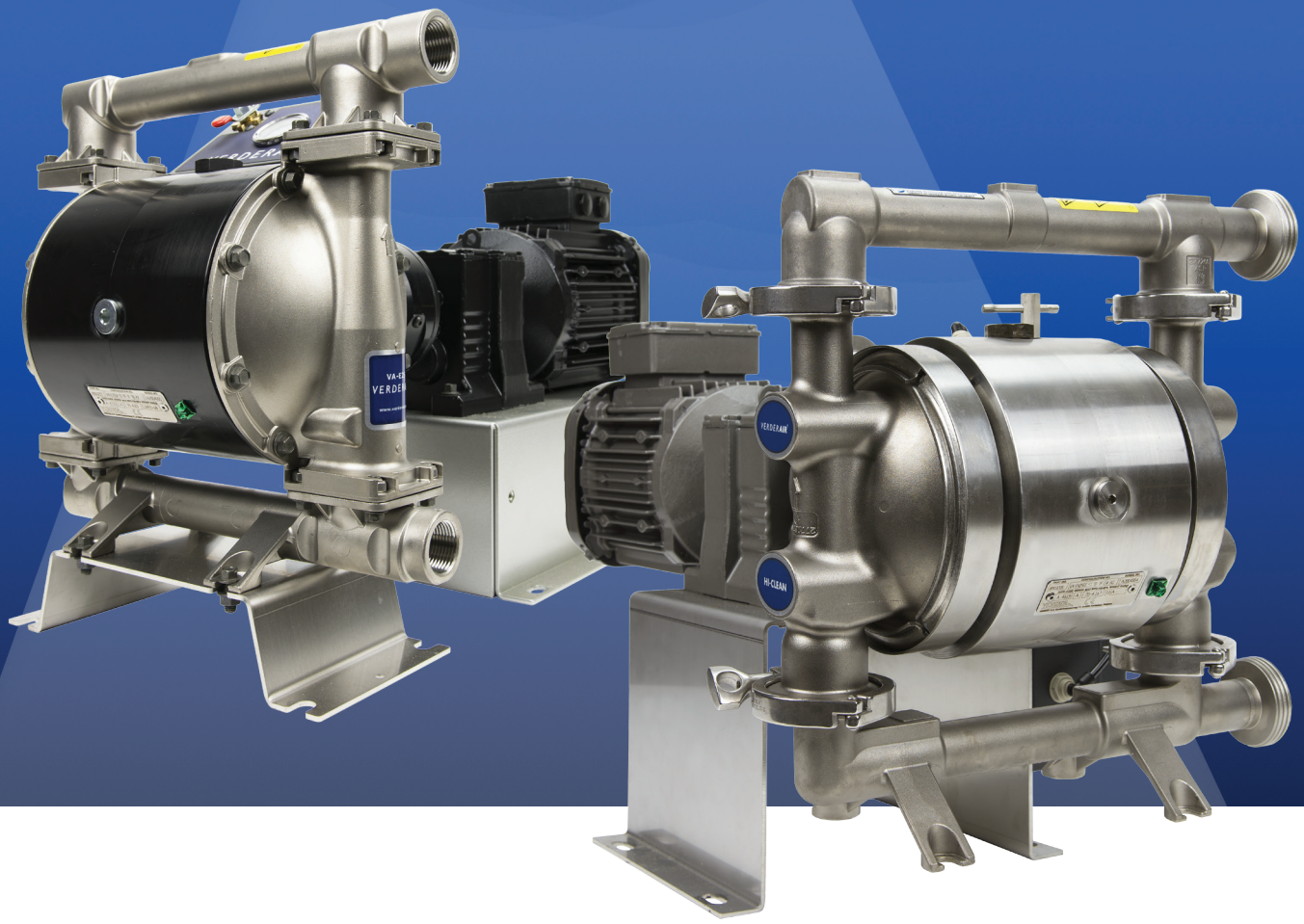
NEW NEW NEW NEW NEW NEW VERDERAIR®

Verderair EODD series

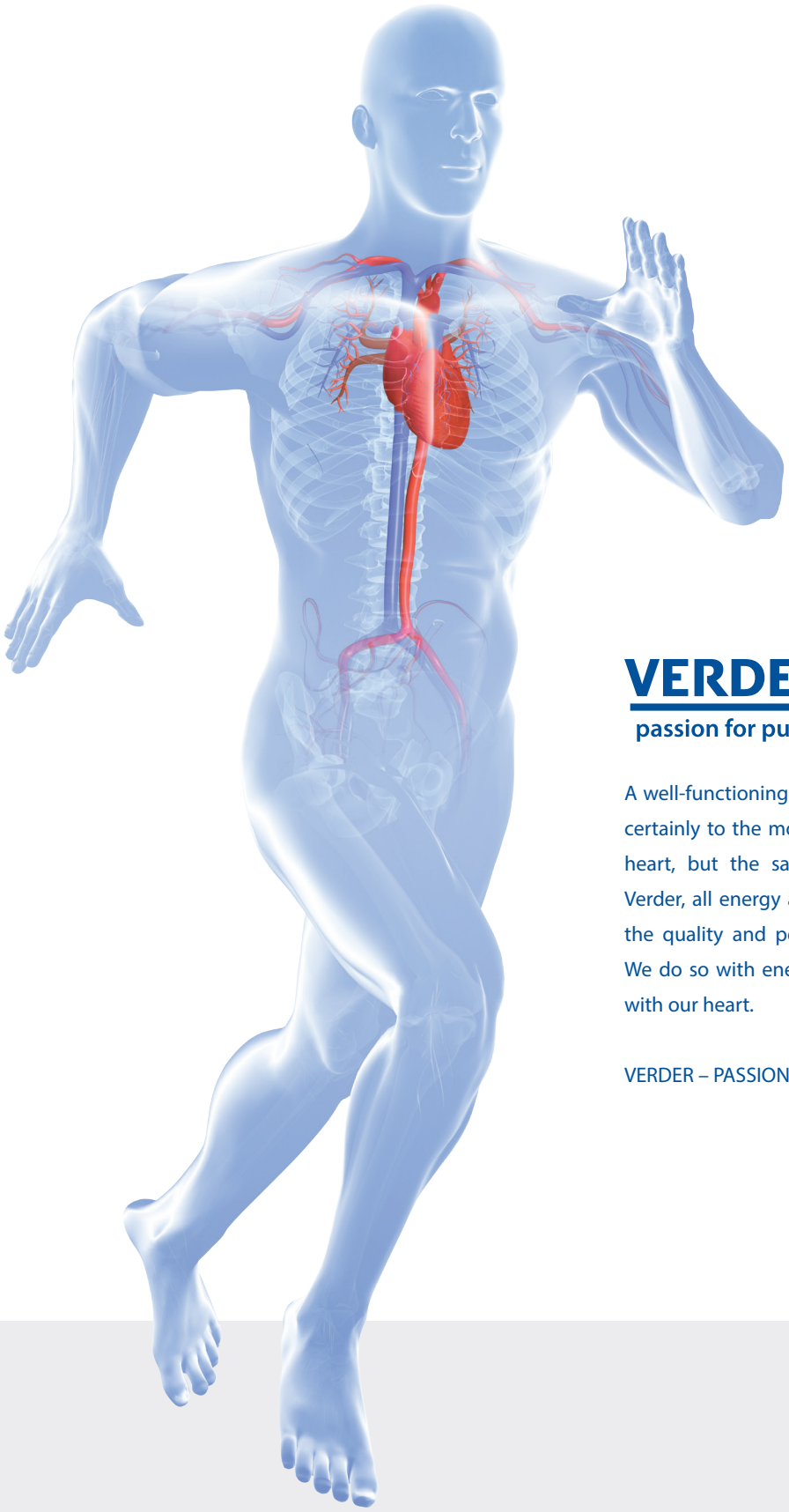
Electric operated double diaphragm pumps



Verderair EODD key features:

- *Energy-efficient pump solution*
- *Can stall under pressure*
- *No dampeners needed (low pulsation mode)*

VERDER
passion for pumps



VERDER
passion for pumps

A well-functioning pump helps you succeed. That applies certainly to the most important pump in life, the human heart, but the same goes for pumps in business. At Verder, all energy and attention is focused on improving the quality and performance of our pump and service. We do so with energy, dedication and most importantly, with our heart.

VERDER – PASSION FOR PUMPS

Key facts of the

Following the success of Verderair AODD (air operated double diaphragm) pumps, Verder's 55 years of experience with 700,000 diaphragm pumps sold around the world, Verder now extend their range with a new concept: the electric-driven range of diaphragm pumps (EODD).

Employing the same solid principles of a reciprocating piston and diaphragm assembly, the pump can handle many difficult abrasive, viscous and chemically aggressive fluids with the added benefit of being able to run against a closed discharge without additional pressure relief valves as well as low pulsation operation without the need for a pulsation dampener.

Key facts

- *Electric drive*
- *Can stall under pressure - no additional controls necessary*
- *Self-priming - can run dry*
- *Lower sound level - Improved work environment*
- *Low pulsation operation mode - no dampeners necessary*
- *Increased pump control - metering capabilities*
- *Increased diaphragm life - lower maintenance cost*
- *Seal-less design - no rotational shaft seal necessary*
- *Industrial and Hygienic (EC1935/2004, FDA) versions available*

Technical details

- *Max. flow 159 l/min*
- *Max. pressure 4.8 bar*

Industrial EODD

NEW: Electric-driven double diaphragm pumps

VERDERAIR®

EODD series

Sanitary EODD

Industrial EODD

Available in a range of metallic and non-metallic materials allowing the pump to be tailored for applications demanding resistance to aggressive chemicals and abrasive fluids.

