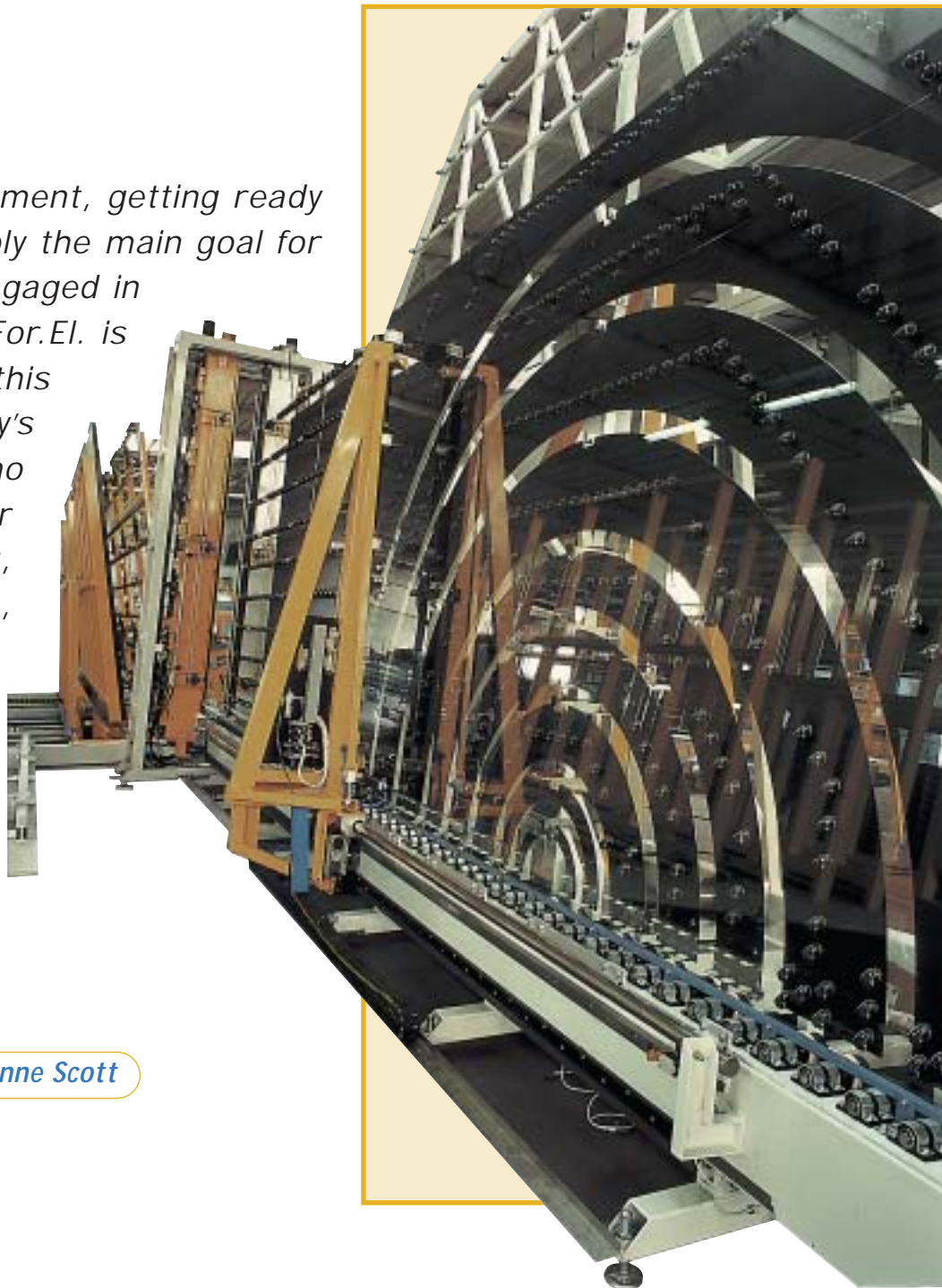


Advanced concepts in glass processing

At the moment, getting ready for glasstec is probably the main goal for most companies engaged in the glass industry. For.El. is no exception and, in this article, the company's Technical Director, Dino Moschini, and Founder and President, Fortunato Vianello, describe For.El.'s new machines and solutions for the industry, aimed at solving basic, everyday problems.

Valerie Anne Scott



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The new production unit in Meolo, Venice, northern Italy is where the advanced, and often revolutionary, concepts of For.El. S.p.A. - market leading manufacturer of glass processing machines and technologies - are put to effective use. The company is presently working full-time on new machines and innovations that will be presented at the *glasstec* exhibition in Germany in October. As always, the exhibition will be the test bench for For.El.'s new machines.

