

The Winning Force

DURMA

AD-R SERIES

Press Brakes



- Easy to use
- Fast
- Productive
- Winning
- Ergonomic



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

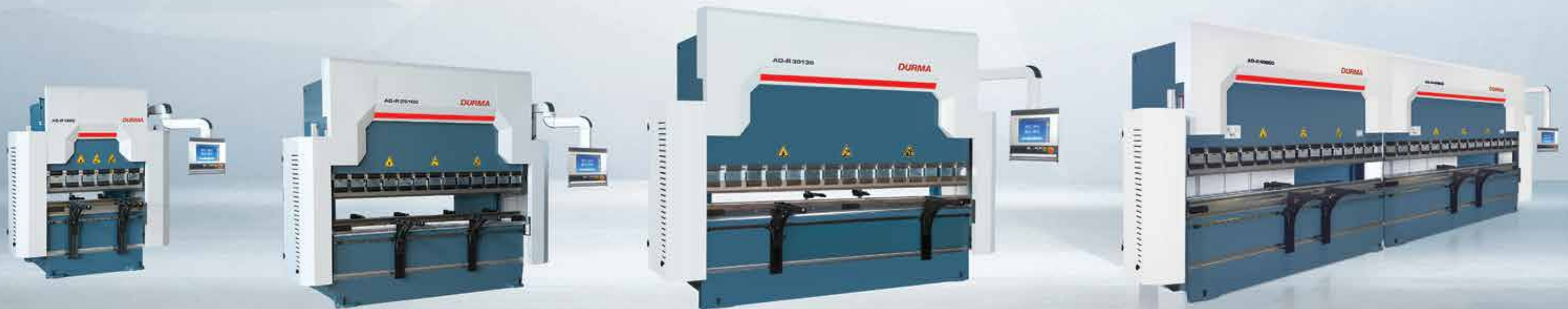
The Winning Force

With simple programmable features the high speed AD-R Series press brake adds value to your business with low energy consumption, precision bending and maintenance-free structure. This series can be used safely for many years and simplifies the operators work load.

With DURMA press brakes, you always get great results.

Fast, productive and perfect bending

- Always precision bending results
- Minimized tool exchange and setting time
- Maximized speed and security



AD-R Series Press Brakes



Advance Your Standards

World leader in its category

Perfectly equipped for sensitive bending,
energy efficient solutions

With its easy to use control units, rigid body frame, perfect design, high efficiency, multiple tool usage solutions, top level CE safety standards and with its suitable price range, AD-R is the World leader in its category.



**Easy to
Use**

Ergonomic

Efficient

Fast

**Reliable
Brand**

Why DURMA Press Brakes

- Better and faster bending
- Stronger and rigid body structure
- High sensitivity and repeatability
- Latest technology
- Low service cost
- Reliability

Gain More Power

With its Performance and Price ratio it is the best CNC Press Brake in the World

AD-R series press brakes give excellent results of various type business types. It provides a convenient workspace for bends in many different sizes with a longer daylight.



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
- Adjustment availability at every point
- Resistance to crash
- Maintenance free

Standard back gauge
X CNC
R manual
Z manual



Why DURMA Back Gauge ?

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 **ballscrew** back gauge system movement is also supported with **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
X-R
X-R-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.

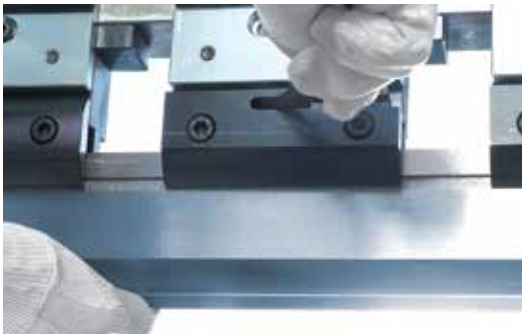
DURMA is your solution partner with various tool options.



