



# Fugesco

Power Mechanical Seals



Hydropower  
solutions



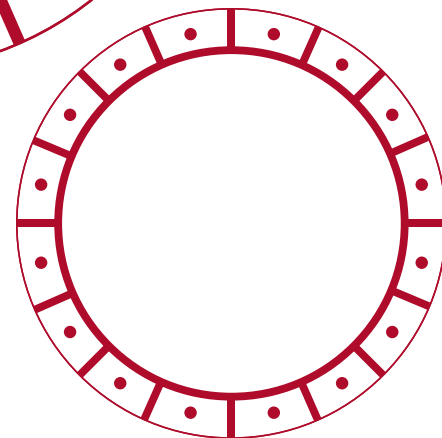
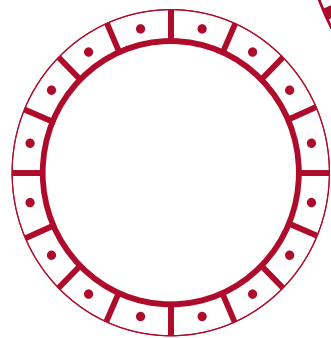


## Proven Designs and the Next Generation Turbine Seals

For over 20 years Fugesco has been supplying the Hydropower and Municipal/industrial domains with unique state of the art mechanical seal solutions up to a shaft size of 4 meters in diameter.

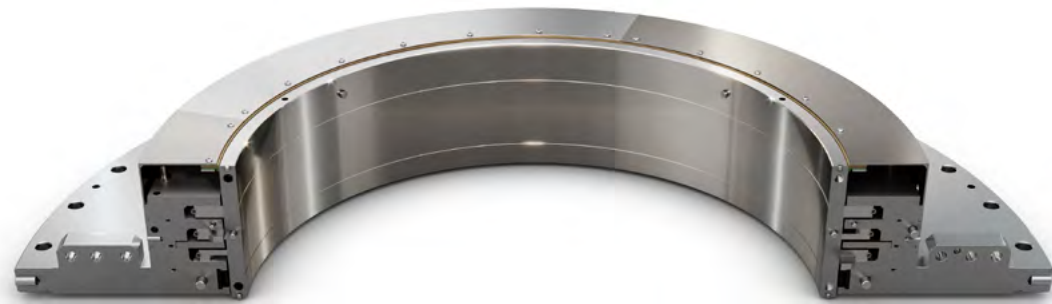
All of our products are addressed by teams focused on our extensive expertise in mechanical seal design and our ability to innovate in order to comply with our client's unique needs.

Our engineers utilize the latest technologies and manufacturing principles combined with research and development programs to assure our clients of our dedication to servicing them and their evolving needs.





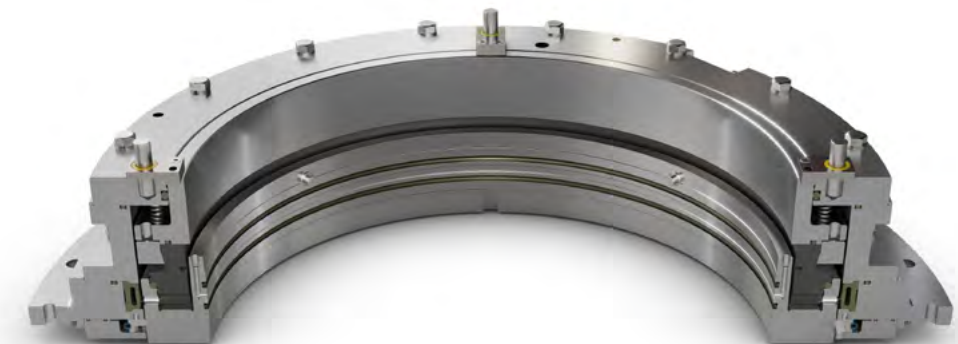
## Radial Seals



Radial type seals are typically used at hydroelectric power stations in turbines and pumps. Their main purpose is to maintain a near water tight seal between the shaft and the headcover of the unit. Depending on the prevailing design parameters, such as pressure, speed and vacuum among others, two or more carbon segmented sealing rings may be required. We custom design the seal to suit existing equipment, this proven reliable design concept is not only simple to install but self adjusts and is relatively easy to operate and maintain. We are capable of designing and manufacturing both split and non split versions of these seals as required by our customers. An essential component of the radial seal is its companion precision sleeve,

