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# CNC HYDRAULIC PRESSES BRAKE



DENER MAKİNA, was established in 1974, in Kayseri / TURKEY. It has been manufacturing sheet metal working machines like Fiber Laser Cutting, Servo Electric Press Brake, Ball Screw Press Brake, Hydraulic Press Brakes, Hybrid Press Brake, NC - CNC Hydraulic Shears and Plasma Cutting machines.

Dener Makina's production facilities are located in the industrial and Freezone Area in Kayseri. Since it's beginning, Dener has the philosophy of production with the best quality and latest technology. It crowns this with the ISO 9001 Quality Management System and following European Safety Standards. Dener Makina is a leading Turkish Brand in Sheet Metal Working Machinery. It has qualified workmanship and a complete machinery manufacturing facility in it's 30.000 m2 closed area. Today, Dener machines are working all around the world.



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\* 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



Manual Crowning



Front Support Arms



ESA S 675 W Control Unit

PUMA XL  
PUMA XL  
PUMA XL  
STANDARD EQUIPMENT  
PUMA XL  
PUMA XL



European Type Sectioned Punch  
European Type Sectioned V Die



## CONTROLLERS

STANDARD

### ESA S 675 W CONTROLLER

- 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

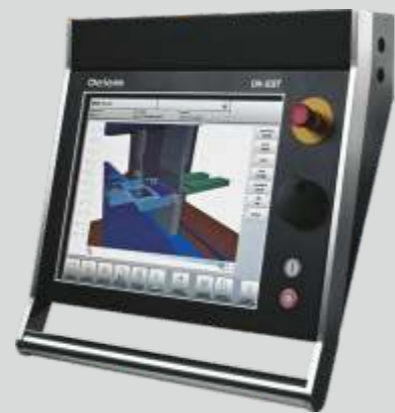
- 2D graphical touch screen programming mode
- 3D visualisation in simulation and production
- 17" high resolution colour TFT
- Full Windows application suite
- Delem modusys compatibility
- USB, peripheral interfacing
- User specific application support with in the controllers
- Multitasking environment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



