



**MARKING, PUNCHING, SHEARING LINE
FOR FLAT BARS**

PS



PS

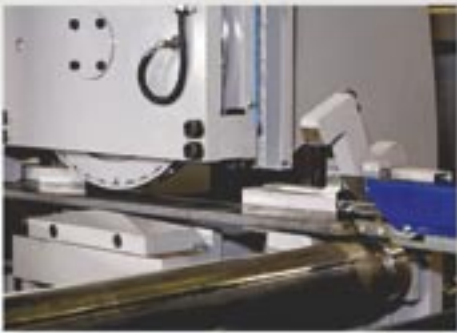
A fast automatic and compact machine of punching, marking and shearing, adapted to the intensive production of gussets and flat bars for plate girders

These highly reliable and very productive machines for flat bars are particularly appreciated by structural steel manufacturers when carrying out machinings before assembly on the flat bars being used for manufacture of plate girders.

Important design factor:

PS machines combine simultaneously all machining operations: marking, punching and shearing:

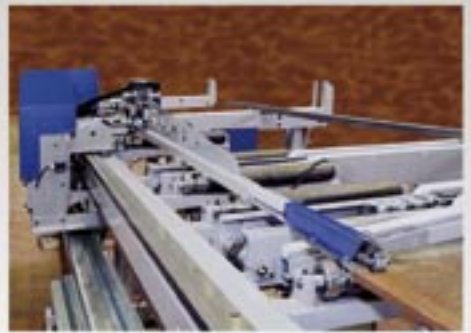
- ✓ **Punching and shearing in only one passage**
- ✓ **Shearing with mitre cuts without scrap and blade adjustment**
- ✓ **Marking on the top of flat bars for the location of parts**
- ✓ **Speed and accuracy of execution**
- ✓ **Capacity up to 500 x 25 mm in steel E 36**



Disk marking unit



Punching unit with 3 tools selector



Gripper for part clamping



Tilting element of exit table



Rotary shear



Hanging control panel

Main technical characteristics:

- ✓ Rigid and compact CNC propelling carriage with hydraulic clamping gripper
- ✓ Bar length measurement with optical cells
- ✓ Table with grooved rollers for gripper passage
- ✓ Integrated bar loading system
- ✓ Easy access to the tools, punches / dies, allowing a fast change of production
- ✓ 280 tons shearing power allowing shearing flat bars without scraps or clearance adjustment according to thickness
- ✓ Automatic repositioning of shearing centered on the cut part with cutting effort in the cylinder axis
- ✓ Rotary shear to carry out mitre and multiple cuts
- ✓ Powerful punching with 400 bars hydraulic pressure
- ✓ Three tools selector for punching
- ✓ Use of shaped punches or nibbling to produce special shapes
- ✓ Pop-marking possibility
- ✓ Modular machines adapted to customer's requirements
- ✓ Clamping units installed in all the machines for an optimum support of the bar during machinings
- ✓ Unloading by ejection
- ✓ Industrial PC with software PLC
- ✓ ProNC 2® software for programming under Windows:
 - Very user friendly
 - Numerous functions
 - Graphic and table mode
 - Nesting with optimization
 - Telemaintenance
- ✓ Hanging control panel with TFT 15" screen and tight keyboard with integrated mouse
- ✓ Air conditioning in control cabinet
- ✓ Standard network connection with DSTV file import



Characteristics	PS 500	
Types of admitted profiles	Flat bars	
Carriage maximum speed	60 m/min	
Working height	1100 mm	
Punching		
Flat bar	50 to 500 x 25 mm	2" to 20" x 1"
Number of punching units	1 / 3 tools selector	
Punching power	1100kN	
Maximum punching diameter	32 mm	
Maximum diameter in maximum thickness	32 mm in 25 mm E24	32 mm in 16 mm E36
Maximum speed of punching unit	23 m/min	
Shearing		
Shearing power	2800 kN	
Upper blade angle	2°	
Shear rotation	+/- 45°	
Shear centering	Automatic	
Speed of shear motion	35 m/min	90°/s
Maximum real cut width	500 mm	
Capacity in multiple cuts	500 mm	
Capacity at 90°	500 x 25 mm steel E36	
Capacity at 45°	350 x 25 mm steel E36	
Equipments		
PS driver software with ProNC 2 [®] programming software	●	
DSTV files import	●	
Telemaintenance	●	
Nibbling of oblong holes	●	
Use of shape punches	●	
Air conditioning system in electrical cabinet	●	
Anti collision system on carriage	●	
Motorized exit table	●	
Bar length measurement cell	●	
Automatic gripper raising system during carriage return	●	
Lubrication of punches	●	
Pop-marking	○	
Video on carriage	○	
Disk marking unit 40 characters	○	
Tilting element on exit table	○	
Lateral loading / unloading chain systems	○	
Hydraulic ejector for unloading	○	
Horizontal sensing device	○	

● Standard

○ Optional

● Optional (highly recommended)

VERNET BEHRINGER reserves the right to modify technical data without previous notice.
Characteristics are given for steel E24 / ST37

VERNET BEHRINGER range: complete range of equipments required for working plates and section profiles

HD High speed multispindle drilling lines for working profiles	RD Cutting lines for notching all types of profiles
HBP Bandsawing machines for profiles	PG / FG Punching-drilling machines for plates
MAP Punching-shearing lines for all types of profiles	MAG B Combined marking-punching-drilling-cutting lines for plates
VP Punching-drilling-shearing lines for angle sections	PS Punching-shearing machines for flat bars and angle sections
VF Punching-notching-shearing lines for angle sections and flat bars	UP / UPA Portable hydraulic punching units for all types of profiles



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