Gap

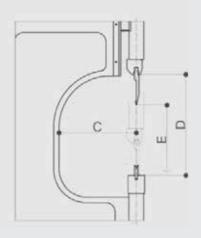
## **EuroMaster-S Series**

## Technical Specifications

(Valid for Basic European Standard)

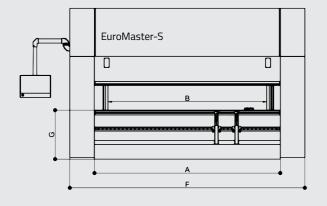
|       |                     | ic Europ<br>andard (I |        | Option<br>ES High Specs |        |        | Option              | New Sta | andard | Option<br>NS High Specs |        |        |  |
|-------|---------------------|-----------------------|--------|-------------------------|--------|--------|---------------------|---------|--------|-------------------------|--------|--------|--|
|       | Daylight<br>Opening | STROKE                | GAP    | Daylight<br>Opening     | STROKE | GAP    | Daylight<br>Opening | STROKE  | GAP    | Daylight<br>Opening     | STROKE | GAP    |  |
|       | D                   | E                     | С      | D                       | E      | С      | D                   | Е       | С      | D                       | Е      | С      |  |
|       | inches              | inches                | inches | inches                  | inches | inches | inches              | inches  | inches | inches                  | inches | inches |  |
| 75 T  | 20.47               | 10.6                  | 15.75  | 24.41                   | 15.56  | 15.75  | 17.32               | 10.6    | 15.75  | 21.25                   | 14.57  | 15.75  |  |
| 110 T | 20.47               | 10.6                  | 15.75  | 24.41                   | 15.56  | 15.75  | 17.32               | 10.6    | 15.75  | 21.25                   | 14.57  | 15.75  |  |
| 165 T | 20.47               | 10.6                  | 15.75  | 24.41                   | 15.56  | 15.75  | 17.32               | 10.6    | 15.75  | 21.25                   | 14.57  | 15.75  |  |
| 220 T | 20.47               | 10.6                  | 15.75  | 24.41                   | 15.56  | 15.75  | 17.32               | 10.6    | 15.75  | 21.25                   | 14.57  | 15.75  |  |
| 275 T | 20.47               | 10.6                  | 15.75  | 24.41                   | 15.56  | 15.75  | 17.32               | 10.6    | 15.75  | 21.25                   | 14.57  | 15.75  |  |
| 350 T | 24.41               | 16.54                 | 15.75  | -                       | -      | -      | 21.25               | 16.54   | 15.75  | -                       | -      | -      |  |
| 440 T | 24.41               | 16.54                 | 15.75  | -                       | -      | -      | 21.25               | 16.54   | 15.75  | -                       | -      | -      |  |

