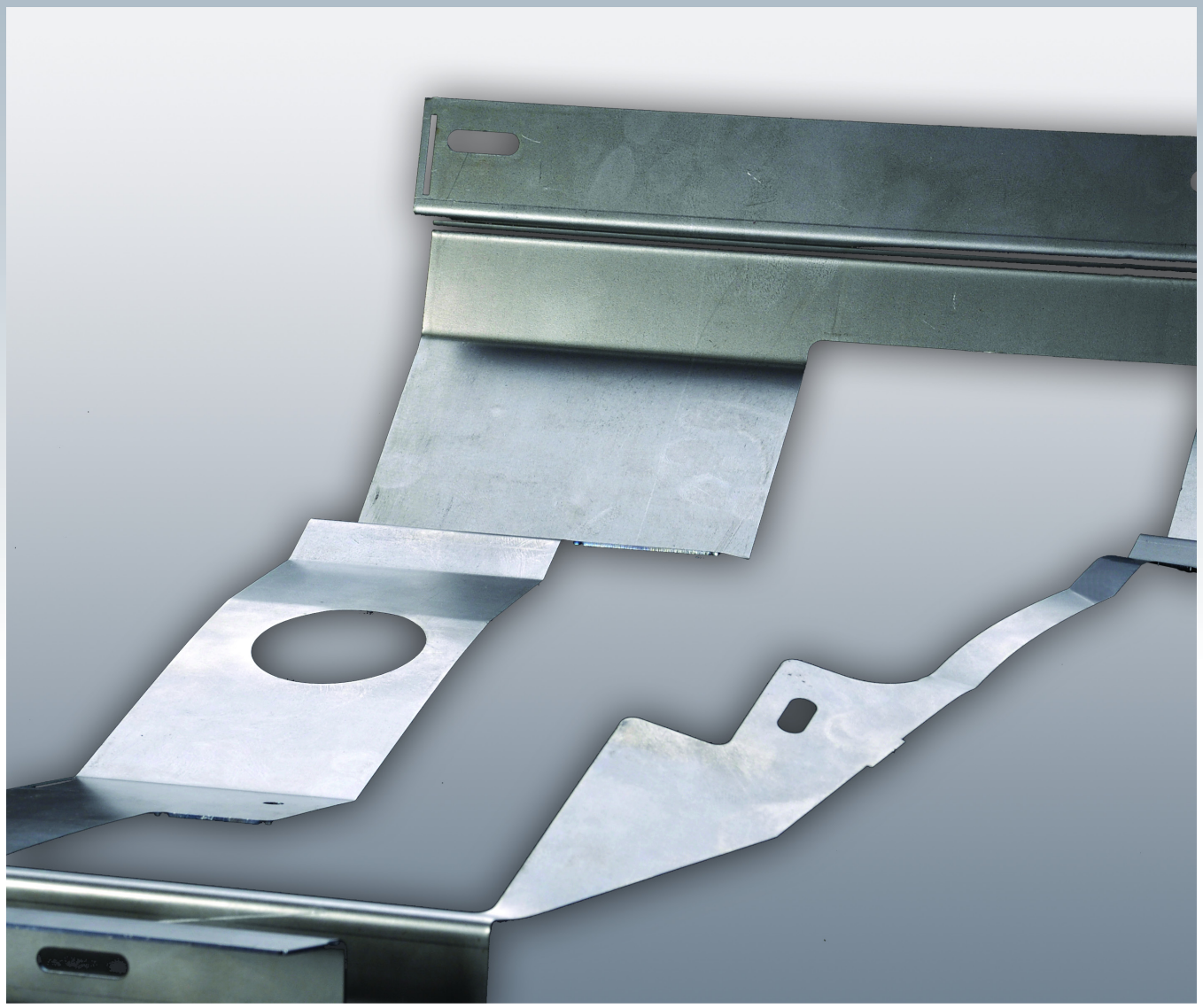


AD-H SERIES PRESS BRAKES

BETTER PARTS BETTER PROFITS

usa

DURMA

AD-H SERIES PRESS BRAKES

Durma press brakes guarantee precision, low maintenance and operating costs, as well as long-term reliability. These features along with large investments in modern manufacturing equipment have made Durma the largest volume press brake producer in the world. All Durma press brakes are produced with modern design technology and incorporate rigid stress-relieved frames to increase your productivity with accurate part production. Demanding applications are easily achieved. A broad offering of sizes and features satisfy nearly all economical requirements.

AD-R SERIES

Value-oriented press brakes with large strokes, daylights, and gaps to allow cost-effective production of simple to complex large shapes that require large dimensions for handling and removal. A simple-to-use control reduces the required operator level.

