

AD-SERVO

Hybrid Press Brakes

Series



Perfect
Precision

Profit

Energy
Efficient

Hi-Speed &
Repeatability

Elegant
Design



As a total supplier for sheet metal manufacturing with almost 70 years of experience, Durma understands and recognizes the challenges, requirements and expectations of the industry. We strive to satisfy the ever higher demands of our customers by continuously improving our products and processes while researching and implementing the latest technologies

In our three production plants with a total of 1.614.586 ft², we dedicate 1,000 employees to delivering high quality manufacturing solutions at the best performance-to-price ratio in the market.



PRODUCTION IS
MORE EFFECTIVE NOW

From the innovations developed at our Research & Development Center to the technical support given by our worldwide distributors, we all have one common mission: to be your preferred partner.

Durmazlar offers it's machines to the world markets under the Durma brand.



1

High technology,
modern production
lines



2

Top quality
components



3

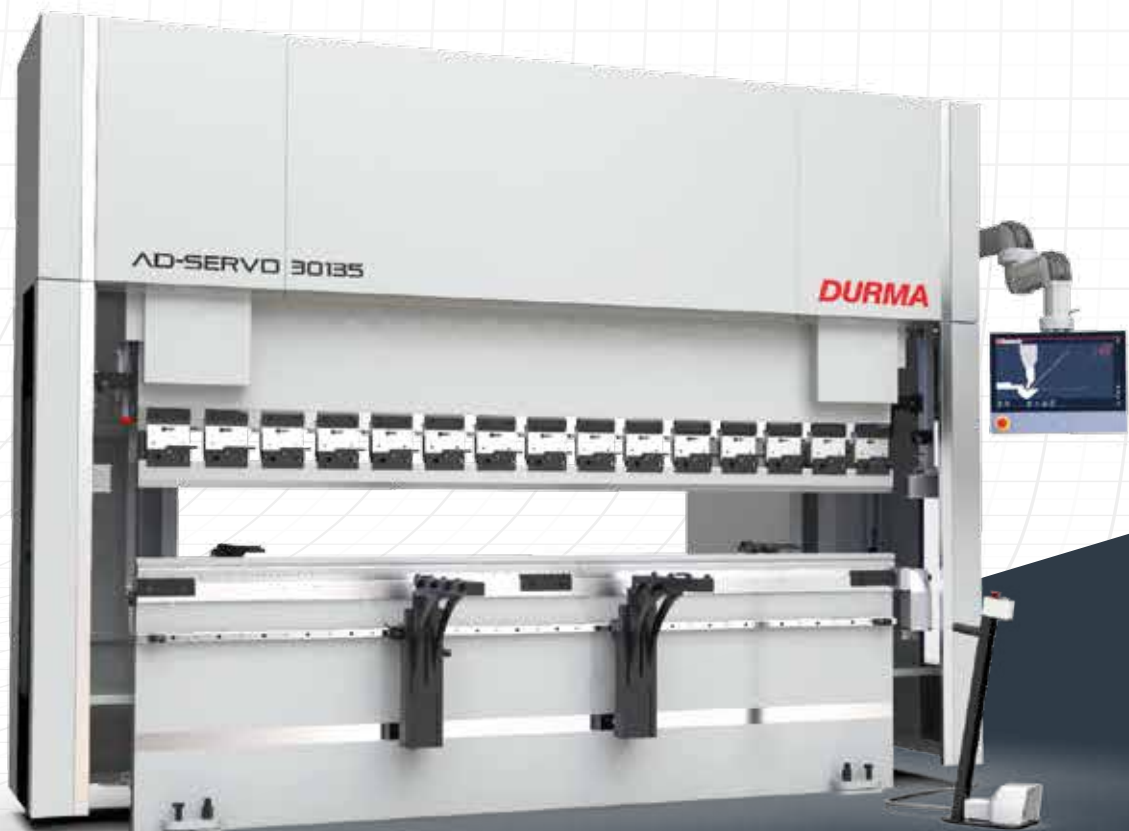
High quality
machines designed
in R&D Centre

AD Servo

AD-Servo Series Hybrid Press Brake

Now Production is More Effective

Meet your production needs cost-effectively with our low-energy consumption AD-Servo series, in response to rising energy costs. Enhance your competitiveness by offering commercial solutions in various sizes and reducing production costs.



