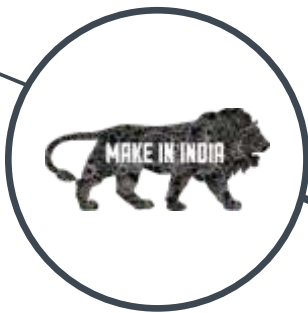


MULTIFOLD



योग: कर्मसु कौशलम

WORK DONE WITH PERFECTION IS UNION WITH DIVINITY

**Manufacturers of
Automatic Panel Benders
& High Speed Panel Bender Lines**

www.multifoldindia.com

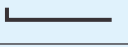
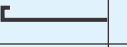
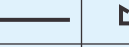






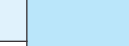




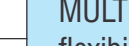




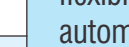
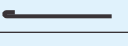
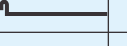





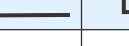

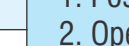




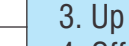




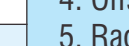



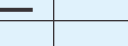
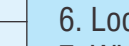


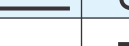





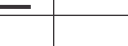

MULTIFOLD PANEL BENDERS

Folding panels has always been a challenging task for sheet metal fabricator, in view of varying intricate profiles, varying sizes, requirement of high accuracy, high production and need for skilled operators. Conventional machines like Press Brakes fail to fulfil these requirements and Panel Benders offer complete solutions to all problems.

As it is always said Panel Benders are sheet metal folder's delight.

MULTIFOLD Panel Bender offers fully automatic operation with Servo Folding, Servo Clamping, Servo Feeding, Servo Rotation and Servo Gauging and gives very high accuracy, high speed and ease of working.

MULTIFOLD BEND PROFILE LIBRARY

| | | | | |
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MULTIFOLD Panel Bender gives high flexibility and is best suited to fold automatically various types of bends inclusive of

1. Positive and negative bends.
2. Open and closed hemming.
3. Up and down hemming.
4. Offset bends.
5. Radius bends.
6. Localized folding on any side.
7. Wide variety of special profiles.

MULTIFOLD PANEL BENDERS COME WITH THE FOLLOWING OPTIONS

1. Manual Panel Bender with manual loading, unloading and manual tool setting system.
2. Semi-Automatic Panel Bender with manual loading, unloading & automatic tool setting system.
3. Fully automatic Panel Bender with automatic loading, automatic unloading and automatic tool setting system.

MULTIFOLD OFFERS A WIDE RANGE OF PANEL BENDER MODELS :



BABY PANEL BENDER

PB 450 X 1.2 mm for
Smaller Panels like Locker Doors.



MINI PANEL BENDER

PB 1250 X 1.2 mm for Kitchen,
Cupboard Shelves and other panels



FULL SIZE PANEL BENDERS

PB 2100 X 1.2 mm for Cupboard panels
PB 2500 X 1.6 mm for Control Boxes
PB 3200 X 1.2 mm for Fire Doors
& Clean Room Panels

PANEL BENDER SPECIFICATIONS

| | BABY PANEL BENDER | MINI PANEL BENDER | FULL SIZE PANEL BENDER | | |
|---|-------------------|-------------------|------------------------|-------------|-------------|
| Bend Length (mm) | 450 | 1250 | 2100 | 2500 | 3200 |
| Thickness Steel (UTS - 420 N/mm ²) | 1.2 | 1.2 | 1.2 | 1.6 | 1.2 |
| Thickness S.S. (UTS - 600 N/mm ²) | 1 | 1 | 1 | 1.2 | 1 |
| Thickness Aluminum (UTS - 290 N/mm ²) | 1.6 | 1.6 | 1.6 | 2 | 1.6 |
| Maximum Bend Height (mm) | 110 | 110 | 110 | 110 | 110 |
| Maximum Panel Length (mm) | 450 X 450 | 1250 X 1250 | 2100 X 1250 | 2500 X 1250 | 3200 X 1250 |
| Minimum Panel Width (mm) | 450 | 1250 | 1250 | 1250 | 1250 |
| Space Required (sq.m) | 7 X 3.5 | 12 X 5 | 13 X 6 | 15 X 6.5 | 16 X 8 |