Standard Equipment
- Large Stroke-Daylight-Throat
- Y1,Y2 Ram Positioning
- Delem DA 52 Control
- Euro/American Style Punch Clamp
- Rear Work Light
- Side & Rear Safety Doors

Capacities
- 4' to 20' Lengths
- Tandem & Trio
- 70-440 Tons

Options
- Delem DA 56 Graphic Control
- X/R Axis Back Gauge
- Manual or Automatic Crowning
- Hydraulic Punch and Die Clamping
- Quickset Sliding Front Sheet Supports
- 2D Programming Software
- Operational Laser Guarding

AD-S SERIES

Unlimited possibilities and features provide faster and quicker setups. A wide assortment of material handling accessories and back gauge configurations allow the ADS to cost-effectively produce the most demanding parts.

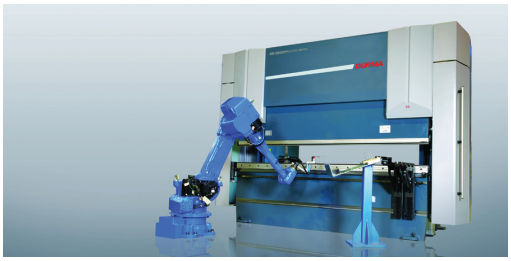
Standard Equipment
- Large Stroke-Daylight-Throat
- Y1,Y2 Ram Positioning
- Delem DA 66 Graphic Control
- Euro/American Style Punch Clamp
- X/R Back Gauge
- Quickset Sliding Front Sheet Support
- Automatic Table Crowning
- Rear Work Light
- Side and Rear Safety Doors

Capacities
- 6' to 30' Lengths
- Tandem & Trio
- 44-3,000 Tons

Options
- Up to Six Axis Back Gauge
- Laser Style Angle Measuring System
- CNC Controlled Sheet Followers
- CNC Controlled Die Shuttle Systems
- 3D Controller
- 2d & 3d Programming Software
- Operational Laser Guarding

AD-H SERIES

Eco-friendly press brakes for clean, quiet, and energy-saving production. (Standard and optional features same as ADS)



Capacities
- 8' & 10' Lengths
- 110-150-195 Tons

For information on large format bending systems, refer to FBS.

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AD-H SERIES PRESS BRAKES

The AD-H press brakes utilize an electro/hydraulic ram positioning system. Parts are produced quietly, quickly, and efficiently.

STANDARD EQUIPMENT

- Energy Savings
  - 62% During Idle
  - 44% During Cycle
- Lower Per Part Cost
- Silent Operation
- Increased Ram Speeds
- Better Accuracy
- Smoother Ram Positioning at High Speeds
- Less Oil Requirement

OPTIONAL EQUIPMENT

- Robotics
- Up to Six Axis Back Gauge
- Laser Style Angle Measuring System
- CNC Controlled Sheet Followers
- CNC Controlled Die Shuttle Systems
- 3D Controller 2D & 3D Programming Software
- Operational Laser Guarding

CAPACITIES

- 8' & 10' Lengths
- 110 - 150 - 195 Tons

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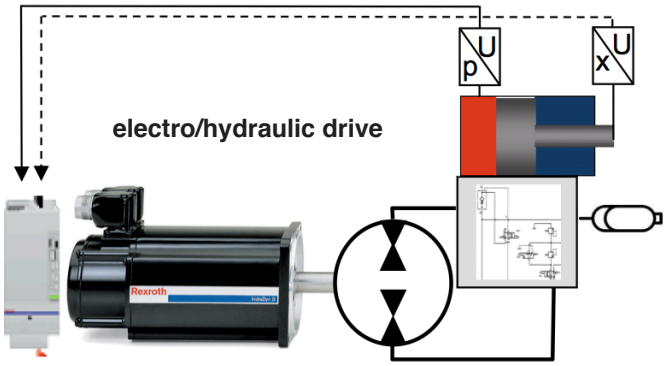
ELECTRO HYDRAULIC OPERATION

In the simple electro/hydraulic drive system the ram movement is powered by AC servo motors driving hydraulic oil in line with a variable speed pump.

This new technology provides:

- Energy Savings:
  - 62% During Idle
  - 44% During Cycle
- Lower Per Part Cost
- Noise Level Reduction 76dba to 63dba
- Increased Ram Speeds (up to 472 IPM)
- Better Accuracy
- 60% Reduced Oil Requirements
- Five Times Better Y1, Y2 Synchronization at High Speed

