

Pneumofore: vacuum solutions for IS machines

CELEBRATING 85 YEARS OF ACTIVITY, PNEUMOFORE, WITH ITS THIRD GENERATION OF SWISS ENGINEERS, IS PROUD TO BE THE WORLD'S OLDEST MANUFACTURER OF INDUSTRIAL VACUUM PUMPS. THIS FAMILY OWNED COMPANY FOR ACCURATE PROJECT MANAGEMENT, WHICH PROVIDES VACUUM SYSTEMS WITH THE ABSOLUTE LOWEST LIFE CYCLE COST, PRESENTS ITSELF IN THIS ARTICLE.



EIGHTY-FIVE YEARS OF ACTIVITY

Now with the third generation of family members in the company, and 85 years of activity, it is easy to understand why Pneumofore can find the "right" solution for glassworks looking to upgrade their production, without high costs.

Decades ago, Italy was a country with a flourishing glass industry. Other markets were not accessible then or simply too "distant".

In the 80's Pneumofore successfully accessed the European market. Today, the company's clients are spread over five continents, from polar to tropical areas and growth has been 30 per cent each of the last few years. The technical minds behind Pneumofore, a company made of highly skilled engineers and technicians, is technical before being commercial. The pumps are designed to be efficient, durable and reliable. These features make the vacuum

pump a unique solution proposal, which does not focus on the selling price, but on trouble-free, easy-to-maintain and long-term-efficient pump design. Simply the solution with the lowest life cycle cost, easily understood by those who look beyond the price tag.

QUALITY AND FLEXIBILITY

No compromise on the quality of components, and high flexibility to match customer specifica-

UV50
the world's
largest
air-cooled
single stage
rotary
vacuum
pump



UV50 rotary vane pump - inside view

tions show the core values of this company: respect, integrity and perfection. Without respect and integrity Pneumofore could not celebrate this anniversary, without the drive to improve constantly it would not evolve towards perfection.

Glassworks run for about 10 years; a time frame dictated by furnace life. The IS machines survive few generation of ovens,

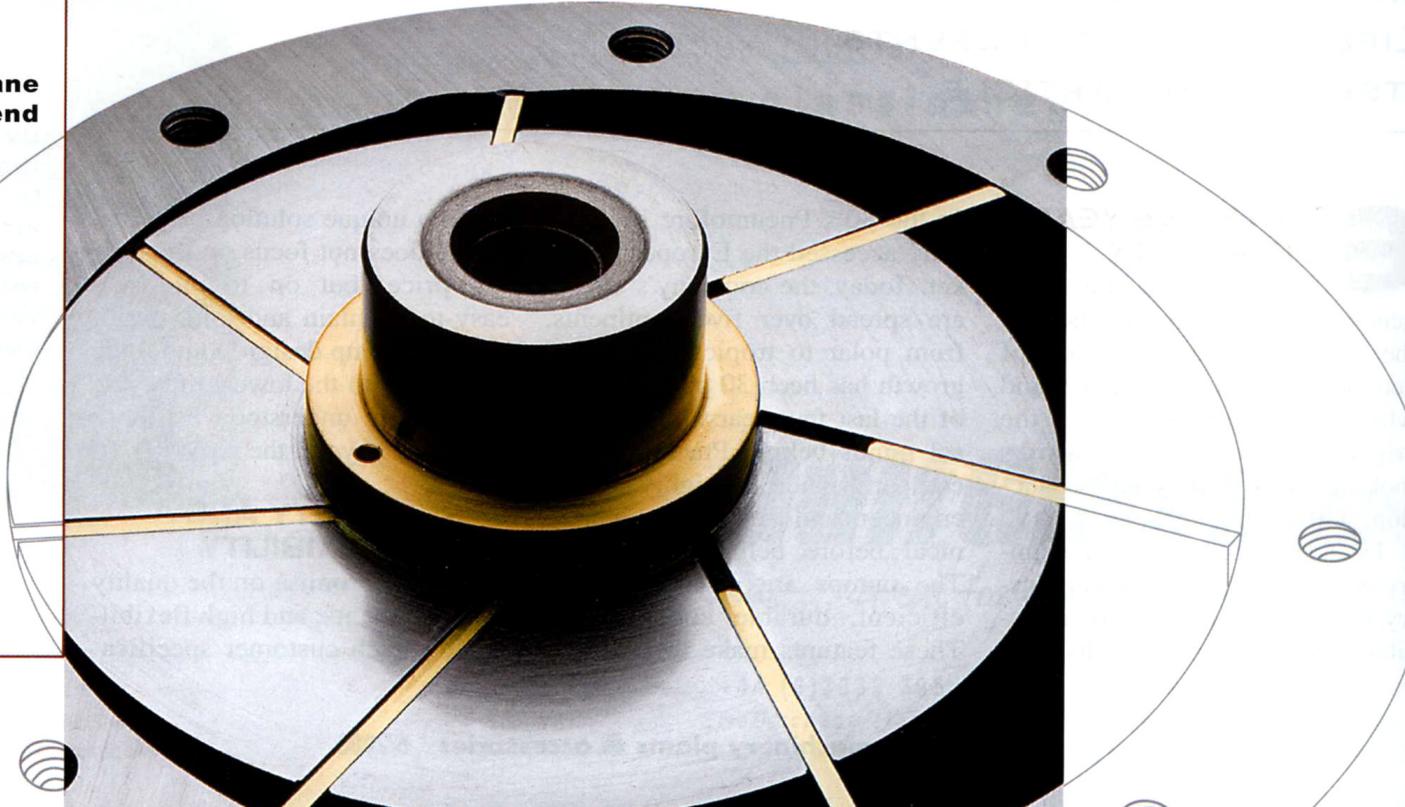
usually with several upgrades. The only consumable parts of a Pneumofore air end are the bearings, which are dimensioned for 250,000 hours of operation. This explains how ovens are rebuilt and IS machines are replaced but Pneumofore pumps still run as when they were delivered. Water-cooled V100 pumps built in 1958 with more than 400,000 hours of operation are still functioning

