

A new generation of CNC press-brakes. High precision, European design, efficient and reliable. Probably the best price / quality ratio in the world.

**ULTIMA
TECHNICA
MINI BEND
ELECTRA**



DERATECH

Company
Introduction

PROBABLY THE BEST PRICE/QUALITY
RATIO IN THE WORLD!





DERATECH GROUP

Deratech is specialized in designing and manufacturing sheet metal working machines. The Deratech headquarters for research, design and assembly are based in Belgium. Subsidiaries all over the world (Australia, China, Germany, Netherlands, Thailand, India,...) and carefully selected partners provide a world class advice, sales installation and service.

Shanghai Deratech CNC Machine Tool Co. Ltd, is the new production & technology center of Deratech - Belgium in China. The advanced European design, quality and technology of our R&D center in Belgium together the experienced engineering team of Shanghai Deratech will result in high quality production of sheet metal working machinery. All processing is designed in 3D by our technical department to obtain a high precision on all the manufactured machine parts.

Deratech is your partner in sheet metal working machinery.

NEXT GENERATION ULTIMA HYBRID CNC PRESS BRAKE

The Ultima hybrid is a new generation of press brake, powered by AC servo motors and variable speed pumps. The Ultima Hybrid is a fast, precise, energy saving and environmentally friendly state of the art press brake.

The Ultima Hybrid can save up to 60% energy in contrast to a standard Ultima in same execution, this without losing any speed or production capacity. There will be only a little energy consumption when the machine is idle, only from the operator pushes the foot pedal till the upper beam is back in the up position the motors will be powered on and will use energy. So no flows of oil to the tank when the machine is idle, resulting in not heating the oil. The flow rate of the hydraulic pump operates proportionally to the drive speed of the electric motor. The CNC controller transfers the pressure/volume flow target values to the control during the running operation, system pressure is measured by a pressure transducer and is also sent to the servo controller. Based on the control deviation, the built-in PID controller calculates the required motor speed and adapts it accordingly to the existing system requirements of flow rate and pressure.

Deratech Ultima Hybrid in std. execution: Y1-Y2, X, R, V (V = Dynamic Hydraulic crowning system) with Touch Screen controller.

As option the Hybrid can be equipped with Z1-Z2, X3, X1-X2/R1-R2/Z1-Z2, CNC bending aid, automatic sheet thickness measuring, angle measuring...

Invest in the future now. Due to increasing energy costs, variable speed pump machines solutions are on the rise... with energy savings between 30% and 60%... Reliability of powerful hydraulics, as well as energy efficiency and dynamics of compact electronics play hand in hand with the variable speed pumps.



ULTIMA HYBRID-UHH



Energy saving



Green Technology



High efficiency



Low noise

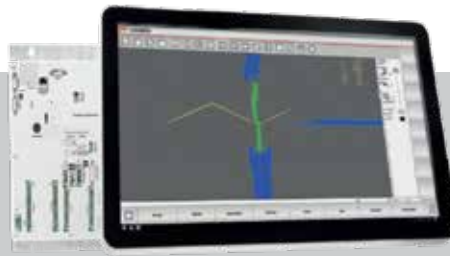


PRODUCT FEATURES



1 Hybride hydraulic system

New electrical servo hydraulic drive system without oil tubes, fully closed electrical servo drive system. High efficiency and energy saving, oil tank capacity reduced by 70% Fast-performance and duty cycle reduction 10% Compared with the traditional system, energy efficiency 50% up. The positioning accuracy of precision-up to 5µm Integrated servo pump, lower-noise at work Integrated pressure filters ensures high stability and long service life.



2 CNC CONTROLLER

ESA VIS-860W

ESA VIS-860W, 18,5" (16:9) 2D Touch screen Graphical controller (Multi touch) with 3D simulation in production mode with off-line programming software.



Double Screen Controller 860W or 875W

Dual Screen controller ESA VIS-860W or VIS-875W, the first screen shows all the program data and the positioning of the axis and can show the product in 2D or 3D. While operating the machine the second screen can run offline software and calculate the next bending application or show the part in 3D if you show the program data on the first screen. The second screen can be useful also for application for industries 4.0



5 Patented throat distortion compensation device

Precise measured amount of distortion and feedback, ensure that the bending precision. And can effectively prevent the non-standard collision linear scale of the workpiece.



3 High precision upper clamps with vertical toolchange

A Precision quick-clamping device: set-up fast and convenient, reduce labor intensity and improve production efficiency.



4 High precision and stable backgauge systems

Unique dual linear guide rail structure, ensuring excellent positioning accuracy. Design of multistage gear, increase the positioning range, excellent value.

6 High precision hydraulic crowning device

High-precision hydraulic compensation device by CNC control, to get a precise deflection compensation, ensuring high quality bending accuracy. Dynamic system available as option.