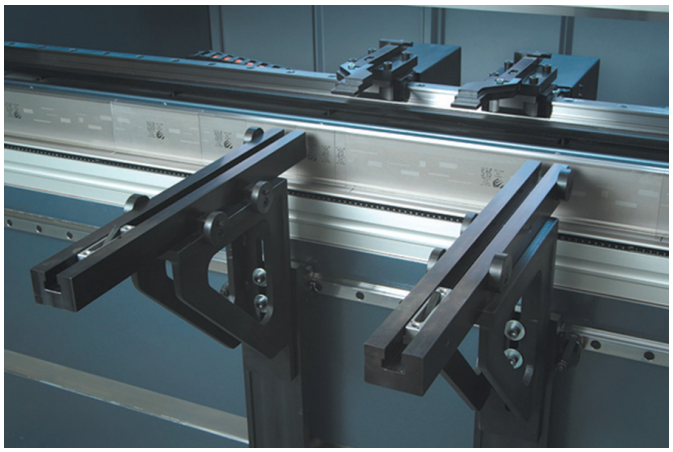


Specifications	Conventional Press Brakes	SvP Press Brakes
Motor Power (HP)	20	2 x 5
Hydraulic Oil Capacity (gallons)	53	2 x 11
Noise Level (dB(A))	76	63
Total Energy per Cycle (kWh)	0.034	0.019
Standby Power (kw/hr)	1.85	0.7
Rapid Approach Speed (ipm)	230 to 280	472
Return Speed Beam (ipm)	210 250	425

LARGE STROKE, DAYLIGHT & THROAT

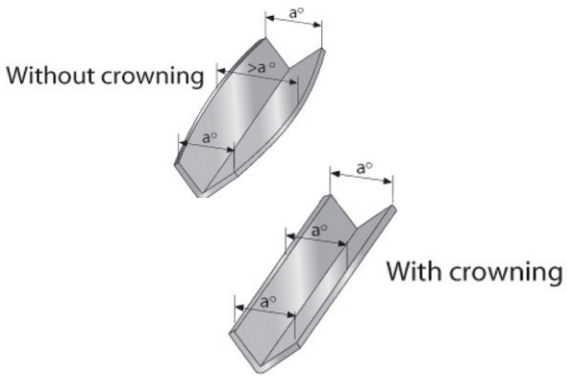
The large frame dimensions allow versatile production of parts requiring increased clearance profitably and easily.

- Forming of deep sectioned four sided boxes. .
- Forming and Removal of Complex Large Parts



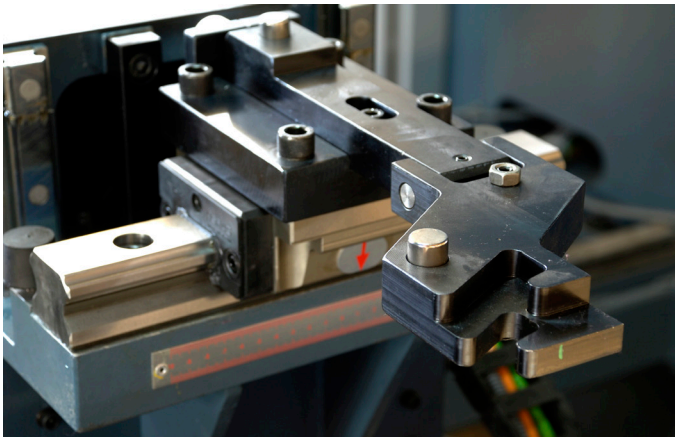
QUICK-SET FRONT SHEET SUPPORTS

Rugged support arms with disappearing stops are mounted on a linear guide rail system. This allows “finger-tip” lateral adjustment as required by the bend length of the part. They are also equipped with side gauges for the fast, easy, and accurate feeding of parts; small or large.



SHIMLESS BENDING

Independent left and right axes (Y1Y2) are controlled by electronics servo valves and electronics linear position controllers. CNC-controlled motorized crowning system homogenizes bendingforces every points of the bending parts to acquire straights bends. The need for shimming is eliminated.

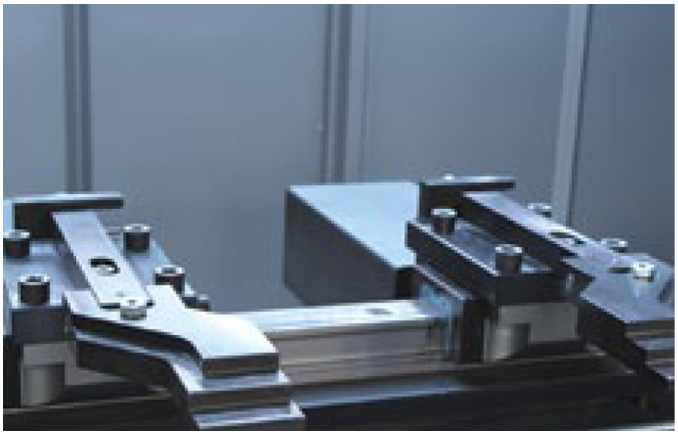


POCKET-STYLE BACK GAUGE FINGERS

When equipped with an optional tapering style back gauge, it is necessary to have finger tips that can properly receive and secure the part when introduced at an angle in the x axis.

X/R STYLE BACK GAUGE

With the X/R style back gauge, the height of the back gauge is programmable in addition to the depth. This is very useful for changes in die height, extreme crowning settings, and for gauging to a flange that may be a different height than the die.



