

# **SPEK INDUSTRIES LIMITED**

## **BUSINESS PLAN**

***Corporate Office***

SPEK INDUSTRIES LIMITED  
12<sup>th</sup> Floor, Sky City Mall  
Plot No. 403/183 Block A.  
P.O. Box 30487,  
Dar-Es-Salaam, Tanzania

## **EXECUTIVE SUMMARY**

**SPEK INDUSTRIES LIMITED** is a private limited company incorporated in the united republic of Tanzania in January, 2023. The company's physical address is P.O. Box 30487, Sky City Mall, University road, Plot No.403/183, Block A, Kinondoni, Dar es Salaam.

The company was established with the objective of forming a factory that will be manufacturing High-Density Polyethylene (HDPE) Pipes and carry on the business of selling and supplying HDPE pipes.

HDPE Pipes have a variety of uses, specifically for the transportation of liquids through, water infrastructure, oil and gas, mining, and the like.

HDPE Pipes manufacturing business is becoming in growing demand due to the increase in development projects and industrialization. For SPEK Industries Limited, there is an immediate market for HDPE pipes through off-takers

SPEK INDUSTRIES LIMITED with its progressive attitude towards quality product development; together with a focus on operational efficiencies and strategic management will enable us to meet the changing demands of our customers and harness opportunities for future growth and expansion.

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## OVERVIEW

**SPEK Industries Limited**, has her principle office at Sky City Mall, 12<sup>th</sup> Floor, University Road, Plot No.: 403/183, P. o. Box 30487, Dar-Es-Salaam, Tanzania.

SPEK Industries Limited, shall provide a uniquely comprehensive range of innovative engineered solutions for HDPE pipes to suit long term consumer needs through wholesale.

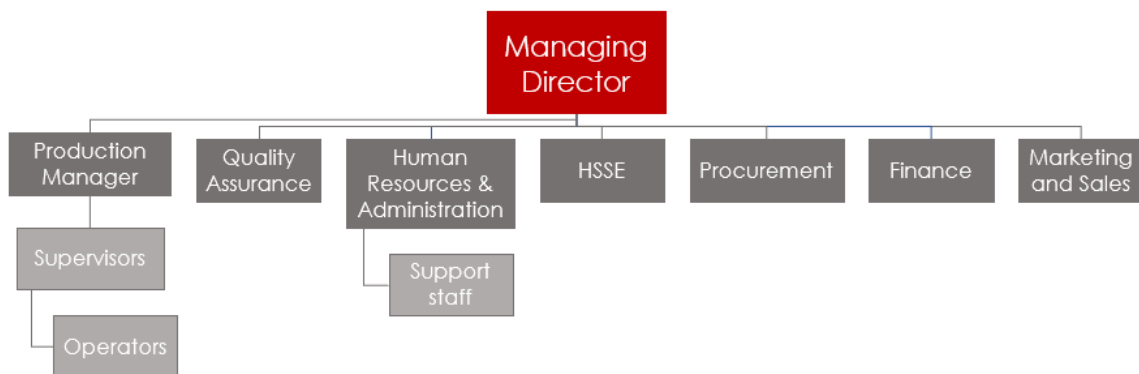
HDPE pipes are environmental friend with a low corrosion and toxicity rate due to the usage of recyclable material that has high resistance to chemical erosion.

With strong capabilities in product design and development, SPEK Industries Limited can supply standard products, as well as value-added solutions to meet specific customer needs. All products are designed for strength and durability.

**SPEK Industries Limited's** Board consists experienced individuals whose combined expertise and a well selected team of professionals, is the catalyst towards the company's success.

The appointed management will provide strong technical and engineering expertise administration, finance, sales and marketing.

## Organization Structure



## **OUR VISION**

To become the market leader in the production, supply and distribution of HDPE Pipes

## **OUR MISSION**

To continuously improve on product delivery through innovation, quality management and reduced lead time.

## **OUR VALUES**

At SPEK Industries Limited, our core values are focused toward customer centricity, with the end user in mind, we are therefore guided by the below values:

- Quality assurance
- Innovation
- Agility
- Reliability
- Customer focus

## **PRODUCTS DESCRIPTION**

High-density polyethylene pipe is strong, durable, flexible, and lightweight. When fused together, HDPE offers a zero leak rate due to the seamless nature of the pipe system. HDPE pipe offers a more environmentally sustainable footprint because it is non-toxic, corrosion and chemical resistant has a long lifespan, and is suitable for trenchless installation methods.

