mbe®
beyond engineering

Cutting edge solutions

Engineering, Procurement, Construction and more

Balance of Plant, Singareni TPP (2 x 600 MW)

9000 TPD Cement Plant, ACC, Jamul

Contents

Foundation of the future

True visionaries are always a cut above.

Since inception McNally Bharat Engineering Company Limited (MBE) aimed at bettering the future of India at large. The origins were humble in 1961 at Kumardhubi near Dhanbad. This was an extension of McNally Pittsburgh (USA). Initially the organisation manufactured equipment for the coal and mining industry. Soon McNally Bharat became a name to reckon with, in the league of Indian engineering firms.

Today it has grown into a multi-product, multi-location, multi-dimensional group. At present McNally executes EPC projects and has completed over 350 projects successfully. They cater to diverse sectors: power, steel, coal and mining, ports, aluminium, material handling, mineral processing, cement, water, oil and gas. Also infrastructure sectors such as buildings and townships, roads, metro, railways to name a few. With access to world-class technology through strategic tie-ups with the best companies around the globe, MBE is set to engineer further success.

With the subsidiary company like McNally Sayaji Engineering Limited (MSEL), MBE manufactures a wide range of equipment for all core sector industries. MSEL has five plants located at Kumardhubi (2), Asansol, Bengaluru and Vadodara. Association with another subsidiary, MBE CMT India Private Limited, has helped earn a good name in Coal and Mineral Beneficiation technologies. MBE EWB kft (Hungary), acquired by MBE in 2001, is among the leading Pneumatic Conveying and Ash Handling solution providers in the world.

Bucket Wheel Excavator Neyveli Lignite Corporation

Chairman's message

I am proud of MBE's achievements and contribution to Indian industry since 1961, a pioneer of state-of-the-art technology in many sectors. I have faith that Mr Srinivash Singh, Managing Director of the group, and his team, will pave the way to greater achievements. Be it in transportation, housing for all, power availability, water recycling, protecting the environment or preserving energy resources, MBE will offer solutions as best it can.

Aditya Khaitan, Chairman

Managing Director's message

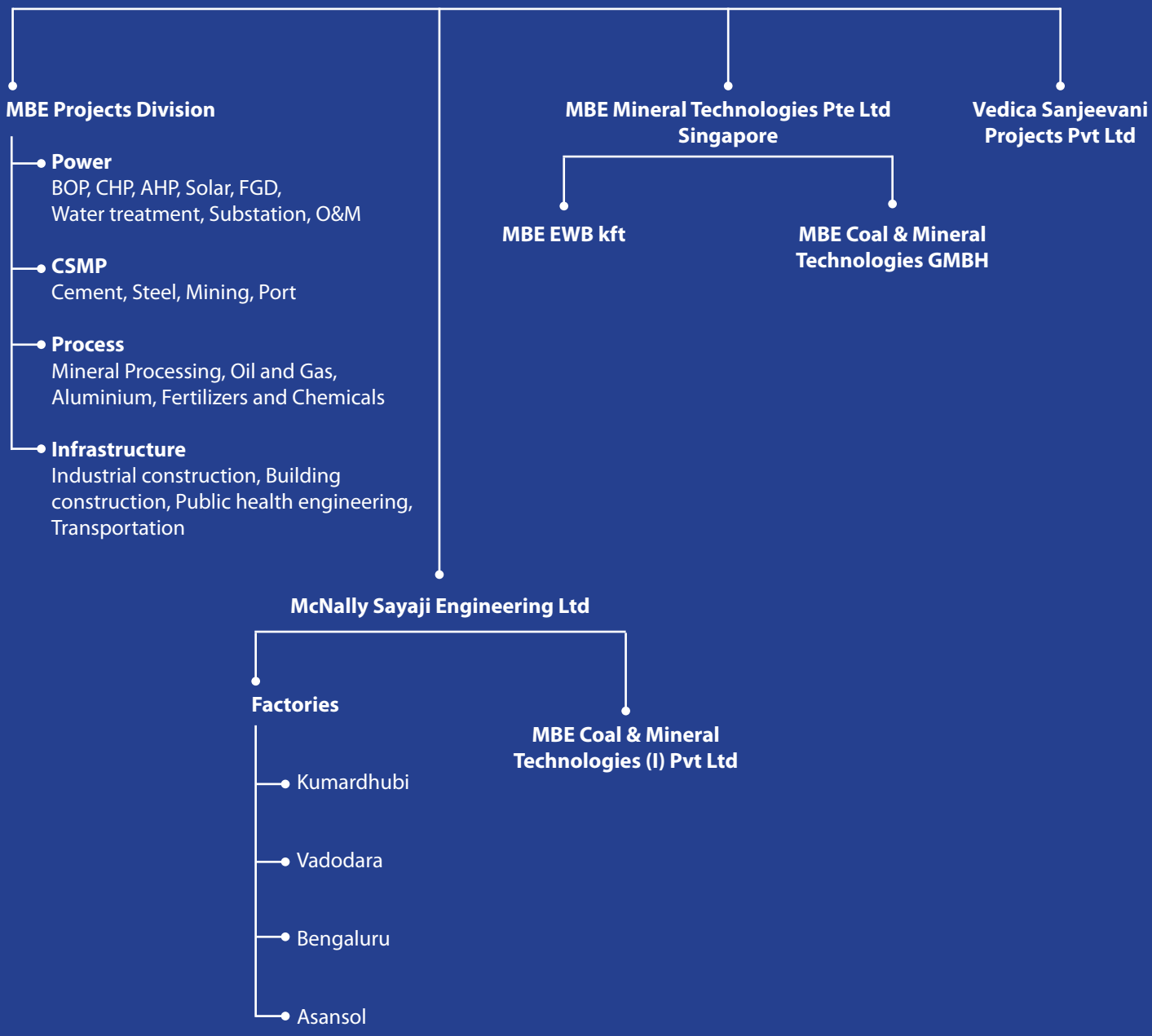
Over the years, MBE has grown from strength to strength, sustaining a deep passion to explore, innovate, and to go beyond. Our forays into new business sectors have earned us a name that will stand the test of time. Today MBE is a great force with ambitious plans. We have successfully spread operations across the globe and our dedicated team is more than fulfilling our expectations with vendors and contractors. The way forward is to continue to acquire world-class technology through strategic tie-ups and acquisitions. We hope to lead in the businesses we are building presently.

We also hope to improve on operational efficiency and productivity. Our key areas in the near future will be developing technology and training human resources. Considering all the initiatives being taken by us, we are sure to achieve the targets we have set for ourselves.

Srinivash Singh, Managing Director

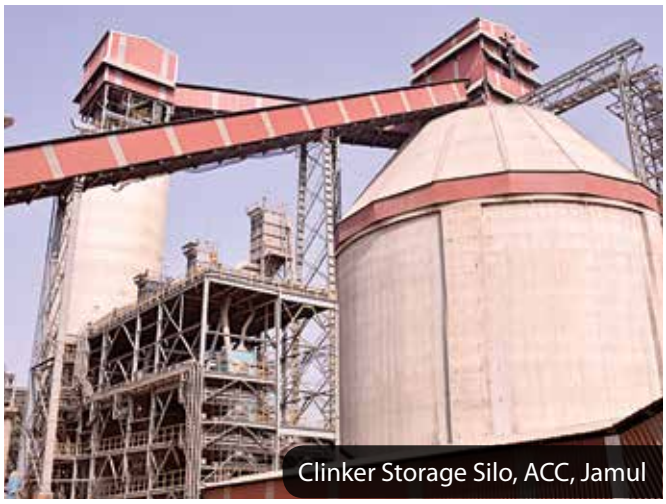
Group Organisation

McNally Bharat Engineering Company Limited



End to end solutions

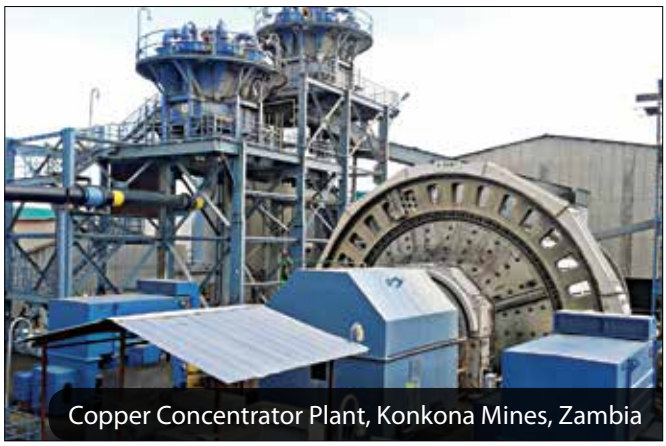
MBE's ability to execute projects rests in innovation, integrity and focus on the customer. This is what helped the company carve a class for itself. The determination to deliver on-time without compromising on quality is the hallmark. MBE is unique because it brings a lot under one roof; in-house design, detailed engineering, manufacture, procurement, construction and commissioning as well as overall project management.


