

At the leading edge of glass processing

With consolidated turnover of 70 million Euro, investment in research and development totalling 2.5 million Euro in 1999, as well as an annual production of just under a quarter of a million tools per year from its Tools Division, it seems safe to say that Z. Bavelloni is at the leading edge of glass processing. This article gives an overview of four products from different Z. Bavelloni divisions which were particularly successful at Vitrum '99.

Z. BAVELLONI Spa



ALPA 250/4

An expert in the manufacture of glass working machines since 1968, Z. Bavelloni has been producing diamond tools since its foundation in 1946. Now a complete range of machines for processing flat



glass (e. g. double glazing), such as cutting tables, grinding machines, NC machines, double edgers, drilling machines and tools are available. Vitrum '99 was a great success for the company, and it presented many new machines, some of which were considered to be techno-

TECHNICAL FEATURES OF THE VX 11

Double beam chassis with ball bearing guides

High power spindles : 5,000 RPM

Motorization by 2 brushless motors

All the parts which are in contact with water are made of stainless steel

NC to control all the functions of the machine

Possibility to use the ACS® system

TECHNICAL FEATURES OF THE ALPA 250/4

Possibility of loading/unloading from the top of the machine

20-position tools store

Working bridge with double motor drives

Easy to use and programme

13 HP spindle

'C' rotating axis for disk cutting up to 50 mm thickness

Available in two dimensions:

1,200 x 2,500 mm and 2,300 x 3,200 mm

logically innovative. Here is an overview of the products from four divisions which were most successful.

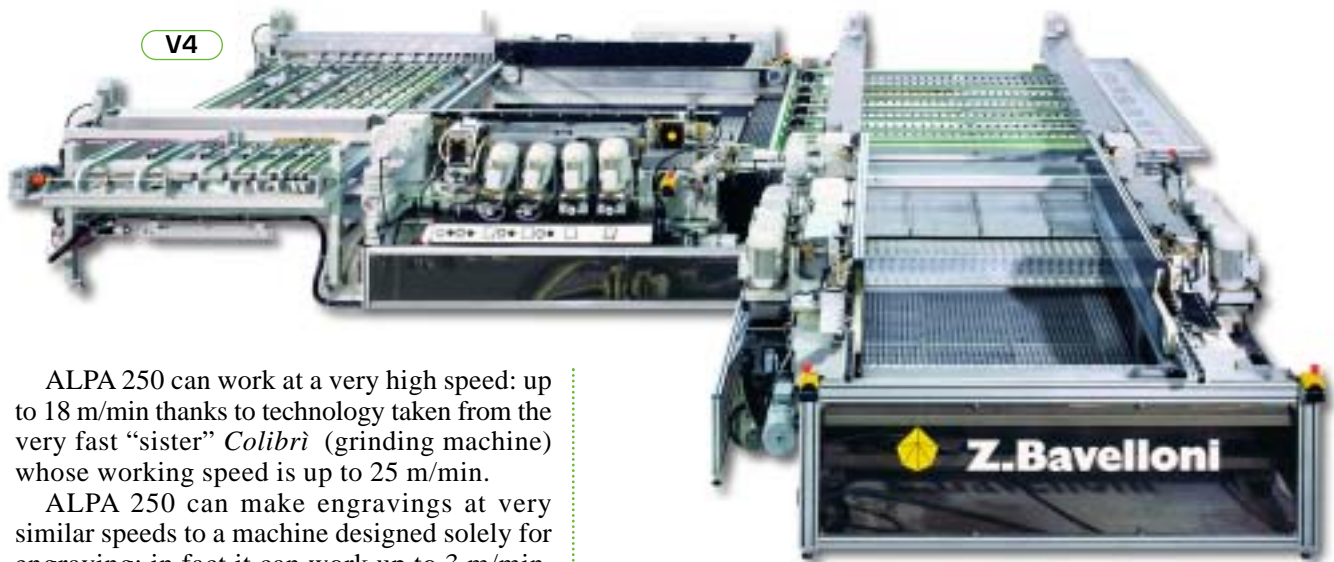
NC DIVISION

The ALPA 250/4 is a new, patent pending edging machine which can also carry out shaped polished engravings. Although it is necessary to invest just a little more than for a standard NC edging machine, this innovation allows the customer to have the characteristics of two machines in one. It has been developed following Z. Bavelloni's principles of quality and sturdiness.

The engraving kit can be installed on all ALPA 250/4 machines (4 axes), therefore it is possible to stage the investment by first purchasing the ALPA 250/4 machine and then later the engraving kit.



VX 11



ALPA 250 can work at a very high speed: up to 18 m/min thanks to technology taken from the very fast “sister” *Colibri* (grinding machine) whose working speed is up to 25 m/min.

ALPA 250 can make engravings at very similar speeds to a machine designed solely for engraving: in fact it can work up to 3 m/min, which means that it can reach the same quality and speed.

Thanks to this Z. Bavelloni patent pending system, by using the 4th rotating C axis, it is possible to control the engraving head just like a normal tool with automatic loading and

machine instead of two avoids the following:

- loading/unloading of the glass sheets;
- programming twice;
- more setting up of the machine;
- more than one washing operation.

All this reduces scratches, saves time and additional costs.

The CAD/CAM system includes the Easycad programme for edging as well as the engraving programme, which contains all the typical functions of an NC engraving machine (standard engravings, drops, waves etc.)

CHARACTERISTICS OF THE MTS

High performances: 123 m/min

Precision: ± 0.20 mm

All axes driven by brushless motors

Transmission by racks and tempered and prismatic guides

Laser detection system of template

Air cushion with exclusive device for flow regulation

NC automatic management of both lubrication flow pressure and of cut

GRINDING DIVISION

From the grinding division come new double edging machines for flat and pencil edge, including the *VX 11* for flat edges and the *V4*

unloading from the tools store. In a few minutes the ALPA 250/4 can make engravings only, or engravings together with edging, without moving the glass sheet.

We must remember that working on one



MTS

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TECHNICAL FEATURES OF THE HWM 1604

- Speed up to 15 m/min
- Self adjustment according to thickness: 3-32 mm
- 2 independent washing sections
- Sector brushes with interchangeable elements
- Automatic lifting of upper part
- Automatic self adjustment of drying air
- Loading of small parts (250 x 150 mm) from both sides
- Easy access to all inside parts

for pencil edges, which feature these innovative characteristics:

- very high grinding speed for pencil edge up to 18 m/min;
- automatic control system which fully replaces the operator;
- revolutionary patented automatic regulation of the machine to compensate for wheel wear.

The automatic control system automatically controls wear of diamond wheels and consequently it optimizes their performance, checks polishing pressure as well as the dimension and accuracy of the processed glass sheets.

Advantages of the automatic control system include:

- possibility of machine working without the presence of the operator;
- no set up time;

- high quality of the working speed and constant dimension of the processed glass sheets;
- greater wheel life;
- easy to use.

CUTTING DIVISION - ADVANCED SOLUTIONS

The *MTS* range is a new series of cutting tables which ensure precision and "Grand Prix" performances of 0 to 123 m/min in only 350 mm.

The company has a spacious showroom where machine demonstrations can be given.

WASHING MACHINE DIVISION

Due to increasing bevelling speeds, it became necessary to create a washing machine capable of keeping up with the higher speeds of the bevelling machines. In addition to speed, the *HWM 1604* is of particularly good quality in its ease of maintenance and durability.

Z. BAVELLONI - ITALY



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