

The Winning Force

PBH SERIES

Hydraulic Profile Bending



PBM SERIES

Motorised Profile Bending



- Reliable
- Efficient
- Ergonomic
- High Capacity
- Low Investment Cost



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

PBH Series Profile Bending Machines

“Fast, Accurate and Easy to Operate”

Robust machine frame is rugged steel construction, machined after the welding for rigidity.
Precise bending by large shaft diameters and bearings also minimizes deflection.
Longlife of machine by strong frame and world class components. Short cycle times by high drive torque and speed. Minimised straight edge by hydraulic adjustments
Low energy and maintenance costs by friction free planetary swing guides.
Powerful guide rolls.

- Fast and Reliable
- Efficient Cycle Times
- User Friendly, Easy to Operate
- Increased Productivity
- Up to IPE 1000



PBH Series Profile Bending Machines

PBH 60

PBH 60 are expressly designed for rolling profiles with high resistance to the bending. This is the reason why the structures are heavily dimensioned and are built with heavy thickness plates of certified quality steel.

PBH 80-100-125

"PBH 80-100-125 equipped with cutting edge technology providing customer maximum satisfaction in medium serial pipe and tube bending.
DURMA product line offers a wide range of solutions; in addition every roll bender or tooling can be custom-designed to satisfy specific pipe bends needs."



PBH 180-240-300-360-600

"For heavy and fine bendings PBH series provides easy operating.

All shafts are powered by separate equipments so that the machines have high level bending forces. Renovated side support system provides high rigidity. "

PBH-4 Special Application

4 rollers profile bending created for the minimum pre-bending levels.



PBH Series Features

Planetary Swing Rolls System

Rolls are guided by swing beds which allows them to act as 2 independent axes moving on curve shape orbits. Rolls are approaches to the top roll on curve movement which allows to get perfect prebendings as well as spring back minimisation.



Strengthen Bearing System

Rolls are guided with spherical roller bearings and bronze housings. Guiding system requires less lubrication and keeps it precision in long term.



High Torque Drive System

High Torque Drive System enables Durma roller bending machines to bend metal sheets with less steps. PBH 60 to 125 machines has top and bottom rolls powered by planetary reducer, hydraulic motor and gear system. PBH 180 to 600 machines has top and side rolls powered by planetary reducer, hydraulic motor and gear system. Strong Hydraulic Brake system does not allow the profile to slip back. Pressure safety valves are protecting the hydromotor and other components from overloads and peak pressures.



High Strengthen Shaft and Balls

DURMA PBH Machine shafts and rollers manufactured from certified and crack controlled high strength tempered steel. On CNC machines are handled high sensitivity and tolerance without causing notch effect.



Side Support System

There are 3-axis movable hydraulic side support on both sides of the machine. Back - Forth and rotation movements controlled by single hydraulic cylinder drive system. Bending profile to be continuously vertical by automatically positioned to provide side support. Side support system is suitable for bending iron angles and it is standard for PBH 60 and upper machines.



Digital Display

In Durmazlar Machine digital read out, for circular bends a certain diameter to bend the workpiece. Top position of the last three bending step may be provided as a set point.



NC Control

NC Control System, In addition to the PLC control system, it offers manual and automatic mode options. NC control system has the capacity to save 2500 programs consisting of Max 100-steps.



Hydraulic System

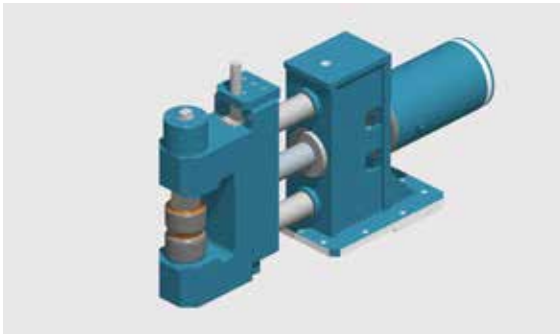
Machine movements are triggered by hydraulic components. The precision on the all axes are acquired by world leader valves' high speed response ability. And pressure safety valves used against peak pressures and overload, provides protection for motors and other components.