Clinker Storage Silo, ACC, Jamul

As an expanding global player MBE has made a name for itself among international giants. Absorption of cutting edge technology coupled with a large base of highly experienced engineering professionals have been instrumental to the company's success.


BOP, MPPGCL, Satpura

MBE has successfully completed over 350 projects in many sectors. They span Bulk Material Handling, Mineral Processing, Coal Washing, Ash Handling, Balance of


Copper Concentrator Plant, Konkona Mines, Zambia

Plant (BOP) in Power, and a number of projects in Steel, Aluminium, Port and Shipyard, Cement, Water and Infrastructure sectors.

With nearly 1500 engineers MBE has built in-house capabilities for basic and detailed engineering, project management, supply chain management, manufacturing, quality control, construction, erection, commissioning and after-sales service support including operation and maintenance.

The projects' business are ISO 9000:2008 certified. MBE also has successfully implemented ISO 14001:2004 and OHSAS 18001.


By Products Recovery Plant, IISCO, Burnpur

Empowering tomorrow
Power Projects Division

The Power Projects Division has the following Business Verticals
Balance of Plant, Coal Handling Plant, Ash Handling, Water Projects, Solar Power, Substation, Flue Gas Desulphurisation System and Customer Services.


CHP, Ideal Energy


Rotary Breaker, Satpura TPP

Balance of Plant (BOP)

Excellent execution capability in different areas of BOP in Thermal power stations such as Coal Handling Plant, Ash Handling Systems, Water Management Systems, Piping, Fire Fighting and Protection Systems, Electrical Substation, Switchyard and Power Distribution, Instrumentation and Automation, complete Civil and Structural work. Utilities of around 2000 MW have the composite BOP systems provided by MBE, while more than 8000 MW units have different sub systems supplied by MBE like CHP, AHP etc which are in operation for decades.


Cooling Towers, Singareni TPP

Some landmark projects

- Complete BOP on EPC basis for Ideal Energy Power Plant (1 x 275 MW)
- Complete BOP on EPC basis for Satpura TPS (2 x 250 MW)
- Complete BOP for the Singaneri Collieries TPS (2 x 600 MW)


Ash Silo, Singareni TPP


Demineralisation Plant, Ideal Energy

Coal Handling Plants (CHP)

MBE is proud to execute the first cross country Coal Conveying System for the Orissa State Electricity Board, Talcher, and the first indigenously built 5,500 TPH Rapid Loading System with Silo at the Jayant Coal Handling Plant of Northern Coalfields. A pioneer in Coal Handling Plants, having executed over 150 such projects in the last 55 years, MBE has built plants of upto 3000 TPH capacity. Many utilities both run by government and private sectors have equipment and systems by MBE. They have been running satisfactorily for more than 5 decades. Backed up by MBE's factories, spread over the country, customers' appreciation has been pouring in regularly.

A few landmark projects

- 2000 TPH Coal Handling Plant for Sagardighi TPS Stage-II (2 x 500 MW)
- 3000 TPH Coal Handling Plant for jharsuguda TPS (4 x 600 MW)
- 2000 TPH Coal Handling Plant for Vindhyachal TPS Stage- V (2 x 500 MW)
- 1600 TPH Coal Handling Plant for NTPC, Ramagundam STPP (1 x 500 MW)

Coal Handling Plant, CESC

Stacker Reclaimer

MBE supplies almost all the equipment required for CHPs like Wagon Tippler with Side Arm Charger, Track Hopper with Paddle feeder, Long Distance Conveyors (troughed and piped), Stacker Reclaimers, Crushers, Impactors, Screens, Feeders, Travelling Trippers, wagon loading and unloading systems. In a nutshell, MBE is a one-stop shop for CHPs and associated equipment.

Wagon Tippler, CESC

Transporter Surge Hopper, Rihand 2

Ash Transporters under ESP, GMDC, Akrimota

Ball Mill for limestone, Bhavnagar Energy

Ash Silo, Bhavnagar Energy

Ash Handling (AHP)

MBE forayed into Ash Handling Systems for thermal power stations after acquiring EWB, Hungary, a world leader with a strong presence in Europe and South East Asia.
We are considered a leader in handling powdery material using Mechanical, Hydraulic, Pneumatic, Dense Phase and Lean Phase Transport along with storage and unloading. The company offers complete solutions, from concept to commissioning for these projects. One of the preferred vendors for power utility companies and consultants in India, MBE has earned a name through consistent hardwork. The clientele includes NTPC, BHEL, DVC, Neyveli Lignite Corporation, HPC, NALCO, MSPGCL, CESC, GMDC, Jindal Power, Vedanta Aluminium. These customers have placed repeat orders and have expressed their appreciation for the stable operating systems provided by us.

Some of the major projects are

- Complete Ash Handling system for Rihand STPP (2 x 500 MW)
- Complete Ash Handling system including HCSD for Mouda STPP (2 x 660 MW)
- Complete Ash Handling system including HCSD for Kudgi STPP (3 x 800 MW)
- Complete HCSD system for Talwandi Sabo TPS 1980 MW
- Complete Ash Handling system for Lignite based Bhavnagar Energy Power Plant (2 x 250 MW)

Solar Projects

In line with the government's increased focus on Renewable Energy sector, MBE has built its presence in the sector by providing Solar EPC services for large solar PV projects developed by private players and Government Bodies. MBE provides Design and Engineering, Project Execution, Project Management, Bid Management, Project Feasibility Analysis across large-scale Solar Photovoltaic Power Plants in India and abroad. Leveraging MBE's ability to deliver engineering excellence, the company provides turnkey EPC solutions to its customers.

Substations

McNally Bharat Engineering Company Limited offers for EHV Substations, the entire portfolio of Design, Engineering, Supply, Project Management, Erection, Testing, Commissioning and Maintenance Services. The EHV Substation Business unit is operated by a team of highly experienced professionals with profound experience in both green field and brown field jobs including Civil and Structural work. The division is executing a number of 132kV/220kV/400kV substations in both AIS and GIS versions including railway's feeding substation projects all over India, many of which have already been working satisfactorily after successful commissioning. Many of the substations are equipped with state-of-the-art SCADA system, which have been engineered and developed by MBE's in house engineering team.

MBE's experience includes

- Concept to commissioning of High Voltage Air Insulated Substations (AIS) up to 765 kV and Gas Insulated Substations (GIS) up to 765 kV and Hybrid Substations as per various National and International standards
- Successfully executed substation projects in India and overseas
- Major customers are PGCIL, WBSETCL and major Transmission and Distribution Utilities and many private players.
- Complete turnkey solutions for Balance of Plant and Industrial Electrification. The extensive list of credentials for EHV substation is a mark of acceptance of MBE as a competent solutions-provider for the range of AIS and GIS projects in India and abroad.

These include

- Project Feasibility Analysis across large-scale Solar Photovoltaic Power Plants
- Design and Plant Engineering
- Project Management and Execution
- Supply of Key Performance Equipment for Solar PV Plant
- Supply of Structures for Fixed Tilt and Tracking Systems
- Complete Civil Works
- O&M Services

Switchyard

Substation, Ideal Energy

Flue Gas Desulphurisation

MBE is deeply dedicated to caring for the environment. This is why the company has forayed into providing EPC solutions for Flue Gas Desulphurisation. The new MOEF guidelines make it mandatory for major power utilities to install the system. The company provides different equipment for milling/crushing, conveying of limestone and gypsum coupled with technology for desulphurisation from world leaders. This enables the company to provide customised solutions for different utility owners.

Water Projects

Over the years MBE has gained knowledge and expertise in building large water projects on turnkey basis comprising design, engineering, construction, supply, mechanical erection, piping, electrical, instrumentation and automation work in various industrial sectors.

MBE's Water projects experience includes large intake comprising Pumping Stations, Construction of Intake Well and Bay, Stop Lock Gates and Penstock Valves, Screens; Water Pre-Treatment Plant comprising Stilling Chamber, Cascade Aerator Basin, Large Clariflocculators, High Rate Solids Contact Clarifiers, Large Chlorination System, Gravity Sand filtration and other tertiary treatments including Demineralization Plant, Ultra Filtration etc.