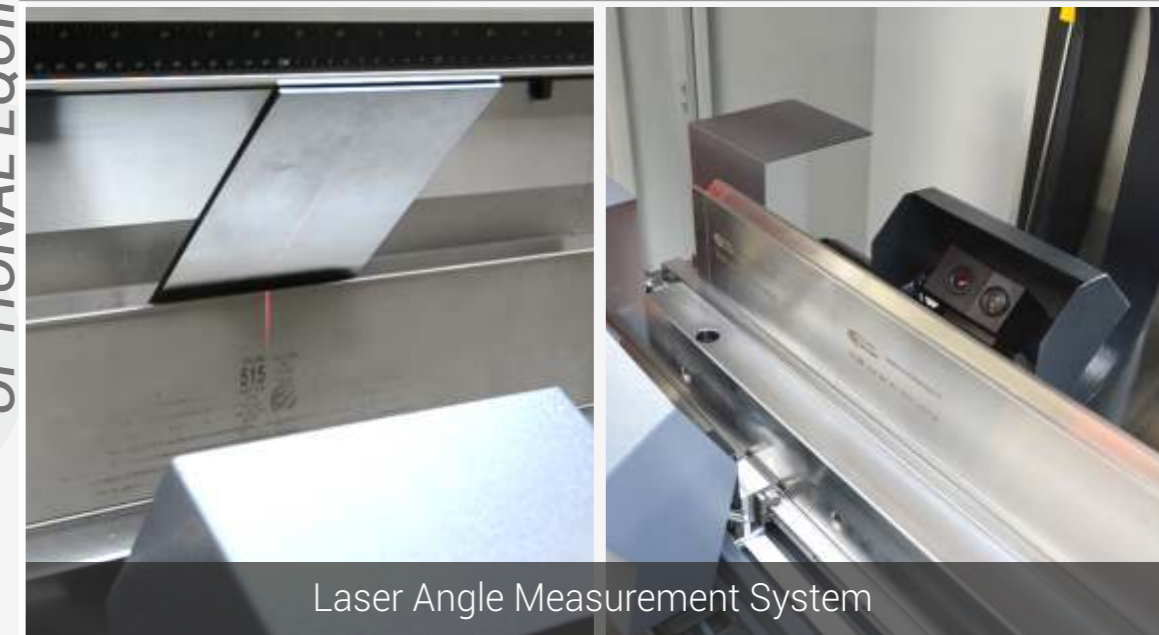
OPTIONAL

### 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

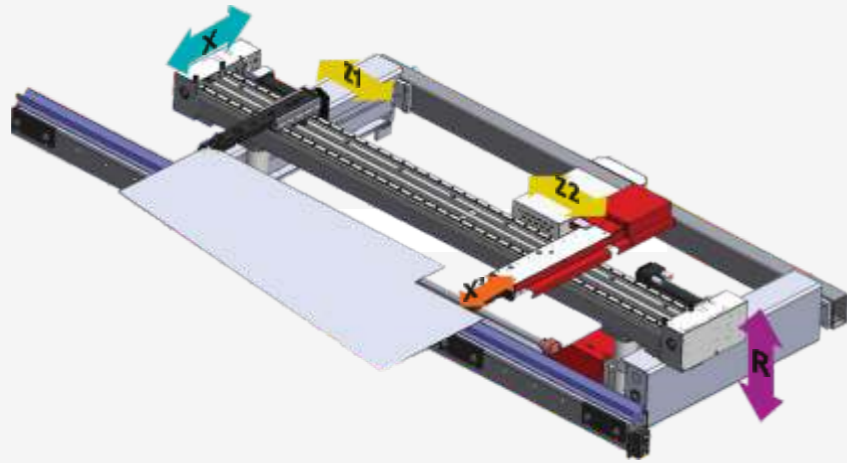


- Motorized Crowning
- Hydro Mechanical Crowning



Laser Angle Measurement System

## BACK GAUGES



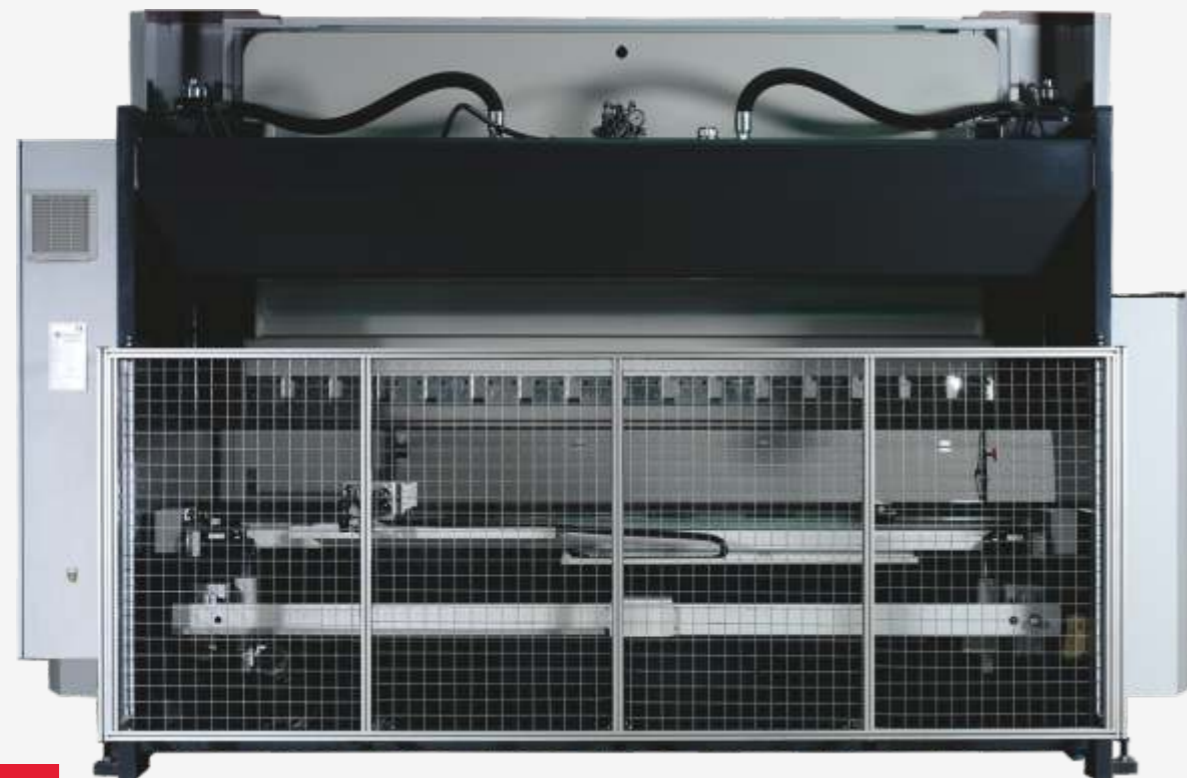
Gauging is a main concern for press brake operators. Whether you require complex part multi station bending or single bending or production of taper bends Puma XL offers solution with 6 different back gauge options to its customer. Depending on the geometry of the parts and their complexity, all back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

