

# **PRS PIPES & FITTING LIMITED**

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## **BUSINESS PROPOSAL FOR MANUFACTURING OF PLASTIC PRODUCTS**

## **Executive Summary**

PRS PIPES & FITTINGS COMPANY is a newly established company limited by shares, incorporated in 2019, with the aim of setting up a state-of-the-art plastic modules pipes and fittings, and all other assorted plastic-manufactured building materials producing industrial plant in Kisarawe 11, Kigamboni District, Dar es Salaam.

We take pride in our intention for compliance with country laws and regulations as well as great care for the environment. The company in Tanzania has demonstrated satisfactory financial capability, operational efficiency, compliance with country laws and regulations, as well as great care for the environment.

Our aim in this investment venture is to improve our country's economy, as clearly demonstrated by the sixth phase government under the leadership of H.E Dr. Samia Suluhu Hassan, President of the United Republic of Tanzania.

In this purpose, PRS PIPES & FITTINGS COMPANY's support will be demonstrated through increased government revenue through tax payments, creation of jobs, support for improving the balance of trade, acquisition of debt funding while enjoying low leverage.

Thus, our existence in this space will have considerable multiplier effects and mutual benefits among all stakeholders in the region. With competent management, financial strength, compliance with government laws and regulations, and our great care for sustainable business through environmental care and a give-back policy through our intense Corporate Social Responsibility.

## **Chapter One**

### **1.1. PRS PIPES & FITTINGS LIMITED ASPIRATION**

The directors of PRS PIPES&FITTING COMPANY envisage a bright future in the construction industry plastic module materials.

We aim at the huge available and potential market in the country and the region. Tanzania's real estate sector contributed 3.1 % to the country's real GDP with USD 1.5 billion in 2019, compared to USD 1.2 billion in 2015, an increase of 25%. The large residential housing market is dominated by individual homebuilders who account for over 70% of the total supply.

Housing demand is increasing by about 200,000 units annually, with the current housing deficit estimated at about 3 million units, according to Tanzania Ministry of Lands, Housing and Human Settlements Development.

Commercial real estate is also on the rise as the country emerges as a middle-income economy. Dar es Salaam is the main area of office and retail activity with a retail stock of 153,000 sqm. The main premium malls are Mlimani City Mall in Mwenge, Aura Mall in Upanga, and Mkuki Mall in Kisutu.

The formal retail sector in Dar es Salaam remains undersupplied, presenting investors with an opportunity for growth. We intend to be a key player to capture this emerging opportunity.

## **Chapter Two**

### **2.1. Plastic Products Project**

#### **2.1.1. Project Management**

The project is under the lead of Mr. Pius Arbogast Massawe, the entire EXCO and Senior Management. Senior Management team in the project include Chief Legal Officer, Group Treasurer, Chief of Procurement, Head of Property Management, Group Tax and Compliance Manager and Finance Manager. The EXCO team in the project include the Chief Finance Officer, Chief Internal Auditor, Chief Commercial Officer, Chief Human Resources Officer and the Chief Information Officer.

#### **2.1.2. Products and Services**

PRS Pipes & Fittings Limited is dedicated to the manufacturing of various types of pipes and fittings using materials such as low-density polyethylene (LDPE), high-density polyethylene (HDPE), polypropylene (PP), stearic acid, stabilizer, titanium, paraffin wax, calcium carbonate, polyvinyl chloride (PVC), and color masterbatch. Our product range includes but is not limited to:

HDPE Pipes

PVC Pipes

PP Pipes

Fittings (elbows, couplings, reducers, etc.)

#### **2.1.2. Consumer and Marketing**

The demand for pipes and fittings is driven by the construction boom in Tanzania and the wider East African region. Rapid urbanization, infrastructure development projects, and industrial growth are fueling the need for reliable and durable piping solutions. Moreover, increasing awareness of the importance of water and sanitation infrastructure further boosts the market for pipes and fittings.

We will employ a multi-channel marketing approach, including:

- Building strong relationships with contractors, architects, and engineers
- Participating in industry exhibitions and trade shows
- Implementing digital marketing strategies such as SEO, social media marketing, and email campaigns
- Providing excellent customer service and after-sales support

### **2.1.3. Distribution and Logistics**

Our Company already has distribution centers, wholesalers, and storage warehouses in several parts of the country. However, in order to ensure that products under the plastic products pick up well and reach our intended market timely, the company will deploy an additional 200 delivery trucks of varying carrying capacity. We shall use the expertise of fleet management and logistics coordination to ensure our marketing and distribution team deliver up to customer expectations. The trucks will be divided into zones according to zone size and demand for products.

