

The Winning Force

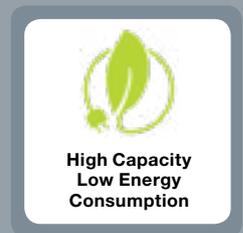
DURMA

AD-ES SERIES

Electrical Press Brake



- Perfect Precision
- High Capacity
- Low Energy Consumption
- Elegant Design



DURMA The Winning Force



As a total supplier for sheet metal manufacturing with almost 60 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 150.000 m², we dedicate 1,000 employees to delivering high quality manufacturing solutions at the best performance-to-price ratio in the market.

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.

Present Durmazlar machines with **DURMA** name to the world.



1
High technology,
modern production
lines

2
Top quality
components

3
High quality
machines designed
in R&D Centre

AD-ES Series Electrical Press

Environment Friendly

DURMA AD-ES CNC PRESS BRAKE serial can provide the production starting from 1250 mm table width to 2500 table width. It is also possible to apply different sizes in line with customer demands. Welding is performed on the machine body and upper table and all waste is prevented by stress relieving and appropriate processing technologies. The double pulley-belt system, precision ball screw, and nut connection, high torque-resistant bearing cylinder provide high precision bending results.



Environment Friendly Low Cost High Gain

Precise bending results

Minimum tool change and adjustment time

Maximum speed and safety



High Capacity

Robust Body

Perfect Precision

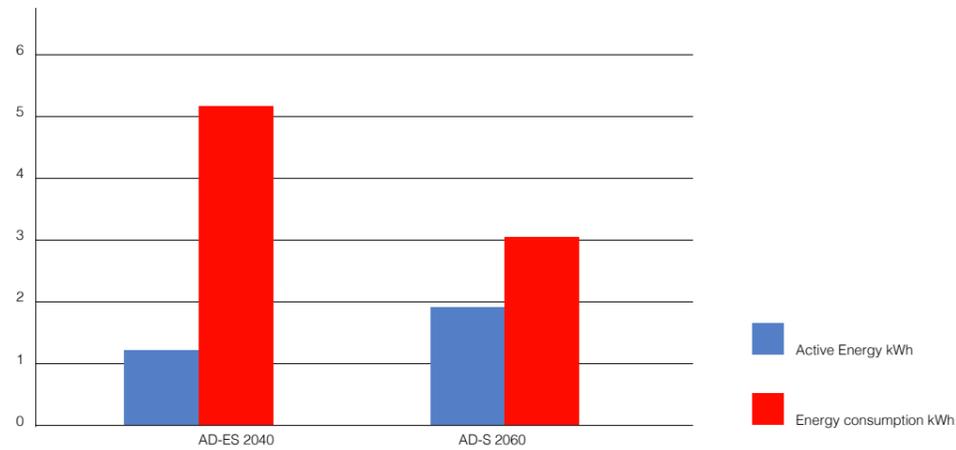
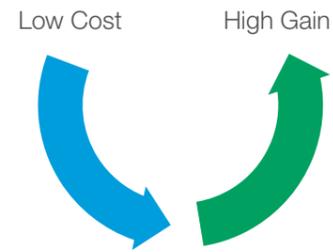
Winning

Ergonomic

Advantages

- High Energy Saving
- Decrease in operating costs
- Easy Cooling
- Operational reliability
- High availability
- Low investment cost
- System reliability
- Compliance with current technology
- Significant decrease in noise level
- Less measurement needing
- Ease of integration of control functions
- Low maintenance cost
- Compliance with European Union standards

Energy Consumption Comparisons of Press Brakes



Main Components

Servo-motor
Aluminum Pulley
Trigger Belt
Ball screw and nut
Mechanical Roller Bearing
Software

Physical Features

Position Control
Press/Load Press Control

Efficiency

40% Less energy consumption
17% more productivity

Technical Data	AD-ES 2040	AD-S 2060
Motor Power	7.2 kW	7.5 kW
Power Consumption	3.1 kWh	5.2 kWh
Oil Capacity	-	100 lt
Approach Speed	180	200
Bending Speed	10	10
Rotation Speed	180	110

High Increase in Production Efficiency

Our AD-ES series solutions provide high energy savings to our business with speed, efficiency, quality and low power consumption.