PBH Series Features

Puller Aparatus

The deformation problem is reduced with big ratio by special deformation blocker I, H bending apparatus.



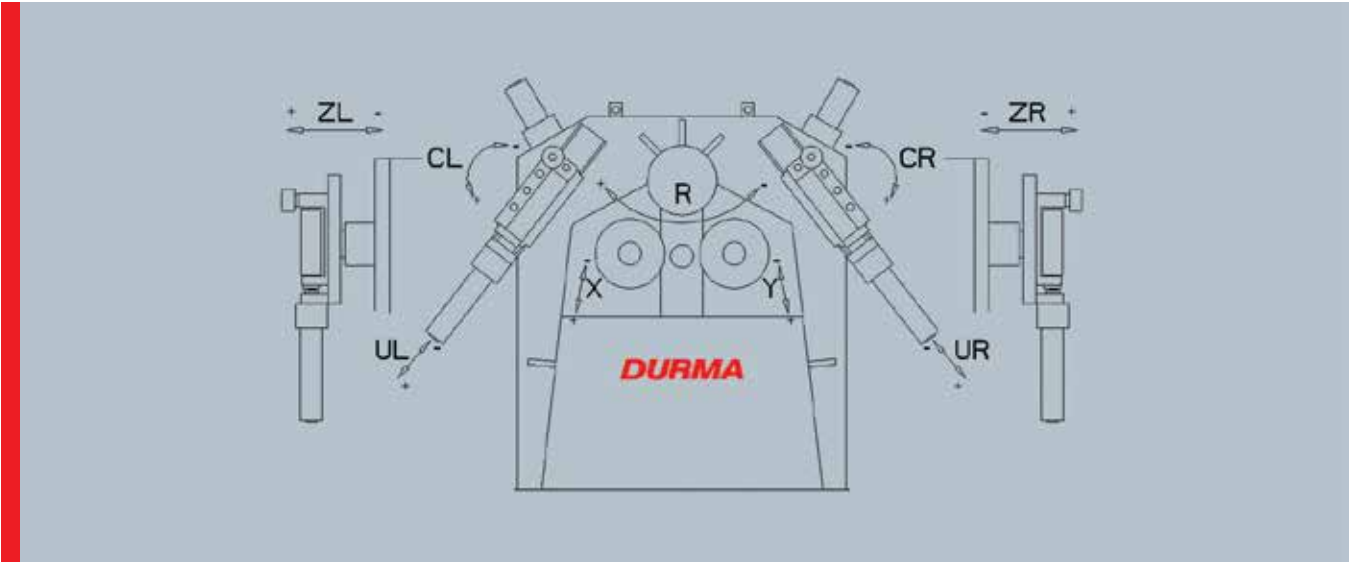
Special Aplication

On one step, straight sheet becomes U form, then performs circular bends .



Special Aplication

Apparatus and table for special and heavy spiral bends.



Standard & Optional Equipment

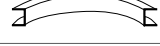
Standard Equipments

- CE
- Digital readout (X,Y axis)
- All rolls driven by planetary gear box and hydramotor (PBH 80 to 125)
- All rolls 3 different planetary gear box and hydramotor driven (PBH 180 to 600)
- Special support for angle profile
- "3 axis (Z,U,C) mechanical side supports (PBH 60)"
- 3 axis (Z, U, C) side supports Z hydraulic control (PBH 80 to 100)
- 3 axis (Z, U, C) side supports full hydraulic control (PBH 125 to 600)
- Movable command panel seperate from the machine
- Horizontal working feature
- Vertical working feature (PBH 60 to 125)
- Stress relieved stell construction body
- Electrical and hydraulic protection against overloads
- 1 set standard hardened and rolls made by special steel