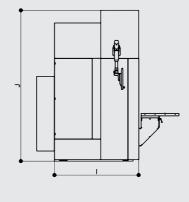




**EUROPEAN STANDARD** 

**NEW STANDARD** 





|            | Bending<br>length | Capacity | Distance<br>between<br>housings<br>B | Table<br>Height<br>G | Fast<br>Approach<br>Speed | Max.<br>Bending<br>Speed | Fast<br>Return<br>Speed | Motor<br>Power | Length | Width | Height | Weight |
|------------|-------------------|----------|--------------------------------------|----------------------|---------------------------|--------------------------|-------------------------|----------------|--------|-------|--------|--------|
| MODEL      | "                 | _        |                                      |                      |                           |                          |                         | LID            |        | "     | ,      |        |
| MODEL      |                   | Т        |                                      |                      | "/min                     | "/min                    | "/min                   | HP             |        |       |        | Lbs    |
| 75 6 5°    | 83                | 75       | 63                                   | 36                   | 354                       | 23,62                    | 236                     | 15             | 122    | 62    | 115    | 13007  |
| 75 8 6°    | 102               | 75       | 83                                   | 36                   | 354                       | 23,62                    | 236                     | 15             | 141    | 62    | 115    | 16535  |
| 75 10 8°   | 122               | 75       | 102                                  | 36                   | 354                       | 23,62                    | 236                     | 15             | 161    | 62    | 115    | 17637  |
| 110 8 6°   | 102               | 110      | 83                                   | 36                   | 472                       | 23,62                    | 295                     | 15             | 141    | 62    | 115    | 16535  |
| 110 10 8°  | 122               | 110      | 102                                  | 36                   | 472                       | 23,62                    | 295                     | 15             | 161    | 62    | 115    | 20503  |
| 110 12 10° | 144               | 110      | 124                                  | 36                   | 472                       | 23,62                    | 295                     | 15             | 177    | 62    | 115    | 23149  |
| 110 13 10° | 161               | 110      | 124                                  | 36                   | 472                       | 23,62                    | 295                     | 15             | 200    | 62    | 115    | 23810  |
| 110 14 12° | 169               | 110      | 148                                  | 36                   | 472                       | 23,62                    | 295                     | 15             | 208    | 62    | 115    | 26676  |
| 165 8 6°   | 102               | 165      | 83                                   | 36                   | 472                       | 23,62                    | 295                     | 20             | 141    | 67    | 115    | 18519  |
| 165 10 8°  | 122               | 165      | 102                                  | 36                   | 472                       | 23,62                    | 295                     | 20             | 161    | 67    | 115    | 22267  |
| 165 12 10° | 144               | 165      | 124                                  | 38                   | 472                       | 23,62                    | 295                     | 20             | 182    | 67    | 115    | 25574  |
| 165 13 10° | 161               | 165      | 124                                  | 38                   | 472                       | 23,62                    | 295                     | 20             | 201    | 67    | 115    | 26235  |
| 165 14 12° | 169               | 165      | 148                                  | 38                   | 472                       | 23,62                    | 295                     | 20             | 208    | 67    | 115    | 29762  |
| 22086°     | 102               | 220      | 83                                   | 36                   | 378                       | 18,90                    | 283                     | 25             | 141    | 72    | 115    | 22928  |
| 220 10 8°  | 122               | 220      | 102                                  | 36                   | 378                       | 18,90                    | 283                     | 25             | 161    | 72    | 115    | 24692  |
| 220 12 10° | 144               | 220      | 124                                  | 36                   | 378                       | 18,90                    | 283                     | 25             | 177    | 72    | 115    | 28219  |
| 220 13 10° | 161               | 220      | 124                                  | 36                   | 378                       | 18,90                    | 283                     | 25             | 200    | 72    | 115    | 30203  |
| 220 14 12° | 169               | 220      | 148                                  | 36                   | 378                       | 18,90                    | 283                     | 25             | 208    | 72    | 115    | 37038  |
| 275 10 8°  | 122               | 275      | 102                                  | 35                   | 307                       | 18,90                    | 213                     | 25             | 161    | 80    | 115    | 29101  |
| 275 12 10° | 144               | 275      | 124                                  | 35                   | 307                       | 18,90                    | 213                     | 25             | 182    | 80    | 115    | 32628  |
| 275 13 10° | 161               | 275      | 124                                  | 35                   | 307                       | 18,90                    | 213                     | 25             | 200    | 80    | 115    | 35715  |
| 275 14 12° | 169               | 275      | 148                                  | 35                   | 307                       | 18,90                    | 213                     | 25             | 208    | 80    | 115    | 37699  |
| 275 16 13* | 197               | 275      | 159                                  | 37                   | 307                       | 18,90                    | 213                     | 25             | 246    | 89    | 137    | 53572  |
| 275 20 16* | 236               | 275      | 199                                  | 43                   | 307                       | 18,90                    | 213                     | 25             | 285    | 89    | 137    | 68343  |
| 350 10 8*  | 122               | 350      | 102                                  | 35                   | 236                       | 18,90                    | 224                     | 30             | 171    | 87    | 137    | 38581  |
| 350 12 10* | 144               | 350      | 124                                  | 35                   | 236                       | 18,90                    | 224                     | 30             | 193    | 87    | 137    | 44092  |
| 350 13 10* | 161               | 350      | 124                                  | 35                   | 236                       | 18,90                    | 224                     | 30             | 210    | 87    | 137    | 47399  |
| 350 14 12* | 169               | 350      | 148                                  | 35                   | 236                       | 18,90                    | 224                     | 30             | 218    | 87    | 137    | 51809  |
| 350 16 13* | 197               | 350      | 159                                  | 37                   | 236                       | 18,90                    | 224                     | 30             | 246    | 87    | 137    | 61729  |
| 350 20 16* | 236               | 350      | 199                                  | 43                   | 236                       | 18,90                    | 224                     | 30             | 285    | 87    | 137    | 72753  |
| 440 10 8*  | 122               | 440      | 102                                  | 41                   | 213                       | 16,54                    | 142                     | 50             | 161    | 101   | 156    | 58422  |
| 440 12 10* | 144               | 440      | 124                                  | 41                   | 213                       | 16,54                    | 142                     | 50             | 183    | 101   | 156    | 65036  |
| 440 13 10* | 161               | 440      | 124                                  | 41                   | 213                       | 16,54                    | 142                     | 50             | 200    | 101   | 156    | 69446  |
| 440 14 12* | 169               | 440      | 124                                  | 41                   | 213                       | 16,54                    | 142                     | 50             | 208    | 101   | 156    | 71650  |