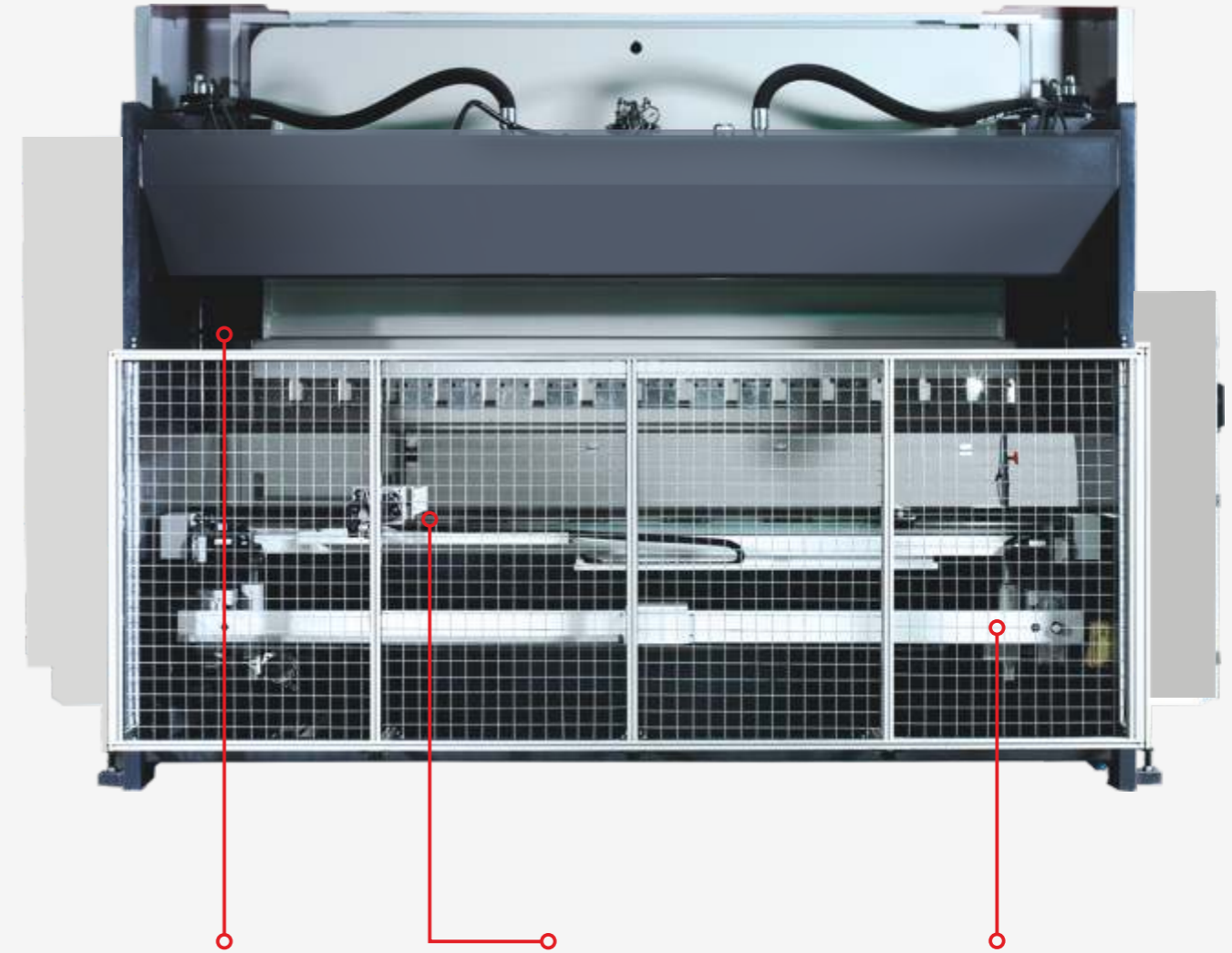


Bar Type - X1, X2, R1, R2, Z1, Z2



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



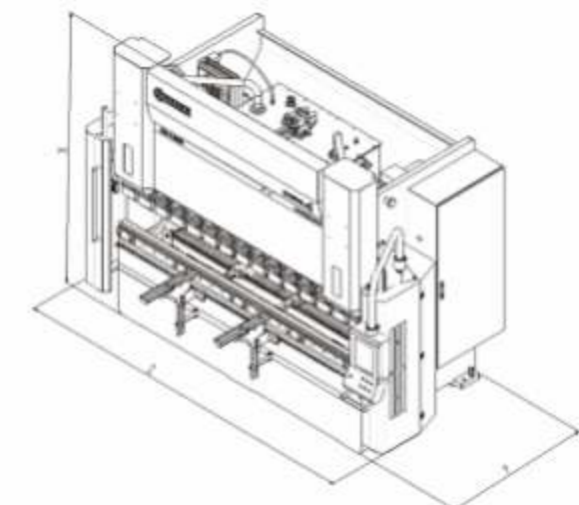
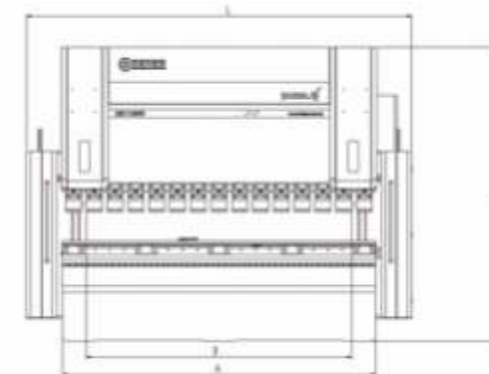
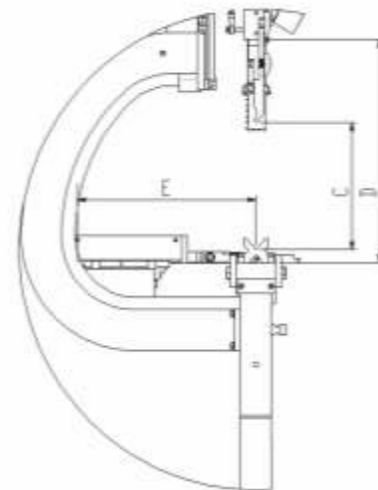
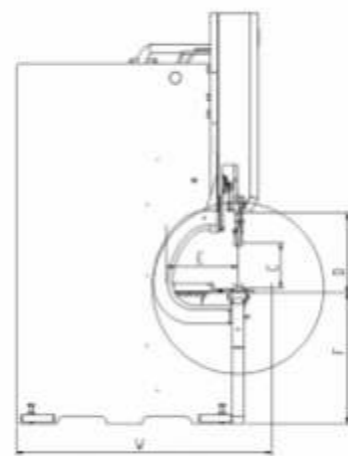
Double Linear Guided Stronger Back Gauges



Linear Guided Stronger Back Gauge X Movement

PUMA XL	1540	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)	40	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	140	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	455	450	350	400	450
Daylight (D)	410	410	410	530	530	550	600	600	650		600	600	650	600	600	650	650	650	650	600	650	650	680
Throat Depth (E)	400	400	450	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	5100
Length (L)	2445	2845	3345	3320	3725	3745	3745	3745	3785		4290	4290	4330	4740	4740	4780	5000	5000	5000	6775	6815	6855	7100
Width (W)	2200	2200	1930	2260	2260	2250	2290	2290	2290		2290	2290	2290	2290	2290	2290	2770	2770	4050	2300	2280	2780	3275
Width Without Front Supports (Y)	1330	1335	1330	1695	1670	1710	1710	1710	1740		1710	1710	1740	1710	1710	1725	2310	2600	2130	1760	1760	2070	3190
Height (H)	2390	2390	2390	2400	2770	2825	3025	3050	3100		3025	3050	3100	3025	3050	3100	3555	3560	3755	3000	3100	3605	3755
Table Height (F)	900	900	900	900	900	900	900	920	920		920	920	920	920	920	920	1095	1095	1095	920	920	1095	1000
Pit Depth	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	850	0	0	0	1030
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	4300	4900	5500	7700	8700	9600	11600	11800	14800		12500	12700	16000	14200	14300	17500	25000	32000	45500	19000	23100	32000	51700

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.