Clarifier, Ideal Energy

MBE is a one-stop shop for total Water Management. We provide comprehensive solutions for Total Water Management.

Raw Water Treatment Systems

- Large Industrial Water Treatment Plant
- Municipal Water Treatment Plant
- Drinking Water Treatment Plant

CW Pump, Satpura BOP

Wastewater Treatment Systems

- Conventional Sewage Treatment Plant
- Advanced Sewage Treatment with SBR/ MBBR/ MBR technology
- Large Effluent Treatment Plant

Advanced Tertiary Water Treatment Systems

- Sea Water Desalination
- Tertiary Water Treatment Plants with MF/ NF/ UF – RO/ DM – MB/ EDI/ EDR

Water/Sewerage Transmission and Cross-country Piping

- Under Ground Drainage and Cross-country pipelines
- Water Intake, Pumping, Transmission and Distribution Systems
- Elevated/ Ground Level Service Reservoirs (ESR/ GSR)

The impressive client list includes BHEL, DVC, BCCL, HINDALCO, HZL, Ideal Energy, KMC, MPPGCL, NLC, Ahmedabad Municipality, NMDC, NTPC, RUIDP, SAIL, TN Water Board, OTPC, BSES, BCCL.

Aerator, Satpura TPP

RO Plant, Ideal Energy

Customer Service

MBE is a trusted provider of Operation and Maintenance Services in Power Plants, Refinery, Ports, Steel Plants, Mining, Aluminum Plants and Material handling Systems. Our Operation and Maintenance Services include complete material handling (Ash Handling Systems, Coal Handling Plants, Mill Reject Handing Plants, Coke Handling Plants, etc), Balance of Plant, Boiler and Turbine for Thermal Power Stations. Conveyor systems including equipment for Mining & Raw material Handling Plants, Heavy Stockyard Bulk Cargo Machinery and Port Handling System including Complete Berth.

CHP Controlroom, KSK

Silo inspection, AHP

Wagon Loading, HPCL Mittal Energy

MBE is executing various O&M Contracts all over India. Some of the key projects being executed are the three prestigious comprehensive KPI (Key Performance Indicator) based O&M contracts of CHP and BOP at Adani Power Limited and KSK Energy Ventures Limited. The KPI scope includes coal quality loss, belt utilization factor, preventive maintenance compliance, equipment availability, system availability, spare consumption pattern, various standard documentation, Occupation Health Safety and Statutory Compliance (zero accident), coal unloading (zero demurrage) and coal yard management. MBE's performance in O&M services has earned the trust of customers like DPL, WBPDCL, Adani Power Limited, HPCL – Mittal Energy Limited, KSK Energy Ventures Limited, Bajaj Power Limited, MPPGCL, APGENCO, NLC, MSPGCL, CSPGCL, ESSAR Power Limited, Vedanta, JSL, India Bulls, LPGCL, CGPCL and so on.

O & M Team at Adani Tiroda

Cement, Steel, Mining and Port Division (CSMP)

Steel

MBE has a strong presence in the Steel sector in Material Handling Systems since decades. The company's activity has been further strengthened by strategic tie-ups with global technology providers in packages for Steel Plants like UKR – GIPROMEZ / TPE (Russia), DMT (Germany), Siemens VAI, Austria (now merged with Primetals) SMS Meer, Germany (now merged with SMS Group) and also with Danieli Corus (Netherland) through TPL.

MBE offers turnkey solutions in the following areas

- Sinter Plant
- Coke Oven By-Product Plant
- Pickling Line and Tandem Cold Rolling Mill
- Rolling Mills
- Stock House for Blast Furnace

MBE has built the largest Sinter Plant in RINL-VSP which is running successfully. Along with DMT, the company has introduced Pollution free Claus Process in Coke Oven By-Product Plant for the first time in India at SAIL-ISP and the plant is operating successfully. MBE has designed in-house and constructed Pipe Conveyor System for SAIL-RSP.

Sinter plant III, RINL, Vizag

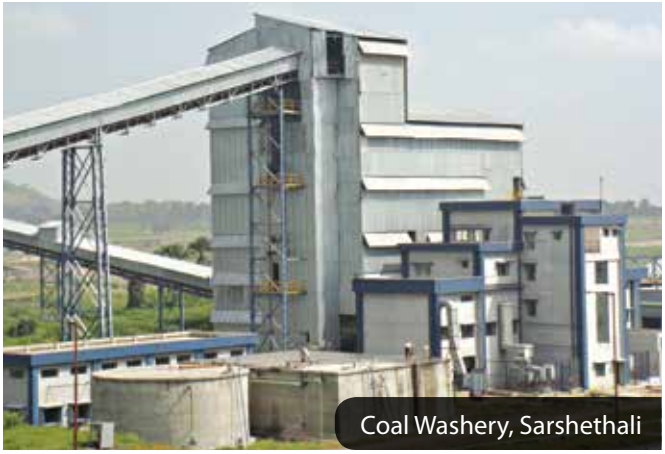
Some of the landmark projects completed

- Sinter Plant 3 (408 m^2) for Rashtriya Ispat Nigam Limited, Visakhapatnam Steel Plant, in association with UKR – GIPROMEZ / TPE (Russia) at Visakhapatnam.
- Coke Oven By-Product Recovery Plant for Battery 11 for SAIL – IISCO in association with DMT, Germany at Burnpur
- Blast Furnace Stock House (BF - 5) for SAIL – Rourkela Steel Plant

By Products Recovery, IISCO, Burnpur

- Pickling Line and Tandem Cold-Rolling Mill for SAIL– Bokaro Steel Plant in association with Siemens VAI, Austria
- Raw Material Handling System – Ore Handling Plant for SAIL – IISCO at Burnpur
- Inter Plant Transportation facilities for SAIL – Rourkela Steel Plant at Rourkela
- Coal Handling Plant (Coke Oven Battery 6) for SAIL – Rourkela Steel Plant at Rourkela
- Sinter Screening and Conveyor station for Blast Furnace Stock House for SAIL – Durgapur Steel Plant (SAIL –DSP) at Durgapur
- Raw Material Handling System – Ore Handling Plant for SAIL – Durgapur Steel Plant at Durgapur
- Coke Oven By-Product Plant (BPP-3 for COB-11 and BPP-1 for COB-1 to 6) for SAIL-Bhilai Steel Plant with DMT, Germany at Bhilai
- Manufacture, assembly, supply of Technological structures, cross transfer equipment for Universal Rail Mill for SAIL- Bhilai Steel Plant at Bhilai.
- Supply of Plant & Equipment for Coke Oven Plant and By-Product Plant for Bhusan Power & Steel Limited at Rengali, Odisha
- External Water Supply System for B.O.F. and C.C.P. for Expansion of SAIL – IISCO at Burnpur

Iron Ore Beneficiation, Fomento, Goa



Coal Washery, Sarshethali

Coal and Mining

MBE has been involved In Coal and Mining sector for over five decades, having built over 150 Coal Handling plants till date. The company has built the first 6 major Coal Washeries in the country and the first indigenously designed 700 TPH Coal Washery at Sudamdih. With the acquisition of Coal and Mineral Technologies Division of KHD Humboldt Wedag, Germany, MBE possesses state-of-the-art Coal Washing Technology for executing Coal Preparation/Washing Plant of any capacity on EPC basis.

Cutting edge technology in Iron Ore Beneficiation and Pelletization and expertise for Ore Beneficiation through Gravity Separation Technology as well as Magnetic Separation Process is all in MBE's scope. The company has upgraded several Iron Ore Beneficiation Plants with latest equipment for use as Sinter Grade fines as well as production of Concentrates used for Pelletization Plant.

