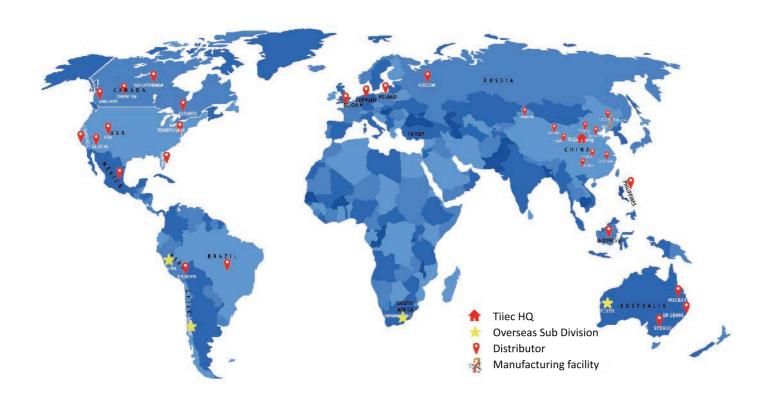
## **Global Footprint**





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Jetpark Botksburg, South Africa.

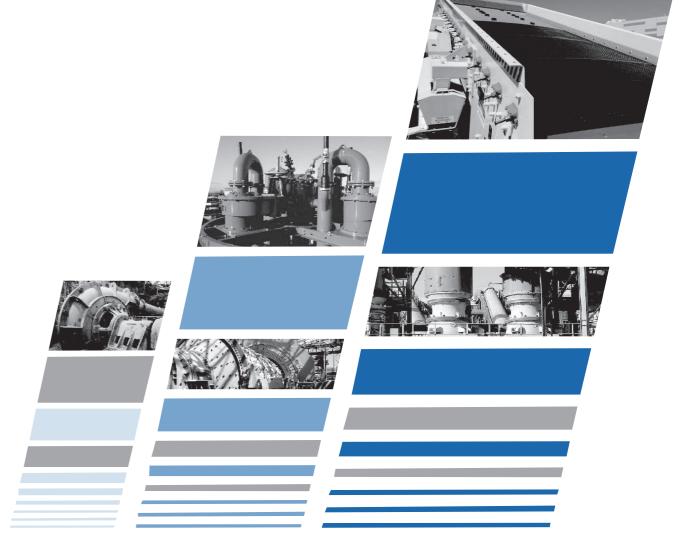
#### Peru

Atlas Equipment Peru S.A.C **Tel:** (51)-1-2334803 **E-mail:** marketing@atlas-pump.com **Add:** Huachipa,Peru.



# Wear Parts

Proven Wear Solutions for your Slurry Application







## **Company Introduction**

Hebei TIIEC, as a professional manufacturer with more than 20 years' experience in R&D and production of wear-resistant alloys, rubber, polyurethane and composite materials, is focused on the optimization of parts materials and processes of pumps, mills, screens, and conveying equipments.

Whether at the pit, in the plant or transporting tailings, we can provide wear solutions for items such as pumps, impellers, elbows, pipe, hose, valves, chutes, cyclones, tubes as well as many other wear pars. With the flexibility of our material technologies and design, we can solve difficult abrasion and corrosion problems and create effective wear solutions, provide extended wear life and reduce maintenance down-time and unplanned outages.

## **Material Specification**

### Main Material Range: Metal, Rubber, Polyurethane & Ceramic

#### ■ Metal

Production Capacityt: 8,000 T of casting per year Maximum Single Casting wt: 10,000kgs for high

chrome;20,000kgs for cast steel

Standard: ASTM536, ASTMA532, ASTMA128, ASTMB367, AS-

MA743,ASTM890,ISO1083,etc

#### **■** Ceramic

Excellent wear resistance and better life time than metal parts. High hardness(similar as diamond), high temperature resistance Excellent chemical stability, suitable for PH 0-12. Smaller volume density, lighter weight, higher efficiency. The only disadvantage is its brittleness.

Ceramic coating layer on metal surface is also an option.

#### **■** Rubber

Production Capacity: 1,000 T per year(raw material) Maximum Single Rubber Part: 4.0\*4.0M Maximum Single Part Filling Weight: 1,000kgs Standard: ISO7619-1, ISO37, ISO34-1, etc

#### ■ Polyurethane

Production Capacity: 200T per year Maximum Hardness: up to 95A Maximum Single Product Weight: 300kgs Standard: ISO37, ASTM D2240, ASTM D5963, DIN53512 ,etc

## **Quality Assurance**

With more than twenty-three years of manufacturing experience, TIIEC has created a systematic process that ensures predictable results with the high quality and a lower total cost expected by customers.

