

# 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 ft<sup>2</sup>, 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.**



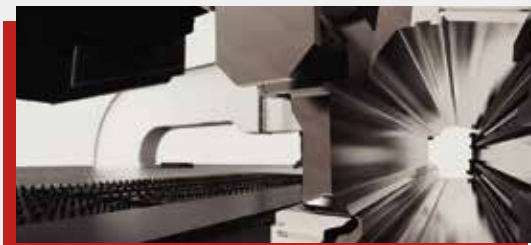
1

High technology,  
modern production  
lines



2

Top quality  
components



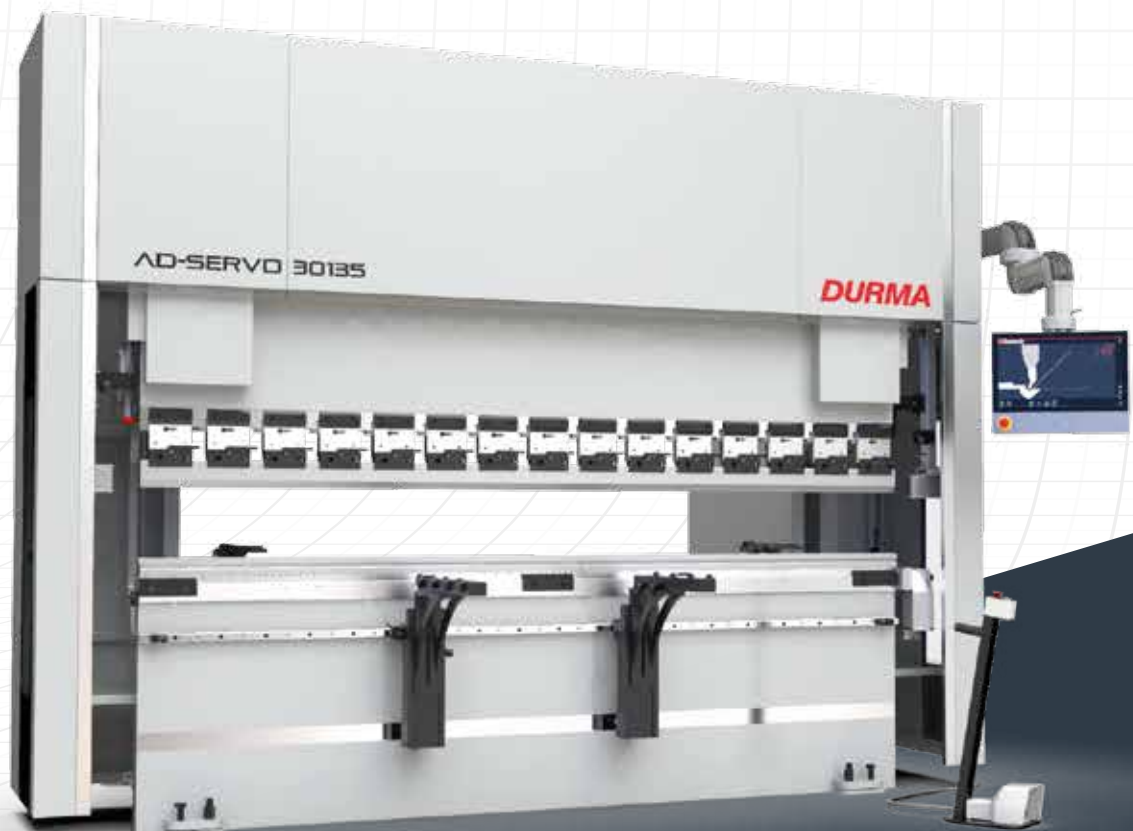
3

High quality  
machines designed  
in R&D Centre

## **AD-Servo 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

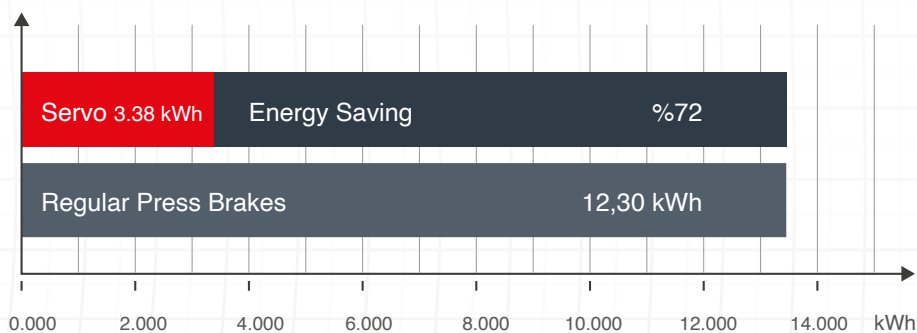
- High energy-saving potential
- Decreased operating costs
- Clearly reduced cooling effort
- Operational reliability
- High availability
