

# COGEIM®

Number 1 filter-dryer supplier in the world

## COGEIM® EQUIPMENT MAINTENANCE AND REFURBISHMENT

A NECESSARY CHOISE

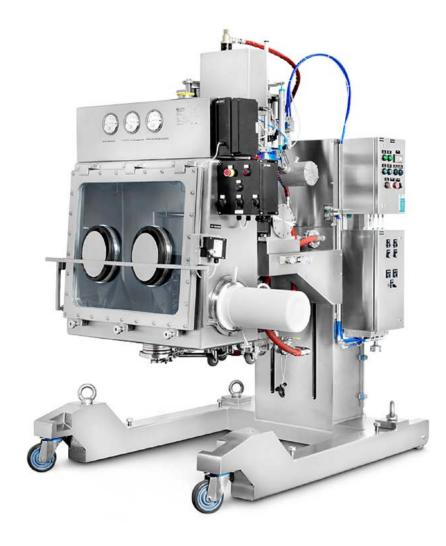
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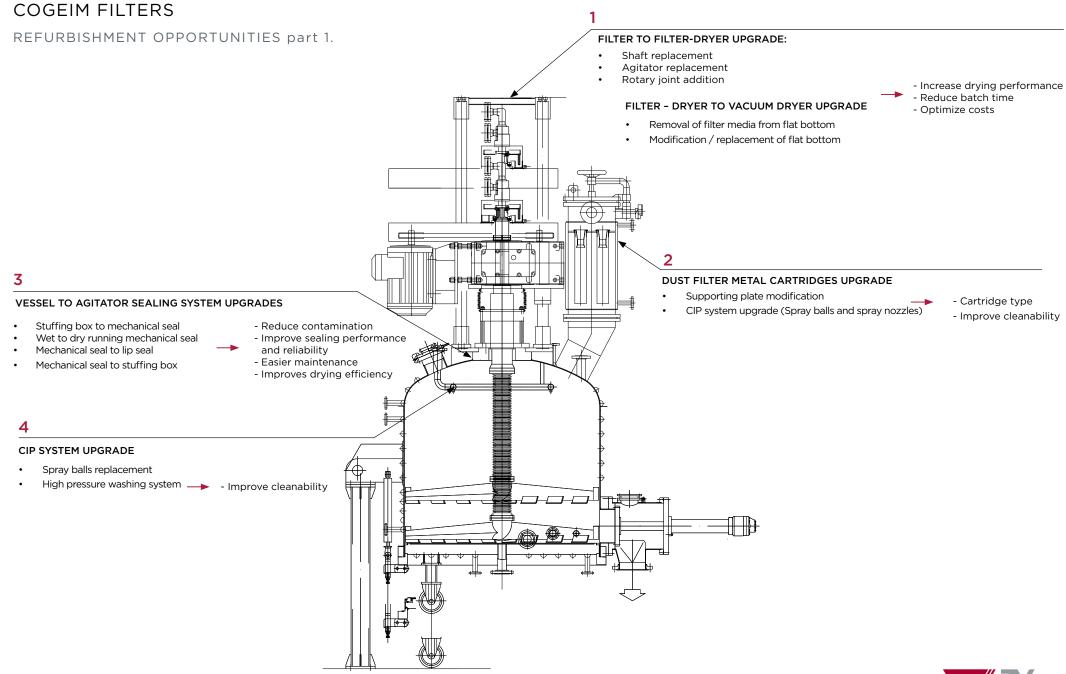
#### **3V-TECH SERVICES**