Some of the Coal Washeries built till date

- 1.5 MTPA Coal Washery at Sarsethali, Asansol, West Bengal for CESC Limited, Kolkata
- Fine Coal Treatment Pilot Plant for Central Fuel Research Institute (Dhanbad)
- 100 TPH Coal Washery at Barora Colliery for Bharat Coking Coal Limited (Dhanbad)
- 150 TPH Coal Washery at Mohuda for Bharat Coking Coal Limited (Dhanbad)
- 700 TPH Coal Washery at Sudamdih Colliery for Bharat Coking Coal Limited (Dhanbad)
- MBE is a pioneer in building Coal Handling Plants with Rapid Loading System and has constructed the following Plants with Rapid Loading System
- 5500/6000 TPH Rapid Loading System at Bharatpur for South Eastern Coalfields Limited, Bilaspur
- 5500 TPH Rapid Loading System (twin silo) at Gevra for Western Coalfields Limited, Nagpur (through McNeill and Magor Limited, Kolkata)
- 4500 TPH High Speed Rapid Loading Station with Silo at Jayant Coal Handling Plant for Central Coalfields Limited, Ranchi (now renamed Northern Coalfields Limited, Singrauli)
- Coal Handling Plant with silo loading arrangement at Bharatpur for Mahanadi Coalfields Limited, Sambalpur

CHP & Silos, Bharatpur, Mahanadi Coalfield

Cement Storage Silos, ACC

Cement

MBE is the only EPC Company in the country to have built a Cement Plant on turnkey basis. The company has a strategic tie-up with KHD Humboldt Wedag, Germany, a globally renowned company for process technology and critical equipment for cement plants. In association with KHD, MBE has built a world class 9000 TPD Cement Plant at Jamul, Chhattisgarh. This has state-of-art technology and is highly appreciated by ACC Group and other cement manufacturers.

MBE's scope of supply in Cement Industry as an EPC company

- Detailed Engineering including Process, Mechanical, Civil, Structural, Electrical, Utility, Automation and Instrumentation
- Supply of major critical equipment like Pyroprocessing Kilns, Raw Mills, Coal Mills, Cooler, Crusher and Stacker/ Reclaimer. In the event the Clinker Grinding Mills are procured by clients directly, MBE can ensure interfacing of the equipment with the plant system including their installation work
- Sourcing of other equipment from reputed suppliers and co-ordination with them for engineering, quality and timely delivery
- Construction including civil and structural work and erection of plant and equipment by in-house construction group
- Overall project management by an experienced project management team for timely completion of project
- Pre-commissioning trials, commissioning and performance guarantee of the plant
- Providing after-sales service including supply of spares and operation and maintenance support

Pyro Processing Section, ACC

9000 TPD cement plant, ACC Jamul

Port

MBE has a strong presence in port and shipyard handling equipment, as well as machinery for mines and shipyards.

Cranes

MBE has collaborated with world famous Kone cranes, Finland since 2002 to supply a number of large cranes used in ports and shipyards. These include Electric Level Luffing Cranes up to 100 T capacity, Goliath Cranes up to 2000 T capacity, Ship Unloaders for coal and iron ore of 2500 TPH free digging capacity, single and twin lift Rubber Tyred Gantry Cranes, Ship to Shore Cranes and so on.

MBE is the only indigenous manufacturer of large Goliath Gantry cranes, having supplied the nation's biggest Goliath cranes to major shipyards under Ministry of Defence.

- 300 tonne capacity with 95 meters span and 70 meters lift height at Cochin Shipyard Limited
- 250 tonne with 116 meters span and lift of 60 meters height at Garden Reach Shipbuilding Engineers
- 300 tonne capacity with 138 meters span and 75 meters lift height at Mazagon Dock Limited
- The company also supplied five high capacity Electric Level Luffing Cranes of 25 tonne and 16 tons to Kandla Port Trust and three 45 T cranes to Goa Shipyard Limited. MBE is executing a 80 tonne capacity Level Luffing Tower Type crane for the Indian Navy in Vizag Naval Dockyard.

45T Level Luffing crane, Goa Shipyard

MBE has supplied eight Barge Unloaders of 750 TPH free digging capacity to Mormugaon Port Trust and two 40 T capacity container handling Rail Mounted Quay Cranes (Ship to Shore Cranes) to Haldia Dock.

Stockyard and Mining Machinery

In collaboration with Poltegor Engineering, Poland, MBE has supplied to Neyveli Lignite Corporation (NLC) the following equipment

6000 TPH, Stacker Reclaimer, Adani Port

Goliath Crane, Mazagaon Dock

- Three 3460 cum per hour capacity crawler mounted Bucket Wheel Excavators
- Two 4420 cum per hour capacity crawler mounted Spreader
- Two systems of 1600 mm width conveyor for a total length of 7 km with a conveying capacity of 6000 TPH
- Four 2400 mm width conveyor with 5.2m/sec speed for a total length of 6 km with a conveying capacity of 2000 T per hour

In design collaboration with M/S Poltegor, MBE has supplied more than 50 stacker reclaimers in India including 6000 tph stacker reclaimers to Adani Port, 4000 tph stacker reclaimers to Karaikal Port with 48 m boom length and several others to clients like Paradip Port Trust, NTPC, BHEL, ACC, WBPDCL, APSEZL, and Essar Group.

Wagon Tipplers and Paddle Feeders

In technical collaboration with M/s Famak of Poland, MBE developed its first Rotaside Wagon Tippler along with side arm charger in 2008 and since then has supplied more than 15 wagon tippler sets to reputed clients like SAIL, NTPC, Sterlite Group, ACC, WBPDCL, BHEL as per RDSO G-33 norms. Paddle Feeders with Famak collaboration have been successfully installed in IISCO.

Complete material handling system in Ports on EPC basis

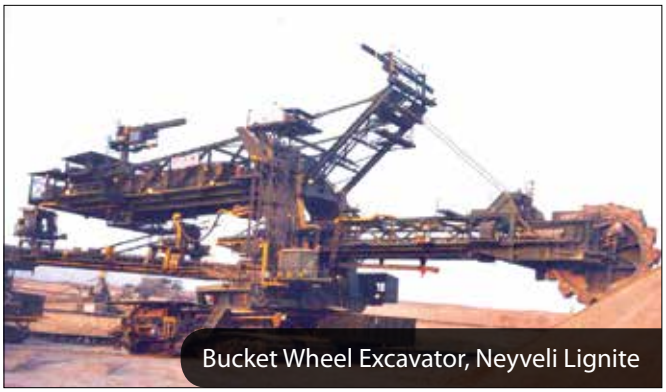
MBE is capable of undertaking complete mechanization of material handling system on the berth and stackyards in ports including design, supply and erection commissioning of complete material handling facility from loading/ unloading of cargo, conveying the cargo by conveyors either directly to the rapid loading stations/ from wagon tippling stations for loading in trucks or in rakes/ships or stocking into the stackyards by stackers. The company has already supplied such stacker reclaimer system along with conveyor package with rapid loading system to Karaikal Port Trust for import of coal.

Rail mounted quay crane, Haldia Port

Operation, Maintenance and Spares

Ensuring low downtime of equipment supplied is a high priority of the company. MBE has done O&M for the RMQCs supplied at Haldia docks since 2005. O&M services are being provided for four Electric Level Luffing Cranes for more than a decade. Goliath cranes supplied to Mazagon dock and GRSE are being maintained since their commissioning.

Wagon Tippler, Vedanta, Jharsuguda



Bucket Wheel Excavator, Neyveli Lignite

Barge Unloader, Murmugoa Port

Infrastructure Projects Division

MBE has substantial capability in executing large construction projects, having a capacity for fabrication and erection of over 250,000 MT of structural steel works and erecting over 150,000 MT of equipment annually. In the area of structural concrete MBE has the capability for 500,000 cubic meters concreting and 60,000 MT of reinforcement steel works annually. Construction activities undertaken are not limited to industrial construction but also include high rise buildings (Commercial/Residential /Institutional/Industrial), Sewerage and Drainage, Water supply, Transportation (roads and bridges), WTP, STP, ETP. Over 1000 engineers are engaged in various construction projects supported by a huge task force of contractors to execute projects of any size within contractual completion time with emphasis to safety and quality. MBE owned inventory constitutes construction equipment such as automatic high capacity Batching Plants, concrete pumps including Boom Pumps, Transit Mixers, Hydraulic Piling Rigs, Excavators, Rock breakers, Dumpers, Compactors, Gantry cranes, Tower cranes, Mobile cranes and Hydras. The infrastructure division consists of the following major verticals

- Industrial Construction
- Building Construction
- Public Health Engineering
- Transportation

Industrial Construction

MBE is one of the major entities in India in executing industrial construction from the date of its inception. The expertise in industrial construction includes Coal handling plants, Balance of plants, Ash handling plants, Ports, Mining, Cement plants, Power plants, Beneficiation plants and more.

