



3 Axis Synchronized Hydraulic Press Brake **CNCHAP**

CNCHAP 3 AXIS SYNCHRONIZED HYDRAULIC PRESS BRAKE



GENERAL SPECIFICATION

If your aim is to provide important developments in quality, productivity, esthetic and security aspects, ERMAK CNC HAP is what you looking for.

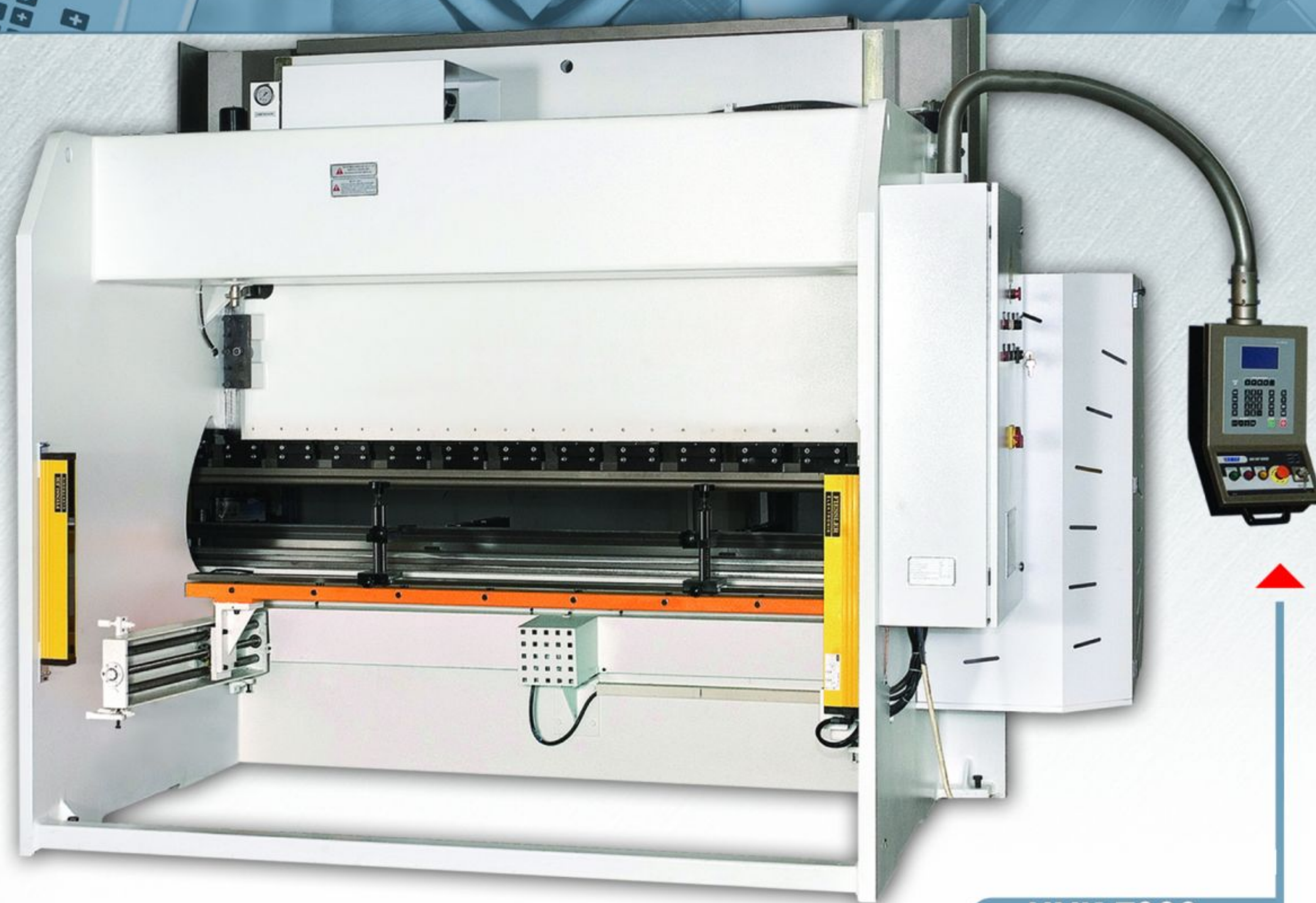
CNC HAP series is developed for works with wide variety and where production speed is important. Syncro system is provided by synchronized cylinders with proportional valve technology like in CNC AP machines. And this means bending angle with maximum precision. CYBELEC DNC 60PS is used in CNC HAP. This controllers' easy usage, high capacity and fast processing power, durability and service network all around the world provides your machine high performance.