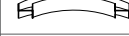
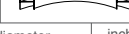
Optional Equipments

- Digital readout for Z Axis
- Tai bar for upper roll
- NC control system
- Adjustable turning speed
- Oil cooler
- Oil heater
- Special rolls (Pipe, profile, angle iron)
- Special aparatus to prevent deformation on U-I-H bending
- Spiral bending apparatus

Technical Details

NO	PROFILE TYPE	PBH 60		PBH 80		PBH 100		PBH 125		NOTES
		Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	
1		1,6x1,6 0,8x0,8	19,6 11,8	2x2 1,2x1,2	19,6 11,8	2,4x2,4 1,2x1,2	27,6 15,8	3x3 1,4x1,4	29,5 19,6	○
2		2,8x0,4 1,2x0,4	23,6 9,8	3,15x0,8 1,2x0,4	19,6 13,8	4x1 1,6x0,4	59 15,8	4,7x1 2x0,4	51,2 19,6	○
3		3,6x1 2x0,2	19,6 9,8	4,8x1,2 1x0,4	25,6 11,8	7x1,3 2,4x1,2	35,5 15,8	7,9x1,6 3,9x0,4	47,2 19,6	○
4		2,4x0,27 0,8x0,12	23,6 9,8	3,15x0,35 1,2x0,16	39,4 11,8	4,7x0,5 1,2x4	47,3 15,8	5,1x0,6 1,2x0,16	51,2 19,6	○
5		2,4x0,27 0,8x0,12	23,6 9,8	3,15x0,35 1,2x0,16	39,4 11,8	4x0,4 1,2x0,15	39,4 15,8	4,7x0,51 1,2x0,16	47,2 19,6	○
6		2,4x0,27 0,8x0,12	31,5 9,8	3,15x0,35 1,2x0,16	51,2 11,8	4x0,4 1,2x0,15	51,2 15,8	3,9x0,5 1,2x0,16	47,2 19,6	○
7		2x0,2 1,2x0,12	19,6 9,8	3,15x0,32 1,2x0,12	31,5 17,7	4x0,4 1,6x0,15	55,2 25,6	4,7x0,47 2x0,2	51,2 27,5	●
8		2x0,2 1,2x0,16	39,4 13,8	3,15x0,32 1,2x0,12	47,3 17,7	4x0,4 1,6x0,15	63 25,6	3,9x0,4 2x0,2	47,2 27,5	●
9		2,4x2,4x0,16	(1)	2,8x2,8x0,16	(1)	3,15x3,15x0,2	(1)	3,9x3,9x0,24	(1)	○ ●
10		3,2x1,6x0,12	(1)	3,15x1,6x0,16	(1)	4x2x0,25	(1)	5,5x1,6x0,12	(1)	○ ●
11		Ø1,58 Ø0,79	19,6 11,8	Ø1,97 Ø0,78	19,6 13,8	Ø2,75 Ø1,2	31,5 15,8	Ø3,4 Ø1,6	33,5 19,6	○ ●
12		Ø2,4x0,153 Ø0,84x0,106	23,6 9,8	Ø3,5x4 Ø1,6x0,102	39,4 11,8	Ø4x0,15 Ø1x0,13	63 17,8	Ø5"x0,2 Ø11/4"x0,13	59 19,6	●
13		2,36x0,08 Ø0,78x0,04	600 250	Ø4x0,98 Ø0,78x0,04	51,2 11,8	Ø4,7x0,1 Ø1,2x0,08	55,2 15,8	Ø5,5x0,12 Ø1,6x0,08	59 19,6	●
14		UPN 80 UPN 30	21,6 9,8	UPN 120 UPN 30	33,5 11,8	UPN 160 UPN 30	31,5 15,7	UPN 220 UPN 40	39,3 19,6	○ ●
15		UPN 80 UPN 30	31,5 9,8	UPN 120 UPN 30	39,4 17,7	UPN 160 UPN 30	39,4 15,7	UPN 220 UPN 40	47,2 19,6	○ ●
16				UPN 65 UPN 30	50,2 11,8			UPN 100 UPN 50	315 78,8	● ▲
17		IPE 80	600	IPE 120	23,6	IPE 180 IPE 80	39,4 19,7	IPE 200 IPE 80	39,3 19,6	○ ●
18								IPE 120 IPE 80	98,5 39,3	● ▲
19						HEA 120 HEB 100	39,4 47,3	HEA 140 HEB 120	47,2 51,2	○ ●
20								HEA 120 HEB 100	157,5 118,1	● ▲
Shaft diameter		inch	Ø2,36	Ø3,35		Ø4,33-Ø3,93		Ø5,51 - Ø4,72		
Roll diameter		inch	Ø6,96	Ø9,72		Ø12,4		Ø14,96		
Motor Power		hp	2,95+2hp	10 hp		14,7 hp		20,1		
Turning Speed		inch/min.	196,8	275,6		314,9		354,3		
Weight		lbs	2095	5180		7407		10141		
Length		inch	45,7	62,2		69		73		
Width		inch	39,4	47,3		53		61		
Height		inch	46,3	1410		65		67		