7 Moveable front support system

to help you to bend, make a comfortable and efficient working



ULTIMA-UHH

Model	Force (kN)	Max. bending length (mm)	Distance between uprights (mm)	Throat depth (mm)	Cylinder stroke (mm)	Opening height (mm)	Main power (kw)	Oil volume (L)	Speed (mm/s)			Dimensions (mm)			Weight (kg)
									Approaching speed	Working speed	Returning speed	Length	Width	Height	
UHH-110/2500	1100	2500	2000	400	400	700	2×5.5	2×70	300 (220)	15 (10)	220	3010	1670	2720	7900
UHH-110/3100	1100	3100	2700	400	400	700	2×5.5	2×70	300 (220)	15 (10)	220	3710	1670	2720	9000
UHH-110/4100	1100	4100	3600	400	400	700	2×5.5	2×70	300 (220)	15 (10)	220	4610	1770	2720	10900
UHH-130/2500	1300	2500	2000	400	400	700	2×5.5	2×70	300 (220)	15 (10)	220	3010	1670	2720	7900
UHH-130/3100	1300	3100	2700	400	400	700	2×5.5	2×70	300 (220)	15 (10)	220	3710	1670	2720	9000
UHH-130/4100	1300	4100	3600	400	400	700	2×5.5	2×70	300 (220)	15 (10)	220	4610	1770	2720	11300
UHH-130/5100	1300	5100	4600	400	400	700	2×5.5	2×70	300 (220)	15 (10)	160	5610	1820	2960	15200
UHH-130/6100	1300	6100	5600	400	400	700	2×5.5	2×70	300 (220)	15 (10)	160	6610	1820	3110	17700
UHH-170/2500	1700	2500	2000	400	400	700	2×5.5	2×70	300 (220)	15 (10)	200	3030	1680	2720	8800
UHH-170/3100	1700	3100	2700	400	400	700	2×5.5	2×70	300 (220)	15 (10)	200	3730	1680	2720	10100
UHH-170/4100	1700	4100	3600	400	400	700	2×5.5	2×70	300 (220)	15 (10)	200	4630	1790	2720	12100
UHH-170/5100	1700	5100	4600	400	400	700	2×7.5	2×120	180	15 (10)	130	5630	1800	2960	17000
UHH-170/6100	1700	6100	5600	400	400	700	2×7.5	2×120	180	15 (10)	130	6630	1800	3160	20000
UHH-230/3100	2300	3100	2700	400	400	700	2×7.5	2×70	200	15 (10)	180	3730	1680	2720	10500
UHH-230/4100	2300	4100	3600	400	400	700	2×7.5	2×70	200	15 (10)	180	4630	1790	2720	12700
UHH-250/2500	2500	2500	2000	400	400	700	2×7.5	2×120	150	15 (10)	150	3050	1920	2975	12100
UHH-250/3100	2500	3100	2700	400	400	700	2×7.5	2×120	150	15 (10)	150	3750	1920	2975	14000
UHH-250/4100	2500	4100	3600	400	400	700	2×7.5	2×120	150	15 (10)	150	4650	1920	2975	16000
UHH-250/5100	2500	5100	4600	400	400	700	2×7.5	2×120	130	15 (10)	130	5650	1920	3125	21200
UHH-250/6100	2500	6100	5600	400	400	700	2×7.5	2×120	130	15 (10)	130	6650	1920	3325	24600
UHH-320/3100	3200	3100	2700	400	400	700	2×7.5	2×120	120	12 (10)	130	3930	2110	3205	17700
UHH-320/4100	3200	4100	3600	400	400	700	2×7.5	2×120	120	12 (10)	130	4830	2110	3205	20300
UHH-320/5100	3200	5100	4600	400	400	700	2×7.5	2×120	100	12 (10)	110	5830	2150	3690	26100
UHH-320/6100	3200	6100	5600	400	400	700	2×7.5	2×120	100	12 (10)	110	6830	2150	3855	30400

REMARK: Working speed in CE-regulated countries is limited to 10mm/s. Approching Speed in CE-regulated countries is limited to 220mm/s

CONTROLLER



ESA VIS-860W, 18,5" (16:9) 2D Touch screen Graphical controller (Multi touch) with 3D simulation in production mode with off-line programming software.

Windows based controller with 2D/3D graphical features, programming the machine is made fast and easy, within seconds the operator is able to bend a high quality part. Make the best of any 3D cad/cam you would like to install in the CNC, direct import of tools shapes (.dxf files) and management of tool library. The powerful build-in PC allows having on the machine a real 3D cad/cam (metallix, radan, esa, lantek, ...) Finger-tip work piece design.



CYBTOUCH-12 CNC system is the update version of famous system DNC880S, powerful and easy-to-use 15 inches touch screen. According to the software, CYBTOUCH-12 can control CNC hydraulic press brake and torsion bar press brake.

Modern and ergonomic design, user friendly HMI with a powerful performance.



Delem 66T CNC controllers, available in 2D and 3D. A bending program is drawn within seconds with simulations of the bending process in 2 and/ or 3D. The operator only needs to put the right tools to be ready to bend. Experience tells us, average time from program to production takes less than 1 minute! The controller is fitted with an ETHERNET UTP network connection as standard.

A NEW GENERATION OF CNC HYBRID PRESS-BRAKES. HIGH PRECISION, EUROPEAN DESIGN, EFFICIENT AND RELIABLE.



Energy
saving



Green
Technology

Ultima Hybrid is a precision CNC-controlled press brake with cnc-mechanical crowning in a basic but very complete configuration.

The Ultima is equipped with 5 CNC-controlled axes (Y1-Y2, X, R, V).

Ultima Hybrid offers the user a heavily built, reliable, precision CNC press brake at an economical price. Optional up to 11 CNC-controlled axis.

The high precision digital encoders at both sides of the machine continuously measure the movement and position of the upper beam (axes Y1-Y2).

The data is processed and monitored by the CNC controller which controls the hydraulic valves.

An extremely high level of accuracy is obtained during the movement and final positioning of the upper beam due to the continuous monitoring and feedback of the encoder measuring data. Using this technology, a repeatability of approximately 100% (+/- 0.01 mm) can be guaranteed.

The synchro system permits two or more machines to be connected together in tandem to provide working lengths of 20 meters or longer.

In this tandem configuration, the individual machines can still be used separately.



ULTIMA HYBRID-UHM



PRODUCT FEATURES

1

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2

A heavily built, rigid, precision backgauge on ball screws with linear guiding insures fast and precise positioning. Adjustment in width is on a precision linear guide way.

3

Front support arms on a linear guide ensure optimum product support during bending.



4

Precision digital encoders at both ends of the machine ensure highly accurate positioning of the upper beam.

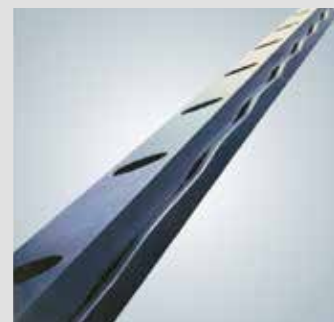
The independently mounted encoder mounting frames automatically compensate for the minimal deflection of the press brake side frames, ensuring perfect bending results. The ram accuracy is guaranteed to $\pm 0.01\text{mm}$.

Bending is a physical process subject to significant elastic deflection (springback) and can be influenced by many factors. Due to the elastic deformation from both the upper and lower beams of the press brake during the bending process, the bending angle is not constant over the entire bending(plate)length. The CNC-controlled hydraulic crowning device compensates for its deformation so an equal bending angle is obtained over the full bending length.



5

Ergonomic rotating arm for CNC controller Reasonable radius of rotation, more flexible easier operation.



6

Due to the elastic deformation from both the upper and lower beams of the press brake during the bending process, the bending angle is not constant over the entire bending(plate)length. The CNC-controlled crowning device compensates for its deformation so an equal bending angle is obtained over the full bending length.