3 STEP BACK GAUGE FINGERS

Three step style fingers are used for the X/R and X/R/Z1,Z2 back gauge configurations. Special fingers are also available upon request.

DELEM DA 66T

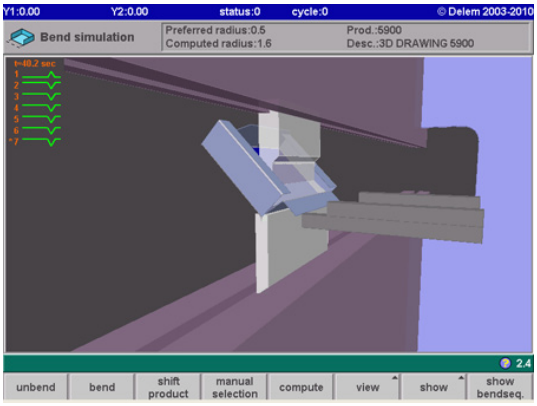
DAonWindows controllers feature an embedded, real-time Windows operating system for maximum reliability. Smooth startups ensured, even after instant shut out. The DA-66T press brake controller combines user-friendliness with efficient programming and reliability. This, combined in one strong package, increasing machine productivity. The latest graphics technology enable real scale representation with Delem's familiar, intuitive user interface.

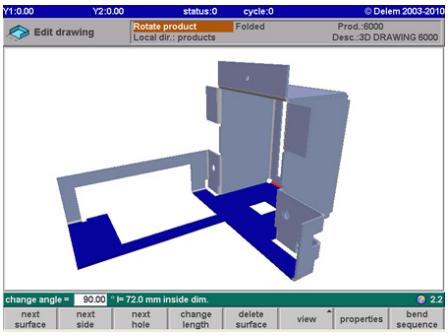
The system offers 2D graphical programming that include automatic bend sequence calculation and collision detection. Together with self-learning databases this will lead to a good result of the desired product. This full 3D machine set-up includes multiple tool stations and offers true feedback on product feasibility and handling.

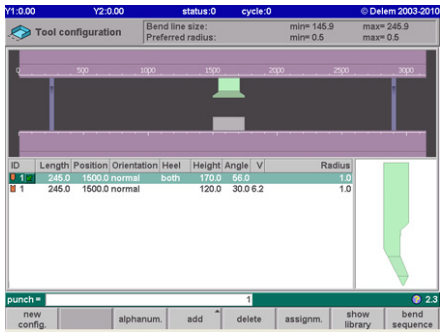
Highly effective control algorithms optimize the machine cycle and minimize set-up time. This makes using press brakes easier, more efficient and more versatile than ever.

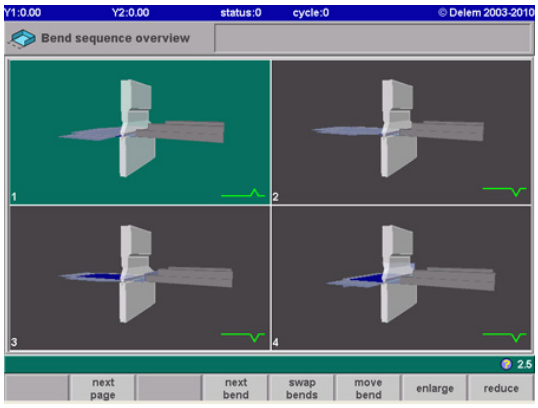
Windows networking ensures easy integration in your production network. The controller can be accessed from anywhere in the network and product data can be stored at the desired network locations. Housed in a tough and sturdy cabinet, the DA touch control is based on state-of-the-art industrial electronics and equipped with a high quality color LCD (TFT) screen. Delem's Modusys concept and its built-in PLC allow you to add functionality, providing maximum scalability and adaptivity.

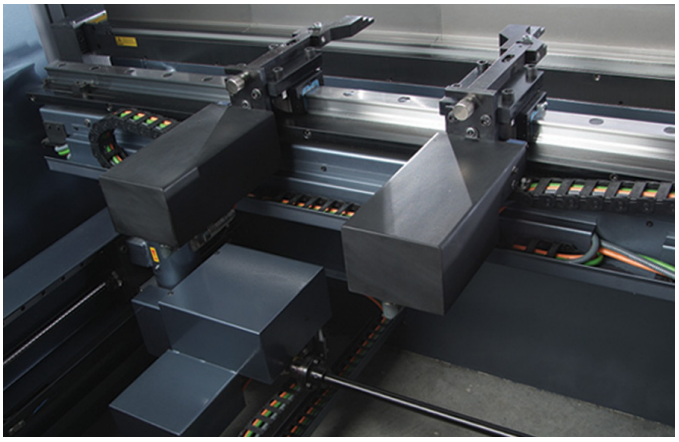
- 2D graphical programming
- 3D visualization in production mode
- 12" TFT color display
- Full Windows suite
- Integrated OEM panel
- USB keyboard and mouse interface
- User-specific application support within the multitasking environment
- Sensor bending and correction interface
- 64MB Product and Tools memory
- Windows networking









