FINE EQUIPMENTS

Raising Benchmarks of after sales support



FINE EQUIPMENT (I) PVT. LTD.

TYPES OF STRATA



SOIL

SOFT MURRUM

HARD MURRUM

WEATHERED / SOFT ROCK

HARD ROCK

USES AND APPLICATIONS

PRIMARY BREAKING

- Trenching
- Mining
- Basement, Footing
- Road Cutting, Canal Lining
- Building Demolition
- Slag Removal

SECONDARY BREAKING

- After Blasting for sizing



WHY FINE?



- We provide reliable products at reasonable prices.
- Low maintenance cost, high profitability.

- We are committed to provide unmatched After Sales Support.
- Manpower empowerment and delegation

- Attitude to Serve customer
- Continuous up gradation of the product as per market need.



FINE

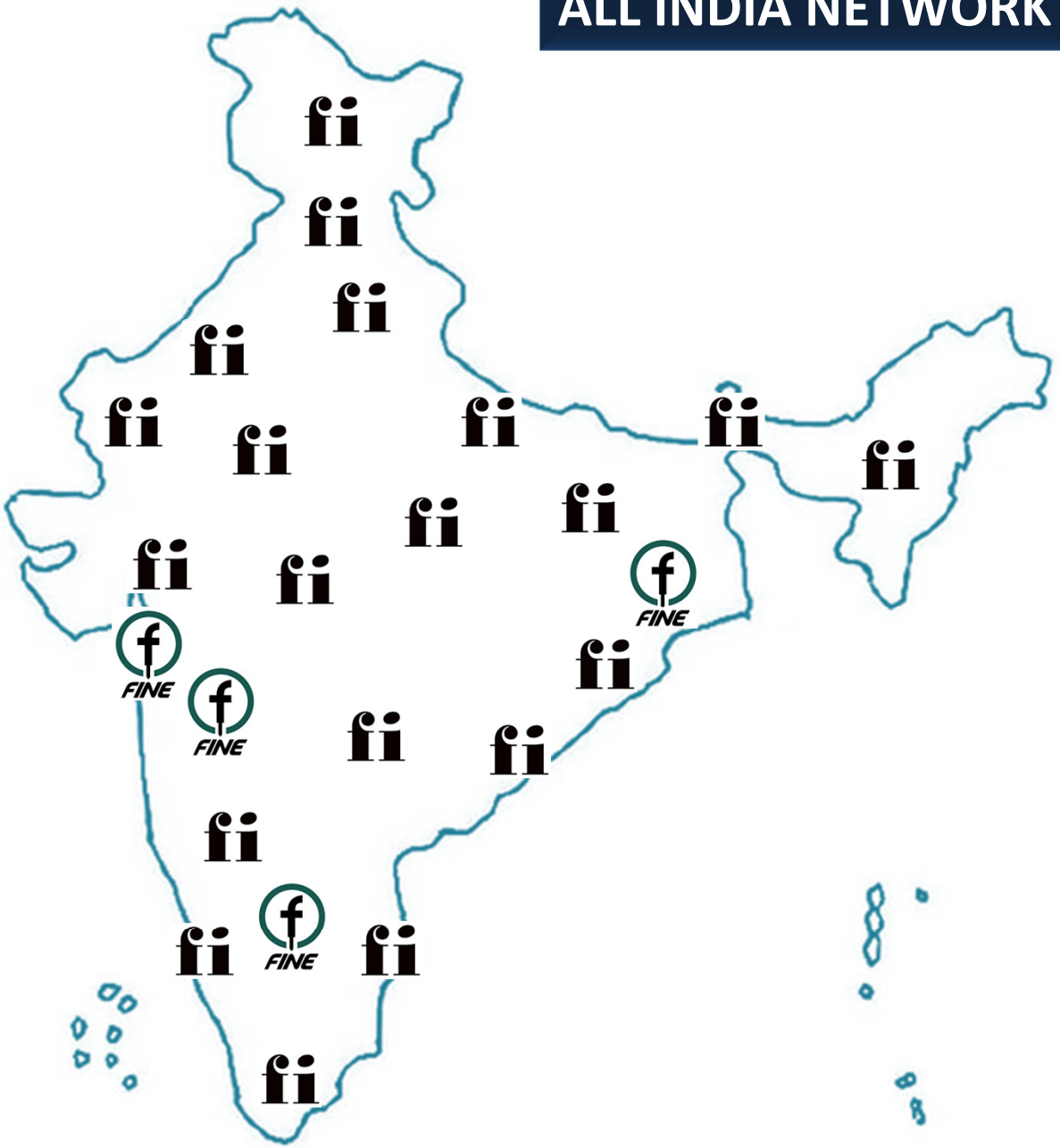
- **FINE** is one of India's largest selling hydraulic Rock Breakers.
- We have sold more than 6000 units of **FINE** Rock Breakers.

