Servo/Hydraulic Press Brake

HD NT Series

HD 8025 NT, HD 1303 NT, HD 1303L NT, HD 1703 NT,
HD 1703L NT, HD 2204NT & HD 2204L NT

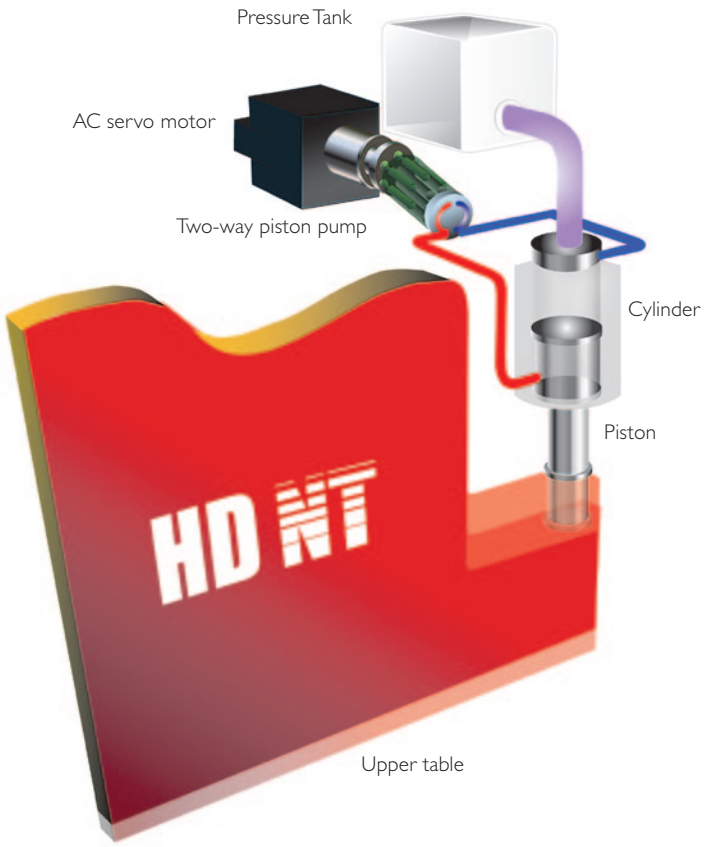
VPSS
Virtual Prototype Simulation System

AMADA®

The HD NT Series Press Brake

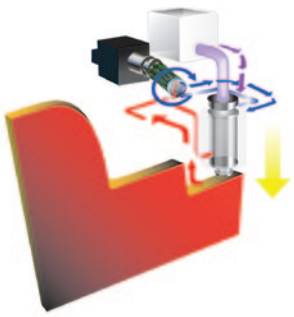
An ultra-high precision, down-acting system featuring advanced hydraulics that provide the ultimate in positioning accuracy.

Unique Hybrid Drive System

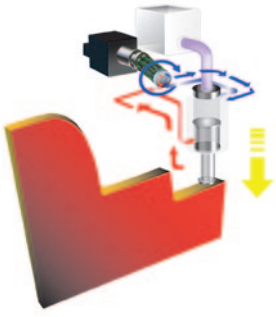


Independent AC-servo motors drive high efficiency, bi-directional hydraulic pumps

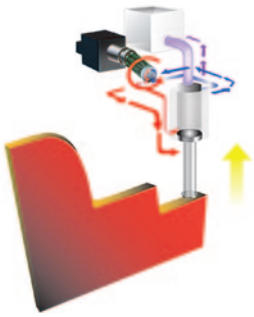
- Extremely fast approach, bending and return speeds – provide faster cycle times and result in more parts per hour.
- Unequalled ram positioning. Repeatability of ±0.00004″.
- Programmable ram tilting and 50% off-center bending capacity allows for quick set-up of multiple stage part bending.
- Low power consumption – hydraulic pump motors are on only when the ram is moving.
- Stable hydraulic oil temperature ensures consistent angular accuracy.
- Less hydraulic oil and fewer oil changes required.
- Very low noise level.