COST DOWN PROFIT UP



- Precise bending result at fast speed
- Minimalized tool change and adjustment time
- Maximized speed and safety

Low-energy consumption hydraulics

Energy consumption has a significant effect on Total Cost of Ownership of plant and machinery: even with standard machines, the energy consumption represents 30% of total costs, and with particularly energy-intensive applications, this share is remarkably higher.



➤ High Capacity ➤ Robust Body ➤ Perfect Precision ➤ Winning ➤ Ergonomic

Advantages

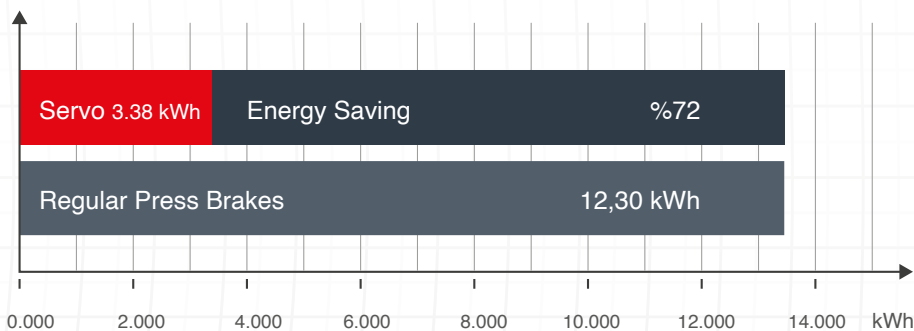
- High energy-saving potential
- Decreased operating costs
- Clearly reduced cooling effort
- Operational reliability
- High availability
- Lower investment
- System safety
- Future-oriented technology
- Remarkable noise reduction
- Fewer secondary measures
- Ease of integration of flexible check functions
- Decrease in the number of expensive machine failures
- Compliance with EU Directives



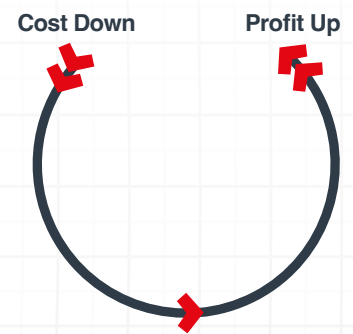
AD Servo

COMPARISON OF ENERGY CONSUMPTION OF A PRESS BRAKES

Electric Consumption



■ AD-Servo Press Brakes ■ Regular Press Brakes ■ Energy Saving



Main components

- Servomotor
- Hydromotor-pump (4-quadr. oper.)
- Servo controller IndraDrive C
- Software-Technology function Parameter
- Bell housing and coupling
- Power unit (Oil tank, accessories)
- Valve block, prefill valve
- Cylinder

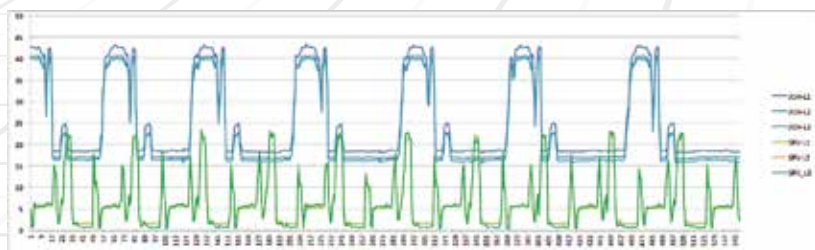
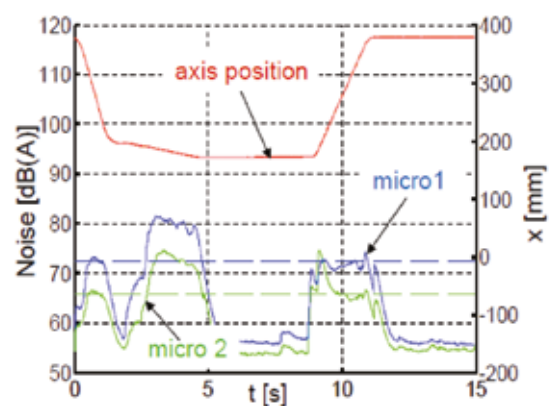
Physical characteristics

- Control of position
- Control of pressure/load pressure
- Open/closed hydraulic circuit
- 4-quadrant operation

Productivity

%60 more productivity with %72 less energy consumption at work.

Less Noise Level



Fast Increase in Efficiency in Production

AD-Servo is high modularity of hydraulics also opens up economic options on existing plant and machinery by substituting fixed displacement power units by variable-speed pump drives with little effort.

