

# **MTi Co., Ltd.**

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**EPC contractor in** Oil & Gas plant  
Power & Energy plant  
Industrial plant



# Company General

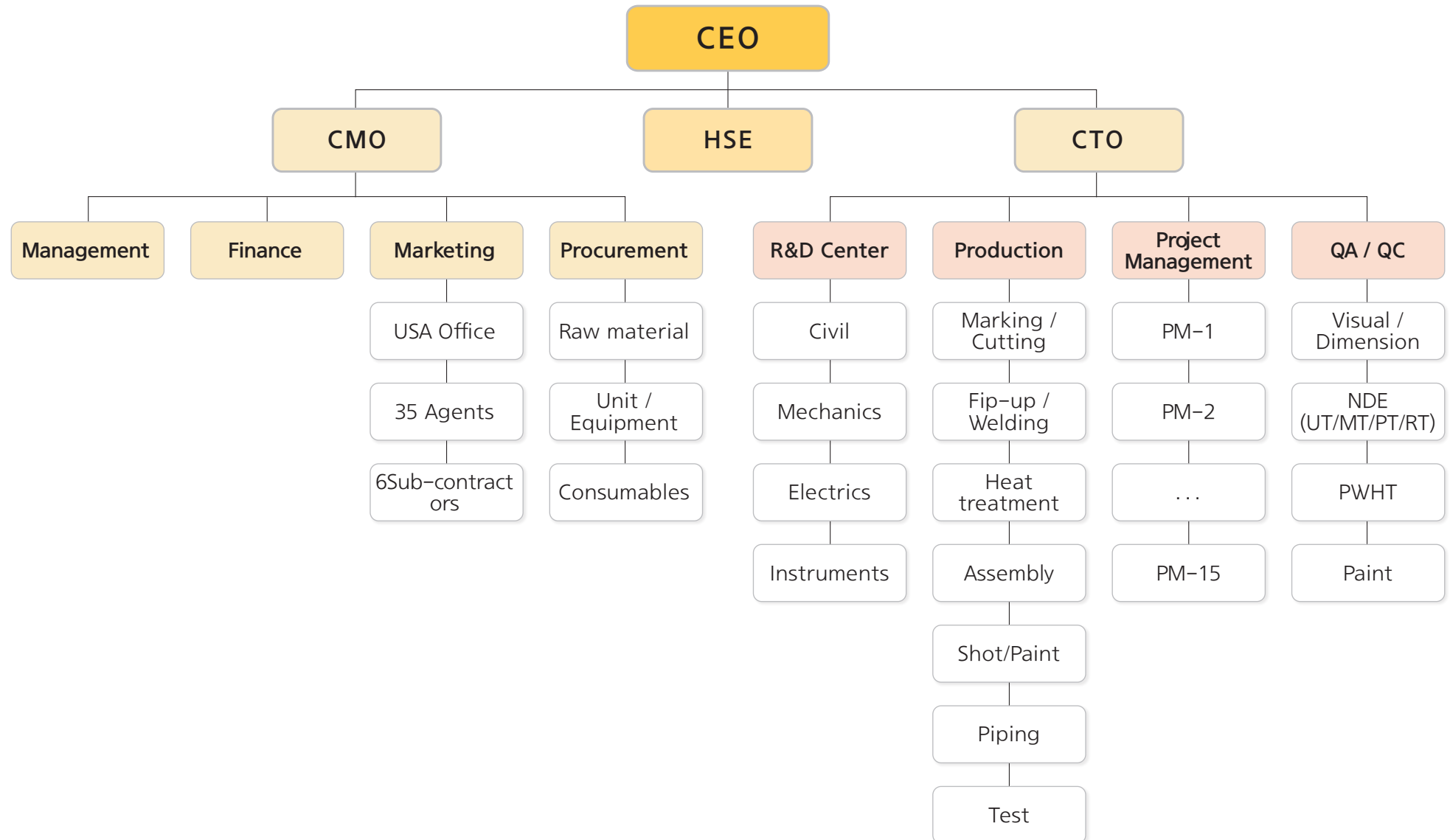
## Manpower

## Manufacturing Shop

## Annual turnover

Division	Member	Factory & Facility	Capacity	Sales amount	USD
Management	16	Area	45,500m <sup>2</sup>	2010	45,500,000
Purchasing	14	Factory	29,800m <sup>2</sup>	2011	51,150,000
Engineering	244	Office	5,500m <sup>2</sup>	2012	68,500,000
Production	86	Machine shop	Plano-miller -2 Boring m/c -3 Milling m/c -3 Lathe m/c -3 Radial Drilling m/c, etc. Turning rolls, Positioners, Manipulators, Auto welders		
Erection & Service	18				
Quality control	15	Crane (EOT, GC)	200,100,50,30,20,10 ton		
Total	393	Annealing shop Shot blast shop Painting shop	20Lx20Wx15H,m 25Lx25Wx15H,m 25Lx25Wx15H,m		