- Lower investment
- System safety
- Future-oriented technology
- Remarkable noise reduction
- Fewer secondary measures
- Ease of integration of flexible check functions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



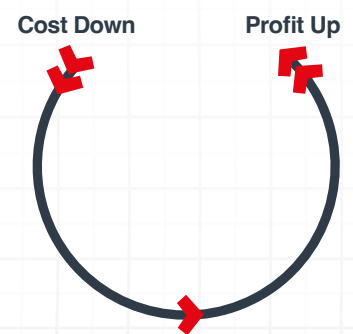
# AD Servo

## 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

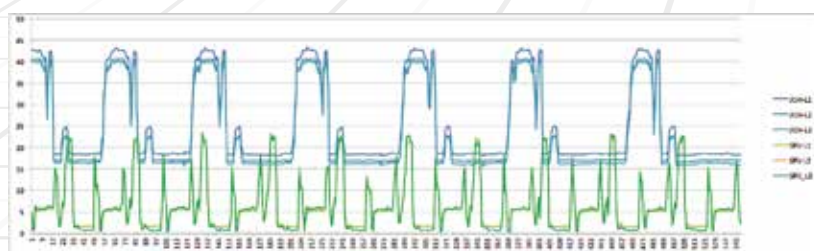
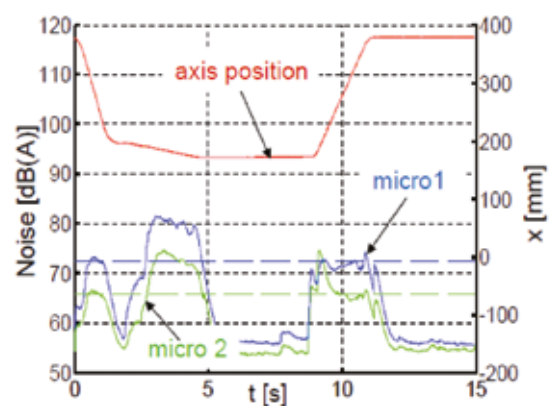
### Physical characteristics

- 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.

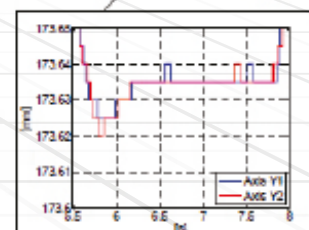
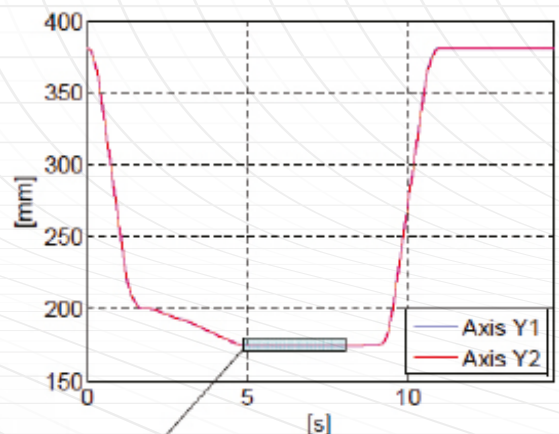