Key features:

- *1" Connections*
- *Liquid parts: Aluminium, SS316, Polypropylene*
- *Center part: Aluminum, SS316*
- *Diaphragms: Buna-N, Geolast, Hytrell, Neoprene, Santoprene, PTFE, PTFE Overmold, Viton*
- *1.5 kW drive - 230/400 V*
- *Atex: II 2G ck Ex d IIB T3 Gb*
- *Integrated air cushion regulator*
- *Leak sensor*

HI-CLEAN EODD

Compliant with FDA and EC1935/2004 certification standards, the sanitary version of the EODD is constructed from SS316 finished to a surface of 3.2µm. This makes the pump excellent for food and cosmetic applications.

Key features:

- *DN 40 - DIN 11851 or 1 1/2" Triclamp connections*
- *Liquid parts: SS316, Ra 3.2µm*
- *Center part: Aluminum, SS316*
- *Diaphragms: Santoprene, PTFE, PTFE Overmold*
- *1.5 kW drive - 230/400 V*
- *FDA, EC 1935/2004*
- *Integrated air cushion regulator*
- *Leak sensor*

Operation principle

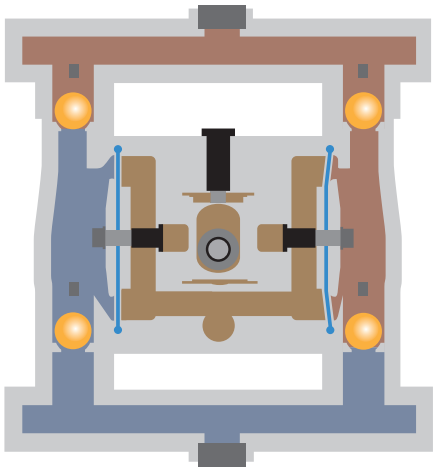


Fig. 1

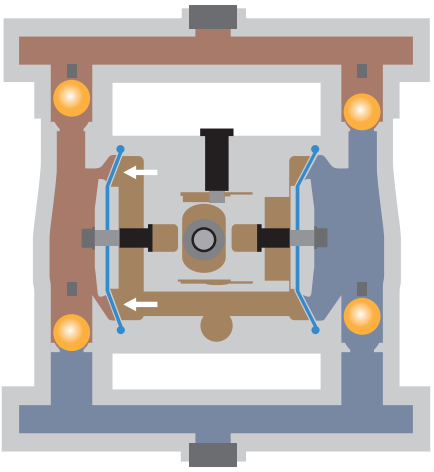


Fig. 2

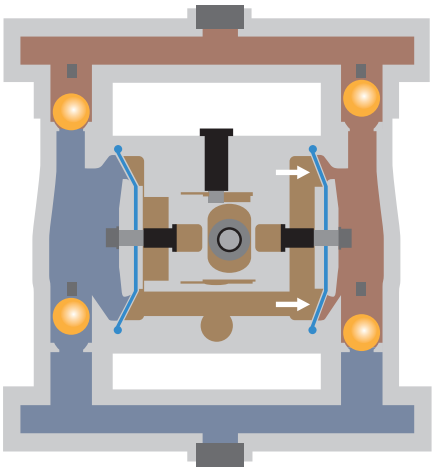


Fig. 3

Fig 1: Between the diaphragms there is an air cushion (brown). The diaphragms are floating connected to the center piston. The center piston is reciprocating left to right in the housing driven by the gear box.

Fig 2: By moving to the left the piston will pull the right diaphragm also to the left (suction stroke). This is creating a vacuum in the right liquid chamber (blue), sucking in the liquid. With the same movement this diaphragm is creating pressure in the air cushion (brown). The air cushion moves the left diaphragm to the left (discharge stroke), generating a pressure in the left liquid chamber (red) discharging the liquid from the pump.

Fig 3: At the end of the stroke the center piston will change movement from right to left and the function of the diaphragms reciprocate from discharge to suction and vice versa.

This operation principle offers the following features:

- *When discharge pressure is too high, the center piston will keep moving by the gearbox, but both diaphragms will be standing still in the middle position, no liquid is moved up-to the moment the discharge pressure will go down.*
- *By adjusting the pressure of the air-cushion, suction and discharge strokes are overlapping resulting in a low pulse flow.*
- *By making the discharge stroke, the diaphragm is pushed over the complete surface by the air cushion. The mechanical force is spread over the diaphragm resulting in a long life time.*

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