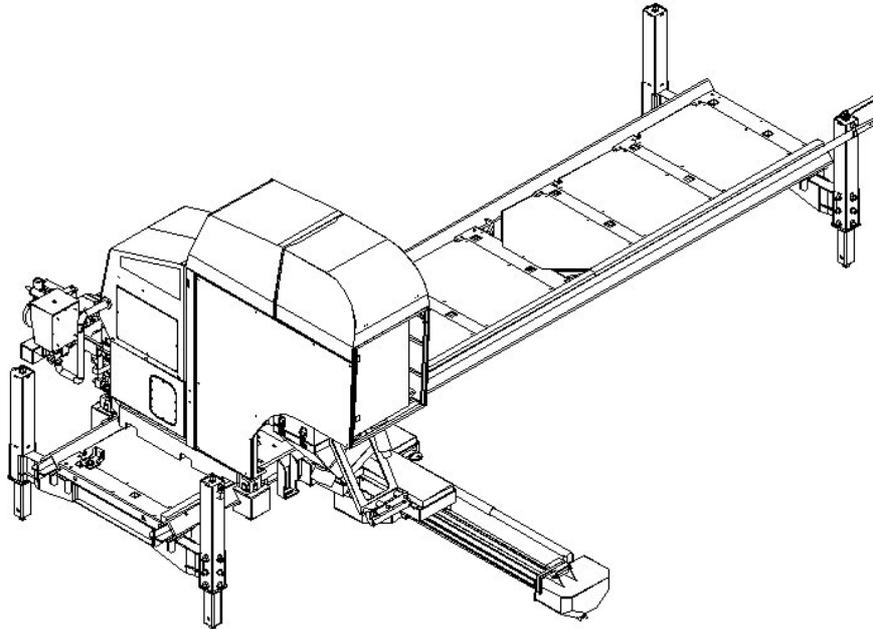


a modern unrivalled leadership



TEMPEST 100VH is a hydraulic block cutter electrically powered studied for the bank vertical and horizontal drilling.

The principal feature of TEMPEST 100VH is, certainly, the presence of an electrical panel equipped with a display allowing three different usage system of the machine: manual, semi-automatic and automatic. With the first function the operator will execute all the drilling operations, with the second one it will be possible setting up the holes depth while with the third function the operator will set not only the depth but the distance between the holes and the maximum number of holes before each equipment sharpening.

TEMPEST 100VH strong points are, besides the compactness and the usage simplicity, the presence of several hydraulic devices, really innovative, as well as the , the steel retainer release, the sharpener and the useful steels extractor.

TEMPEST 100VH system has been designed giving particular attention to the operations from horizontal to vertical configuration (and vice versa) transformation. The drilling column positioning, in order to be able for working in horizontal and vertical, has made by mechanic articulations; in this way by a simple lifting device it is possible to lower the column and to bring it in horizontal work position; hydraulic and electric connection to the column have been made by quick coupling, particularly the hydraulic joints, are of the " flat head" type, that allow the connection and disconnection without oil dispersion in the environment.

For all the quarries not equipped with electricity, it has been planned ENERGY 85, a module constituted by a compressor and a generating set, appositely studied for all the exigencies of TEMPEST 100VH. Thanks to the usage and reduction of fuel consumption there is a consequential abatement of exhaust gas emission.

Hydraulic block cutter TEMPEST 100VH and the module Energy 85 have been designed respecting all the structures fitted to preserve the environment and quarry working safety. Environment protection is guaranteed by the presence of a dust collector, with acoustic emission values really low, thanks to the use of hydraulic drifters and the use, for ENERGY 85, of low fuel consumption engine with following diminution of pollution.