**DENER®**

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## 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

European Type  
Sectioned Punch  
European Type  
Sectioned V Die



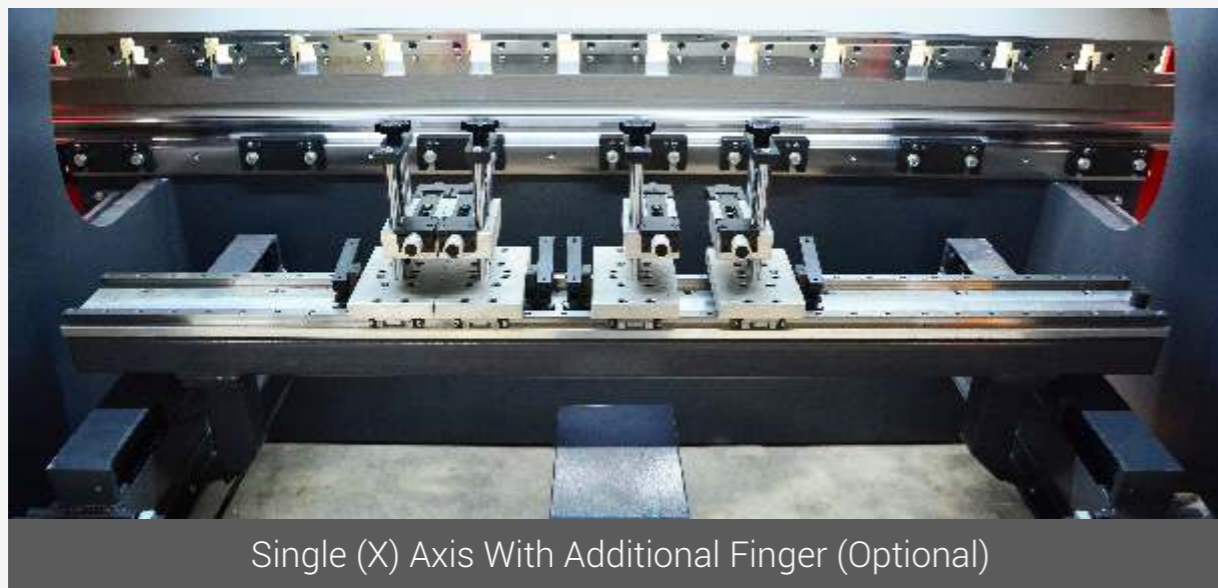
## BACK GAUGES



Single (X) Axis Back Gauge (Standard)



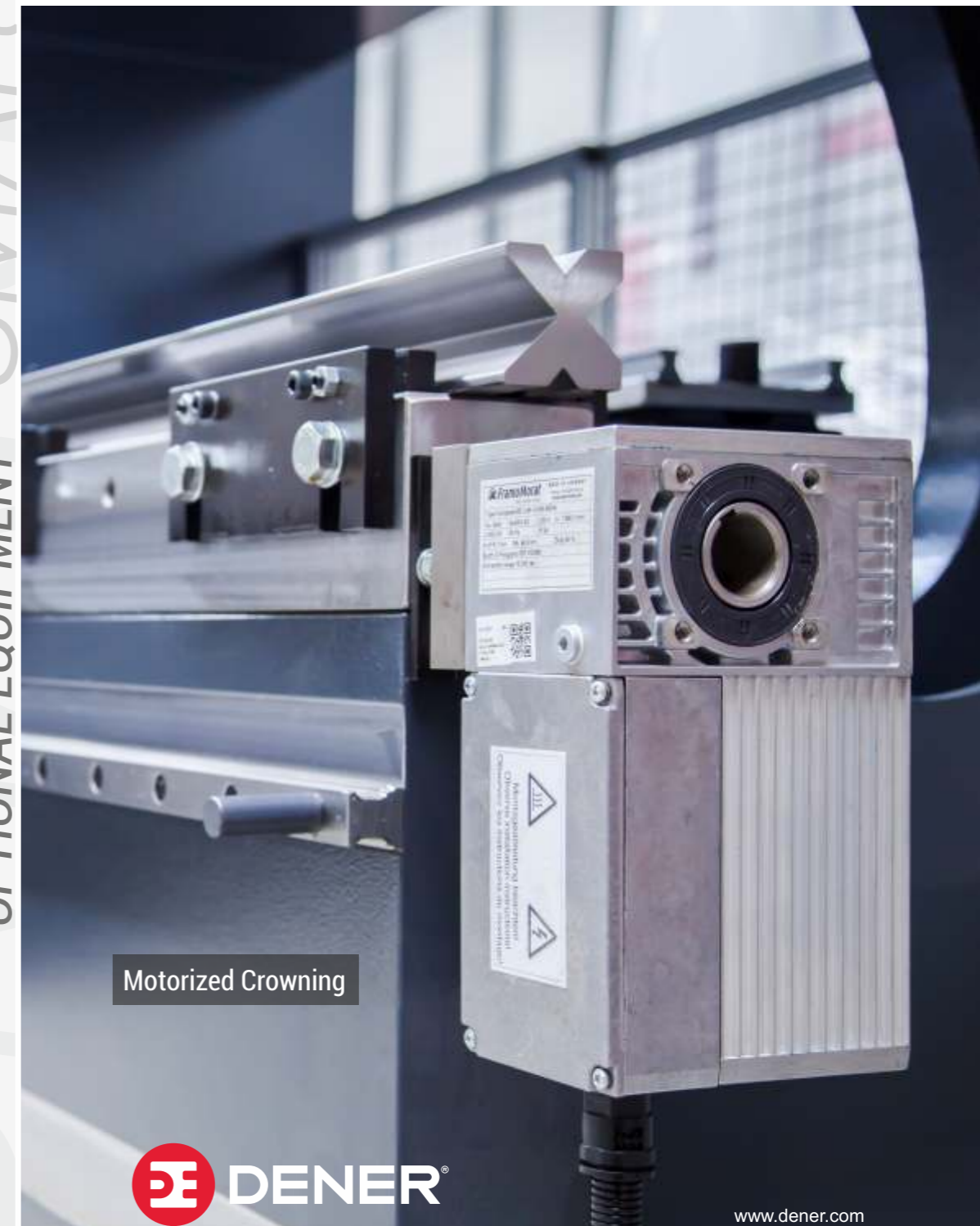
2 (X,R) Axis Back Gauge (Optional)