which is mounted on the turbine shaft and which together with the carbon sealing rings performs the required sealing function. We design and manufacture split and non split sleeves in various materials dependant on service conditions and design parameters provided. Optional requests for peripheral elements such as splash guards, reservoirs, RTD's, wear indicators and inflatable maintenance seals are some of the common client needs that we satisfy regularly. In order to facilitate efficient site handling, we have developed proven composite designs that drastically reduce the weight of the seal components, thus affording our clients some repeatable cost savings at initial installation and also at each maintenance outage.

## Axial Seals



Axial type seals are typically used at hydroelectric power stations and municipal facilities, in turbines and pumps where higher pressures and more robust conditions prevail. Their main purpose is to maintain a near water tight seal between the shaft and the headcover of the unit.

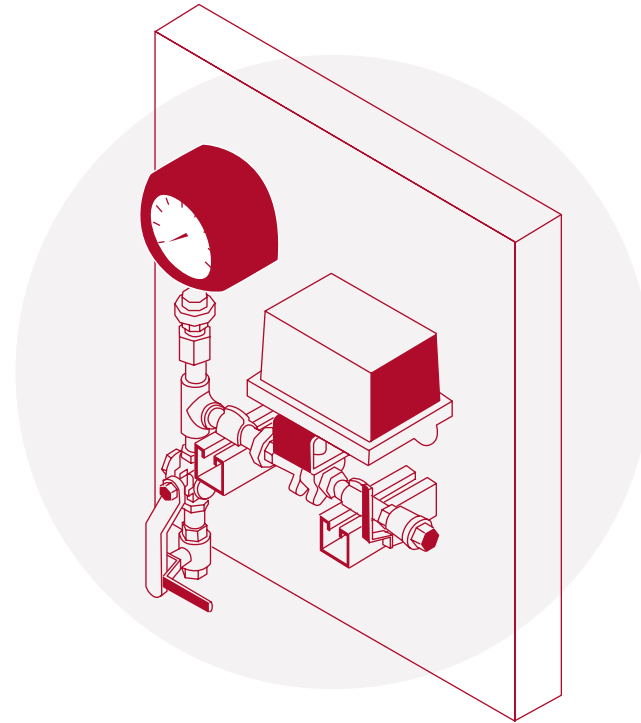
These seals are designed to withstand hostile conditions such as high pressures and torques as well as exaggerated axial and radial shaft displacements and thrust forces. Dependant on the available space allocated for the seal, larger wear allowances are possible in order to achieve fewer maintenance outages and cost savings.

The axial sealing action occurs between two mating rings, a stationary sealing ring and a seat ring that rotates with the shaft. Since the wearing surfaces of the seal reside between these two surfaces, the shaft surfaces are not exposed to wear due to the sealing action.

## Accessories

### Inflatable Seals Air Control Panel

- A seal air-controlled panel designed to regulate the air supply and pressure required to activate the inflatable seal.
- The panel may be connected to existing controls in order to prevent accidental turbine start ups while in the inflated mode.
- The panel can be remotely operated.
- Stainless steel construction.
- Designed to customer's requirements and specifications.



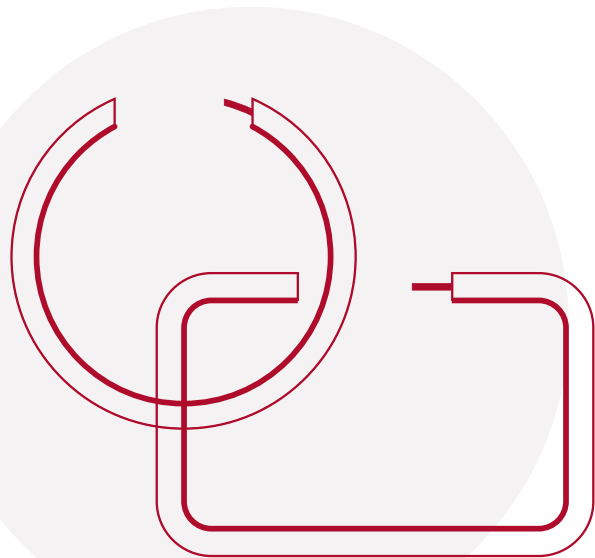
## Accessories

### Inflatable Seals

While we provide our standard proven designs of inflatable seals, we are also able to custom design inflatable seals for our clients' unique needs.

