

Valve body, seat, stem and plug (Valve components)

INVESTMENT OPPORTUNITY

Machinery & Equipment



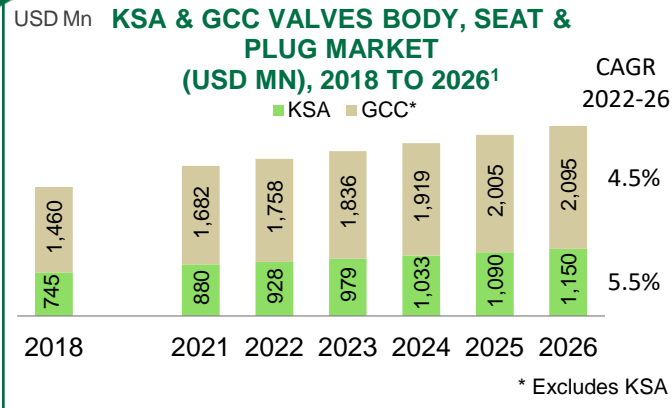
Machinery & Equipment

Valve Body, Seat, Stem And Plug

OPPORTUNITY DESCRIPTION: Enhancing in-country local value addition for valves, through the manufacturing of critical valve components locally

DEMAND

MARKET SIZE, USD



KEY DEMAND DRIVERS

- KSA plans to invest in increasing chemical industry output, targeting a capacity of 147MT by 2027 at 3% CAGR³
- More than 60 water projects, worth SAR 35 Bn (USD 9.33 Bn) are planned, that will make KSA the largest water desalination market in the world. In addition, plans are in progress to develop 147 SSTPs with 14,925 kms of wastewater collection networks⁴
- Capacity expansion across water desalination, wastewater treatment, crude extraction, refining and petrochemicals will drive demand for valves and its components

Source: ¹Team Analysis of published strategy documents, reports from SWCC & IKTVA publication, independent market reports, UN Comtrade data, General Authority of Statistics data and industry interactions; ²UN Comtrade; ³Gulf Petrochemicals Association Reports (GPCA); ⁴SWPC Announcement. *Expert interviews (assumptions), financial statements of peer companies, team analysis

INVESTMENT OVERVIEW

INVESTMENT HIGHLIGHTS

- The proposed portfolio of components would be additions for a casting and forging facility setup in the KSA
- Currently, valve OEMs in KSA focus only on assembly, testing and repairs. Body, seat and stem are main components that account for 50-55% of the total cost of a valve, but currently sourced from foundries in China & India
- Expected Investment size of USD#: 50 to 55 Mn
- Plant capacity#: 15,000 to 18,000 MT annually
- Job Creation#: 450 to 480

VALUE PROPOSITION

- ~ 80% of Saudi's valves imports are from High-Cost Countries such as USA and many from Europe²; this presents a strong case for import substitution where a locally developed value chain for valves can compete with best-in-class facilities globally
- **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

MARKET OVERVIEW

RAW MATERIALS

- Iron & Steel and its alloys such as carbon steel and stainless steel
- Bronze
- Brass
- Nickel alloys
- Titanium alloys
- Nickel aluminum bronze

GLOBAL TRENDS

- 3D printing of valve body and valve components – this is contributing towards optimization and customization of valves and valve components for customer specific needs across different valve types and end use applications
- 3D printing lends itself towards faster manufacturing times, quicker time to market, and towards decentralized manufacturing as well

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, MT – Metric Tonne, SSTP – Small Sewage Treatment Plants USD – United States Dollar, SAR – Saudi Riyals, Mn – Million, Bn – Billion, 3D – Three Dimensional.



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SUPPLY

SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- The manufacturing of these components in KSA will not just significantly increase the localization of the valve value chain, but will also contribute towards foundries, providing additional revenue streams that are linked to high growth segments in the country.
- These components can also be exported to other countries in the region that are attempting to increase assembly in their individual geographies but lack the critical mass to setup a casting/ forging facility. Valve OEM's can hence utilize this facility to facilitate local assembly plans in other countries in the region, while reducing transportation costs

IMPORT DEPENDENCY

- An estimated 75-77% of the KSA demand for valves is met through imports of finished products while the remaining 23-25% is catered by local assemblers.⁵
- 80% of the finished products are imported from High-Cost countries⁶
- Existing local assemblies also rely heavily on imports for castings and are constrained on 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

- Raw material extraction (Mining)
- Mineral beneficiation & processing
- Valve components – research, engineering & design

Midstream

- Casting & forging
- Machining
- Valve component manufacturing – body, seat, stem & plug
- Sand blasting

Downstream

- Testing & inspection
- Packaging

Applications*

- Oil & gas
- Petrochemicals
- Water & Wastewater
- Power

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

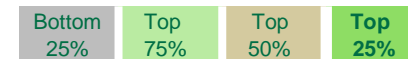
KEY STAKEHOLDERS



Logos sourced from entity website

Source: ⁵Team Analysis; ⁶UN Comtrade

Note: HRDF - Human Resources Development Fund, CRGO – Cold Rolled Grain Oriented. 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	Market size	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	Business drivers	A select number of factors that will influence future demand for the related product/service
3	Investment highlights	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	Value proposition	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	Market readiness	An overview of KSA market structure, market maturity and level of participation by local and global players
6	Global trends	Latest business developments within the sector/product category
7	Scalability and localization	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	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
9	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
10	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
11	Enablers	Factors that enable investment in the underlying opportunity
12	Cost of doing business in KSA	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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