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CNC HYDRAULIC
PRESSES BRAKE



Dener Makina was established in 1974 in Kayseri Old Industrial Zone. Since 2000, Dener Makine has focused on the production of CNC Sheet Metal Processing Machines and continues its production with a wide range of products including Guillotine Shears, Hydraulic Press Brakes, Ball Screw Press Brakes, Servo Electric Press Brakes, Plasma Cutting Machines and Fiber Laser Cutting Machines.

In 2016, the company made a significant investment by incorporating 155,000 m² factory buildings and 27,000 m² social facilities located on 1,300,000 m² of land owned by TAKSAN A.Ş. In the new period, Taksan Integrated Facilities started the production of CNC Metal Processing Machines such as Double Column Machining Centres, 5 Axis Simultaneous Machining Centres, Vertical Machining Centres, Lathes and Grinding Machines.

Dener Makina, CNC Sheet Metal Processing Machines and CNC Metal Processing Machines, with its wide range of machinery production, half a century of experience, qualified workforce and multinational R&D centre, is the first in the world by offering important investment products to the world industrial enterprises.



04

PUMA XL

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TOOLS CLAMPING SYSTEMS





* Some optional equipment was used on the machine photo.

puma *xl*

DENER PUMA XL CNC Press Brakes are born with the goal to be flexible, reliable, and advanced bending machines; Dener utilizes the most stringent manufacturing technologies during production to manufacture the highest quality machines. Based on proven design, Dener has increased working speeds, stroke, daylight, and pressing capacities of Puma XL machines.

DENER PUMA XL is a synchronized hydraulic press brake with a 3D Graphical CNC controller and offers simple operation, quick and easy 3D or numerical part programming easy setup of the machine, and auto calculation of the bend sequence. 3D and DXF programming feature with ESA S 660 W Controller gives the possibility to end users. These functions make Dener PUMA XL CNC Hydraulic Press Brakes very popular in sheet metal industries.

Forming Challenges
Simplified Solution.



STANDARD EQUIPMENT



2 (X,R) Axis Back Gauge



Manual Crowning



Front Support Arms



ESA S 685 W Control Unit

STANDARD EQUIPMENT

European Type
Sectioned Punch
European Type
Sectioned V Die



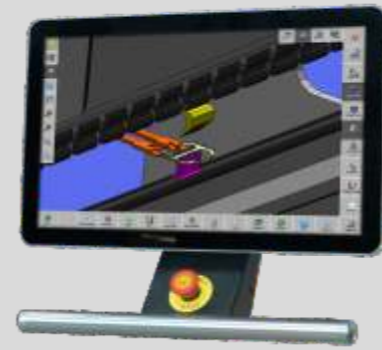
CONTROLLERS

STANDARD

ESA S 675 W CONTROLLER

3D

- 3D and 2D graphics touch screen programming mode
- 3D and 2D imaging in simulation and production
- 21" high resolution colour touch screen
- Full-featured Windows application
- ESA offline software
- USB flash memory drive
- Hard disk for more then 1.000.000 part programs
- 2D and 3D automatic bending sequence calculation
- Graphical product and tool selection



OPTIONAL

DELEM DA-66T

3D

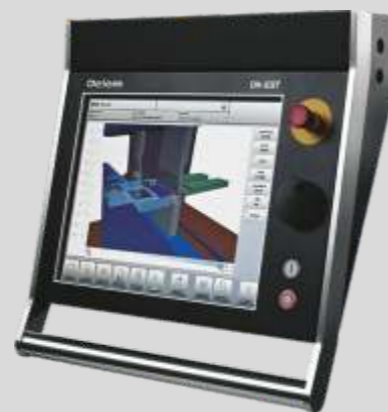
- 2D graphical touch screen programming mode
- 3D visualisation in simulation and production
- 17" high resolution colour TFT
- Full Windows application suite
- Delem modusys compatibility
- USB, peripheral interfacing
- User specific application support with in the controllers
- Multitasking environment
- Sensor bending & correction interface