MULTIFOLD PANEL BENDERS GENERALLY INCLUDE THE FOLLOWING ASSEMBLIES



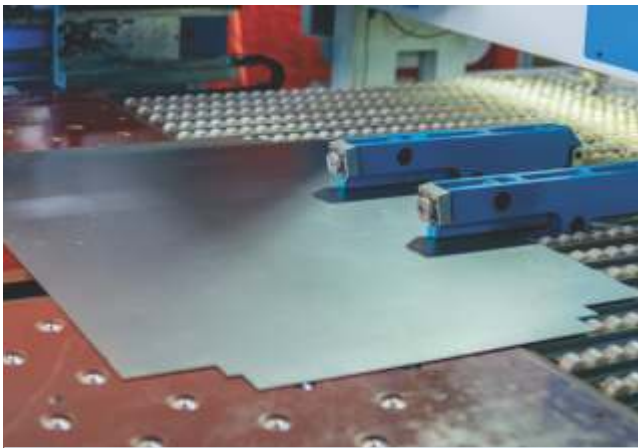
PICK AND PLACE SYSTEM

Automatic Pick and Place system loads the sheet from a single stack or multiple stacks with different sizes on the gauging table.



SHEET GAUGING SYSTEM WITH DOUBLE SHEET SENSOR

Sheet is automatically gauged on notches or on sides by servo operated gauging system. The double sheet sensor checks the presence of more than one sheet and stops the machine in that case.



SHEET TRANSFER SYSTEM

Sheet is automatically transferred from the gauging table to the feeding table by servo operated sheet transfer mechanism for accurate positioning.



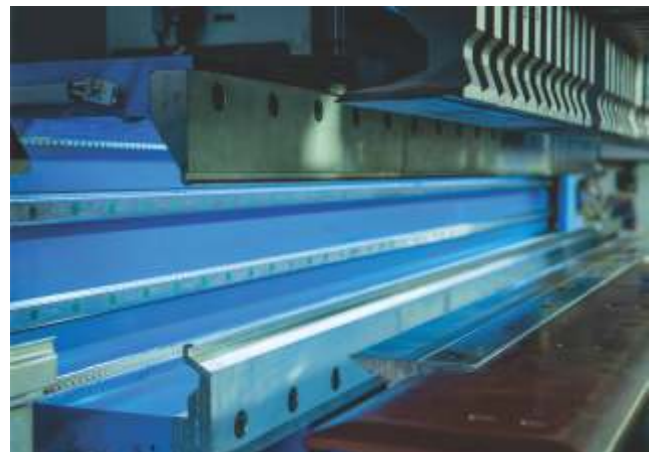
SHEET FEEDING AND ROTATION SYSTEM

Servo operated sheet feeding system positions the sheet automatically with high repetitive accuracy. Servo operated sheet rotation system rotates the sheet automatically with high accuracy to give precise bends on all four sides.



AUTOMATIC CLAMP BEAM TOOL SETTING SYSTEM

Whenever a batch changes, based on next panel program, top tools on both LH and RH side are automatically set for the panel size by servo operated tool setting system.



UP AND DOWN FOLDING SYSTEM

A Universal set of servo operated automatic up and down folding blades to give positive and negative bends, open or close hemming, offset bends and radius bends.

**CENTRALISED LUBRICATION SYSTEM**

All moving parts are automatically lubricated.
The frequency and duration can be preset.

**CONTROL SYSTEM**

MULTIFOLD uses latest PC based Control System with Ethercat Communication from BECKHOFF Germany which gives very precise positioning accuracy at high speed and trouble free, accident free operation.

SHEET UNLOADING SYSTEM

Folded panel is unloaded automatically onto unloading table by sheet unloading system.

PALLET UNLOADING SYSTEM

Folded panels are automatically stacked on multiple pallets put on ground.

MODES OF OPERATION

Manual Mode, Individual Auto Mode, Line Auto Mode, Setting Mode, Diagnostic Mode.

PROGRAMMING ON MULTIFOLD PANEL BENDER

Programming is very easy on MULTIFOLD Panel Bender. Panel Bender comes with programs loaded for wide range of sections. For Programming new panel two options are available:

1) PROGRAMMING ON MACHINE

Just select required profiles on all four sides from profile library. Give dimensions required and Machine is ready to fold.