Rapid lowering

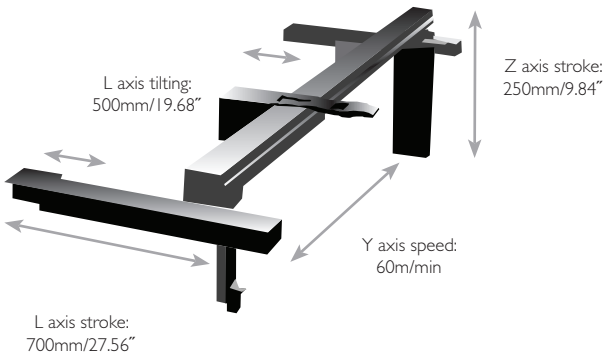


Bending process



Rapid rising

Multiple Axis Backgauge



Specifications vary depending on machine model

- 5-axis backgauge speeds set-up for complex parts.
- High-speed movement on all axes ensures that the gauge fingers are positioned as quickly as the operator positions the part.
- Independent servo drives for "L" axis allow tapered bends.
- Tool navigator software positions backgauge where each tool needs to be installed, shortening the tool installation process.
- Unprecedented positioning repeatability ±0.0001″.
- Extended gauging allows for up to a 39″ flange dimension.
- Low profile design enables part positioning over the top of the backgauge.

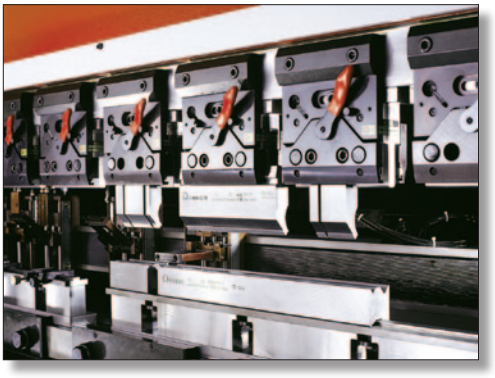
Variable Slit Crown Bed

- Amada's patented slit crown bed design combined with a simple lever adjustment, provide consistent angular accuracy.
- The wedge setting calculated by the AMNC control is adjustable according to material type and thickness.
- The crown setting is adjustable based on material type and thickness and is accurate for the entire material length.

AMNC/PC – PC Control with Network Capabilities

- Amada's AMNC-PC control with touch-screen offers multiple modes of data entry *(angle, depth, 2D and 3D)* for the utmost in programming flexibility.
- Through the Bend-Navi feature on the AMNC-PC control, or with Amada's Dr. ABE Bend offline programming software, operators are provided with a 3D simulation of the bending process which reduces setup time and bend errors.
- Graphic tool library and tool set-up graphics assist operators in the quick setup of complicated parts.
- Amada's SDD database software provides for program storage on the control or on a server when the control is networked, providing secure storage of machine setup and program data
- Bar code scanner provides simplified and immediate retrieval of stored programs.
- Adjustment of all machine axis can be accomplished through use of control mounted handwheel.

One Touch Punch Holders & Precision Ground Tooling

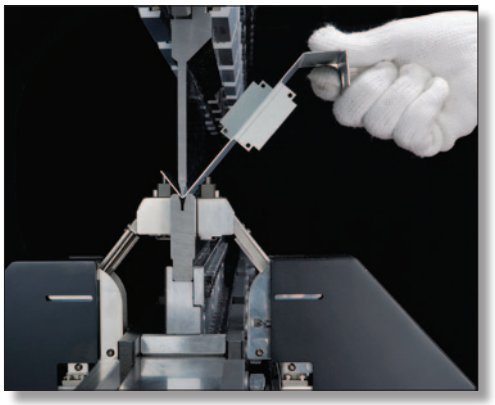


- Innovative "one touch" punch holders ensure faster tool set-up.
- Rotation of lever locks and seats punch into place – no need for wrench.
- Precision ground, sectionalized tools are easy to handle and eliminate shimming.
- Quick change dies eliminate need to align punch and die when a die is changed.