- We have a well trained and equipped Service Team all over India.
- Over 3500+ satisfied customers



FINE

ALL INDIA NETWORK



CORPORATE OFFICES
Pune (Head Office)
Mumbai (Reg. Office)
Bengaluru (Reg. Office)
Kolkata (Reg. Office)

DEALER NETWORK	
J&K	Cochin
Mandi	Chennai
Delhi	Hyderabad
UP	Thrissur
Bihar	Hubli
Sikkim	Kolhapur
Siliguru	Ratnagiri
Jharkhand	Barshi
Rourkela	Aurangabad
Raipur	Nagpur
Bhubaneshwar	Nashik
Vijaywada	Udaipur
Indore	Kota
Ahmedabad	Jodhpur
Jhansi	Jaipur

- We started with an open type breaker
- Being Customer oriented with customer feedback and market needs we kept upgrading our breaker



Open Type



Box Type



Box type X Series

Current FINE Rock Breaker Features

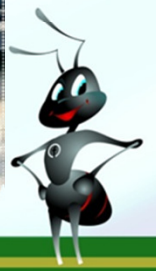
✓AUTO STOP VALVE
✓AUTO GREASING
✓UNDERWATER APPLICATION
✓LOW NOISE VERSION
✓DUST PROTECTION
✓SHOCK ABSORBING SYSTEM



Box type N Series



Box type X Plus Series

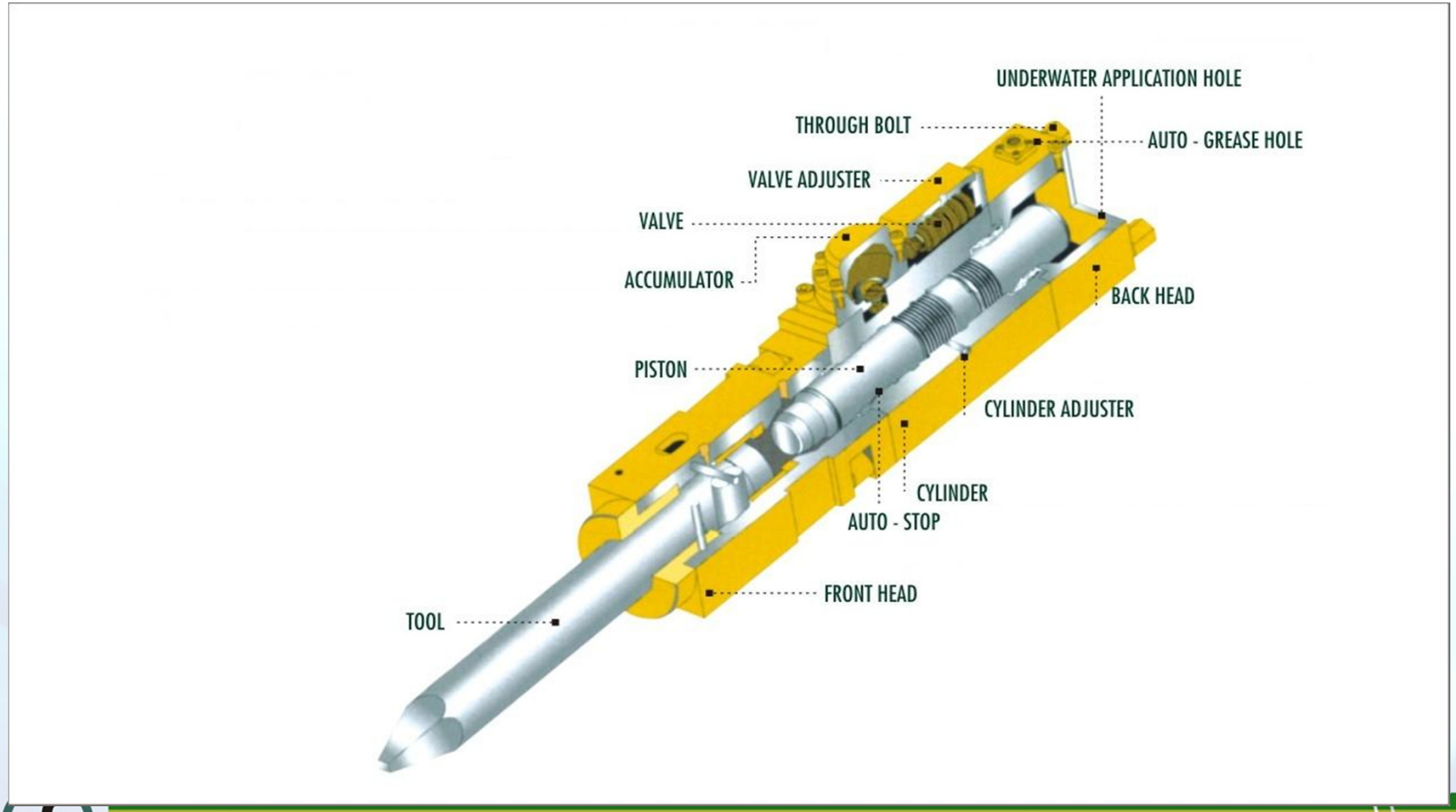


Fine 23 X Plus Hydraulic Rock Breaker

Specification	Fine 23 X Plus
Operating Weight (Kg)	1760
Overall Height (With Mounting Bracket) (mm)	2702
Operating Pressure (bar)	160-180
Required Oil Flow (lpm)	150-180
Impact Rate (bpm)	350-550
Tool Diameter (mm)	140
Suitable Base Machine (ton)	18-28
Impact Energy (Joule)	6200