## **Drilling equipment:**

- ❑ Four manual stabilizers with 450 mm. Stroke
- ❑ Translation on a track with bearing wheels system
- ❑ Possibility of lateral wall space cut at 330 mm. Distance
- ❑ Hydraulic device for the approach to the ground of the column
- ❑ Hydraulic device for lateral column inclination
- ❑ Manual device for lateral column inclination
- ❑ Anti-jamming device
- ❑ Hydraulic drill steel extractor
- ❑ Hydraulic steel retainer release
- ❑ Electronic control panel equipped with display
- ❑ Electronic drilling deepness gauge
- ❑ 584 mm. translation track
- ❑ 1 x 3,2 Mts. drifter chain advancing column
- ❑ 1 drifter chain advancing slide
- ❑ Column and slide advancing sliding block in self lubricating material
- ❑ Water or air drain drilling
- ❑ Electric and pneumatic feeling coupling

## **Drifters:**

### - *Doofor DF420:*

❑	Weight Kg	41	
❑	Working pressure Bar		110/140
❑	Percussion rate		6500/7000
❑	Lit./Min rotation	11/20	
❑	Lit/Min percussion	40/60	
❑	Rotation speed torque Nm	97	

### - *Doofor DF522:*

❑	Weight Kg	55	
❑	Working pressure Bar	100/130	
❑	Percussion rate	2700/4200	
❑	Lit./Min rotation	9/18.5	
❑	Lit/Min percussion	46/80	
❑	Rotation speed torque Nm	107	

**Engine:**

- ❑ Electric asynchronous three-phase engines to drive hydraulic pump nominal power 36 Kw
- ❑ Air-oil exchanger with ventilation by asynchronous three-phase engine nominal power 1,5 Kw

**Dust collector:**

- ❑ Driven by electric asynchronous three-phase engine nominal power 4 kW
- ❑ 5 Mts.<sup>2</sup> filtering surface
- ❑ Automatic washing system of the filters
- ❑ Fan capacity 4000 rpm 300 m<sup>3</sup>/hour
- ❑ Suction pressure 1100 mm c.a. (0.106 bar).

**Sharpener**

- ❑ Hydraulic starting of the motor
- ❑ Grinding wheel dimension 150x80x32
- ❑ Integral drill steels blocking system
- ❑ Wheel approaching system of the grinding wheel to the integral drill steel