Structural Works, BPCL, Mahul

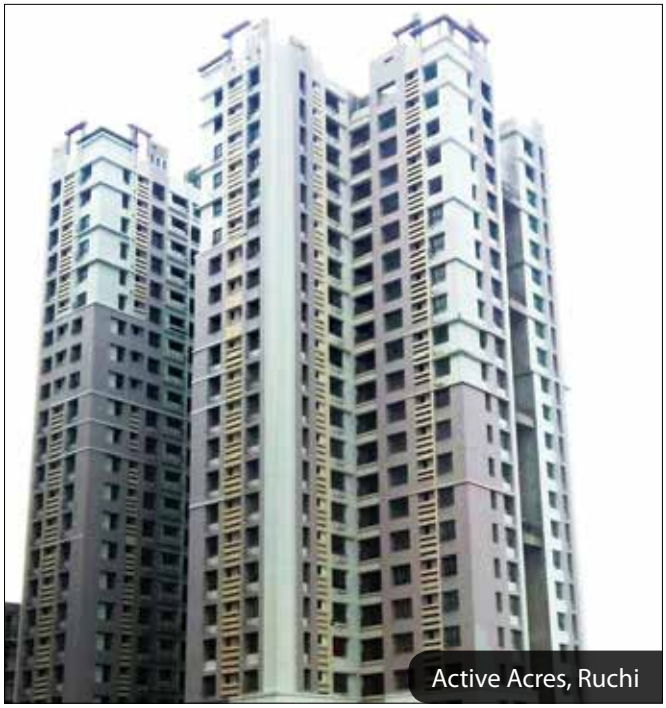
Silo, Vedanta, Jharsugda

275 meter Chimney, BOP Satpura

Building Construction

Apart from industrial construction MBE has substantial credentials in construction of high rise buildings (Commercial/Residential/Institutional). The building construction credentials is not only limited to civil structural works but also include Electrical, HVAC, BMS, Fire fighting, Sanitary plumbing, Area development work, Finishing works. Presently MBE is exploring the green building, low cost construction technology and will soon implement the same in booming mass housing construction.


Tata Consulting Engineers


Active Acres, Ruchi

Public Health Engineering Sectors

MBE has executed good number of Water Transmission and Distribution and Sewerage Projects for Ahmedabad Municipal Corporation, Tamil Nadu Water Supply and Drainage Board, RUIDP, NTPC, KMC and DVC. MBE has left its mark as a successful implementer of River water intake systems, Pre-treatment plants, Filtration and softening plants, Water treatment plants, Effluent treatment plants and Sewage treatment plants.


Effluent Treatment Plant


Riverdale, Howrah

Transportation Sectors

MBE forayed into transportation sector through esteemed clients like Delhi Metro Rail Corporation, JUSCO, RVNL, NHAI and State PWDs and bagged valuable credentials in the field of roads, bridges, elevated metro stations and more.


Gajol Hilli Road

Process Projects Division
Non Ferrous Mineral Processing, Oil and Gas, Chemicals and Fertilizers and Aluminium

Non-Ferrous Mineral Processing

This SBU has been a pioneer in the construction of Mineral Processing Plants in the country. The first indigenously designed and built mineral processing plant in the country, the Fluorspar Beneficiation Plant for GMDC was built by MBE. Most of the major mineral beneficiation plants in the country catering to various minerals like zinc, lead, copper, uranium, iron, fluorspar, gold and rock phosphate were built by MBE.

Mill House & Fine Crushing Building, UCIL

Some of the prestigious projects executed

- Lead-Zinc beneficiation Plant for Hindusthan Zinc at SK Mines and Rampura Agucha Mines.
- For Vedanta, Konkola Mine, Zambia, executed a 330 TPH West Mill Concentrator Plant and a East Mill Flotation circuit for copper ore.
- 3000 MT per day crushing, grinding and thickening plant of uranium ore for UCIL, Tummalapalle, Andhra Pradesh.
- Mine Pastefill and Hydrofill plants at SK Mines
- 2.7 MTPA Lead-Zinc Beneficiation Plant at Zawar Mines for HZL.

Oil and Gas Sector

MBE today is equipped to take up turnkey contracts in the Oil and Gas sectors. It has forayed into this sector and has executed the following projects

- Civil and Structural work for CDU-4 Project at BPCL, Mahul Refinery
- Mechanical works for offsite 1 for Brahmaputra Cracker and Polymer Limited at Lapetkata, Assam

The Petcoke Handling System under execution on turnkey basis as part of upgradation project of Chennai Petroleum Corporation Limited includes Pipe conveyor and Trough conveyor with Circular Stacker Reclaimer having dome shaped circular stock pile.

Offsite Pipework, Brahmaputra Refinery

Chemical and Fertilizers

Presently MBE is in the process of renewing the credential in the Chemical and Fertilizer segment. The focus area is in the Urea Handling Bagging and Loading system.

Aluminium

In the Aluminium sector MBE has been involved in the Smelter and Refinery section in association with international technology providers.

In the refinery, the company executes complete turnkey projects for Bauxite Grinding and Storage System, Evaporation Package for Aluminate liquor concentration and Red Mud Thickening and Disposal Systems. In the Smelter, MBE executes on turnkey basis Pre Baked Green Anode Plant (GAP), Carbon Recycling (Butt Handling), Bath Processing with Autogenous Mill, Anode storage, Baking Furnace, Fume Treatment plant for Baking Furnace and Rodding shop.

The company also manufactures and installs Pots including civil works and superstructure, Alumina unloading and storage system, Gas Treatment Centre for Pot line and Hyper Dense Phase System for Pot Feeding. MBE has built the largest number of Anode Paste and Prebaked Green Anode Plants in India. Carbon Paste Plants have been built for INDAL in Hirakud and Belgaon, BALCO in Korba and NALCO in Angul.

Green Anode Plants have been built for NALCO in Angul, BALCO in Korba, Vedanta in Orissa. The 35 TPH capacity Green Anode Plant in Korba has been built by MBE in 19 months, which is a world record for early completion. Some of the other projects executed are

- Evaporation Plants for Alumina Refinery for NALCO, Damanjodi and Utkal Alumina, Rayagada
- Hyper Dense Phase System for NALCO, Angul and Indal, Hirakud
- 80,000 TPY Carbon Recycling System and 97,500 TPY Bath Handling System for NALCO, Angul

Mills, HZL, Rampura Agucha

NALCO, Damanjodi, Evaporation Plant

VEDANTA, Konkona Mines, Zambia, Copper Concentrator

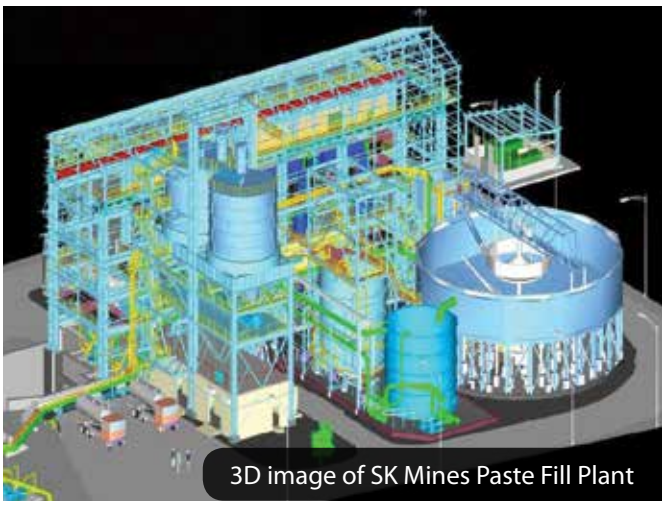
VEDANTA, Green Anode Plant

Resources

Design Engineering capability

Engineering is the core strength of McNally Bharat and we consider engineering as the key function which ensures flawless execution of EPC projects as well as continuous development of the existing systems and equipment. The engineering department is centralized to ensure proper utilization of the manpower as well as to enrich the vast knowledge and experience gathered over the years by sharing among designers with versatile perspectives. The engineering capability of MBE has been recognised due to following factors

- Enriched in-house engineering setup
- R&D setup with latest software/tools
- Vast experience and knowledge pool for setting up large plants across various Industries
- Access to state-of-the-art technology through strategic alliance and collaboration
- Closely associated with reputed design firms and R&D organizations for critical analysis of developmental products or system



3D image of SK Mines Paste Fill Plant

The in-house engineering department is capable of carrying out both Basic and Detail Engineering of EPC projects from scratch. MBE also provides engineering support for developing the system parameters and criteria to satisfy requirement of end users.

The Centralized engineering department has the following disciplines

- Process and Mechanical
- Piping and Utility
- Electrical
- Instrumentation and Automation
- Civil
- Structural

MBE is equipped with the latest engineering software including Auto CAD 3D, STADDPRO, XSTEEL, CAESAR, ANSYS, CREO, Solid Works, Pump Links and so on.

