

## **Mechanical Seals**

INVESTMENT OPPORTUNITY

**Machinery & Equipment**

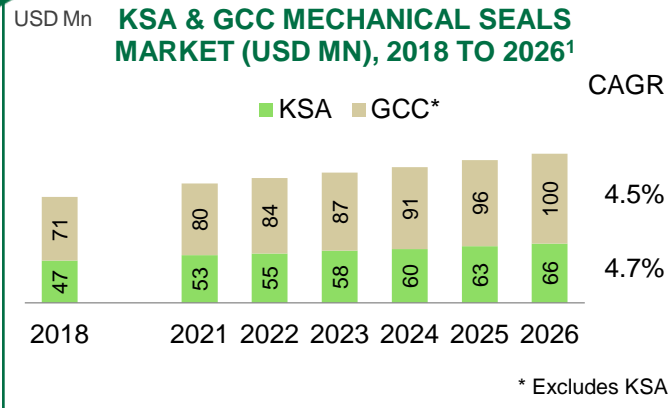


# Machinery & Equipment Mechanical Seals

**OPPORTUNITY DESCRIPTION:** Existing capacity expansion and value chain enablement for new players

## DEMAND

### MARKET SIZE, USD



## INVESTMENT OVERVIEW

### INVESTMENT HIGHLIGHTS

- A number of global manufacturers for mechanical seals have set up base in KSA already with 3 prominent players currently operational in the market
- However, going by past precedent in other parts of the world, there is still the need for increased manufacturing – to cater to the increased demand from a constantly expanding installed base (replacement demand)
- Expected Investment Size#: USD 13 to 15 Mn
- Job Creation#: 110 to 120

### VALUE PROPOSITION

- Import dependency – considering the increasing preference for locally manufactured products and components, there is a demand-supply gap for locally manufactured mechanical seals in KSA
- **Export potential** – Setting up in KSA allows access to trade routes that account for 12% of world trade
- **Infrastructure** - Special economic zones and Industrial townships provide world class infrastructure and competitive access to utilities

### KEY DEMAND DRIVERS

- Vision 2030 initiatives are generating tremendous growth opportunities for Oil & Gas, Power, Water & Wastewater and industrial segments – this in turn will create a strong demand for pumps, & thereon mechanical seals.
- More than 60 water projects, worth SAR 35 Bn (USD 9.3 Bn) are planned, that will make KSA the largest water desalination market in the world.
- On completion, these desalination projects will increase the desalination capacity from 2.54 Mn cubic metres per day in 2021 to 7.50 Mn cubic metres per day by 2027. In addition, plans are in progress to develop 147 SSTPs with 14,925 kms of wastewater collection networks<sup>2</sup>
- These will create a robust demand for pumps and mechanical seals

## MARKET OVERVIEW

### RAW MATERIALS

- Graphite / PTFE / Tungsten carbide etc. for seal face materials
- Elastomers, Nitrile Rubber, Ethylene propylene etc. for secondary seal materials
- Stainless Steel for mechanical seal body, springs, sleeves, and flanges.
- For select applications Hastelloy (nickel alloy), or Titanium is also used

### GLOBAL TRENDS

- Mechanical seals that consume less power and provide efficient mixing processes are attracting focus from manufacturers
- There is ongoing research and evaluation on instrumenting mechanical seals, to leverage IIoT benefits
- Mechanical seal manufacturers are increasingly looking at business models focused on striking relationships with manufacturers of pumps etc.

Source: <sup>1</sup>Team Analysis of published strategy documents, reports from SWCC & IKTV publication, independent market reports, UN Comtrade data, General Authority of Statistics data and industry interactions; <sup>2</sup>SWPC Announcement. #Expert interviews (assumptions), financial statements of peer companies, team analysis

Note: This opportunity is for a component that is manufactured with a range of other components in a facility. No facility is expected to be constructed for manufacturing this component exclusively. Hence, the insights on capacity and investment are indicative - these would vary based on the decision an investor takes on the mix of components to manufacture. Opportunity potential is defined basis current import dependency – High refers to >80%, medium >50 to 80% and low <=50%. \*Job Creation covers direct and indirect job. CAGR – Compound Annual Growth Rate, OEM - Original Equipment Manufacturer, GCC – Gulf Cooperation Council, R&D – Research & Development, JV – Joint Venture, IIoT – Industrial Internet of Things, USD – United States Dollar, SAR – Saudi Riyal, Mn – Million, Bn – Billion, SSTP – Small Sewerage Treatment Plant.