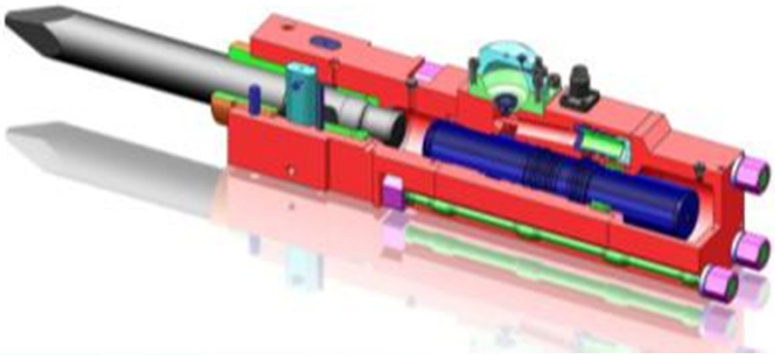


Gas Hydraulic Technology



Chisel

Diameter-140mm







TOOL IS MANUFACTURED BY VARIOUS FOUNDRY PROCESS, SUCH AS

HARDENING PROCESS
ANNEALING PROCESS
TEMPERING PROCESS

Various Mechanical testing on tools have been done-

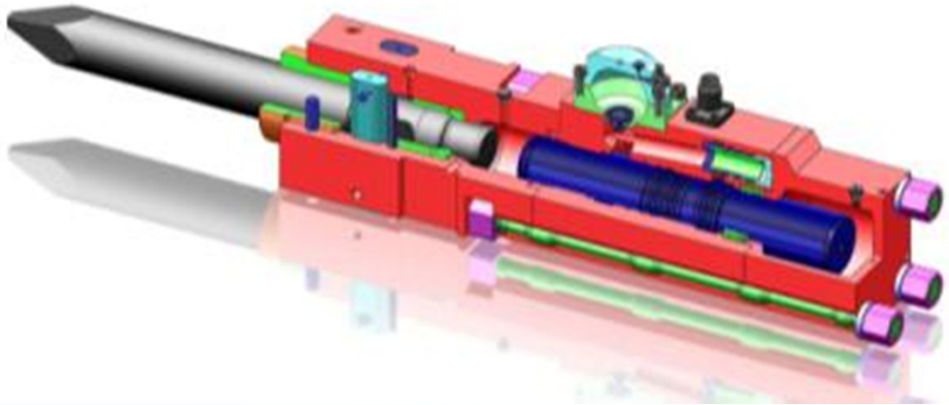
BEND TEST
IMPACT TEST
HARDNESS TEST
TENSILE TEST
FATIGUE TEST



Advantages and Benefits

- 140 mm dia 
- Crack development ratio is higher
- Best Power Transmission
- Chisel life is better
- Help customer to increase profitability

Bush





•Fine Bushes has more thickness <u>with Collar</u>

•Hardening Process has been done on our bushes which helps protecting the front head and increase the life of the bushes

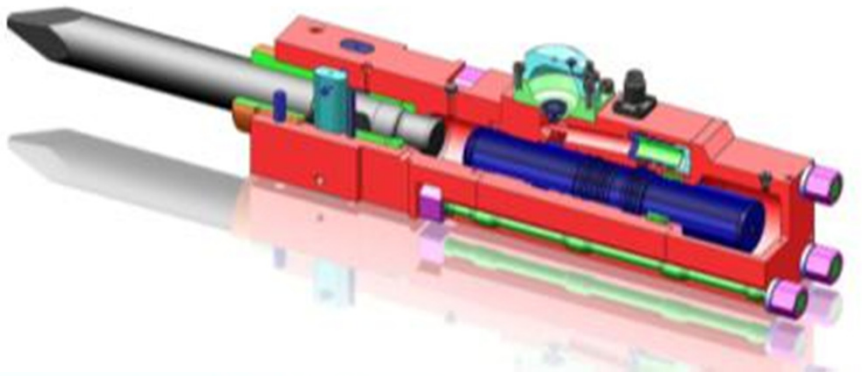
Length- 192 mm

Collar- 66mm

Longer the Bush Life

Lesser the Chisel Breakage

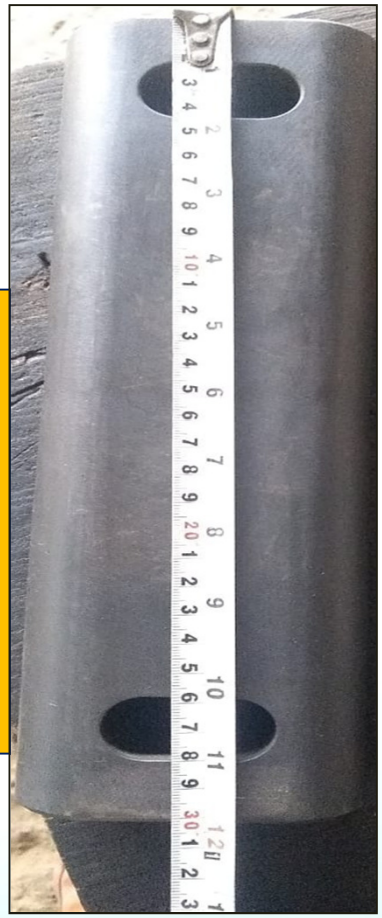
Pin Tool



- Longer Life of Pin tool
- Protect chisel
- Ease of maintenance
- Lower breakdown