BENDING AID

The CNC-controlled bending aid from Deratech is preventing angle deviations during the bending of thin sheets with large dimensions.

The HEAVY-DUTY version is capable to handle heavy sheet weights.

Handling large plates is often not an easy job for one operator, especially with the return movement of the upper beam. In the return movement, the plate is completely loose and the operator has to handle the full weight of the sheet, it's resulting that sometimes two people are working on one machine. The Deratech bending aid is a much more efficient and both ergonomic solutions.



ULTIMA

HYDRAULIC PRESS BRAKES



CONTROLLER



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Delem 66T CNC controllers, available in 2D and 3D. A bending program is drawn within seconds with simulations of the bending process in 2 and/ or 3D. The operator only needs to put the right tools to be ready to bend. Experience tells us, average time from program to production takes less than 1 minute! The controller is fitted with an ETHERNET UTP network connection as standard.



D-Remote Assistance is a feature of the ESA650, that allows a Deratech technician to temporarily log-on to the controller of the machine over a network or internet. This to provide help or resolve issues without directly touching the machine. This feature is simple to set-up, secure and only taking a few moments for our engineer to connect and begin the support session, resulting in time and cost saving solution for the end-user.

REMOTE ASSISTANCE

BACKGAUGE

1
2
3

Backgauges

1. 5-axis backgauge X-R-Z1-Z2-X'
2. 6-axis backgauge X1-X2-R1-R2-Z1-Z2
3. Backgauge with pneumatic brush support for thin sheet





Front Support

1. Front support ram on linear guide with parking places and fast height-adjustment.
2. Heavy duty front arms on linear rail.
3. Custom made front support arms with CNC height control

1 | 2
3 |



FRONT
SUPPORT



SHEET THICKNESS MEASURING DEVICE

Automatic Sheet Measuring The "D-STM" sheet thickness measuring system is integrated in the backgauge finger. The D-STM measures the sheet thickness to an accuracy of $\pm 0,01\text{mm}$, applicable up to 20mm of material thickness. The measuring cycle takes only tenths of a second, the measured data will be sent in real time to the CNC and the bending program will be adjusted.

ULTIMA

HYDRAULIC PRESS BRAKES



D-Alpha

D-Alpha angle measurement system a fully automatic, laser-assisted bend angle measurement system. Irrespective of the properties such as spring back or lamination direction from the material as well as tolerances from the thickness of the material, the D-Alpha enables an exact determination of the bend angle with an accuracy of better than $0,1^\circ$. The position of the sensors along the bending line need to be adjusted manually.



1



2



3



4

TOOLING

1. Manual fast clamping with eccentric handle
2. Pneumatic fast clamping
3. Hydraulic fast clamping
4. Manual or pneumatic quick release clamps with vertical tool change

POSSIBILITIES

- Bigger daylight-opening
- Bigger stroke
- Bigger throat depth

TOOLING

HIGH TONNAGE AND LARGE BENDING LENGTH



ULTIMA-UHM

HEAVY DUTY PRESS BRAKES



ADDITIONAL FEATURES



PIP2 Servo controlled table, to easy complete small bends,
Using different V-openings in a die. Accurate positioning and reduced tool changes.

ULTIMA-UHM

Model	Force (kN)	Max. bending length (mm)	Distance between uprights (mm)	Throat depth (mm)	Cylinder stroke (mm)	Opening height (mm)	Main power (kw)	Oil volume (L)	Speed (mm/s)			Dimensions (mm)			Weight (kg)
									Approaching speed	Working speed	Returning speed	Length	Width	Height	
UHM-110/2500	1100	2500	2000	400	225	505	2×5.5	2×70	300 (220)	15 (10)	220	3010	1670	2720	7900
UHM-110/3100	1100	3100	2700	400	225	505	2×5.5	2×70	300 (220)	15 (10)	220	3710	1670	2720	9000
UHM-110/4100	1100	4100	3600	400	225	505	2×5.5	2×70	300 (220)	15 (10)	220	4610	1770	2720	10900
UHM-130/2500	1300	2500	2000	400	225	505	2×5.5	2×70	300 (220)	15 (10)	220	3010	1670	2720	7900
UHM-130/3100	1300	3100	2700	400	225	505	2×5.5	2×70	300 (220)	15 (10)	220	3710	1670	2720	9000
UHM-130/4100	1300	4100	3600	400	225	505	2×5.5	2×70	300 (220)	15 (10)	220	4610	1770	2720	11300
UHM-130/5100	1300	5100	4600	400	225	505	2×5.5	2×70	300 (220)	15 (10)	160	5610	1820	2960	15200
UHM-130/6100	1300	6100	5600	400	225	505	2×5.5	2×70	300 (220)	15 (10)	160	6610	1820	3110	17700
UHM-170/2500	1700	2500	2000	400	225	505	2×5.5	2×70	300 (220)	15 (10)	200	3030	1680	2720	8800
UHM-170/3100	1700	3100	2700	400	225	505	2×5.5	2×70	300 (220)	15 (10)	200	3730	1680	2720	10100
UHM-170/4100	1700	4100	3600	400	225	505	2×5.5	2×70	300 (220)	15 (10)	200	4630	1790	2720	12100
UHM-170/5100	1700	5100	4600	400	225	505	2×7.5	2×120	180	15 (10)	130	5630	1800	2960	17000
UHM-170/6100	1700	6100	5600	400	225	505	2×7.5	2×120	180	15 (10)	130	6630	1800	3160	20000

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ULTIMA-UHM

Model	Force (kN)	Max. bending length (mm)	Distance between uprights (mm)	Throat depth (mm)	Cylinder stroke (mm)	Opening height (mm)	Main power (kw)	Oil volume (L)	Speed (mm/s)			Dimensions (mm)			Weight (kg)
									Approaching speed	Working speed	Returning speed	Length	Width	Height	
UHM-230/3100	2300	3100	2700	400	225	505	2×7.5	2×70	200	15 (10)	180	3730	1680	2720	10500
UHM-230/4100	2300	4100	3600	500	225	505	2×7.5	2×70	200	15 (10)	180	4630	1790	2720	12700
UHM-250/2500	2500	2500	2000	400	225	505	2×7.5	2×120	150	15 (10)	150	3050	1920	2975	12100
UHM-250/3100	2500	3100	2700	400	225	505	2×7.5	2×120	150	15 (10)	150	3750	1920	2975	14000
UHM-250/4100	2500	4100	3600	400	225	505	2×7.5	2×120	150	15 (10)	150	4650	1920	2975	16000
UHM-250/5100	2500	5100	4600	400	225	505	2×7.5	2×120	130	15 (10)	130	5650	1920	3125	21200
UHM-250/6100	2500	6100	5600	400	225	505	2×7.5	2×120	130	15 (10)	130	6650	1920	3325	24600
UHM-320/3100	3200	3100	2700	400	225	505	2×7.5	2×120	120	12 (10)	130	3930	2110	3205	17700
UHM-320/4100	3200	4100	3600	400	225	505	2×7.5	2×120	120	12 (10)	130	4830	2110	3205	20300
UHM-320/5100	3200	5100	4600	400	225	505	2×7.5	2×120	100	12 (10)	110	5830	2150	3690	26100
UHM-320/6100	3200	6100	5600	400	225	505	2×7.5	2×120	100	12 (10)	110	6830	2150	3855	30400