Project Management

Project management process starts with defining the project and assigning a unique project ID and Project team in ERP (Oracle) system after an order is received by the company. Project milestones, plan and execution strategy are finalised based on project requirement and objectives which are further developed including preparation

- Project execution plan in project scheduling software like MS Project and Primavera covering
- Engineering plan and Document Control System
- Ordering package and Procurement schedule
- Area-wise construction plan
- Cost budget – item-wise cost budget is finalised and uploaded in ERP through Primavera
- Revenue budget
- Cash flow budget

Reviews of the above plans are done periodically by Project Management team. Primavera scheduling software is integrated with Oracle ERP and updates/revision of schedule and cost budget is uploaded from Primavera. All project construction sites are also connected to central ERP system through VPN/VSAT/ISDN and data is captured in ERP system real time.

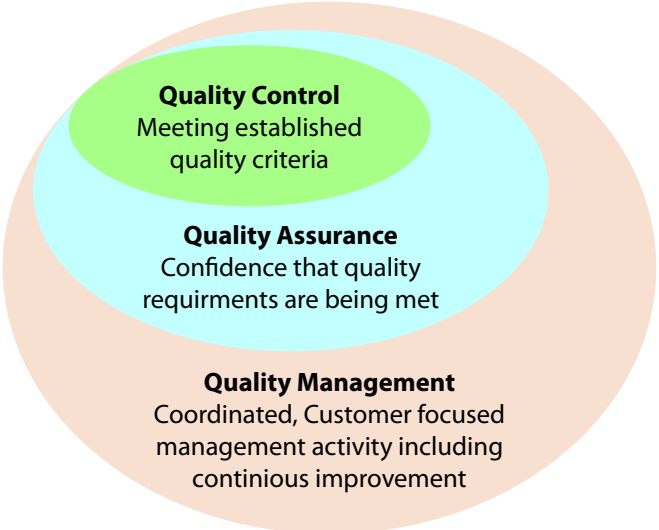
Data about the progress in projects is updated periodically. Project monitoring and control is through in-house developed MIS system in ERP. Project-specific online dashboards and custom reports assist project managers and monitoring team to track, identify, monitor and control problem areas and issues. In addition, periodical review of the projects is carried out by senior management. This helps to sort out critical issues and take strategic decisions for achieving project and Company objectives.

Quality Management Systems

MBE's mission is to provide customers with quality products and services that meet or exceed their expectations. The continuous improvement of quality is based on a Quality Management System that aims for total customer satisfaction where emphasis is given to all aspects of quality to the handover of a product to the customer that satisfies stated and implied requirements.

MBE is certified with various management system certifications such as ISO9001, ISO14001, OHSAS 18001 & ISO/IEC 17025. Most of the QA QC engineers are certified internal auditors for QMS

- A team of fifty QA engineers are located at head office and at different project sites to control and ensure QA and QC activities
- QA engineers are qualified in various non-destructive tests viz. RT, UT, MT, VT and PT according to ASNT/ISNT guidelines
- MBE has an in-house non-destructive testing laboratory in Kolkata. The laboratory is accredited by NABL as per guidelines of ISO/IEC 17025 : 2005
- To cater to large volumes of inspection load within various locations of the country and abroad, globally reputed Third Party Inspection Agencies like BV, Lloyds, TUV and IRS are deployed to carry out inspection and testing on our behalf
- MBE is having wide range of different types of measuring and testing equipment which are calibrated maintaining National/International traceability
- QA engineers are conversant with various National and International codes and standards such as IS, BS, ASME, ASTM, AWS, ISO, EN, DIN as per the requirements specified by the customers



MBE follows the concept of QM/QA/QC model in its activites

Occupational Health and Safety

McNally Bharat Engineering Company Limited carries out operations in a manner that provides a safe and healthy workplace for all employees, stakeholders and the community at large. We are committed to achieve Occupational Health and Safety (OH&S) excellence through belief such that all accidents are preventable. Every task is important but not at the cost of risk of injury to the people and occupational illness or damage to the property. Working Safely in an environmental friendly manner is the condition of employment.

MBECL's OHSMS (Occupational Health and Safety Management System) is OHSAS 18001 certified. MBECL has a dedicated OH&S Policy at corporate level.


NATIONAL SAFETY COUNCIL OF INDIA

GREEN TRIANGLE FOR SAFETY

SAFETY AWARDS - 2015

Construction Sector

CERTIFICATE OF APPRECIATION

This Certificate is awarded to

The Establishment : McNally Bharat Engineering Co. Ltd. Durg, Chhattisgarh

for

The Project : ACC Jamul Expansion Project

of

The Client : ACC Jamul Cement Works Durg, Chhattisgarh

in recognition of appreciable achievement in Occupational Safety & Health during the Assessment Year 2014

V. B. SANT
DIRECTOR GENERAL

Navi Mumbai: 6 April, 2016

OH&S being an integral part of our all operations, we shall visibly uphold the principles of this policy

We have received several awards in recognition of our commitment to health and safety standards across our operations. MBE has also bagged many safety awards from National Safety Council of India (NSCI) and International awards from The Royal Society for the Prevention of Accidents (ROSPA).

Subsidiaries

McNally Sayaji Engineering Limited (MSEL)

MSEL is one of India's leading manufacturers of crushing, screening, grinding, material handling and mineral processing equipment, serving the core sector industries mainly iron ore, coal, steel, zinc and copper, limestone, rare earths and other mineral businesses as well as aggregates for the last 60 years.

The product range includes various types of crushers (both jaw and roll), impactors, screens (linear, circular, roller and flip flo), ball and rod mills, various types of feeders (apron, grizzly, reciprocating etc.), mineral beneficiation equipment like slurry pumps, thickners, floatation cells, filter press, scrubbers and more. The company also manufactures products for the construction sector such as mobile crushing-and-screening plants and skid-mounted crushing plants. Besides its own range of equipment, the company has also successfully manufactured various stock yard equipment such as stacker reclaimers, wagon tipplers, paddle feeders, open cast mining machinery such as bucket wheel excavators, shiftable conveyors, spreaders and port cranes. MSEL has recently also ventured into manufacturing critical fabricated equipment for nuclear power industry like reactor building and main air lock doors. The Asansol and Kumardhubi units have been manufacturing critical equipment for the steel industry (for blast furnace, billet and bloom caster and convertor) as per the designs provided by most of the major international steel plant equipment manufacturers.

MESL has five manufacturing units located at Kumardhubi in Jharkhand, Asansol in West Bengal, Bengaluru and Vadodara. The manufacturing units have ISO 9001 – 2008 certification. In addition, the Kumardhubi Unit is certified for ISO 14001-2015. With marketing and branch offices located at Kolkata, Vadodara, Kumardhubi, Bengaluru, Chennai, Secunderabad, Cochin, Nagpur, Vizag and Vijayawada, MSEL is geared to provide total customer support in any part of the country.

MSEL has absorbed technology over the years through various strategic alliances and has established a strong R&D and design and development team to provide optimum and cost effective solutions to customer needs. The company boasts of a long list of customers and include all the steel majors like TISCO, SAIL, JSPL, JSW, Bhusan, SESA Goa, ESSAR, all subsidiaries of Coal India Limited, several installations of NTPC, several power corporations, NMDC, HZL, HCL, UCIL, several cement manufacturers like ACC, Ambuja, Dalmiya and more. MSEL has worked for all the major design houses and EPC majors like BHEL, MECON, L&T, Stemcor, Shriram EPC, EPIL, HDO, Thermax, Tata Projects Limited and TCE. Besides India, MSEL has several equipment installed in countries like Russia, Kenya, Mozambique, Zambia, South Africa, Indonesia, UAE, Oman and Saudi Arabia.

Manufacturing facilities

Kumardhubi

The MBE story began here in 1961 when McNally Pittsburg set up a state-of-the-art plant in the middle of the coal belt. Since then facilities have been upgraded and today there are few in the country to match the infrastructure available there.

With a covered area of 18,750 m^2 out of 51,000 m^2, the Kumardhubi unit has 70 MT overhead crane handling capacity, plate rolling facility of up to 120 mm thick, Vertical Boring Machine of work diameter up to 8 mtrs, Skoda CNC Boring Machine with 8 mtrs travel, Gear Hobbing Machine up to 8 mtrs work diameter, dual head CNC Profile Cutting Machine, several Lathes up to 5 mtrs bed length and several other special purpose equipment for manufacturing grinding mills up to 5 mtrs diameter, crushers, feeders and screens.
The Kumardhubi unit is an integrated unit having Engineering and Design, Marketing and Product Support, Purchase, Manufacturing, Assembly and QA under one roof

Kumardhubi, Machine Shop

to provide customers a total solution from design to installation and commissioning. The unit has ISO 9001 and 14001 certification with NABL accreditation for its mechanical testing laboratory.