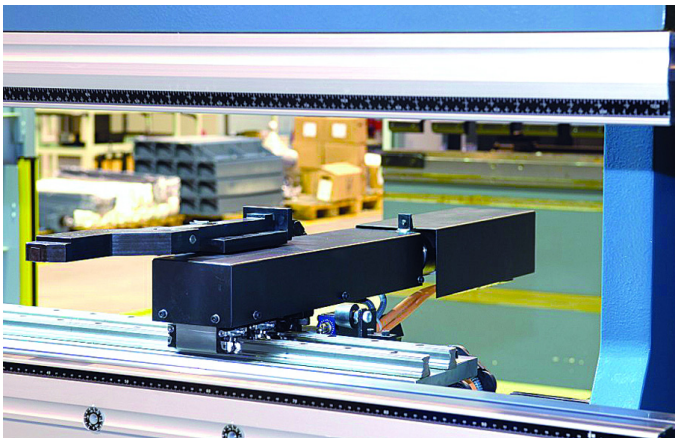


Z1, Z2 INDEPENDENT FINGER WIDTH

Independent finger width movements allow gauging of stage or progressive work along the bed and also automatically set according to bend length or part width.

X1, X2 INDEPENDENT FINGER WIDTH

Allows gauging of parts requiring a large taper. Fingers are mounted on a common gauge bar.



X PRIME

Independent ±5” of one finger. An inexpensive solution for tapered parts.

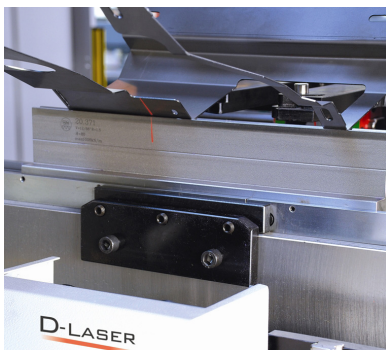
SIX AXIS BACK GAUGE

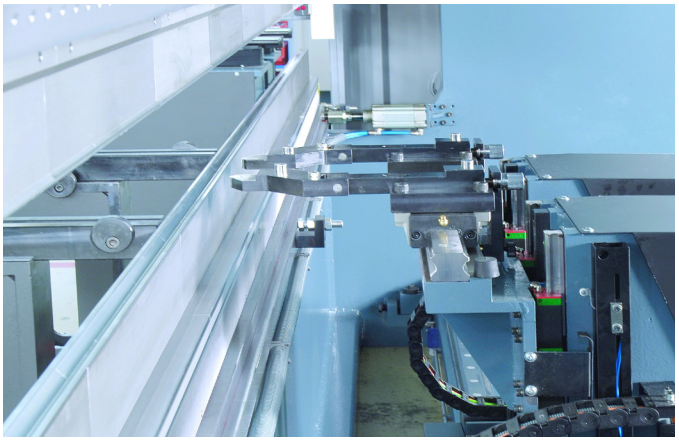
In this configuration (X1/X2 / Z1/Z2 / R1,R2) it can be almost assured the operator will never spend time in the manual adjustment or setup, regardless of part complexity.

LASER-STYLE ANGLE MEASUREMENT SYSTEM

Manufacturing sheet metal parts with properly bending angles that are kept constant at all times often meets a problem during the actual production process: different parameters in material thickness and stresses. The best solution is a laser based bending angle measuring device.

- Any bending angle can be measured.
- Very compact, everything in the appliance.
- Light influence, light or dark material surfaces play practically no part.





PNEUMATIC DIE POSITIONING (I AXIS)

Two position system allows front do back shuttle from one die position to another. This can be useful in hem- ming and other special demanding operations.

ROBOTICS

Robotic tendered press brakes are available and can be sized and fixtured per application.

LASER BEAM SAFEGUARDING DEVICE

Due to the multiple purpose use of press brakes, point of operation guarding is the responsibility of the machine buyer/user. For this reason we offer the Akas ram mounted “laser” style point of operation guard. The system is based off of the location of the punch tip. Simply by pressing a button the system travels down and finds the safe setting relevant to the punch being used at the time.