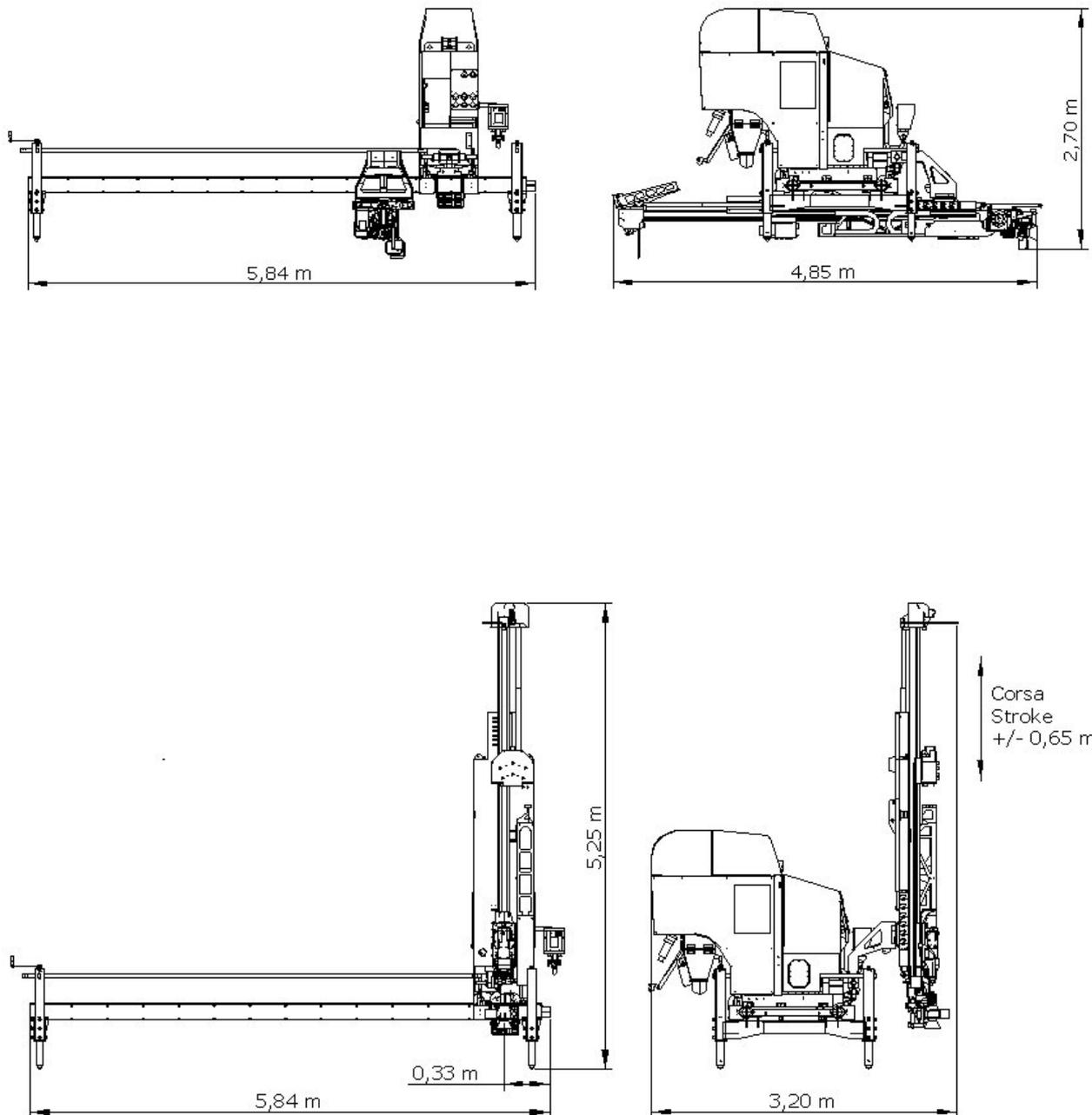
**Technical specification:**

- ❑ Start drilling with 3,20 Mts. Integral drill steels
- ❑ Holes diameter 22-45 mm.
- ❑ 5,84 Mts. translation track with 5,20 Mts. useful stroke from hole centre

**Necessary feeding:**

- ❑ Three-phase electric line 380 V 50 Hz with 55 KVA disposal
- ❑ Pneumatic line (availability of 1400 NI/min. at 7 bar)

## Machine movements:



**Indicative performances:**

- *Drilling speed with button bit (diameter 32):*

- Granite Porriño: from 1,4 to 1,8 m/min.
- "Gneiss" Luserna: from 1,3 to 1,6 m/min.
- Limestone "Trani": from 1.5 to 1.9 m/min.
- Marble "Botticino": from 1,5 to 1,9 m/min.

**Freight dimension:**

- Total length: 5,84 m
- Total width: 2,35 m
- Height: 2,15 m
- Weight: 2400 kg

**POWER PACK Mod."Energy 85" WITH INDEPENDENT ELECTROCOMPRESSOR****Technical data:**

- ❑ 4 sections control panel with key switch for starting
- ❑ 2 x 380 V 125A 4 P sockets
- ❑ 1 x 220 V 16 A 3 P socket
- ❑ 83 KVA emergency 76 KVA continuous
- ❑ 66,4 KW emergency 60,8 KW continuous
- ❑ Freight dimensions: Length 3,00 Width 1,30 Height 1,50 m

**Generating set engine:**

- ❑ 1004 TG2 Perkins engine
- ❑ 97 CV advanced power
- ❑ 3990 cm<sup>3</sup> powered
- ❑ Number of cylinders: 4 T shaped
- ❑ 210 g/KWh consumption
- ❑ Preset for -15°C approaches
- ❑ External air pre filter
- ❑ Air pre filter automatic cleaning device

**Compressor:**

- ❑ Screw compressor
- ❑ Air volume: 1,95 m<sup>3</sup>/min at 10 bar
- ❑ Tank with air-oil separating filter
- ❑ 380V - 50Hz, HP 20 – KW 15 three phases electric engine
- ❑ Electric engine protection IP55
- ❑ Star like triangle engine starting system
- ❑ Air dry filter
- ❑ Computerized control panel
- ❑ Engine overheating thermal protection system with automatic stop
- ❑ Oil compressor cooling system radiator
- ❑ Compressed air radiator with 10°C higher then ambient temperature outlet temperature
- ❑ Suction pre filter
- ❑ Condensate separating filter with automatic discharge