

Forma Glas is continuing to set new targets, developing new machines and improving their performance. In this article, the company gives us an idea of one of its most recent goals: that of raising the output of its lines, in particular regarding tumbler and stemware production.

PRODUCTION TECHNOLOGY

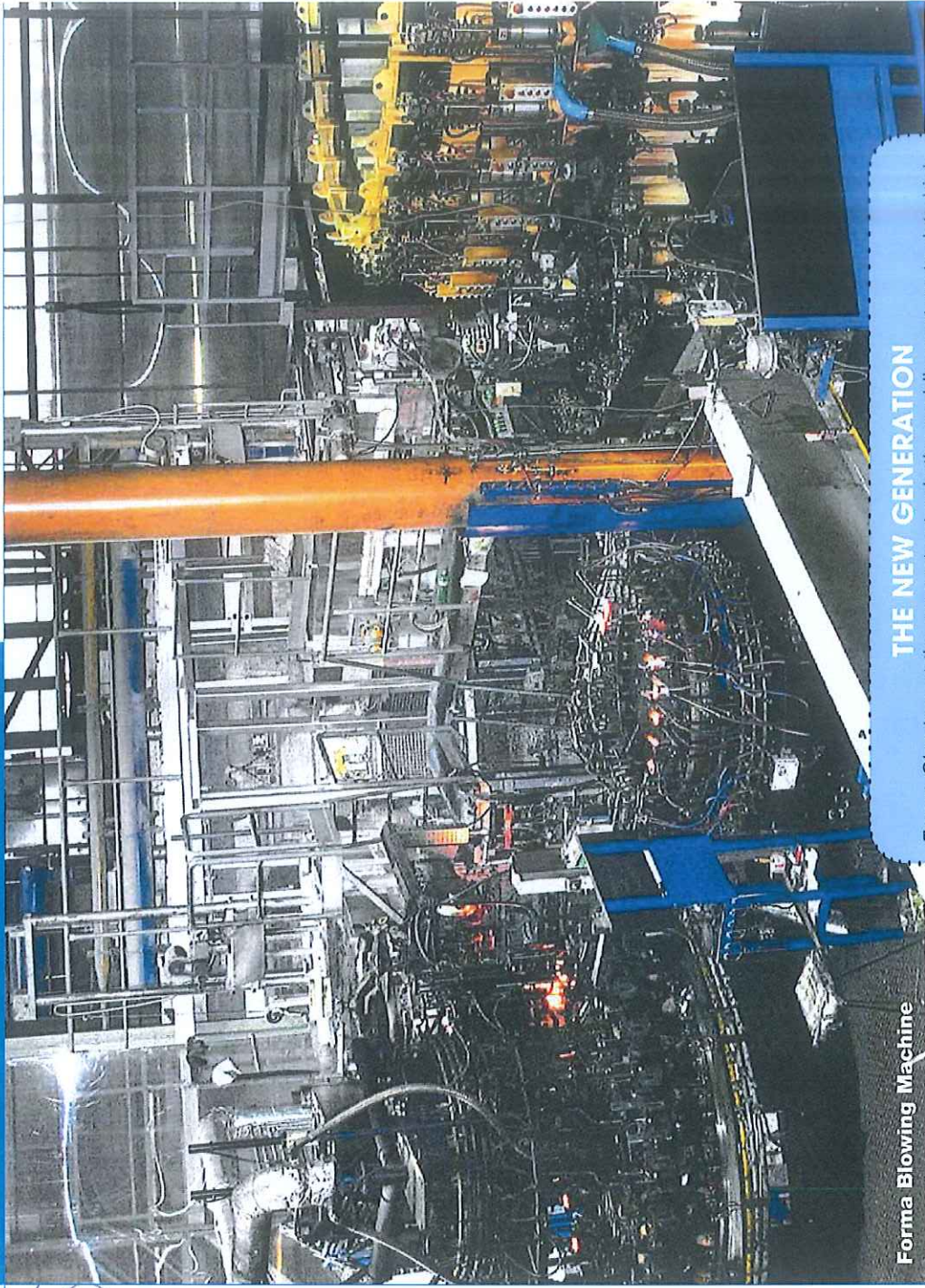
FORMA GLAS

making big further steps
in tumbler and stem
ware production systems



TCS Inspection Machine

PRODUCTION TECHNOLOGY



Forma Blowing Machine

Being in possession of world's most advanced technology in glass manufacturing does not mean that you can relax, and Forma Glas knows this very well. It is, in fact, relentlessly continuing to improve its machine's abilities and setting new targets to reach or even exceed customers' needs.

RAISING OUTPUT

One of the latest goals was to raise the output rate of future tumbler and stemware lines, whilst reaching even higher product quality. These two objectives used to be in dissent with each other. This was mostly due to the fact that raising the machine's speed reduces the pressing time for each item, thereby quickly

reaching an unbearable level. Thus need for a completely updated setup arose.

