



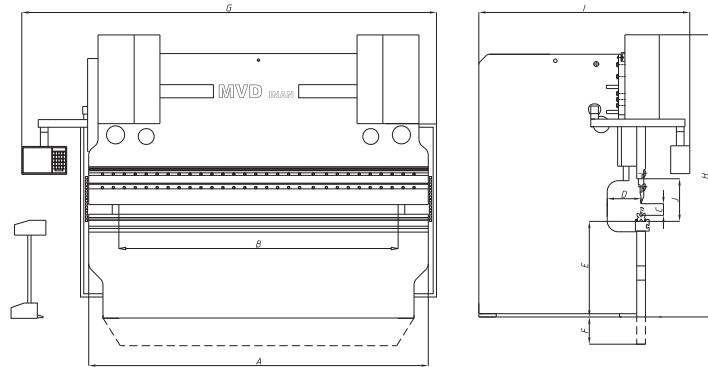
General Characteristics

- Accurate positioning and repeatability performance of synchronised CNC press brakes, achieved by synchronising the hydraulic cylinders with advanced CNC control of proportional valves and use of optic linear scales.
- Calibration of cylinder axes and back gauge axes, maintained by automatic indexing at the start of machine.
- Calculation and performing of below facilities after inputting data like material thickness, bend length, tool details to the CNC unit
 - determination of bending force necessary for bending stroke.
 - visual inspection of potential interferences between machine, tools and part before and after each bend on the graphical display
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 - automatic positioning of the backgauge for each step of the bending program
 - determination of the practical bending sequence
 - calculation of bottom dead centre for accurate bending angle and top dead centre
 - storage and recalling of part programs
 - storage and recalling of bending tools
 - programming of bending speeds
 - selection of manual, semi-automatic or automatic working modes
 - tilting of upper beam for conical bending

- Welded steel construction of monoblock frame for minimum deflection during operation
- Bend performing by down stroking beam
- Cylinders made from high quality forged steel and honed precisely
- Pistons hardened, chrome plated and ground precisely .
- Hardened ram slideways working with low friction and wear resistant material and optimum lubrication grooves.
- Full electronic synchronisation with propotional valve technology assuring maximum bend accuracy and repetability through constant monitoring and correction of beam parallelism by a CNC system

- Stroke depth measurement through high precision linear scales
- CNC controlled backgauge with ballscrew, ball guides and AC servomotors.

- Compact Hoerbig hydraulic blocks.
- PLC based compact and reliable electrical system with ventilating electrical cabinet.