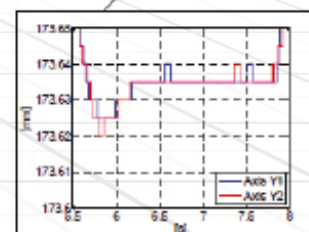
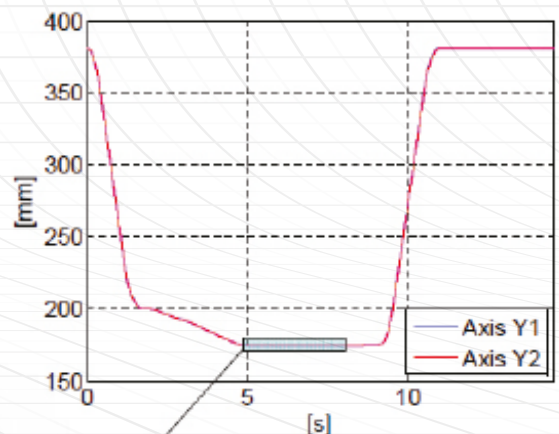


- Energy Saver
- Accurate on each cycle
- Economical
- Hi-Speed & Repeatability



Depending on cycle characteristics and rating, variable-speed pump drives achieve energy savings

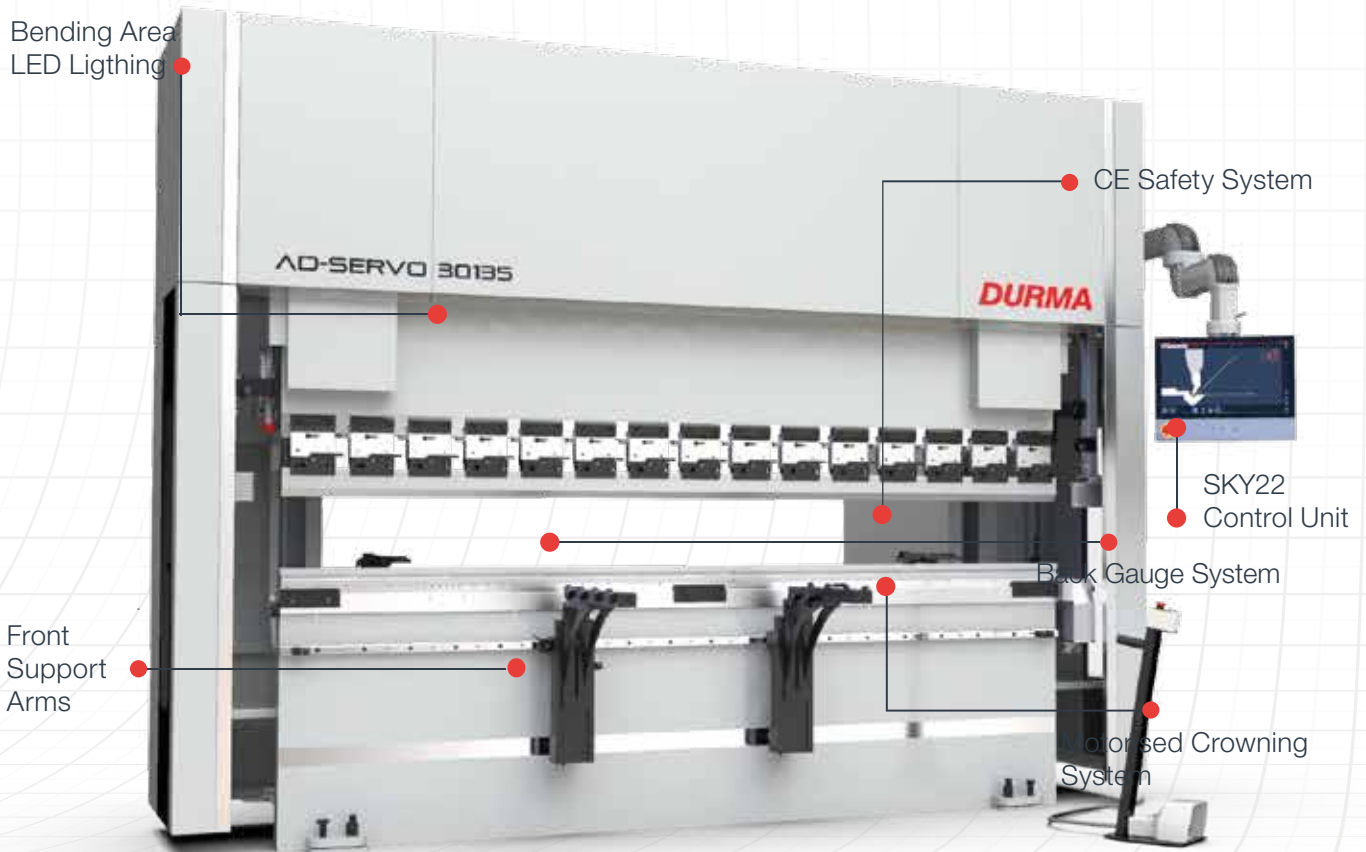
AD-Servo positioning accuracy Less Noise Level at target position