2) PROGRAMMING OFFLINE

In your PC enter bend parameters in prescribed format and, load the program with Pen Drive in IPC and Panel Bender is ready for folding.

Full day production programme can be prepared in excel format on your PC and can be loaded in machine PC with pen drive.

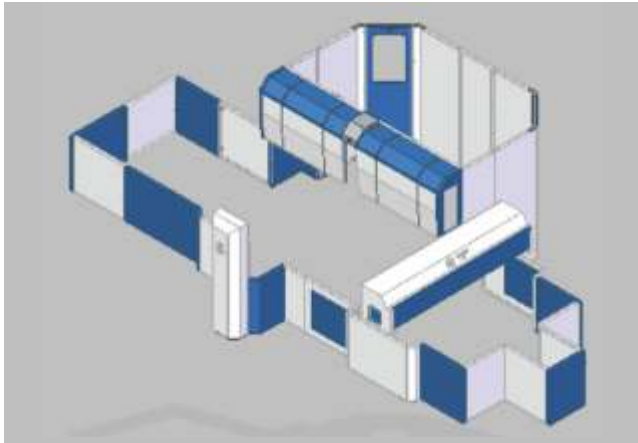
OPTIONAL ACCESSORIES



Small Width Folding Attachment



CLA Arrangement For Localised Folding



Safety Guards



Bend Angle Measurement & Correction System

INDUSTRY 4.0

Industry 4.0 ready, MULTIFOLD Panel Benders make your factory next-gen. With high performance and greater production speeds, MULTIFOLD Panel Benders offer off-the-floor control and monitoring of production process with a range of operation data over the network. 'Maintenance alarms', 'production history', 'power consumption log', 'machine run time', name it and we have it all delivered to your desk without you having to move an inch.

MULTIFOLD Offers Customised And The Most Economical Solutions To The Following Industries