Single (X) Axis With Additional Finger (Optional)



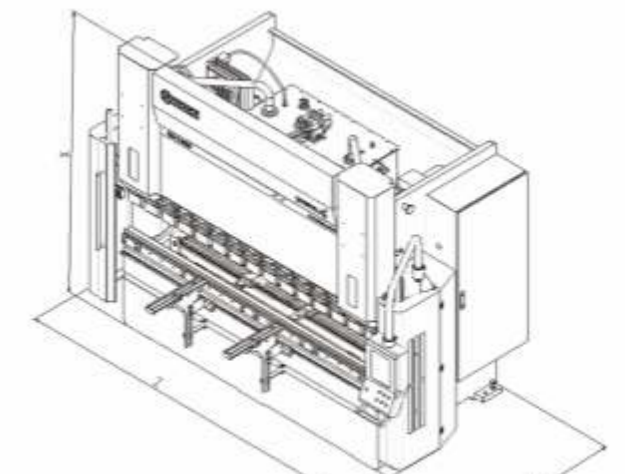
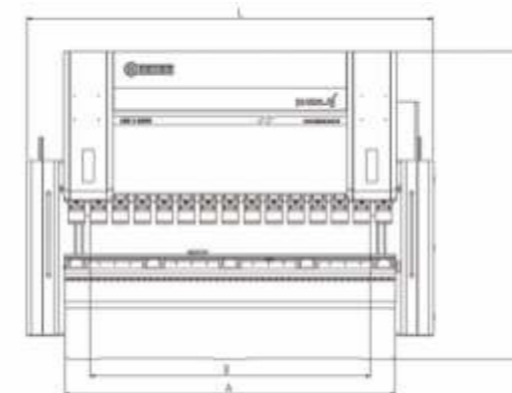
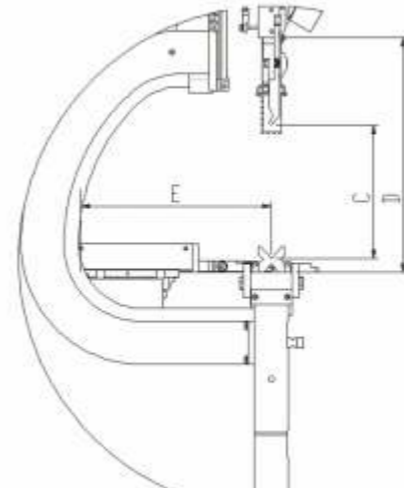
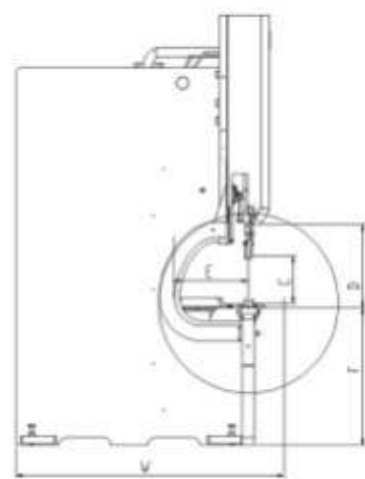
Manual Crowning