ULTIMA HYBRID HEAVY DUTY UHM

Model	Force (kN)	Max. bending length (mm)	Distance between uprights (mm)	Throat depth (mm)	Cylinder stroke (mm)	Opening height (mm)	Main power (kw)	Oil volume (L)	Speed (mm/s)			Dimensions (mm)			Weight (kg)
									Approaching speed	Working speed	Returning speed	Length	Width	Height	
UHM-400/3100	4000	3100	2600	450	300	600	2×8.5	2×120	110	8	110	3460	2350	3600	24500
UHM-400/4000D	4000	4000	3200	450	300	600	2×8.5	2×120	110	8	110	4260	2350	3600	27300
UHM-400/5000D	4000	5000	4000	450	300	600	2×8.5	2×120	100	8	100	5260	2350	4700	33500
UHM-400/6000D	4000	6000	5000	450	300	600	2×8.5	2×120	100	8	100	6260	2350	5000	39000
UHM-400/7000D	4000	7000	6000	450	300	600	2×8.5	2×120	100	8	100	7260	2350	5500	44000
UHM-400/8000D	4000	8000	7000	450	300	600	2×8.5	2×120	100	8	100	8260	2350	5900	50000
UHM-500/3100	5000	3100	2600	450	300	600	2×12.4	2×120	90	7	90	3480	2580	4600	31500
UHM-500/4000D	5000	4000	3200	450	300	600	2×12.4	2×120	90	7	90	4260	2580	4700	35000
UHM-500/5000D	5000	5000	4000	450	300	600	2×12.4	2×120	90	7	90	5260	2580	4900	39000
UHM-500/6000D	5000	6000	5000	450	300	600	2×12.4	2×120	90	7	90	6260	2580	5200	45000
UHM-500/7000D	5000	7000	6000	450	300	600	2×12.4	2×120	90	7	90	7260	2580	5500	50000
UHM-500/8000D	5000	8000	7000	450	300	600	2×12.4	2×120	90	7	90	8260	2580	5900	57000
UHM-600/4000D	6000	4000	3200	500	300	600	2×17.8	2×180	90	7	90	4260	3530	4950	43000
UHM-600/5000D	6000	5000	4000	600	300	700	2×17.8	2×180	90	7	90	5260	3530	5050	48000
UHM-600/6000D	6000	6000	5000	600	300	700	2×17.8	2×180	90	7	90	6260	3530	5200	54000
UHM-600/7000D	6000	7000	6000	600	300	700	2×17.8	2×180	90	7	90	7260	3530	5600	63000
UHM-600/8000D	6000	8000	7000	600	350	700	2×17.8	2×180	90	7	90	8260	3530	6000	71000
UHM-700/4000D	7000	4000	3200	600	350	700	2×17.8	2×180	90	7	90	4260	3600	5300	49000
UHM-700/5000D	7000	5000	4000	600	350	700	2×17.8	2×180	90	7	90	5260	3600	5500	55000
UHM-700/6000D	7000	6000	5000	600	350	700	2×17.8	2×180	90	7	90	6260	3600	5700	62000
UHM-700/7000D	7000	7000	6000	600	350	700	2×17.8	2×180	90	7	90	7260	3600	5900	70000
UHM-700/8000D	7000	8000	7000	600	350	700	2×17.8	2×180	90	7	90	8260	3600	6200	79000
UHM-800/4000D	8000	4000	3200	600	350	800	2×21.4	2×220	90	7	90	4260	3650	5700	62000
UHM-800/5000D	8000	5000	4000	600	350	800	2×21.4	2×220	90	7	90	5260	3650	5900	69000
UHM-800/6000D	8000	6000	5000	600	350	800	2×21.4	2×220	90	7	90	6260	3650	6000	76000
UHM-800/7000D	8000	7000	6000	600	350	800	2×21.4	2×220	90	7	90	7260	3650	6200	84000
UHM-800/8000D	8000	8000	7000	600	350	800	2×21.4	2×220	90	7	90	8260	3650	6600	94000
UHM-1000/5000D	10000	5000	4000	700	400	800	2×25.2	2×420	70	7	70	5280	3900	6500	89000
UHM-1000/6000D	10000	6000	5000	700	400	800	2×25.2	2×420	70	7	70	6280	3900	6600	99000
UHM-1000/7000D	10000	7000	6000	700	400	800	2×25.2	2×420	70	7	70	7280	3900	6800	109000
UHM-1000/8000D	10000	8000	7000	700	400	800	2×25.2	2×420	70	7	70	8280	3900	7000	119000
UHM-1000/10000D	10000	10000	9000	700	400	800	2×25.2	2×420	70	7	70	10280	3900	7600	143000
UHM-1000/12000D	10000	12000	10000	700	400	800	2×25.2	2×420	70	7	70	12280	3900	8500	167000
UHM-1200/5000D	12000	5000	4000	700	400	800	2×25.2	2×420	60	6	60	5280	4100	6700	102000
UHM-1200/6000D	12000	6000	5000	700	400	800	2×25.2	2×420	60	6	60	6280	4100	6900	112000
UHM-1200/7000D	12000	7000	6000	700	400	800	2×25.2	2×420	60	6	60	7280	4100	7100	123000
UHM-1200/8000D	12000	8000	7000	700	400	800	2×25.2	2×420	60	6	60	8280	4100	7300	135000
UHM-1200/10000D	12000	10000	9000	700	400	800	2×25.2	2×420	60	6	60	10280	4100	7900	162000
UHM-1200/12000D	12000	12000	10000	700	400	800	2×25.2	2×420	60	6	60	12280	4100	8800	189000

A NEW GENERATION OF CNC PRESS-BRAKES. HIGH PRECISION, EUROPEAN DESIGN, EFFICIENT AND RELIABLE.