Length- 300mm



Width 88 mm

More in width helps in securing the chisel and more in length eases to remove and replace the tool while preventive maintenance

Front Head Fine 23X Plus



Fine 23X Plus

Without pin stop hole

Our patented design

Increase the life of front head

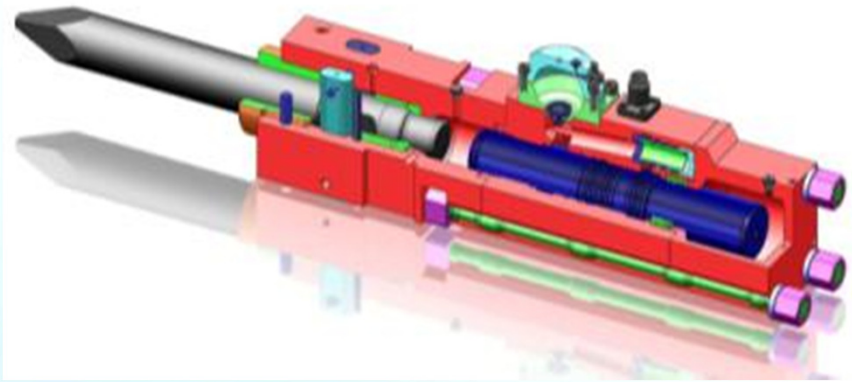
Less metal to metal contact

Increase the life of front head



Piston

Fine 23X Plus

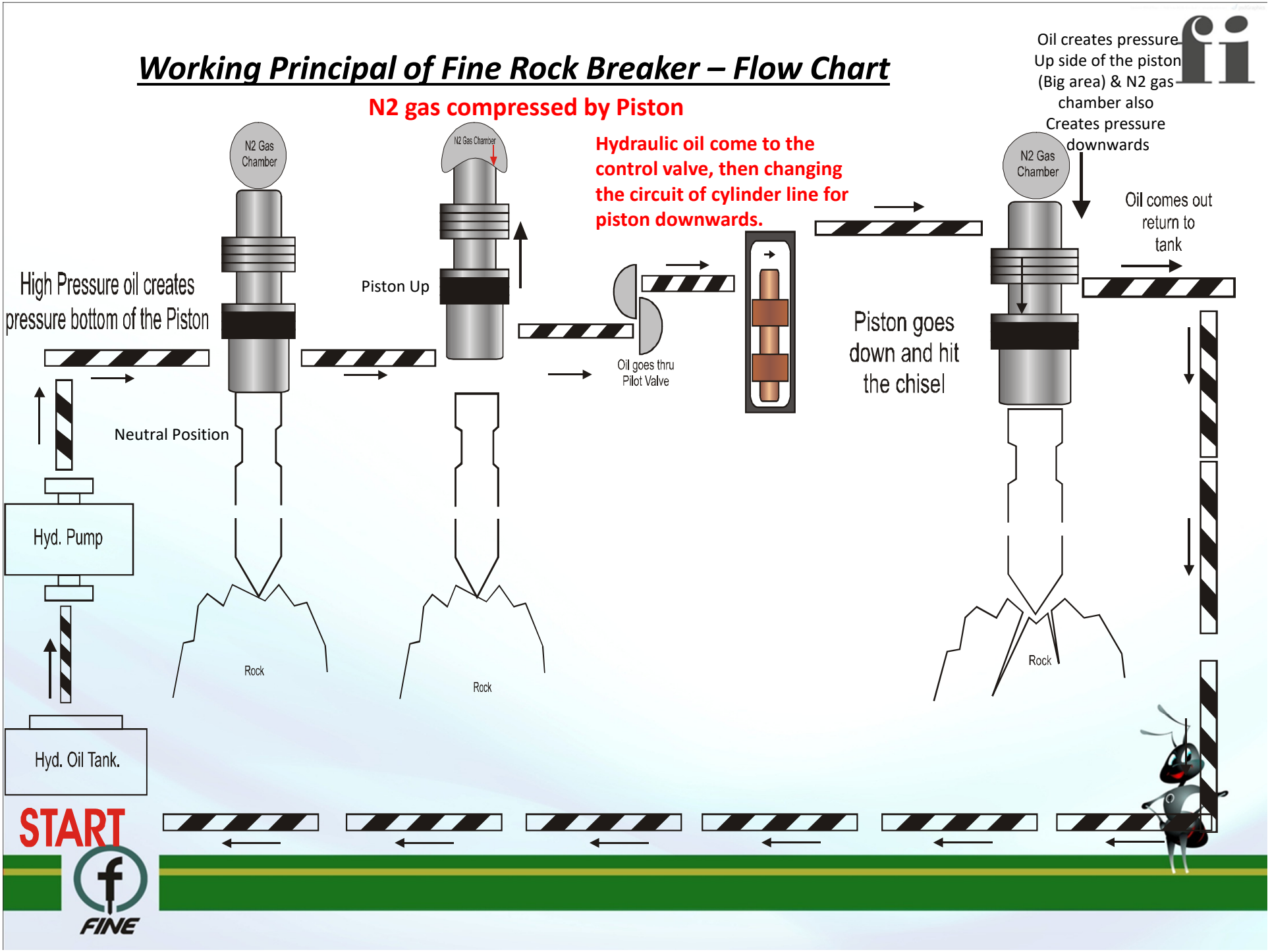




Fine 23xplus	Description
Length	790 mm
Contact Area	90 mm

- Long Stroke Powerful operation resulting in more productivity
- SNCM 26V material
- Manufactured using special heat treatment
- Most efficient design for maximum energy transfer to tool