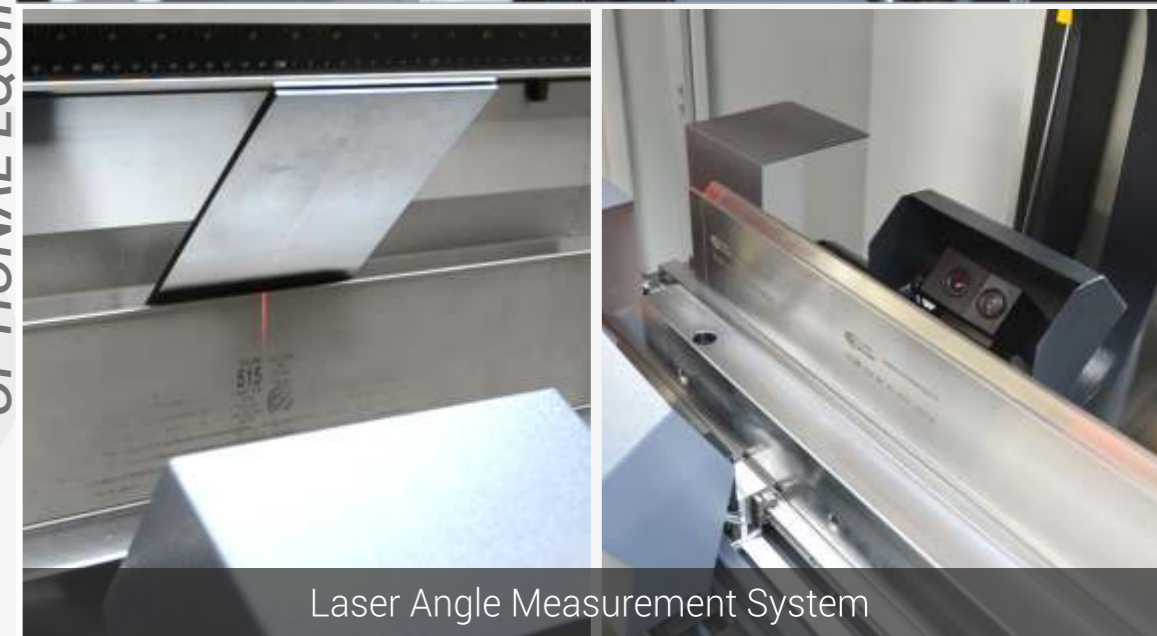
OPTIONAL

DELEM DA-69T

- 3D and 2D graphical touch screen programming mode
- 3D visualisation in simulation and production
- 17" high resolution colour TFT
- Full Windows application suite
- Delem modusys compatibility
- USB, peripheral interfacing
- User specific application support with in the controllers
- Multitasking environment
- Sensor bending & correction interface