AD Servo

FAST, EFFICIENT, MODERN

AD-Servo Series press brakes, designed with high technology to increase efficiency on precise part bending. Quality approved components used. Stress relieved made on bodies for long life and precise bending.



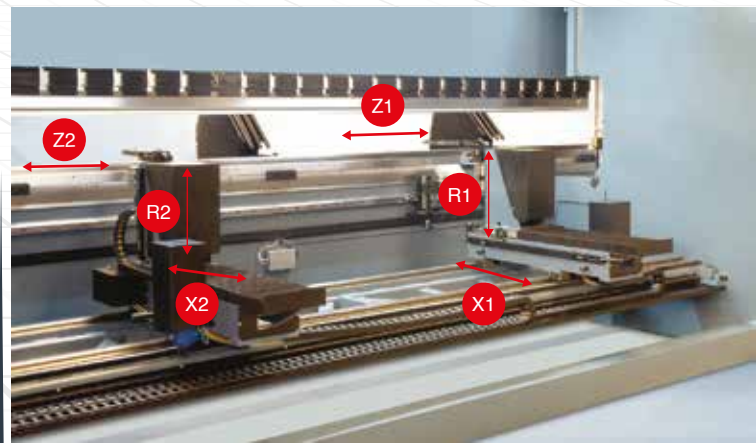
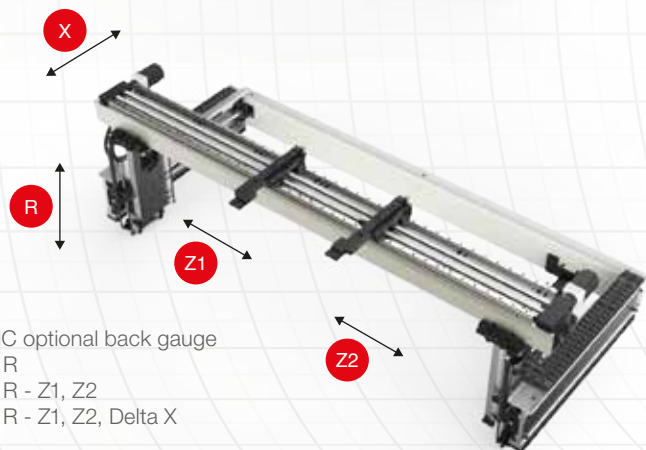
General Specifications

- High sensitivity, Stress relieved steel construction body, long life Mono Block Frame
- Automatic calibration and first start up
- DURMA designed and copyrighted guiding system
- Ball Screw and linear guide integrated perfect back gauge system
- Durable, long life and sensitive bending capable special hardened top tools
- Suitable for segmented tools special and fast tool holding system
- Sensitive solutions on Long and deep bending
- High accuracy linear scales
- CE safety standards
- Best quality world wide accepted hydraulic and electric components

STRONG BACK GAUGE SYSTEM

- Precise
- Reliable
- Strong

- Fast and high accuracy
- Safe movement
- Durable linear motion components
- Maintenance free
- Adjustment availability at every point



CNC optional back gauge
X1 - X2, R1 - R2, Z1 - Z2

Why DURMA Back Gauge ?

The most important feature to achieve perfect bending is the stability and the design of the back gauge, which allows an impeccable and correct product to be produced.

The high speed **double ballscrew** back gauge system movement is also supported with **double linear guides**, which helps the back gauge achieve long life, greater sensitivity and strengthens against any collisions.

Special designed finger blocks with steps to achieve maximum stability can also be supplied for every kind of bending solution.