(1) Can be changed according to deformation. ○ Standart Rolls ● Special Rolls ▲ Special Apparatus

NO	PROFILE TYPE	PBH 180		PBH 240		PBH 300		PBH 360		PBH 500		PBH 600		NOTES
		Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	
1		3,5x3,5	51,2	4,3x4,3	59	5,9x5,9	86,6	7,9x7,9	98,4	9,5x9,5	94,5	11,8x11,8	110,2	○
2		5,9x1,2	39,4	6,9x1,6	47,2	9,8x2,4	78,7	11,8x3,2	118,1	15,8x2,4	110,2	19,7x4,3	118,1	○
3		9,8x1,6	39,4	13,8x2	35,4	17,7x2,8	39,4	19,7x3,9	70,9	25,6x3,9	67	35,4x5,9	78,7	○
4		150x15	55,1	6,3x0,8	59	7,9x1,1	78,7	7,9x1,1	63	7,9x0,8	55,1	7,9x1,1	63	○ ●
5		5,9x0,6	51,2	6,3x0,8	59	7,9x1,1	78,7	7,9x1,1	59,1	7,9x1,1	51,2	7,9x1,1	51,2	○ ●
6		5,1x0,6	70,8	5,9x0,8	78,7	7,9x0,8	110,2	7,9x1,1	90,6	7,9x1,1	78,7	7,9x1,1	78,7	○ ●
7		5,9x0,6	47,2	6,3x0,8	63	7,9x1,1	90,6	7,9x1,1	70,9	7,9x1,1	59,1	7,9x1,02	51,2	●
8		5,1x0,6	55,1	5,9x0,8	63	7,9x0,8	90,6	7,9x1,1	78,7	7,9x1,1	67	7,9x1,02	59	●
9		4,7x4,7x0,31	(1)	5,9x5,9x0,32	(1)	7,9x7,9x0,4	(1)	11,8x11,8x0,48	(1)	15,8x15,8x0,63	(1)	19,7x19,7x0,8	(1)	○ ●
10		7,1x2,7x0,31	(1)	7,9x3x0,32	(1)	7,9x5,9x0,4	(1)							○ ●
11		Ø3,9	39,4	Ø5,1	63	Ø6,7	70,9	Ø8,7	90,6	Ø10,2	71	Ø14,2	118,1	○ ●
12		Ø6,7x0,24	110,2	Ø8,7x0,32	110,2	Ø11,8x0,4	157,5	Ø16x0,5	315	Ø20x0,6	492(1)	Ø24x0,69	985 (1)	●
13		UPN 300	55,1	UPN 360	55,1	UPN 500	88,6	UPN 600	59,1	UPN 1000	337,8	UPN 1000	137,8	○ ●
14		UPN 300	66,9	UPN 360	63	UPN 500	102,4	UPN 600	59,1	UPN 1000	137,8	UPN 1000	137,8	○ ●
15		UPN 160	393,7	UPN 200	472,4	UPN 260	393,7	UNP 320	787,5	UNP 400	1575	UPN 600	3347	● ▲
16		IPE 300	55,1	IPE 360	59	IPE 500	78,7	IPE 600	78,7	IPE 1000	197	IPE 1000	197	○ ●
17		IPE 160	157,5	IPE 200	196,9	IPE 300	511,8	IPE 360	787,5	IPE 550	670(1)	IPE 600	1023(1)	● ▲
18		HEA 180 HEB 120	47,2 47,2	HEA 240 HEB 200	59 59	HEA 320 HEB 280	98,4 78,7	HEA 600 HEB 500	118,1 118,1	HEA 1000 HEB 1000	197 276	HEA 1000 HEB 1000	197 275	○ ●
19		HEA 120	157,5	HEA 180	177,2	HEA 220	393,7	HEA 360	1378	HEA 550	1182(1)	HEA 600	1575(1)	● ▲
20		HEB 120	118,1	HEB 160	126	HEB 200	236,2	HEB 340	591	HEB 500	985(1)	HEB 550	1575 (1)	● ▲
Shaft diameter		inch	Ø7,09 - Ø6,30		Ø9,45 - Ø8,66		Ø11,81 - Ø11,02		Ø14,17		Ø16,53 - Ø15,75			
Roll diameter		inch	Ø18,11		Ø21,65		Ø29,13		Ø30,71		Ø31,5		Ø32,28	
Motor Power		hp	40,2 hp		49,6 hp		73,7+20,1 hp		103,2 hp		120,6 hp		160,8 hp	
Turning Speed		inch/min.	275,6		236,2		196,9		196,9		275,6		275,6	
Weight		lbs	18960		35274		52910		99210		121255		171960	
Length		inch	99		115		152		237		255		240	
Width		inch	79		91		120		197		209		203	
Height		inch	75		85		110		138		148		170	