# Organization





# EPC Business Range



## Petrochemical plant

- Lube Base Oil Plant
- BTX Plant
- Para-Xylene Plant
- VR / CAA Project
- Hydrogen Plant
- Poly Ethylene Plant
- Ethylene Plant
- PTA Plant
- Polypropylene plant

## Oil and Gas plant

- Crude Oil Gathering Centre
- Gas Processing Plant
- Gas Booster Station
- LNG / LPG Plant, • CDU / VDU
- Heavy Oil Upgrading Plant
- Hydro-cracking Plant
- Sulfur Recovery Plant
- Tank Terminal, Oil Refinery Plant
- LPG / LNG Bottling plant

## Industrial plant

- Poly-silicon Plant
- Municipal Waste Incineration Plant
- Solid Waste Incineration Plant
- RDF (Refuse Derived Fuel) / RPF (Refuse Plastic Fuel) Plant, WTE
- Supply water & Wastewater Treatment
- RO, Desalination plant
- Shipyard-Shiplift & Transfer system
- Steel plant-Mini mill, Pipe mill

## Power & Energy plant

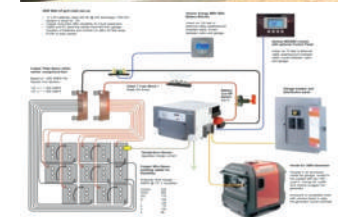
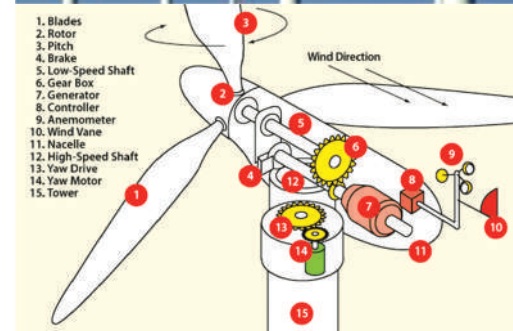
- CFPP (Coal Fired Power Plant)
- CCPP (Combined Cycle Power Plant)
- Solar power, Wind power, Hydro, Bio-mass power plant
- CHS (Coal Handling System) in CFPP
- HRSG, Boiler, Condenser, Heat exchanger, Pressure vessels
- Power Substation & Transmission line

# Power Plant

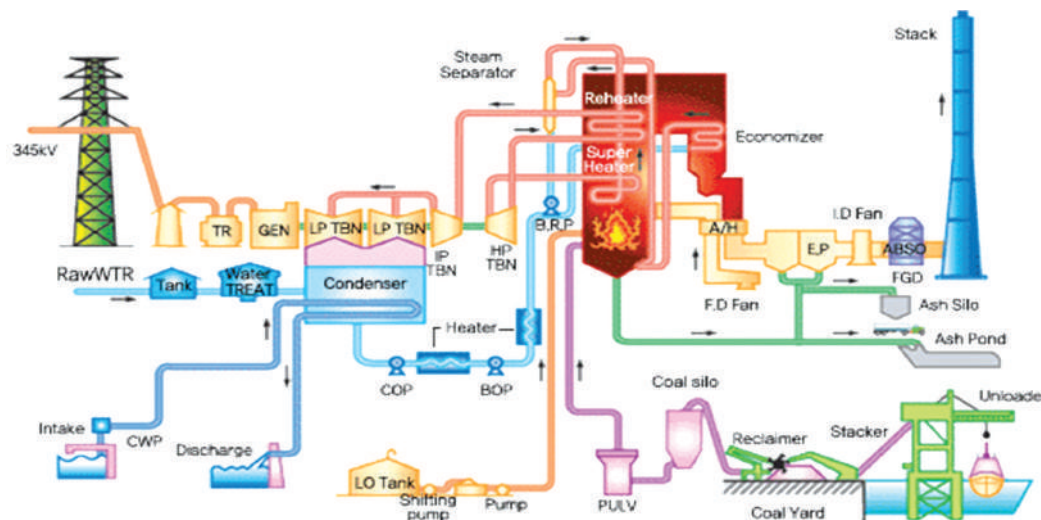
CFPP, CCPP, Wind, Hydro, Solar, Biomass power plant, Substation & Transmission line