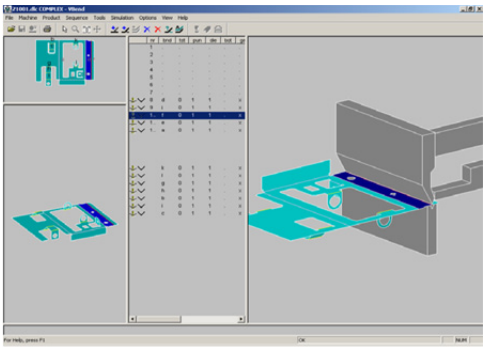
CNC CONTROLLED SHEET FOLLOWERS

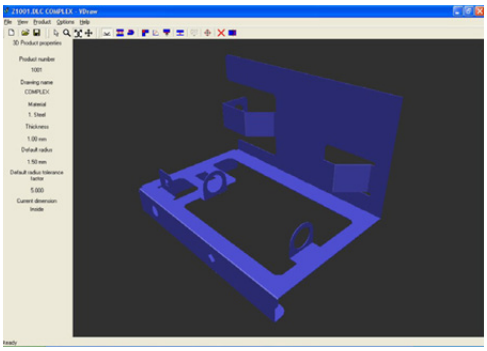
Reduces operator involvement and “dishing” of large sheets or panels. Followers support large sheets as they are being bent. A “parking station is available on one end of the bed allowing the operator to quickly and easily position the sheet follower units out of the way, on jobs for which they are not required. The following units adjust easily in height and width via linear guide. Pneumatic height adjustment is available optionally (shown w/three).

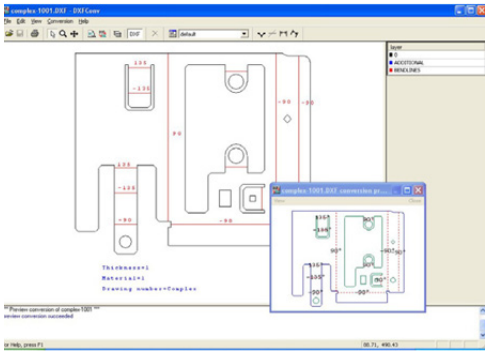
VBEND INTEGRATED SOLUTIONS

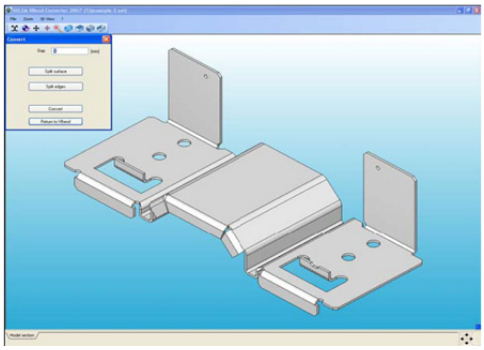
The DA-Offline software maximizes machine efficiency and production output of press brakes. VBend offers the offline solution for programming your press brake, post processing the programs and simulation of the actual bending process.

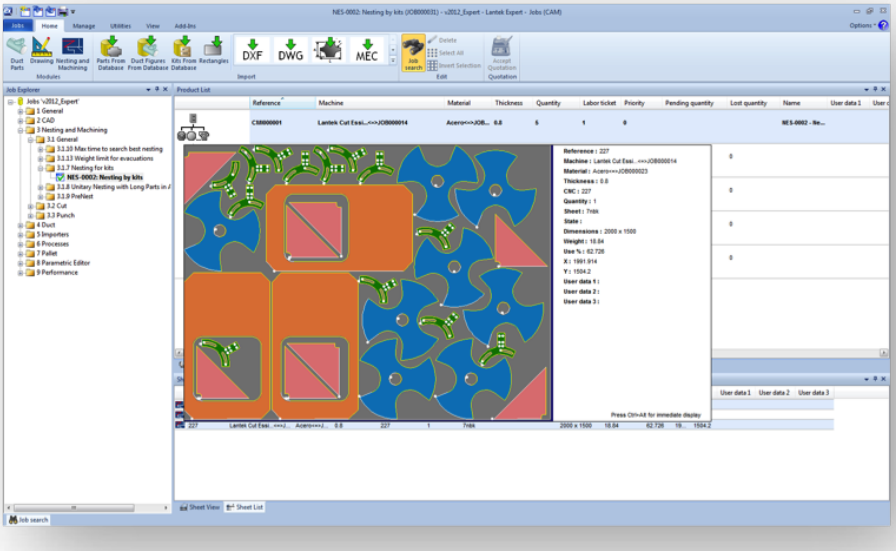
- Full-scale offline programming, simulation and adjustments.
- Fast graphical product programming and program generation.
- Full 3D automatic bend sequence calculation including collision
- detection
- Feasiblity studies and production preparation
- Product sharing over Windows networking with press brake CNC
- Machine set-up preparation including print-out functionality
- 3D file import (SAT / IGES / STEP / DXF)
- 3D back gauge finger view