One major step to solve this problem was to implement a new stem press with two hydraulic pressing stations. This almost doubles pressing time of each stem, what raises the output rate to a considerably higher

THE NEW GENERATION

Forma Glas has at the present not only the world's most up-to-date high speed tumbler and stemware line of 24-position press-machine for production of stemware, tumbler and big items. There are also **MORE new generation machines** from Forma Glas currently on the market.

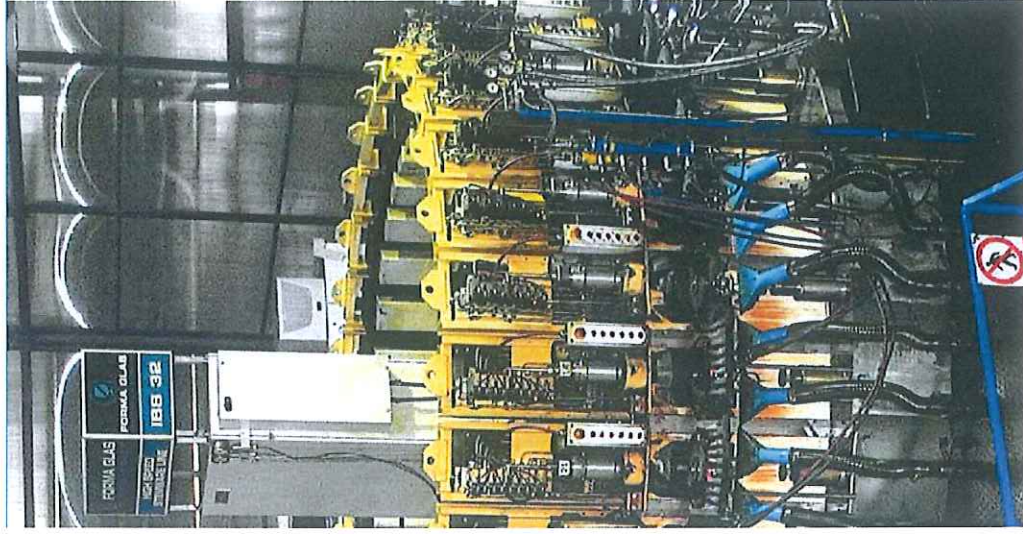
ASA

Since this year Forma Glas has a **new generation of automatic crack-off machine with laser** for cold end, ASA 13, 26 or 39 stations to support our production lines.

TCS - TABLEWARE CONTROL SYSTEM

This new system is for the inspection of tumbler, stemware and pressed products. The **fully automatic** produce checking station placed at the end of the production line contributes to high profitability of the facility.

level. In order to keep the blowing machine in step with the enhanced stem press, a servo-electric double servo press and transfer station was also invented and fully implemented. Using double presses in both machines not only helps to raise the maximum output, but also highly improves glass quality. As a result



Crack Off", available with 13, 26 or 39 stations; depending on the customer's demands for speed.

IMPLEMENTING AUTOMATIC TABLEWARE CONTROL SYSTEMS

Manual quality control of tableware products always used to be a high expenditure for all glass manufacturers. Advanced image processing and software technology now allows implementing an automatic tableware control system. In cooperation with external experts, Forma Glas recently put into operation the first fully automatic system, called TCS (Tableware Control System).

TCS uses up to ten cameras. In combination with a sophisticated software solution, thus allowing detecting virtually all possible flaws in different sizes.

CONTINUING THE COMPANY'S DEVELOPMENT TOWARDS AN ALL-IN-ONE SUPPLIER

Putting into operation the first cracking off and tableware control systems puts the company in line with its aim to become an all-in-one supplier for tableware products. By now Forma Glas can provide several kinds of presses, high end blowing machines, servo gob feeder, stem stretching equipment, flame polishing systems, conveyor belts, cracking off machines and tableware control units. Thereby the company can now provide several machineries necessary for high-end tableware production, except



FORMA GLAS
machines + engineering

FORMA GLAS GmbH

Salzburger Straße 1
5145 Neukirchen an der Enknach - Austria
Tel.: 0043-7729-20299
Fax: 0043-7729-20290
E-mail: info@formaglass.com
www.formaglass.com

up to 2300 high-level stem ware products or 2700 tumblers can be produced per hour.

SATISFYING THE DEMAND FOR HIGH QUALITY POST PROCESSING MACHINES

Considering the importance of proper post processing systems for producing high quality glassware, Forma Glas recently decided to reenter this market. Currently a new automatic cracking off machine is being built and will be commissioned at the beginning of next year. This machine uses three separate high level lasers, thus allowing cutting rates almost exceeding the output of aforementioned stemware and tumbler line. This machine is now being sold as "ASA – Automatic

