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Namibia Investment Promotion
& Development Board

BRAKE PAD AND BRAKE SHOE MANUFACTURING FACILITY

INVESTMENT PROPOSITION

General Information

Sector: Manufacturing

Sub-Sector: Vehicle Components Manufacturing

1. Abstract

Namibia imports about 2 million tons worth of automotive components yearly according to the World Integrated Trade Solutions 2023 data, As per the advice of the African Association of Automotive Manufacturers, Brake pads are to be considered for manufacturing and are considered a low hanging fruit in terms of development and application. With a total of over 500 000 Motor vehicles in the country, there is a large market requiring servicing by a dedicated facility for manufacturing of after market friction brake pads and brake parts for the industry. The brake pads and brake shoes are to serve the growing demands of the after market car parts industry.

2. Value Proposition

There is a need to set up a state of the art manufacturing plant to manufacture a wide variety of brake pads and brake shoes. This facility will carry the entire value chain of brake shoes and pads manufacturing, including:

- Manufacturing of backing plates
- Mixing and matching of friction materials
- Bonding friction material to backing plate
- Refurbishment of backing plate by adding new friction material

3. Market Analysis

According to the World Bank World Integrated Trade Solution (WITS), Namibia imported parts and accessories for motor vehicles up to the value of N\$ 563 Million in 2023, with South African being the biggest trading partner in this industry at N\$ 236 Million automotive vehicle parts imported for the said period from South Africa. The data specific to brake pads and friction materials required for manufacturing of brake pads and brake shoes, is that in the year 2023 SADC member states imported N\$ 16.2 billion worth of brake linings and pads (HS code 681381). As these are generic service parts that require replacement multiple times along the lifetime of the vehicle, the actual figure could be much higher.



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4. Business Model Considerations

A factory that Manufactures brake pads according to the majority driven cars in Namibia as per the demand. Considering that brake pads are not cross cutting and multiple vehicles utilise different designs.

In order to manufacture brake pads, a variety of machinery would be required, such as:

(a). Major Cost Drivers

- **CAPEX**

- Hydraulic press for stamping of backing plates
- Curing ovens for curing of friction and bonding materials
- Mixing machines to mix constituents of composition materials
- A comprehensive in-house materials testing Laboratory

- **Raw Materials**

For the manufacturing of brake pads, the raw materials can be classified into 3 distinct types, bonding materials, stiffeners and friction adjustment materials. These can be further broken down based on the composition of the brake pad and the stopping force required.

Bonding materials - These are resins which are used to glue/bond the various constituents to each other and to the backing plate.

Stiffeners - Materials such as aramids or metal fibres that provide stiffness and structural integrity to the brake pads.

Friction adjustment materials - These are materials such as graphite and magnesium oxide which adjust the friction coefficient to ensure maximum stopping power.

- **Labour**

The process of manufacturing brake pads requires a wide range of artisanal and technical labour, for operation of machinery. The factory would also require other specialised labour such as chemists, test engineers and

(b). Revenue Streams

Revenue streams from the sales of brake pads, and from recycling of used brake pads as the backing plates for the brake pads can be refurbished multiple times. There is also a possible revenue stream from exporting brake pads to international markets (via trade



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agreements such as AFTCA and the SACU) considering sufficient local content requirements have been met.

5. Legal/Policy Considerations

There are currently no legal considerations, Policies on incentives are in the pipeline at a National level. The Manufacturing sector and value addition services are the main focus of Namibia's Industrial Policy and fifth National Development Plan (NDP5) in achieving the goals of our Growth at Home Strategy and Vision 2030. The main objectives include increasing the share of manufacturing in GDP and focus on domestic value addition and enhancing competitiveness in the sector. These are the governmental targets that are directly related to setting up a brake pad and brake shoe manufacturing facility.

6. High-Level Risk Profile

- Finding a suitable market within Namibia and ensuring that the pads meet the minimum local content required to be able to export to international markets.
- Manufacturing of brake pads is also dangerous from a health perspective as there are a lot of fumes and potentially harmful materials which are released during the baking process and mixing of solvents and friction materials.
- Considering the different types of vehicles in our markets, it is important to note that the brake pads would need to be built in a JIT (Just In Time) fashion to ensure that the stock does not sit idle for extended periods of time.

7. Applicable UN Sustainable Development Goals Alignment

1. SDG 9: Industry, Innovation and Infrastructure
2. SDG 11: Sustainable Cities and Communities
3. SDG 12: Responsible Consumption and Production

For more information regarding this opportunity, please contact us at catalogue@nipdb.com.