THE PHILOSOPHY: TECHNOLOGY, BELIEF, WILL AND CREATIVITY

Since the very beginning, when the first automatic double-glazing lines were constructed, the company has always strived to solve the basic problems of operators involved in the glass industry. Sometimes the solutions totally revolutionized traditional processes. In brief, the fuel for For.El.'s research motor is technology, belief, will and creativity, and the fruits are part of an evolu-

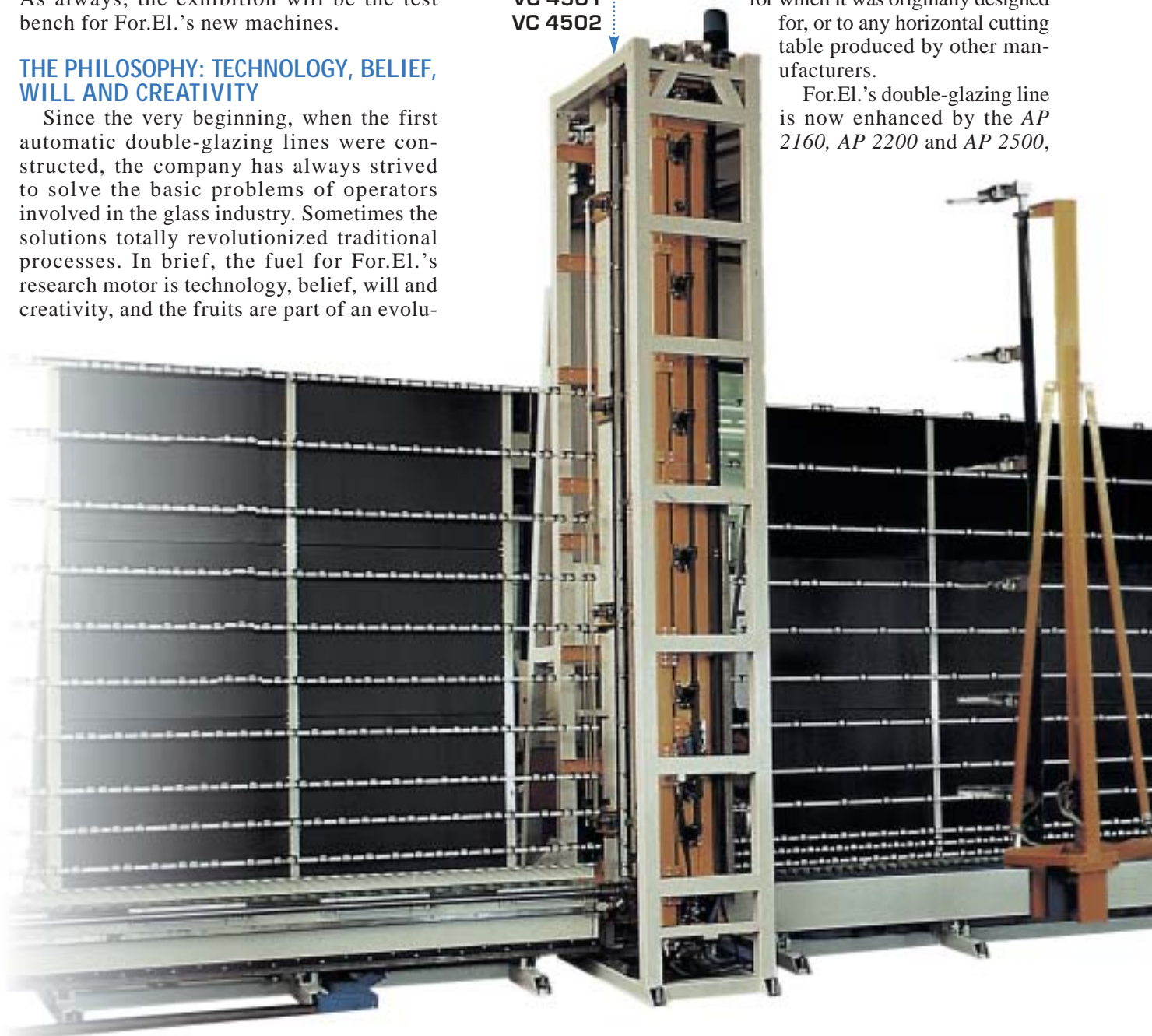
tionary process that has been continuing now for over 25 years.