Technica is a precision CNC-controlled press brake with mechanical crowning in a basic but very complete configuration, equipped with 4 CNC-controlled axes (Y1-Y2, X, V). Technica offers the user a heavily built, reliable, precision CNC press brake at an economical price. The high precision digital encoders at both sides of the machine continuously measure the movement and position of the upper beam (axes Y1-Y2). The data is processed and monitored by the CNC controller which controls the hydraulic valves.

An extremely high level of accuracy is obtained during the movement and final positioning of the upper beam due to the continuous monitoring and feedback of the encoder measuring data. Using this technology, a repeatability of approximately 100% (± 0.01 mm) can be guaranteed.

The synchro system permits two or more machines to be connected together in tandem to provide working lengths of 20 meters or longer.



TECHNICA-TSM



PRODUCT FEATURES



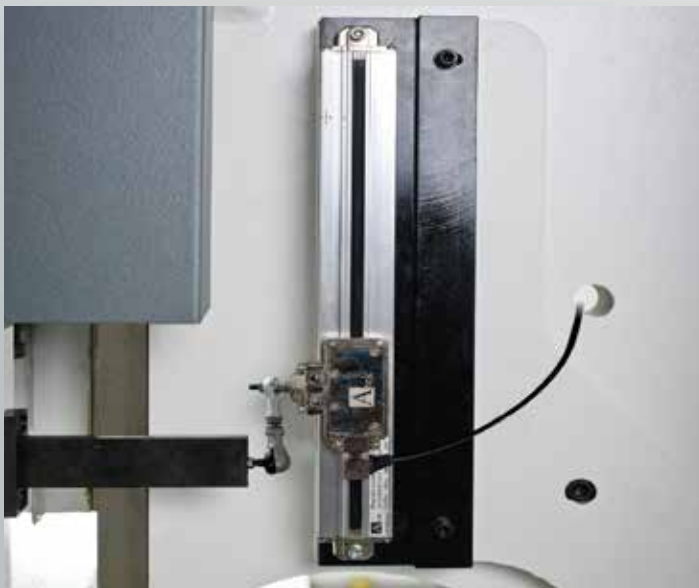
1

High precision and fast clamping system:
Fast and easy to change the tooling, decreasing labour strength and enhance productivity.



2

High precision and stable backgauge system:
New and unique double linear guide construction, to ensure the excellent positioning accuracy.
Design of multistage stops, to increase the Positioning Range.



3

Precision digital encoders at both ends of the machine ensure highly accurate positioning of the upper beam. The independently mounted encoder mounting frames automatically compensate for the minimal deflection of the press brake side frames, ensuring perfect bending results. The ram accuracy is guaranteed to $\pm 0.01\text{mm}$. Bending is a physical process subject to significant elastic deflection (springback) and can be influenced by many factors.



4

Due to the elastic deformation from both the upper and lower beams of the press brake during the bending process, the bending angle is not constant over the entire bending (plate) length. The CNC-controlled crowning device compensates for this deformation so an equal bending angle is obtained over the full bending length.



5

Front support arms on a linear guide ensure optimum product support during bending.

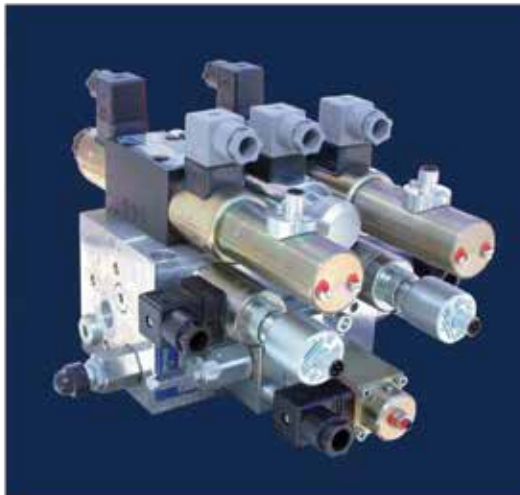
PRODUCT FEATURES

6

High quality press brake tooling: Durable, fully hardened high precision CNC Press Brake Tooling.



Unique technical characteristics



7

High quality German Hydraulic System: High frequency hydraulic system, low failure rate, fast stable and reliable.



8

High quality Stainless Steel Hydraulic Tank aids in the eliminating contamination