The basic design allows the end user to install the seal without the need for site vulcanizing. Testing of the inflatable seals is performed prior to shipment.

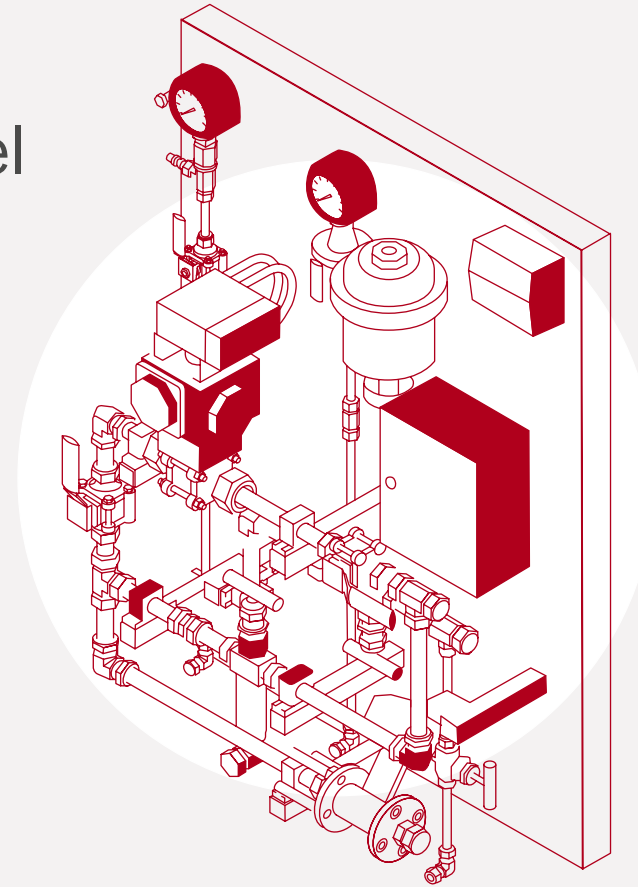
For special conditions such as odd cross sections or bridging of unusually large gaps etc. our design teams are always up to the challenge of finding the most appropriate solutions for our clients.



## Accessories

### Seal Water Control Panel

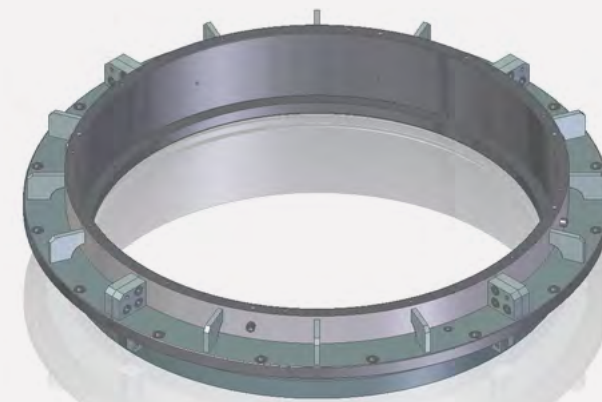
- This panel is designed to regulate the Flow and pressure of water supplied to the seal.
- The panel can be remotely operated.
- The panel can be used to reduce operating costs by optimizing water consumption.
- Control of the lubrication and pressure aspects of the water supply to the seal will result in extended seal life.
- The panel is designed to control the differential pressure requirements of the seal for more stable operation.
- Stainless steel construction.
- Designed to customer's requirements and specifications.



## Accessories

### Packing Box

We have designed, supplied, manufactured and refurbished packing boxes for OEM's and Utilities and continue to do so to specification.