Working Principal of Fine Rock Breaker – Flow Chart



Anti Blank Firing

•Anti Blank Firing can be controlled through a valve, so that according to application user can take benefit of it

• To restrict the blank stroke

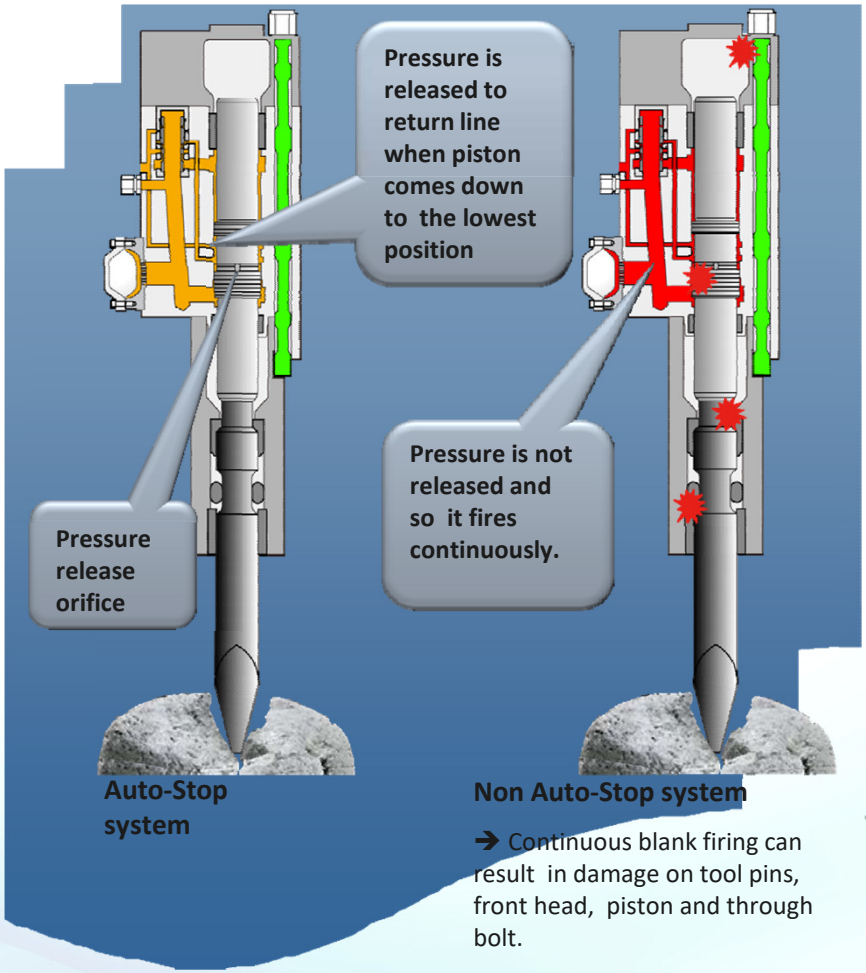
•Increases the economic life of parts e.g. Pin tool, Front Head, T-Bolt etc.

- Reduce vibrations which affects the mechanical structure of breaker and base machine
- User friendly to operator



Auto Stop Valve



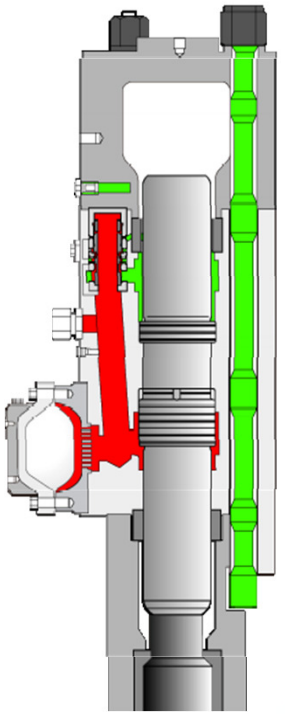


➔ Continuous blank firing can result in damage on tool pins, front head, piston and through bolt.

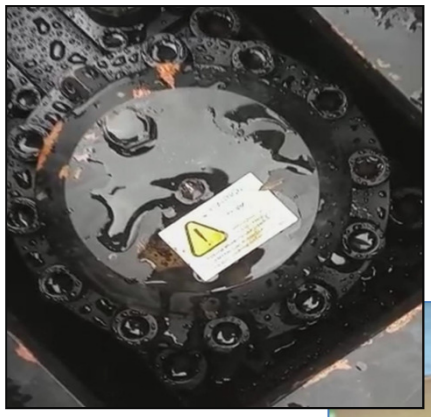
Valve

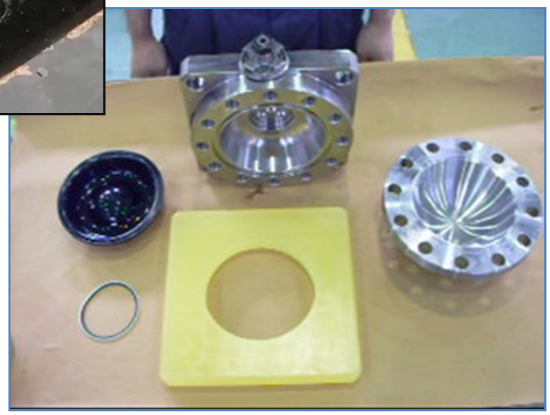
- Fine 23X Plus has got an internal valve
- Higher diameter controls the flow and distribution of the fluid
- Less chance of valve damage as it is inside the body
- Increase output