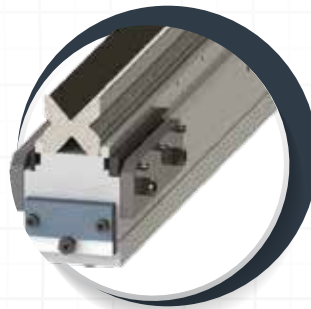
TOOL HOLDERS AND TOOLS

Bending performance increased using with high quality European clamping system and easy to use. Narrow table designed for European style tool holder and Z bending.

DURMA is your solution partner with various tool options.



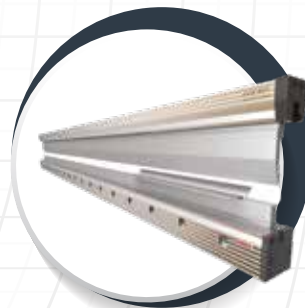
European
Clamping System



European Type
Bottom Tool (4V Die)



Quick
Release Clamping



DURMA Hydraulic
Holder



DURMA Top
Tool Holder

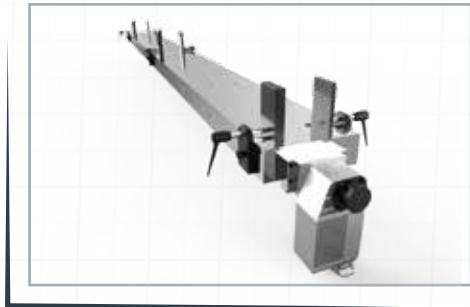


DURMA Multi
V Bottom Tool

SAFE AND ACCURATE BENDS WITH TOP QUALITY EQUIPMENTS

■ Crowning System

Manual or CNC-controlled motorized crowning system simplifies bending, by adjusting each point of the bending parts to acquire straight bends. The need for shimming is eliminated.



CNC Crowning System

■ Linear Guide Front Sheet Supports

Rugged support arms with tilting stops are mounted on a linear guide rail system. This allows “finger-tip” lateral adjustment as required by the bend length of the part. They are also equipped with side gauges for the fast, easy, and accurate feeding of parts small or large.



Linear Guide Front Sheet Supports

■ CE Safety Systems

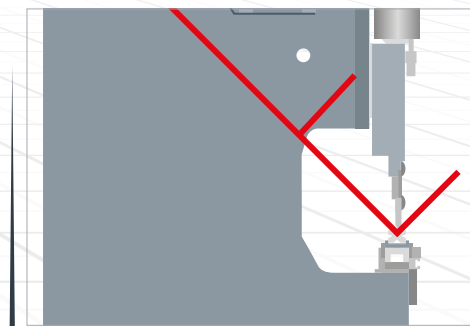
Our machines are designed in accordance with CE-Norms to ensure your safety with hydraulic, electric, appropriate height covers and laser light curtains. CE safety in tandem machines are also provided with light barriers.



CE Laser Safety System

■ Stable Top Beam Movement

By using long and planar guiding surfaces, all the disadvantages of point guiding are eliminated 100% free bending space: guiding system that eliminates bending between frame has been moved to the outside of the frame.



90 Degree Endless Bend

NOW BENDING IS MORE EASIER

■ SKY 22 (Standard)



- 21.5 " TFT color touch screen with USB port and backup
- Automatic bending sequence
- Perfect control of electrical servo systems
- Archiving user bendings
- 2D/3D color graphics display and multi-simulation
- Windows 10 operating system
- D-Bend offline software
- Tandem applications
- Network interface
- X1-X2-R1-R2-Z1-Z2 and AP3-AP4 part support system
- DURMA laser angle measurement system compatible
- 2D / 3D part & tool import
- Robot integration compatible

■ DA-69S (Optional)



- 24" TFT screen, 1920 x3080 pixels, 32 bit colour,
- Real-time Linux embedded OS
- Full touch screen control
- Storage capacity 2 GB
- Network connectivity
- Delem modusys compatible
- Tandem operation
- 2D/3D real-scale product programming and visualisation
- Automatic bending calculation 2D/ 3D
- DXF part & tool import support

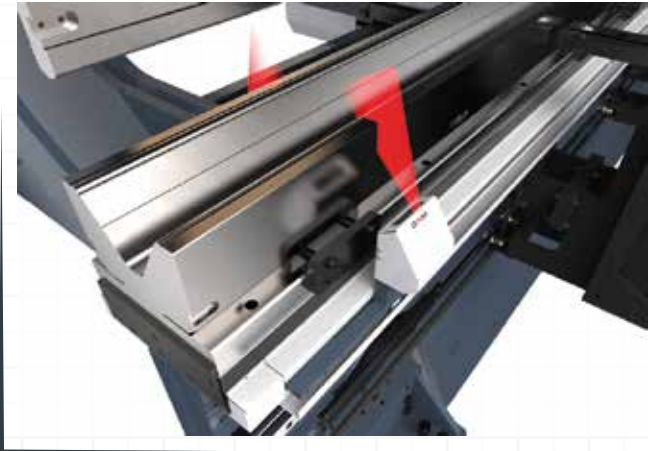
■ DA-66S (Option)