Energy saving

Same consistency in each cycle

Economic

Repeatability at high speed



Fast, Efficient, Modern



General Specifications

- Precision belt-pulley system
- Upper table suitable for EURO / Wila type tools.
- Robust body structure with long life and high performance
- Electric Panels creating a safer working environment
- Servo motors providing high speed and high precision
- Ball screw and nut connection providing excellent power and motion transmission
- Back support system with Japanese Yaskawa motor and rigid aluminum body
- AP1-AP2 system with high mobility and aluminum miter
- CE Norm Safety Standards

Strong Back Gauge System

- Precise
- Reliable
- Strong

- Fast and high accuracy
- Safe movement
- Long-life linear motion elements
- No maintenance required
- Simple to use, easy to maintain



X 650 X R (AL) Back Gauge



X 650 X R Z1 Z2 (AL) Back Gauge

Why DURMA Back Gauge?

The most important factor that affects bending quality is the stability and the design of the back gauge.

Perfect bending, perfect product is possible with a stable and precise back gauge. High speed back gauge system moving with ballscrew is also supported with linear guides. Thus, long life, precision and strength against collisions are provided.

Back gauge finger is designed to achieve all types of bendings in the maximum stability.

- AD-ES back gauge systems are long-life, precise and strength against collisions.
- High speed back gauge system moving with ballscrew is also supported with linear guides.

Tool Holders and Tools

The bending performance of the machine is increased by using High Quality European type clamping system and ease of use is provided. The lower body is designed as narrow for Z type bending and designed in accordance with European type tool holding system.

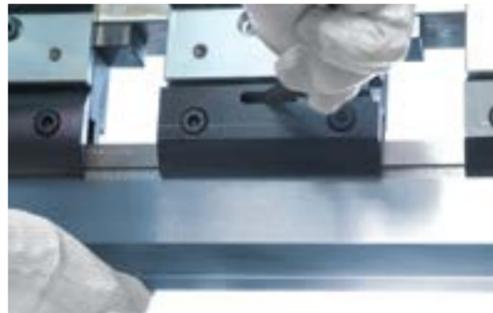
DURMA is your solution partner with various tool options.



European Type Standard Clamping System



European Type Tool and Holder (4V Bottom Tool)



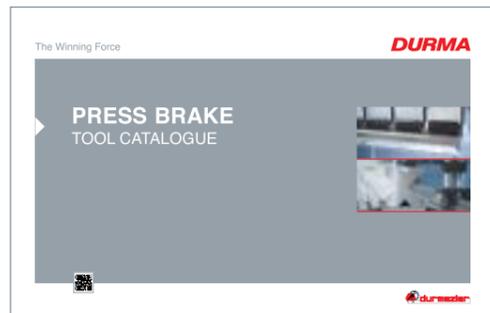
Quick Clamping System



Wila Bottom Tool Holder



Wila Top Tool Holder



Safe and Accurate Bends with Top Quality Equipments

Crowning System

CNC controlled, motorized crowning system provides perfect result in each point of bending. Your bending differences arising from the material or other factors are calculated by motorized CNC crowning system and the perfect result is achieved.



CNC Crowning System

CE Safety Systems

Our machines are designed in accordance with European CE standards and directives in order to ensure your safety with hydraulic, electric, appropriate height covers and laser light curtains. CE safety in tandem machines are provided with light barriers.



CE Laser Safety Systems

Aluminum Sheet Support System

Strong front arm can be moved to the right and left and fixed at the desired position with linear slide and roller system. With aluminum miter and bar support, the sheet material can be easily moved to the machine.



Front Sheet Support System with Linear Slide, Aluminum Miter

Now Bending is More Easy

On the control unit's powerful simulation screen, the bending position can be monitored instantaneously and the bending parameters can be interfered. The blanking of the parts to be bent in CNC, back gauge positions, bending order, the compatibility of the bending parts with the stroke and the dies required for bending angles are automatically performed by the control unit on condition that the material information is defined. There is also the possibility to monitor the bends in three dimensions according to the type of the control unit and whether there is any collision during the bending or not.