Clean Room Panel Manufacturers



Steel Furniture Manufacturers



Fire Door Manufacturers



AHU Manufacturers



Elevator Manufacturers



Control Box Manufacturers

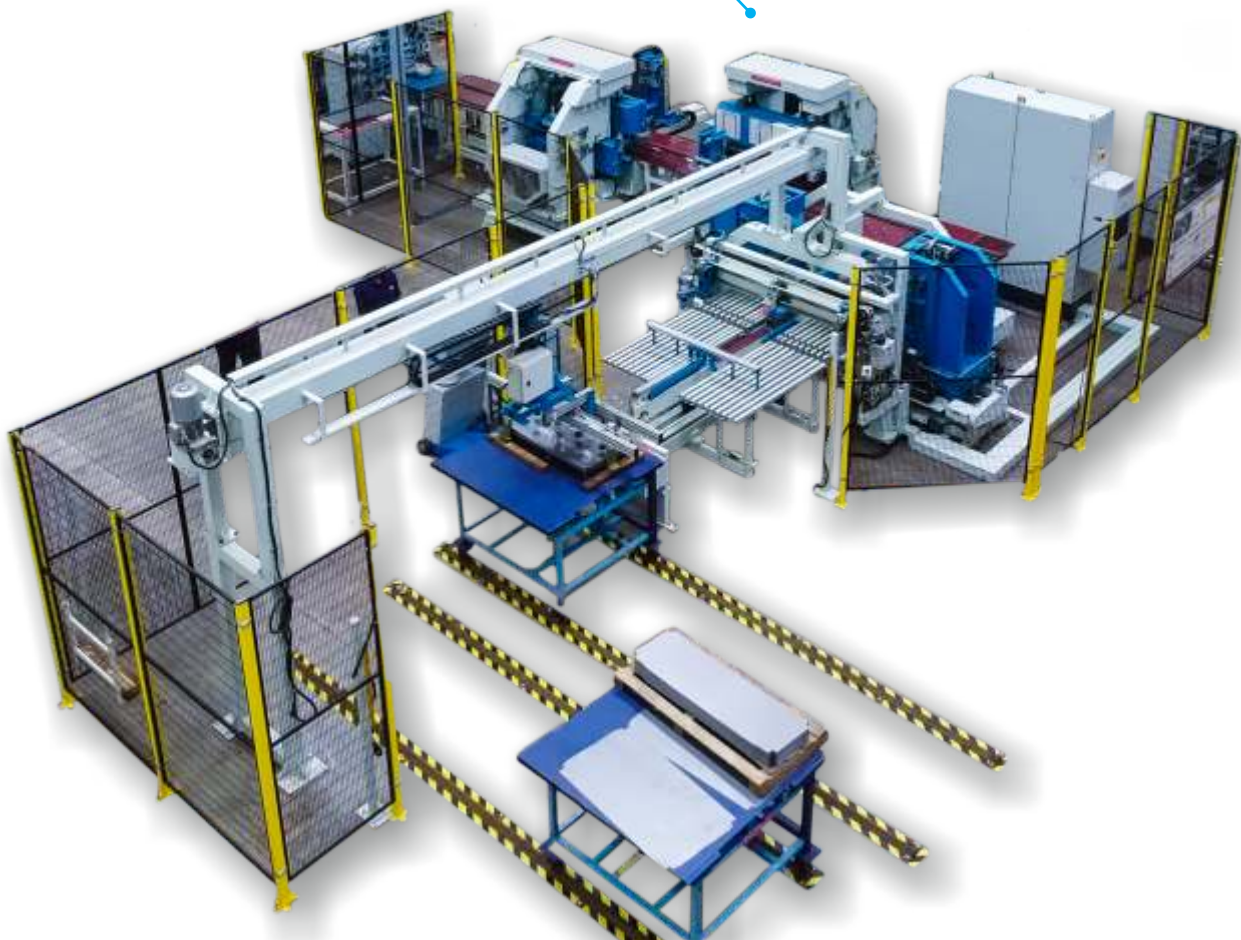
MULTIFOLD PANEL BENDER LINES ↪

MULTIFOLD Panel Bender Line is the ultimate solution for all sheet metal bending requirements. A Panel Bender Line is specially designed for higher production rates with decreased cycle times and high repetitive accuracy. A typical Panel Bender Line consists of total 4 Up & Down bending machines and can give a cycle time of upto 15 seconds for bending 4 up bends on all sides of a sheet. MULTIFOLD Panel Bender Lines are 2 to 3 times faster than reputed European Panel Bender presently available in the market.

Out of the total 4 bending machines, 2 machines are used for bending short sides and 2 machines are used for bending long sides. Here each side of the sheet is bent in an individual machine. One bending machine for every side of the sheet. This drastically reduces the cycle time as bending is carried out simultaneously on all the 4 machines.