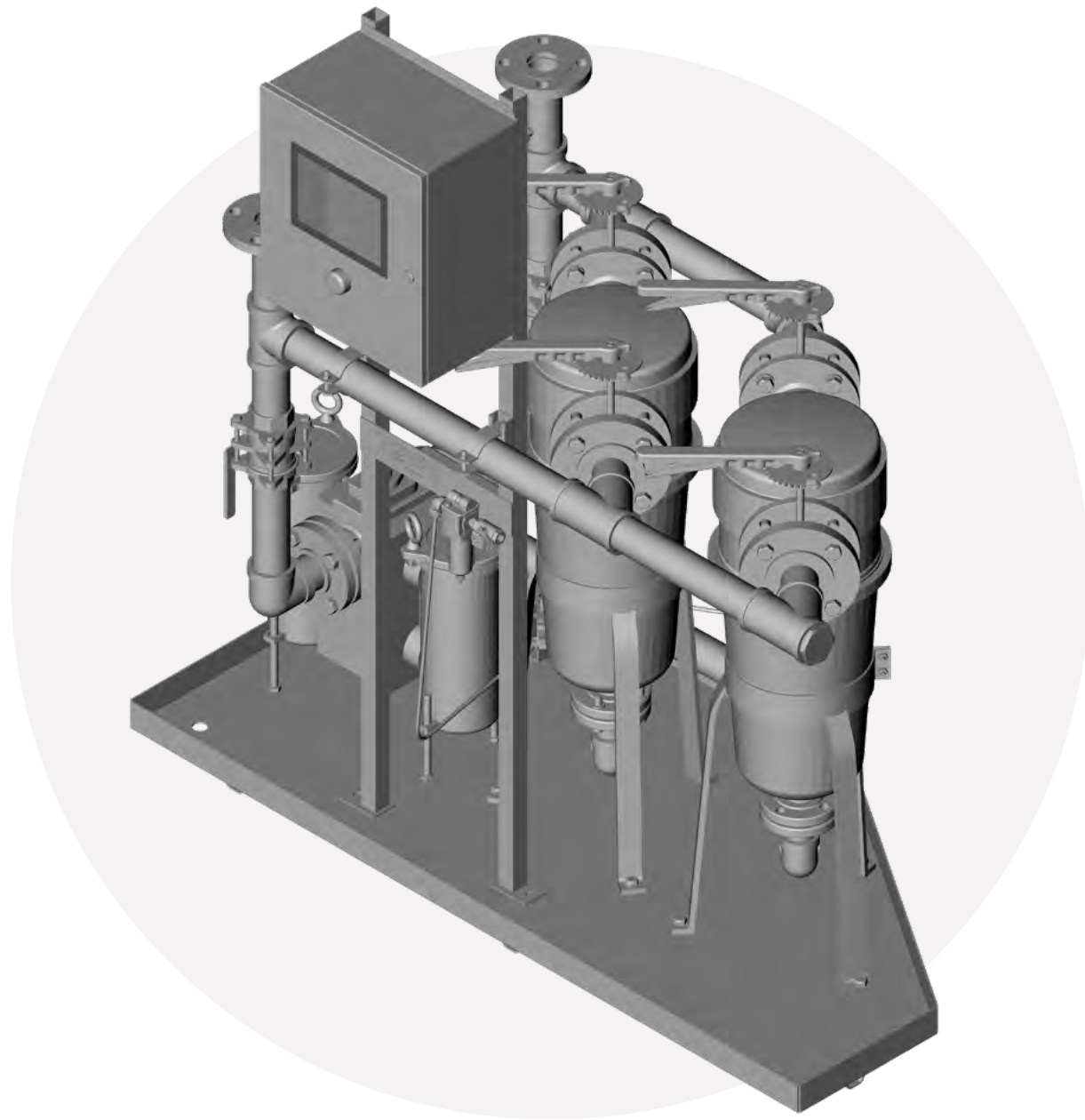




## Accessories

### High Efficiency Filtration System

- Exceptionally efficient filtration with no clogging.
- Fully-automated backwash.
- Low backwash flow rate and volume of water.
- Compact configuration for optimal space utilization.