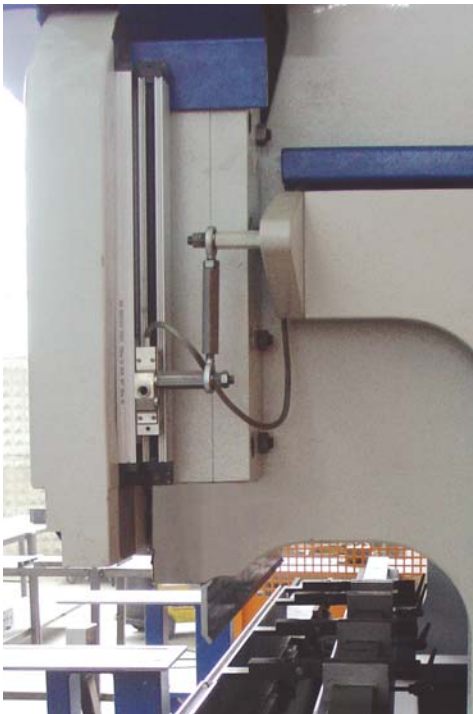
TECHNICAL SPECIFICATIONS

CNC PRESS BRAKES	BENDING POWER	BENDING LENGHT A	DISTANCE BETWEEN COLUMNS B	STROKE C	DAYLIGHT J (1)	THROAT DEPTH D	TABLE HEIGHT E (2)	TABLE HEIGHT BELOW GROUND F	OVERALL LENGHT G (3)	OVERALL HEIGHT H (4)	OVERALL DEPTH I (5)	APPROACH SPEED	WORKING SPEED	RETURN SPEED	MOTOR POWER	WEIGHT
	ton	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm/sec	mm/sec	mm/sec	kw	ton
CNC HAP 12/040 (S)	40	1250	850	130	335	300	870	0	2750	2450	1950	80	9	80	4	3
CNC HAP 12/040 (D)	40	1250	1050	130	335	300	870	0	2750	2200	1950	80	9	80	4	3,5
CNC HAP 20/040	40	2100	1600	130	335	300	880	0	3600	2200	2100	80	9	80	4	3,8
CNC HAP 25/060	60	2600	2150	140	345	300	880	0	3600	2200	2150	80	9	80	5,5	4,5
CNC HAP 25/090	90	2600	2150	140	345	300	880	0	4350	2300	2200	80	9	80	5,5	5
CNC HAP 30/090	90	3100	2550	140	345	300	900	0	4750	2300	2200	80	9	80	5,5	6
CNC HAP 30/120	120	3100	2550	155	360	300	920	0	4750	2450	2500	80	9	80	11	7
CNC HAP 30/160	160	3100	2550	180	385	300	920	0	4750	2550	2675	80	9	80	15	8
CNC HAP 30/200	200	3100	2550	200	405	300	920	0	4800	2650	2700	100	10	100	18,5	9,5
CNC HAP 30/225	225	3100	2550	200	405	300	930	0	4800	2680	2700	100	10	100	18,5	10,5
CNC HAP 30/260	260	3100	2550	250	455	400	930	0	4850	2750	2800	80	8	80	18,5	12,5
CNC HAP 30/300	300	3100	2550	250	455	400	940	0	4850	2770	2850	80	8	80	18,5	13
CNC HAP 35/120	120	3600	3100	150	355	300	930	0	5350	2500	2500	80	9	80	11	8
CNC HAP 35/160	160	3600	3100	180	385	300	940	0	5350	2750	2675	80	8	80	15	9,5
CNC HAP 35/225	225	3600	3100	200	405	300	940	0	5350	2850	2700	100	10	100	18,5	12
CNC HAP 35/260	260	3600	3100	250	455	400	950	0	5400	2870	2800	80	8	80	18,5	13,5
CNC HAP 35/300	300	3600	3100	250	455	400	970	0	5400	2900	2850	80	8	80	18,5	14
CNC HAP 40/120	120	4100	3100	150	355	300	930	0	5600	2470	2500	80	9	80	11	9,5
CNC HAP 40/160	160	4100	3100	180	385	300	940	0	5600	2750	2675	80	9	80	15	11
CNC HAP 40/200	200	4100	3100	200	405	300	940	0	5600	2820	2700	100	10	100	18,5	12
CNC HAP 40/225	225	4100	3100	200	405	300	940	0	5600	2850	2700	100	10	100	18,5	13
CNC HAP 40/260	260	4100	3100	250	455	400	950	0	5650	2870	2800	80	8	80	18,5	14,5
CNC HAP 40/300	300	4100	3100	250	455	400	970	0	5650	2900	2850	80	8	80	18,5	15
CNC HAP 40/400	400	4100	3100	300	505	500	900	500	5850	3100	3050	70	8	80	30	23
CNC HAP 60/200	200	6100	4100	200	405	500	1040	750	7950	3050	2750	100	10	100	18,5	22
CNC HAP 60/260	260	6100	4100	250	455	500	900	900	8000	3350	2950	80	8	80	18,5	27
CNC HAP 60/300	300	6100	4100	250	455	500	900	950	8000	3400	3000	80	8	80	18,5	29
CNC HAP 60/400	400	6100	4100	300	605	500	900	1150	8050	3650	3050	80	8	70	30	39
CNC HAP 60/500	500	6100	5100	300	605	500	900	1450	8100	3950	3150	80	7,5	70	30	44
CNC HAP 60/600	600	6100	5100	350	655	500	900	1500	8150	4300	3300	80	6	60	45	51
CNC HAP 60/800	800	6100	5100	400	705	500	900	1550	8200	4500	3500	70	6	60	45	64
CNC HAP 60/1000	1000	6100	5100	500	805	500	900	1700	8250	4750	3800	70	6	60	45	78

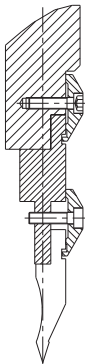
1-2 Value can change acc. to table type. 3- Value can change acc. to safety equipment. 4- Value can change acc. to prefill valve or placement of hydraulic unit on cylinders. 5- Value can change acc. to control panel.
 • Special capacity, heavy-duty press brakes can be manufactured upon request. • Technical specifications are subject to change without notice.

Standard Equipment

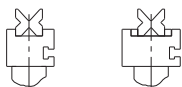
- Control of the following 3 axis: Y1, Y2, X
- Delem DA52, Cybelec DNC 60 or ESA/gv mod 2005
- Synchronisation of Y1+Y2 axis utilising optic linear encoders within a tolerance of ± 0.005 mm
- Amada Promecam type top tool holding systems with micro height adjustment facility assuring accurate bend angle at full length and throughout the machine life.
- Backgauge system with X and/or R axes driven by AC drivers and servo motors on linear guides
- Original Hoerbiger or Bosch-Rexroth servo hydraulic systems with differing types for different pressing capacities.
- Narrow table with T channel in one side as alternative c, d
- Ergonomic swinging control panel
- Multi-functional foot pedal with necessary buttons.
- Sliding front supports (2-4) pcs. moving in full length rail guide
- Backgauge positioning fingers move along linear bearings with ± 0.01 mm. positioning tolerance
- Back gauge fingers with two gauging steps used one for short and the other for long bending depths.
- Micro adjustment facility for exact parallelism of back gauge fingers
- Side safety guards
- World known electrical and safety componets like Telemecanique, Merlin Gerin Legrand, Siemens



Heidenhain/Givi Misure Linear scales ± 0.005 mm measuring precision



Promecam top tool clamping



c) 40-160 ton. d) 200-3000 ton.