ERMAK Since 1965
SHEET METAL WORKING MACHINERY

CYBELEC DNC 60 G Controller

Sequence repeat, sub-programs and chain-programming, 75 x 130 mm Black-White LCD graphic screen (visible area), 240 x 128 pixel automatic contrast adjustment, 16 input (24 or 32 optional), Easy cut page.

Standard



ER50 *standard*

ER 50 Controller General Specifications

- State of the art technology
- Panel based housing
- Color LCD display with 6.4" TFT high brightness display
- Memory capacity of 64 MB
- Product memory at least 4 MB
- Tool library for 30 punches / 30 dies
- Fast programming with easy page selection
- External memory storage via USB interfacing
- Directly angle programming
- Unfolded length calculations
- Automatic tonnage calculations
- Automatic motorized crowning calculations

CYBELEC DNC 60 PS General Specifications

- Die and punch programming (20 die, 30 punch),
- Automatic conversion: Inch / mm; US TON / Metric TON; PSlx1000 / kg/cm²,
- 999 program and 13 bending in each program,
- 99 bending repeat,
- In closed circuit, high accuracy of top beam positioning by speed, pressure and parallelism control,
- Adjustment of moving speed, speed up, slowdown and gain by machine parameters,
- Correction of Y1, Y2 and X axis independently,
- Automatic or programmable back gauge retract feature,
- Programmable waiting time under pressure (Ironing),
- Adjustable short stroke for each part and bending job in normal bending page,
- Adjustable speed change point (Mute point),
- Warning message on screen for the correct side of material in reverse bending (Return + Swing + Swivel),
- Provides bending in circle quality by programming of bending number and radius for ideal curve,
- Keypad with membrane covering and LED warning lights,
- Back up of material, tooling and machine parameters by RS-232 serial port.
- Languages: French, German, English, Italian, Spanish, Portuguese, Netherlandish, Swedish, Danish, Finnish, Norwegian, Turkish.
- Programmable bending angle, Automatic calculation bend allowance and unfolded length. (Automatic pressure control)



DNC 60 *standard*

ER 70 Controller General Specifications

- User friendly, CNC controller with very good price and high performance.
- 2 D Graphical Bending Simulation
- Delem Bending Software
- 2 D Graphical product Drawing
- 2D Graphical Manual Collision Control
- Automatic Calculations Bend Allowance depending inner or outer dimension
- Automatic Calculations X, R target positions for the product dimension and bend sequence (Move Bend or Swap Bend)
- Automatic Calculation Unfolded Length
- Automatic Executed Y1, Y2 position depend of angle value
- Automatic calculated internal radius or bumping
- Screen size: 10,4" TFT LCD Monochrome
- Operating System: Windows CE
- Memory: 64 Mb
- Free space for end-users: at least 2 Mb (approx. 1000 programs)
- Sequence max. 99 per program
- Y1, Y2, X, R (Max Four Axes) AC (0-10 V) or Servo Axes (±10 V)
- Punches / Dies Memory: 30/60
- Manual bend sequence determination
- Bend Sequence determinations, 2D Graphical Bending Simulation
- USB Backup, /restore of parameters and Product
- 2 USB Ports for the transferring and keyboard and mouse



ER70 *optional*

OPTIONALS EQUIPMENTS

- Offline programmable with Profile-W software
- Optional Colour Screen



X axis backgauge system

standard



2 axis backgauge system

optional

LINK 7000

INTERFACE software convert to PC 1200-DNC60 product memory, Punch die transferring with RS 232

