

ENGINEERS ENTERPRISES

National Award Winner
MSME - 2008



Visit Us @ www.engent.in



40+ Years of Engineering & Manufacturing Experience
Manufacturer & World-Wide Supplier of
Heavy Mechanical Spares
Specialized In Centrifugal Casting

"QUALITY ALWAYS RECOGNISES"

Established in 1980, Engineers Enterprises is an ISO 9001-2008 certified, family owned, Heavy Engineering & Manufacturing Company founded on a strong engineering footprint and family business values of humanity, honesty, loyalty and quality. ENGENT has been manufacturing / exporting high- quality new parts at low costs to companies world-wide.

Having been in the mining production parts business for nearly four decades ENGENT today is a leading manufacturer and exporter of:

- Heavy Earth Moving Machine Spares
- Iron & Steel Plant Spares
- Mining Machinery Spares
- Power Plant Spares
- Defense Equipment Spares
- Cement Plant Spares
- Minerals Processing Plant Spares
- Sugar Mill Spares
- Material Handling Mining
- Bulk Industrial Gearing
- Air craft Components
- Ship Building / Naval Dock
- Railway components
- Thermal & Nuclear Power Plants



Founder
LATE SHREE POONAMCHAND
KOTADIYA

1929-1993
VISIONARY INDUSTRIALIST



NATIONAL
MICRO, S

राष्ट्रीय पुरस्कार वितरण समारोह
सूक्ष्म, लघु एवं मध्यम उद्यम

मुख्य अतिथि
डा. मनमोहन सिंह
भारत के 14वाँ प्रधानमंत्री

Dr.
Hon

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Er. NARENDRA JAIN (B.E. Mechanical)- Proprietor
Er. SANAMRA JAIN (M.S. Adv. Manufacturing Engineering)
Er. SANJANA JAIN (B.E., M.B.A.)

With an experience of 40 years ENGENT is fully aware of what a stoppage of even a few hours means to your production and the specific pressure placed on your machines, parts and spares everyday to meet production deadlines. We understand how important is the quality of the parts that needs to be serviced and fitted in your specialized machinery.

Turning our experience into your advantage, we have always been focused on manufacturing only the highest quality parts. As ENGENT has maintained Reliability, Quality and Consistency in manufacturing and service, we have now established a reputation of supplying 100% performance guaranteed and Zero defect Parts.

We pride ourselves on serving the mining, defense, energy and production industries and completely confident that our manufactured/supplied parts will perform 100% as they have passed strict quality checks & guidelines; delivering at reasonable cost and in a time efficient manner.

We aspire to grow the company even further, increase our competitiveness in order to capture a global share. That is why we continue to strengthen our management and R&D teams, continuously improving our manufacturing facilities, processes, products, services and offerings to meet the unique requirements of our customers.

Certificate of Registration

This is to certify that
Quality Management System of

ENGINEERS ENTERPRISES

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope:

ENGINEERS ENTERPRISES is a leading provider of engineering services, specializing in the design, development, and testing of mechanical, electrical, and electronic systems. The company has a strong track record of delivering high-quality products and services to its customers, and is committed to continuous improvement and innovation.

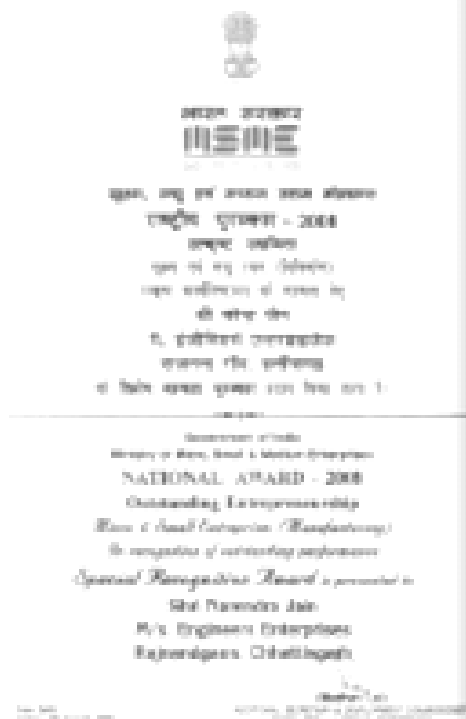
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Product: [Product Name]
Service: [Service Name]
Location: [Location]
Date: [Date]



Myapathu Management Services Pvt. Ltd.
100, [Address]
[City], [State], [Pin Code]

AWARDS & RECOGNITIONS

- MSME NATIONAL AWARD
- ISO 9001-2008 CERTIFICATE
- THE ECONOMIC TIMES (THE POWER OF IDEAS)
- ASCB CERTIFICATE



QUALITY POLICY

We are committed to our tradition of Engineering Excellence and continuous improvement to meet or exceed the expectations of our Customers in respects of quality, delivery of products and completion of projects on schedule.