Distribution Centers shall be used to coordinate deliveries between wholesalers and retailers. Products available in the Distribution Centre shall be distributed in a similar fashion with 80% delivered from Distribution Centre to retailers.

Trucks and equipment requirements (tentative) to facilitate distribution are listed below

<b>SN</b>	<b>Vehicles</b>	<b>Description</b>	<b>Qty</b>
1	Trucks	30T Semi trailers	60
2	Canter	3T trucks	82
3	Mini-truck (Kirikuu)	1T	11
4	Handling Equipment	Forklift	5
5	Pickup Trucks	For Sales managers	5
	<b>Equipment</b>		

1	EFD Machines	1 per track	70
2	Phones with Software	For salespeople	70
3	Furniture	For the Distribution Centres	
4	Computers networked		20
5	Compliance requirements		
6	Branding	To be established	

In order to drive an efficient distribution network, 30-ton trucks shall focus on up-country routes to Distribution Centre and distribution while 3-ton trucks shall focus on key accounts. 1-ton trucks shall focus mainly on Dar es Salaam routes and Key Accounts. Forklifts and pick-up trucks shall be for handling and transport for sales managers respectively. Each Distribution Centre will have at least 1 forklift.



#### **2.1.4. Production, Technology and Utilities**

By implementing advanced production processes, technology, and utilities, PRS Pipes & Fittings Limited ensures efficient and high-quality manufacturing of plastic pipes and fittings to meet market demands. Raw materials and consumables will be supplied by various suppliers.

##### Production Process:

1. Material Handling and Preparation: Procure, store, and prepare raw materials for production.
2. Extrusion Process (Pipe Manufacturing): Extrude molten plastic through dies to form pipes, followed by cooling, sizing, cutting, and quality control.
3. Injection Molding Process (Fittings Manufacturing): Injection mold molten plastic into custom molds, followed by cooling, ejection, trimming, and finishing.

##### Technology:

1. Extrusion Technology: Utilize single screw or twin-screw extruders, and co-extrusion technology for multilayer pipes.
2. Injection Molding Technology: Employ hydraulic or electric injection molding machines, along with multi-cavity molds for higher productivity.

##### Utilities:

1. Power Supply: Depend on electricity and generator backup for uninterrupted production.
2. Water Supply: Utilize water for cooling and cleaning purposes during production.
3. Compressed Air: Employed for pneumatic systems, cleaning, and drying of materials and equipment.
4. Heating and Cooling Systems: Utilize heating elements, cooling towers, and air conditioning for maintaining optimal production conditions.

## **General Observations**

PRS our products are expected to be highly differentiated from other products and this will be our winning point alongside price differentiation and sales service (delivery services to customer premises). Our products will be highly competitive and are bound to succeed to due to group's economies of scale.

Prices will be at or below the lowest available in the market in order to easily penetrate the market.

### **2.1.6. Location and Facilities**

The factory will be located at Kigamboni Kisarawe II, Industrial area in Dar es Salaam. A building contractor from Dubai who has adequate experience working with plant supplier has been approached for this task and will work together with our internal Project Engineer.

#### **(i) Selection of the location**

Being an industrial area, the premises already complies with land use regulations. In addition, the premises are located in an area with all necessary amenities including electricity, water, gas and all-weather road. In this location, gas supply is ensured as the company will be running on gas-powered generators to supplement the Tanesco mains electricity. Water will be supplied by Dawasa from the water mains already in the premises. In addition, the premises have adequate storage with four warehouses.

#### **(ii) Utilities**

##### **(a) Water**

Water will be supplied from two sources: Dawasa and internally built bore three holes. Dawasa water will be supplied from the 300mm main line that delivers between 20,000 and 30,000 liters per hour.

##### **(b) Power**

Electricity will be supplied by Tanesco from the 12KVa transformer. This will be supplemented by gas-powered generators to be sourced. Generators capacity will be 2MW, which is adequate to cater for the factory power needs.

(c) Roads

The Ukooni area is ideal location for the factory due to accessibility of roads. At this location, the company can easily coordinate distribution of products to Northern and Lake Zones via the Bagamoyo road, to Southern Highlands via Morogoro road and to Eastern and Southern Zones via Mandela Road. Distribution within Dar es Salaam can also be easily accommodated from this location.

## **2.1.7. Project Implementation Timelines**

### **PHASE 1**

This is the current stage from quarter two of 2023, where the civil construction of the manufacturing plant has been complemented. The pipes manufacturing plants have all been procured from turkey, and now the installation and commissioning works is going on pending completion by end of quarter two 2024.

Setting up all other auxiliary infrastructure to make the industry functional once operations commence in the final of phase two.