European Clamping System



European Type Bottom Tool (4V Die)



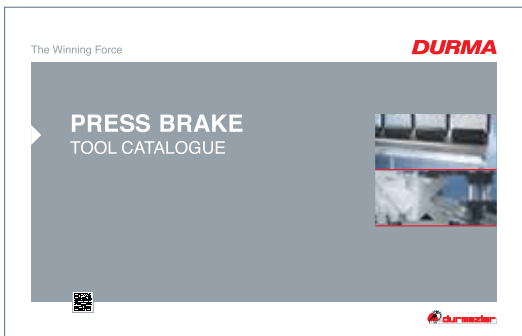
Quick Release Clamping



DURMA Multi V Bottom Tool



DURMA Top 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

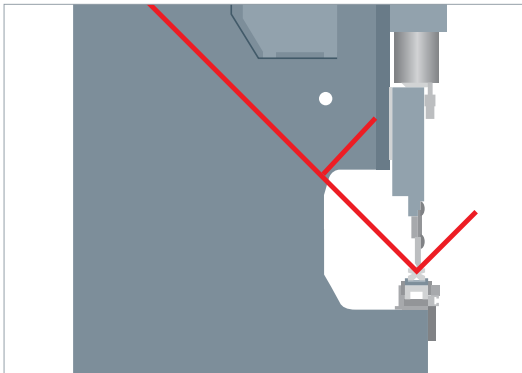
Our machines are designed in accordance with CE -Norms to ensure your safety with hydraulic, electric, appropriate height covers and laser light curtains.CE safety in tandem machines are also provided with light barriers



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

DT-15 Control Unit



-  Create profile with touch screen
-  Online service via Internet connection
-  Diagnostic mode
-  Easy programming page
-  Automatic bend calculation and listing
-  Tool programming and library



D-Bend offline software

D-Bend Offline software allows you to simulate your bending at your desk in your office.

You can create your tools and it provides the opportunity to make new programs without interrupting production. D-Bend verifies your bend sequence. Creates verified part drawings for Laser, punch, and plasma machines.

Everything is Under Control with User-Friendly

DT15

- Automatic bend listing
- Storing your programs
- Easy bend functioning
- 2D color graphics display and multiple simulation
- Linux operating system
- D-Bend offline software
- Tandem compatible
- Multiple language options
- Ergonomic panel design
- USB port, back-up 10 "TFT color touch screen



Optional Control Units

ModEva 19T

- 19" color Touch Screen
- On-screen finger profile drawing
- Automatic bend listing
- Very simple and convenient data transfer
- Higher productivity thanks to easy and rapid
- Multi-simulation capability
- Simulation criteria for better sheet management
- Windows XPe for multitasking and file management
- EC safety-cycle management
- Ethernet for Easy communication
- Bundled Offline Software
- 15" color Touch Schreen



DA-58T

- 2D graphical touch screen programming
- 15" high resolution colour TFT
- Bend sequence calculation
- Crowning control
- Servo and frequency inverter control
- Advanced Y-axis control algorithms for closed-loop as well as open-loop valves
- USB, peripheral interfacing



Standard & Optional Equipment

Standard Equipments

Y1, Y2, X, - 3- Axis
Control Unitesi - CNC DT15
CE Manuel F. AKAS II M FPSC-B-C + Safety Cages with switch
CE F.AKAS BVLTL Light barrier and safety cages (for tandem Press Brakes)
Back gauge - motorised & linear guide & ball bearing system (X)
Manuel Crowning System
European Clamping system
Sliding sheet support Arms with T-Channel and Tilting stop
Special designed – world-class hydraulics blocks & valves
World-class electrical equipment

Optional Equipments

Control Unit - ModEva 19T
Control Unit - CNC DA 58T
Control Unit - CNC DA 66T R Axis CNC
R CNC Axis [X=650 mm X,R (AL double guide)]
R CNC Axis [X=650 mm X,R,Z₁, Z₂ (AL double guide)]
European style top tool
European style bottom tool
Bottom tool Durma
Quick Release Clamping
CNC controlled Motorized Crowning
Back gauge 1000 mm - Back protection with Light barrier
Oil Cooler - Oil Heater
Additional Finger blocks & Sliding front arms
Overseas special packaging
DBEND 3D Bending arrangement and simulation software

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.