Motorized Crowning

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Bending Capacity (ton)	40	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	140	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	455	450	350	400	450
Daylight (D)	410	410	410	530	530	550	600	600	650		600	600	650	600	600	650	650	650	650	600	650	650	680
Throat Depth (E)	400	400	450	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	5100
Length (L)	2445	2845	3345	3320	3725	3745	3745	3745	3785		4290	4290	4330	4740	4740	4780	5000	5000	5000	6775	6815	6855	7100
Width (W)	2200	2200	1930	2260	2260	2250	2290	2290	2290		2290	2290	2290	2290	2290	2290	2770	2770	4050	2300	2280	2780	3275
Width Without Front Supports (Y)	1330	1335	1330	1695	1670	1710	1710	1710	1740		1710	1710	1740	1710	1710	1725	2310	2600	2130	1760	1760	2070	3190
Height (H)	2390	2390	2390	2400	2770	2825	3025	3050	3100		3025	3050	3100	3025	3050	3100	3555	3560	3755	3000	3100	3605	3755
Table Height (F)	900	900	900	900	900	900	900	920	920		920	920	920	920	920	920	1095	1095	1095	920	920	1095	1000
Pit Depth	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	850	0	0	0	1030
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	4300	4900	5500	7700	8700	9600	11600	11800	14800		12500	12700	16000	14200	14300	17500	25000	32000	45500	19000	23100	32000	51700