- Energy Saver
- Accurate on each cycle
- Economical
- Hi-Speed & Repeatability



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

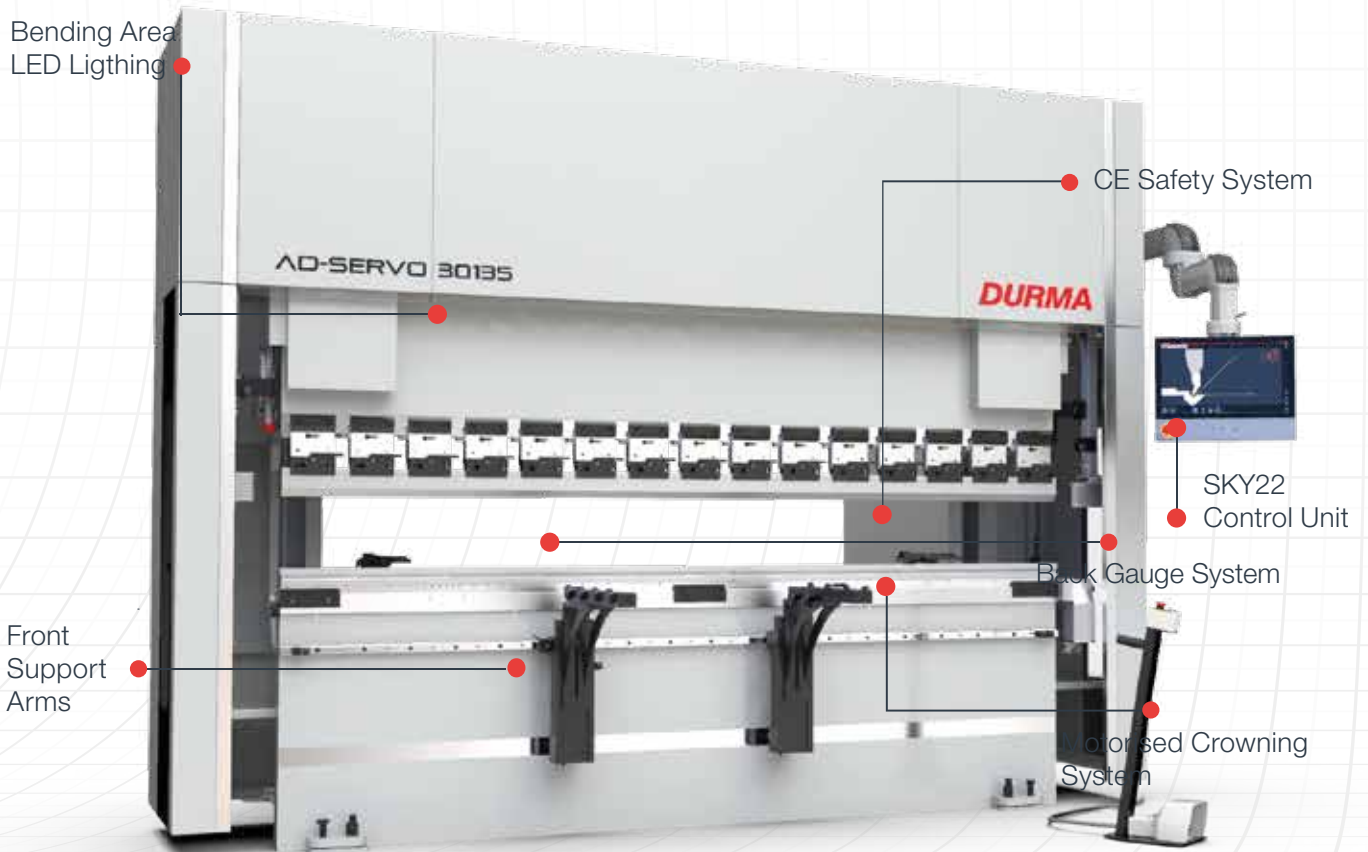
**AD-Servo positioning accuracy Less Noise Level at target position**



# 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

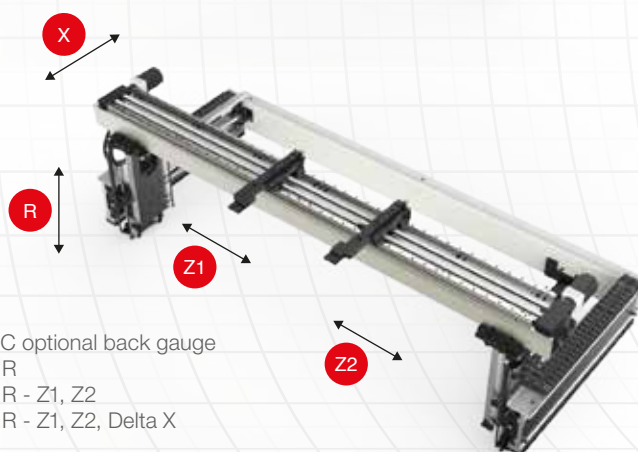
- High sensitivity, Stress relieved steel construction body, long life Mono Block Frame
- Automatic calibration and first start up
- *DURMA* designed and copyrighted guiding system
- Ball Screw and linear guide integrated perfect back gauge system
- Durable, long life and sensitive bending capable special 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