TECHNICA TSM

Model	Force (kN)	Max. bending length (mm)	Distance between uprights (mm)	Throat depth (mm)	Cylinder stroke (mm)	Opening height (mm)	Main power (kW)	Oil volume (L)	Max Speed (mm/s)			Dimensions(mm)			Weight (kg)
									Approaching speed	Working speed	Returning speed	Length	Width	Height	
TSM-50/1650	500	1650	1200	300	160	470	5,5	200	220	0-15	180	2180	1340	2385	4300
TSM-60/2050	600	2050	1500	300	160	470	7,9	200	220	0-15	180	2680	1340	2385	4600
TSM-80/2500	800	2500	2000	300	225	425	7,9	200	200	0-15	180	2800	1470	2410	6100
TSM-110/2500	1100	2500	2000	400	225	500	10,5	200	220	0-15	180	3010	1670	2720	7800
TSM-110/3100	1100	3100	2700	400	225	500	10,5	200	220	0-15	180	3710	1670	2720	9000
TSM-110/4100	1100	4100	3600	400	225	500	10,5	200	220	0-15	180	4610	1770	2720	10900
TSM-130/2500	1300	2500	2000	400	225	500	10,5	200	200	0-15	160	3010	1670	2720	7800
TSM-130/3100	1300	3100	2700	400	225	500	10,5	200	200	0-15	160	3710	1670	2720	9000
TSM-130/4100	1300	4100	3600	400	225	500	10,5	200	200	0-15	160	4610	1770	2720	11300
TSM-130/5100	1300	5100	4600	400	225	500	15,7	200	180	0-15	130	5610	1820	2960	15200
TSM-130/6100	1300	6100	5600	400	225	500	15,7	200	180	0-15	130	6610	1820	3110	17700
TSM-160/3100	1600	3100	2700	400	200	475	15,7	200	200	0-15	160	3500	1700	2720	9800
TSM-160/4100	1600	4100	3600	400	200	475	15,7	200	200	0-15	160	4500	1700	2720	11500
TSM-170/2500	1700	2500	2000	400	225	500	15,7	200	200	0-15	160	3030	1680	2720	8700
TSM-170/3100	1700	3100	2700	400	225	500	15,7	200	200	0-15	160	3730	1680	2720	10100
TSM-170/4100	1700	4100	3600	400	225	500	15,7	200	200	0-15	160	4630	1790	2720	12100
TSM-170/5100	1700	5100	4600	400	225	500	15,7	200	160	0-15	110	5630	1800	2960	17000
TSM-170/6100	1700	6100	5600	400	225	500	15,7	200	160	0-15	110	6630	1800	3160	20000
TSM-210/2500	2100	2500	2000	400	225	500	15,7	200	160	0-13	150	3030	1680	2720	9000
TSM-210/3100	2100	3100	2700	400	225	500	15,7	200	160	0-13	150	3730	1680	2720	10500
TSM-210/4100	2100	4100	3600	400	225	500	15,7	200	160	0-13	150	4630	1790	2720	13100
TSM-210/5100	2100	5100	4600	400	225	500	15,7	200	130	0-13	110	5630	1850	3100	18000
TSM-210/6100	2100	6100	5600	400	225	500	15,7	200	130	0-13	110	6630	1850	3210	21000
TSM-250/2500	2500	2500	2000	400	225	500	19,3	460	130	0-13	130	3050	1920	2975	11700
TSM-250/3100	2500	3100	2700	400	225	500	19,3	460	130	0-13	130	3750	1920	2975	14000
TSM-250/4100	2500	4100	3600	400	225	500	19,3	460	130	0-13	130	4650	1920	2975	16000
TSM-250/5100	2500	5100	4600	400	225	500	19,3	460	120	0-13	110	5650	1920	3125	21200
TSM-250/6100	2500	6100	5600	400	225	500	19,3	460	120	0-13	110	6650	1920	3325	24600
TSM-320/3100	3200	3100	2700	400	225	500	24,1	460	100	0-13	110	3930	2110	3205	17700
TSM-320/4100	3200	4100	3600	400	225	500	24,1	460	100	0-13	110	4830	2110	3205	20300
TSM-320/5100	3200	5100	4600	400	225	500	24,1	460	90	0-13	90	5830	2150	3690	26100
TSM-320/6100	3200	6100	5600	400	225	500	24,1	460	90	0-13	90	6830	2150	3855	30400

ESA 630

ESA 630

- ▲ 2D graphic editing for punches and dies.
- ▲ 2D graphic preview for part pieces.
- ▲ Programming of the axes position in tabular mode with automatic calculation of the R and A position and of the bending and crowning tonnage.
- ▲ Touch Screen 10"
- ▲ Can manage up to 4 axis + I and tandem operation



ESA 640



ESA 640

- ▲ 2D graphic editing for punches and dies.
- ▲ 2D graphic preview for part pieces.
- ▲ Programming of the axes position in tabular mode with automatic calculation of the R and A position and of the bending and crowning tonnage.
- ▲ Touch Screen 15"
- ▲ Can manage up to all possible axis + I tandem operation
- ▲ 3D Viewer functionality

MINIBEND CNC HYBRID PRESS BRAKE

The Ultima Minibend is a good example of efficient interaction between operator and machine. By providing the best working conditions to the operator and creating a user friendly environment, will result in outstanding productivity at every stage of the job.

The Ultima Minibend is ergonomically designed: movable foot pedal, pivoting control panel, seated or semi-seated operation...

The machine frame can be designed to the ergonomic needs of the operator, this to achieve the best possible working conditions in any application possible.

The Ultima Minibend is engineered to produce parts commonly found in the production of electrical equipment, medical instruments, vending machines,... this is a fast and cost effectively way.

ULTIMA

MINIBEND CNC PRESS BRAKE

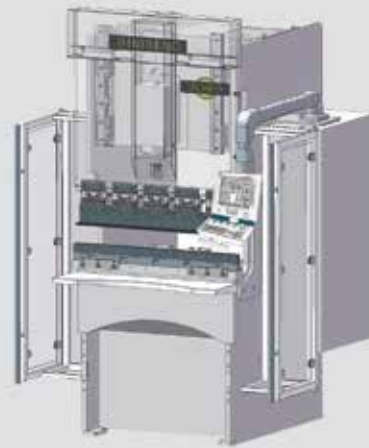


PRODUCT FEATURES



1

ESA VIS-860W, 18,5" (16:9) 2D Touch screen Graphical controller (Multi touch) with 3D simulation in production mode with off-line programming software. Windows based controller with 2D/3D graphical features, programming the machine is made fast and easy, within seconds the operator is able to bend a high quality part. Make the best of any 3D cad/cam you would like to install in the CNC, direct import of tools shapes (.dxf files) and management of tool library. The powerful build-in PC allows having on the machine a real 3D cad/cam (metallix, radan, esa, lantek, ...) Finger-tip work piece design.



2

The Ultima Minibend is a single cylinder hydraulic pressbrake, especially designed torsionally stiff welded machine frame, upper beam guided by high precision linear guides for the production of small parts in the productive way possible. Available in bending length of 1020mm and bending force of 30ton. Backgauge X/R is CNC-controlled and manual finger adjustment.



**Green technology,
energy saving system**

ULTIMA-HYBRID UHM

Model	Force (kN)	Max. bending length (mm)	Distance between uprights (mm)	Throat depth (mm)	Cylinder stroke (mm)	Opening height (mm)	Main power (kw)	Oil volume (L)	Speed (mm/s)			Dimensions (mm)			Weight (kg)
									Approaching speed	Working speed	Returning speed	Length	Width	Height	
UHM-35/1250	350	1250	900	200	160	460	3,7	70	250 (220)	20 (10)	200	1650	1210	2490	2800
UHM-50/1650	500	1650	1200	300	160	460	2×3,7	2×70	250 (220)	20 (10)	200	2180	1440	2410	4300
UHM-60/2050	600	2050	1700	300	160	460	2×3,7	2×70	250 (220)	20 (10)	200	2680	1440	2410	4700



3

A heavily built, rigid, precision backgauge on ball screws with linear guiding insures fast and precise positioning. Adjustment in width is on a precision linear guide way. Option for 4-axis backgauge X-R-Z1-Z2 or more...



