



## Sealmatic Successfully Delivers Type B750VN & CTX API Single Mechanical Seal For A Prestigious Fertiliser Project

The fertiliser industry plays a crucial role in global agriculture, providing essential nutrients to plants, enhancing crop yields and ensuring food security. The production process for fertiliser involves chemical reactions processes for ammonia production, which is the base for nitrogen fertiliser and complex refining processes for phosphates and potassium compounds. Mechanical seals are essential in the fertiliser industry to maintain the integrity and safety of rotating equipment. The fertiliser industry deals with highly corrosive chemicals, slurries and hazardous materials, mechanical seals need to be robust, chemically resistant and capable of withstanding harsh operating conditions.

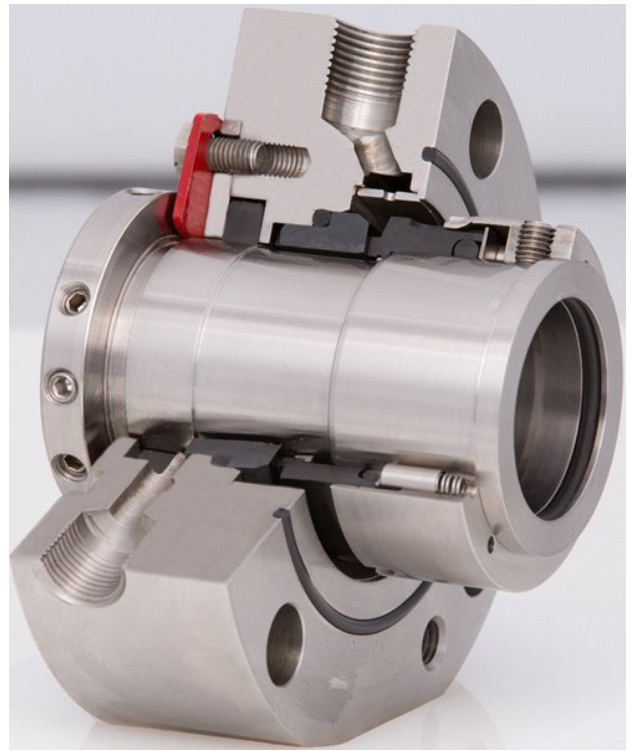
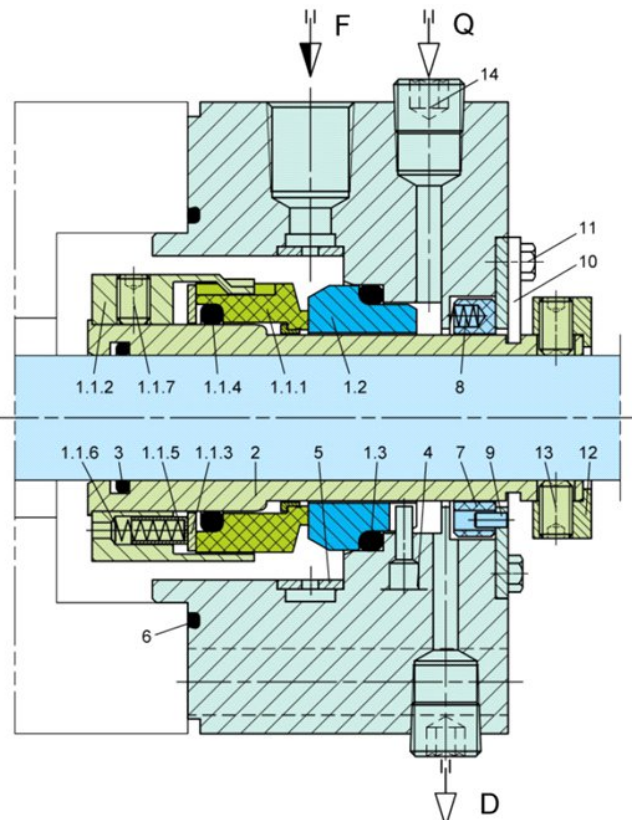
The mechanical seal arrangement for fertiliser application has to be sturdy to meet the demanding working pressure, temperature, to work in extreme severe conditions, handling various media as Process Condensate, Steam Condensate, Ammonia, Phosphate, Potassium compounds and so on so forth. Sealmatic has proven itself with its heavy duty mechanical seals with innovative and tailor-made seal components with high strength seal faces, guaranteeing longer service life even in highly stressed pumps.