HRSG  
Boiler  
Heat exchanger  
Condenser  
Deaerator  
Evaporator  
Chiller  
CHS



Substation & Transmission line



Capacity	750kw, 1.5Mw, 2Mw, 3Mw
Volume	Ø 4,000 x L70,000 (3 pieces)
Internal	Door, Ladder, Deck, Lamps
Components	Flanges, Plates, Cables



# WTE(Waste To Energy), RDF / RPF, Incineration & Power plant



Municipal /  
Industrial waste



RDF / RPF  
(Refuse Derived  
/ Plastic Fuel)



RDF plant for Municipal  
house wastes  
– Capacity: 45ton/day  
– Caloric: 4,500 Kcal/kg  
– In 1998

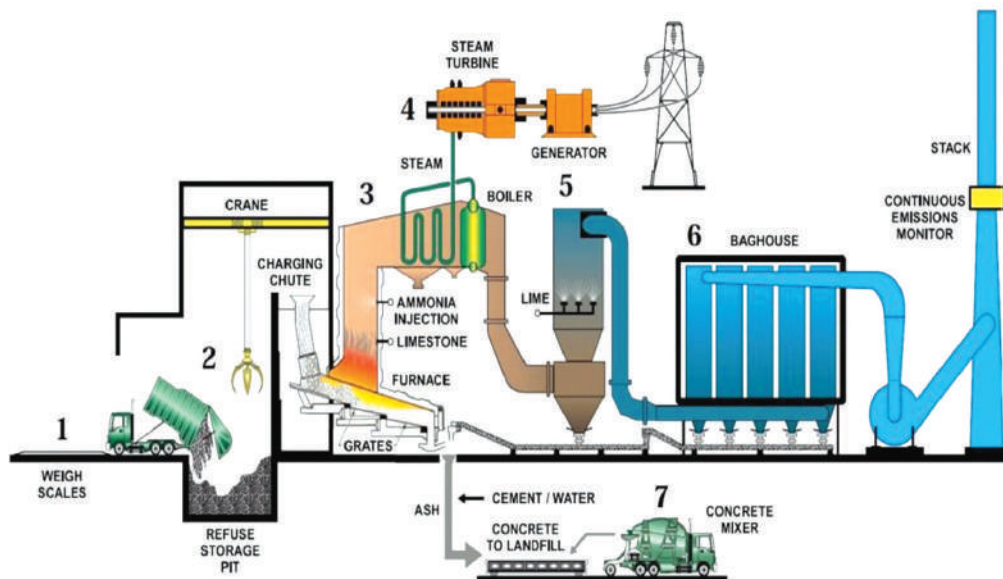


RDF plant for Municipal sea wastes  
– In 2000

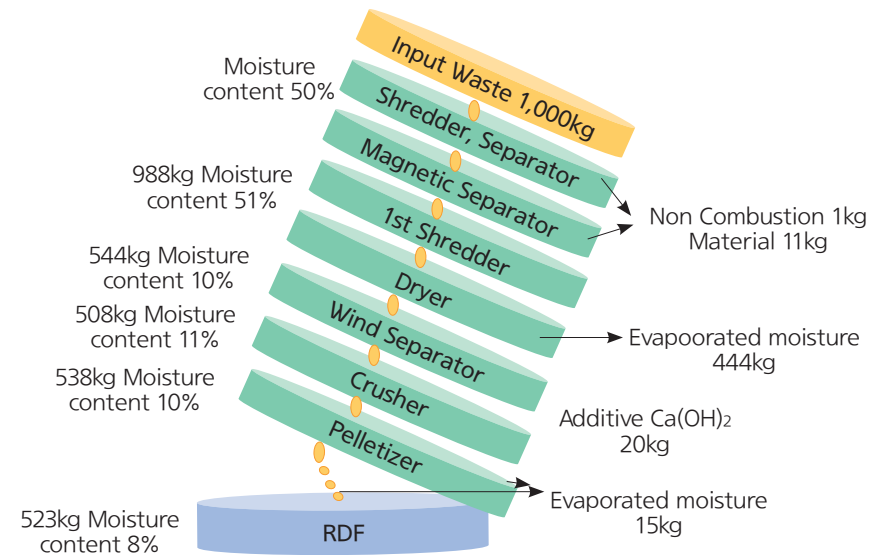


RPF plant for Municipal  
industrial wastes  
– Capacity: 40 ton/day  
– Caloric: 7,000 Kcal/kg  
– In 2003

## Process of plant



## Mass balance



# Supply water & Wastewater Treatment plant



Metropolitan Water Supply System

With our advanced technologies, we are dedicating ourselves not only to the establishment of new water treatment plants but also to the optimization of existing facilities in municipal and industrial sectors, **MTi** offers comprehensive wastewater treatment plant for sewers and wastewater for municipalities and industries. **MTi** activities cover planning, design and supervision of rehabilitation of existing water supply facility, sewer and new wastewater treatment plant.

