

# 01 02 03 04 05

#### **OUR COMPANY**

Company overview & Key Business area.

#### **ABOUT PRODUCT**

Overall equipment diagram

#### **RCD BIT VS AIR HAMMER**

Predicted results

**HOLE EXPANSION(REAMING)** 

KEY DIFFERENCE FROM COMPETITOR

# TABLE OF CONTENTS

## **OUR COMPANY**

PNJ International specializes in the distribution and supply of premium construction machinery parts. With over 14 years of experience in the industry, we understand the evolving demands of the global market and strive to exceed customer expectations with reliable products and services.



#### **INDUSTRY EXPERTISE**

A decade-long track record in the construction and mining sector.

#### **GLOBAL NETWORK**

Strong partnerships with reputable suppliers and manufacturers worldwide.

## **QUALITY ASSURANCE**

Commitment to premium materials and rigorous testing standards.

# CUSTOMER CENTRIC APPROACH

Personalized service and technical support to meet unique client needs.



# CONSTRUCTION EQUIPMENT PARTS

Providing essential components for heavy machinery, ensuring longevity and performance.

### MINING MACHINERY COMPONENTS

Supplying durable and efficient parts tailored to the mining sector's needs.

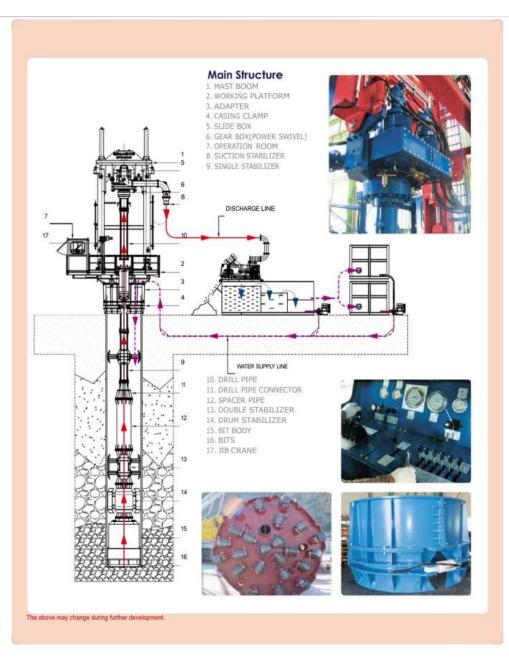
# OEM&AFTERMARKET SOLUTIONS

Offering both original equipment manufacturer (OEM) and high-quality aftermarket solutions to support diverse operational requirements.



# ABOUT THE PRODUCT

PNJ International Co.,Ltd's RCD machines are large bored pile equipment of soil foundation job sites as bridges, buildings and subways and used for the vertical excavation work by means of the installed power swivel with rotary bits based on hydraulic system.



## OVERALL EQUIPMENT DIAGRAM

This schematic illustrates the complete setup of our drilling equipment system, highlighting the interconnection of key components for optimal performance and durability.



# RCD BIT VS AIR HAMMER

The RCD bit works by applying downward pressure with rotary motion, while the air hammer operates through a combination of rotation and impact, rather than pressing down.

Ground Type	RCD(Rotary)	DTH Hammer(Air)
Soft Rock	5-10 m/hr	6-12 m/hr
Medium Rock	3-5 m/hr	5-7 m/hr
Hard Rock	1-3 m/hr	2-4 m/hr
Very Hard Rock	0.5-2 m/hr	1-2.5 m/hr
Energy Consumption	Higher (Hydraulic motor)	Medium (Needs compressor)
Accuracy	High (controlled rotation)	Medium (Can deviate)



# HOLE EXPANSION (Reaming)

Hole expansion is not possible with a cluster (air hammer), but it is achievable with an RCD bit through reaming.

# KEY DIFFERENCE FROM COMPETITOR

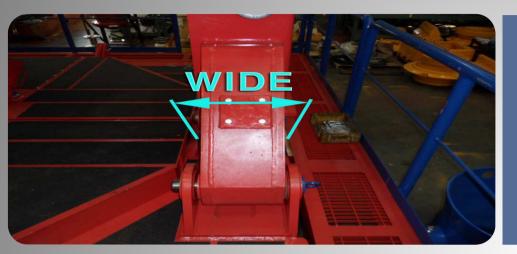




#### PNJ Discharge elbow

PNJ adopts the one piece high-carbon steel on 180 degree discharge elbow rather than welded schedule elbow. PNJ discharge elbow can keep longer life span and give you more durable than competitor's.

# Competitor's Discharge elbow

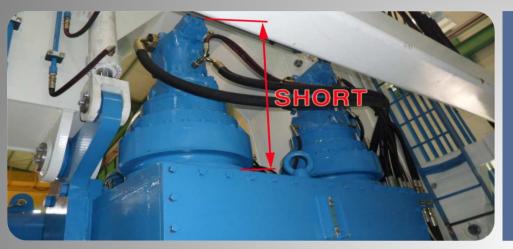




#### **PNJ Footing**

PNJ footing of the master leader is wider than competitor's and it can prevent the master leader from trembling and give firm condition during running.

#### **Competitor's Footing**





#### **PNJ Planetary reducer**

PNJ adopts the special designed planetary reducer for RCD machine rather than using the ordinary industrial planetary reducer. it makes the compact sized power swivel and also the compact sized master leader

Competitor's Planetary reducer

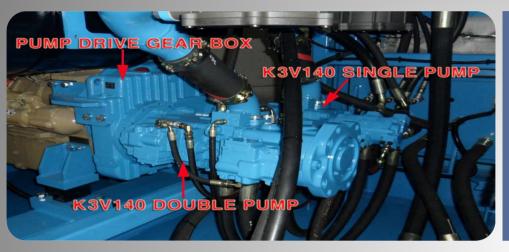




#### **PNJ Master leader**

The transverse beams of PNJ Master leader is shorter than competitor's. It gives the structural stability and prevents from trembling on the master leader during operation.

# Competitor's Master leader





# PNJ combination of pumps

PNJ adopts one double pump and one single pump on the pump drive gear box(German made) rather than using one big double pump. because one big pump(K3V280DT) is not recommended to use more than 1600rpm without a charge pump. Also, even though this big pump has the charge pump option, it is still suffering from the durability and quality with 1800rpm speed and high pressure(300bar).

# Competitor's combination of pumps

# **THANKS**

Does anyone have any questions? Follow the project updates



PNJ INTERNATIONAL CO.,LTD