AFTER-SALES DIVISION

- PREVENTIVE MAINTENANCE
- EMERGENCY REPAIR
- SPARE PARTS
- UPGRADES
- REFURBISHMENT
- TRAINING



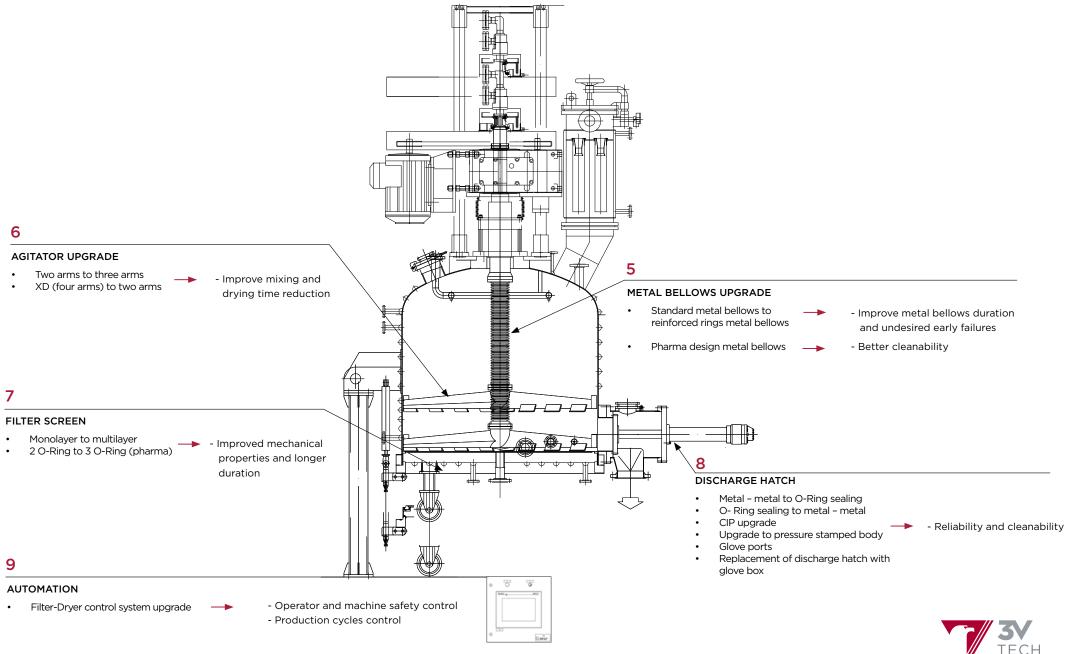




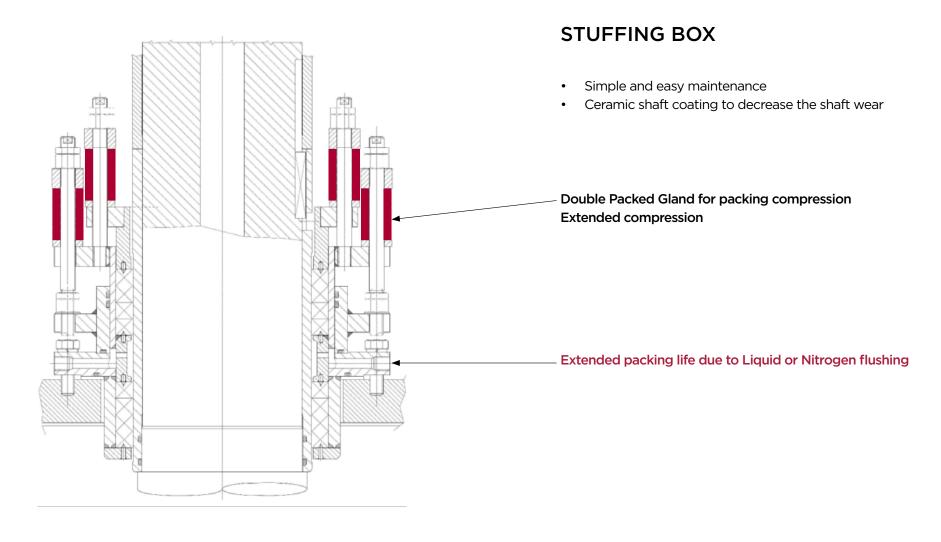


#### **COGEIM FILTERS**

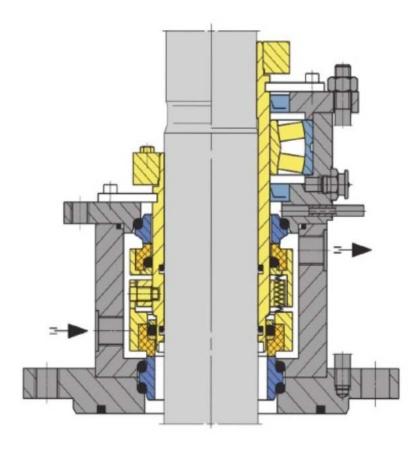
REFURBISHMENT OPPORTUNITIES part 2.