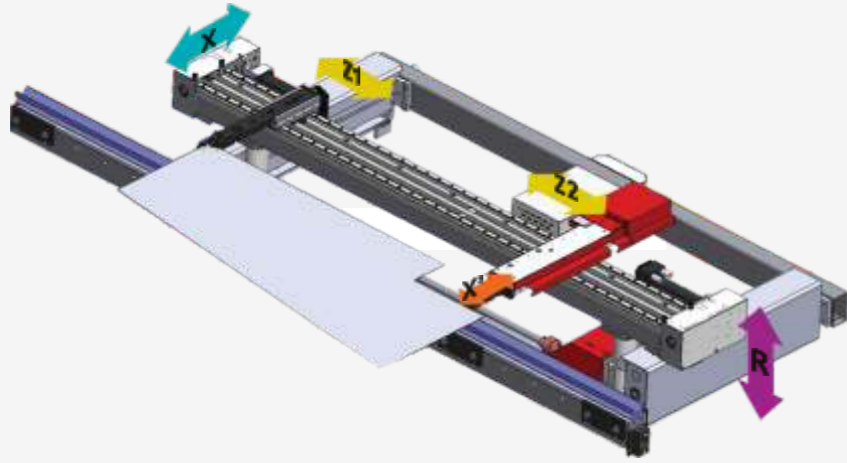


- Motorized Crowning
- Hydro Mechanical Crowning



Laser Angle Measurement System

BACK GAUGES



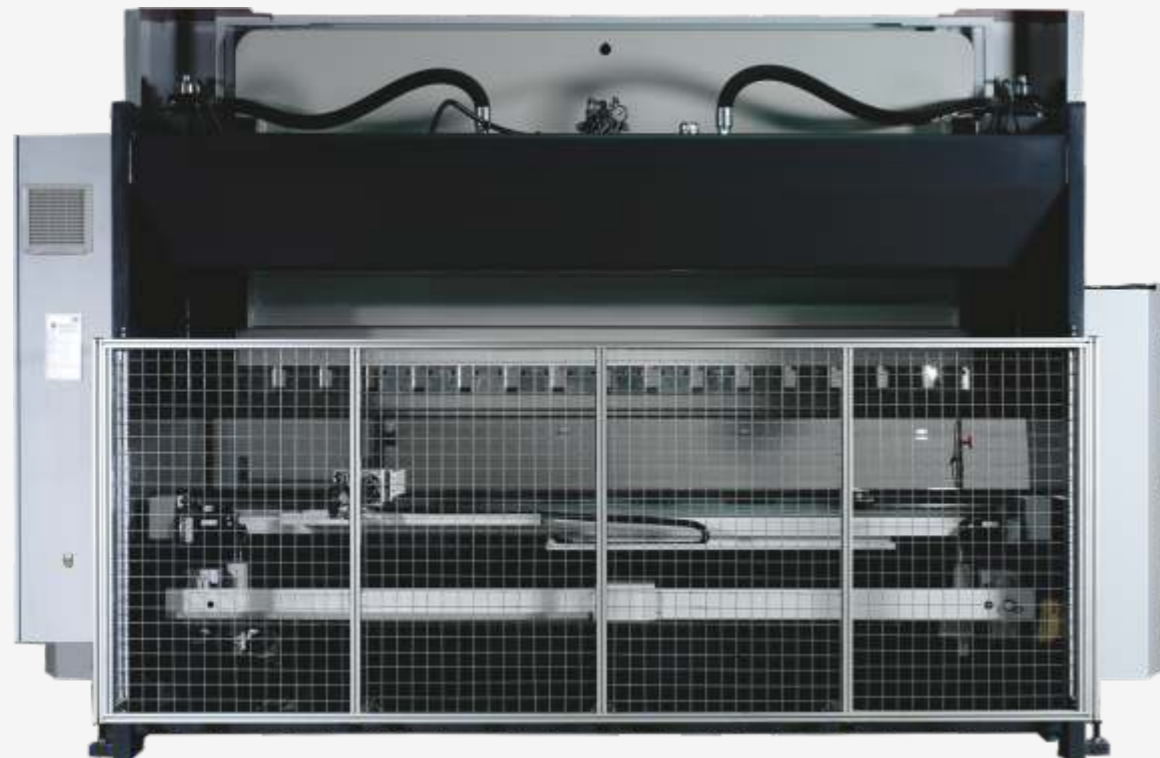
Gauging is a main concern for press brake operators. Whether you require complex part multi station bending or single bending or production of taper bends Puma XL offers solution with 6 different back gauge options to its customer. Depending on the geometry of the parts and their complexity, all back gauge models are particularly manufactured to reach high precision and high speeds.

Standard Back Gauge Systems

- X - R CNC axes
- Ball screw driven X axis
- Two linear guides per ball screw
- 750 mm X axis stroke (1040 mm total gauge distance)
- 250mm R axis stroke
- Positioning accuracy of X axis $\pm 0.03\text{mm}$

Optional Back Gauge Systems

- X1, X2, R
- X, R, Z1, Z2
- X, X', R, Z1, Z2
- X1, X2, R, Z1, Z2
- X1, X2, R1, R2, Z1, Z2 (ATF TYPE)



