

HIGH PRODUCT QUALITY AT LOWER COSTS

PROGOB IS A NEWLY-LAUNCHED GOB FEEDER FROM PROGLAS ENGINEERING WHICH ALLOWS GLASSWORKS TO PRODUCE HIGH-QUALITY GLASS PRODUCTS, WHILE SAVING ON RAW MATERIALS AND ENERGY. PROINJECT, ON THE OTHER HAND, IS AN INNOVATIVE INJECTION PRESS WITH A UNIQUE "AFTERPRESSING" METHOD FOR PRODUCING SOLID GLASS ITEMS IN BRILLIANT QUALITY.

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PROGLAS ENGINEERING

Maintaining a competitive edge

Quality flaws and high expenses for energy and materials can turn out to be a threat to the profitability of glassworks. Such problems can be eliminated, however, by modernising the production process. Proglas Engineering GmbH, the German supplier of machines and lines for glass production, has furnished proof that glassworks can regain their competitiveness. Recently, the company has developed a number of completely new technological approaches, which include a gob feeder and a pressing machine.

The new gob feeder *ProGOB*, produces crystal clear gobs in a wide range of weights at a lower cost. There is no waste of glass and feeding is done in a much shorter time than with any other gob feeders previously.

ProINJECT is a new injection press with a unique 'afterpressing' method to overcome the negative effects on the quality, so far accepted using conventional presses.

Savings in raw materials and energy

The objectives and advantages of Proglas' developments are to improve product quality, and to save energy as well as raw mate-

rials. Glassworks should no longer tolerate gobs with shear marks and cords as produced by ordinary gob feeders, nor solid items with vacuum blisters that result when using conventional presses. Proglas has found and are making solutions available that overcome the aforementioned flaws.

With respect to energy, costs have an ever stronger impact on production expenses. The new generation of feeders, presses and computer equipment from Proglas promises remarkable savings in energy, which means that the investment by a glasswork in acquiring this new equipment often pays off within

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a few months. Another challenge that has been overcome with Proglas' novel technologies is that of optimised use of the glass material, and hence less waste. In fact, the savings of valuable ingredients in lead crystal and less expenses for removing cooled down material are substantial!

ProGOB feeder

In our view, ProGOB represents a breakthrough in gob feeder technology. With its exceptional gob quality, this machine will form the basis for the production of high-quality glass. ProGOB provides crystal clear gobs with no visible shear marks, as well as producing cord free glass. It also saves material by operating without waste glass and saves energy by the employment of an efficient heating system.

A wide range of gob weight and shearing frequency with short changeover times between different items are possible with ProGOB. This important piece of equipment can be differentiated from traditional gob feeders by the following features:

- complete reheating of the gob, thus removing the shear marks;
- a wide range of gob weight and shear frequency without mechanical conversion;
- plunger with stirring and dosing function;
- indirect heating of feeder block and orifice;
- linear shears driven by servomotor;
- extremely small overall dimensions.

Up-to-date electronics and software aid the operator with movement programming by graphical display. Recording of all settings, alterations and many

additional functions simplify communication between the operator and the machine, allowing complete monitoring of production quality.

ProINJECT

Proglas' new injection press ProINJECT is the first on the market to make use of a novel process called "pneumatic afterpressing". This machine masters problems of quality using conventional pressing. The results are solid items such as paper weights, stoppers, glass figurines, and clocks in brilliant quality.

Conventionally pressed articles often reflect inaccuracies caused by the annealing of the glass in the mould. These imperfections lower the quality of the glass product, often with a negative influence on the price of the product.

With ProINJECT the vacuum is filled with compressed air which compensates the shrinking of the glass, avoiding vacuum blisters. The quality of the parts produced this way is perfect as the pressed air compensates the shrinking of the glass and avoids vacuum blisters.

The most important part of this new pressing process is the electronic control system. It not only allows control of the pressing plunger, but it also helps to define all production parameters with the aid of a graphical user menu.

It is important to note that different injection speeds can be determined at each mould according to the shape of the article. This prevents the occurrence of curling and splashing of molten glass or cavities within the item. The pressing programmes of each article are stored in a library.

Experts in electronic control

The deciding factor for the success of Proglas lines is the extensive use of computers and electronic controls in all applications. Glass production lines planned and installed by the company are completely linked to a computer network, which gives management the necessary transparency to supervise and fine-tune production for better quality and efficiency. Investing in Proglas technology means securing the glassworks' future and solidifying its competitive stance on the global market. Glass factories worldwide prefer Proglas equipment because of its user-friendly operation and its construction, which leaves room for future development and expansion.

The company is dedicated to the development of technologies and production lines for the manufacture and refinement of hollow ware. Apart from supplying machines and lines for the hot end and the cold end, Proglas also offers consulting and planning, software and systems, as well as service and support. We emphasise the fact that our company has specific expertise in developing computer controls. Among the experts, Proglas has already become well known because of its PROAXA cutting machines.

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