#### WET MECHANICAL SEAL

- Good reliability due to constant liquid lubrication
- Silicon carbide sealing rings reduce product contamination
- The pressure and flushing liquid level are controlled by instrumentation on the liquid tank

#### DRY CONTACTING MECHANICAL SEAL WITH SANITARY GLAND

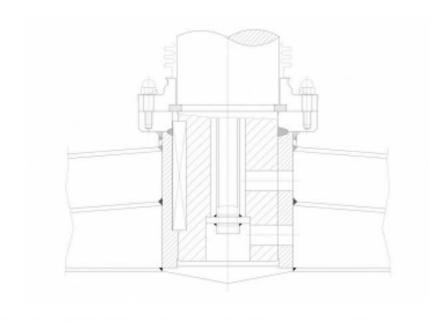
- High containment
- Connected to the nitrogen line by a simple control panel
- Purge by dry or moisturized nitrogen prevents contamination by liquid lubricants
- Particulate generated by graphite rings collected by sanitary gland suitable for periodic cleaning.
- Purge control panel with interlocking instrumentation

#### DRY NON CONTACTING LIFT OFF MECHANICAL SEAL

- Seal rings aren't in contact each other so there are no particles inside the product.
- Purge by dry nitrogen allows to avoid contamination by flushing liquids use
- Purge control panel with interlocking instrumentation

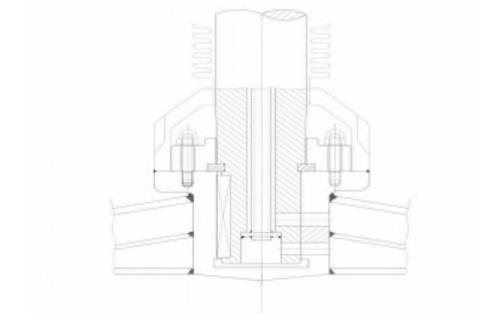


#### 5 METALLIC BELLOW UPGRADE



## STANDARD SOLUTION

• Most economical solution

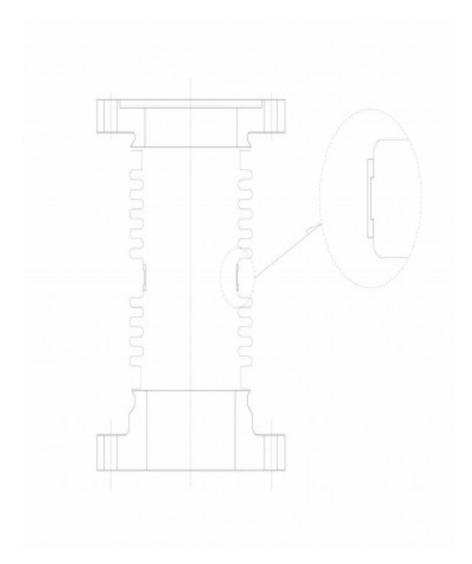


## THREADED FLANGE SOLUTION

- Minimize crevices where product can collect on the bellow
- No bolts in contact with the product
- Better cleanability



### 5 METALLIC BELLOW UPGRADE



## **REINFORCED RING SOLUTION**

• Increased reliability



#### 6 AGITATOR UPGRADE





## UPGRADE FROM A TWO ARM AGITATOR A THREE ARM

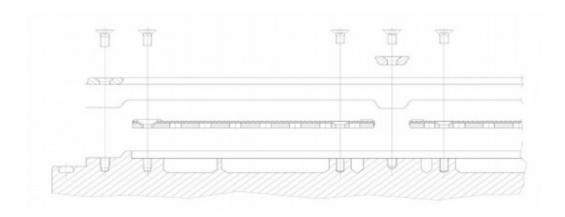
- Increased heated surface area
- Faster evaporation rate
- Better product mixing

## UPGRADE FROM A THREE ARM AGITATOR TO AN XD AGITATOR

- Additional heated area
- Further reduction of drying times

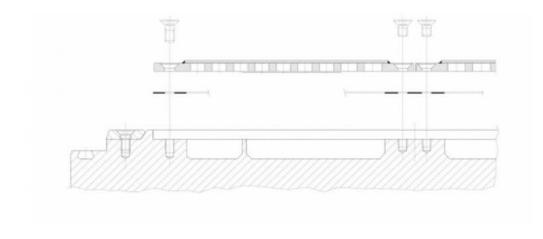


#### 7 MONOLAYER FILTER CLOTH AND MULTILAYER FILTER SCREEN



### MONOLAYER FILTER CLOTH

- Easiest solution
- Ideal in the multi-product industry for the cross-contamination reduction during the product change



## MULTILAYER FILTER SCREEN SECTORS

- Excellent mechanical properties: better rigidity and corrosion resistance
- Less product heel because of close agitator to filter plate tolerance