Bottom tool clamping alternatives.



Backgauge (X+ R axis motorised)

- Automatic indexing of all axes at first start
- Automatic pressing force determination according to material, sheet thickness, bending length and bottom tool V opening.
- Hardened Rolleri P97-85 Model top tool in 835 mm lengths.
- Hardened Rolleri M460R Model bottom tool in 835 mm lengths.
- Operator's manual



Cybelec DNC 60



Delem DA-52



ESA/gv mod.2005



Promecam top tool clamping & bottom tool holder

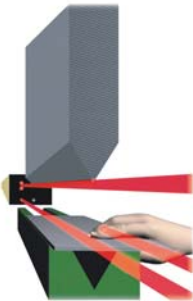


Hardened top & bottom tools with MVD holder Large throat

CNC Hydraulic Press Brakes



AKAS laser systems for safety



Optional Equipment

- Full conformity with EC machinery directive for safety and certified CE marking
- Manual bottom table anti deflection system for optimum bend angle precision throughout the full bending length
- Motorised central table anti-deflection system, which compensates deflection automatically according to bending force, bend length, tool vee size. and material thickness
- Front light barrier assuring optimum safety conditions for operators and third parties
- Laser protection systems at tools area in stead of two-hand control or light barrier systems. These systems are Akas or Laser safe systems which increase productivity while maintaining safety
- Different CNC units like Cybelec Modeva 10, Modeva 12, Modeva 15 and Delem DA 69W with 2-D and 3-D graphical display options
- Additional control for back gage axes like Z1+Z2, R1+R2 and X1+X2
- Rear safety guards or rear light guards
- Delem V-Bend software
- Cybelec Modeva color graphics with CYCAD, PC 1200 & Lucia softwares
- Bend angle measurement system with integrated solution for calculation of correct bottom dead centre at first bend without scraping at sample bending operations.
- Pneumatic top tool holding system
- Hydraulic top and bottom tool clamping system
- Control of front arms in longitudinal axis, vertical axis and rotational axis to support the sheet before and during bending operation.
- Central manual or motorised lubrication system
- Hydraulic oil coolant system
- Special throat depths like 400 mm., 500 mm., 600 mm., 750 mm, 1000 mm
- Larger cylinder (beam) strokes
- Special top and bottom tools of various sections upon customer requests see page 13
- Special design sheet cover



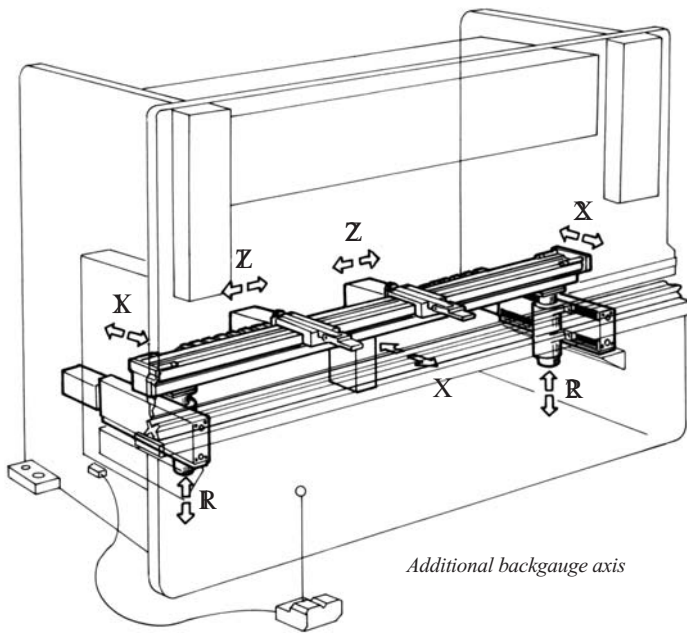
Wila hydraulic clamping system



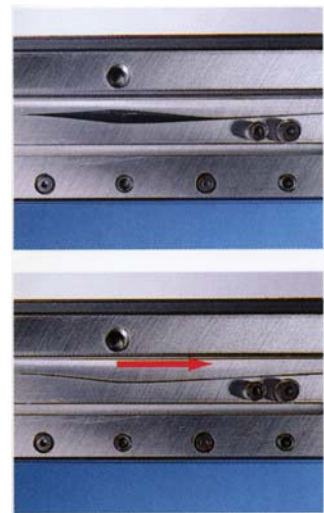
Cybelec DNC 880



Cybelec ModEva 10S



Delem V-Bend system



Wila Crowning system



Delem DA-56



Delem DA-65W



Unimec Backgauge (X, R, Z1, Z2)

CONFIGURE YOUR MACHINE