Accumulator





- Fine Accumulator is a gas charged storage device designed to hold a reserve quantity of hydraulic fluid under pressure
- Constructed to reduce vibrations in high operating pressure



Gas Pressure – Fine 23X Plus

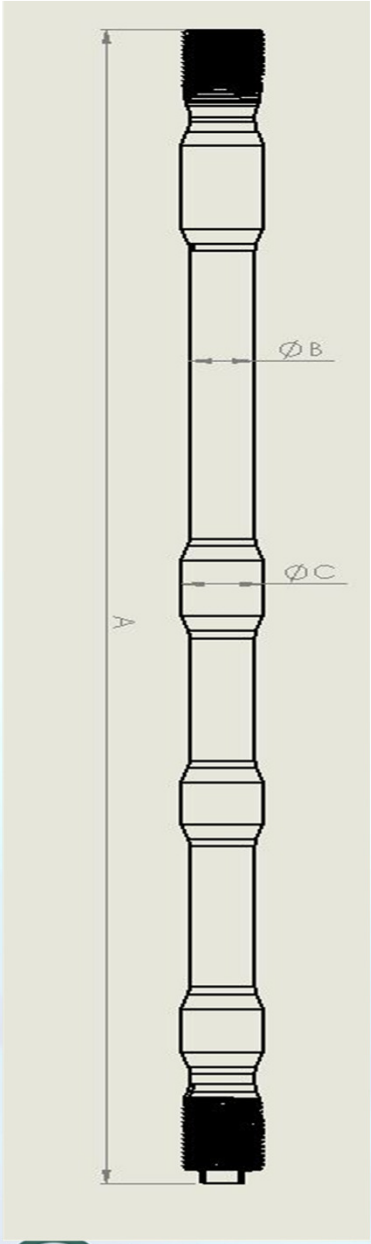
- Gas Pressure – 14 to 16 bar
- Easy to check and fill
- Higher compression ratio
- High Power
- High Output





FINE

Through-Bolt



Description	Fine 23xplus
Hex Nut	75mm
A Total Length	1050mm
C (ref Image)	52mm
B (Ref image)	37mm



- **Higher torque can be obtained**
- **Useful to endure high vibration**
- **Lower The break down time**
- **Low Maintenance Cost**
- **Longer life**



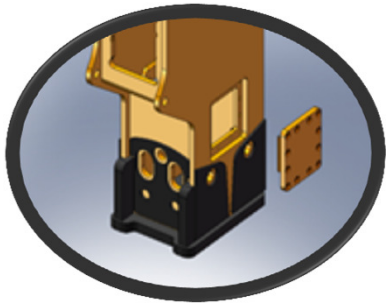


Body Fine 23X Plus

Fine Breaker uses special steel **Hard-ox 400 plate** which gives <u>additional strength</u> to the body also Side Damper minimizes and ultimately <u>reduces maintenance cost</u>

- Compact Design.
- Reinforcement yellow plate to safe guard the box and increase night visibility.
- Absence of Pin Stop hole increase box life
- PATENTED DESIGN