today in glassworks. Facts, possible to verify and solid know-how, are extraordinary references known as undeniable statements.

“INNOVATION IS EVOLUTION”

Based on “innovation is evolution”, in the 70’s Pneumofore launched the innovative vertical layout of industrial vacuum pumps to save space. The 90’s

Rotary vane air-end



brought higher environmental awareness, which motivated the lengthy R&D process to have air-cooled vacuum pumps.

Air-cooling is favourable in any country because water is, today, a problem worse than the lack of oil. Hot countries need water for the most basic human purposes rather than for industrial equipment, while in cold countries, water tends to freeze at 0°C.

Thermo-regulated air-cooling guarantees the constant temperature of the coolant, thus constant performance and efficiency, whereas the temperature of cooling water strongly influences performance of the pumps. For these machines, Pneumofore invented active sealing, a single stage rotary vane technology, with low rotation speed and hardly any consumable parts.

The vanes are made of a special aluminium alloy and do not represent a consumable part, just like the piston rings in a car engine. With capacity of up to 3,000 cubic metres per hour, the UV series pumps are by far the world's largest air-cooled, single stage rotary vane pumps. The preventive maintenance contract by a certified service centre also allows warranty extension up to five years.

ALL-ROUND QUALITY PRODUCTION

Vacuum, not a priority in glassworks, still determines all-round quality production capability by 3 to 15 per cent. Vacuum is not just a pump but a system and Pneumofore gives consultancy for the correct design of piping layout free of charge as an integral part of its delivery, in order to avoid capacity and vacuum level losses. The filtration of the air coming from the IS machine also requires a properly dimensioned device called demister to keep the oil mist from entering and polluting the pump. Recent years have

increased the use of frequency converters and UV pumps can operate from 35 to 60 Hz for constant flow and/or vacuum level.

Pneumofore is available to discuss and find dedicated solutions to upgrade or introduce vacuum to glassworks.



**UV16
Rotary vane
vacuum
pump -
vertical
layout**

PNEUMOFORE FAIR ATTENDANCE IN 2008/2009

- ✓ **glasstec 2008**, Düsseldorf, Germany – 21/25 October 2008
- ✓ **Glasstech Asia 2008**, Ho Chi Minh City, Vietnam – 20/22 November 2008
- ✓ **Gulf Glass 2009**, Sharjah, UAE – 16/18 March 2009
- ✓ **Glassman Europe**, Lyon, France – 13/14 May 2009
- ✓ **Mir Stekla 2009**, Moscow, Russia – 8/11 June 2009

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