### SUPPLY

#### SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- Mechanical seals are a critical component for centrifugal pumps; however, extended use can be driven from compressors and connections with rotating equipment
- Producing mechanical seals locally could reduce overhead and transportation costs – and presents a viable business case for investment
- The demand is driven from the Energy and Industrial sectors – and both sectors are part of the focus of various national level vision programs

#### IMPORT DEPENDENCY

- Some part of the replacement demand for seals is being met through the local manufacturing base in the country
- Considering the high import dependency on pumps and compressors, the market for seals also is extensively import driven, and presents a favorable case for localization

### ENABLING FACTORS

#### ENABLERS & INCENTIVES

- Customs duties** exemption on imported machinery, equipment, raw materials and spare parts utilized for industrial purpose
- Access to **local content initiatives and programs** at demand centers
- HRDF **covers monthly salaries of up to 30%** for Saudi employees (extra 10% for females) for 2 years
- Expat worker **levy waived off** for industrial manufacturers
- Tax rebates** on exports, raw material imports, and **50% tax credit** on Saudi national worker's payroll & training costs for 10 years
- 2-year **grace period** for the repayment of loans
- Unprecedented access to a **diversified value chain** - especially raw materials (steel, aluminum, polymers, and industrial minerals)

#### VALUE CHAIN

##### Upstream

- Mining
- Mineral beneficiation - Stainless Steel manufacturing
- Gasket manufacturing

##### Midstream

- CNC Machining
- Seal Assembly

##### Downstream

- Testing & inspection
- Packaging

##### Applications\*

- Power
- Oil & gas
- Petrochemicals & Chemicals

#### COST OF DOING BUSINESS IN KSA

Factor	Ranking amongst regional peers
Electricity tariffs for industrial players	\$48 /MWh
Productivity adjusted wages	\$3.3 /hour
Logistics Performance Index (1-5)	3.2
Construction Costs (Indexed to US, % 0 is cheapest)	2.7
Ease of getting credit (0-100)	50

#### KEY STAKEHOLDERS



Logos sourced from entity website

Note: HRDF – Human Resource Development Fund. Scalability & Localization Grade is defined as high – if the set up can support localization of multiple product categories, medium – if multiple products within a category can be localized and low – if it supports localization of a single product only. \*Only key applications are highlighted

# DEFINITIONS

#	SCORECARD SECTION	DEFINITIONS
1	<b>Market size</b>	Size of market in value/volume in KSA and/or Region (MENA/GCC) covering future projections based on available estimates from published /government sources
2	<b>Business drivers</b>	A select number of factors that will influence future demand for the related product/service
3	<b>Investment highlights</b>	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	<b>Value proposition</b>	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	<b>Market readiness</b>	An overview of KSA market structure, market maturity and level of participation by local and global players
6	<b>Global trends</b>	Latest business developments within the sector/product category
7	<b>Scalability and localization</b>	Ease of scaling the business across the value chain or into new adjacent products or geographies that would maximize the opportunity's investment returns and the ability and potential to locally manufacture the product and its components
8	<b>Import dependency</b>	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
9	<b>Value chain analysis</b>	The process or activities that would potentially need to be carried out to deliver the underlying product or service
10	<b>Key stakeholders</b>	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
11	<b>Enablers</b>	Factors that enable investment in the underlying opportunity
12	<b>Cost of doing business in KSA</b>	Key factors that position KSA as a competitive destination for investment in the region. Productivity adjusted wages do not include cost of \$1.23/hour towards annual recurring charges including work permit, resident identity (iqama) and health insurance

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