## TECHNICAL FEATURES VR36/3

Automatic machinery-group for cutting of straight iron concrete rods from structural steel, guided by computer that is embedded in the main body of the machine.

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|---|---|---|---|---|---|---|
| Feeding pieces: | 8 ∅8 | 8∅10 | 6∅12 | 5∅14 | 4∅16 | 3∅18 |
| | 3∅20 | 2∅22 | 2∅25 | 1∅28 | 1∅32 | 1∅36 |
| Advance speed: | 110 m / min. | | | | | |
| Length measurement accuracy: | ± 1 mm | | | | | |
| Corridors for placement of cut rods: | 3 | | | | | |
| Power : | 22.5 Kw | | | | | |
| Electrical voltage: | 380V | | | | | |
| Control Panel Electrical Voltage: | 24V | | | | | |
| Dimensions (L x W x H): | 13500 x 2200 x 1700 mm | | | | | |
| Weight : | 7000 Kg | | | | | |
| Dimensions for Transportation: | 12000 x 2400 x 2000 mm | | | | | |
| Transportation Weight: | 7150 Kg | | | | | |

**"GALANOS SA" can modify the above-mentioned data without previous warning**

The fully-automated machinery-group for cutting of straight iron concrete rods from structural steel moves on railways and collaborates with immobile bench which is on the left side of the machinery-group; upon the bench are placed the straight rods bundles.
The operator displaces the cutting carriage by use of buttons and selects the diameter of the rods to be processed.
On the right side of the machinery-group, there is a possibility to install a «relieving bench», which houses the cut rods; In addition, an automatic machinery group for double-direction bending of straight rods of structural steel can be placed.

The parts of the machinery-group for cutting of straight iron concrete rods are divided in the following categories:

1. *Corridors for the housing of the cut rods*
2. *Advance and cutting head*
3. *Control panel*
4. *Hydraulic unit*
5. *Pneumatic unit*
6. *Electro-logical board*


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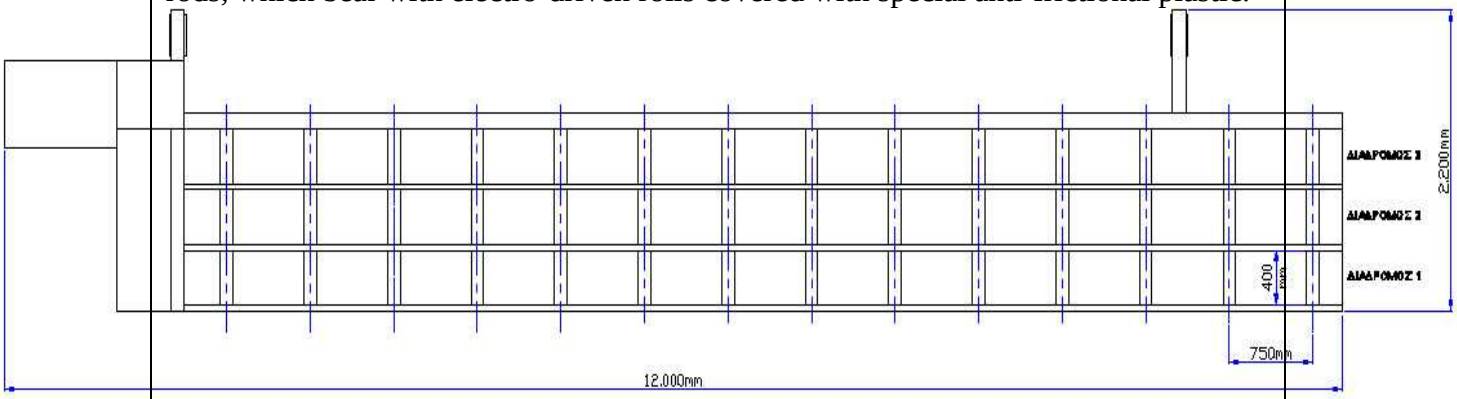
***1. Corridors for the housing of the cut rods***

On the machinery-group VR362, there are three corridors for the housing of the cut rods, which bear with electro-driven rolls covered with special anti-frictional plastic.