Vertical cutting and double glazing lines

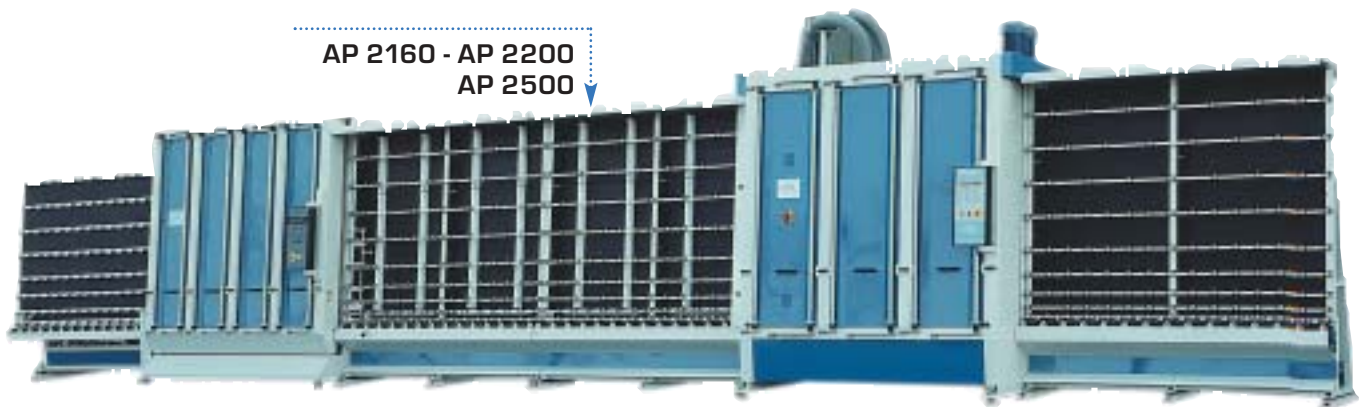
Exclusive to For.El., for example, is the first and only vertical cutting line in the world: the versatile glass handling and storage system, thanks to its confirmed qualities of flexibility, can be linked to either the vertical cutting line, for which it was originally designed for, or to any horizontal cutting table produced by other manufacturers.

For.El.'s double-glazing line is now enhanced by the *AP 2160*, *AP 2200* and *AP 2500*,

VC 3301
VC 3302
VC 4501
VC 4502



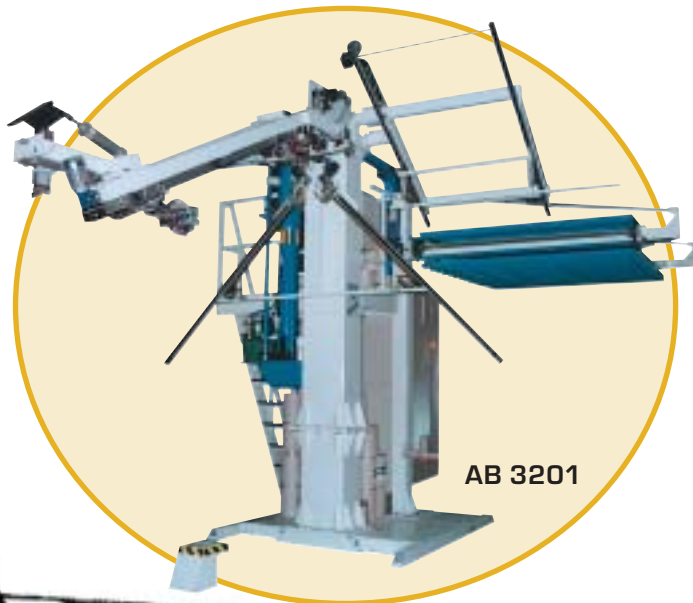
AP 2160 - AP 2200
AP 2500



a state-of-the-art, high-precision, error free and highly reliable coupling machine. To complete this line-up there are three totally automatic machines that together produce spacer frames. These are: the spacer bending machine, desiccant loading machine and butyl application machine.

PRODUCTION AND RESEARCH

The successful results achieved by For.El.'s



AB 3201



trademark stem from the understanding of the basic idea of the automatic butyl application machine. All this originates with the objective behind research: this includes making the butyl application process totally automatic so as to increase productivity, improving production (logistics) organization, and optimizing available resources - all this guaranteed by maximum sealing quality of each double-glazed unit. To explain how the

AB 3201 operates - without going into too many technical details, it is sufficient to say that it symmetrically applies a constant thin bead of butyl rubber along both sides of the spacer frames, thus ensuring that the corners are perfectly closed. The machine automatically adapts

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the distance between the two butyl extrusion nozzles in relation to the width of the frame. The quantity of butyl extruded is identical on both sides and can be adjusted by the operator without wasting product thanks to For.El.'s exclusive software, which complies fully with existing local requirements. Lastly but first in order of importance, it must be pointed out that, during all processing stages, the butyl never comes into contact with the machine or any contaminating agents; its features therefore remain unaltered.



DFN 632 with automatic loading/unloading of the profiles



DFN 632

As regards productivity, For.El.'s butyl application machine ensures high continuous-cycle productivity by using two racks: a loading rack with a capacity of 60 frames, and an unloading rack that can hold up to 30 frames ready for the next coupling operation with the two glass panes.

The in-line combination with For.El.'s automatic desiccant loading machine offers further benefits because the process, that starts with the loading of hygroscopic material and ends with butyl application, is totally automated and thus cost and labour are reduced to a minimum - with product quality being improved into the bargain.

Waiting for glasstec

Everything is ready for glasstec, when these For.El. technological developments will be test proven, along with many other innovations - and surprises. ■

Information Service no. 106

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