Kumardhubi unit manufactures all types of crushers, screens, grinding mills, feeders and other equipment for bulk material handling, port handling and ash handling. It has a rich experience of manufacturing many stacker cum reclaimers, the largest goliath crane in the country, bucket wheel excavators and one of the longest apron feeders in the world.

Vadodara

The Vadodara unit is located at Savli, GIDC in Gujarat and has a land area of 100,700 m^2 with 42,500 m^2 covered. The region falls on the Savli-Halol route of the Delhi-Mumbai Investment Corridor (DMIC), NH 8. Savli has been recognised as a location for Export Promotion Industrial Park (EPIP), which is proposed to be elevated to the Special Economic Zone (SEZ). The nearest deep sea port is Dahej, 150 km away and the nearest airport is Vadodara, 14 km away.

This unit has four bays each 26 m wide and 150 m long with 13 m hook height and 100 tonne crane handling facility. The flooring is of RCC tri-mix capable of handling large loads. The open yard is approximately 35000 sq m. Apart from the manufacturing bays, the unit has a fully furnished office block of 1082 sq m and a separate modern canteen block. Power connection is from 33 kV HT line through a 1000 kVA transformer. The unit is ISO 9001 certified.

It has a dedicated Design Team and is equipped with all kinds of manufacturing facilities for fabrication, machining, assembly, inspection and testing. The Vadodara unit manufactures "SAYAJI" brand of jaw crushers, roll crushers, hammer mills, impactors, coke cutters, various types of screens and wheel mounted crushing and screening plant.

Vadodara Unit

Bengaluru

This unit is located at KIADB Industrial Area in Malur, 35 km from Bengaluru. Malur lies on the main rail line between Bengaluru and Chennai.

The unit is housed in a 16,000 sq m plot and has a factory shed of 4,000 sq m and a modern office block. The factory shed comprises of two bays of 20 m width and 100 m length with crane hook height of 12 m and capacity of 20 MT. The factory has a fully equipped fabrication shop and a modern machine shop with CNC machines.

The product range at Bengaluru comprises a variety of processing equipment largely catering to mining and minerals, coal and power sector though some of the equipment do find applications in other sectors as in chemicals, glass, cement and others. The equipment range includes Slurry pumps, Thickners and Clarifiers, Flotation cells, Filters, Centrifugal concentrator, Magnetic separator, fine screens, Conveyor pulleys and Pressure Vessels. Each product in the range reflects technology that is in line with the best in the world today.

The unit manufactures equipment of high quality and each product is fully assembled and tested before dispatch.

Asansol

The Asansol unit is located at ADDA Industrial Complex near Kolkata and connected to the NH2 by a 20 m wide road. The total area is 25 acres (101,171 sq m), of which covered area is 17,463 sq m. The covered area consists of 4 manufacturing bays, each 100 m long and 22 m wide with an overhead crane carrying capacity of up to 100 MT and a hook height of 12 m and RCC trimix flooring for handling large loads.

The Asansol facility has several large machining centres like CNC Turning Centres, CNC Horizontal Boring Machines, Horizontal 5 axis Milling and Boring Machine (6 m by 2.6 m), Horizontal Floor Borer (2.5 m by 13 m), CNC Profile cutting machine and Submerged Arc Welding machine (Column and Boom and Trolley type), 4 roll Plate Bending Machine (up to 150 mm thickness, 3500 mm width) besides other equipment required for large precision machining and fabrication.

The unit has manufactured various special purpose steel plant equipment and is approved by all the major European Engineering firms like SMS, Siemens, Danieli, Paul Wurth, Liebherr and Valmet (erstwhile Metso Power). It is ISO 9001 (2008) certified and approved by IBR and Nuclear Power Corporation. The unit boasts of a highly trained and competent workforce and has undergone scrutiny of major European certifying agencies.

Bengaluru Unit

Asansol Unit

Product range

Crushing Equipment

The crushing equipment is based on AUBEMA design. The manufacturing range of Crushers includes

- Jaw Crusher (Single & Double Toggle)
- Roll Crusher (smooth, corrugated, toothed) in single, double or triple roll
- Cone Crusher
- Heavy duty Impactor
- General Duty Impactor (EK Series)
- Swing hammer reversible impactor
- One way and reversible Hammer Mill
- Ring Granulator
- Rotary Breaker
- Coke Cutter
- Lump Loosener
- Single Roll Lump Breakers
- Chain Mill


Ring Granulator


Double Toggle Jaw Crusher


Toothed Double Roll Crusher

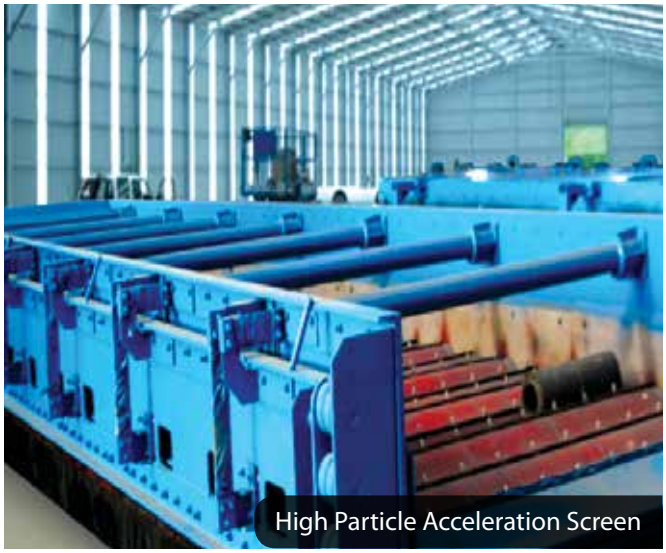

Heavy Duty Impactor

Screening Equipment

MSEL manufactures a wide range of screening equipment with wich granule separation of varying ranges is possible for different sizes and capacities. Manufacturing range includes

- Circular Motion Vibrating Screens
- Linear Motion Screens
- Roller Screens
- High Particle Acceleration Screens
- Live Roll Grizzly
- Banana Screen
- Screening Feeder

Linear Motion Vibrating Screen



High Particle Acceleration Screen

Grinding Mills

MSEL designs and manufactures Grinding Mills for any material and any required capacity. Our manufacturing range includes Ball, Rod and Vibrating Tube Mills.
These mills are manufactured, based on in-house design and knowhow.

Circular Motion Screen

Ball Mill

Feeding Equipment

MSEL is a leading manufacturer of Feeders.
The manufacturing range includes

- Apron Feeder
- Reciprocating Feeder
- Vibratory Feeder
- Disc Feeder
- Grizzly Feeder
- Belt Feeder
- Paddle Feeder

Apron Feeder

Material Handling Equipment

MBE is one of the foremost companies in the material handling sector, with a wide product range backed by world class technology. Our product range includes

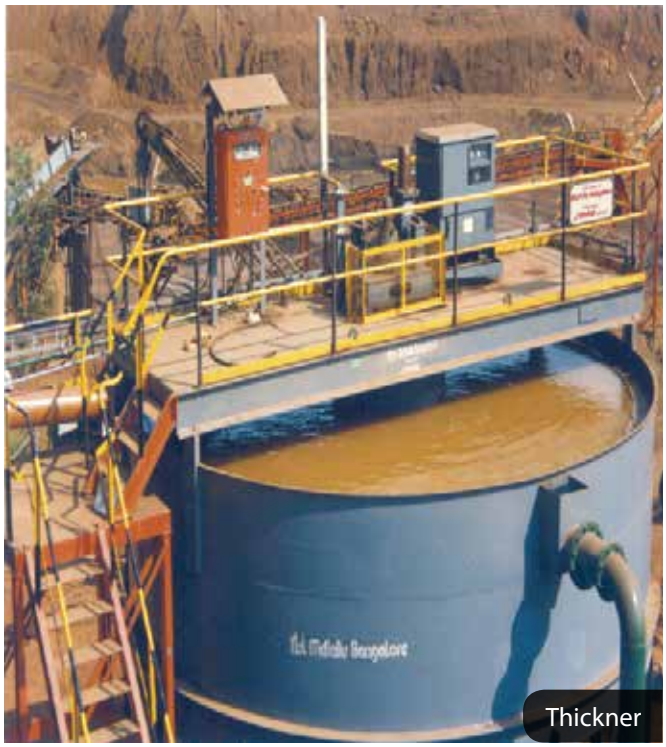
- Wagon Tippler
- Side Arm Charger
- Stacker Reclaimer
- Bucket Elevator
- Tripper
- Belt Conveyors and components
- Screw Conveyor
- Gravity Roller Conveyor
- Powered Roller Conveyor
- EOT crane

Travelling Tripper

Process Plant Equipment

MSEL's Bangalore plant manufactures a range of processing equipment, largely catering to the Mineral Processing Industry. The manufacturing range includes

- Slurry Pumps
- Flotation Cells
- Thickners
- Column Flotation Cells
- Centrifugal Gravity Concentration
- Magnetic Separator
- Filter
- Rotary Scrubber



Thickner

Ash Handling Equipment

MSEL manufactures a wide range of Ash Handling Equipment, Transporter Vessels, Air Receivers, Clinker Crusher, Mixer, Scrapper Chain Conveyor, Special Valves, Screw Conveyors, Air Slide Conveyor and Bag Filters.