Specifications subject to modifications without prior notice
° Euromaster-S models with built-in side doors
\* Euromaster-S models with free-standing side doors, SynchroMaster style (see drawing on page 8)

## **PressMaster Series**

Your High Spec, High Performance bending machine

## **PressMaster Series**



INCREASED DAYLIGHT OPENING (21,25"), STROKE (14,65")

#### **BEAM CONTROL**

Beam parallelism and depth stop setting by means of bed referenced linear encoders for accurate beam position measurement, synchro module and proportional valve hydraulics



## INTUITIVE FASTBEND-3D MT PREMIUM CONTROL

• Multi Touch Technology on 24" screen

NEW STANDARD HYDRAULIC TOP TOOL CLAMPING

LAZERSAFE OPTICAL SAFETY GUARD (optional)

- · Intuitive Operator Interface
- Smart Draft
- Multi-Tasking
- Step Previewer
- Combined Icons
- Auto Tooling
- PartManager-3D



Model PRM 165 12 10 with SyncView option Flush Floor frame design for all models

# CNC CROWNING TABLE WITH HYDRAULIC CLAMPING FOR NEW STANDARD BOTTOM TOOLING

Compensates for ram and table deflection, ensuring consistent bending angles over the entire bending length. CNC controlled (V-axis)

#### 4-AXES X-R-Z1-Z2 BACKGAUGE

Rigid and High Speed backgauge for accurate sheet positioning



#### 2 SHEET SUPPORTS WITH GUIDING

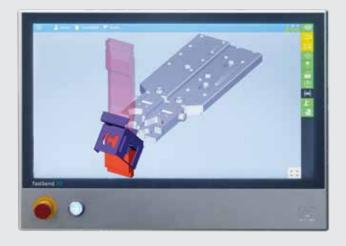


#### **PressMaster Series**

### Standard Execution

## **PressMaster Series**

#### Standard Execution



## INTUITIVE FASTBEND-3D MT PREMIUM CONTROL

The application of Multi Touch technology reduces the number of keyboard- and button actions to an absolute minimum. The innovative Smart Draft, Design/Bending Multitasking, Step Previewer and Combined Icons features allow the operator a straightforward, intuitive control of the entire production cycle.



### **NEW STANDARD (NS)**

hydraulic top tool clamping and CNC controlled Anti Deflection Table with hydraulic bottom tool clamping

The New Standard Tooling System has proven its flexibility and precision during the last decades in an infinite number of sheet metal working shops. A wide choice of a vast number of top and bottom tools allows for a unpredictable number of applications in various materials and thicknesses.



