Press brake automation

DYNA-CELL
HIGH-SPEED BENDING CELL

LVDGROUP.COM
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Dyna-Cell is a compact, robotic manufacturing cell that produces small to medium components in a fast and cost-efficient manner with top precision.

FAST, ELECTRIC-DRIVE PRESS BRAKE
Dyna-Press Pro 40/15 with 40 tons of pressing force and 1500 mm working length efficiently bends parts at speeds of up to 25 mm a second. A five-axis backgauge provides consistent repeatability and accuracy.

LIGHTWEIGHT KUKA ROBOT
A Kuka industrial robot quickly detects parts, precisely places them in and out of the press brake and stacks them on the right pallet.

SAFETY SYSTEM
IRIS Lazer Safe enhances safety during tool change operations.

HIGH INPUT AND OUTPUT CAPACITY
A stacking area provides space for input pallets with an inclined plane, a center table, regrip station and output pallets or boxes.

SPACE-SAVING DESIGN
The compact Dyna-Cell requires only 5 m x 5 m of floor space.
UNIQUE GRIPPER
An extremely agile gripper designed by LVD effortlessly handles different part sizes, bends three flanges without regripping and easily moves between the tool stations.

PROGRAMMING WIZARD
The software automatically generates the bending and robotics program, no robot teaching at the machine is required.

INTUITIVE CONTROL
The 15° Touch-B control enables the operator to select and simulate 3D-programs. The control is compatible with LVD’s bending software CADMAN®-B.

EASY-FORM® LASER OPTION
LVD’s angle monitoring system adapts in real-time the punch position to ensure precise, consistent bending.
HIGHLIGHTS

UNIVERSAL GRIPPER
The robot features a unique gripper designed and patented by LVD specifically for Dyna-Cell:
- small gripper size to access small parts and between tool stations
- bends on three different sides of a part without regripping
- suction cups are activated according to part size
- one gripper fits all applications for continuous, uninterrupted production
- handles part sizes from 30 x 100 mm up to 350 x 500 mm and a part weight of 3 kg

REVOLUTIONARY PROGRAMMING WIZARD
Dyna-Cell’s intelligent wizard makes programming of the bending cell incredibly fast and easy:
- follows the 10-10 rule: 10 minutes for bending and robot program after 3D-file import and 10 minutes for set-up and first part generation
- calculates a collision-free path including all gripper positions
- requires no robot teaching at the machine

EASY-FORM® LASER
The adaptive bending system is an option on the Dyna-Press Pro press brake. EFL transmits the digital information in real time to the CNC control unit, which processes it and immediately adjusts the position of the punch to achieve the correct angle.

ROBOT OR OPERATOR
Dyna-Cell’s design allows for unmanned or manned operation offering a perfect bending solution for small, medium and large batch sizes.

OPTIMUM COST-BENEFIT RATIO
LVD has carefully balanced the functionality and price of Dyna-Cell to ensure an optimum cost per part.