

**sealmatic®**

## A Reliable Component In The Production Of Metformin Solution - Retrofit Of Agitators With AGSZ Seals

Sealmatic Delivers Gas Lubricated Mechanical Seal to Ferring Pharma

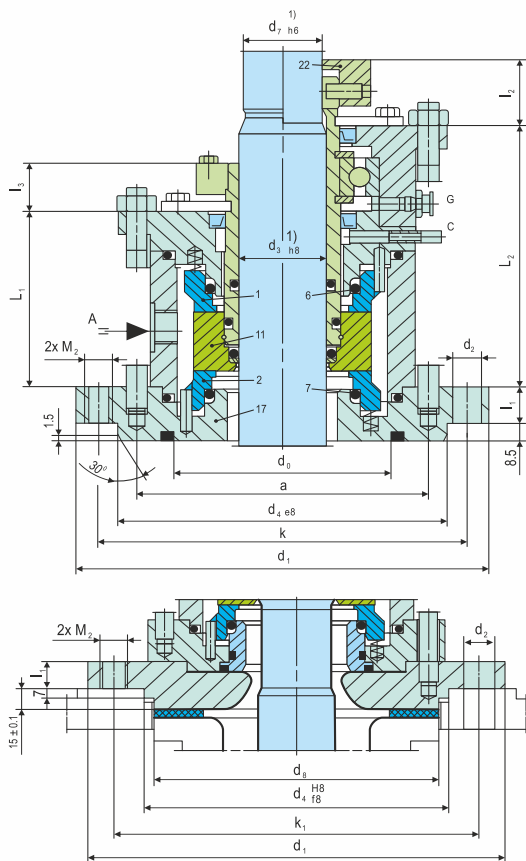
Ferring Therapeutic is a part of the Ferring Pharma group of Switzerland. The company produces pharmaceutical products (API), the mixing of the product is a critical part of the production process. The agitator shaft must be properly sealed to ensure a process flow without interruption. At their manufacturing facility in India, stainless-steel vessels are installed for dissolving, mixing, reaction, separation and distillation of the solvents.

Product quality and operating cost largely depend on smooth-running processes.

The gas-lubricated GSAZ mechanical seal from Sealmatic was installed on the vessel. The gas lubricated mechanical seal is pressurized, it prevents contamination of the product from outside and contamination of the atmosphere with the product from inside. The gas lubricated mechanical seal also makes sure the required pressure in the vessel can be maintained.

The gas lubricated mechanical seal operates without contact, hence there is no abrasion. Geometry and design of the sliding surfaces ensure a continuous and consistent stable layer of gas. Due to extremely precisely manufactured grooves, seat and seal face reliably lift off even at low speeds. As the gas lubricated mechanical seal is operated at a pressure higher than the pressure inside the vessel, the product cannot penetrate the sealing gap.

Gas lubricated mechanical seal installed at Ferring Therapeutic is operating and performing to be very stable and has been running smoothly. No contact means no friction on the seals faces. Therefore, no heat at the gas lubricated mechanical seal must be dissipated. As the GSAZ is a ready-to-fit and factory-tested unit and the gas lubricated mechanical seal requires a bare minimum maintenance to ensure it functions to its optimum designed conditions.



### Performance Capabilities

Shaft diameter:  $d_3 = 40 \dots 220 \text{ mm}$  (1.6" ... 8.7")  
 Pressure  $p_1 = \text{vacuum} \dots 6 \text{ bar}$  (87 PSI),  
 $\Delta p = \text{min. } 3 \text{ bar}$  (44 PSI),  $p_3 = 9 \text{ bar}$  (131 PSI)  
 Temperature:  $t_1 = -20^\circ\text{C} \dots +150^\circ\text{C}$  (-4°F...+302°F),  
 with cooling flange  $250^\circ\text{C}$  (482 °F)  
 Speed =  $0 \dots 10 \text{ m/s}$  (0 ... 33 ft/s)

API SPEC Q1 . API . ISO 9001:2015 . EU 1935:2004 . ATEX - 2014/34/EU . ISO 9001:2015 . ISO 14001:2015 . BS-OHSAS 18001:2007 . PED-CE

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