(1) Can be changed according to deformation. ○ Standart Rolls ● Special Rolls ▲ Special Apparatus

PBM Series Profile Bending Machines

Motorised Profile Bending



Technical Details

NO	PROFILE TYPE	PBM 30		PBM 50		PBH 45		NOTES
		Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	Dimensions	Min.inter. Dia.	
1		1,2x1,2 0,4x0,4	25,6 7,9	1,4x1,4 0,8x0,8	47,2 15,7	1,4x1,4 0,8x0,8	23,6 11,8	○
2		2x0,4 0,8x0,25	27,6 11,8	2,4x0,4 1,2x0,4	31,5 13,8	2,4x0,4 1,2x0,4	23,6 11,8	○
3		3,1x0,6 1,2x0,25	27,6 19,7	4x0,6 2x0,4	29,5 19,6	3,1x0,6 2x0,8	23,6 17,7	○
4		2x0,25 0,8x0,12	23,6 15,7	2,4x0,27 1,2x0,16	35,4 19,6	2x0,25 0,8x0,12	25,6 11,8	○ ●
5		2x0,25 0,8x0,12	23,6 15,7	2,4x0,27 1,2x0,16	35,4 19,6	2x0,25 0,8x0,12	25,6 11,8	○ ●
6		2x0,25 0,8x0,12	27,6 15,7	2,4x0,27 1,2x0,16	39,4 19,6	2x0,25 0,8x0,12	31,5 11,8	○ ●
7		1,6x0,2 1,2x0,16	19,7 13,8	2x0,2 1,6x0,16	33,4 19,6	2x0,25 1,2x0,12	23,6 15,7	● ◆
8		1,6x0,2 1,2x0,16	23,6 15,7	2x0,2 1,6x0,16	47,2 31,5	2x0,25 1,2x0,12	35,4 23,6	● ◆
9		1,6x1,6x0,12	(1)	2,4x2,4x0,12	(1)	1,8x1,8x0,12	(1)	○ ●
10		2x1,2x0,12	(1)	2x1,6x0,12	(1)	2,4x1,2x0,12	(1)	○ ●
11		Ø1,2 Ø0,4	25,6 7,9	Ø1,4 Ø0,6	31,5 11,8	Ø1,4 Ø0,78	23,6 11,8	●
12		Ø1,9x0,125 Ø0,53x0,08	31,5 11,8	Ø1,9x0,125 Ø0,67x0,08	25,6 13,8	Ø2,4x0,115 Ø0,84x0,08	39,4 13,8	●
13		Ø2,36x0,06 Ø0,78x0,06	39,4 21,6	Ø2,75x0,08 Ø1,18x0,08	47,2 19,6	Ø2,36x0,08 Ø1,18x0,08	39,4 17,7	●
14		UPN 50	17,7	UPN 60	23,6	UPN 80 UPN 30	31,5 15,7	●
15		UPN 50	21,6	UPN 60	29,5	UPN 80 UPN 30	47,2 23,6	●
Shaft diameter		inch	Ø1,18 inch	Ø1,96 inch		Ø1,77 inch		
Roll diameter		inch	Ø5,9 inch	Ø6,49 inch		Ø6,37 inch		
Motor Power		hp	1 hp	2 hp		2 + 1 hp		
