

*Press brake
automation*

ULTI-FORM

THE ULTIMATE BENDING SYSTEM



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Uti-Form takes the best of LVD bending technology and combines it with fast robot and press brake programming, optimised input and output capacity, and a universal gripper – to create a unique system that efficiently bends parts from 50 x 100 mm up to 1200 x 800 mm, including very long or complex parts.



“Ulti-Form takes bending automation to the maximum, delivering high productivity in a compact space.”



BUILT FOR TOP PERFORMANCE

Automated press brake with integrated tool changer and tooling warehouse

Kuka industrial robot

Auto-adapting, universal gripper

Easy-Form® Laser adaptive bending system

3 input pallets

Large output zone for 10 pallets including pallet dispenser and conveyor system

Intuitive Touch-B control

WHY CHOOSE ULTI-FORM



MINIMISED SETUP TIME

The robot and press brake work in synergy to keep changeover time to a minimum. As the robot picks the workpiece from the input stack and centers the part, the press brake with integrated automated tool changer completes the tool change. Setup is fast, accurate and efficient.

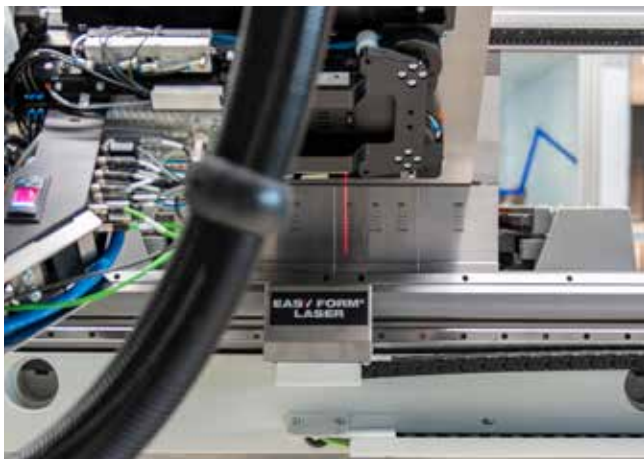
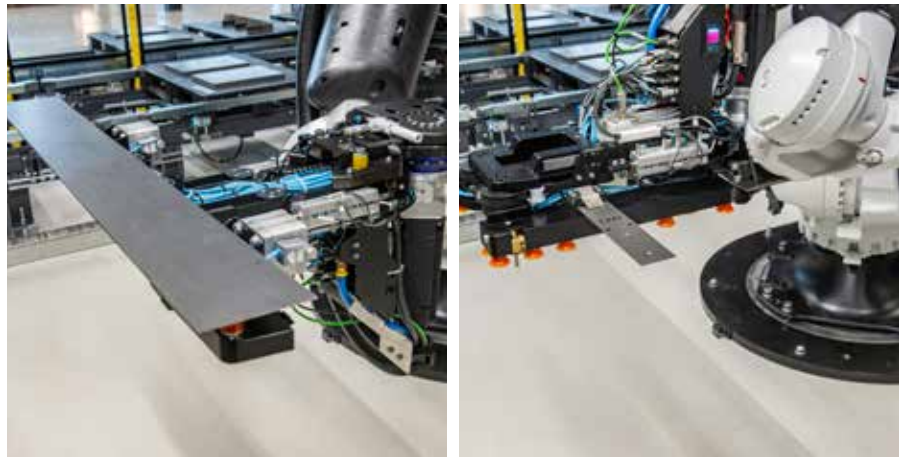
FAST PROGRAMMING

Programming of Ulti-Form is handled completely offline, reducing downtime and setup time. The system automatically calculates gripper positions and a complete collision-free robot path. There is no need to physically “teach” the robot at the machine. A full 3D environment provides a realistic virtual simulation of the production so the user can check and visually confirm the bending sequence.



AUTO-ADAPTING GRIPPER

Engineered by LVD, Ulti-Form's universal robot gripper eliminates gripper changes. A patent-pending design, the gripper adapts to the workpiece to accommodate a number of part geometries. Its smart design saves investment in different grippers and gripper changeover time, keeping production continuous.



ANGLE ACCURACY ENSURED

LVD's in-process angle monitoring system Easy-Form® Laser ensures the first bend is accurate every time. It enables Ulti-Form to consistently deliver perfect parts.

MORE RETURN ON INVESTMENT

Ulti-Form offers the flexibility to operate in either automated or manual mode. Use Ulti-Form in automated mode for large batches; in manual mode for small batches and complex parts. Ulti-Form allows you to realise the lowest cost per part and get the most from your investment.



EFFICIENTLY ORGANISED

Ulti-Form automates material handling and bending, delivering consistent output. This happens in an efficiently-organised 8x10 m space. Here are the key components of the system :

Automated press brake minimises changeover times

The press brake design is based on LVD's renowned ToolCell, featuring an automatic tool changer with a large, integrated tooling warehouse.