Key chemical position is Polymers with key component being PE 100 resins/granules.



*(HDPE Pipes)*

### **SPEK INDUSTRIES LIMITED HDPE Pipes manufacturing**

High-density polyethylene (HDPE) pipes are flexible plastic pipes manufactured by the polymerization of ethylene with various additives, such as stabilizers, fillers, plasticizers, softeners, lubricants, colorants, flame retardants, blowing and crosslinking agents, and ultraviolet degradable additives. They are used to carry potable water, hazardous wastes, gases, slurry, firewater, and stormwater due to their high durability. They are easy to install and transport, as HDPE pipes are lightweight compared to iron or galvanized pipes. In addition, they can withstand extreme weather and ultraviolet (UV) radiation while providing chemical, abrasion, and corrosion resistance.

The process includes molding of the polymer into different diameters ranging from 20mm to 630mm.

### **Applications:**

As a result, HDPE pipes find extensive applications in construction, oil and gas, agriculture, paper, power plant, glass, plastic, and telecommunication industries across the globe.

### **General requirements and specification**

SPEK INDUSTRIES LIMITED will carry out the design of pipes, setting out quality control of the workmanship and materials for all specified HDPE pipes manufacturing, subject to the standard HDPE pipes standards and specifications set by the relevant authorities as applicable.

The Company quality control programme will encompass all phases of the HDPE pipes manufacturing and supply to site where required. The Company will appoint a representative to co-ordinate and control this part of the quality assurance program. The Quality controller will maintain all required inspection and test checklists and records and have the authority to resolve quality matters should a need arise.

### **Materials composition**

PE100 materials have an MRS of 10.0 MPa. PE pipes are widely utilized in pressure and non-pressure applications such as water supply, sewerage, gas reticulation, small-diameter pipe coils, traveling irrigator coils, electrical and communications conduits, and mining and industrial applications

	Property	Standard	Unit	PE100
	Specific density at 23°C	ISO 1183	g/cm <sup>3</sup>	95
	Melt flow index	ISO 1133	g/10min	0,3
	MFR 190/5	ISO1872/1873		<0,1
	MFR 190/2,16			T003
	MFR 230/5 MFI range			
<b>Mechanical Properties</b>	Tensile stress at yield	ISO 527	MPa	25
	Elongation at yield	ISO 527	%	9
	Elongation at break	ISO 527	%	>600
	Impact strength unnotched at +23°C	ISO 179	kJ/m <sup>2</sup>	no break
	Impact strength unnotched at -30°C			no break
	Impact strength notched at +23°C	ISO 179	kJ/m <sup>2</sup>	16
	Impact strength notched at 0°C			6
	Impact strength notched at -30°C			
Ball indentation hardness acc. Rockwell	ISO 2039-1	MPa	46	
Flexural strength (3,5% flexural stress)	ISO 178	MPa	24	
Modulus of elasticity	ISO 527	MPa	1100	
<b>Thermal Properties</b>	Vicat-Softening point VST/B/50	ISO 306	°C	77
	Heat deflection temperature HDT/B	ISO 75	°C	75
	Linear coefficient of thermal expansion	DIN 53752	K <sup>-1</sup> x 10 <sup>-4</sup>	18
	Thermal conductivity at 20 °C	DIN 52612	W/(mxK)	4
	Flammability	UL94 DIN 4102	-	94-HB B2
<b>Electrical Properties</b>	Specific volume resistance	VDE 0303	OHM cm	>10 <sup>16</sup>
	Specific surface resistance	VDE 0303	OHM	>10 <sup>13</sup>
	Relative dielectric constant at 1 MHz	DIN 53483	-	23
	Dielectric strength	VDE 0303	kV/mm	70
	Physiologically non-toxic	EEC 90/128	-	Yes
	FDA	-	-	Yes
	UV stabilized	-	-	Carbon black
	Colour	-	-	Black
	MRS - Classification	ISO 9080	N/mm <sup>2</sup>	10