## Water supply, Sewerage reference:

- Master Planning and Detail Design of Metropolitan Water Supply System
- Master Planning of Metropolitan Wastewater Treatment System
- Basic Design of Industrial Water Supply System with highly advanced water purification process
- F/S, Mid and Long-term Master Planning of Seawater Desalination
- F/S and Master Planning of Water Supply System



Sewage Treatment Plant

- Capacity: 152,000m<sup>3</sup>/day
- Activated Sludge Methods



Sewage Treatment Plant

- Capacity : 740,000m<sup>3</sup>/day



Metropolitan Water Supply System

- Capacity : 400,000m<sup>3</sup>/day



Urban Wastewaters Treatment

- Capacity : 11,760m<sup>3</sup>/day



# RO & Desalination plant

Multi Stage  
Evaporator



MSF



RO  
(Reverse Osmosis)  
plant



Water box



Intermediate  
piece





# Shiplift & Transfer System

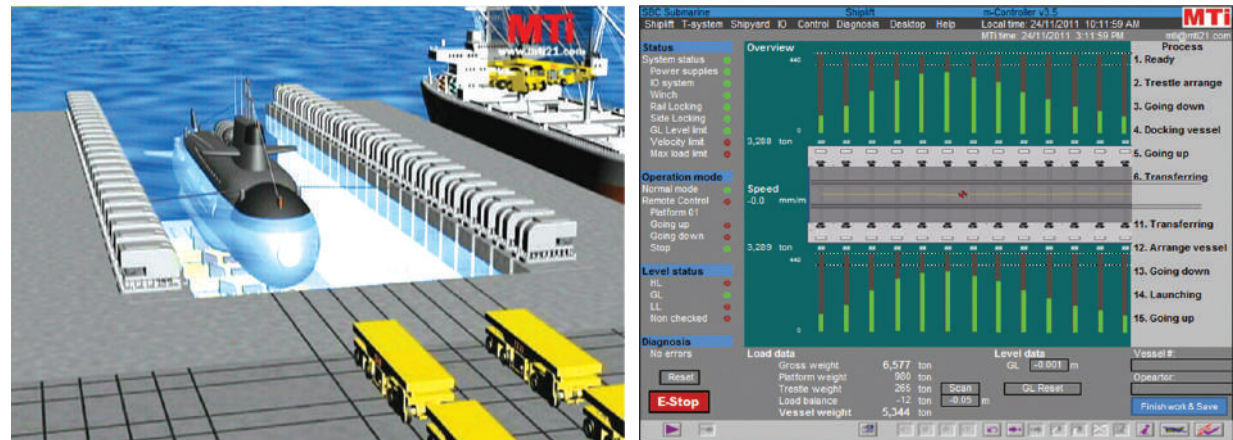
Shiplift enable to launch and un-launch ships in a very time efficient and controlled manner. All winches are monitored by the control system and load cells to ensure load distribution within the design limits. By utilizing various type of hoist capacities and vary the spacing, total capacity, platform size, etc.

## Shiplift:

- Lifting weight: max 25,000 tons (upto 100K dwt)
- Lifting speed: 250 / 350mm/min (full load / unload)
- Winch Ass'y: 600ton × 54 sets
- Shiplift dimension: 220m L × 34m W
- Draft: max 13 m

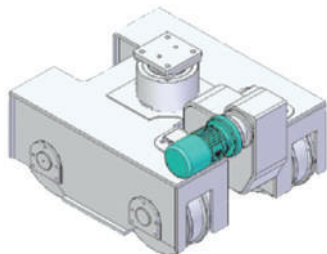
## Transfer system:

- Static payload: 600 tons
- Axle load: 4 nos × 150 tons
- Transfer speed: 5 / 10 m/min (full load / no load)
- Remote Control and Monitoring System

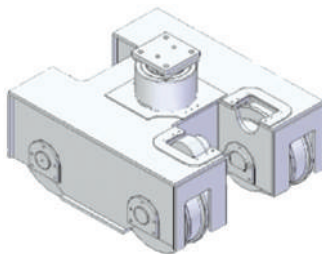


The control system can continuously monitor and display hoist loadings on main control monitor at real time by load cells. Control system consists of MCC panel, Vector driver panel, PLC panel, Operation panel, UPS, Control desk & 25" HMI computer system, 25" Backup computer system, Printer, Site monitoring devices by 3-CCTV cameras, Microphone/ speaker/ horn, Power & control cable, Profi bus & communication cable, Operating software.