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

Production is *More Effective Now.*

■ **System of DURMA Angle Measurement**



■ **Automatic AP3 - AP4 Sheet Follower**



■ **Robotic System of Applications**

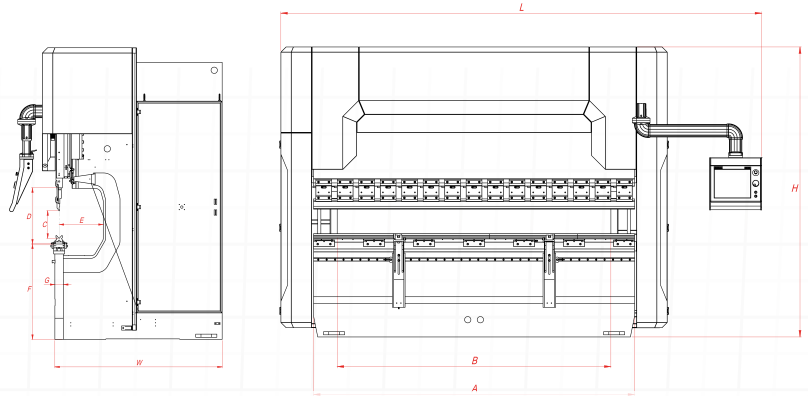


AD-SERVO SERIES TECHNICAL DETAILS

AD-SERVO Series	Bending Force	Bending Length	Distance Between Columns	Stroke	Daylight	Throat Depth	Table Height	Table Width (Narrow / Wide)	Y Rapid Speed	Y Working Speed	Y Return Speed	Y Axes Precision	X Axes Working Speed	X Axes Precision
	ustons	ft	ft	inch	ft	ft	ft	ft	inch/sec	inch/sec	inch/sec	inch	ft/sec	inch
		A	B	C	D	E	F	G						
AD-Servo 30135	149	10'	8' 6.3"	8,2"	1' 8.8"	1'5,7"	2'11,4"	4,1"	7,9	0,4	7,9	0,0004	1' 7,7"	0,002
AD-Servo 30175	193	10'	8' 6.3"	8,2"	1' 8.8"	1'5,7"	2'11,4"	4,1"/7,1"	7,9	0,4	7,9	0,0004	1' 7,7"	0,002
AD-Servo 30220	242	10'	8' 6.3"	8,2"	1' 8.8"	1'5,7"	2'11,4"	4,1"/7,1"	7,9	0,47	7,1	0,0004	1' 7,7"	0,002
AD-Servo 30320	352	10'	8' 6.3"	1'1,8"	2' 0.8"	1'5,7"	2'11,4"	4,1"/7,1"	6,3	0,4	6,3	0,0004	1' 7,7"	0,002
AD-Servo 40220	242	13' 3,4"	11' 9.7"	8,2"	1' 8.8"	1'5,7"	2'11,4"	4,1"/7,1"	7,9	0,47	7,1	0,0004	1' 7,7"	0,002
AD-Servo 40320	352	13' 3,4"	11' 9.7"	1'1,8"	2' 0.8"	1'5,7"	2'11,4"	6,1"/11,8"	6,3	0,4	6,3	0,0004	1' 7,7"	0,002
AD-Servo 40400	440	13' 3,4"	11' 1.8"	1'1,8"	2' 0.8"	1'8"	3'5,3"	6,1"/11,8"	5,9	0,35	5,9	0,0004	1' 7,7"	0,002
AD-Servo 40600	660	13' 3,4"	11' 1.8"	1'1,8"	2' 3.5"	1'8"	3'2,9"	6,1"/11,8"	3,1	0,26	3,1	0,0004	1' 7,7"	0,002
AD-Servo 60320	352	19' 10,3"	16' 8.9"	1'1,8"	2' 0.8"	1'5,7"	3'7,3"	6,1"/11,8"	6,3	0,4	6,3	0,0004	1' 7,7"	0,002
AD-Servo 60400	440	19' 10,3"	16' 8.9"	1'1,8"	2' 0.8"	1'8"	3'7,3"	6,1"/11,8"	5,9	0,35	5,9	0,0004	1' 7,7"	0,002
AD-Servo 60600	660	19' 10,3"	16' 8.9"	1'1,8"	2' 3.5"	1'8"	3'2,9"	6,1"/11,8"	3,1	0,26	3,1	0,0004	1' 7,7"	0,002

Machines are adjusted to optimum values.