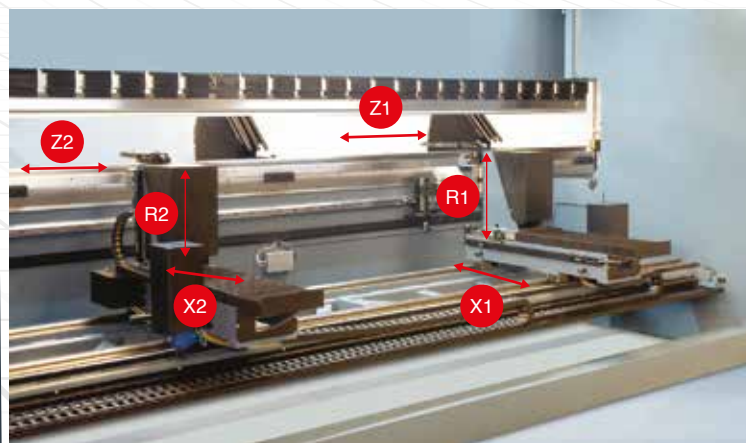


## Why DURMA Back Gauge ?

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.



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

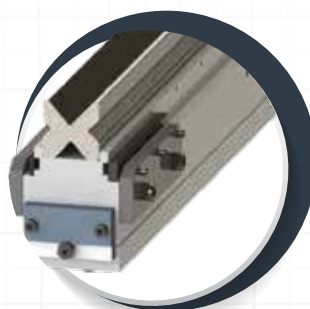
## TOOL HOLDERS AND TOOLS

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.



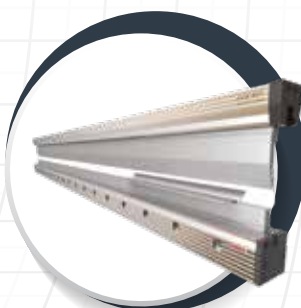
European  
Clamping System



European Type  
Bottom Tool (4V Die)



Quick  
Release Clamping



DURMA Hydraulic  
Holder



DURMA Top  
Tool Holder

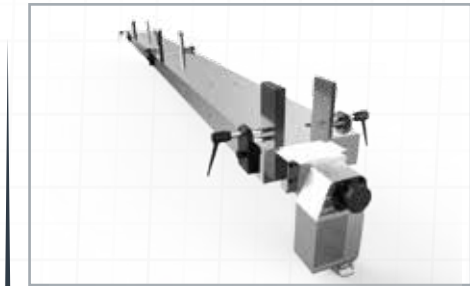


DURMA Multi  
V Bottom Tool

## 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

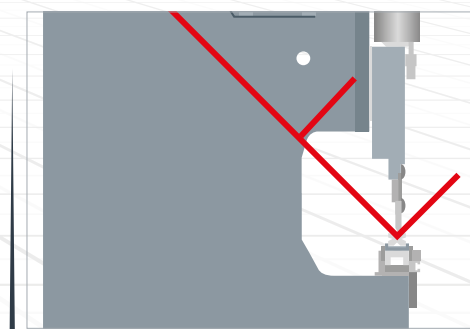
Our machines are designed in accordance with CE-Norms to ensure your safety with hydraulic, electric, appropriate height covers and laser light curtains. CE safety in tandem machines are also provided with light barriers.



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 sequence calculation for 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.*

