



MULTISPINDLE HIGH SPEED DRILLING MACHINE FOR MACHINING ALL TYPES OF PROFILES



# HD

Multispindle high speed drilling machine for machining all types of profiles:

- structural beams (H, I, U, Angle sections, Flat bars),
- simple structural sections (plate girders) or with variable angle,
- rectangular hollow sections

Combined with a BEHRINGER band saw: HBP reference, the machines constitute a key element of any efficient steel construction workshop:

- √ Robustness,
- √ Reliability and easy maintenance,
- √ Simplicity and flexibility of use,
- Maximum productivity.

# Important design factor:

The specific original design (drilling spindles in frame axis and rigid guides eliminating all deflection during machining) ensures a perfect stability and allows to combine:

- Very high speed of execution,
- √ Flexibility and accuracy of machining,
- Possibility to use all types of drills.



Clamping vise for scribing option



Standard clamping vise



Hydraulic gripper : detail view



Scribing tool



CNC disk marking unit



Tool changer

#### Main technical characteristics:

- ✓ Rigid and compact CNC propelling carriage with hydraulic clamping gripper
- ✓ Bar length measurement with optical cells
- ✓ Fast tool changer: 5 diameters, on each spindle or ergonomic manual quick-change chucks
- √ Positioning speed of drilling units: 20 m/mn
- Fast machining: spindle rotating speed up to 3500 RPM
- Possibilities of technical machining (scribing): to validate previously by our engineering departments
- ✓ Special cycles: Flowdrilling, flowtapping, boring for diameter up to 200 mm
- ✓ Industrial PC with software PLC
- ✓ ProNC 2<sup>®</sup> programming software under Windows:

Very friendly and easy-to-use

Numerous functions

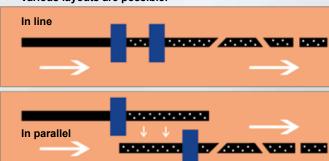
Graphic and table mode

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

### Various layouts are possible:





| Characteristics   | HD 300                     |              |                            | HD 600                 |           |                            | HD 900                 |             |                            | HD 1200                |           |           |
|---|----------------------------|--------------|----------------------------|------------------------|-----------|----------------------------|------------------------|-------------|----------------------------|------------------------|-----------|-----------|
| Minimum capacity (mm l inches)                                      | 80 x 10                    |              | 3" x 3/8"                  | 80 x 10                |           | 3" x 3/8"                  | 80 x 10                |             | 3" x 3/8"                  | 80 x 10                |           | 3" x 3/8  |
| Maximum capacity (mm I inches)                                      | 300 x 300                  | 0            | 12" x 12"                  | 600 x 400              |           | 24" x 16"                  | 900 x 400              |             | 36" x 16"                  | 1200 x 600             | ) 47      | 7 ½" x 24 |
| Number of spindles  |                            | 3            |                            |                        | 3         |                            |                        | 3           |                            |                        | 3         |           |
| Available spindle power   |                            | 9.2 / 7.5 kW |                            | 12 /                   | 9.2 / 7.5 | kW                         | 12 /                   | 9.2 / 7.5 k | (W                         | 12                     | 9.2 / 7.5 | kW        |
| Spindle type  | SA 40                      |              |                            | SA 40                  |           |                            | SA 40                  |             | SA 40                      |                        |           |           |
| Possible drilling diameter, depending on tooling (mm)               | minimum 8 / maximum 30     |              |                            | minimum 8 / maximum 40 |           |                            | minimum 8 / maximum 40 |             |                            | minimum 8 / maximum 40 |           |           |
| Spindle rotating speed, depending on tooling and motor powers (RPM) | minimum 200 / maximum 3500 |              | minimum 200 / maximum 3500 |                        |           | minimum 200 / maximum 3500 |                        |             | minimum 200 / maximum 3500 |                        |           |           |
| Maximum carriage speed  |                            | 60 m/min     |                            |                        | 0 m/min   |                            |                        | 60 m/min    |                            |                        | 0 m/min   |           |
| Standard working height (mm l inches)                               | 830                        |              | 32 2/3"                    |                        |           | 32 2/3"                    |                        |             | 32 2/3"                    | 830                    |           | 32 2/3    |
| Equipments  |                            | HD 300       |                            |                        | HD 600    |                            |                        | HD 900      |                            |                        | HD 1200   |           |
| Hydraulic vertical adjustment of gripper                            |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Pop-marking, tapping, threading cycles                              |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Use of step drill   |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| External and through the drills lubrication                         |                            |              |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Air conditioning system in electrical cabinet                       |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| HD driver with new Pro NC 2 software                                |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Telemaintenance / DSTV Import                                       |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Bar length measuring cycle  |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Automatic measure of tool length                                    |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Anti collision system on carriage                                   |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Automatic gripper raising system during carriage return             |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Stripping and chips breaking cycle                                  |                            | •            |                            |                        | •         |                            |                        | •           |                            |                        | •         |           |
| Profile scribing through the spindles                               |                            |              |                            |                        |           |                            |                        |             |                            |                        |           |           |
| Underneath profile scribbing  |                            |              |                            |                        | •         |                            |                        | •           |                            |                        |           |           |
| Automatic tool changer : 5 Ø per spindle (3 on HD 300)              |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Sensing device for correct gripping                                 |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Automatic Pre positioning of vertical spindle and clamp             |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| CNC length measuring back stop system                               |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Motorized gripper adjustment on 2 axes                              |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Video on carriage   |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Horizontal and vertical profile sensing device                      |                            | .0           |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Underneath pop-marking  |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Flowdrilling, flowtapping, boring                                   |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Chips conveyor  |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Through the drills microlubrication system                          |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Hydraulic unloading system  |                            | 0            |                            |                        | 0         |                            |                        | 1           |                            |                        | /         |           |
| Lateral loading or transfer chain systems                           |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| Lifts for loading or transfer                                       |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| CNC disk marking unit   |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |
| HBP (Behringer) bandsawing machine in line or parallel              |                            | 0            |                            |                        | 0         |                            |                        | 0           |                            |                        | 0         |           |

standard optional VERNET BEHRINGER reserves the right to modify technical data without previous notice.

| VER | 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            |  |  |  |  |  |  |
| НВР | 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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Characteristics are given for steel E24 / ST37