CS Clamp

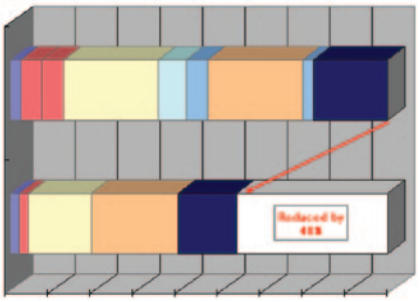
- Seat and secure punches with the turn of a single switch.
- One switch activates all of the punch holders across the bed of the machine.
- Load and unload sectionalized punches from the front of the holder.
- Increase safety with the drop-prevention mechanism.
- Punches stay secure in the holder with the clamps in the open position.
- Quick disconnect allows for easy removal of each punch holder.
- Safety mechanism allows for continuous clamping in the event of a power failure.

BI-S Bend Angle Sensor

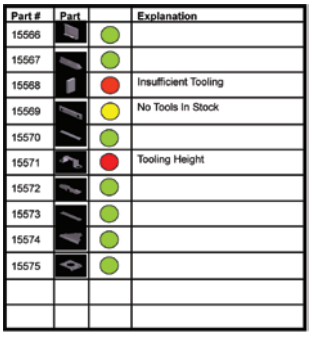


- The BI-S is a high-speed, high-precision, probe-style bend angle sensor that measures and adjusts the bend angle on the fly.
- Eliminates the need for test bending and adjustment of the initial bend angle eliminating scrap and reducing setup time.
- Automatic angle adjustment ensures high quality production bending even when material thickness and hardness varies from part to part.
- Overcomes any environmental factor that effects bend angle to produce high accuracy bends even if the operator lacks experience.
- Comes standard on HD series brakes from 88-243 tons.

Dr. ABE Bend – Bending Simulation Software

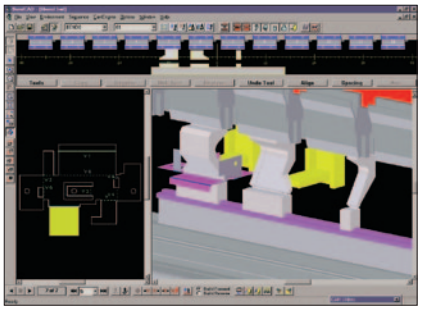


- Free up press brake capacity by moving set-up offline.
- Reduce cost-per-part.



Part #	Part		Explanation
15566			
15567			
15568			Insufficient Tooling
15569			No Tools In Stock
15570			
15571			Tooling Height
15572			
15573			
15574			
15575			

- Dr. ABE Bend selects tools, automatically creates tool layouts and bend sequences with a success rate of up to 80%.
- Manually program the remaining parts offline.



- Set-up instructions stored on network are instantly available.
- AMNC-PC control uses offline programs to reduce remaining internal set-up.

Improved Safety and Reduced Labor Costs

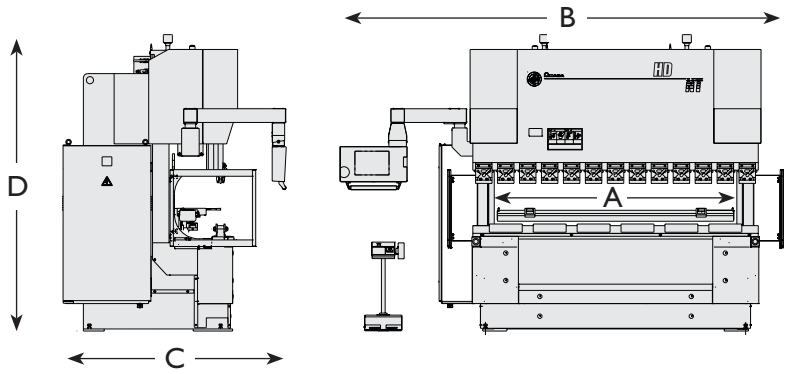
To enhance performance while improving operator safety, HD Series press brakes can be equipped with an automated Work Follower system.