### HIGH SPEED X-R-Z1-Z2 BACKGAUGE

A rigid and accurate backgauge is an absolute condition for precision. High speed is an absolute condition for production output and short cycle times. The PressMaster's X-R-Z1-Z2 backgauge offers both.

#### FastBEND-3D MT Premium control

Smart Draft + MultiTasking + Step Previewer + Combined Icons + Auto Tooling +

Part Manager-3D

24" Multi Touch screen

- · Increased Daylight Opening (540mm), Stroke (370mm) and Gap (400mm)
- Increased Fast Approach Beam Speed (up to 200mm/s) and Fast Return Speed (up to 170mm/s)
- High Speed X-R-Z1-Z2 Backgauge for accurate sheet positioning

Stroke X = 32", speed = 2362"/min

Stroke R = 10", speed = 590"/min

Speed Z1 and Z2 axes = 2362"/min

- New Standard (NS) hydraulic top tool clamping
- · CNC controlled Anti Deflection Table (Crowning) for NS dies
- · 2 Sheet Supports with guiding, manually adjustable in height
- · LED illumination of the bending area
- Less Power Consumption through application of Variable Inverter Drive (= VID) for motor-pump unit.

The VID technology allows for higher beam return speeds in combination with 'no power consumption with stationary beam.

### **Your Competitive Edge**

- A. Ultimate Price-Quality Ratio
- B. State-Of-The-Art User Friendly 3D Multi Touch Control

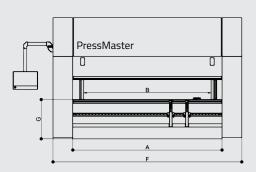
#### C. Lowest Cycle Times

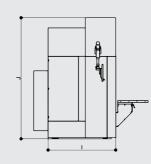
## **PressMaster Series**

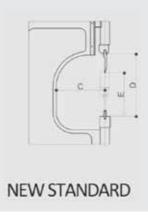
## Technical Specifications

|           | Bending<br>length | Capacity | Distance<br>between<br>housings | Gap   | Daylight opening | Stroke | Table<br>Height | Fast<br>Approach<br>Speed | Max.<br>Bending<br>Speed | Fast<br>Return<br>Speed | Motor<br>Power | Length | Width | Height | Weight |
|-----------|-------------------|----------|---------------------------------|-------|------------------|--------|-----------------|---------------------------|--------------------------|-------------------------|----------------|--------|-------|--------|--------|
|           | А                 |          | В                               | С     | D                | Е      | G               |                           |                          |                         |                | F      | 1     | J      |        |
| MODEL     |                   | Т        |                                 |       |                  |        |                 | "/min                     | "/min                    | "/min                   | HP             |        |       |        | Lbs    |
| 75 6 5    | 80                | 75       | 63                              | 15,75 | 21,25            | 14,56  | 36              | 354                       | 23,60                    | 354                     | 15             | 122    | 62    | 115    | 13228  |
| 7586      | 100               | 75       | 83                              | 15,75 | 21,25            | 14,56  | 36              | 354                       | 23,60                    | 354                     | 15             | 141    | 62    | 115    | 16976  |
| 75 10 8   | 120               | 75       | 102                             | 15,75 | 21,25            | 14,56  | 36              | 354                       | 23,60                    | 354                     | 15             | 161    | 62    | 115    | 18078  |
| 11086     | 100               | 110      | 83                              | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 15             | 141    | 62    | 117    | 17857  |
| 110 10 8  | 120               | 110      | 102                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 15             | 161    | 62    | 117    | 21164  |
| 110 12 10 | 144               | 110      | 124                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 15             | 177    | 62    | 117    | 23810  |
| 110 13 10 | 161               | 110      | 124                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 15             | 200    | 62    | 117    | 25794  |
| 110 14 10 | 167               | 110      | 148                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 15             | 208    | 62    | 117    | 28219  |
| 165 8 6   | 100               | 165      | 83                              | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 20             | 141    | 67    | 117    | 19180  |
| 165 10 8  | 120               | 165      | 102                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 20             | 161    | 67    | 117    | 24251  |
| 165 12 10 | 144               | 165      | 124                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 20             | 183    | 67    | 117    | 26455  |
| 165 13 10 | 161               | 165      | 124                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 20             | 200    | 67    | 117    | 28881  |
| 165 14 12 | 167               | 165      | 148                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 23,60                    | 401                     | 20             | 208    | 67    | 117    | 32187  |
| 22086     | 100               | 220      | 83                              | 15,75 | 21,25            | 14,56  | 36              | 472                       | 18,90                    | 401                     | 25             | 141    | 72    | 117    | 23810  |
| 220 10 8  | 120               | 220      | 102                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 18,90                    | 401                     | 25             | 161    | 72    | 117    | 26455  |
| 220 12 10 | 144               | 220      | 124                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 18,90                    | 401                     | 25             | 177    | 72    | 117    | 28881  |
| 220 13 10 | 161               | 220      | 124                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 18,90                    | 401                     | 25             | 200    | 72    | 117    | 30644  |
| 220 14 12 | 167               | 220      | 148                             | 15,75 | 21,25            | 14,56  | 36              | 472                       | 18,90                    | 401                     | 25             | 208    | 72    | 117    | 37479  |
| 275 10 8  | 120               | 275      | 102                             | 15,75 | 21,25            | 14,56  | 35              | 307                       | 18,90                    | 212                     | 25             | 161    | 80    | 117    | 31306  |
| 275 12 10 | 144               | 275      | 124                             | 15,75 | 21,25            | 14,56  | 35              | 307                       | 18,90                    | 212                     | 25             | 177    | 80    | 117    | 34172  |
| 275 13 10 | 161               | 275      | 124                             | 15,75 | 21,25            | 14,56  | 35              | 307                       | 18,90                    | 212                     | 25             | 200    | 80    | 117    | 36156  |
| 275 14 12 | 167               | 275      | 148                             | 15,75 | 21,25            | 14,56  | 35              | 307                       | 18,90                    | 212                     | 25             | 208    | 80    | 117    | 39463  |