X1, X2, R



X, R, Z1, Z2



X1, X2, R, Z1, Z2

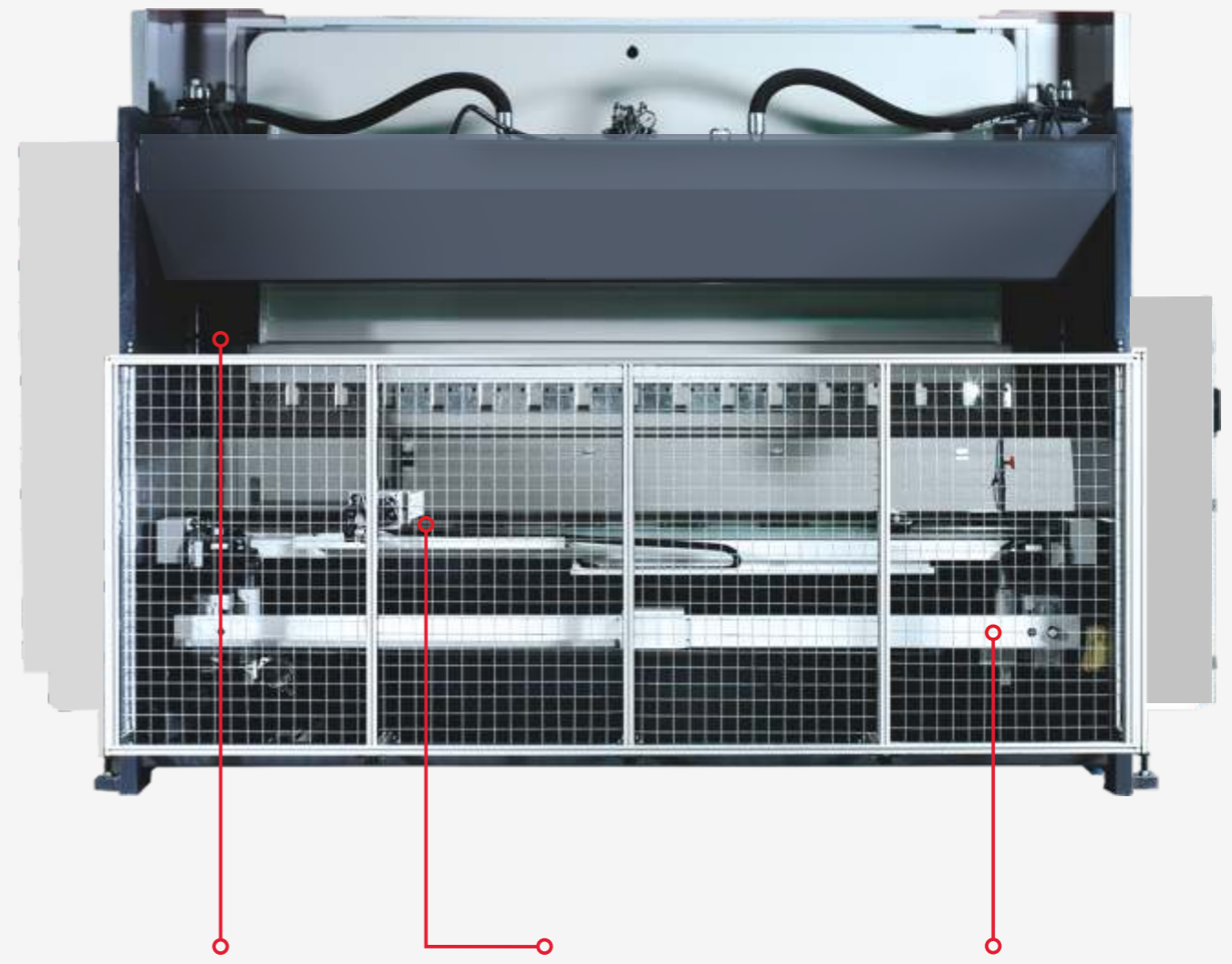


Bar Tipi - X1, X2, R1, R2, Z1, Z2



ATF - X1, X2, R1, R2, Z1, Z2

OPTIONAL EQUIPMENT



Deeper Throat Depth



Higher Stroke Longer Daylight



Linear Guided Stronger Front Supports (175 Tons and above machines)



Stronger Beam Guiding System to stable the beam



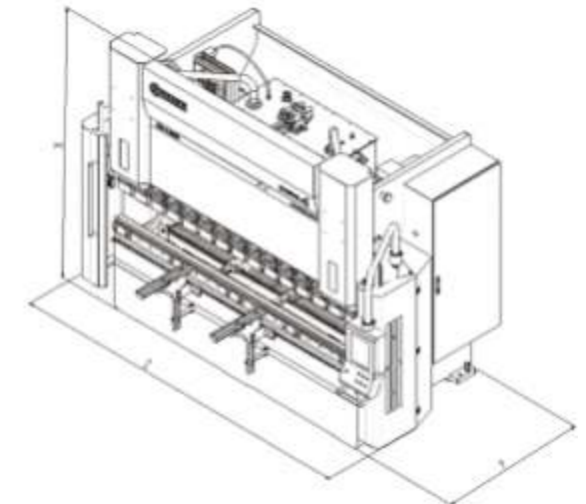
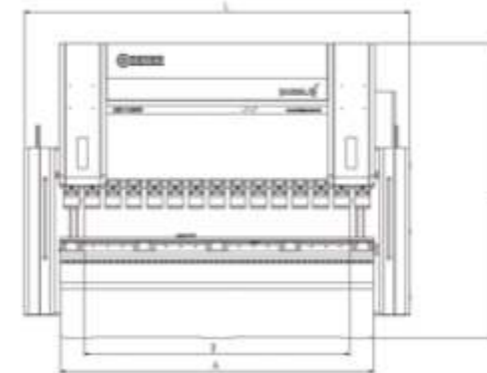
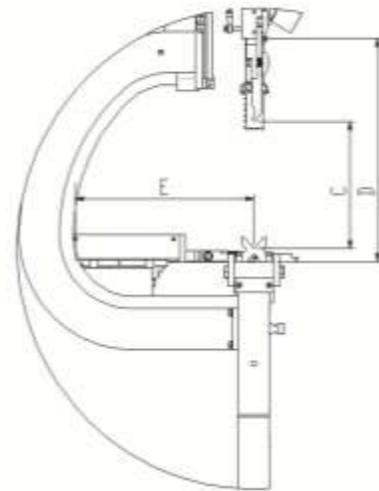
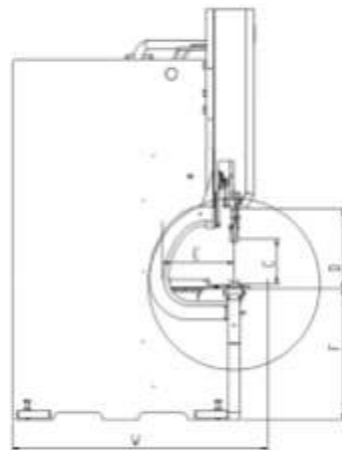
Double Linear Guided Stronger Back Gauges