Turning Speed		inch/min.	141 inch/min	141 inch/min		153 inch/min		
Weight		lbs	441 lbs	1874 lbs		1323 lbs		
Length		inch	31,5 inch	36,6 inch		39,4 inch		
Width		inch	27,6 inch	28,7 inch		27,6 inch		
Height		inch	47,3 inch	55,2 inch		54,4 inch		

(1) Can be changed according to deformation. ○ Standart Rolls ● Special Rolls ◆ Special Support Rolls For Angle
All datas given according to 34800 Psi yield point.

Standard & Optional Equipment

Standard Equipments

CE
 1 set standard hardened and rolls made by special steel
 Mechanic side supports
 Horizontal & Vertical working feature
 Foot pedal with Emergency button
 Bottom rolls driven by motor & gearbox
 Cast iron body
 Movable command panel separate from the machine (PBH 45)
 All rolls driven by motor & gearbox (PBH 45)
 Top roll hydraulic movement up and down (PBH 45)
 Top roll with digital readout (PBH 45)
 Brake motor (PBH 45)

Optional Equipments

Bar twist device (PBM30-50)
 Digital readout (PBM30-50)
 Mono phase motor (PBM30-50)
 Special support for angle irons
 Special rolls (Pipe, profile, angle iron)

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

DURMA
 Solution Center



Service
Agreements



Software



Training



Flexible Solution

DURMA



PANEL BENDER



PUNCH



PRESS BRAKE



VARIABLE RAKE SHEAR



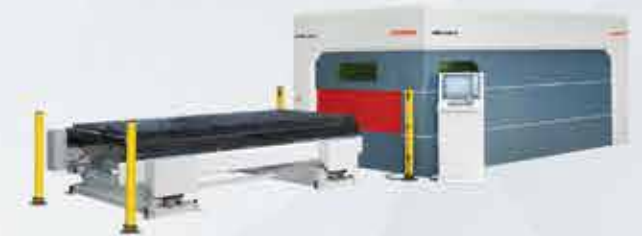
PLASMA



L ANGLE PROCESSING CENTER



TUBE LASER CUTTING



FIBER LASER



IRON WORKER



POWER OPERATED SHEAR



ROLL BENDING



PROFILE BENDING



CORNER NOTCHER

DURMA

DURMA

Today, Tomorrow, Forever...

PBH SERIES
Hydraulic Profile Bending

PBM SERIES
Motorised Profile Bending

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