ModEva 15T



- 15 "Color touch screen
- Profile drawing with touch finger
- Automatic bending list
- Easy and fast data transfer
- High efficiency
- Multiple simulation capability
- Simulation criterion for better sheet metal management
- Multi-tasking and file management with Windows XPe
- Ethernet for easy communication Offline software

Delem-66T

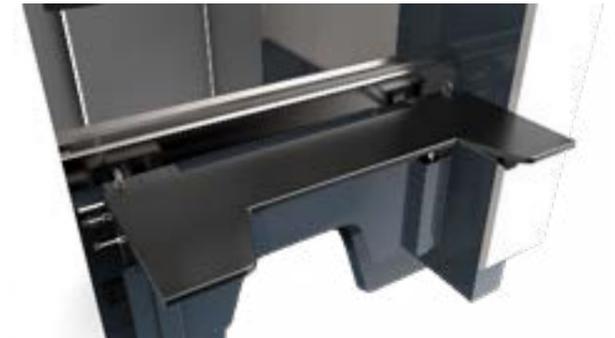


- 2D Graphic touch screen and programming mode
- 3D imaging in simulation and production
- 17 "High resolution colors
- Suitable for full Windows applications Compatible with DelemModusys
- USB and peripheral interface
- User specific application support Multitasking competencies
- Sensor bending and correction interface

DURMA Angle Measuring



Operator table support system



Robotic Solutions



DA-69T

- 3D and 2D graphic touch screen programming
- 3D imaging in simulation and production
- 17 "high resolution colors
- Suitable for full Windows applications Compatible with DelemModusys
- USB and peripheral interface
- Sensor bending correction interface
- Multitasking competencies
- Higher memory

Standard & Optional Equipment

Standard Equipment

Control Unit - DA-69T 3D touchscreen
Y1, Y2, X, R (4-Axis) X=650mm Back Support (AI – Double Guide)
CE Motorized FIESSLER AKAS-3 M + FPSC (with Security PLC)
DBEND 3D bending edit and simulation
Servo motor back support & linear guided & ballscrew system (X-R)
Motorized crowning controlled via CNC Unit
European type tool holding system
Sliding Front arms - Sliding Front arms slide on full-length linear slides with T-Channel & Locking

Optional Equipment

Control Unit - CNC ModEva15T
Z1, Z2 axis
CE Manual F.AKAS II M -FPSC-B-C Light protection (with security PLC)
X=650mm X,R,Z1,Z2,Delta X +/- 125mm CNC Controlled (AL)
X axis = 1000 mm – Back protection with light barriers
Motorized height adjustable angle measuring system
Quick Clamping System
Hydraulic and Pneumatic tool holding system
Upper and lower tool
Central lubrication system
Additional support finger and additional sliding front sheet metal support system
Special packaging for overseas countries

Fast on Service and Spare Parts

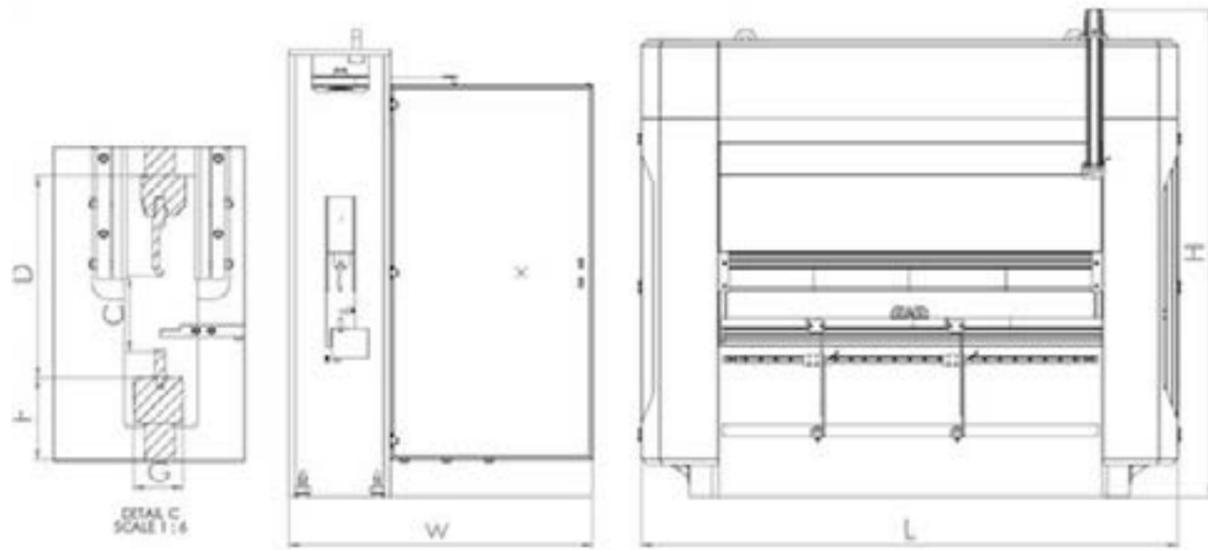
DURMA provides the best level of service and spare parts with qualified personnel and spare parts in stock. Our experienced and professional service personnel are always ready at your service. Our professional training and application enriched courses will give you an advantage to use our machinery.



