The Winning Force

DURMA

PANEL BENDER

Bending Center



- Full Servo-Electric System
- Full Automatic
- Stabil Process (HQ Bend)
- Clever Consumption
- Rapid Setup

durmazlar

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.

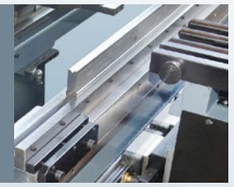
Present Durmazlar machines with DURMA name to the world.



1
High technology, modern production lines



2
Top quality components

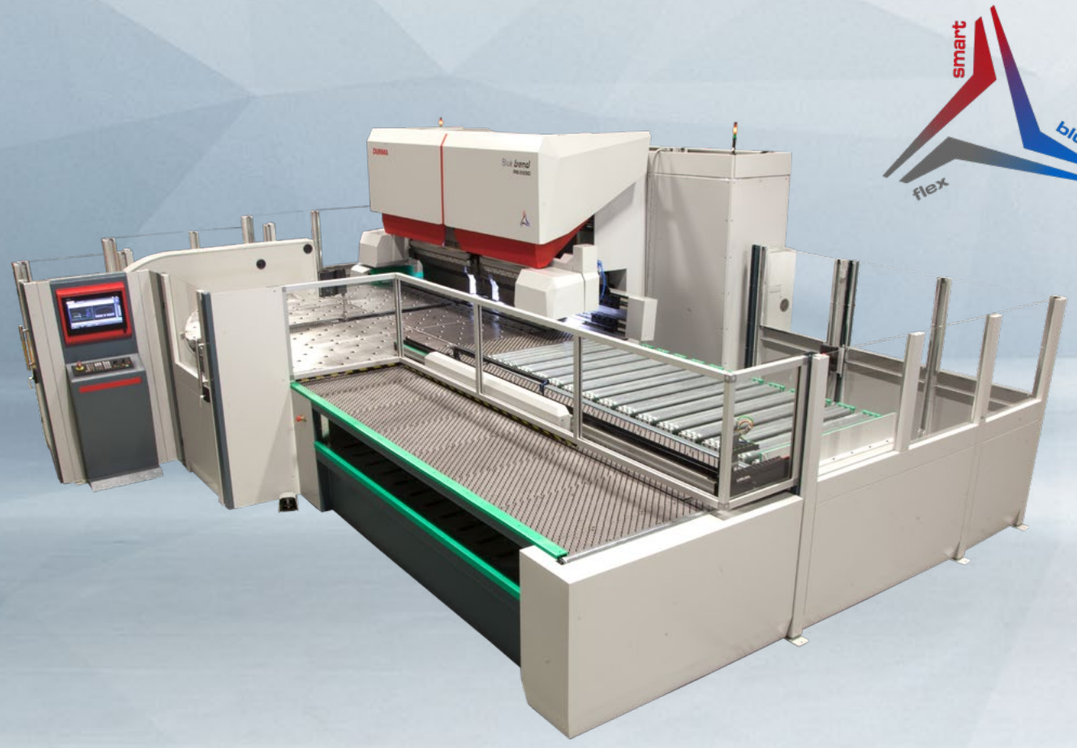


3
High quality machines designed in R&D Centre

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The Winning Force

- Full Servo-Electric System
- Full Automatic
- Stabil Process (High Quality)
- Clever Consumption