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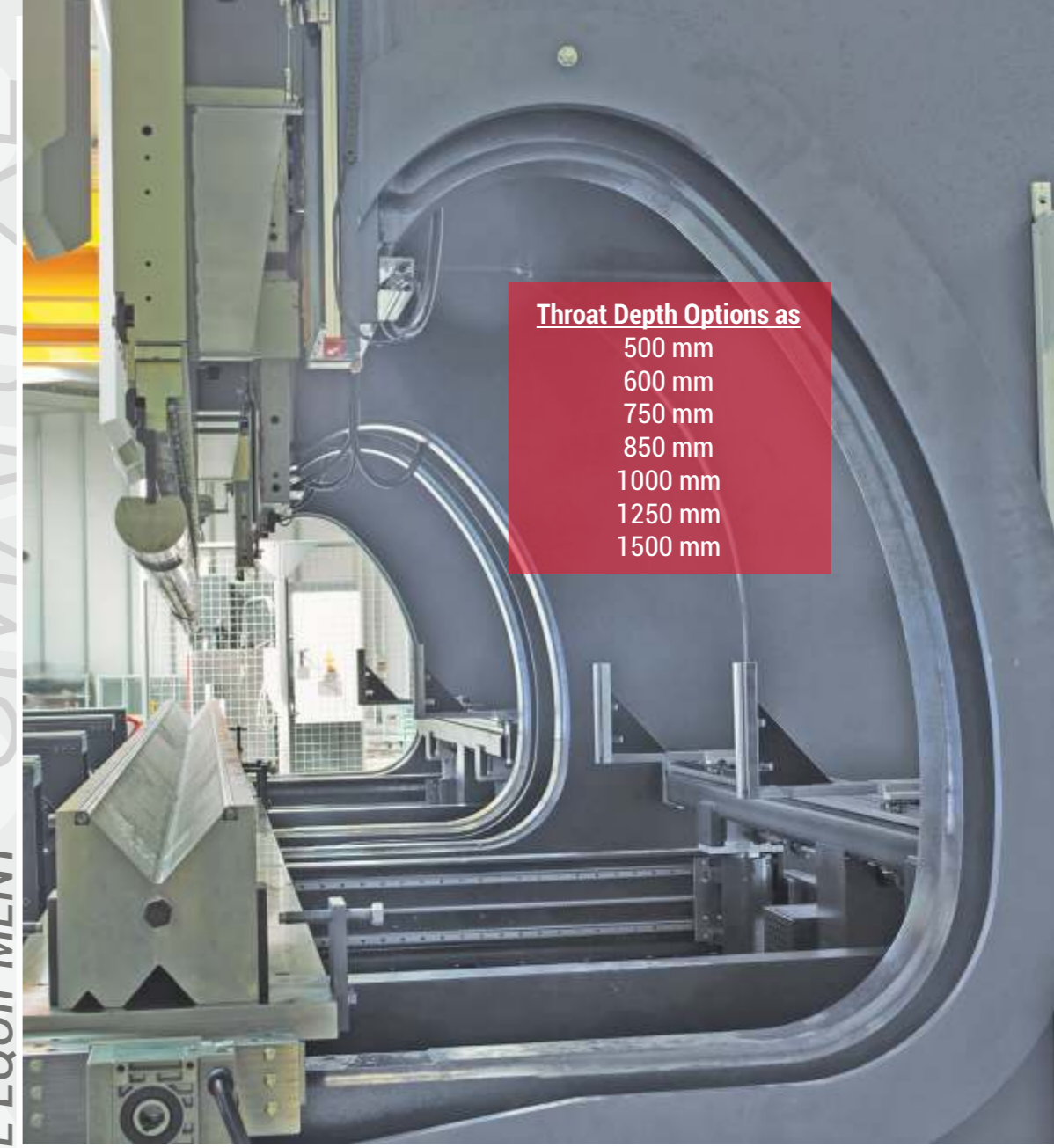
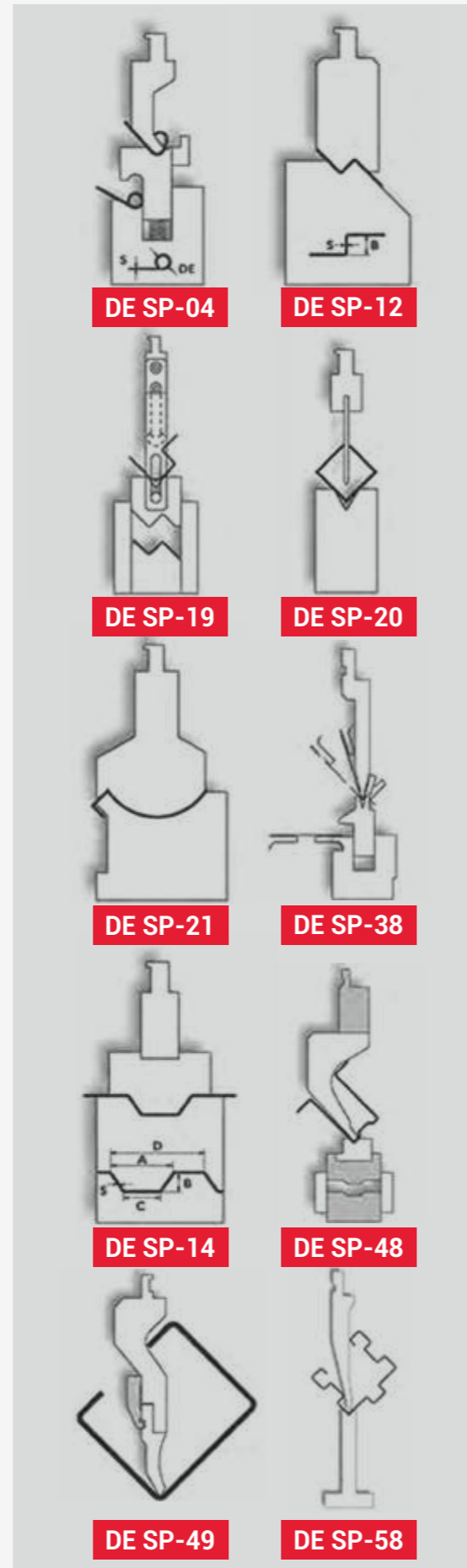
“EXCEED YOUR EXPECTATIONS”

“EXCEED YOUR  
EXPECTATIONS”



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## SPECIAL BENDING SOLUTIONS



ACCEFF SMART XL PUMAFLEX

OPTIONAL EQUIPMENT

## SAFETY



## 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 Followers (Puma XL only)



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



Special Project

PUMAS XL  
SMART XL  
ACCESSORIES





# Special Projects



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