Specifications subject to modifications without prior notice







# **Backgauges**Standard and optional



#### X-R-Z1-Z2 (standard)

Stroke X = 32"

Max. Speed X = 2362"/min

Stroke R = 10"

Max. Speed R = 590"/min

Max. Speed Z1-Z2 = 2362"/min



### X-R-Z1-Z2-X3 (optional)

Stroke X = 32"

Max. Speed X = 2362"/min

Stroke R = 10"

Max. Speed R = 590"/min

Max. Speed Z1-Z2 = 2362"/min

Stroke X3= -2"/+2"



#### X1-X2-R1-R2-W1-W2 (optional)

Stroke X1-X2 = 23.6"

Stroke R1-R2 = 5.3"

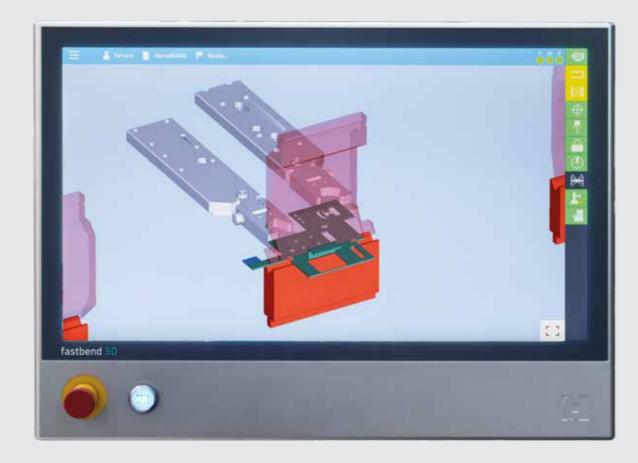
## FastBEND-2D/3D MT Premium

## Intuitive Bending

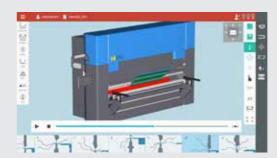
Intuitive Bending

The **FastBEND-2D/3D MT** Premium Controls set a new standard in the market for flexible, reliable and high precision sheet metal bending.