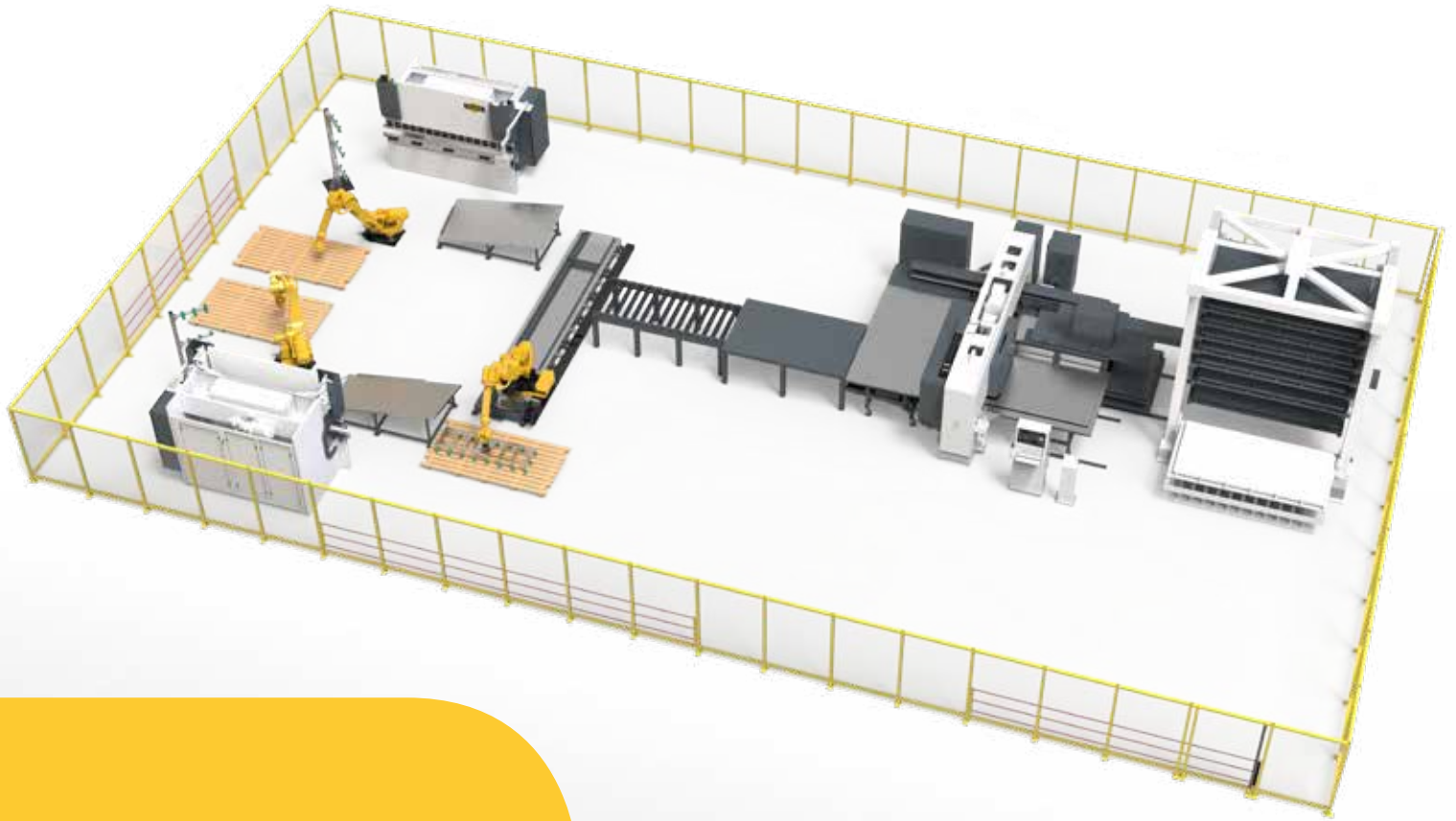
4

D-Remote Assistance is a feature of the ESA 650, that allows a Deratech technician to temporarily log-on to the controller of the machine over a network or internet. This to provide help or resolve issues without directly touching the machine. This feature is simple to set-up, secure and only taking a few moments for our engineer to connect and begin the support session, resulting in time and cost saving solution for the end-user.

5

Manual fast clamping with vertical tool change.





AUTOMATIC SYSTEMS

Deratech Group is able to design and produce **robot bending cells**, manipulators and other **automated bending lines** that can be integrated in your production, creating your **NON STOP PRODUCTION CENTER**. We are also able to design and produce complete **shearing, laser and punching systems** with picking, stacking, manipulators, and many other types of functionality.