Production is *More Effective Now.*



X Axes Dimensions			R Axes Working Speed	R Axes Working Distance	R Axes Precision	Z Axes Working Speed	Z Axes Working Distance	Motor Power	Consumption Ratio	Oil Tank Capacity	Length	Width	Height	Weight Approx.
2' 1,4"	2' 5,5"	3' 3,4"												
ft	ft	ft	inch/sec	inch	inch	inch/sec	ft	hp	kw/h	gal	ft	ft	ft	lbs
S	-	O	13,8	10	0,004	40	6' 6,3"	5,4 x 2	3,6	19,8	13' 9,4"	5' 6,1"	9' 4,2"	21124
S	-	O	13,8	10	0,004	40	6' 6,3"	5,4 x 2	4,5	19,8	13' 11,3"	5' 6,9"	9' 4,2"	24035
S	-	O	13,8	10	0,004	40	6' 6,3"	14,7 x 2	7,0	21,1 x 2	13' 11,3"	5' 9,7"	9' 11,1"	27783
S	-	O	13,8	10	0,004	40	6' 6,3"	14,7 x 2	9,7	21,1 x 2	14' 1,3"	5' 11,6"	10' 11,1"	37706
S	-	O	13,8	10	0,004	40	9' 6,6"	14,7 x 2	7,0	21,1 x 2	17' 2,7"	5' 6,9"	9' 4,2"	32524
S	-	O	13,8	10	0,004	40	9' 6,6"	14,7 x 2	9,7	21,1 x 2	17' 4,7"	6' 3,2"	10' 11,1"	44100
-	S	O	13,8	10	0,004	40	9' 6,6"	14,7 x 2	9,7	21,1 x 2	18' 10,4"	6' 11,1"	11' 3,8"	61255
-	S	O	11,8	10	0,004	40	9' 6,6"	14,7 x 2	15,8	37 x 2	18' 10,4"	8' 2,4"	13' 1,5"	89303
-	S	O	13,8	10	0,004	40	14' 5,2"	14,7 x 2	9,7	21,1 x 2	24' 7,3"	6' 3,2"	10' 11,9"	63945
-	S	O	13,8	10	0,004	40	14' 5,2"	14,7 x 2	9,7	21,1 x 2	24' 7,3"	6' 11,1"	12' 6"	76293
-	S	O	11,8	10	0,004	40	14' 5,2"	14,7 x 2	15,8	37 x 2	24' 11,2"	8' 8,3"	12' 11,5"	115763

PRODUCTION IS MORE EFFECTIVE NOW





STANDARD & OPTIONAL EQUIPMENT

Standard Equipment

Control Unit - SKY 22
Y1, Y2, X, R - 4- Axis
F. AKAS LC 5 Front safety system
CE F.AKAS BVLTLight barrier and safety cages (for tandem Press Brakes)
Servo motor back gauge & linear guided & ballscrew system (X-R)
CNC controlled motorized Crowning
European style tool clamping system
Sliding front arms (With T-Slot and stopper)
World standards special design hydraulic block and valves
World standard electric equipment
Manual crowning system

Optional Equipment

Control Unit - DA 66S - 69S
Motorized F. AKAS - 3P FPSC (Safety PLC)
Delta X Axis \pm 125 stroke
X Axis = 40" – light barrier back protection
AP3-AP4 Automatic system of sheet follower – Motorized elevation adjustment
(There is a motorized elevation adjustment of 220 tons or more.)
Durma laser angle measurement
DBEND 3D bending simulation program
Quick release clamping system
Hydraulic and pneumatic tool clamping systems
Parking area
Central lubrication system manual / automatic
Oil cooler / Oil heater
Additional back gauge finger and sliding front support arms
Special packing for overseas shipments
Motorized X, R, Z1, Z2 axis back gauge
Motorized X1, X2, R1, R2, Z1, Z2 axis back gauge
Motorized crowning system
Motorized F.AKAS-3P FPSC front safety system
CE F.AKAS BVLTLight curtains and safety cages
(for tandem press brakes)