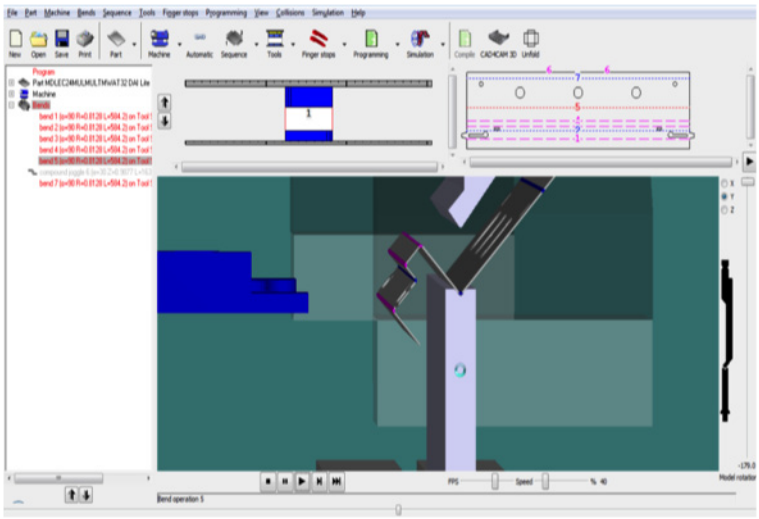




LANTEK EXPERT

The Lantek Expert CAD/CAM system is specially designed to automate the programming of profile cutting machines. It combines machine technology with programming and management needs to offer an advanced, intuitive and friendly interface which improves the user's programming efficiency.

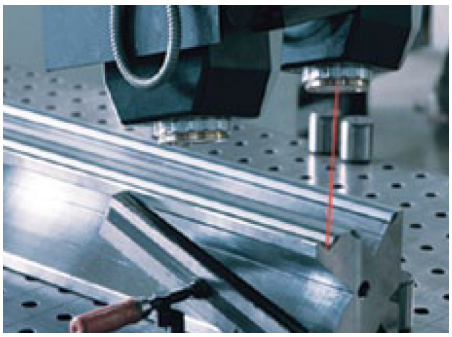
- Part nesting for optimal material utilization
- Advanced programming features such as common line cutting for increased machine productivity
- Direct 3-D CAD interface to streamline geometry importation



LANTEK FLEX 3D

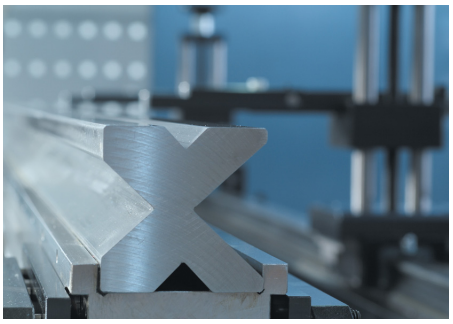
The Lantek Flex 3D CAD/CAM system offers:

- Offline Press Brake Programming
- Automatic generation bending sequence
- Real time collision detection
- Simulation of the bending process



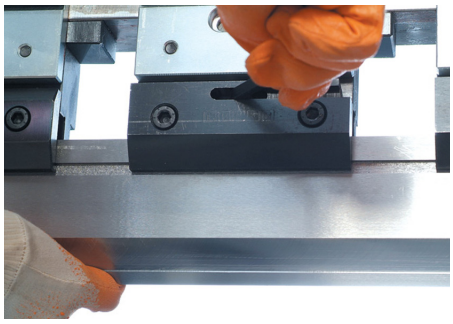
DURMA LASER HARDENED TOOLING

Typically machines 350 tons and over are equipped as standard with an American style punch clamp and a large multi-vee table with five or more v-openings. The opening sizes are dependent on the machine tonnage.



PRECISION GROUND EURO-STYLE TOOL PACKAGE

A very flexible and affordable precision ground tooling package is available. It consists of a four way bottom die with .625”/88° - .866”/88° - 1.37”/85° - 1.96”/ 85° openings, a four way die holder, and a 75 degree punch with .030 radius. The longest punch or die is 32”.

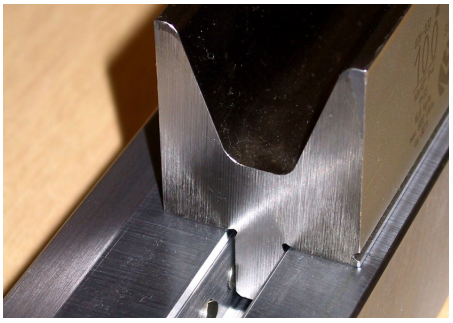


LEVER-STYLE QUICK RELEASE PUNCH CLAMPING

A push pull lever eliminates the need for loosening and tightening bolts for punch removal. This style does note allow vertical loading/unloading of tools with safety tang. Available for European style punches and is not self seating.

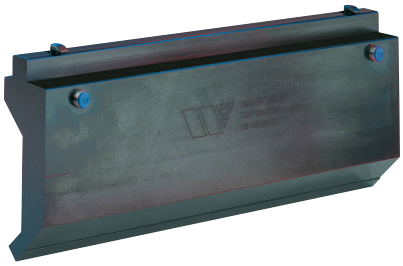
NEW STANDARD STYLE

The New Standard concept is also available. This concept is generally a little harder and utilizes the patented “hour glass” tang for self seating.