Computer



CYBELEC CYCAD, DELEM Profile-W Office Offline Software *Optional*

RS 232

Free of charge CYBACK standart data transferring software

Server



Ethernet Network

CNCHAP 3 AXIS SYNCHRONIZED HYDRAULIC PRESS BRAKE

STANDARD EQUIPMENTS

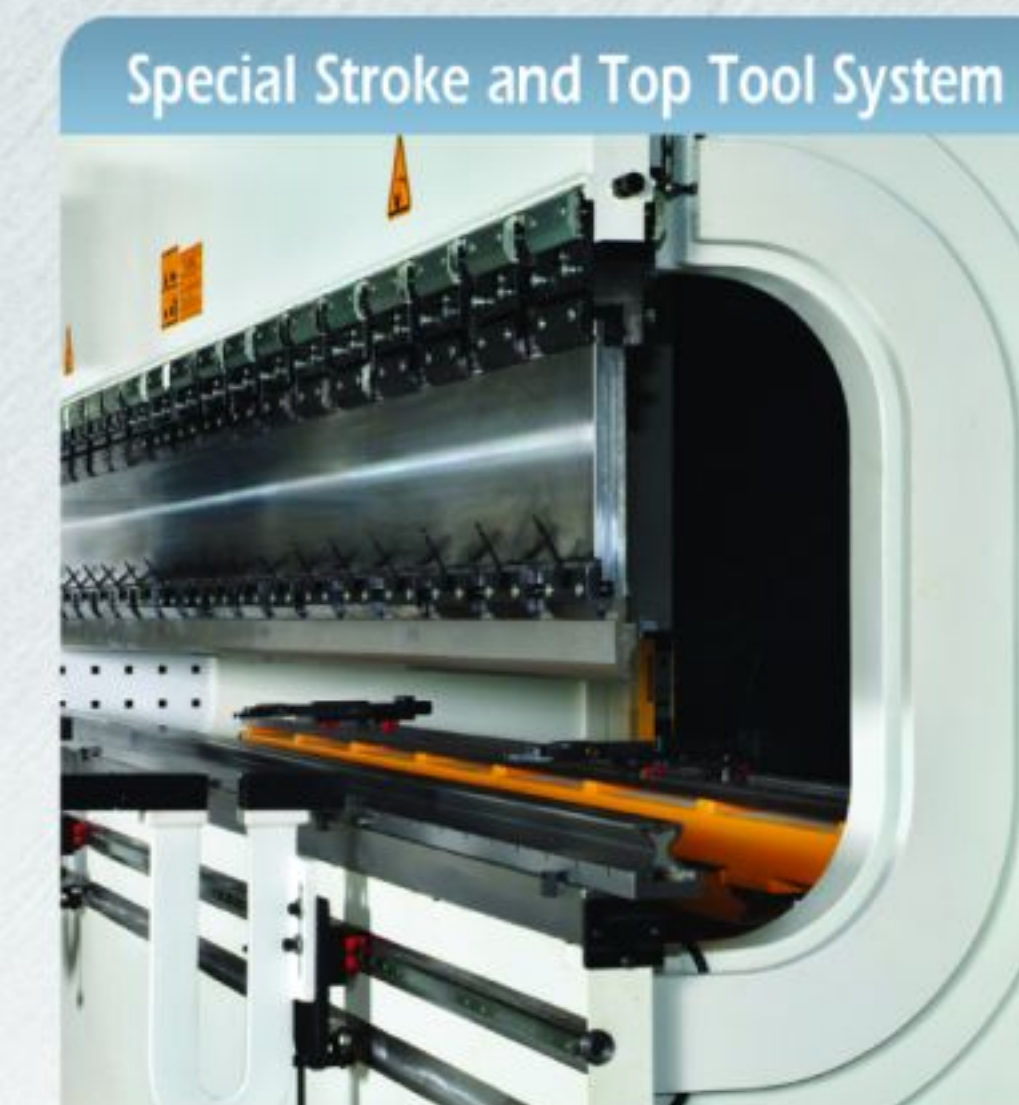
- Mono block, welded steel frame rigid to deflection moment and high tensile with ST44 A1 material.
- Cybelec DNC 60P controller,
- Y1 + Y2 + X Axis,
- Synchronization control of Y1 + Y2 axis by ± 0.01 accuracy linear encoders is provided by means of hydro-electrical technique, with servo valves
- AC motorized back gauge system with ball screwed shaft in X-axis, Analog Dynamic, Fast Servo controlled Backgauge
- Hydraulic system by proportional valve system with the brands Bosch-Rexroth or Hoerbiger,
- High accuracy Heidenhain – Givi mesure linear encoders,
- Electrical panel with cooling system, designed to meet CE Standards and composed of automation and electrical equipments with
- Automatic tonnage adjustment, with proportional valves
- Getting the required angle in one step without trial-error method by entering material type, width, length and thickness,
- Automatic adjustment of back gauge position according to the bending program,
- Bending sequence,
- Automatic calculation of required stroke for the required bending angle,
- Harmony of used tooling and bending part,
- Storing the programs in memory and recalling,
- Hardened, grinded and standard segmented (835 mm) top and bottom tooling system. Bottom tool with four V-dies in dimensions of 60x60,
- Amada Promecam clamping system with quick release,
- User-friendly, moveable and ergonomic control panel carrying all buttons,
- Light Guard positioned at the back side of the machine,
- Multiple point parallelism adjustable back gauge bar, back gauge fingers with the accuracy of 0.01
- Front support arms with T-slot and mm/inch scale,
- 400 mm throat depth,
- Conforming to EU machine safety directives and CE Regulations.



