

Duplex pigging technology

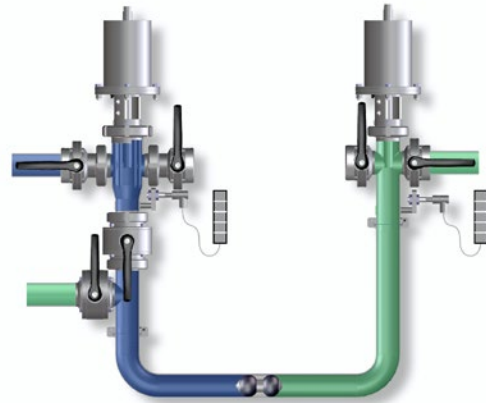
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INFORMATION ON THE ECO-INNOVATIVE SOLUTION PROVIDER

This eco-innovative solution was developed by the German company Kieselmann and is fully available.

SHORT DESCRIPTION OF THE ECO-INNOVATIVE SOLUTION

The Duplex pigging technology guarantees safe product and water separation and effective cleaning of pipes. Valuable raw materials and large amounts of water can be saved owing to this technology, particularly during the cleaning cycles. Duplex pigs can be moved without difficulty via customary DIN bend / tees and KIESELMANN ball valves, mix-proof double seat valves and double tube heat exchangers. They empty and thus clean the pipeline. The position of the pig can be monitored at any time, in all parts of the plant. KIESELMANN pigs can be applied in both directions, a manual removal or an additional return line is not necessary. They can be individually set to the medium which needs to be removed, by adjusting the initial tension.

Industrial sector – Market segment and actual applications in industry

10 Manufacture of food products

INDUSTRIAL CLASSIFICATION - NACE CODE;

28 Manufacture of machinery and equipment n.e.c

1. DESCRIPTION OF ECO-INNOVATIVE SOLUTION

Technical aspects of the eco-innovative solution

The core technology consists of a new system for pipeline recovery. Safe and reliable product separation can be achieved and the pipe is cleaned so that products in the pipes will be completely removed. Clients typically include food and beverage industries (in particular dairies and breweries), cosmetics, creams and pharmaceuticals. The use of the duplex pigging technology minimizes the adverse effects on the environment. The piping technology can be integrated into existing systems and the technology guarantees an almost loss-free emptying of the pipeline. The main features consist in the following:

- Easy integration in available process plants,
- Damping systems for gentle running of the pig into the stations,
- Flow control with optimised cleaning in the stations,
- Easy detection in the product pipe by means of integrated solenoids in the pigs,
- Pig can be led back by means of product / water / air,
- Available in hygienic and aseptic design,
- Environmentally friendly and resource-saving,
- Closed launching and receiving station for integration in the cleaning cycles, including steam sterilisation.

A – CIP/water inlet/outlet

B – Product line

C – Compressed air (connection for sterile air)

D – Position of pig in the launching station

E – Position of pig in the receiving station

Minimum size/maximum size DN 40-DN 100.

Economic and environmental benefits of the eco-innovative solution

Environmental and economic benefits include reduced losses compared to alternative technologies, in particular water consumption will be reduced and there is no mixing of water and the product. The Return of Investment is < 3 years just for the water consumption, based on European prices for water. Additional benefits include reduced cleaning times.

2. AVAILABILITY OF THE ECO-INNOVATIVE SOLUTION AND BUSINESS PARTNERSHIP

Market readiness, Trade mark, existing market coverage commercialization strategy

Trade mark available: Duplex Pigging. The solution is already available at a global level. Initial activities started in Tunisia, Egypt, Morocco, Lebanon, Algeria.

Requirements to adapt the solution to the local market and potential applications/market size

No need for special infrastructure requirements.

On site after-sales services support and the technical assistance requirements

Technical assistance for on-site support will be provided from Germany/France, as well as the local representative distributors.

Targeted local business partners

Distributors to food and beverage industries (in particular dairies and breweries), cosmetics, creams and pharmaceuticals industries.

Type of local business partnership sought

Exclusive distributors.



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