We empower our employees and create an environment that enables individuals to achieve functional excellence, gradual enhancement, teamwork and innovations, to satisfy our stakeholders.

QA DEPARTMENT (NABL Approved Testing facility)

INSPECTION
(Material & Products Inspection)

LABORATORY
(Chemical & Physical Test)

NON-DESTRUCTIVE TESTING



Our Capabilities

Casting Unit

•Casting for Non-Ferrous (Self Designed & Developed Centrifugal Casting Machine)

•Upto 3 meter diameter job and 3000kg/piece

Forging Facility

•Up to 6 Metric Ton Single Piece In Alloy Steels Like 34CrNiMo6V, 42 CrNiMo4V, EN9, EN17, EN24 & Other Ferrous materials as required by customers.

•Only Quality Vacuum-Degassed Ingots are used to get best quality and defect free forging.

Heat Treatment Plant

- Nitriding
- Induction Hardening
- Annealing
- Case carburizing
- Heat Treatment Furnace (1 Mtr. X 1 Mtr. X 600 mm.)

Precision Machining Unit

- CNC Inclined Bed Lathe Machines
- Heavy Duty Lathe Machines
- NC Universal JIG Milling Machines
- Gear Hobbing Machines
- Radial Drill Machines
- All Geared Shaper Machines
- Planner Machines
- Horizontal Boring Machines
- Power Hexa Machines

Testing Facility

- Universal Tensile Testing
- Spectrometer
- Impact Testing
- Brinell Hardness Testing, Portable Hardness Tester
- Ultrasonic Testing
- Hand Held Chemical Testing
- MPT, Dye Penetrate Test, Stress Reliving, Static & Dynamic Balancing

Product Design and Development facility

- ANSYS
- AutoCAD - CAD CAM Software
- Solid Edge, Catia ,Pro E
- Quality Purpose - TQM, QMS, 5S

Research and Development

- Yugantar Public School (website: www.yugantarschool.com)
- Yugantar Institute Of Technology And Management (website: www.yitmindia.com)
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Import Substitute Development

- Developed many import substitute spares & by only one item Govt. Of India has saved more than Rs.500 crore foreign currency.



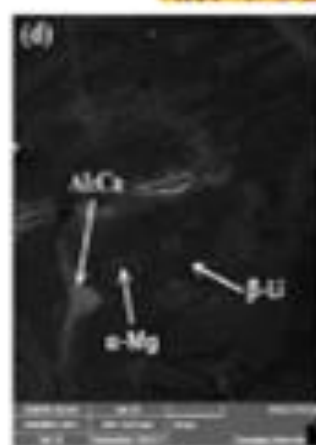
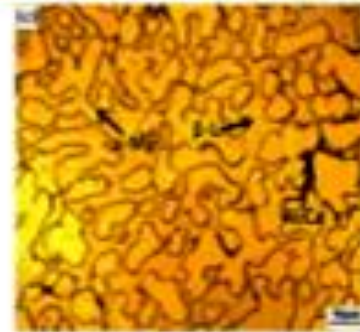
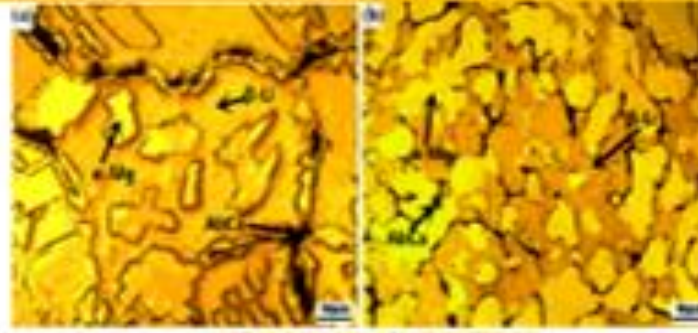
SPECIFICATIONS OF SPECIALIZED CENTRIFUGAL CASTING • :

- Single castings up to 3000 kgs & upto 3 meter diameter & length.
- Any complex shape (All dies already available).
- Materials like High Tensile Bronze, Ph-Bronze, Al-Bronze, & other grades as per Indian & International standards like DIN, BS, GOST, JIS, ASTM & all other international specifications as per required by customer.