standard



optional



optional



optional



standard



optional



optional



optional

OPTIONAL EQUIPMENTS

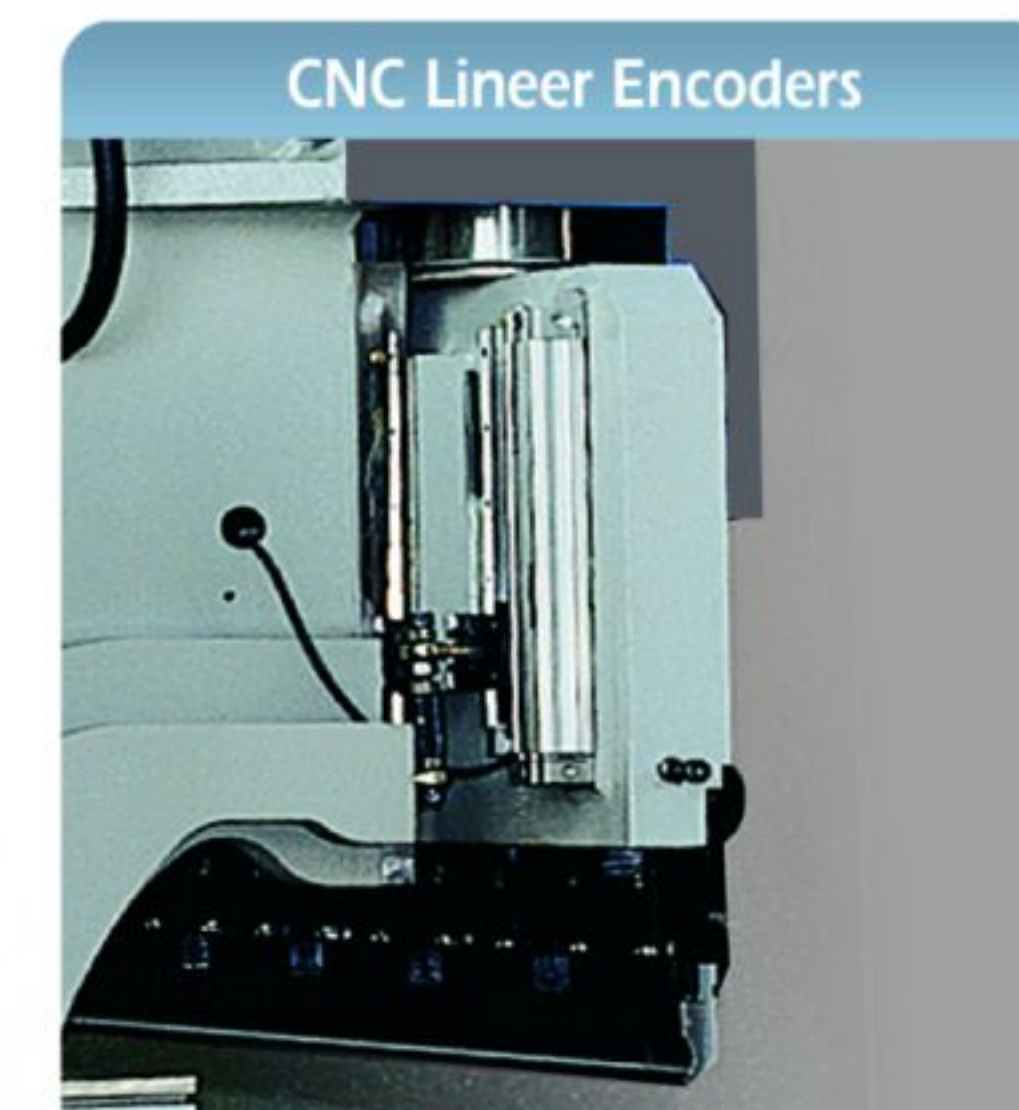
- CYCAD: interface converts 2D drawing prepared on different programs with format *.DXF and *.IGES to Cybelec format
- LINK 7000: Interface Software Convert to PC 1200-DNC60 product Memory, Punc, die Transferring with RS232
- Manuel WILA Anti-Deflection system,
- R axis,
- Motorized Wila Anti-Deflection System which operates automatically according to tonnage applied,
- Front light guard system,
- Laser Protection: Laser protection system for die area, LASER SAFE LZS, AKAS II, (Camera based system) Sick V4000, DFS LASER
- Pneumatic top tool holding system,
- Hydraulic top and bottom tool holding system,
- Sliding front arms with bearing rollers,
- Hydraulic oil coolant,
- Automatic slide greasing system,
- Special throat depth (500,600 and 750 mm),
- Special top and bottom tool
- Tandem application