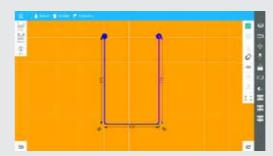
Driven by **state-of-the-art PC-based hardware**, the system allows for very fast data processing and highly accurate calculation of the optimal bending programs for hydraulic CNC press brakes.



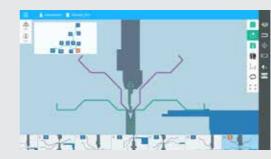
**Intuitive Interface** with a minimum of interactions to draw the workpiece and generate the corresponding program



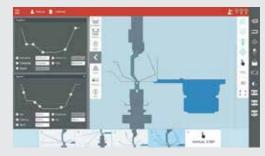
Multi Touch Technology on 24" screen (FastBEND-3D MT Premium) 21,5" screen (FastBEND-2D MT Premium)



**MULTITASKING**: workpiece drawing with instantaneous collision detection and calculation of the bending sequence in the background

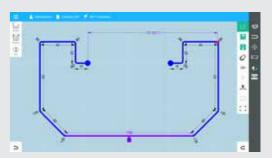


**STEP PREVIEWER**: bar with possibility of horizontally scrolling of the bending steps



FastBEND-2D/3D MT Premium

**Intuitive Interface** with combined numerical-graphical user interface



**Point to Point and SMART DRAFT**: innovative drawing methods for generating 2D workpieces



**COMBINED ICONS**: multiple functionalities by means of one single icon

## **New Standard Tooling System**

## Standard for PressMaster, Optional for EuroMaster-S

Wila's 'New Standard' Tooling System has become market leader for precision, quality and flexibility. The selfseating and selfaligning features considerably improve your set up times and productivity of your pressbrake. Both bottom (OZU) and top (BIU) tooling are clamped hydraulically. The bottom clamping is integrated in the crowning table.

New Standard tooling is safe: the Safety-Click system (for top tools up to 55 Lbs) enables vertical loading and unloading of your top tooling without any risk.

For tools with bigger weight, a safety pin or key is applied.

Working surfaces and bending radii of New Standard tooling are hardened and precision ground for maximum longevity.



#### **MAIN BENEFITS**

- 1. Vertical loading and unloading
- 2. Self-seating and self-aligning
- 3. High precision and longevity

## **Optional Smart Tool Locator**

Increase your pressbrake productivity

The **Smart Tool Locator (STL)** further increases your pressbrake productivity. The system indicates by means of built-in LED's the right clamping position of your tooling during tool set up and indicates the active tool location in production mode. The Smart Tool Locator offers significant benefits in **speed**, **precision** and **flexibility**.

Available for all hydraulic New Standard Tool Holders for top and bottom tools.



#### **NEW STANDARD PREMIUM AND PRO TOOLING**

Both top (BIU) and bottom (OZU) tools are available in a wide variety of shapes and dimensions. For more detailed information, see the New Standard Tooling Catalogue.

Available for all hydraulic New Standard Tool Holders for top and bottom tools.

## **Lazersafe Optical Safety Guards**

## Advanced Safety



PM

**Lazersafe Optical Safety Guards IRIS** 

Features

CE Safety Regulations require the application of an Optical Safety Guard (OSG) when operating at closing speed.

Optical modules (transmitter and receiver) mounted to the ram of the machine monitor the downward movement in the area underneath the top tooling tip. During the fast closing speed, the beam movement is instantaneously stopped when the system detects an obstacle.

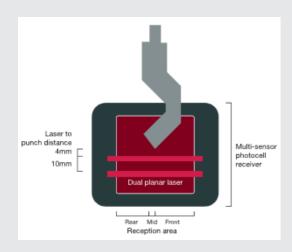
EuroMaster-S and PressMaster can be equipped with LazerSafe LZS-LG-HS with mute point 6mm (RapidBend) or with LazerSafe IRIS (RapidBend Ultimate) with mute point 0 mm.