Transporter Vessel

Mobile Crushing and Screening Plant

MSEL has launched a new range of Mobile Crushing and Screening Plants with different configurations to meet the huge needs of customers in quarry, mining and recycling industries.

Mobile Crushing and Screening Plant

Skid Mounted Crushing Plant

We offer a range of Skid Mounted Plants for crushing coal and soft limestone from 1200 mm to 20 mm in various combinations depending on the size of the actual feed and desired product.

Skid Mounted Crushing Plant

Job Shop

MSEL can manufacture a variety of equipment as per the clients' design and specifications thanks to their large fabrication facilities, equipped with state-of-the-art equipment.

- Pressure Vessels
- Heat Exchangers
- Rotary kilns
- Driers and Coolers
- Scrubbers
- Refurbishment of equipment like planetary gears

Dryer

MBE Coal And Mineral Technology India Pvt. Ltd.

MBE Coal and Mineral Technology India Private Limited (the erstwhile KHD Humboldt Wedag India Private Limited) is known globally for its cutting-edge technology. The name has gained prominence for over 155 years in the Coal and Mineral beneficiation sector. After having enjoyed worldwide success, KHD Humboldt Wedag forecast the increasing demand of washed coal in India and an Indian subsidiary was formed in 1967 with headquarters in Kolkata. Soon after its formation, the subsidiary became one of the big names in the country serving almost all the big corporates in various sectors like Cement, Steel, Power Plants, Sponge Iron, Mine developers and Coal traders.

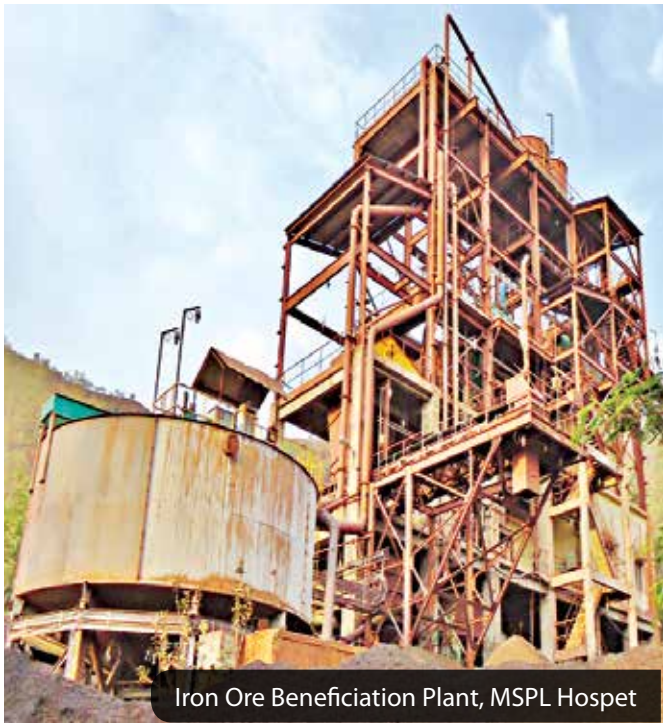
Centrifuge

In the year 2009 McNally Bharat Engineering Company Limited (a part of the Williamson Magor Group) acquired the Coal and Mineral Division of the then KHD Humboldt Wedag globally and in the process, took over the entire Coal and Mineral division across the globe. In the process, the name of the Indian subsidiary was changed to MBE Coal and Mineral Technology India Pvt. Ltd.

Since its inception MBE Coal and Mineral Technology India Private Limited has been associated with setting up the majority of Coal Washeries and Mineral beneficiation plants in the country. With the technical backup of MBE Coal & Mineral Technology GmbH, it is also one of the few organizations in the world who have the expertise in both the proven technologies of beneficiation: Jigging & Heavy Media Process.

The company manufactures and markets world leading equipment like BATAC® Jig, ROMJIG®, Pneumatic Flotation (PNEUFLOT®), PALLA® Vibrating Mill, JONES® WHIMS, USL®, USK®&VSL® Vibrating Screens, VBL® Vibrating Feeders and Crushers. German engineering supported by a strong R&D unit together with indigenous manufacturing facility gives the client a winning combination for their projects.

The environment division manufactures Solid Bowl Centrifuges widely used in ETP, STP, CETP, WWTP, Chemical, Paper, Textile, Sugar, Mineral and Metallurgical industries, Fertilizer industries, Food industries, Sewage, Water and Effluent Treatment Plant, Refinery and Petrochemical industry.



Iron Ore Beneficiation Plant, MSPL Hospet

MBE-CMT has a well-equipped, modern production unit at Kharagpur, to manufacture their proprietary processing equipment.

Coal deshaling plant, NCL Bina

Skills and competence

- Coal Preparation/ Washery Plant
- Beneficiation of other ores viz. iron ore, manganese, Chrome, phosphate
- Raw Material Screening and Crushing Plant
- Recovery of metals from Ferro Chrome Slag and un-burnt coal from char produced in kilns
- Dewatering of Effluent, Sludge, Waste water, Pharmaceuticals, Food and Beverage
- Coal char beneficiation
- R&D and pilot scale testing for developing flow sheet for coal and mineral beneficiation


Permos (MIMS)

Scope of services

- Basic and Detail Engineering
- Manufacturing and Supply of Process equipment
- Installation and Commissioning/Supervision of Erection and Commissioning
- Project Management and Monitoring
- Refurbishing/Upgradation of existing beneficiation plants
- After Sales and Service
- Plant Operation and Maintenance
- Annual Maintenance Contracts


ROMJIG


BATACJIG

MBE EWB kft

MBE EWB kft, Hungary is a company offering up-to-date and reliable technologies for various ash handling applications for pulverized coal fired units, fluidised bed coal-fired boilers, biomass-firing boilers, heavy fuel oil boilers and also technologies for bulk material handling and storing such as limestone, gypsum, perlite, alumina, klinker dust, cement, coal dust, oil ash and many others.

MBE EWB kft originated from Erőterv Power Plant Engineers. It was initially a Government company, entrusted with the setting up of power plants on turnkey basis in Hungary and other European countries. Ash Handling Division of Erőterv started working in around year 1955. Since inception this division, executed many ash handling plants of different types in major thermal power stations in Hungary, Germany, Austria, Czechoslovakia, Greece, Turkey, Yugoslavia and Bulgaria to name a few. In the year 1990 Waagner-Biró, Austria a noted company in Europe acquired 50% equity of the ash handling division of Erőterv and the name of the company changed to Erőterv-Waagner-Biró Limited (EWB Ltd). Since then Erőterv Waagner-Biró continued ash handling business by implementing many more ash handling projects in Europe and Asia.

Gradually Waagner-Biró, Austria increased their stake in the company ending up with 90% holding of equity by the year 2000. From 1997 McNally Bharat was in exclusive collaboration with EWB for the Indian Market till 2000. In 2001, McNally Bharat acquired Waagner-Biró through a global competition.

MBE EWB kft. is one of the few companies in the world who are able to supply all kinds of Ash Handling technologies and other Bulk Material Technologies. The company can supply systems on turnkey basis or provide engineering and supply the key components of the ash handling systems.

Tufanbeyli Turkey, Conveying vessels under ESP

VRM for coal, 90 TPH

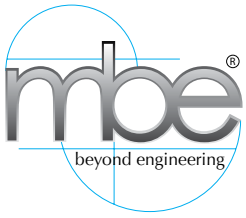
Stacker, Paradip Port

Pneuflot

Unitech IT Park

Cooling Tower & Chimney, Satpura Tps

Vedanta.KCM.Zambia, West Mill



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