standard



standard

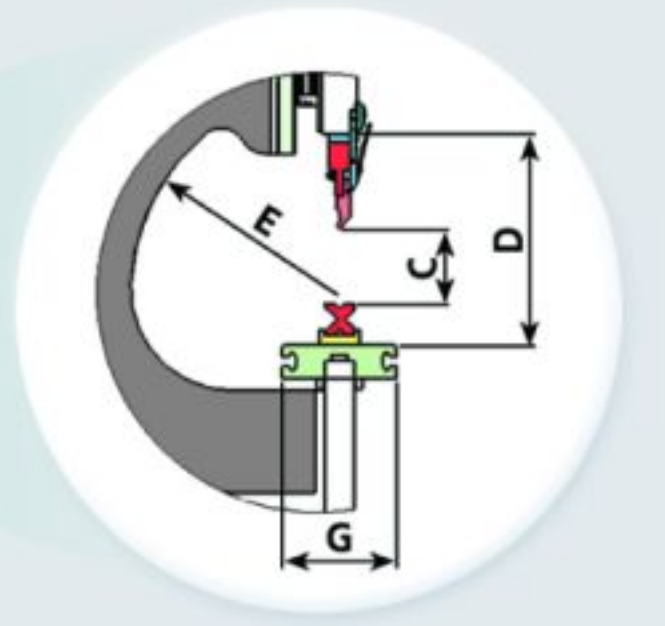