We can produce hundreds of different wear parts for slurry applications including ball mill chutes, cast elbows, rubber sheets, screen panels, combining tubes, impellers and unique pump parts that are fabricated to the same strict specifications and standards, guaranteeing compatibility for trouble-free option.









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## **Foundry**





Max unit wt: 6T Furnaces: 1T, 2T & 5T

Sand Casting: Resin and Green casting

## **Heat Treatment**



#### Maximum Size: 9.8\*8.2\*4.0 ft

Furnace temperature and heat treatment Process (temperature curve) are automatically controlled and monitored.

Different curves apply for different alloy cast material to change its metallographic structure for obtaining required material property.

## Machining



Gantry CNC Milling Machine Work table Size (mm): 2000\*4000 Maximum Load:



Double Colum Vertical TurningMachine Maximum Handling Size (mm): φ6300mm Maximum Load: 30 T



Gantry CNC Milling Machine Work table Size (mm): 2000\*1200 Maximum Load:



CW Series Horizontal
Turning Machine
Maximum Handling Size(mm):

\$\phi\$1600mm
Maximum Load:

## **Rubber Workshop**



**Kneader Mixer Maximum Capacity:**75L/batch



Open Mill Roller size: \$550mm\*1530mm



Platen Press
Maximum Platen size:
4000\*4000mm
Maximum Load:
7,000 T



**Hydraulic Machine Maximum Load:**500 T

## Laboratory



**Metal Laboratory -Chemical and Physical Property Inspection** 

Lab Equipments: Spectrometer, Hardness tester, Tensile strength tester, Impact tester & Ultrasonic inspection instrument.



Rubber Laboratory- Rubber Material and Physical Test

#### **Lab Equipments:**

Thickness tester, Viscosity tester, Wear tester, Rheometer, Tensile tester & Rebound tester.



## **Metal Wear Parts**

High chromium cast iron: An ideal candidate material for wet parts of slurry pumps. By adjusting the content of carbon and chromium, the best effect of wet parts under different working and conditions can be obtained.









High Manganese steel parts: Hadfield steel is an alloy steel with a manganese content of more than 10%.

Titanium alloy parts: Titanium alloy refers to a variety of alloy metals made of titanium and other metals.

Stainless steel: Stainless steel is also called the acid-proof stainless steel, it is resistant to weak corrosive medium such as air, steam, water and acid, alkali, salt and other chemical etching medium corrosion of the steel.

## **Rubber Wear Parts**

Application: Rubber profile; Screen panels; Ball mill liners; Cyclone liners; Pump parts; Valve liners; Chute linings; Tank/ vessel linings; Truck bed linings; Roller linings; Pipe lining, etc.

Available material

- Natural rubber
- Synthetic rubber-Hypalon, Nitrile, Neoprene, Viton, Bromobutyl, EPDM,etc
- Cast iron/ Rubber composite
- Ceramic / Rubber composite
- Wet Processed rubber



## **Polyurethane Wear Parts**

With extensive experience and a wide range of material options, we have the expertise to provide proper solutions with high

Raw material selection is relatively critical to the performance of products. Our professional expertise together with your close cooperation ensures the most cost effective solution to meet your needs .









#### **Raw Material System**

There are a few popular raw material systems for mining industry and wear resistance applications.

1/ MDI+Polyether system 2/ TDI+Polyether system 3/ MDI+Polyester system

**4 /** TDI+Polyester system

#### **Ceramics Sintered Wear Parts**

Components made of advanced ceramics are hardwearing, long lasting and stable. They are particularly ideal material for tough, long lifespan and high performance. An advanced ceramics material can help reduce cost and save the downtime. Furthermore high performance ceramic parts bring down the need for maintenance significantly.

Main Materials

#### **Castable Advanced Ceramic Material**

Wear-resistant ceramics, such as silicon carbide, were mixed with binder according to the special particle gradation, and formed and solidified in the precise mold by vacuum pouring process. Then the diamond tools are used for precise size processing.

#### **Sintered Advanced Ceramic Materials**

Ceramic powder is mixed with special binder and catalyst according to special grade, and the blank is made by molding process. The blank is put into high temperature sintering furnace for sintering, and then processed with diamond tools for precise size processing.