Operating Parameters of Type B750VN & CTX API Single Mechanical Seals										
Sr. No.	Seal Type	RPM	Media	API Plan	Temperature (°C)	Stuffing Box Pressure (MPa)	Suction Pressure (MPa)	Discharge Pressure (MPa)	Viscosity (cP)	Configuration
1	CTXAPI – SN/48	3000	Process Condensate	11,61	40°C	0.486 MPa	-	0.768 MPa	1.14	1CW – FX
2	CTXAPI – SN/38	3000	Process Condensate	11,61	40°C	0.935 MPa	0.585 MPa	1.235 MPa	0.651	1CW – FL
3	B750VN/70	1500	Steam Condensate	11,13,61	46°C	1.352 MPa	0.152 MPa	0.957 MPa	0.59	1CW – FL
4	B750VN/70	1500	Cooling Water	11,13,61	25°C	0.57 MPa	0.04 MPa	0.57 MPa	1.52	1CW – FL
5	B750VN/65 (DE)	3000	Off Spec Condensate	11,61	70°C	0.5 MPa	0.149 MPa	5.376 MPa	1.52	1CW – FL
6	B750VN/65 (NDE)	3000	Off Spec Condensate	11,61	70°C	0.5 MPa	0.149 MPa	5.376 MPa	1.52	1CW – FL
7	B750KP/80 (DE)	3000	Steam Condensate	23,61	100°C	2.06 MPa	1.7 MPa	4.77 MPa	0.53	1CW – FL
8	B750KP/80 (NDE)	3000	Steam Condensate	23,61	100°C	2.06 MPa	1.7 MPa	4.77 MPa	0.53	1CW – FL
9	B750KP/68	1500	Steam Condensate	23,61	147.2°C	1.44 MPa	1.09 MPa	1.457 MPa	0.9195	1CW – FL
10	B750KF/100	1500	Steam Condensate	23,61	100°C	1.577 MPa	0.05 MPa	1.334 MPa	0.53	1CW – FL
11	B750VN/58	3000	Demi Water	11,61	40°C	0.546 MPa	0.196 MPa	1.137 MPa	1.52	1CW – FL
12	B750VN/85	1500	Steam Condensate	11,13,61	50°C	1.365 MPa	0.165 MPa	0.819 MPa	0.59	1CW – FL
13	B750VN/90	3000	Glycol Water	11,61	70°C	1.15 MPa	0.8 MPa	0.96 MPa	8.5	1CW – FL
14	B750VN/120	1000	Circulation Water	11,61	65°C	0.857 MPa	0.361 MPa	0.701 MPa	0.43	1CW – FL
15	B750VN/45	1500	Steam Condensate	11,13,61	50°C	1.37 MPa	0.17 MPa	0.816 MPa	0.58	1CW – FL
16	B750VN/45	1500	Steam Condensate	11,13,61	50°C	1.359 MPa	0.159 MPa	0.808 MPa	0.58	1CW – FL

We are pleased to announce that Sealmatic has executed an order for a reputed fertiliser project to meet extreme environment, challenging applications as mentioned above, thus; bringing areas of design, operation and maintenance with a view to achieve highest safety standards and to meet severe demanding conditions in a cost-effective manner.

### Sealmatic Mechanical Seal Type B750VN Single Mechanical Seal

Mechanical Seal type B750VN is a single balanced mechanical seal and independent of direction of rotation, having the configuration of Type B750VN can handle extensive applications in various temperature and pressure.