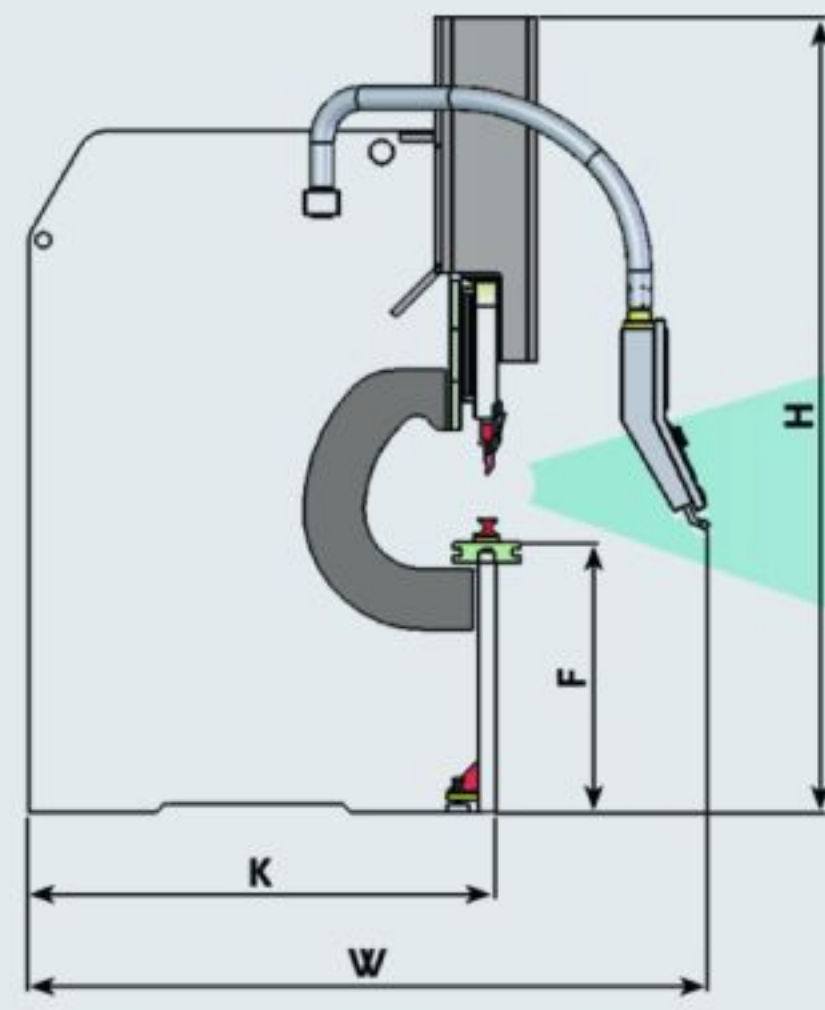
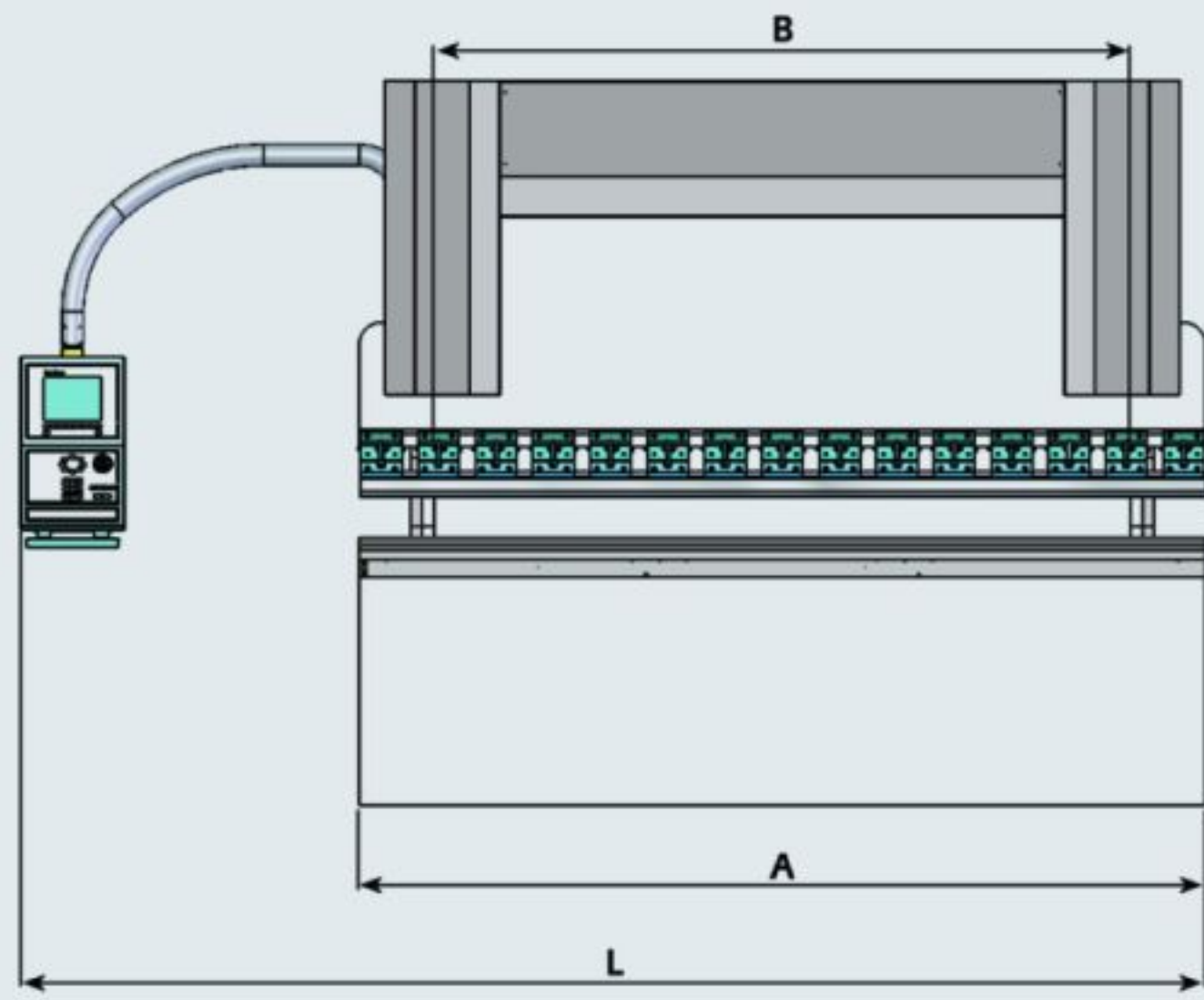