Linear Guided Stronger Back Gauge X Movement

PUMA XL	1560	2060	2660	26100	30100	30135	30175	30220	30320		36175	36220	36320	40175	40220	40320	40400	40500	40600	60220	60320	60400	60600
Bending Length (mm) (A)	1550	2050	2600	2600	3020	3020	3020	3020	3020		3650	3650	3650	4050	4050	4050	4050	4050	4050	6050	6050	6050	6050
Bending Capacity (ton)	60	60	60	100	100	135	175	220	320		175	220	320	175	220	320	400	500	600	220	320	400	600
Approaching Speed (mm/sn)	180	180	180	160	160	160	150	140	125		150	140	125	150	140	125	80	80	60	100	80	60	60
Bending Speed (mm/sn)	10	10	10	10	10	10	10	10	10		10	10	10	10	10	10	10	8	8	8	10	8	8
Returning Speed (mm/sn)	160	160	150	150	150	130	130	130	120		130	130	120	130	130	120	80	80	60	100	80	60	60
Stroke (C)	220	220	220	300	300	320	350	350	400		350	350	400	350	350	400	400	400	450	450	350	400	450
Daylight (D)	410	390	390	540	530	550	600	600	650		600	600	650	600	600	650	650	650	650	600	650	650	730
Throat Depth (E)	400	400	400	450	450	450	450	450	450		450	450	450	450	450	450	600	600	600	450	450	600	600
Distance Between Side Frames (B)	1250	1650	2150	2150	2555	2555	2555	2555	2555		3100	3100	3100	3550	3550	3550	3550	3550	3550	5100	5100	5100	5020
Length (L)	2445	2855	3355	3320	3725	3745	3745	3745	3785		4290	4290	4330	4740	4740	4780	5055	5000	5000	6830	6865	6905	7145
Width (W)	2200	2200	1920	2250	2250	2250	2280	2280	2270		2280	2290	2290	2290	2290	2280	2777	2770	4050	2300	2280	2780	3275
Width Without Front Supports (Y)	1635	1635	1360	1710	1690	1720	1720	1720	1760		1720	1730	1770	1730	1740	1770	2300	2600	2130	1770	1770	2330	2800
Height (H)	2390	2390	2390	2780	2780	2835	3030	3055	3100		3030	3055	3105	3030	3050	3105	3560	3560	4225	3010	3110	3615	3910
Table Height (F)	880	900	900	900	900	900	920	920	920		920	920	920	920	920	920	1095	1095	1095	920	920	1095	980
Pit Depth	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	850	0	0	0	1450
Main Motor (kW)	7,5	7,5	7,5	11	11	15	22	22	30		22	22	30	22	22	30	45	45	45	22	30	45	45
Oil Tank (lt)	100	100	100	190	190	190	300	300	400		300	300	400	300	300	400	600	600	600	300	400	400	600
Approximate Weight	3850	4500	5200	7350	8000	8950	10550	10700	13650		11700	11850	15000	12555	15150	16000	24000	32000	45500	18000	22550	31000	50700

DENER HAS THE RIGHT TO MAKE MODIFICATIONS IN TECHNICAL PROPERTIES WITHOUT GIVING ANY NOTIFICATION





* Some optional equipment was used on the machine photo.

smart.xl

The DENER SMART XL CNC is an economical, strong, fast and accurate new model. The SMART XL Press brake targets small and medium size sheet metal working companies. The most important features of DENER SMART XL are;

- Faster working speeds
- Greater bending power
- Deeper throat depth
- Bigger stroke and day light

The DENER SMART XL is a synchronized hydraulic press brake with numerical CNC controllers. It offers simple operation, quick and easy part programming, easy setup of the machine, auto calculation of the bend angle, and back gauge correction. The 2D off line programming feature of the ESA 630 control gives possibility to complete bending programs on the Office PC and transfer them to the machine by LAN or USB. This feature is popular for end users not interested in more expensive off line CAD/CAM bend softwares. The SMART XL has more advanced features than its competitors. Some of these features are: a strong and complete mono block welded frame, longer stroke and longer distance between frames, deeper throat depth, and a higher working table.

STANDARD EQUIPMENT

ESA S 630 CONTROL UNIT

- 10" colour touch screen
- Automatic bend listing
- Easy programmable 2D graphic display.
- 2D graphic display of machine frame, work-piece and tools
- Up to 4 axes (Y1,Y2, and 2 auxiliary axes)
- Multiple language options
- Multiple simulation
- Remote access
- 128 MB silicon disk.