## Innovation

### Polymer seal housing

- The Polymer Seal is 1/4 of the weight of Stainless Steel



## Dam Gates Seals

### Custom Molded Rubber Products

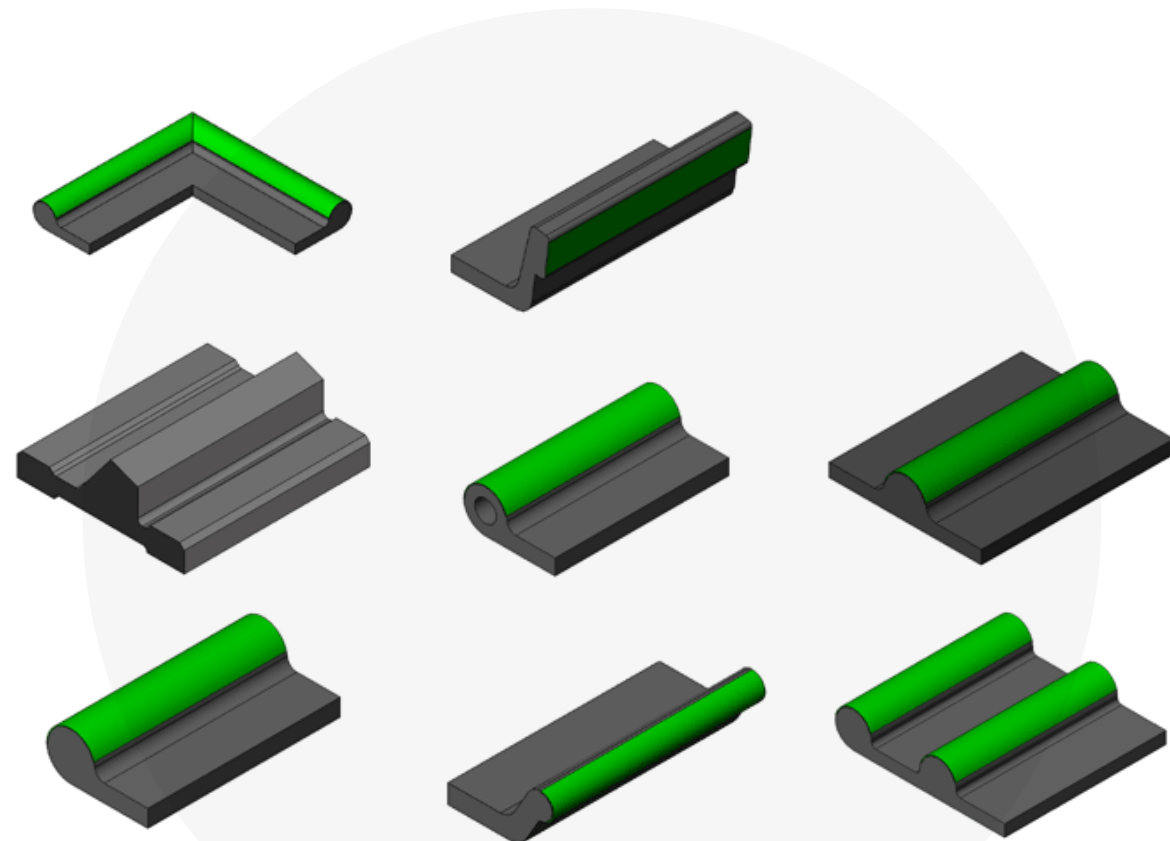
We produce a host of rubber J seals, Bulb seals and many variations of these for hydraulic gates. Fugesco design and produce seals in a variety of materials such as SBR (styrene butadiene rubber), CR (chloroprene rubber), NR (natural rubber) and many other types of elastomers (EPDM, NBR, fluorine, etc.) as required by our clients. In addition, these seals, may or may not have PTFE cladding as required by our clients.

All of our seals are molded and hence of high quality, dimensionally accurate and resistant to UV.

They meet the strictest specifications worldwide, to ensure easy assembly, perfect-fit, sealing especially at the corners, no leakages and superior durability.