Production is *More Effective Now.*

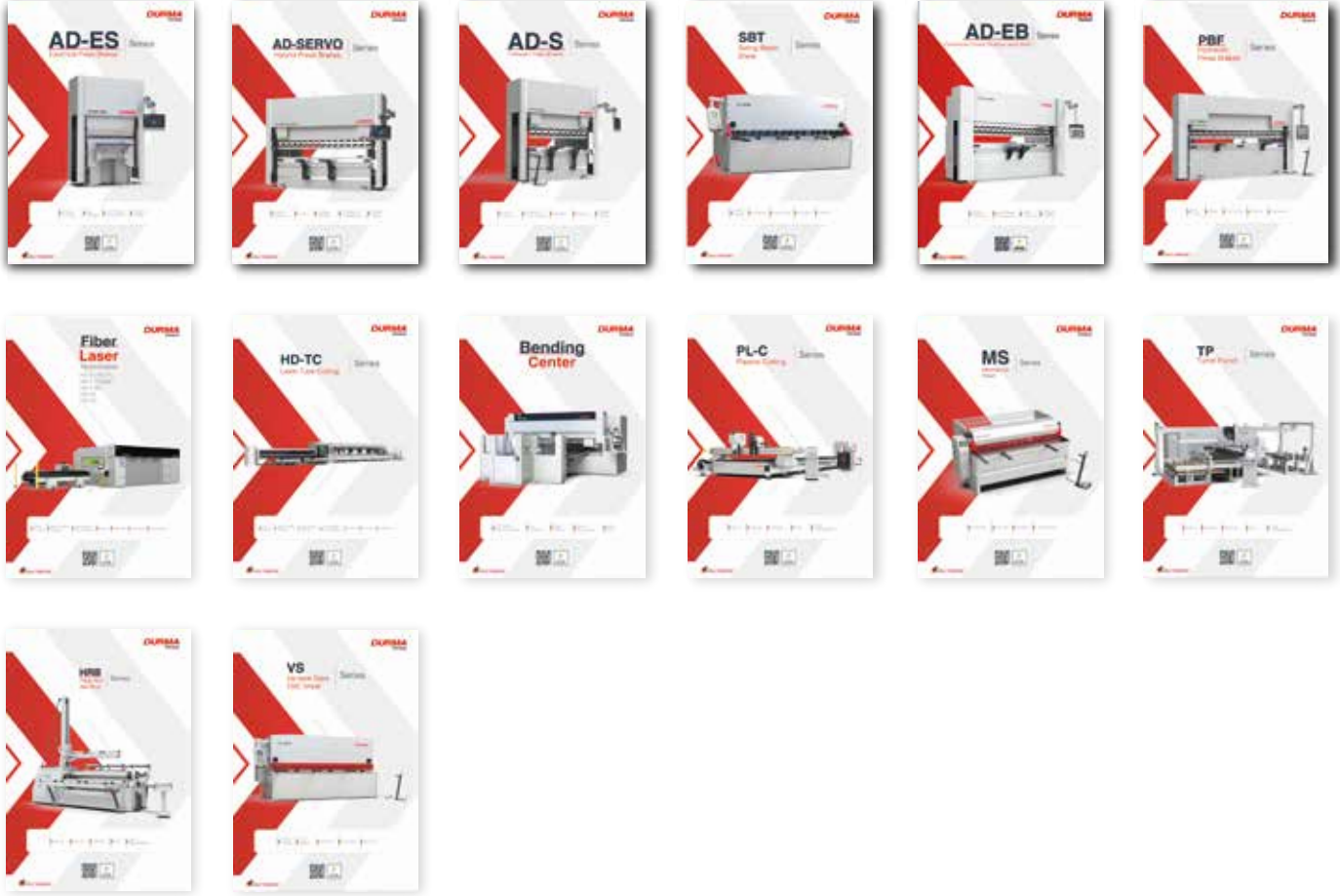
FAST ON SERVICE AND SPARE PARTS

DURMA provides the best level of service and spare parts with qualified personnel and spare parts in stock. Our experienced and professional service personnel are always ready at your service. Our professional training and application enriched courses will give you an advantage to use our machinery.








Product Groups

DURMA



Durmazlar Makina San. Tic. A.Ş. has right to change catalogue values and machine technical details without notice.

-  Durma International
-  durmainternational
-  durmaint
-  durmamachines
-  Durmazlar



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