#### **BOTH SYSTEMS GUARANTEE**

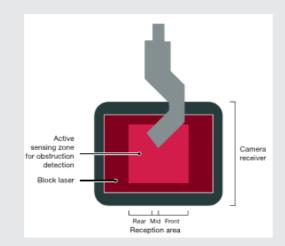
a high level of safety for the operator

a high level of machine productivity

#### security against tooling collision at high speeds



Lazersafe LZS-L6-HS



Lazersafe IRIS

- Optimal Speed Change Over Point
- Fast Closing Speed in safe conditions (monitoring till mute point 0 mm)

**EMS** 

- Ultimate Operator Safety
- Security against tooling damage
- Full Integration in the CNC System
- Automatic Alignment



#### **NORMAL MODE**

All sensors + 3 zones active Fast Approach Speed till mute punt Followed by Working Speed (unless interruption by obstacle)



#### **BOX MODE WITH** PROGRAMMABLE FLANGE HEIGHT

Programmable flange height Extra deliberately foot pedal command Front and Rear zone switched off at flange height



#### **MUTE STOP MODE**

Applicable for workpieces with flanges which interrupt the monitored zone in normal mode operation. Initial fast approach till mute point, consequently operator infeed of the workpiece.

## **Angle Measuring System Alfa-F**

Angle Measurement











## Angle Measuring System IRIS Plus

Angle Measurement



System consisting of 2 laser beam transmitters and 2 camera's on both sides of the workpiece.

Principle :

**Angle Measurement** 

Force reduction + calculation of the springback

Automatic angle correction (taking into account the calculated springback)

#### **FEATURES ALFA-F**

- Different V-openings and dies are applicable, preferable single-V's with minimal height of 4"
- Quick manual adjustment along the machine length (optional CNC-positioning)
- Optional parking station if system is not in operation

#### FEATURES ALFA-F AND IRIS PLUS

- Standard tooling is applicable no extra cost for internal measuring units
- · No contact elements no mechanical wear
- · Contactless angle measurement principle guarantees a reliable system even in heavy duty circumstances.

#### Automatic angle measurement and automatic correction of the bending angle



Active Angle control is a highly accurate angle control process that calculates spring back for each individual bend, then controls the bend depth with Live Angle Bending to achieve the correct angle.

IRIS Plus comprises a laser transmitter and receiver set mounted to the upper beam of the press brake. It includes a high speed digital camera and image data processing system contained within the receiver unit.



#### **FEATURES IRIS PLUS**

- Different V-openings (0.31" until 1.38") and dies are applicable, only single V-'s
- · Recommendable limitation on the working length: ca. 142"
- Most optimal accuracy results (10 ft or less)
- · Never collision with workpiece

#### FEATURES ALFA-F AND IRIS PLUS

- Compact assembly guarantees an optimal working space for operator and material
- · Possibility of measuring on workpieces with apertures
- Guaranteed precision

## **Sheet Following Systems**

## For bending long and thin sheets



**Sheet Following Systems**Optional parking stations

Sheet Following Systems are especially recommended when bending **long** and **thin** sheets as they support as well as prevent second bends in your part.

They are very efficient in **supporting heavy parts** during decompression and the beam return movement.

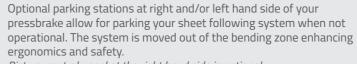




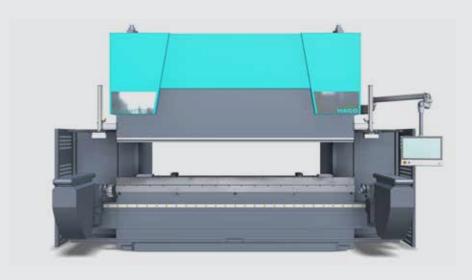
They can be adjusted vertically in order to suit different die heights.







Picture: control panel at the right hand side is optional



#### Picture below:

Special Customized Sheet Following System with 1 telescopic arm inclusive width adjustment of the support surface and height adjustment of the following arm.



