

## Tecnomatic: water purification- from single machines to complete lines

*A problem common to both small and large industrial-sized glassworks alike is that regarding wastewater and its discharge. Moreover, the present laws in force in the European Union regarding the environment are becoming more and more rigid. In this article, Tecnomatic presents its line of purification plants, suitable for complete lines or single machines, also looking into the possibility of recycling the same water.*

*Claudio Grottaroli\**

TECNOMATIC



One of the many pressurized pumping stations used with Tecnomatic's systems

**T**ecnomatic was set up in the Marche area of Italy in 1991, initially specializing in the repair and servicing of glassmaking machinery. Founder of the company, Claudio Grottaroli, who started his career in the glassmaking industry in 1974, has designed various specific and patented systems for the purification of refluent water from glassmaking.

Tecnomatic's current production range includes almost 30 models of water and residue treatment systems configured for customers after on-site inspection by Tecnomatic's engineers.

The systems in production at Tecnomatic cater for needs ranging from the smallest glaz-

Mix 400 - preparation  
for reagent liquids

Residual material  
expelled by the plant



Wastewater  
that has been  
completely purified



ing workshop right up to industrial-scale glass-making. All systems enable savings on machine maintenance and water consumption and, last but not least, respect values which comply perfectly with the laws in force regarding the control of wastewater discharged into public sewage systems.

### LESS WATER, BUT CLEANER

In water used during the different glass processing phases, it is inevitable to find residual deposits coming from the same production processes that, if not treated correctly, can lead to a series of inconveniences. These deposits can create problems on the machinery, while the same water can modify its parameters so as not to be suitable for glass processing. Moreover, when the production cycle foresees the use of tools that cause nebulosity, the air can contain solid particles that are a risk for the health of workers, resulting in the glassworks not being conform to the laws in force.

### "LAW-ABIDING" WATER

The present laws oblige companies to have wastewater that is conform to specific parameters. The legal body for the controls of this sector in Italy is the ASL, and the majority of Italian industries have respected these laws, installing suitable plants to depose of this wastewater in agreement with these normatives.

Tecnomatic has gone one step further regarding the purification of wastewater and has found the way to recycle the greater part of the water used in production processes to reduce daily consumption up to 80-90 per cent, thus eliminating waste. With respect to the

norms in force regarding wastewater, Tecnomatic has installed diverse systems in areas defined problematic, where there are particularly restrictive parameters to be respected, and has demonstrated that by using a standard Tecnomatic purification plant, it is possible to comply with the norms in force.

Tecnomatic's purification plants can be equipped with specific software that enables to programme operations of automatic switching on and off, and programmed maintenance operations.

Tecnomatic uses flocculants in its purification processes, all guaranteed to be biodegradable, and all equipped with safety sheets listing the risk levels involved in their use.

### MADE-TO-MEASURE PLANTS

A present ongoing research programme at Tecnomatic involves the realization of purification plants for fireproof glass, while the company's filtering lines are already being used on self-cleaning auto glass lines.

Moreover, the company is concentrating on the launch of lines suitable to solve the needs of single machines. In fact, in a glassworks equipped with a vast range of machines, a certain number of these do not work in a continuous way, making a centralized system for the purification and recycling of wastewater that involves the entire line useless and expensive.

### Ecompact

Ecompact is Tecnomatic's answer to this kind of problem, with optimum price/quality ratio, easy to use, and which can be applied to a single machine. Ecompact is a range of compact

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purifiers with small dimension of 1.2 x 1.2 metres. Ecompact is to be applied to the tanks of single machines to carry out high-speed purification of wastewater and the immediate separation of sludge.



## Ecomatic

The Ecomatic series is a range of purification plants that carry out high-speed purification of glass processing wastewater enabling, in real time, to re-use all water needed by the machines. Ecomatic purifiers have high hourly capacity, and are configured for the automatic storage of residual sludge.



## Ecomatic F

The Ecomatic F series has all the important features of the Ecomatic series, as well as an added important feature regarding the filtering of wastewater.



These filtering operations are fundamental where there is the constant need to discharge wastewater conform to norms in force, into public sewage systems. Also in this case, the plant has software for automatic switching on and off and programmed maintenance operations. High hourly capacity and possibility of choice regarding the type and quantity of water to be treated, as well as the automatic storage of residual sludge, make up the characteristics of the Ecomatic F series of purifiers by Tecnomatic. ■

\*President

 **TECNOMATIC**

**Tecnomatic**

Via Magenta sn  
61100 Pesaro

**Italy**

Tel: +39 - 0721 - 414592

Fax: +39 - 0721 - 414641

E-mail: [info@tecnomatic.org](mailto:info@tecnomatic.org)

[www.tecnomatic.org](http://www.tecnomatic.org)