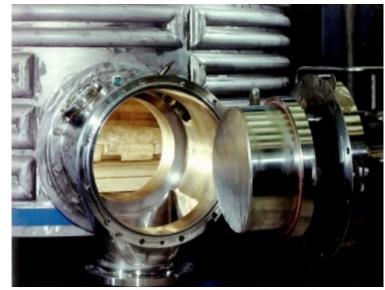


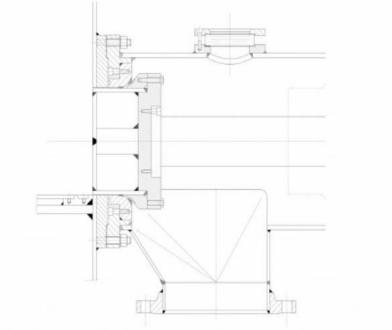
## MULTILAYER FILTER SCREEN 3 O-RING SOLUTION

- Recommended solution for the Pharma Industry to minimize death zones and improve the cleanability
- The filter screen can be easily installed and removed because it's a single piece.
- Supplied together with a filter disc



#### 8 DISCHARGE HATCH UPGRADE





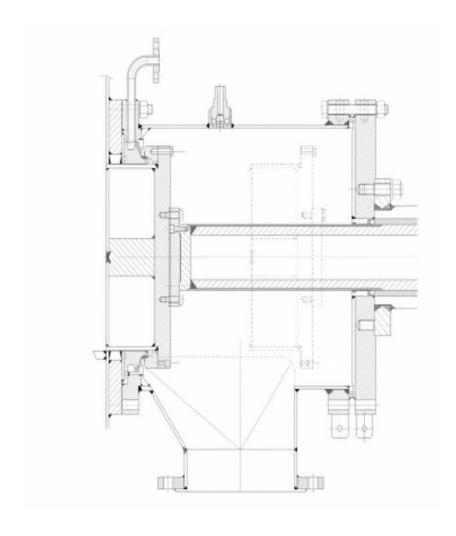
## O-RING PLUG SEALING

## **METAL TO METAL SEALING**

• Sealing superior reliability



#### 8 DISCHARGE HATCH UPGRADE



## FROM METAL TO METAL SEALING



- Prevent direct contact between the product flow that goes out and the sealing area
- Cleaning system direct to the sealing area



#### COGEIM REFURBISHMENT CASE HISTORY

In 2011, a German customer requested a quotation for a new 8.0mFilter Dryer (Model FEP/SD 800); however, the customer's need was immediate and fabrication times exceed their current production needs. Therefore, COGEIM suggested investigating the used equipment market and Filter Dryer with similar features was located in France. Once purchased, the Filter Dryer was sent to COGEIM's workshop for a careful inspection by COGEIM technicians. There a detailed report was generated highlighting areas that needed to be corrected because of excessive wear or safety concerns and areas that could be improved to provide better performance with the latest COGEIM technology.







The unit was disassembled and completely inspected by COGEIM's service technicians and technical staff and a thorough report was provided to the customer for parts that must be replaced due to wear and possible upgrades to improve performance.

- A new wash ring was added to the vessel interior for improved displacement product washes.
- The vessel base lower stroke was also adjusted in accordance with the customers installation.
- New hydraulic base lower cylinders were provided along with new mounting positions for the cylinders to account for the different base lower stroke.
- In addition, eight (8) casters were added to the base for better mobility and access to the base for potential maintenance operations.
- The filter media was changed from a monolayer filter media to a
  multilayer filter media design to provide a flatter, more rigid filter
  plate. This allowed the customer to reduce the distance between
  the agitator and filter plate; thus reducing product heel and
  increasing yield per batch.
- The entire drive was re-built including a gearbox overhaul, mechanical seal overhaul and new agitator shaft.
- The vessel interior was returned to an Ra < 0.8 microns and all scratches and imperfections were removed.
- The vessel exterior was pickled and passivated and all carbon steel components received a fresh coat of paint.
- A completely new hydraulic power pack was supplied using the latest technology.
- In addition, all of the hydraulic lines on the vessel were replaced with new lines and hydraulic components.
- In addition, a new PLC control system was provided in accordance with a new functional specification developed specifically for our new customer.

A just like a new piece of equipment, the entire system was tested in our factory prior to shipping to the customer









## **COGEIM®**

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#### Service

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