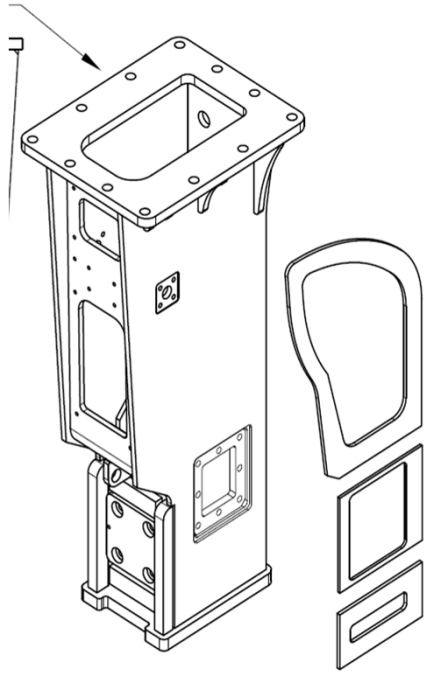
Side Damper

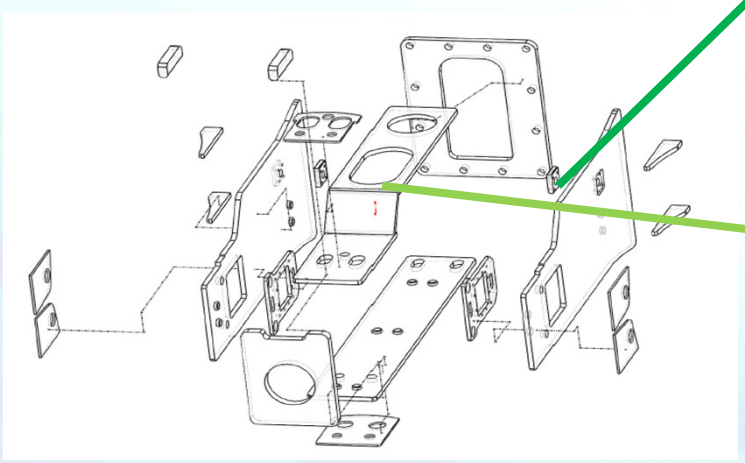
Hard-ox Plate



Breaker bracket four plate welded and provided extra guard to side plates



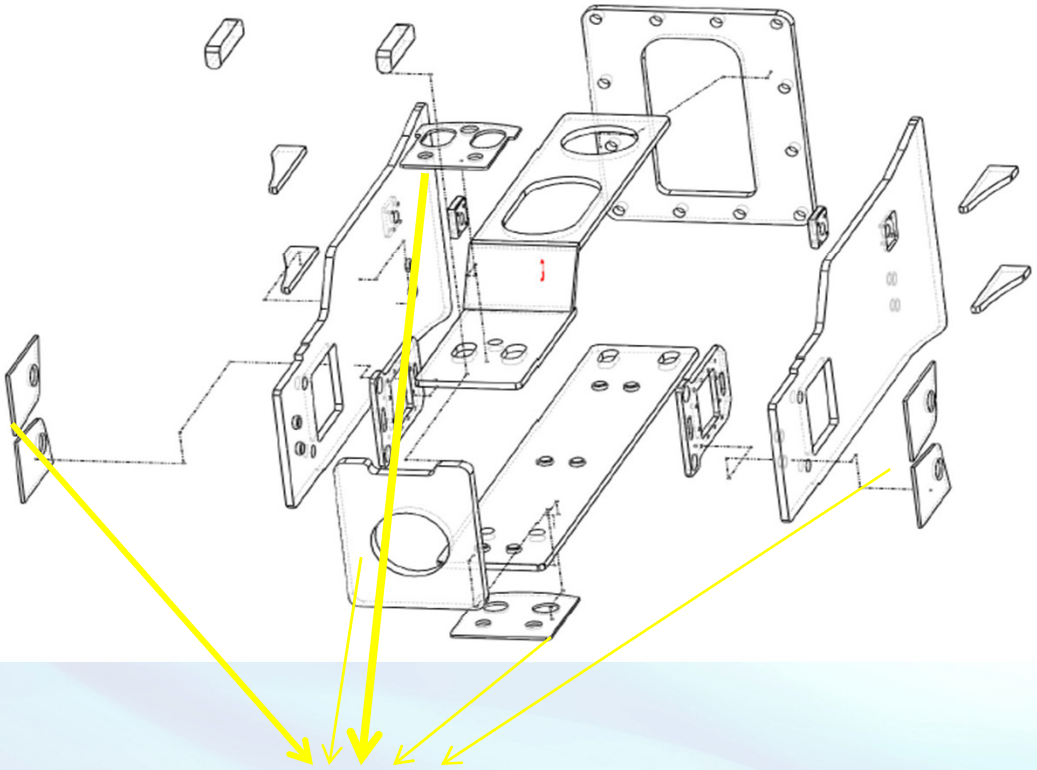




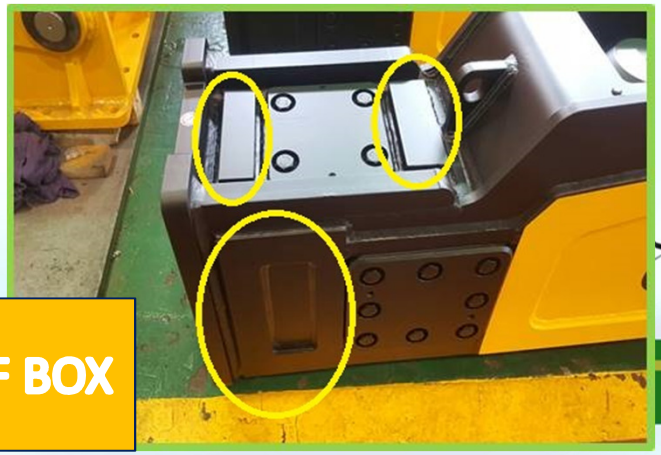


Side Damper in Fine 23

Hard ox plate in
bottom area
of bracket box,







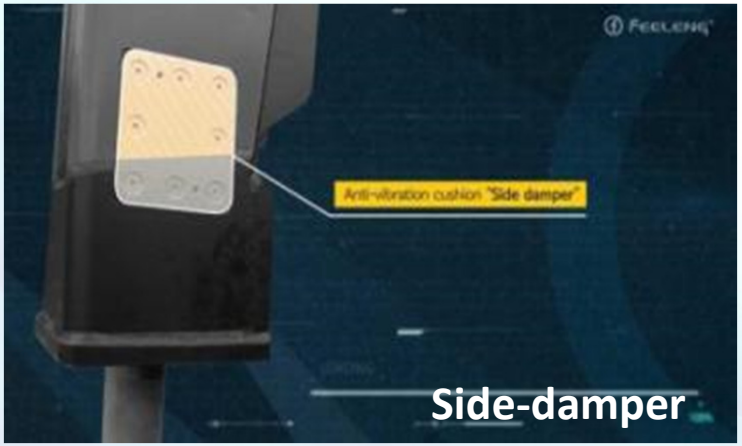
HARDOX PLATE

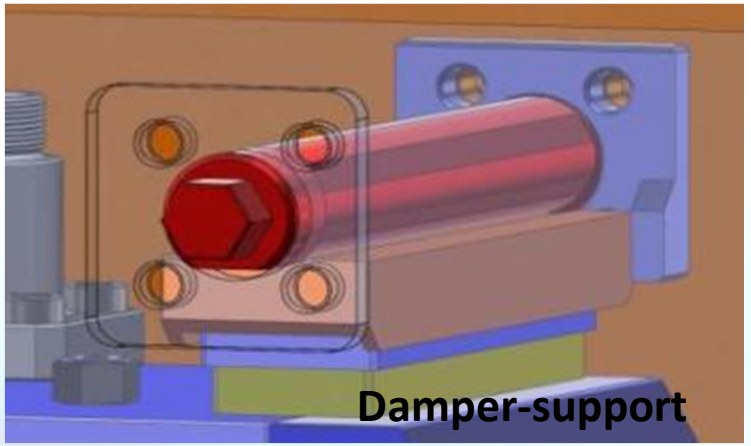
LONG LIFE OF BOX

Hard-ox & Side Dampers



- Hard-ox 400 steel
- Pin stop removal (Minimized number of parts)
- Side Damper for absorption of vibration
- Damper support for reduction of vibration





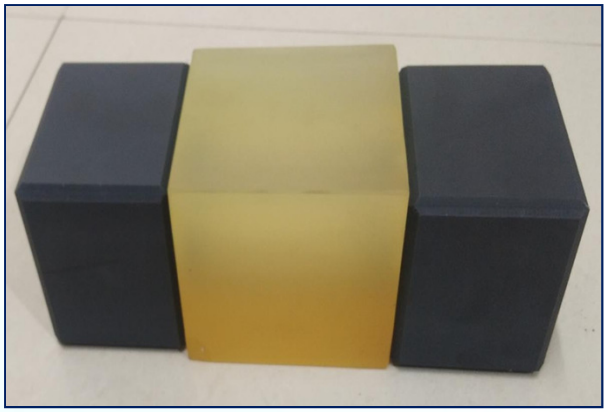


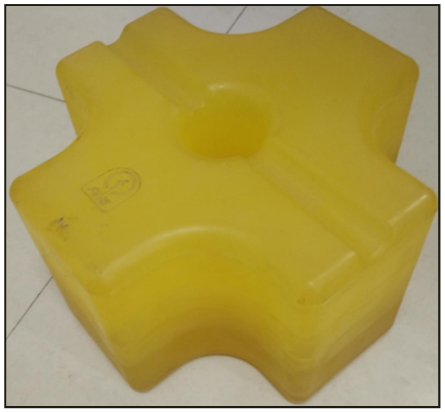
Fine 23X Plus-Hose location

Hose location in cylinder
- Lesser travelling time for hydraulic oil
- Increase the life of hoses
- Lower Vibration
- Higher output
-



Pads