European Type
Sectioned Clamping System



Stronger Front Support Arms

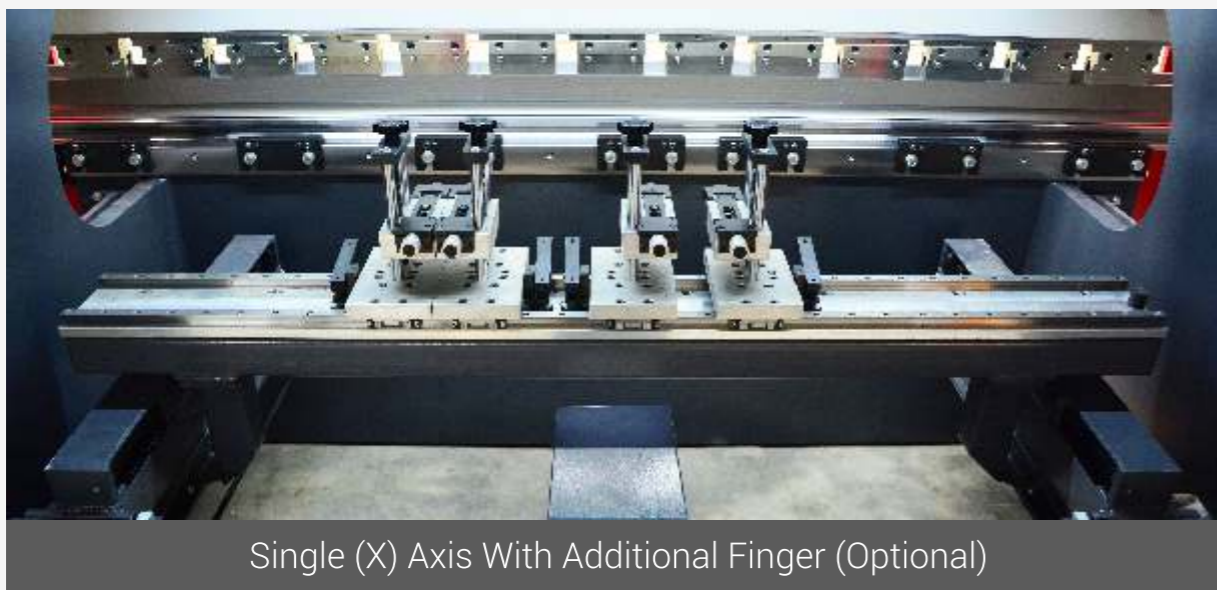
BACK GAUGES



Single (X) Axis Back Gauge (Standard)



2 (X,R) Axis Back Gauge (Optional)



Single (X) Axis With Additional Finger (Optional)



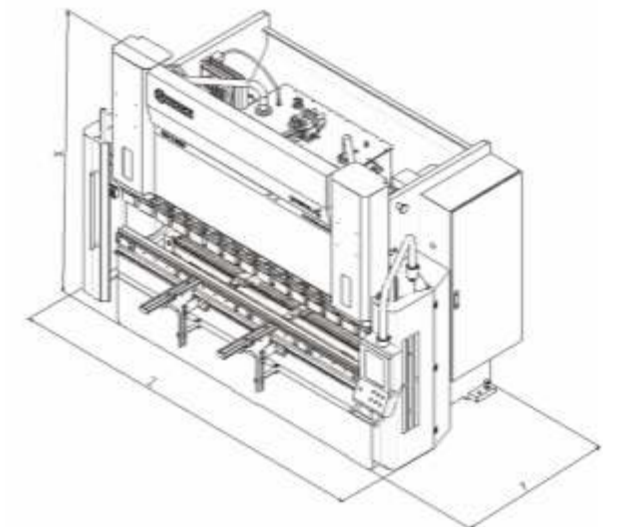
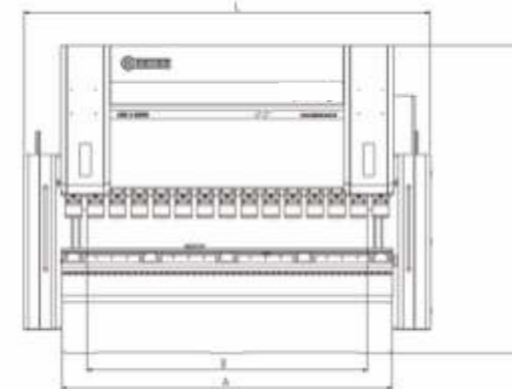
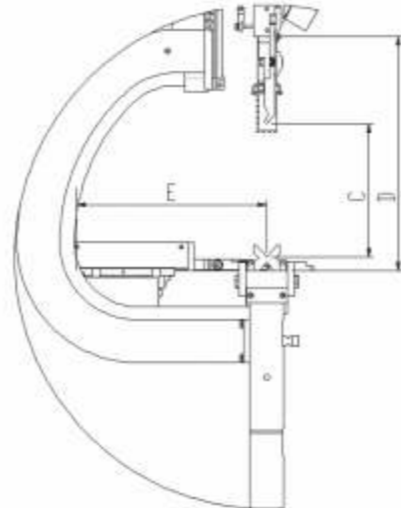
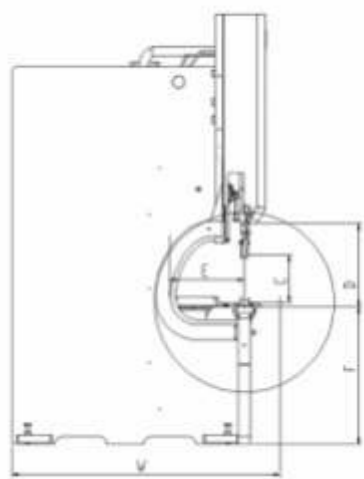
Manual Crowning