## **SyncView**

## Optional time saving equipment

# EMS PM

## **SyncView**

## Optional time saving equipment

#### SYNCVIEW: BENDING EFFICIENCY

SyncView was invented from the notion that it would be ideal to **watch both screen and workpiece simultaneously** during the bending process. This innovative solution consists of a tablet screen that is automatically positioned at the **optimal location**: where the piece is actually positioned by the operator.

#### **SYNCVIEW SPECIFICATIONS:**

- 8" display
- fast, automated positioning to the correct tool location
- Multi-Touch interface
- automated wireless charging



#### SYNCVIEW'S ADVANTAGES

#### Time-savings & efficiency

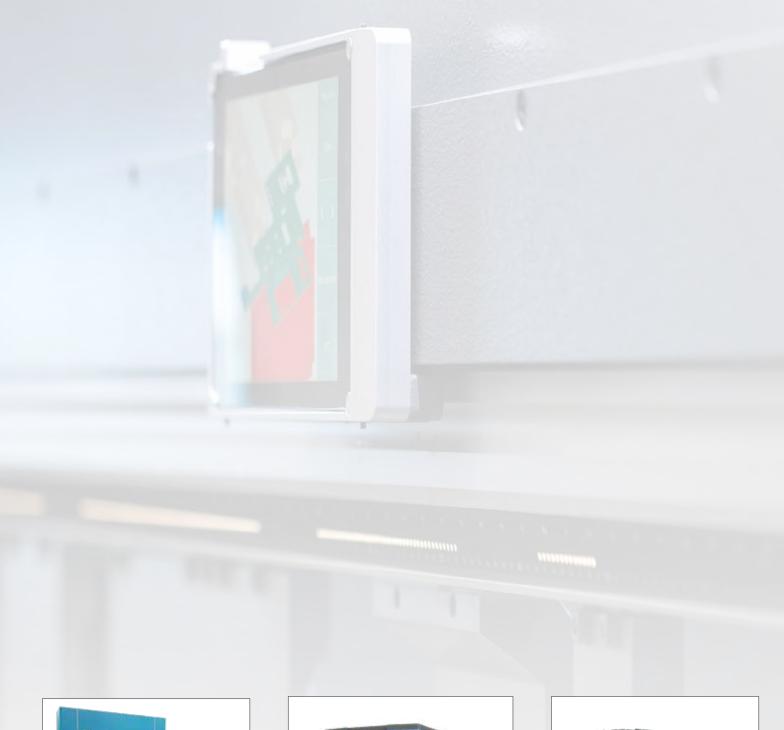
The operator no longer has to look at a fixed 3D image on the screen – sometimes meters away from him – time is no longer wasted when bending (complex) parts. With this innovation– in which the 3D image of the bending steps is always right in front of the user – he can understand and carry out the steps quicker during the bending sequence. In addition, the 3D images on the screen can be rotated, without the operator having to leave the work position. This enables an even better and faster evaluation of complex pieces than is possible from a single perspective. User tests indicate time-savings of up to 25% during the actual bending process.

#### **Ergonomics & physical comfort**

The operator no longer has to constantly keep turning his head between the screen and the workpiece. Eliminating repetitive torsional movements of the neck and torso reduces long-term health risks. Now, the operator can look in the same direction at both the screen and the workpiece, which simply requires eye movement – producing a more pleasant, natural and comfortable interaction.

#### Safety & user-friendliness

What's more, should something go wrong, the operator now recognizes it quickly. This is a safety benefit particularly when positioning the piece. The operator is no longer occupied either with the screen or with the workpiece. The workflow becomes one, so to speak – enabling the operator to focus 100% on the bending process itself.





Robot Bending



Fiber Laser Cutting



Punching

JATAS Machinery Sales Inc. 503 Frontage Ave. W Underwood, MN 56586 218-826-6464 Cell: 218-929-1577 Tony Heck

SynchroMaster EuroMaster-S PressMaster

For Impressive Performances