AD-ES Series Technical Details

Machine Types	Bending Power	Bending Length	Distance Between Columns	Stroke	Daylight(D)	Working Height(F)	Approach Speed	Bending Speed	Rotation Speed	Back Gauge X axis Length	Back Gauge R axis Length	Length	Width	Height	Weight
Unit	Ton	mm	mm	mm	mm	mm	mm/sn	mm/sn	mm/sn	mm	mm	mm	mm	mm	kg
AD-ES 1240	40	1250	1300	200	440	1000	120-180	20-40*	120-180	650	250	2150	1625	2800	4500
AD-ES 2040	40	2050	2050	200	440	1000	120-180	20-40*	120-180	650	250	2870	1625	2800	5600
AD-ES 2560	60	2550	2550	200	400	1000	120-180	20-40*	120-180	650	250	3370	1875	3200	6600

* According to CE norm, the bending speed should be maximum 10 mm / sec except for robotic use..



Advantages compared to classical press brakes

Drive System Group Equipment

- Servo Motor
- Large-Small Pulley
- Timing Belt
- Mechanical Roller Bearing
- Ballscrew and Nut

Equipment Advantages

- Simpler Drive Group
- Less Component
- Easy and Fast Assembly
- Easy and quick maintenance
- Hydraulic oil-free drive system

Standard Hydraulic Press Brake

Servo Hydraulic Press Brake



DURMA



PANEL BENDER



PUNCH



PRESS BRAKE



VARIABLE RAKE SHEAR



PLASMA



L ANGLE PROCESSING CENTER



TUBE LASER CUTTING



FIBER LASER



IRON WORKER



POWER OPERATED SHEAR



ROLL BENDING



PROFILE BENDING

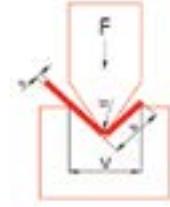


CORNER NOTCHER

DURMA

Today, Tomorrow and Forever with You...

V	b	r _i	s(mm)																					
			0.5	0.8	1	1.2	1.5	1.8	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10	12	15	18	20
6	5	1	2,5	6,5	10																			
8	6	1,3	2	5	8	11																		
10	7	1,7	1,5	4	6	9	13																	
12	9	2		3	5	7	11	16																
15	12	2,7			4	6	9	13	16															
20	15	3,3				4	7	10	12	19														
26	18	4,2					4	7,5	9	14	21													
30	22	5						6,5	8	12	19	24												
32	23	5,4							7,5	11,6	17	23	30											
37	25	5,8								10	14,5	20	26	33										
42	29	6,7									13	17	23	29	33,5									
45	32	7,5										16	21	27	33	48								
50	36	8,3											19	24	30	43	58							
60	43	10												20	25	36	49	64						
70	50	11,5													21	31	42	55	69					
80	57	13,5														27	37	48	60	75				
90	64	15															32	42	54	66	95			
100	71	17																38	48	60	86	134		
130	93	22																	37	46	66	103	149	
180	130	30																		33	48	75	107	153
200	145	33																			43	67	83	119
250	180	42																				54	77	92



$$F = \frac{1,42 \times L \times Rm \times s^2}{1000 \times V} \text{ (Ton)}$$

F: Bending Force (Ton) L: Length (mm) Ri: Inside Radius (mm) Rm: Material Tensile Strength (daN/mm²) V: Channel Width (mm) B: Minimum Sheet Bending Side (mm) S: Thickness (mm)

AD-ES SERIES Electrical Press Brake

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