Motorized Crowning

SMART XL	1560	2060	2660	26100	30100	30135	30175	30220	30320		36175	36220	36320	40175	40220	40320	40400	40500	40600	60220	60320	60400	60600
Bending Length (mm) (A)	1550	2050	2600	2600	3020	3020	3020	3020	3020		3650	3650	3650	4050	4050	4050	4050	4050	4050	6050	6050	6050	6050
Bending Capacity (ton)	60	60	60	100	100	135	175	220	320		175	220	320	175	220	320	400	500	600	220	320	400	600
Approaching Speed (mm/sn)	180	180	180	160	160	160	150	140	125		150	140	125	150	140	125	80	80	60	100	80	60	60
Bending Speed (mm/sn)	10	10	10	10	10	10	10	10	10		10	10	10	10	10	10	10	8	8	8	10	8	8
Returning Speed (mm/sn)	160	160	150	150	150	130	130	130	120		130	130	120	130	130	120	80	80	60	100	80	60	60
Stroke (C)	220	220	220	300	300	320	350	350	400		350	350	400	350	350	400	400	400	450	450	350	400	450
Daylight (D)	410	390	390	540	530	550	600	600	650		600	600	650	600	600	650	650	650	650	600	650	650	730
Throat Depth (E)	400	400	400	450	450	450	450	450	450		450	450	450	450	450	450	600	600	600	450	450	600	600
Distance Between Side Frames (B)	1250	1650	2150	2150	2555	2555	2555	2555	2555		3100	3100	3100	3550	3550	3550	3550	3550	3550	5100	5100	5100	5020
Length (L)	2445	2855	3355	3320	3725	3745	3745	3745	3785		4290	4290	4330	4740	4740	4780	5055	5000	5000	6830	6865	6905	7145
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Height (H)	2390	2390	2390	2780	2780	2835	3030	3055	3100		3030	3055	3105	3030	3050	3105	3560	3560	4225	3010	3110	3615	3910
Table Height (F)	880	900	900	900	900	900	920	920	920		920	920	920	920	920	920	1095	1095	1095	920	920	1095	980
Pit Depth	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	850	0	0	0	1450
Main Motor (kW)	7,5	7,5	7,5	11	11	15	22	22	30		22	22	30	22	22	30	45	45	45	22	30	45	45
Oil Tank (lt)	100	100	100	190	190	190	300	300	400		300	300	400	300	300	400	600	600	600	300	400	400	600
Approximate Weight	3850	4500	5200	7350	8000	8950	10550	10700	13650		11700	11850	15000	12555	15150	16000	24000	32000	45500	18000	22550	31000	50700

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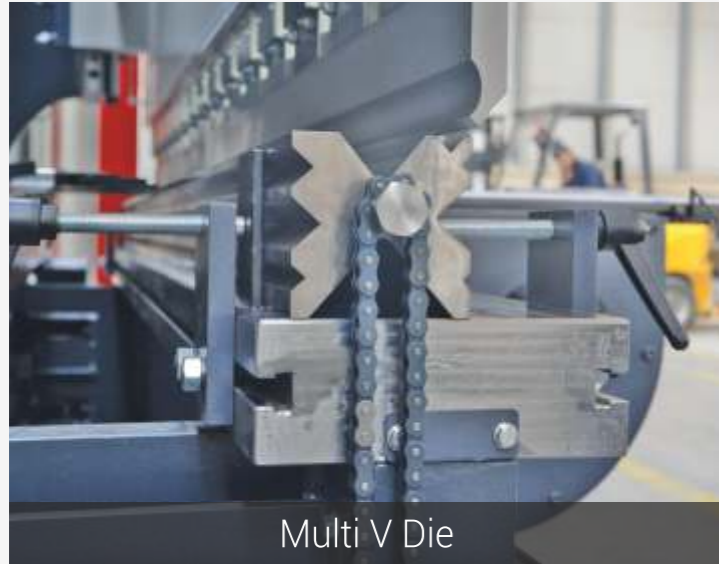
“EXCEED YOUR EXPECTATIONS”

“EXCEED YOUR
EXPECTATIONS”



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SPECIAL BENDING SOLUTIONS



Multi V Die



Wide Table



Adjustable V Die



DE SP-04



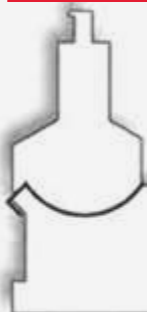
DE SP-12



DE SP-19



DE SP-20



DE SP-21



DE SP-38



DE SP-14



DE SP-48



DE SP-49



DE SP-58



Throat Depth Options as
 500 mm
 600 mm
 750 mm
 850 mm
 1000 mm
 1250 mm
 1500 mm