### Material storage

Material shall be stored in original packaging and protected from environmental damage until installation. Pipe shall be supported sufficiently to prevent sagging. Care shall be taken not to gouge or otherwise notch the pipe in excess of 10% of the wall thickness



*(HDPE Pipes Production machinery)*

## **THE MARKET**

### **Market Trend for HDPE Pipes**

At present, the growing need for repairing and replacing existing pipes in piping systems around the world represents one of the key factors driving the market. Besides this, there is a rise in the utilization of HDPE pipes in the agriculture industry for flow line irrigation, tube well pipes, drip irrigation, and pesticide spraying system. This, along with the growing development of sewage disposal infrastructures to remove decomposable matter and solid, liquid or gaseous wastes, is positively influencing the market. Moreover, as HDPE pipes are corrosion and abrasion-resistant, they are used for transporting effluents, acids, alkalis, and slurry in the chemical industry. This, coupled with the increasing employment of HDPE pipes in submarines and underwater pipelines, is contributing to the growth of the market. In addition, key market players are extensively investing in research and development (R&D) activities to introduce HDPE pipes with freeze-break resistance properties for the safety of potable water. Additionally, the escalating demand for HDPE pipes in the telecommunication sector to protect optic fibers and cables is bolstering the growth of the market

### **Demand**

The use of HDPE pipes has been expanding, while the number of manufacturers is substantially low across the region. The growing demand of HDPE pipes justifies the establishment of a plant in Dar es Salaam. Increase in local production, entails a decrease in the cost of purchase for both wholesale and retail buyers, in-turn allowing low cost in management of development projects as well. Thus, with economies of scale, SPEK Industries Limited will expand its production locally and avoid excessive procurement costs for its clients.

### **Market SWOT Analysis**

The SWOT Analysis succinctly captures the strengths and weaknesses of SPEK Industries Limited, and also points to the opportunities and threats that the market presents.

#### **Strengths**

- High profile expertise with experience worldwide in several projects
- Affiliation with key off-takers and potential clients
- Various areas of expertise in several engineering aspects
- Stakeholders commitment and support
- Proficient research and market potential
- Proximity to customers
- High quality products and services

- Reduced lead time

### Weaknesses

- Insufficient funds
- Company is a new entrant into the market
- Carrying high liabilities and risks in the projects

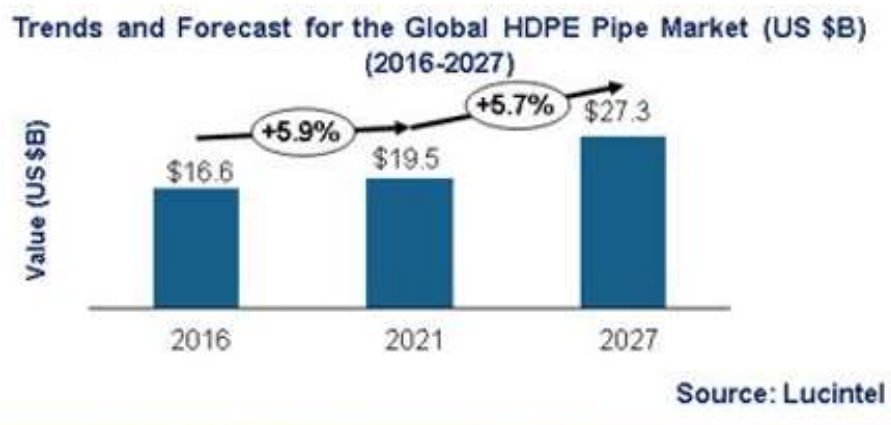
### Opportunities

- National Industrialization policy
- National environmental conservation agenda
- Population and settlement growth

### Threats

- Existing competitors with more market share
- Availability of other pipes with different material composition

### Competitive Environment



The global HDPE pipes market size reached US\$ 19.7 Billion in 2022. Looking forward, the market is expected to reach US\$ 32.2 Billion by 2028, exhibiting a growth rate (CAGR) of 4.9% during 2023-2028

