



PRESS RELEASE

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Fluilift: Fluiten technology that respects the environment

The Italian company specialized in the manufacture of mechanical seals presents new technology that controls atmospheric emissions and keeps them to a minimum

Milano, November 27th 2008– Fluiten Italia S.p.A., an Italian company founded in 1962 that specializes in the development and design of mechanical seals for the process industry, presents **Fluilift**, a new technology for seals used in the pharmaceutical, chemical and petrochemical (double mechanical seals) sectors.

Fluilift, also called “**dry non-contacting**” technology, is obtained by cutting special sized cavities into the surface of the rotating ring seal with a laser, so that a gas (normally nitrogen since it is inert) can penetrate between the sliding surfaces and prevent them from coming into contact. This means the surfaces 'float' in an ideal way to reduce or eliminate friction, wear and particulate release inside the process.

To do this, the seal must be double and nitrogen must be introduced under pressure into the intermediate chamber between the two seals to keep the process separate from the atmosphere. This technology applied to the mechanical seal sector derives from technology developed several years ago for the aerospace sector, subsequently used in seals for centrifugal compressors.

When applied to process pump seals used in the pharmaceutical and biotechnology sector, this system completely prevents the emission of toxic gases into the atmosphere and rules out all possible process contamination from external agents or from the auxiliary liquids normally used as a barrier.

Fluilift is widely used on agitators, fermenters and dryers in the pharmaceutical and biotechnology sector, where the need for absolute process sterility is fundamental. Fluiten has also developed seals able to work at low speeds in both shaft rotation directions. The seals designed for this sector have a structure that meets CIP and SIP requirements, i.e. a “clean-cut” shape which allows easy access, so they may be washed and sterilized during working stages without having to dismantle the machine. They may be made using US Food and Drug Administration certified materials.

Fluilift, or non-contacting gas seals, are used in refineries and petrochemical plants in the increasingly numerous places where the emission of toxic fluids into the atmosphere must be reduced or eliminated and where it is not possible to monitor a complicated external pressurization system with a buffer liquid. The Fluilift seal only needs a normal nitrogen line, always found in all petrochemical plants, and a simple panel fitted with suitable instruments.

Thanks to the vast range of Fluilift seal applications, Fluiten is able to supply different types of seal, with characteristics that vary according to the working conditions required. A wide range of materials can be used to make the most suitable seal to solve problems linked to corrosion, abrasion, and mechanical and thermal stress.

Fluiten is a member of **ESA (European Sealing Association)**, a European organization which brings together the biggest static and dynamic seal manufacturers. The association places the problem of harmful emissions into the atmosphere among its priorities, particularly in the chemical sector. ESA is about to fix an upper limit for pollutant emissions, which it will bring into force through local trade associations.

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Fluiten Italia S.p.A.

Fluiten is the leader in the design and manufacture of seals for rotating shafts. The entirely Italian company was founded in 1962 and is located at Pero (Milan). It employs over 100 people in its various European offices (France, Belgium, the Netherlands, Germany and Spain) and in Malaysia. Fluiten designs and manufactures mechanical seals in Pero, just outside Milan, which are mainly used in the chemical, petroleum and energy industries. Other important areas where Fluiten seals are used are the pharmaceutical, food, paper and marine sectors.

