

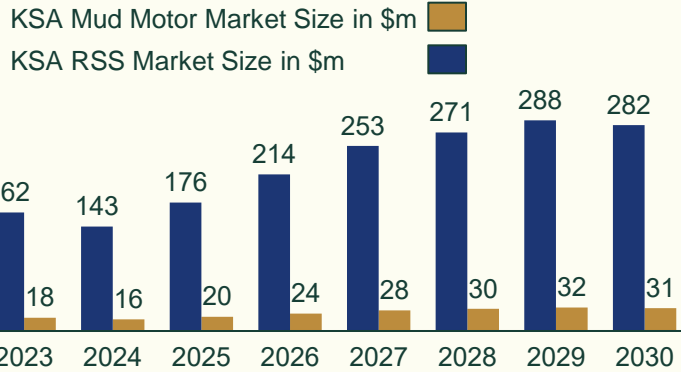
Directional Drilling Machines

Opportunity Description*: To set up a Direction Drilling Machines assembly plant to serve the future local and regional demand

Directional Drilling Machines – Opportunity Card (1/2)

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KSA Market Size in Mn USD₁



There is currently no local production capacity

Investment Highlights₂

- Expected Investment: ~\$8.5 Mn
- Plant capacity: **425 units / year**
- Expected Equity IRR: **16%**
- Expected Project IRR: **13%**
- Payback period: **12 years**
- Expected GDP Impact till 2030: **\$543 Mn**

Major Assumption

Mud Motor Rental Price	\$5,000 USD / Day
RSS Rental Price	\$15,000 USD / Day
Debt	70%

Raw Materials

- Cast Iron
- Stainless Steel
- Alloy Steel
- Plastics & Polymers
- Hydraulic Oil / Fluids
- Copper & Aluminum

Energy Sector Demand Drivers

- Saudi Aramco expanding its crude oil production capacity to 13 million barrels per day (mmbpd) by 2027
- KSA aiming to increase the Petrochemical production from 38 to 70 M tons annually
- The Jafurah onshore gas field is considered one of the largest unconventional gas fields worldwide and is driving the demand for Directional Drilling Equipment in KSA
- KSA targets increasing their Natural Gas production by 40%

Other Sectors Demand Drivers

- Directional Drilling Equipment demand is only driven by the Energy Sector

Value Proposition

- KSA is the world largest exporter of Crude Oil and 2nd largest producer
- KSA is well positioned to play a leading role and become a major clean Hydrogen exporter which will drive the demand on natural gas
- KSA has the 6th largest natural gas reserve of 329 Tn Cubic ft
- The recent discovery of 8 gas fields, 3 of which are unconventional, hence the need for directional drilling

Directional Drilling Machines – Opportunity Card (2/2)

Import Dependency

- In **2021**, Saudi Arabia imported **\$423M** in **Parts of boring or sinking machinery**, becoming the **3rd largest importer** of Parts of boring or sinking machinery in the world. ¹
- Saudi Arabia imports Parts of boring or sinking machinery primarily from: **United Arab Emirates (\$237M)**, **United States (\$56.5M)**, **Singapore (\$51M)**, **China (\$26.6M)**, and **Germany (\$11M)**.¹

Localization Potential

Baseline	Target	Contribution*
0%	75%	100%

Scalability

- Expand offerings to downhole tools like drilling jars, stabilizers and reamers
- Expand geographically by exporting to the GCC region

Enablers and Incentives

No enablers are taken into consideration in the financial estimation for this opportunity, but the opportunity is subject to off the shelf's incentives like:

- **SIDF financing up to 75% of CAPEX**
- **HRDF covers monthly salaries of up to 3,000 SAR / employee for Saudi employees**
- **Tax credits for R&D for manufacturers**
- **Custom duty exemption for import of capital goods/machinery** required for setup of facility

Major Local and International Manufacturers

- Local Manufacturers: N/A
- International Manufacturers: Weatherford, Dynamax, Newsco and Baker Hughes

Key Stakeholders



Value Chain