Unique gripper – For all part sizes

A universal gripper designed by LVD (patent-pending) eliminates the need to change grippers and keeps production continuous and uninterrupted.



Dynamic robot

The industrial-grade Kuka robot with 120 kg payload handles workpieces up to 25 kg with full reachability across the cell's entire working area.



Easy-Form® Laser adaptive bending system

LVD's adaptive, in-process control over the bend angle ensures consistency from the first to the last part.

Sheet thickness measurement

Sheet thickness inspection prevents processing double sheets or parts of the wrong thickness.



Input pallets

The input zone provides three input pallets with an inclined plane for easy picking.

Center station

The robot takes a part from the material supply and references the blank position on the center station using the vacuum cups or the clamp for very small parts.



Touch-B control

LVD's latest 19" touch screen control features intuitive graphical icons used to control all parameters of the robot gripper and the machine for fast and efficient operation.



Drop zone

A drop zone can remove parts smaller than 200 mm directly out of the cell.

Regrip station

A regrip station attached to the press brake allows the regripping of a part when necessary.

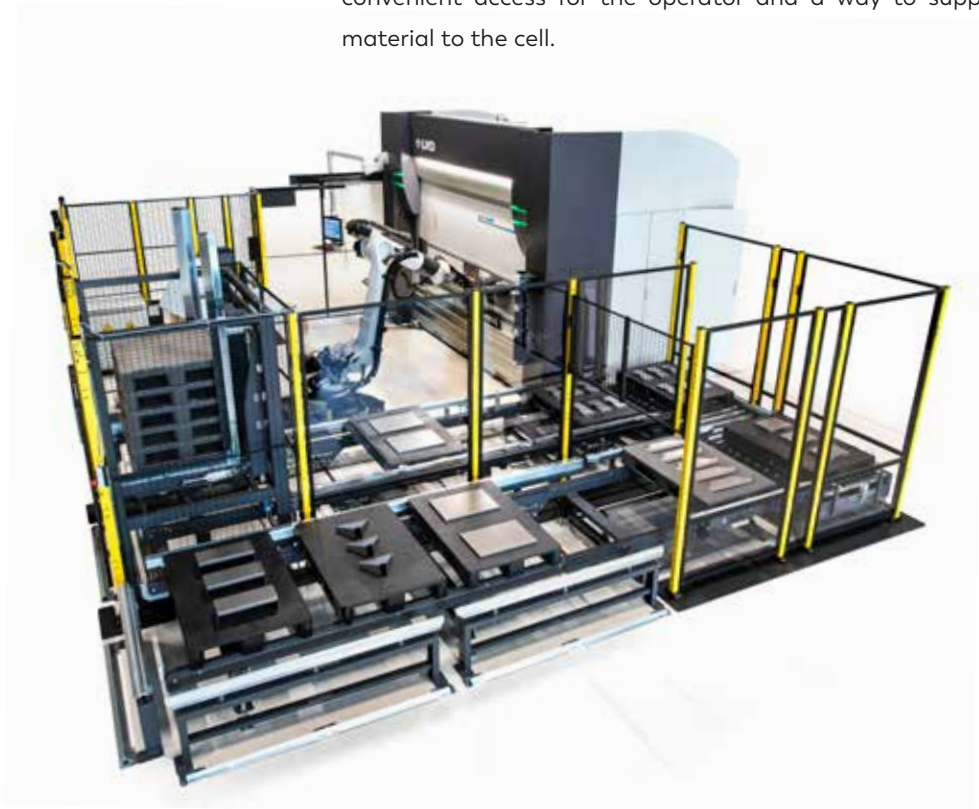


Sliding doors

Sliding doors at the front and side of the bending cell allow convenient access for the operator and a way to supply material to the cell.

Large output zone

A large output zone offers space for up to 10 pallets, an automated pallet dispenser and a conveyor system that efficiently moves finished parts outside the cell, freeing space inside for long production runs.



TECHNICAL SPECIFICATIONS

ULTI-FORM		135/30
Pressing force	kN	1350
Pressure	bar	290
Working length	mm	3050
Distance between uprights	mm	4000
Stroke	mm	400
Distance table/ram	mm	600
Table width	mm	120
Max. load table	kN/m	2500
Working height	mm	970
Approach speed*	mm/sec	180
Working speed**	mm/sec	22
Return speed	mm/sec	200
Top tooling - height	mm	LVD style, 231
Bottom tooling - height	mm	LVD style, 130
Backgauge		X1R1Z1, X2R2Z2
Safety system		IRIS Lazer Safe
Main motor	kW	22
Weight press brake	kg	19,000
Oil tank	L	250
Robot		6-axis Kuka robot
Payload	kg	120
Reachability	mm	3100
Part size	mm	min 50 x 100 – max 1200 x 800
Maximum part weight	kg	25

*For CE-countries only if the machine is equipped with an optional safety system.

**For CE-countries working speed is limited to safety norm.

Specifications subject to change without prior notice.

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