standard



optional

TECHNICAL DIMENSIONS



All specs are subject to change without notice

TYPES	BENDING LENGTH		DISTANCE BETWEEN COLUMNS	Y RAPID SPEED	Y WORKING SPEED	Y RETURN SPEED	CROWNING	TRAVEL IN X AXIS	SPEED OF X AXIS		TRAVEL IN R AXIS	OPTIONAL SPEED OF DYNAMIC SERVO R AXES	BACKGAUGE FINGER BLOCKS	NUMBER OF SHEET SUPPORT ARMS	OIL CAPACITY	MOTOR POWER	STROKE	DAYLIGHT	THROAT DEPTH	TABLE HEIGHT	TABLE WIDTH	MACHINE WIDTH	LENGTH	HEIGHT	WIDTH	WEIGHT
	A	B							AC Axes	Optional Dynamic Servo R Axes																
	mm	Ton	mm	mm/sec	mm/sec	mm/sec	OPTIONAL Manual or Motorized	mm	mm/sec	Optional Dynamic Servo R Axes mm/sec	mm	Optional Dynamic Servo R Axes mm/sec	Amount	Amount	LL	KW	C	D	E	F	G	K	L	H	W	kg
CNC HAP 1270 - 35	1270	35	1000	150	17	100		800	230	350	200	180	2	2	80	4	100	310	250	900	90	1245	2150	2150	1550	2780
CNC HAP 2100 - 35	2100	35	1550	150	17	100		800	230	350	200	180	2	2	80	4	100	310	250	900	90	1245	2900	2150	1550	3450
CNC HAP 2600 - 80	2600	80	2050	100	10	90		800	230	350	200	180	2	2	150	7.5	180	400	400	900	225	1550	3750	2750	1950	6000
CNC HAP 2600 - 120	2600	120	2050	100	10	90		800	230	350	200	180	2	2	200	11	180	415	400	900	225	1560	3750	2800	2050	7050
CNC HAP 3100 - 80	3100	80	2550	100	10	90		800	230	350	200	180	2	2	150	7.5	180	400	400	900	225	1550	4250	2750	1950	7000
CNC HAP 3100 - 120	3100	120	2550	100	10	90		800	230	350	200	180	2	2	200	11	180	415	400	900	225	1560	4250	2800	2050	8450
CNC HAP 3100 - 160	3100	160	2550	100	9	90		800	230	350	200	180	2	2	200	15	180	415	400	900	225	1570	4250	2800	2150	9450
CNC HAP 3100 - 200	3100	200	2550	100	9	90		800	230	350	200	180	2	2	200	15	200	435	400	900	225	1580	4550	2850	2250	10950
CNC HAP 3100 - 250	3100	250	2550	100	8	90		800	230	350	200	180	2	2	300	18.5	250	495	400	900	280	1650	4550	2950	2350	14750
CNC HAP 3100 - 300	3100	300	2550	100	8	90		800	230	350	200	180	2	2	300	22	250	510	400	900	340	1700	4550	3050	2450	16500
CNC HAP 3100 - 400	3100	400	2550	100	7	90		1000	230	350	200	180	2	2	400	30	300	600	400	1000	290	1950	1550	3250	2550	20200
CNC HAP 3100 - 500	3100	500	2450	80	6	65		1000	230	350	250	180	2	2	500	30	350	600	500	1000	350	2100	4900	3600	2650	23000
CNC HAP 3600 - 160	3600	160	3150	100	9	90		800	230	350	200	180	2	2	200	15	180	415	400	900	225	1570	4750	2800	2150	10950
CNC HAP 3600 - 200	3600	200	3150	100	9	90		800	230	350	200	180	2	2	200	15	200	435	400	900	225	1580	4950	2850	2250	13400
CNC HAP 3600 - 250	3600	250	3150	100	8	90		800	230	350	200	180	2	2	300	18.5	250	525	400	1000	280	1650	4950	2950	2350	16250
CNC HAP 3600 - 300	3600	300	3150	100	8	90		800	230	350	200	180	2	2	300	22	250	530	400	980	290	1700	4950	3150	2450	18000
CNC HAP 3760 - 160	3760	160	3250	100	9	90		800	230	350	200	180	2	2	200	15	180	415	400	900	225	1570	4900	2800	2150	11750
CNC HAP 3760 - 200	3760	200	3250	100	9	90		800	230	350	200	180	2	2	200	15	200	435	400	900	225	1580	5100	2900	2250	14400
CNC HAP 3760 - 300	3760	300	3250	100	8	90		800	230	350	200	180	2	2	300	22	250	510	400	1000	290	1700	5100	3150	2450	18550
CNC HAP 4100 - 120	4100	120	3550	100	10	90		800	230	350	200	180	2	2	200	11	180	415	400	900	225	1580	5050	2800	2100	10900
CNC HAP 4100 - 160	4100	160	3550	100	9	90		800	230	350	200	180	2	2	200	15	180	415	400	960	225	1580	5050	2850	2150	12750
CNC HAP 4100 - 200	4100	200	3550	100	9	90		800	230	350	200	180	2	2	200	15	200	435	400	960	225	1600	5150	2950	2250	14900