Fine pads are made of Polyurethane rubber which helps in reducing the vibrations and protects the inner body
High cushioning
Compression strength
Impact resistance

LESS wear & Tear
LESS deformation
LONG life
LOW maintenance cost



Auto Greasing System

Continuous lubrication provides superior protection
Eliminates work stoppages for manual greasing.
Less downtime and greater productivity.
System easily moves with breaker to different carriers





You continuously need to monitor
System does not alarm if any blockage or failure happens
Very expensive
Success rate is less
May fail due to huge vibration generated during breaker operation
Increase maintenance cost due to excess grease use

Thorough Process Control











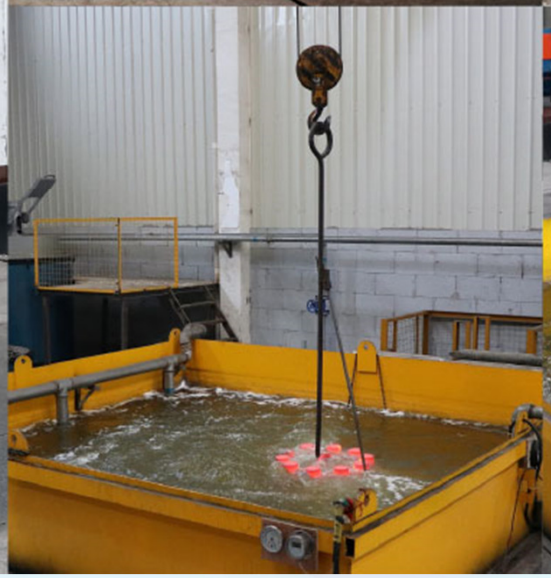


Heat Treatment Process













FINE

YOUR BENEFITS

FINE 23 X PLUS

✓ HIGH OUTPUT – HIGH PROFITS

✓ SUPERIOR DESIGN – LOW MAINTENANCE

✓ HIGH RELIABILITY – FASTER PROJECT COMPLETION



THANK YOU



HAPPY SELLING