Perfectly equipped for sensitive bending
Energy efficient solutions

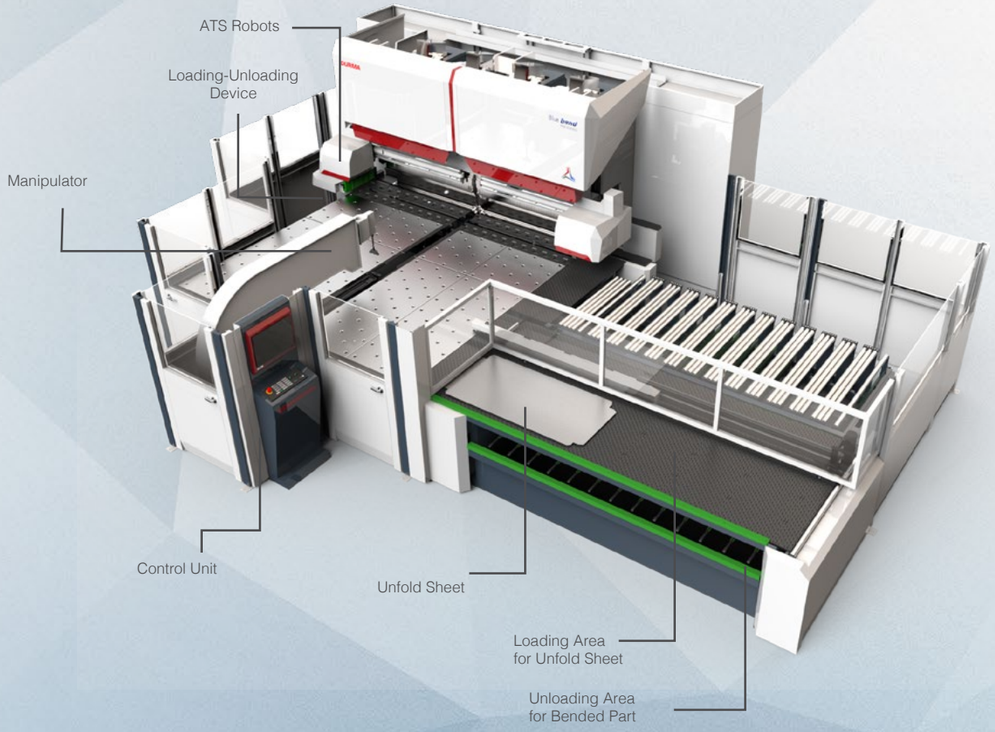
With its easy to use control units, rigid body frame, perfect design, high efficiency, multiple tool usage solutions,

- Compact Solution
- Ergonomic and Safe Working Area
- Electrical Energy Savings
- Regular Production Independent From the Operator
- Stabil Process «No Influence» From the Machine Thermal Conditions

Easy to Use | **Ergonomic** | **Efficient** | **Fast** | **Reliable Brand**

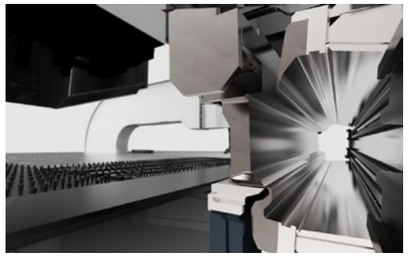
Smart, Flex, Blue

DURMA Panel Bender, 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.



Bending Area

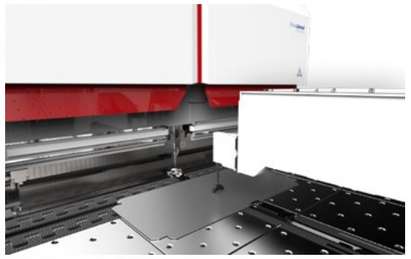
The bend occurs by negative and positive bending with the sheet bending tools compressed by the press tools.
A minimum approach to the bending axis is achieved by bending and pressing tools with special geometries.



Bending Area

Reference Pins – Centering Device

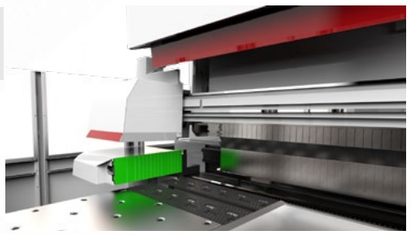
The centering device by the reference pins and pusher are points of where we adjust the currect position of the sheet metal (unfold part) before manipulator clamps hold



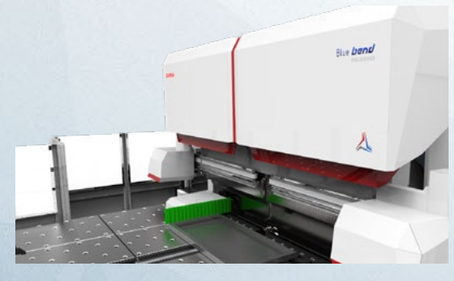
Referans Pins – Centering Device

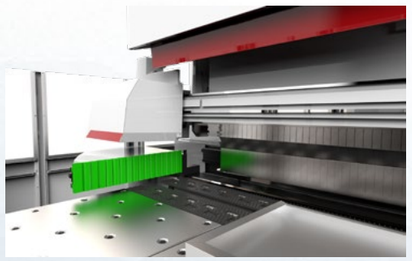
LUD – Loading / Unloading Device

Loading – Unloading device push the part which finished all of bending operations on it outside of the working area.
In the same time it can bring the new unfold part center of the working area.



