

## Stators

INVESTMENT OPPORTUNITY

Machinery & Equipment

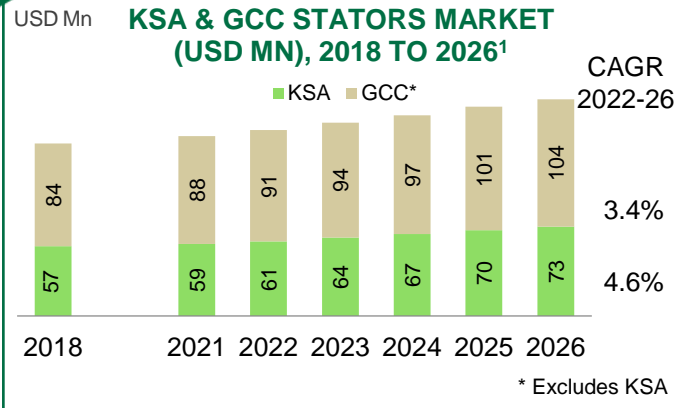


# Machinery & Equipment Stators

**OPPORTUNITY DESCRIPTION:** Increasing in-country local value addition for motors, through the manufacturing of stators

## DEMAND

### MARKET SIZE, USD



## INVESTMENT OVERVIEW

### INVESTMENT HIGHLIGHTS

- A manufacturing facility in KSA can target to supply stators as well as rotors to multiple brands for further assembly. This will further support in increasing the localization levels for induction motors in KSA.
- This same facility can also supply rotors and stators to manufacturers of allied products such as alternators
- Expected Investment Size#: USD 25 to 30 Mn
- Job Creation\*: 150 to 180

### VALUE PROPOSITION

- **Over reliance on imports** - Motor assembly is a nascent market in KSA with global players relying on complete motor imports to meet local demand. Of the ~90% motor imports into the country, ~60% of these imports are from High-Cost Countries (HCC)
- **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

- Industrial machinery accounts for ~38% of the demand for motors in the country driven by sectors such as chemicals, water & wastewater and oil & gas
- 2 high growth segments - Power and Industrial - are the largest end user segments for motors (60% share), with pumps being the biggest use case with ~50% share<sup>2</sup>
- Motors form a critical component for pumps. The market for pumps in KSA is expected to grow at 3% CAGR driven by strong investments in desalination and wastewater treatment projects, creating a strong demand for motors and its components such as stators.

### RAW MATERIALS

- High Grade Silicon Steel
- High Purity Copper Wire
- Insulation Paper
- Resins

## MARKET OVERVIEW

### GLOBAL TRENDS

- The focus globally is on improving efficiency and performance by reducing core losses. Material considerations are playing a key role here
- Soft Magnetic Composite (SMC) stators have witnessed a significant reduction in core losses and their powder origins/ configurations allow for creation of more complex geometries

Source: <sup>1</sup>Team Analysis of published strategy documents, reports from SWCC & IKTVA publication, independent market reports, UN Comtrade data, General Authority of Statistics data and industry interactions;<sup>2</sup>NIDC report on motors. <sup>3</sup>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. Stator in this deck refer to application across motors. 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, HCC – High Cost Countries, MEA –Middle East & Africa, USD – United States Dollar and Mn – Million.



# Machinery & Equipment

## Stators

### SUPPLY

#### SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- Localization can be enhanced by establishing an automated line for manufacturing/ assembly of stators that integrates all critical processes like paper insertion, coil winding, coil insertion, coil forming and shaping
- Further localization of the stator manufacturing process can be achieved upstream by focusing on silicon steel manufacturing and stamping operations to produce the laminated silicon steel

#### IMPORT DEPENDENCY

- 90% of the motors are currently imported - with more than 60% of the imports from High-Cost Countries such as USA, Italy, Germany, etc.<sup>3</sup>
- Global players continue to rely on complete motor imports for supplying into the local market

### 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 – electrical steel, copper

##### Midstream

- Pressure die casting
- Stator Core Machining
- Stator Core Lamination
- Welding
- Copper Winding
- Vacuum Pressure Impregnation
- Drying

##### Downstream

- Testing & inspection
- Packaging

##### Applications\*

- Water & Wastewater
- 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



وزارة الاستثمار  
Ministry of Investment



المركز الصناعي  
Industrial Center



وزارة الصناعة  
والثروة المعدنية  
Ministry of Industry and Mineral Resources



أرامكو  
aramco



الهيئة العامة للمياه  
Saline Water Commission Corporation

Logos sourced from entity website

Source: <sup>3</sup>UN 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	<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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