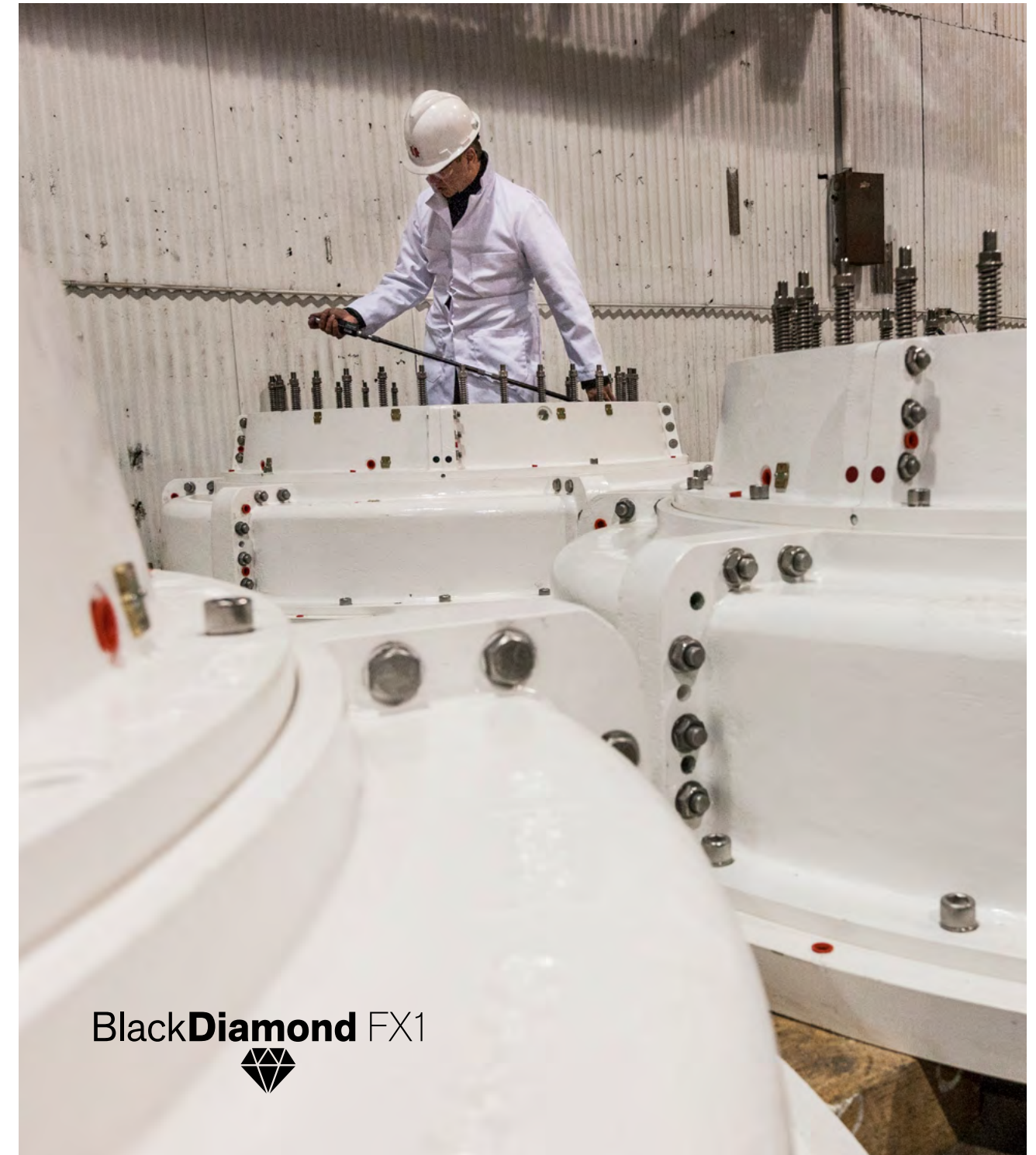
The good fortune of being in this business for so long has also rewarded us with a formidable array of tooling which contributes to our competitive edge and effective lead times.

– In keeping with our philosophy of in – house design engineering and manufacturing we eagerly welcome the opportunity of finding solutions for our clients' concerns and special projects.