Opportunities for HDPE Pipe by Grade Type, Application, Diameter and Pressure Rating			
Grade Type	Application	Diameter	Pressure Rating
<ul style="list-style-type: none"> <li>• PE100 Pipes</li> <li>• PE80 Pipes</li> <li>• PE63 and Other Pipes</li> </ul>	<ul style="list-style-type: none"> <li>• Potable Water</li> <li>• Wastewater</li> <li>• Oil and Gas</li> <li>• Irrigation</li> <li>• Others</li> </ul>	<ul style="list-style-type: none"> <li>• Small Diameter Pipes</li> <li>• Large Diameter Pipes</li> </ul>	<ul style="list-style-type: none"> <li>• Low Pressure Pipes</li> <li>• Medium Pressure Pipes</li> <li>• High Pressure Pipes</li> </ul>

## **Sales Management**

There are already existing customers through Off-takers portfolio and with affiliated companies who are in business that require massive usage of HDPE pipes, hence a readily existing sales pipeline and leads.

The department of Marketing and Sales shall further expand on the customer base by conducting awareness initiatives aimed at revenue growth.

## **Advertising**

An overall marketing budget has been agreed to ensure the target market are made aware of the product and its unique selling points. In terms of advertising, there will be limited, but focused ads and editorial placed in a selection of relevant trade journals.

## THE FINANCIAL ASPECTS

SPEK Industries Limited principal investment structure will be of 40% Equity and 60% Bank Facility.

### A: INITIAL CAPITAL INVESTMENT

SN	DETAILS	COMPANY	BANK	TOTAL
<b>1</b>	<b>CAPITAL EXPENDITURE</b>			
<b>1.1</b>	<b>LAND AND BULIDING</b>			
1.1.1	Land acquisition	451,250,000.00	-	451,250,000.00
1.1.2	Initial civil works (Buildings and structures)	500,000,000.00	-	500,000,000.00
1.1.3	Warehouses (movable)	-	1,916,396,643.00	1,916,396,643.00
		<b>951,250,000.00</b>	<b>1,916,396,643.00</b>	<b>2,867,646,643.00</b>
<b>1.2</b>	<b>EQUIPMENT AND MACHINERY</b>			
1.2.1	LSP-110PE solid Pipe Production Line	95,182,661.25	808,932,915.00	904,115,576.00
1.2.2	LSP- 450PE Solid Pipe Production Line	147,487,500.00	633,650,000.00	781,137,500.00
1.2.3	LSP- 630PE Solid Pipe	252,522,967.50	1,084,913,490.00	1,337,436,458.00
1.2.4	SUBSIDIARY MACHIENS	167,636,857.50	720,217,610.00	887,854,468.00
1.2.5	Freight cost and insurance	372,877,013.00	300,212,350.00	673,089,363.00
		<b>1,035,706,999.00</b>	<b>3,547,926,365.00</b>	<b>4,583,633,364.00</b>
<b>1.3</b>	<b>ESTABLISHMENT COST (TO BE CAPITALIZED)</b>			
1.3.1	Pre-Op Expenses (Furniture, vehicles, and other related cost)	1,342,301,306.00	-	1,342,301,306.00
1.3.2	Contingency @ 10%	-	-	-
		<b>1,342,301,306.00</b>	<b>-</b>	<b>1,342,301,306.00</b>
	<b>TOTAL FINANCING</b>	<b>3,329,258,305.00</b>	<b>5,464,323,008.00</b>	<b>8,793,581,313.00</b>

### B: MARGIN ANALYSIS (PER ANNUM)

Refer to annexure 1 (cash-flow projections) for more information.

### **C: RATIOS**

Profit Margin (Profit/Sales revenue)	18%
Return on investment (Profit/Total investment)	40%
Breakeven point (Fixed cost/Sales – Variable cost)	2 Years

### **SPEK Industries Limited's Unique position**

SPEK Industries Limited will be the most preferred vendor for its clients for the following reasons.

- Company that creates business value consistently thereby winning the customer trust
- Countrywide player with largest production & delivery infrastructure
- Industry's Best-Private run-company driven by customer-centric processes
- A technology innovator in business operations
- Undisputed industry leader with highest production capacity
- A market performer with highest line-length of poles
- The most preferred vendor for major customers
- Company that employs its self-managed logistics for assured deliveries
- Company that delivers the highest quality products all the time
- The most reliable supplier for large deliveries in a short time

### **CONTACT US**

#### ***Corporate Office***

SPEK INDUSTRIES LIMITED  
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P.O. Box 30487,  
Dar-Es-Salaam, Tanzania  
+255 684 006 424