■ **DURMA Angle Measurement System**



■ **Automatic AP3 - AP4 Sheet Follower**



■ **Robotic System Applications**



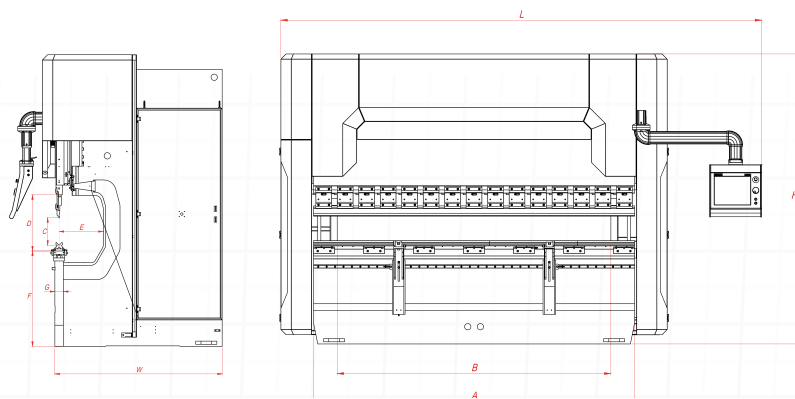
## AD-SERVO SERIES TECHNICAL DETAILS

| 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 |
|-----------------|---------------|----------------|--------------------------|--------|----------|--------------|--------------|------------------------------|---------------|-----------------|----------------|------------------|----------------------|------------------|
| Unit            | US ton        | ft             | ft                       | inch   | ft       | ft           | ft           | ft                           | inch/sec      | inch/sec        | inch/sec       | inch             | inch/sec             | inch             |
| AD-Servo 30135  | 149           | 10'            | 8'6.3"                   | 10.4"  | 1' 8.9"  | 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"                   | 10.4"  | 1' 8.9"  | 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"                   | 10.4"  | 1' 8.10" | 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"                   | 1'2.4" | 1' 8.11" | 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"                  | 10.4"  | 1' 8.12" | 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"                  | 1'2.4" | 1' 8.13" | 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"                  | 1'2.4" | 1' 8.14" | 1'8"         | 3'5.4"       | 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"                  | 1'2.4" | 1' 8.15" | 1'8"         | 3'3"         | 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"                  | 1'2.4" | 1' 8.16" | 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"                  | 1'2.4" | 1' 8.17" | 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"                  | 1'2.4" | 1' 8.18" | 1'8"         | 3'3"         | 6.1"/11.8"                   | 3.1"          | 0.26            | 3,1            | 0.0004           | 1'7.1"               | 0.002            |

Machines are adjusted to optimum values.