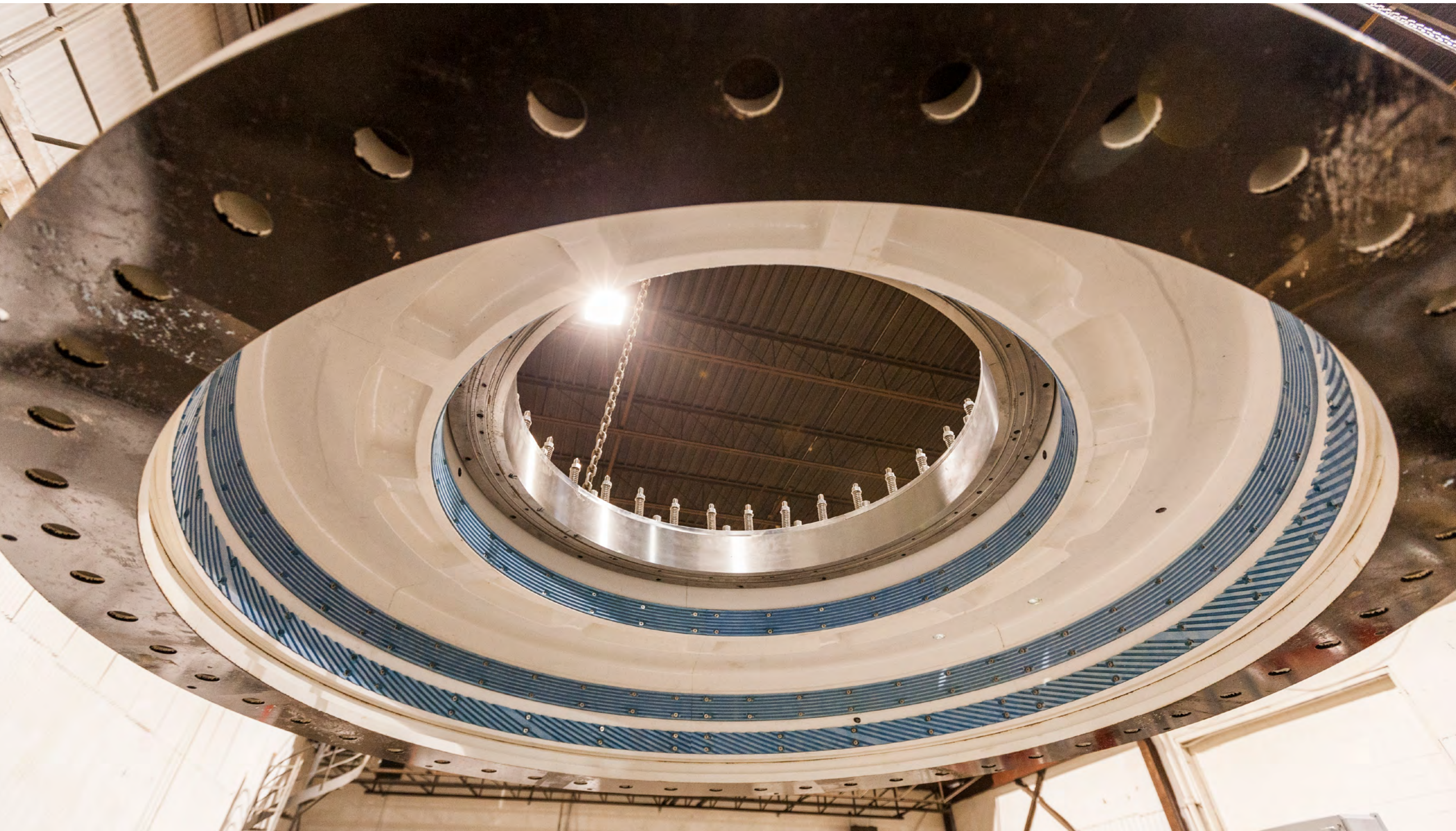
## Black Diamond FX1

Unrivalled tribological properties and wear resistance Patent Pending.



BlackDiamond FX1









# Fugesco

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