



## Why choose a Wires Engineering machine

The cutting machines are designed, developed and manufactured by WIRES ENGINEERING to produce granite, stone and marble slabs, using diamond wire technology. They are developed to increase the productivity, optimize resources and costs and minimize the machine stoppages.

### EFFICIENCY



WIRES' machines guarantee maximum cutting efficiency with minimum space and waste of resources. **The optimization of the diamond wire length** improves the cutting efficiency and guarantees the speed and precision requirements. **The lubro-refrigeration system** optimizes the cutting process and contributes to extend the life of the diamond wire, **reducing consequently working and diamond wire costs** (substitution/regeneration).

**Minimum diamond wire length + Lubro-refrigeration system = WORKING COSTS REDUCTION**

### PATENTED TECHNOLOGY



WIRES' machines' **patented tensioning system** carries out and maintains the correct tensioning of each diamond wire during any cutting phase. Furthermore, **by absorbing the diamond wire vibrations, it extends its life and optimizes its efficiency and efficacy.** The low noise and the absence of vibrations optimize the machine performances and increase its safety, **minimizing, at the same time, the environmental impact and the noise pollution.**

**PATENTED TENSIONING SYSTEM = Tool performance increase + Environmental impact reduction**

### COMPUTER ASSISTED MANAGEMENT



A **sophisticate system of auto-diagnosis and automatic process control** records the presence of eventual anomalies and their solution. The automatic calculation of the block dimensions promotes the **control and the management of the whole productive process.** The machines automatic functioning favors the automatization of the whole cutting process, **minimizing machine stoppages.**

**COMPUTER ASSISTED MANAGEMENT = Cutting process management + Machine stoppages reduction**

### ERGONOMIC DESIGN



The **practicality of reaching all working areas** and the ergonomic aspects have allowed to develop simple and easy to use solutions. Only two operators are necessary for the **loading and unloading of the wires** and/or for the modification of the cutting configuration. The consequent maintenance time optimization and the reduction in machine stoppages directly promote the increase of the productivity and the cost reduction.

**ERGONOMIC DESIGN = Machine stoppages reduction + Costs reduction**

### MINIMIZATION OF THE MACHINE STOPPAGES



**Innovative polyurethane inserts** coat WIRES' machines wheels and rollers. The constructive technology promotes their easy removal and substitution, thanks to an agile maintenance without the necessity to disassemble the main body of the machine **reducing functioning costs and minimizing machine stoppages.**

**INNOVATIVE POLYURETHANE INSERTS = Maintenance costs reduction + Machine stoppages minimization**

### RELIABILITY



The **mechanical components' rationalization**, the perfect synergy between the structural configuration, the cutting accuracy and the motion precision guarantees an **effective, efficient and stable functioning** of WIRES' machines. The working conditions and the presence of water, mud and scraps do not degrade the machines structure, thanks to the **surface treatments** realized during the final painting phases.

**Mechanical components rationalization + Surface treatments = RELIABILITY**

### FLEXIBILITY



WIRES' machines are conceived in order to guarantee the **maximum functioning flexibility.** Indeed the patented technology of the polyurethane inserts allows to select the slabs thickness thanks to the positioning of the wire in the corresponding housing, for the **simultaneous production of slabs with different thickness** (2 – 3 – 4 – 5 cm and multiples). This technology removes

the critical areas that derive from the weakness of the edge that sustains the diamond wire.

**Polyurethane inserts + Different thickness production = FLEXIBILITY**

### SUSTAINABILITY (ECONOMICAL-ECOLOGICAL-SOCIAL)



WIRES' machines are designed to **minimize the energetic consumption**, for the realization of a sustainable and low impact production, reducing the whole productive process costs. The use of a multi-wires configuration (8, 20, 30, 40 and 65 wires) increases the productivity and at the same time reduces the environmental impact of the process, **optimizing the energetic resources.**

**Energetic consumption reduction + Working optimization = SUSTAINABILITY**

### VERSATILITY



WIRES' machines are available in two different configurations: **stationary and gantry.** The possibility to choose between these solutions allows to cope with different cutting and stone blocks handling needs. The design flexibility and the availability of more than one machine layout fulfill the different **marketing requirements** and increasing the cutting process sustainability.

**Diversified offer + Customer needs adaptation = VERSATILITY**

### STRUCTURE



WIRES' machines have a **portal structure** that confers stability and solidity during their functioning. The choice of the materials, paints and surface treatments impact on the **machine longevity.** Finite Element Analysis allowed to define the tensioning state of the machine and to optimize the materials used and engineering the structure. The painting process, the choice of the materials, the high-tech solutions and the attention to the machine style, confer an innovative aspect to these "stone machines".

**Portal structure + Attention to details = GOOD DEPARTMENT**