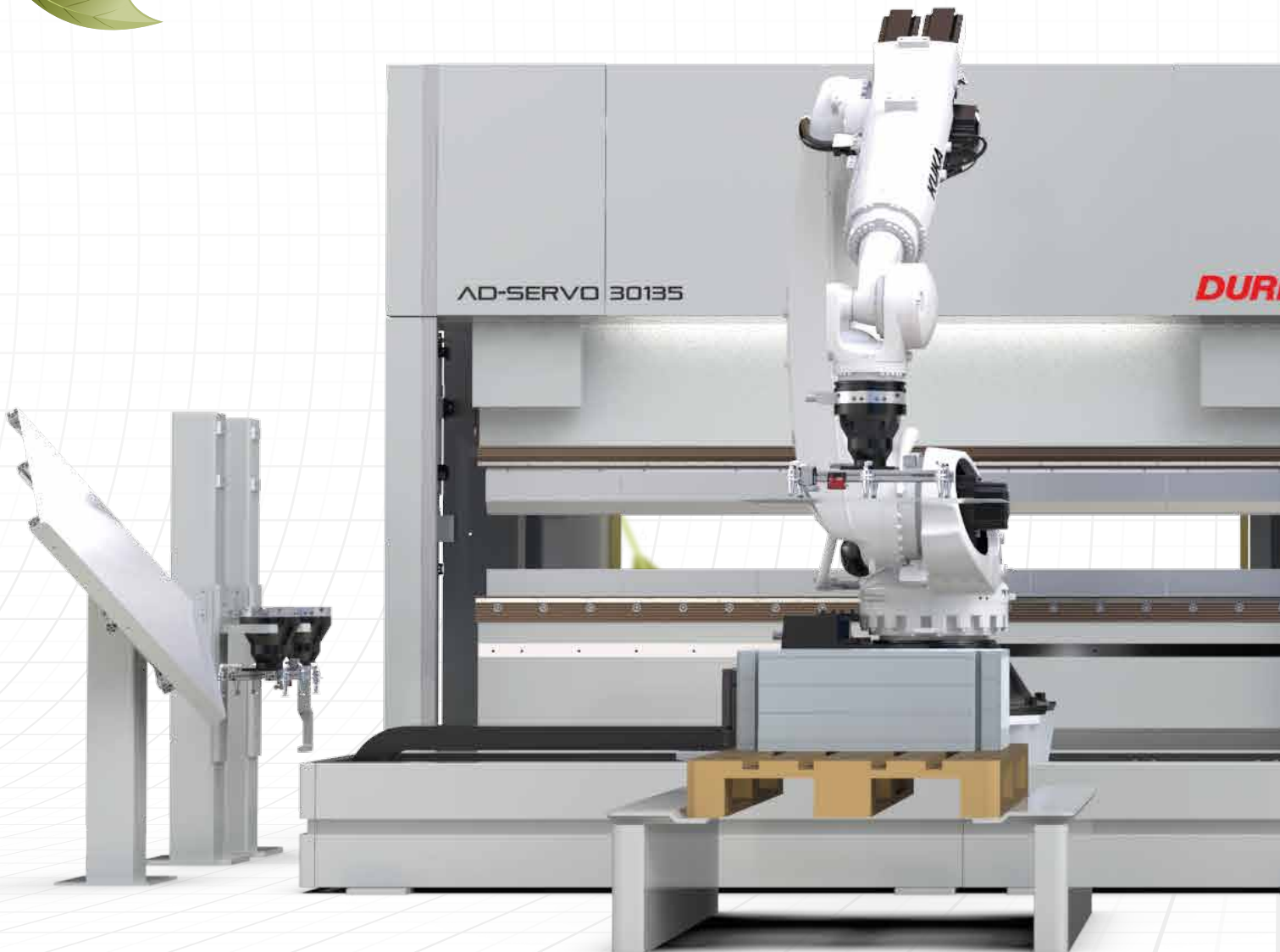


Production is *More Effective Now.*



| 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. |
|-------------------|--------|--------|----------------------|-------------------------|------------------|----------------------|-------------------------|-------------|-------------------|-------------------|----------|---------|----------|----------------|
| 2'1.6"            | 2'5.5" | 3'3.4" |                      |                         |                  |                      |                         |             |                   |                   |          |         |          |                |
| ft                | ft     | ft     | inch/sec             | ft.                     | inch             | inch/sec             | ft                      | hp          | hp/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                 | 21.1 x 2          | 13'11.3" | 5'9.7"  | 9'10.1"  | 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"  | 5'11.7" | 10'11.1" | 37706          |
| S                 | -      | O      | 13.8                 | 10                      | 0.004            | 40                   | 9'6.6"                  | 14.7 x 2    | 7                 | 21.1 x 2          | 17'2.7"  | 5'9.7"  | 9'10.1"  | 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    | 2,4               | 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 CNC Control  
Manuel F. AKAS FPSC Front Safety System  
Servo Motor Backgauge - Linear Guided & Ballscrew System (X-R)  
CNC Controlled Motorized Crowning  
European Style Tool Clamping System  
Sliding Front Support Arms (with T-Slot and Stopper)  
World Standards Special Design Hydraulic Block and Valves  
World Standard Electric Equipment

### Optional Equipment

Control Unit - DA-66S / DA-69S  
F. AKAS LC 5 Front Safety System  
Motorized F. AKAS - 5P FPSC (Safety PLC)  
CE F.AKAS BLVT Light Barrier and Safety Cages (For Tandem Press Brakes)  
Motorized X, R, Z1, Z2 Axis Backgauge System  
Motorized X1, X2, R1, R2, Z1, Z2 Axis Backgauge System  
Delta X-Axis +/- 4.92" Stroke  
X-Axis = 40" - Light Barrier Back Protection  
"AP3-AP4 Automatic Sheet Follower System - Motorized Elevation Adjustment  
(There is a motorized elevation adjustment for 242 US tons or more.)"  
Durma Laser Angle Measurement (DAM)  
DBEND 3D Bending Simulation Program  
Quick Release Clamping System  
Hydraulic and Pneumatic Tool Clamping Systems  
Parking Area for Support Arms  
Central Lubrication System (Manual / Automatic)  
Oil Cooler / Oil Heater  
Additional Backgauge Finger and Sliding Front Support Arms  
Robot Integration  
Special Packing for Overseas Shipments