LUD (Push Support is closed)



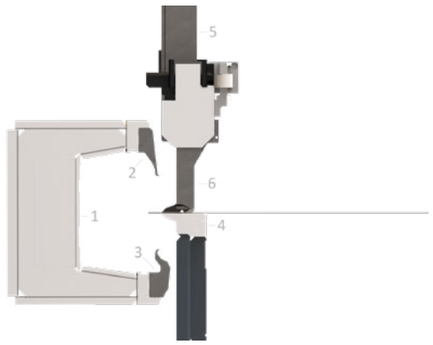


LUD (Push Support is open)

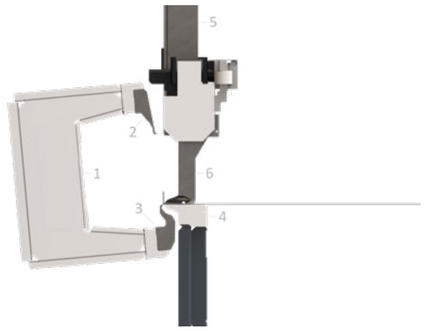
Standart Bending Tools

Bending performance increased using with high quality holding and bending tools .

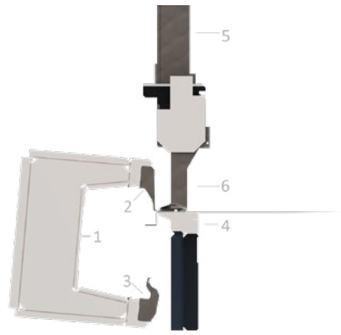
DURMA is your solution partner with various tool options.



- Bending Device
- Upper Blade
- Lower Blade
- Bottom Tool
- Holder Device
- Holding Tools



Positive Bend



Negative Bend



Tool Condition for Max. Bending Lenght



Tool Condition for Intermediate Bending Lenght

ATS – Automatic Tools Set-Up

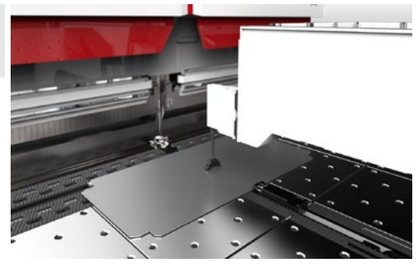
In order to bend components with different dimensions the upper tool needs to be changed;
the option ATS make this
operation automatic in 10-15 seconds.

The mechanism in the central holder device changes the combination of tools for fine variation, the two side robots change the coarse composition and move the end tools.



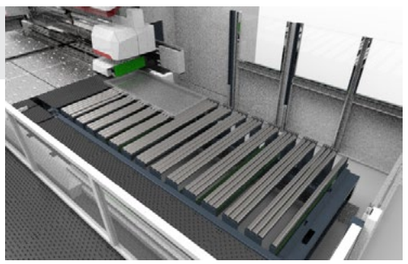
Manipulator - Clamp

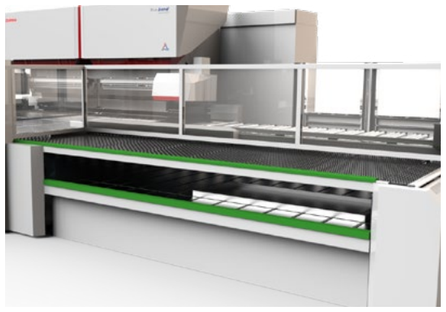
Manipulator is the system that provides the management of the clamping the incoming sheet from the loading area between the lower and upper clamps. The sheet pressed between the clamps is first referenced by being imposed on the pins on the centering device, then clamps the twist according to twist steps.

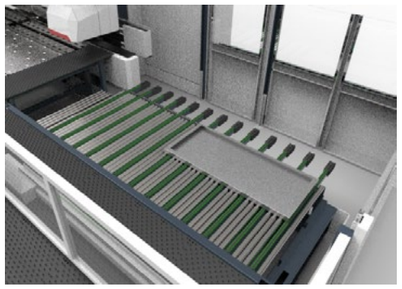


LUS – Loading / Unloading System

The loading and unloading system has a ergonomic concept that allows you to put on the bending part from the front of the loading site. The bent part which prepared for the bend allows you to take from the bottom of the part area.



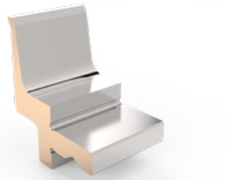




ABD – Auxiliary Bending Device

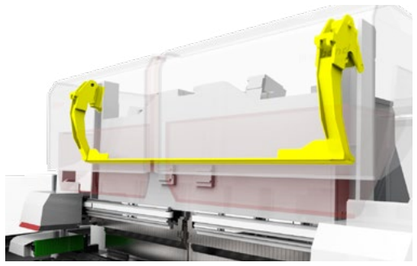
This device is a very useful option that enlarge the bending capability of the machine.
This option with its accessories is used to make bend internal the pannel contour,corner junction, partial bend, irregulary shaped panels and more.
This option is located inside the C-structure and consists of four carriages sliding on linear guides parallel to the bending line and moved independently by two servomotors.
The movement is made by belt driving system, precise and reliable.
Every pair of carriage can moves from one side to the other covering all the machine length.