### **PHASE 2**

Procurement of raw materials for production. These are important materials for production of our intended end products, and we intend to source them from middle east countries, and we have already prequalified list of preferred suppliers.

## Chapter Three

### 3.1. Project Funding Requirements

The total cost of the project is about USD 2 million that includes capex spending, pre-operating expenses and working capital.

Item	USD
Pre operating expenditure	500,000
Capital expenditure	1,000,000
Working capital	500,000
<b>Total requirements</b>	<b>2,000,000</b>

#### 3.1.1. Financing Structure

Financing of the project will constitute only owner's equity. equity will be for funding to accommodate civil works and installation of utilities and machinery. The composition of equity is shown below.

Activity	Pre operating expenses	Capital expenditure	WC	Total
<b>Amounts in USD</b>	<b>500,000</b>	<b>1,000,000</b>	<b>500,000</b>	<b>2,000,000</b>
Funding				-
Equity	500,000	1000000	500000	<b>2,000,000</b>
Debt*	-		-	-
Debt Local	<b>500,000.00</b>	1,000,000	500,000	<b>2,000,000</b>
Debt Foreign	-	-	-	-

\*The company directors will raise and Provide all the Funding needs to finance the project as for pre operating expenses, capital expenditure and working capital of USD 5 thousand.

#### 3.1.2. Funds Utilization

Below is the description of funds utilization.

A. Pre operating expenses are as follows:

Item	Total Value – USD
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Manpower Expenses	63,451.22
Sales and Marketing	148,906.13
Occupancy Cost	38,445.00
Admin & Other Expenses	123,198.85
Legal & Compliance Costs	110,998.79
Finance Costs	15,000.00
<b>Total</b>	<b>500,000</b>

The pre operating expenditures will be met by the company through internally generated cash flows.

B. Capital expenditure

SUPPLIER	TYPE	CAPEX REQUIREMENTS	USD
		Machines for Plastic	
<b>1</b>	Machine #1	Pipes Molding Machine	250,000
<b>2</b>	Machine #2	Pipes Cutting Machine	150,000
<b>3</b>	Machine #3	Segrating Machine	200,000
<b>4</b>	VEHICLES & OTHER ASSETS	2 Caterpillar Natural Gas Operation Gen-set 1200 ekW	50,000
<b>5</b>	Handling Equipment	Handling Equipment	35,000
<b>6</b>	Distribution Vehicles	Distribution Vehicles	30,000
<b>7</b>	Other Fixed assets	Other Fixed assets	85,000
<b>8</b>	Civil works	<b>Final Estimated price</b>	200,000
		<b>TOTAL</b>	<b>1,000,000</b>

Note: figures are VAT exclusive

Capex is divided into two major expenditures. The first is the cost of acquisition of machinery from the suppliers.

## Chapter Four

### 4.1. General Operating Environment

#### 4.1.1. Risks and Mitigations

The manufacturing sector in Tanzania is still relatively small but has a significant contribution to the country's overall GDP. Over the past decade, the sector has averaged 8% of GDP and 4% annual growth rate. Most of the manufacturing activities are centered on simple consumer products such as foods, beverages, tobacco, textiles, chemicals, plastic, wood and steel allied products.

The recent development agenda in the country has brought industrial development back as one of the country's policy priorities. Policy makers have made it a point to lead the process of transforming the country's economy from low productivity and low growth to high productivity and dynamic economy, associated with structural change and sustained income growth.

Currently the domestic value addition is limited by the dependence of imported intermediate goods, signifying limited inter-industry linkages that are important for promoting domestic manufacturing base and employment. Various technological, financial, policy, and administrative constraints remain unresolved and therefore, limiting faster industrial growth and transformation.

PRS PIPES & FITTINGS LIMITED has ventured into manufacturing plastic products. The company will be manufacturing plastic modules pipes and fittings, and all other assorted plastic manoeuvred building materials. The following are the key risks (and their respective mitigations) the company is likely to face.