#### Performance Capabilities

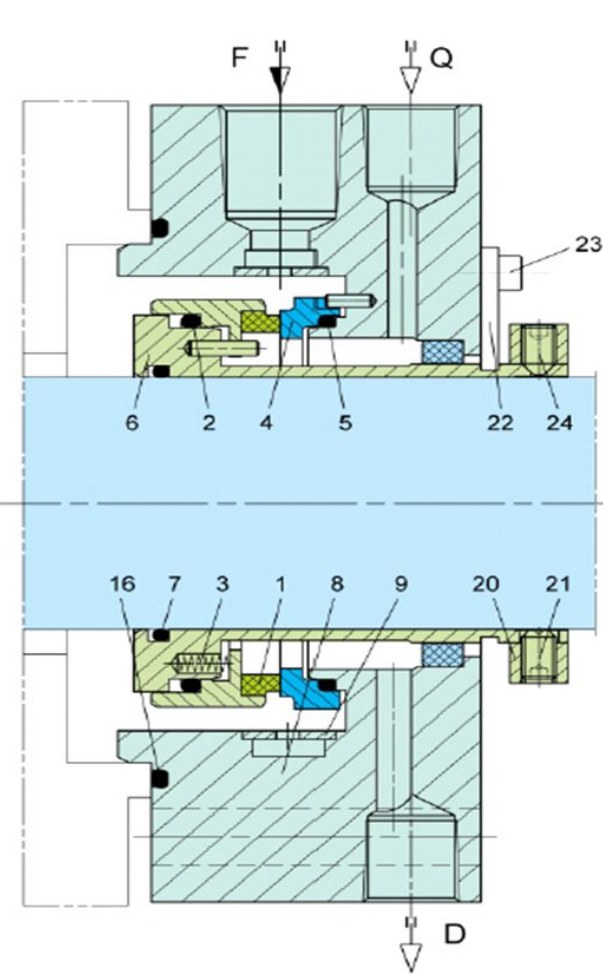
Shaft diameter:  $d = 20 \dots 110 \text{ mm}$  (0.79" ... 4.33")  
 Pressure:  $p_1 = \dots 42 \text{ bar}$  (609 PSI)  
 Temperature:  $t = -40 \text{ }^\circ\text{C} \dots +176 \text{ }^\circ\text{C}$  (-40 °F ... +349 °F)\*  
 Sliding velocity:  $v_g = 23 \text{ m/s}$  (75 ft/s)  
 Axial movement:  $d \leq 40 \text{ mm} \pm 1.0 \text{ mm}$   
 $d \geq 40 \text{ mm} \pm 1.5 \text{ mm}$

#### Technical Features

1. Robust and compact design
2. Standardised components allows efficient stock - keeping
3. Extensive applications in the field covering varied temperatures and pressures
4. Extensive selection of materials
5. Metal parts available in special materials
6. Universally applicable both for retrofits or original equipments

### Sealmatic Mechanical Seal Type CTXAPI Single Mechanical Seal

Mechanical Seal type CTX API-SN is a single balanced mechanical seal, having the configuration 1CW – FX (Contacting Wet – Fixed throttle bushing). The said seal is design to accommodate shaft deflections and process fluctuations.



#### Performance Capabilities

Shaft diameter:  $d_1 = 20 \dots 110 \text{ mm}$  (0.79" ... 4.33")  
 Pressure:  $p_1 = 22 \text{ bar}$  (319 PSI)  
 Temperature:  $t = -40 \text{ }^\circ\text{C} \dots +176 \text{ }^\circ\text{C}$  (-40 °F ... +349 °F) (>176 °C (349 °F))  
 Sliding velocity:  $v_g = 23 \text{ m/s}$  (75 ft/s)

#### Technical Features

1. Designed to accommodate shaft deflections and process fluctuations
2. Efficient construction for heat dissipation
3. Compact installation design
4. Factory assembled cartridge unit for easy installation
5. Springs are product protected to avoid contamination
6. Can accommodate reverse pressure
7. Can handle extensive applications in various temperatures and pressures
8. Versatile in design to fit various seal chambers