CENTRIFUGAL CASTING FEATURES

- DENSE & EVEN MICRO STRUCTURE
- RADIAL & UNIFORM GRAIN FLOW
- GOOD TENSILE STRENGTH
- HARDNESS IS MORE & UNIFORM
- WITHSTANDS IMPACT LOADS
- NO EFFECT OF AGGREGATION
- PATTERN IS NOT REQUIRED
- EXCELLENT SURFACE FINISH
- FREE FROM MICRO POROSITY
- THERE ARE NO BLOW HOLES AT ALL
- LIFE IS VERY GOOD NEARLY 2.5 TO 3 TIMES BETTER THAN SAND CASTINGS



CENTRIFUGALLY CASTED PRODUCTS



**CONE BUSH
(Crushers
Spares)**
[upto Ø 1000
mm & 2000
mm in
length]



**Hollow Shaft
(Stripper
Crane)[upto
3 mtr
length]**



WORM WHEEL
[upto Ø 3000 mm
& 600 mm in
length]



**SOCKET LINER
(Crushers
Spares)[upto Ø
2000 mm & 600
mm in length]**

• **Bushes (Split, Ball, Eccentric)**
[all type and all sizes]



CAM WHEEL BUSH
[all type and all
sizes]



**SPIRAL BEVEL
GEAR**

• **Rings, Washers, Spacers** [all
type and all sizes]



**OUTER BUSH
(Crushers Spares)**
[upto Ø 1000 mm &
2000 mm in length]



**SELF LUBRICATING
& SINTERED
BUSHES[all type
and all sizes]**



Shafts:

[Size: Ø 1000 mm & 4000 mm in length]

Shipper Shaft,
Drive Shaft,
Idler Shaft,
Swing Shaft,
Shaft Clutch,
Gear shaft,
2nd & 3rd
Intermediate shaft,
Propel shaft etc.



Gears:

[Size: Upto Ø3000 mm]

Gear Final Drive,
Gear Shipper Shaft,
Drive Tumbler,
Worm Wheel

SHOVEL PARTS

P&H 1900 Al Shovel
EKG 10 Cu M Shovel
RB/BE 195 Shovel
EKG.4.6 Shovel
PH2300 Shovel
Tz Shovel

Bushings:

Outer Bush,
Inner Bush,
G.M Bush,
Front Bush,
Lower & Upper
Roller Bush,
Steel Bush
and bushes
of all sizes.

Pinion:

Swing Pinion,
Pinion Final Propel,
Spider Pinion,
Pinion Assembly,
Brake Wheel,
Worm Pinion, ,
Driving Wheel,
Idler Wheel etc.





**Shim,
Chains,
Pins,
Washer,**



**Links,
Bell bar,
PADLOCK,
Boom Pulley,
Dipper Body,
Crawler Link**



Magnettorque assembly

Gear tumbler



DRAGLINE PARTS

**24/96 Dragline,
20/90 Dragline,
10/70 Dragline.
Rope Drum,
Half Coupling,
Steering Coupling,
Internal Gear Shaft,
Hoist Rope Pulley,
Dump Pulley,
Bucket Body,
Drag Chain,
Rope Socket,
Tie Rod, Clamp,
Fork, etc.**



DRILL RODS:

IDM -15, 30, 70

DMH 311

PV 351 (50ft)

RECP-650, 750

SK60

SBSH 250 LD

ICM 260

ROTACOL

LMP Drill

EIMCO ELECON

SCHREMM ROTA DRILL

HEXAGONAL & SPIRAL

DRILL RODS (all sizes)