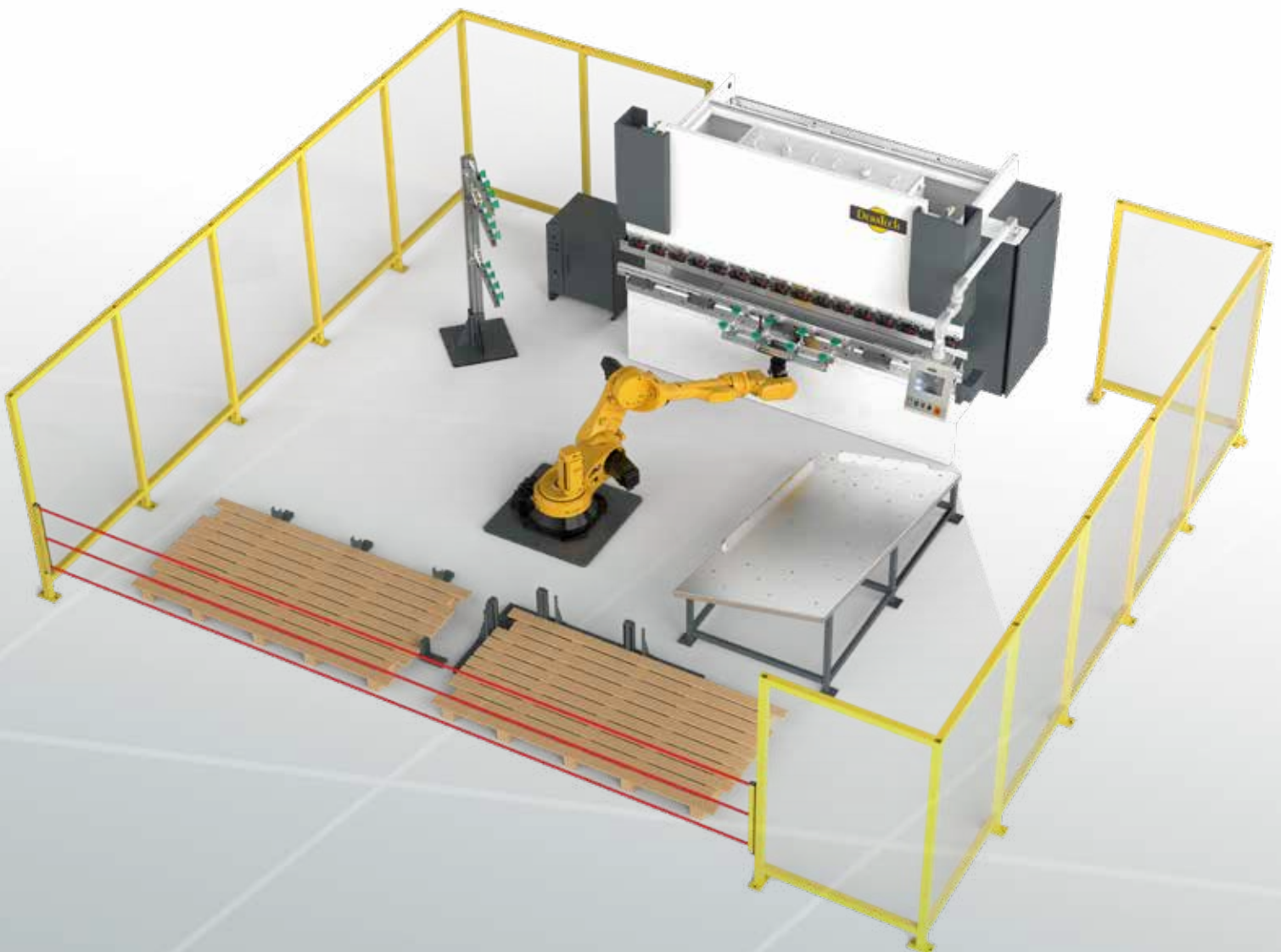
- ▲ **MORE EFFICIENCY**
- ▲ **MORE OUTPUT 24/7**
- ▲ **LESS DOWN TIME**
- ▲ **CONSTANT QUALITY**
- ▲ **REMOTE PROGRAMMING**
- ▲ **AUTOMATIC QC Check**

The help of intelligent systems will already create the basis for a successful future today... ROBOT Integration or loading/unloading systems, sorting systems, Industry 4.0 will be the key to your production flow in the future.

We all need to be ready to compensate economic fluctuations and our production methods should be able to deploy your resources with high flexibility.

Operators for CNC controlled sheet metal working machinery, need a very specific set of skills, this makes it not easy to find suitable staff. Automated bending cells, Loading and unloading solutions for laser and punching machines, even for production of complex parts, will deliver top quality products 24 hours a day and 7 days a week. Automatic Bending centers are the key in the process, ideal for large volume productions but also designed to be flexible to be ideal for smaller volumes of components with high quality and repeatability. Our Automatic bending centers can be integrated in a Fully Automated punching or laser system.

**INVEST IN THE FUTURE AND STAY AHEAD OF THE COMPETITION WITH
AUTOMATION POWERED BY DERATECH GROUP**



ELECTRIC CNC PRESS BRAKE

The Ultima Electra is a full electric driven efficient machine. By providing the best ergonomic working conditions to the operator and creating a user friendly environment, will result in outstanding productivity at every stage of the job.

The Electra model can be equipped with the same options as available on the hydraulic models.

A state of the art new machine, energy saving and future proof. Tonnages available from 25 to 160ton. Bending length from 1 meter to 4 meter.



ULTIMA ELECTRA-EPP



PRODUCT FEATURES



1

CYBTOUCH-12 CNC system is the update version of famous system DNC880S, powerful and easy-to-use 15 inches touch screen. According to the software, CYBTOUCH-12 can control CNC hydraulic press brake and torsion bar press brake. Modern and ergonomic design, user friendly HMI with a powerful performance.



2

High precision and stable backgauge system:

New and unique double linear guide construction, to ensure the excellent positioning accuracy. Design of multistage stops, to increase the Positioning Range.

ULTIMA ELECTRA-EPP

Model	Force (kN)	Max. bending length (mm)	Distance between uprights (mm)	Throat depth (mm)	Cylinder stroke (mm)	Opening height (mm)	average power (kw)	Speed (mm/s)			Dimensions (mm)			Weight (kg)
								Approaching speed	Working speed	Returning speed	Length	Width	Height	
EPP-30/1250*	300	1250	900	200	180	430	1,1	200	0-30	200	1650	1450	2610	3500
EPP-50/1650*	500	1650	1200	300	200	470	2,4	200	0-30	200	2180	1610	2490	4800
EPP-60/2050*	600	2050	1700	300	200	470	2,6	200	0-30	200	2680	1610	2560	5400
EPP-70/2500	700	2500	2000	300	200	470	2,7	200	0-30	200	2990	1610	2545	6800
EPP-110/3200	1100	3200	2700	400	250	525	3,9	200	0-30	200	3900	1860	3035	11600
EPP-110/4100	1100	4110	3610	550	250	540	3,9	200	0-30	200	4800	2010	3050	13500
EPP-130/3200	1300	3200	2700	400	250	525	4,8	200	0-30	200	3900	1860	3035	11700
EPP-130/4100	1300	4100	3600	550	250	540	4,8	200	0-30	200	4800	2010	3050	13900
EPP-160/2500	1600	2500	2000	400	250	525	4,8	200	0-30	200	3000	2000	2150	11800
EPP-160/3200	1600	3200	2700	400	250	525	4,8	150	0-30	150	3900	2000	3150	13200
EPP-160/4100	1600	4100	3600	400	250	525	4,8	150	0-30	150	4800	2000	3150	15500

ULTIMA ELECTRA-EPP



3

Due to the elastic deformation from both the upper and lower beams of the press brake during the bending process, the bending angle is not constant over the entire bending (plate) length. The CNC-controlled crowning device compensates for its deformation so an equal bending angle is obtained over the full bending length.



4 **High precision upper clamps with vertical toolchange.**
A Precision quick-clamping device: set-up fast and convenient, reduce labor intensity and improve production efficiency.

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