HD 1703L NT
with SF-1012T

- Sensor technology provides simple operation without the need for programming by the brake operator.
- After bending starts, an automated table follows and supports the material throughout the bending process – eliminating part deformation.
- Previously, processing large parts required two operators. The SF Series eliminates the need for a second operator while providing faster and safer transfer of material.
- Provides easy handling and processing of various part geometries.

Dimensions

(Refer to the chart below for individual machine measurements.)



Specifications

Model	HD 8025 NT	HD 1303 NT(L)	HD 1703 NT(L)	HD 2204 NT(L)
Tonnage (US)	88	143	187	243
Maximum Bend Length	101″	122″	122″	161″
Distance Between Frames (A)	83.5″	106.3″	106.3″	148.03″
Stroke Length (Long Stroke)	7.87″	7.87″, (13.77″)	7.87″, (13.77″)	7.87″, (13.77″)
Open Height w/Holders (Long Stroke)	11.75″	11.75″, (17.65″)	11.75″, (17.65″)	11.75″, (17.65″)
Open Height (Long Stroke)	18.5″	18.5″, (24.4″)	18.5″, (24.4″)	18.5″, (24.4″)
Throat Depth (Long Stroke)	16.5″	16.50″, (17.1″)	16.50″, (17.1″)	16.50″, (17.1″)
Table Height	38.6″	38.6″	39.2″	39.2″
Approach Speed	4.72″/second	4.72″/second	4.72″/second	4.72″/second
Bending Speed	0.39″/second	0.39″/second	0.39″/second	0.39″/second
Return Speed	4.72″/second	4.72″/second	4.72″/second	4.72″/second
Oil Capacity (Long Stroke)	9 gallons	13 gallons, (22 gallons)	18 gallons, (32 gallons)	22 gallons, (37 gallons)
Machine Length (B)	159″	187″	172″	216″
Machine Width (C)	108″	108″	115″	115″
Machine Height (Long Stroke) (D)	84″	114″, (125″)	118″, (127″)	124″, (135″)
Approximate Weight (Long Stroke)	11,200 lbs	15,600 lbs, (18,000 lbs)	19,800 lbs, (22,000 lbs)	30,000 lbs, (34,000 lbs)
Motor Power	4.8 HP	7.8 HP	14.8 HP	14.8 HP
Backgauge Range	27.5″	27.5″	27.5″	27.5″
Backgauge Vertical Range	9.84″	9.84″	9.84″	9.84″
Control Type	Amada AMNC-PC	Amada AMNC-PC	Amada AMNC-PC	Amada AMNC-PC
Program Capacity	Unlimited via network	Unlimited via network	Unlimited via network	Unlimited via network
Axis Under CNC Control	7	7	7	7
RAM	D1 & D2	D1 & D2	D1 & D2	D1 & D2
Backgauge	L1 & L2	L1 & L2	L1 & L2	L1 & L2
Backgauge Horizontal	Y1 & Y2	Y1 & Y2	Y1 & Y2	Y1 & Y2
Backgauge Vertical	Z	Z	Z	Z
Ram Repeatability	± 0.00004″	± 0.00004″	± 0.00004″	± 0.00004″
Backgauge Speed (L-axis)	1,181″/min	1,181″/min	1,181″/min	1,181″/min
Backgauge Speed (Y-axis)	2,362″/min	2,362″/min	2,362″/min	2,362″/min
Backgauge Speed (Z-axis)	393″/min	393″/min	393″/min	393″/min

AMADA®

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