**NQ, HQ, PQ Wireline Drill
Rods**

**[Specification: Upto 50 ft
length and Ø 324 mm]**

DRILLING PARTS & ACCESSORIES

TOP SUBS

BITS SUBS

CROSSOVER SUBS

Spindle Sub

Sub Drill Bits/ Drill Adapter

Extension Rods



Process flow chart for HEMM Drill rods

SEAMLESS TUBE

- **Straightness check**
- **Thickness check**
- **Chemical & mechanical check**

CUTTING (Dimensional Check)

FACING/BORING IN CNC MACHINES

THREADING IN CNC MACHINES (Master Gauge Check)

STEEL ROUND

- **Chemical & mechanical check**
- **Property heat treated (Hardness check)**

CUTTING (Dimensional Check)

FACING/BORING IN CNC MACHINES

THREADING IN CNC MACHINES (Master Gauge Check)

ASSEMBLY OF TUBE & INSERT WELDING

- **Welding radio-graphic check**
- **Male & female ends shrink fit, heat treatment and hardness check**

STRAIGHTENING (Eccentricity, straightness & alignment check)

PAINTING/ PUNCHING OF TRADEMARK & THREAD PROTECTOR FITTING

FINAL QUALITY CHECK

FINISHED FOR DISPATCH

DEFENCE SPARES

MACHINING OF BODY-BOMB, RG 10 BUSH, ALUMINUM BRONZE ROUND, PB ROUND ROD, CU ALLOY BAR, HOLLOW BAR, CU ALLOY BAR, HEXA BARS (UP TO 160 MM), SHEETS, FRONT BUSH(Centrifugal Casting), BUSH Out Rigger, Gun Metal Square, Brass Casting of Ring, Ring (Centrifugal Casting). Aluminum Casting of Bracket [as specified by the customers]



INDUSTRIAL GEARS & GEAR BOXES

- Conveyor Drums, Drive Drums, Belt Drum, Sugar Mill Spares, Cement Plant Spares, Iron & Steel Plant Spares
- Our specialty:- **GLOBOIDAL GEAR BOXES** (fitted with globoidal worm gear and worm pinion), other Gear boxes.

SHAFTS -WORM/ FLANGE/ DRIVE/ HEAVY/ SPLINED/ RACK AND PINION. [Up to $\varnothing$ 1000 mm X 8000 mm length]

GEARS -WORM /HELICAL /DOUBLE HELICAL/BEVEL /SPUR/SPIRAL/HERRINGBONE/INTERNAL & EXTERNAL GEAR.

[Up to $\varnothing$ 2000 mm & 60 Modules]