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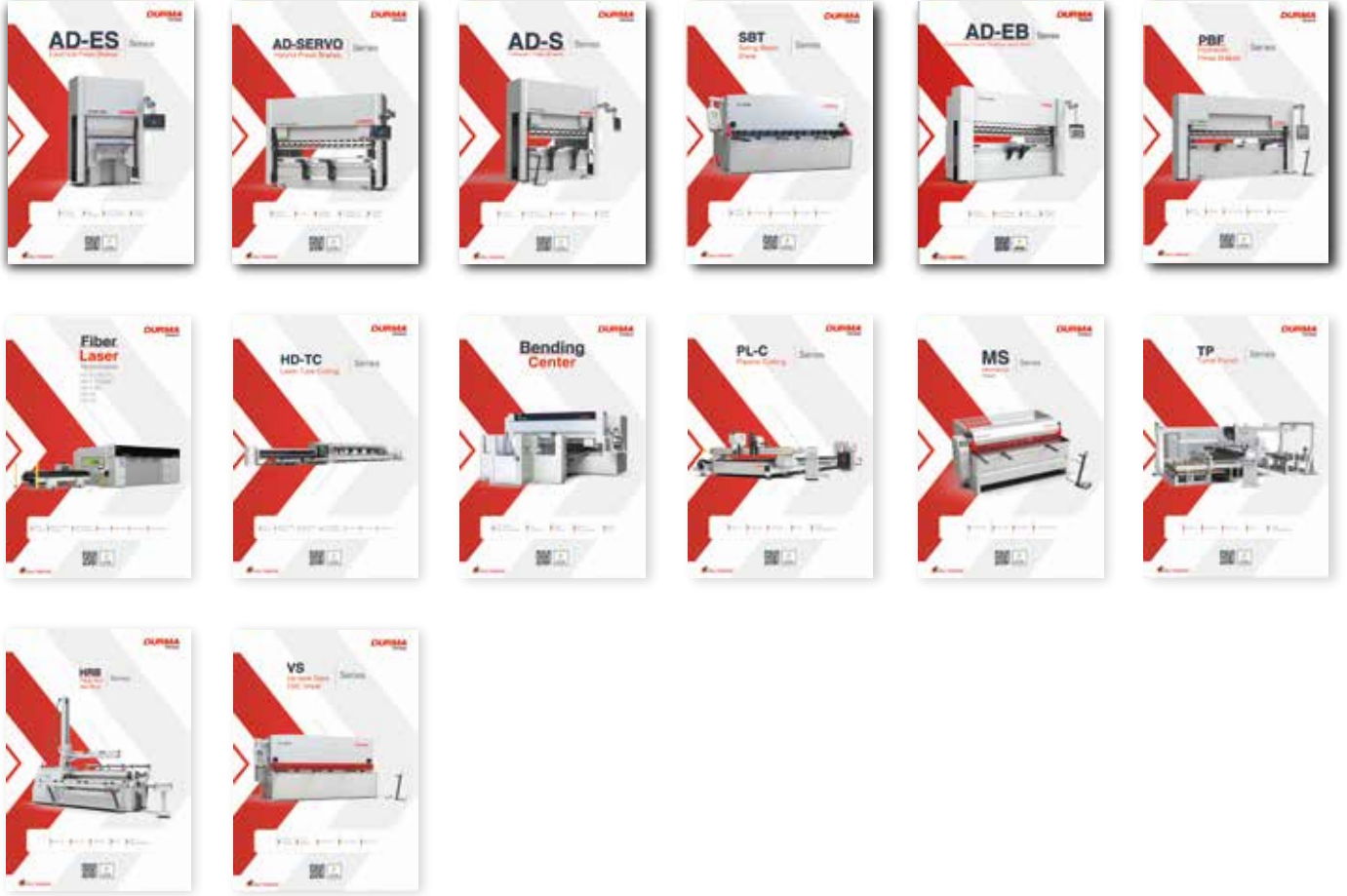
# FAST ON SERVICE AND SPARE PARTS

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.

**f** Durma International  
**@** durmainternational  
**X** durmaint  
**▶** durmamachines  
**in** Durmazlar



INCH 2025/05/V04



**Durmazlar Makina San. ve Tic. A.Ş.**  
**OSB 75. Yıl Bulvarı Nilüfer-Bursa /**  
**Türkiye**

**P: +90 224 219 18 00**

**F: +90 224 242 75 80**

**info@durmazlar.com.tr**

**www.durmazlar.com.tr**