Key Risk	Mitigation
<p>A. <i>Product safety and processes (compliance risk)</i></p> <p>Adhering to safety standards and having comprehensive processes in place is critically important the manufacturers' survival and the health &amp; wellbeing of its employees and customers. Claims arising out of negligence/supply chain issues can damage the brand and potentially closure of business</p>	<p>PRS PIPES &amp; FITTINGS LIMITED has ensured the layout of factory is per the manufacturer specifications in order to have a seamless production process from start to finish. All the employees will be trained and constantly undergoing capacity building to make sure they are adhering to all the safety standards. The factory will also be undergoing various spot checks (without interrupting operations) from management.</p>
<p>B. <i>Supply chain interruption</i></p> <p>The business will be reliant on the quality of their suppliers' products, and when there is a disruption in the supply chain, it is difficult to find a replacement. A compromised supply chain will lead to disappointed customers who may choose other products in the future. Supply delivery can be interrupted by many factors, including adverse weather, infrastructure issues, price increases, or damage to a supplier location.</p>	<p>PRS PIPES &amp; FITTINGS LIMITED will work with their procurement teams to build a panel of approved alternative suppliers that will support the business in case one of their suppliers is unable to deliver. This will ensure business continuity.</p>
<p>C. <i>Product Quality Issues</i></p> <p>Many companies run into quality issues when they try to speed up or slow down production in response to the market. Especially for brands that have a multinational customer base, it is difficult to consistently deliver products in a manner that is simultaneously reliable, efficient and profitable. This could lead to excessive</p>	<p>In order to avoid product quality issues, PRS PIPES &amp; FITTINGS LIMITED conducted a comprehensive market study to determine demand and supply challenges. The company will also be using state of the art technology to streamline the entire production process. They will also employ best technology to provide market and</p>

inventory, lower margins and profits, higher product waste and increased operating costs	industry insights on developing trends and flag inefficiency and detect bottlenecks in the processes set in place
<p><i>D. Equipment breakdown</i></p> <p>The company will rely on plant and machinery as a key part of their operational infrastructure. Whether it is the reliance on refrigeration units to store products; reliable power supply; or critical production equipment that can lead to stoppage of production the breakdown of either could have a detrimental effect on the business.</p>	<p>The company will use equipment manufactured by Italian and German companies. These manufacturers bear great reputation for delivering reliable machinery to various manufacturers in Tanzania. So far, there is not any adverse report of failure of any of their equipment/machinery.</p>
<p><i>E. Environmental and Social Risk</i></p> <p>Environmental issues in beverage manufacturing include solid waste, wastewater, energy consumption and emissions to air.</p>	<p>The customer will be complying with Environmental Regulations, OSHA and Fire Safety Standards. The project will be registered by NEMC. The company will also have essential tools for managing impacts while optimizing water, energy, and resource use and improving working practices by adoption of good-manufacturing practice and quality management systems</p>

#### 4.1.2. SWOT Analysis

##### **STRENGTHS**

- The project will leverage the good brand PRS PIPES & FITTINGS LIMITED has established with their various other products.
- The Company already has in place existing distribution channels that will be useful in ensuring the products reach the final customer timely.

- The company will install state of the art machinery from German and Italian manufacturers who have a proven track record in their reliable equipment.
- The experience of entire management in handling operations of bottled water, juices, soda and energy drinks and trading. Key department - Finance and Productions are managed by professionals-CPA holders and Engineers.
- The existence of a prime location for production. The factory will be set up at Mwenge where the foam factory existed. The area has good infrastructure and is accessible easily.

<b>WEAKNESSES</b>	<b>MITIGATIONS</b>
<p><b>Key man Risk</b></p> <p>The business is family owned with one-man key decision maker.</p>	<p>Professionals have been employed in areas of Finance, Logistics, Human Resources Production and Marketing.</p> <p>The majority shareholder Mr. Massawe is not involved in the day-to-day operations of the business. The group has defined all the key functions and has employed staff with relevant credentials to oversee the businesses.</p>
<p><b>Development Risk</b></p> <p>The project may stall in case the Directors divert resources/requested funding.</p>	<p>All the disbursements for equipment acquisition will be made directly to the suppliers. The directors of the company have a good reputation in funds utilization, a reputation that has been built in many years as indicated by the growth of the brand PRS PIPES.</p>
<p><b>Exchange rate risk</b></p> <p>Fluctuation of foreign exchange.</p>	<p>The company will ensure bulk importation of raw materials to avoid frequent ordering of materials that may otherwise be negatively impacted by exchange rate volatility.</p>

<b>OPPORTUNITIES</b>	
<p>Despite the existence of other players, there is room for other companies such as PRS PIPES &amp; FITTINGS LIMITED to establish themselves. Demand for bottled water and energy drinks is on the rise, coinciding growing population and changing lifestyles.</p>	
<p>Tanzania has undergone a lot of improvement in infrastructure in its road network. This will simplify the delivery of products to various outlets across the country.</p>	
<p>The government is encouraging the growth of industries in order to contribute to the economic growth of Tanzania. This means the company will receive all the support it requires as it continues to set up the factory.</p>	
<b>CHALLENGES</b>	<b>MITIGATIONS</b>
<p>Competition from existing manufacturers with an established footprint</p>	<p>The company will rely on its existing extensive network in marketing (for example Young Africans FC), distribution and logistics to maximize its products upon launching</p>