AHD– Auxiliary Holder Device

Additional holder device is a very useful option that permit to automatically change during bending cycle the geometry of the upper tool with an alternatively one when needed, increasing the flexibility of the machine in bending capability.
This option with its accessories is used to make partial bend, narrow profile deep bend, panel with embossing, hidden negative bend and more.
The AHD allows to automatically changing the geometry of the upper tool with an alternatively one when needed.
The option consist in a long bar (according to the machine size) moved by 2 arms. There are 2 basic positions. The “stand by” position of the bar is on the upper side of the machine. The bar working position is placed under the upper tools by a junction system. The bar is prepared to contain all different type of tooling that have to be easily manually set up according to the components.





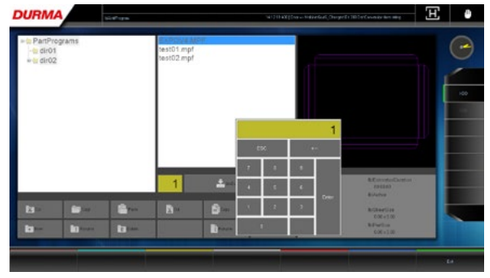
Control Panel

The Sinumerik 840DSL CNC controller is an efficient 64-bit microprocessor system with an integrated PC. The controller has a Durma operator interface and a complete bending database for all standard bending applications. The database includes the bending parameters for standard materials (steel, stainless steel, aluminium) for common thickness ranges. Based on these reference values the operator can easily improve the bending quality for different types of materials.



CAD/CAM Software









Standard & Optional Equipment

Standard Equipment

Universal Bending / Holding Tools
CAD-CAM software & Activator(Dongle)
Control Unit, Siemens Sinumerik 840 D SL Windows 7 operating system
Remote diagnostic function
Network, Ethernet communication
Programming on the control panel
ATS – Automatic Tool Setup
Standart Clamp for manipulator
Crowning Bending Device
Crowning Holder Device
Brush table
USB Driver
Air Condition for Electrical Cabinet
400 V Voltage
Warning lamp
Barriers for CE
World standard electric equipment

Optional Equipment

ABD – Auxiliary Bending Devi ce
ABT – Auxiliary Bending Tools and Brackets
AHD – Auxiliary Holder Device
AHT – Auxiliary Holdind Tools
Optional Clamp for Manipulator
Working Table (Brush & balls)
Loading / Unlading System
Transformator
UPS for machine (30 KvA 10 min.)

Panel Bender Technical Details

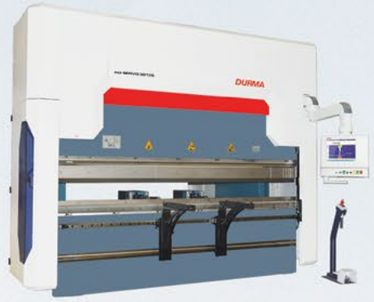
Technical Specifications		
		PB 2280
Max. Bending Lenght	mm	2800
Min. Bending Lenght	mm	350
Max. Sheet Enterance Lenght	mm	3050
Max. Sheet Enterance Width	mm	1524
Min. Bending Width	mm	150
Max. Bending Height	mm	254
Max. Bending Depth	mm	50
Max. Diagonal	mm	3300
Bending Force	KN	500
Holding Force	KN	1000
Max. Thickness of Sheet		
for Fe 410 N/mm2 Material	mm	3,2
for Inox 600 N/mm2 Material	mm	2,2
for Aluminium 260 N/mm2 Material	mm	4
Min. Thickness of Sheet	mm	0,5
Max. One Step Bending Angle	*	±135°
Advanced Specification		
Negative Last Bend		Standard
Automatic Tool Setup		ATS (Standard)
Inverse Bending Ranking		Standard
Auxiliary Holder Tools		AHD (Option)
Auxiliary Lower Bending Tools		AB (Option)
Auxiliary Upper Bending Tools		AB (Option)



PANEL BENDER



PUNCH



PRESS BRAKE



VARIABLE RAKE SHEAR



PLASMA



L ANGLE PROCESSING CENTER



LASER CUTTING



FIBER LASER



IRON WORKER



POWER OPERATED SHEAR



ROLL BENDING



PROFILE BENDING



CORNER NOTCHER

DURMA

Today, Tomorrow and Forever with You...

PANEL BENDER

Bending Center

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

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

2017/10/V.01