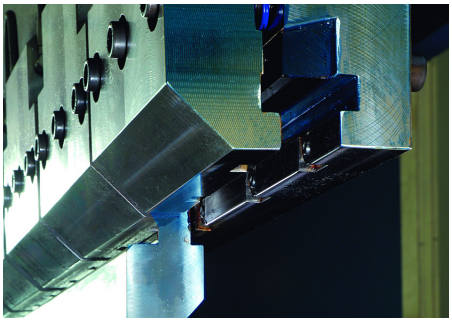
HYDRAULIC DIE CLAMPING

Hydraulic die clamping provides an equally fast method of securing the lower dies. It is available for both American and New Standard style dies.



AMERICAN STYLE TOOLING

Both precision ground and sectionalized tooling, as well as conventional full length style tooling is available.

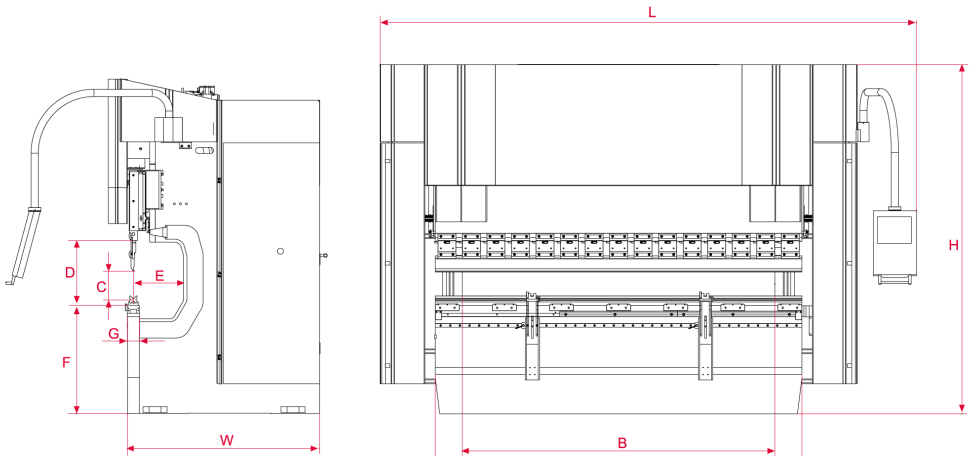


DURMA HYDRAULIC PUNCH CLAMPING

Patented “easy slide” removal of the punch. Built to withstand loads up to 330 tons per foot for demanding jobs with heavy load over short area.

HYDRAULIC PUNCH CLAMPING

We offer several styles of hydraulic punch clamping. Each automatically centers and seats the punch and allows vertical removal. Setup times can be dramatically reduced. It is available for American and New Standard style concepts.



S Series		Model	25 100	30 100	30 135
Tons		US Tons	112	112	151
Bend Length	(A)	inch	100	120	120
Between Columns	(B)	inch	86	102	102
Y Rapid Speed		ipm	472	472	472
Y Working Speed		ipm	24	24	24
Y Return Speed		ipm	472	472	472
Open Ht(bed to ram)	(D)	inch	21 / 25	21 / 25	21 / 25
Table Width	(G)	inch	4	4	4
Table Height	(F)	inch	35	35	35
Stroke (Std/Opt)	(C)	inch	10 / 14	10 / 14	10.4
Throat Depth	(E)	inch	16	16	16
Support Arms		qty	2	2	2
B.G.Fingers		qty	2	2	2
X Axis Speed		ipm	1181	1181	1181
X Axis Travel		inch	26	26	26
R Axis Speed		ipm	827	827	827
R-Axis Travel		inch	10	10	10
Main Motor		hp	15	15	2 x 23
Oil Capacity		gal	2 x 8	2 x 8	2 x 11
Length	(L)	inch	189	165	165
Width	(W)	inch	66	66	66
Height	(H)	inch	108	108	108
Approx Weight		lbs	19621	20944	23149

Specifications are approximate and subject to change without notice.

For larger capacities, please see FBS

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DURMA AIMS FOR CONTINUOUS DEVELOPMENT

DURMA's large investment in machining centers and production equipment, as well as its ISO-certified factories totaling 1,350,000 square feet and 1,000 employees, make one of the world's largest, efficient and most contemporary facilities in the world.

In order to offer customer solutions and further develop patents, the Durma Research and Development center opened in 2010. Fifty engineers were added over the last two years.

Designed and engineered with modern technology, Durma products are equipped with high quality and proven readily available components.

Established in 1956, Durma has vast experience in building and supplying quality products. With over 60,000 machines delivered worldwide, Durma has earned a reputation as a supplier of innovative "value oriented" solutions.

Your partner today, tomorrow, and forever.

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