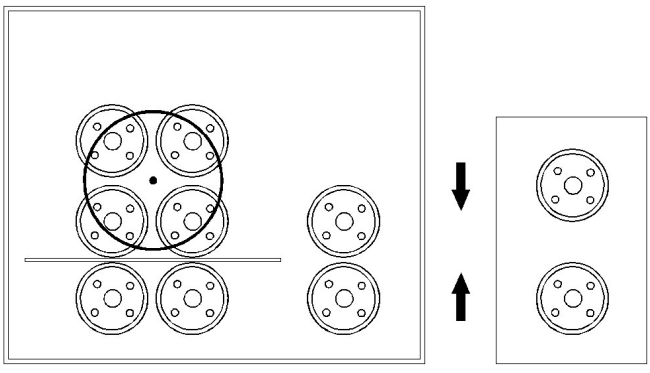



Over the corridors, there are braces that open-close with the aid of pneumatic pistons. The operator makes the selection via computer. This way, the -different length- cut rods are placed in a different corridor.

The operation of the electro-driven rolls of the corridors, is accomplished either from the operator's location or from the specific location which exists at the output of the cut rods.

***2. Advance and cutting head***

The head for the advance and cutting of the straight rods is provided with three metallic and toothed advance rolls, which are set in motion via hydraulic oil pressure and are placed before cutting point, as well as one metallic toothed advance roll which is also set in motion via hydraulic oil pressure and is placed following to the cutting point. Over the metallic rolls, there are free metallic and plastic rolls. At the rear part of one of the free metallic and plastic rolls, the encoder is installed.



The free plastic rolls are installed upon a disk and have the ability to rotate. Two of those are placed opposite to metallic advance rolls and two ones remain inactive.

By this innovation, when the plastic rolls are worn-out, the operator rotates the other two in order to bring them in a functional position. It is worth saying that this system constitutes Patent of our company.

The above-described specific innovation enables the operator to execute at any time cutting of rods which are of small diameter.

The rod's cutting is accomplished via hydraulic pressure.

The cutting blades (knives) are triangle-shaped and bear with six cutting edges (patent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of our company).
The feeding of the rods is realized manually. By placing the ends of the rods upon a mobile lock, this lock displaces the rolls laterally towards the advance rolls with the aid of hydraulic piston.
The pieces -to be cut- which they come from one rod, may be of the same or of a different length. The operator can make this selection by means of computer. In case the lengths of the rods are different, there is a possibility for selection of different corridor as well.

***3. Control panel***
The machinery group is provided with two control panels.
One is placed over the advance and cutting head, where, at its inner part an industrial PC is installed, while at the front view of the control panel a touch screen and an additional keyboard are installed.
During programming, the length and the quantity of the rods well as the corridor for their housing are indicated at the screen..
Moreover, the operator is able to see at the screen additional data (e.g.: quantity/Kg, e.t.c.) At the second control panel, are installed all manual command buttons.
*Programming ways (WINDOWS environment)*:
α) via keyboard
β) via screen
γ) by use of USB memory stick

***4. Hydraulic unit***
The machinery-group bears with one piston pump of special construction (for such types of machinery), one pre-heater as well as an air-cooled oil system.
The components which are used at the hydraulic units are of "VICKERS", "DANFOSS" and "YUNKEN" type.

***5. Pneumatic unit***
At the machinery group is installed a compressor used for the air supply in the pneumatic circuit. The pneumatic circuit guides the overturn of the bench, the opening-closure of the braces -which are over each corridor-, as well as the tightening of the measurement rolls.

***6. Electro-logical board***
The electro-logical board is on the back side of the machinery-group, where all the electro-logical material (type of: Schneider) is installed.

☞ *Together with the main equipment, «GALANOS SA» delivers to the client a tools collection, as well as some consumable spare parts.*


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