CNC HAP 4100 - 250	4100	250	3550	100	8	90		800	230	350	200	180	2	2	300	18.5	250	525	400	1000	240	1650	5150	3050	2350	17600
CNC HAP 4100 - 300	4100	300	3550	100	8	90		800	230	350	200	180	2	2	300	22	250	520	400	1000	290	1750	5350	3150	2450	19000
CNC HAP 4100 - 400	4100	400	3550	100	7	90		1000	230	350	200	180	2	2	400	30	300	565	400	1000	340	1980	5450	3300	2550	25000
CNC HAP 4100 - 500	4100	500	3550	80	6	65		1000	230	350	250	180	2	2	500	30	350	600	500	1100	340	2100	5450	3700	2650	30500
CNC HAP 4100 - 600	4100	600	3550	80	6	65		1000	230	350	250	180	2	2	600	37	350	600	500	900	350	2000	5900	3600	2650	35000
CNC HAP 4100 - 1200	4100	1200	3100	70	6	55		1000	350	350	250	180	4	4	1200	55	500	900	500	800	600	2650	5500	4600	3200	68000
CNC HAP 4270 - 120	4270	120	3780	100	10	90		800	350	350	200	180	2	2	200	11	180	415	400	900	225	1578	5280	2800	2150	11000
CNC HAP 4270 - 200	4270	200	3780	100	9	90		800	350	350	200	180	2	2	200	15	200	435	400	1000	225	1598	5320	2970	2250	15050
CNC HAP 4270 - 400	4270	400	3780	100	7	90		1000	350	350	200	180	2	2	400	30	300	563	400	1000	340	1978	5600	3300	2550	27500
CNC HAP 4270 - 600	4270	600	3600	80	6	65		1000	350	350	250	180	4	4	600	37	350	600	500	900	350	2000	6100	3600	2650	36000
CNC HAP 5100 - 200	5100	200	4100	100	9	90		800	230	350	200	180	4	4	200	15	200	455	400	1015	240	1600	6450	3000	2250	17650
CNC HAP 5100 - 300	5100	300	4100	100	8	90		800	230	350	200	180	4	4	300	22	250	550	400	1100	290	1860	6450	3150	2450	23000
CNC HAP 5100 - 500	5100	500	4100	80	6	65		1000	230	350	250	180	4	4	500	30	350	650	500	1100	350	2100	6900	3700	2650	36000
CNC HAP 5100 - 600	5100	600	4100	80	6	65		1000	350	350	250	180	4	4	600	37	350	600	500	900	350	2000	6900	3800	2650	45000
CNC HAP 5100 - 1000	5100	1000	4100	80	6	60		1000	350	350	250	180	4	4	1000	45	500	900	500	850	350	2500	6950	4100	3150	66800
CNC HAP 6100 - 200	6100	200	5100	100	9	90		800	230	350	200	180	4	4	200	15	200	455	400	1075	240	1835	7400	3100	2350	20000
CNC HAP 6100 - 300	6100	300	5100	100	8	90		800	230	350	200	180	4	4	300	22	250	530	400	1100	280	1900	7500	3200	2450	32000
CNC HAP 6100 - 400	6100	400	5100	100	7	90		1000	230	350	200	180	4	4	400	30	300	565	400	1100	320	2000	7650	3500	2550	36500
CNC HAP 6100 - 500	6100	500	5100	80	6	65		1000	230	350	250	180	4	4	500	30	350	650	500	900	350	200	7900	3700	2650	43000
CNC HAP 6100 - 600	6100	600	5100	80	6	65		1000	230	350	250	180	4	4	600	37	350	600	500	900	350	2000	7900	3800	2650	53500
CNC HAP 6100 - 800	6100	800	5100	80	6	60		1000	230	350	250	180	4	4	800	37	400	650	500	900	350	2350	7900	4100	2950	63000
CNC HAP 6100 - 1000	6100	1000	5100	80	6	60		1000	350	350	250	180	4	4	1000	45	500	900	500	850	350	2500	6500	4100	3150	74800
CNC HAP 6100 - 1200	6100	1200	5100	70	6	55		1000	350	350	250	180	4	4	1200	55	500	900	500	800	600	2650	7500	4500	3300	90000
CNC HAP 7100 - 800	7100	800	6100	80	6	60		1000	350	350	250	180	4	4	800	37	400	650	500	900	350	2350	8500	4100	2950	72000
CNC HAP 7100 - 1200	7100	1200	6100	70	6	55		1000	350	350	250	180	4	4	1200	55	500	900	500	800	600	2650	8500	4600	3300	137500
CNC HAP 8100 - 200	8100	200	7100	100	9	90		800	230	350	200	180	4	6	200	15	200	455	400	1100	250	1960	9500	3150	2450	31250
CNC HAP 8100 - 300	8100	300	7100	100	8	90		800	230	350	200	180	4	6	300	22	250	530	400	1170	350	2000	9500	3500	2500	46000
CNC HAP 8100 - 400	8100	400	7100	100	7	90		1000	230	350	200	180	4	6	400	30	300	565	400	900	320	2000	9500	3700	2550	52500
CNC HAP 8100 - 500	8100	500	7100	80	6	65		1000	230	350	250	180	4													