TCRR BITS



step.1



step.2



step.3



step.4



step.5



step.6



step.7



step.8



step.9



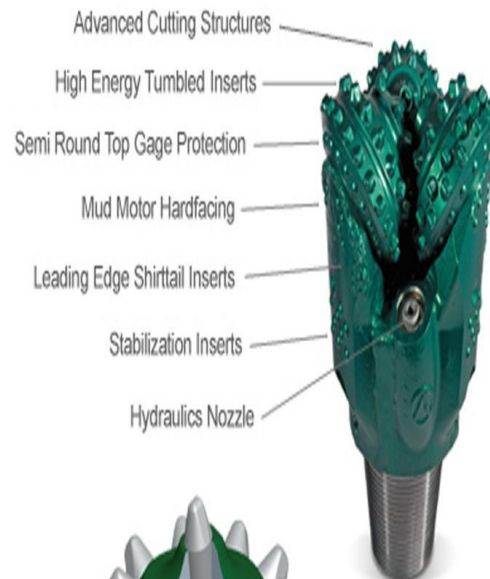
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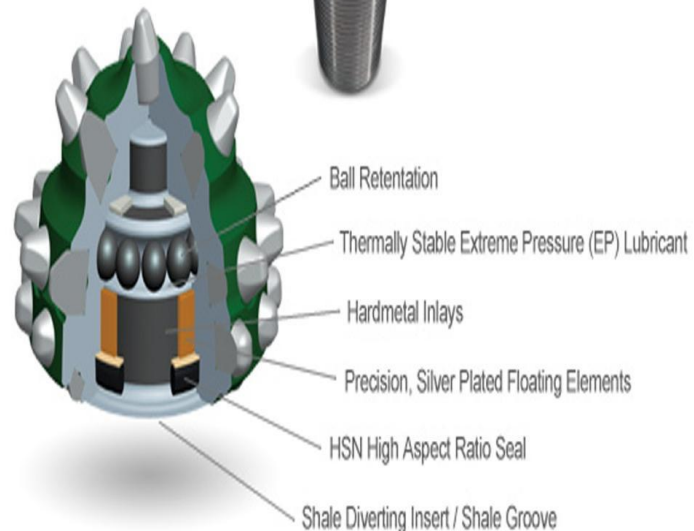
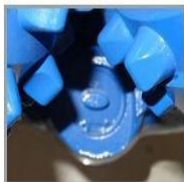
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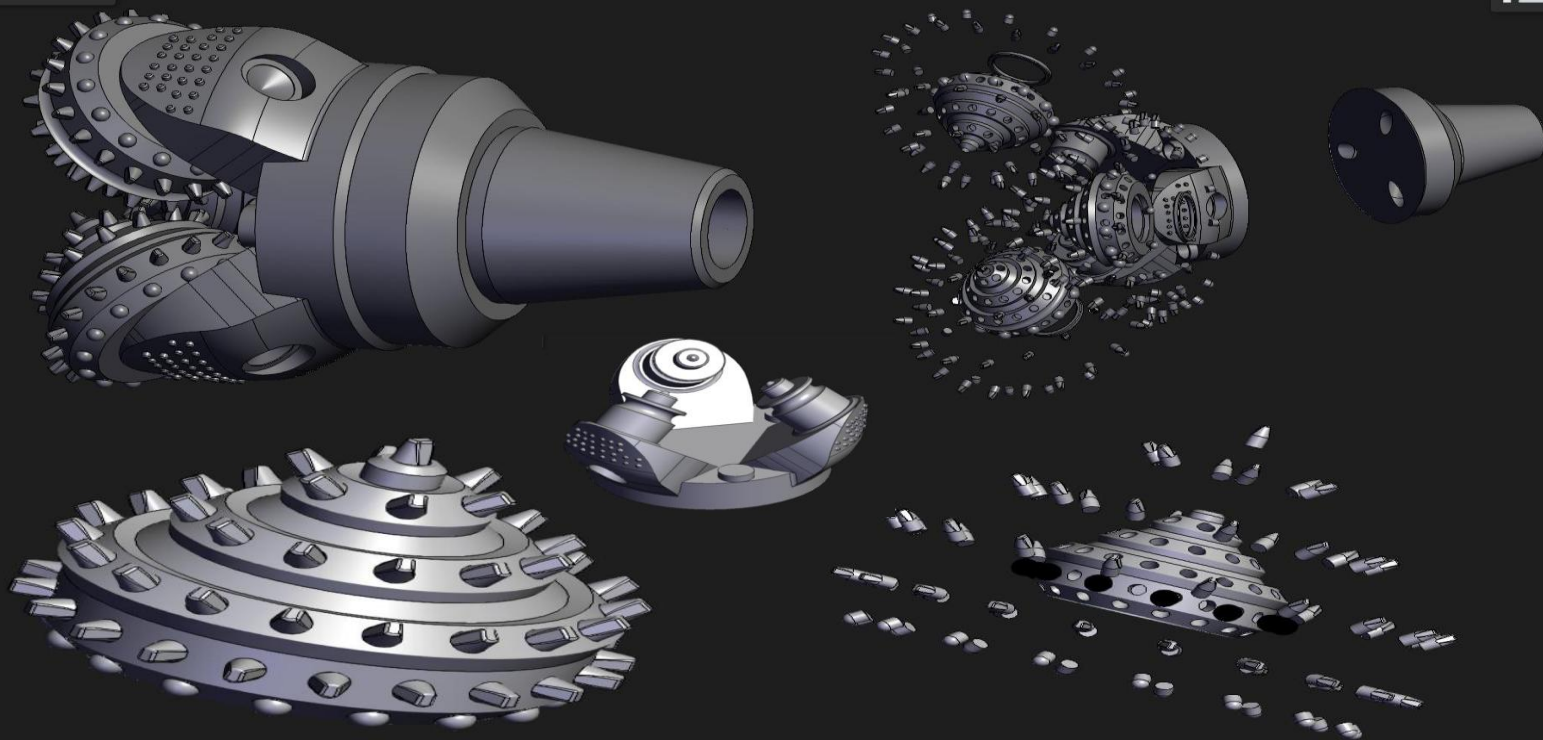