PANEL BENDER LINE

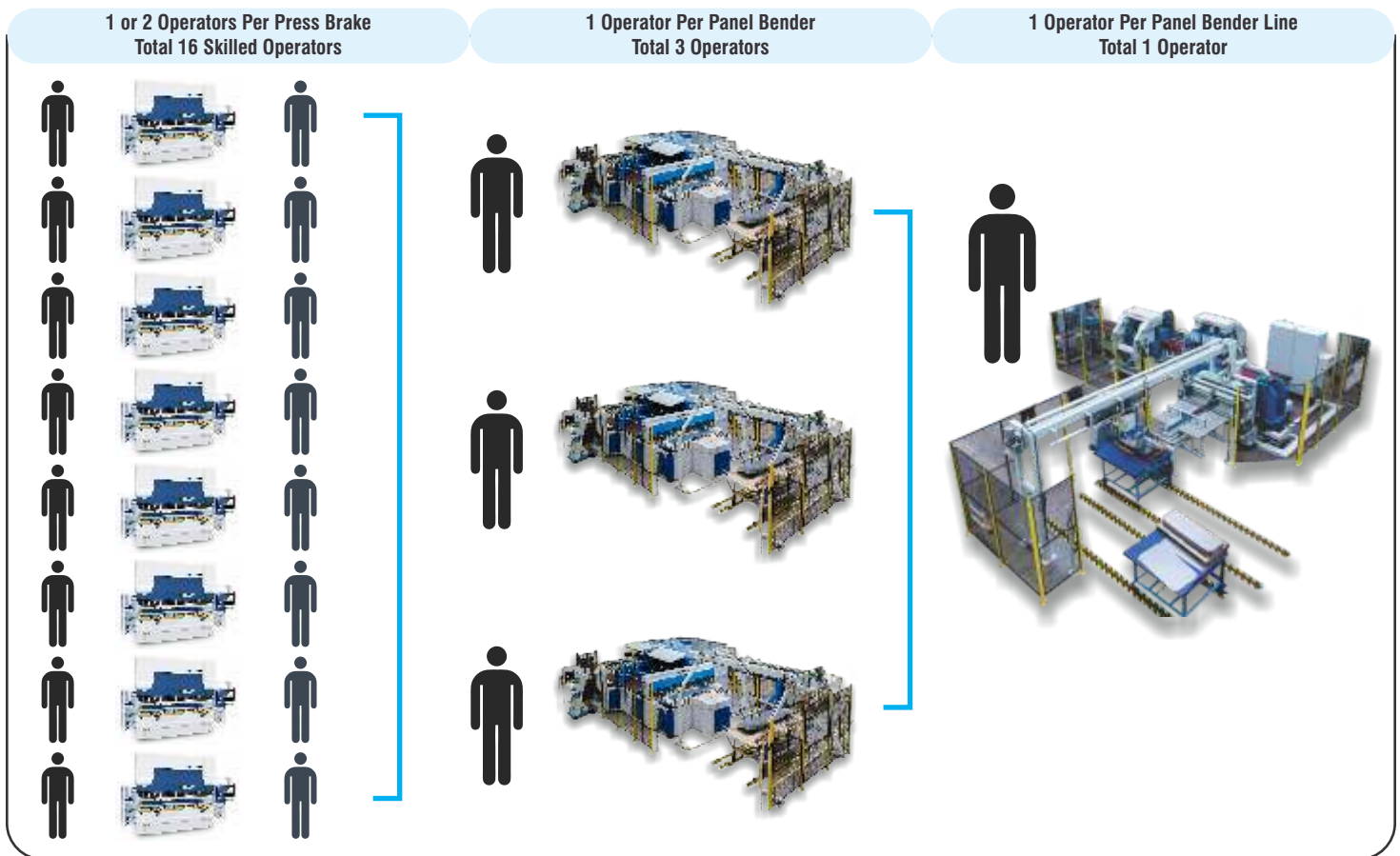
PBL 1250 X 1.2 mm
PBL 2500 X 1.2 mm
PBL 3200 x 1.2 mm



Cost effective solution for high speed folding

MULTIFOLD PANEL BENDER LINE : THE ULTIMATE BENDING SOLUTION

A TYPICAL PANEL BENDER LINE IS EQUIVALENT TO 3 PANEL BENDERS & 8 CNC PRESS BRAKES



CYCLE TIME COMPARISON CHART

| PANEL | SHEET SIZE | UP BENDS | | DOWN BENDS | | UP HEMMING | DOWN HEMMING | CYCLE TIME (SEC) | |
|-------|------------|---------------|----------|---------------|----------|------------|--------------|-----------------------|-----------------------------|
| | | STANDARD TOOL | CLA TOOL | STANDARD TOOL | CLA TOOL | | | EUROPEAN PANEL BENDER | MULTIFOLD PANEL BENDER LINE |
| 1 | 2000 X 400 | 9 | | 1 | | 4 | | 63 | 28 |
| 2 | 1800 X 600 | 8 | | | | | | 39 | 15 |
| 3 | 1250 X 500 | 4 | 4 | 3 | | | | 33 | 18 |
| 4 | 1100 X 300 | 5 | | 1 | | | | 27 | 20 |
| 5 | 400 X 400 | 3 | 3 | 4 | | | | 68 | 24 |
| 6 | 400 X 100 | 7 | | 3 | | | | 39 | 22 |
| 7 | 400 X 400 | 5 | | 1 | | | | 34 | 15 |
| 8 | 400 X 400 | 6 | | | | | | 28 | 14 |

Table comparing the cycle time of various panels bent on reputed European Panel Bender and a High Speed Multifold Panel Bender Line.