Consultancy



Spare Parts



R&D Center



After Sales Service



Service Agreements



Software

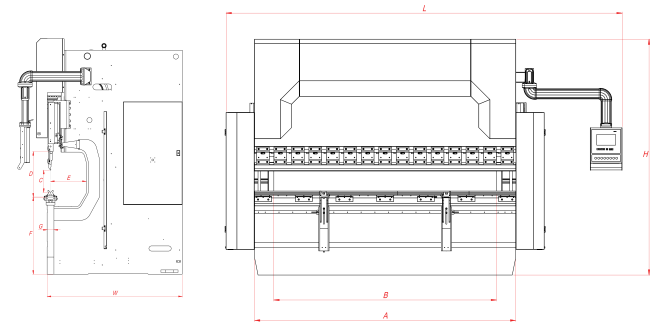


Training



Flexible Solution

AD-R Series Techical Details



AD-R Series	Bending Force	Bending Length	Distance Between Columns	Stroke	Daylight	Throat Depth	Table Height	Table Width	Y Rapid Speed	Y Working Speed		Y Axes Accuray	X Axes Working Speed	X Axes Accuray	X Axes Dimensions			R Axes Working Distance (Manual)	Z Axes Working Distance	Motor Power	Oil Tank Capacity	Length	Width	Height	Weight Approx.
											Y Return Speed				650	750	1000								
	Ton	mm	mm	mm	mm	mm	mm	mm	mm/sn.	mm/sn.	mm/s		mm/s		mm	mm	mm	mm	mm	kw	lt	mm	mm	mm	kg
		A	B	C	D	E	F	G													L	W	H		
AD-R 1260	60	1250	1050	160	400	350	900	104	200	10	110	0,01	500	0,05	S	-	O	140	490	7,5	100	2300	1550	2850	4700
AD-R 2060	60	2050	1700	160	400	350	900	104	200	10	110	0,01	500	0,05	S	-	O	140	1100	7,5	100	3200	1550	2850	5600
AD-R 25100	100	2550	2200	265	530	450	900	104	180	10	120	0,01	500	0,05	S	-	O	140	1580	11	100	3800	1670	2850	7800
AD-R 30100	100	3050	2600	265	530	450	900	104/180	180	10	120	0,01	500	0,05	S	-	O	140	1990	11	100	4200	1670	2850	8500
AD-R 30135	135	3050	2600	265	530	450	900	104/180	160	10	120	0,01	500	0,05	S	-	O	140	1990	15	150	4200	1680	2850	9580
AD-R 30175	175	3050	2600	265	530	450	900	104/240	160	10	100	0,01	500	0,05	S	-	O	140	1990	18,5	250	4250	1700	2850	10900
AD-R 30220	220	3050	2600	265	530	450	900	104/240	140	10	140	0,01	500	0,05	S	-	O	140	1990	22	250	4250	1770	3000	12600
AD-R 30320	320	3050	2600	365	630	450	900	154/300	160	10	140	0,01	500	0,05	S	-	O	140	1990	37	250	4300	1820	3330	17100
AD-R 37175	175	3700	3100	265	530	450	900	104/240	140	10	100	0,01	500	0,05	S	-	O	140	2375	18,5	250	4950	1700	3000	11750
AD-R 37220	220	3700	3100	265	530	450	900	104/240	160	10	120	0,01	500	0,05	S	-	O	140	2375	22	250	4950	1770	3000	14440
AD-R 40175	175	4050	3600	265	530	450	900	104/240	160	10	140	0,01	500	0,05	S	-	O	140	2910	18,5	250	5250	1700	2850	12780
AD-R 40220	220	4050	3600	265	530	450	900	104/240	160	10	140	0,01	500	0,05	S	-	O	140	2910	22	250	5250	1770	3000	14750
AD-R 40320	320	4050	3600	365	630	450	900	154/300	160	10	140	0,01	500	0,05	S	-	O	140	2910	37	250	5300	1910	3330	20000
AD-R 40400	400	4050	3400	365	630	510	1050	154/300	140	8	120	0,01	350	0,05	-	S	O	140	2670	37	500	5750	2110	3640	27760
AD-R 60220	220	6050	5100	265	530	450	1050	154/300	140	10	120	0,01	350	0,05	-	S	O	140	4400	22	500	7500	1770	3350	20800
AD-R 60320	320	6050	5100	365	630	450	1100	154/300	140	10	120	0,01	350	0,05	-	S	O	140	4400	37	250	7500	1910	3550	29000
AD-R 60400	400	6050	5100	365	630	510	1220	154/300	120	8	100	0,01	350	0,05	-	S	O	140	4400	37	250	7500	2110	3810	34600

Machines set according to optimum values.

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



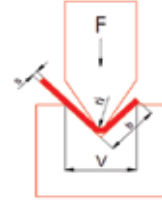
CORNER NOTCHER

DURMA

Today, Tomorrow, Forever...

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

The diagram illustrates a V-belt pulley system. A red V-belt is shown passing over a pulley. A downward force **F** is applied to the top of the belt. The belt moves with a velocity **V** to the right. The angle between the two sides of the V-belt is labeled **α**.



$$F = \frac{1,42 \times L \times Rm \times s^3}{1000 \times V} (Ton)$$

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-R SERIES Press Brakes

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