OPTIONAL EQUIPMENT

SAFETY



CE Safety System with Laser Beam



Akas III
 Motorized CE
 Laser Beam
 Safety System

OPTIONAL TOOL CLAMPING SYSTEMS



Dener Type Pneumatic Clamping System



Manual Quick Clamping System



Wila NSCL-II-HC/UPB Premium Hydraulic Punch Clamping



Wila ASCL-I-HC/UPB American Type Hydraulic Clamping



Wila NSCL-I-MC/UPB Mechanical Punch Clamping



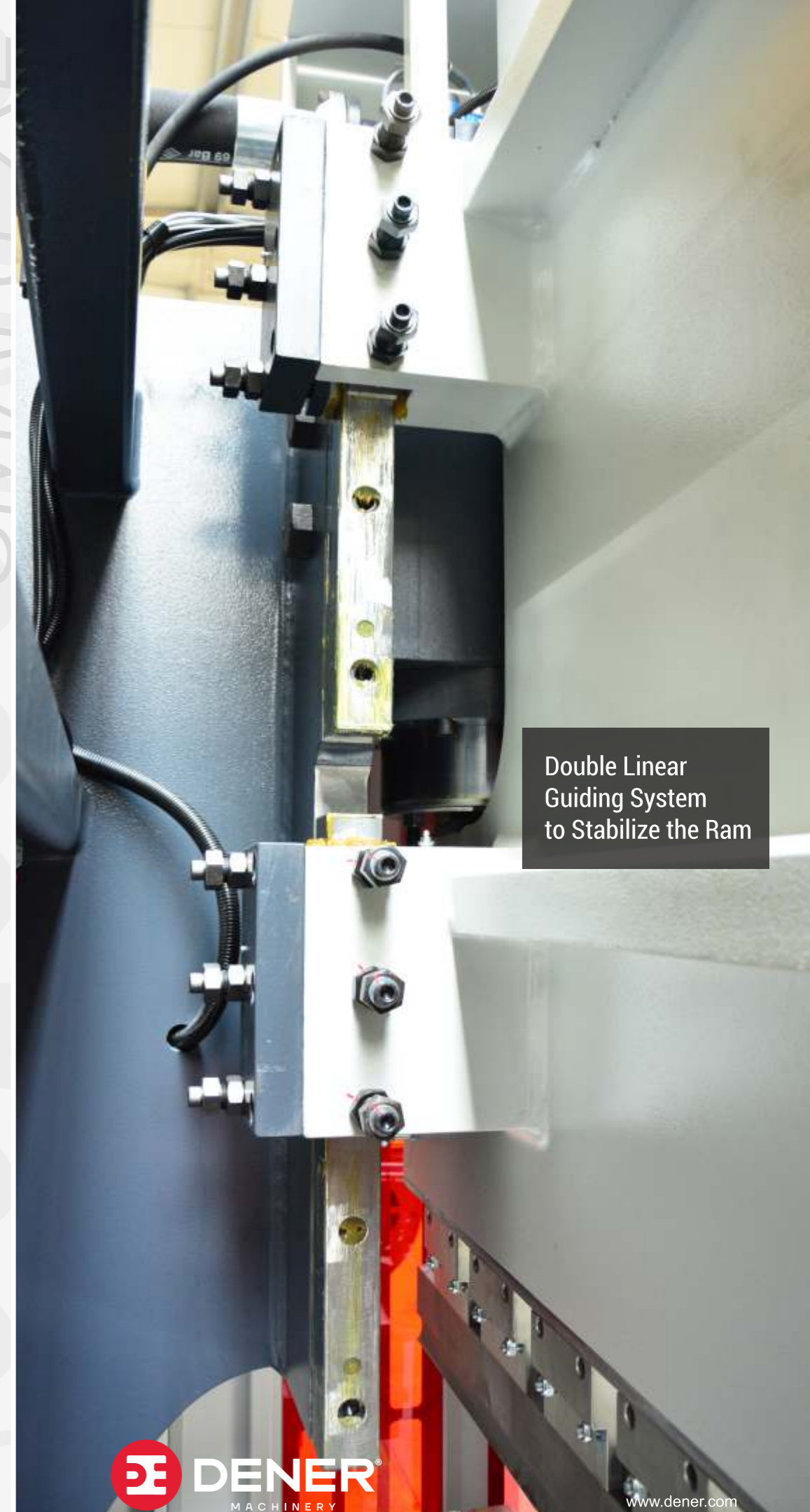
Wila NSCL-I-HC/UPB Hydraulic Punch Clamping



Wila OB-I-MC-TY/ES IV Mechanical Die Clamping



Wila NSCR-I-HC-CNC/UPB Hydraulic Die Clamping



Double Linear Guiding System to Stabilize the Ram

OPTIONAL EQUIPMENT



Hydraulic Oil Cooling System



Electrical Cabinet Cooler



CNC Controlled Sheet Follers (Puma XL only)



Additional Back Gauge Fingers for 2-3-4-5-6 Axis Back Gauge



Special Project