the end



PRODUCT DETAIL





ENGINEERS ENTERPRISES TRICONE ROCK ROLLER DRILL BITS



SOFT		Long extension chisel. Shaped carbide inserts	Aggressive design for ultra-soft formations to achieve high penetration rates with minimum down pressure.
		Long extension conical. Shaped carbide inserts	
MEDIUM		Short extension chisel. Shaped carbide inserts	Chisel shaped inserts on inner rows with gage shape variations from chisel to dome to resist gage rounding through the medium formation range. Extensions calculated for high penetration rates with maximum resistance to breakage.
MED./HARD		Short extension conical. Shaped carbide inserts	Conical shaped inserts on inner rows with gage variations from conical to dome for abrasive formations requiring maximum pressures. Optimum insert design for high penetrations rates in formations with high compressive strengths.
HARD		Round-top (Dome). Shaped carbide inserts	Dome shaped inserts throughout for hard to extra-hard formations where heavy drilling weights are necessary. Optimum insert design and spacing for maximum resistance to abrasion and insert breakage.

ENGINEERS ENTERPRISES TRICONE ROCK ROLLER DRILL BITS



HET Inserts - Improving the attributes of TCI overcomes the traditional trade-off between wear resistance and fracture toughness of TCI components and actually makes TCI components both harder and tougher.

Mud Motor Hard facing - For demanding motor applications, a generous application of tungsten carbide hard facing is applied to the shirrtail lower edge and leading edge of the bit leg to provide enhanced seal protection.

Leading Edge Shirrtail Inserts - Tungsten carbide inserts are placed along the leading edge of the shirrtail providing additional wear resistance in motor applications commanding high RPM or where additional shirrtail protection is needed.

Stabilization Inserts - Enhance standard shirrtail patterns by providing bit stabilization and additional protection to the pressure compensator in high-angle applications or in deviation-prone formations.

Hydraulics Nozzles - Aimed flow stream produces better cone cleaning, which improves bit penetration rates. Also maximize leg strength while minimizing overall bit length, helping deliver more hydraulic horsepower to the hole bottom. The shorter overall bit length improves steer ability on directional BHAs.

Ball Retention - Designed to retain the cone without carrying bit weight. This design technique prevents ball race spalling failures and extends bearing life.

Thermally Stable Extreme Pressure (EP) Lubricant - Formulated to work synergistic with the bearing materials. The lubricant maintains high relative viscosity even when the bearings are subject to extreme energy levels in demanding applications.

Hard metal Inlays - Critical bearing surfaces are precision-machined to provide superior bearing performance by reducing friction and wear. **Precision, Silver- Plated Floating Elements** - Reduce bearing heat generation and prolong bearing life at higher rotary speeds.

HSN High Aspect Ratio Seal - Provides positive sealing against contaminants with lower seal face contact stresses. This reduces the seal operating temperature and extends seal life.

Shale Diverting Inserts / Shale Groove - More effective in diverting cutting away from seal, prolonging seal life.

Stabilization Inserts - Enhance standard shirrtail patterns by providing bit stabilization and additional protection to the pressure compensator in high-angle applications or in deviation-prone formations.

Some of our Valued, Regular and Impressed Customers



- South Eastern Coalfields Ltd.
 - Western Coalfields Ltd.
 - Northern Coalfields Ltd.
 - Mahanadi Coalfields Ltd.
 - Eastern Coalfields Ltd.
 - Bharat Coking Coal Ltd.
 - SAIL Bhilai Steel Plant
 - NMDC, Ltd.
 - CCL, Ranchi
 - S.C. Railway
 - NTPC
- Hindustan Copper Ltd., Malanjkhand
- Hindustan Copper Ltd., Khetri Copper Project
 - Neyveli Lignite Corporation
 - Singareni Collieries Co. Ltd.
 - Gun Carriage Factory, Jabalpur
 - Grey Iron Factory, Jabalpur
- Minerals Exploration Coprn. Ltd.)

GLOBAL FOOTPRINTS





ENGINEERS ENTERPRISES

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