Driving Bogie



Idle Bogie



4,100Ton Submarine  
Shiplift & Transfer  
System



4,200Ton Vessel  
Shiplift & Transfer  
System



1,800Ton Warship  
Shiplift & Transfer  
System



12,000Ton Vessel  
Shiplift & Transfer  
System

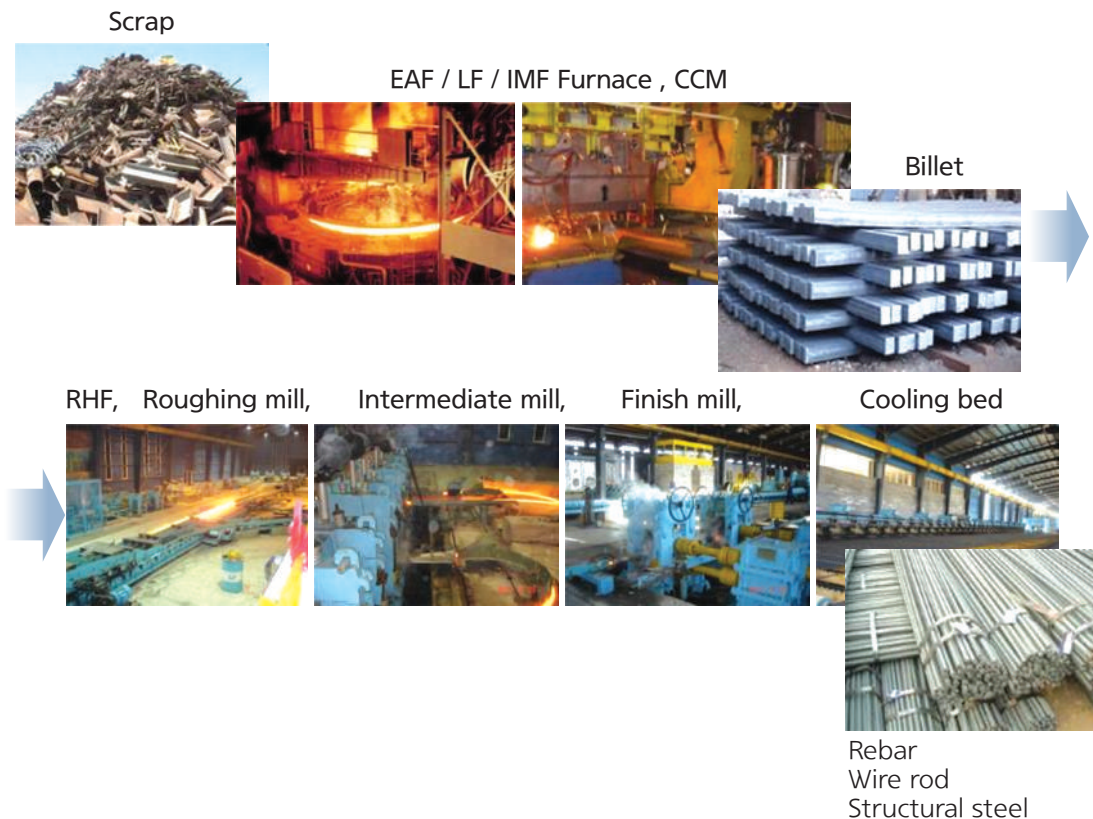
# Mini mill, Pipe mill, Rolling mill

## Mini Mill:

MTi's rod mill outlet can produce rod products at a very high speed of over 100m/s. At the same time, it has superior technology to control the accuracy and thermo-mechanism that enables customers to produce high-quality products efficiently.

Due to the controlled, Thermo mechanical Rolling and Cooling process, rod has superior physical and metallurgical properties.

Capacity: 50,000 ~ 500,000 ton/year



## Pipe Mill:

- Kind of tube: round pipes, square tubes and rectangular tubes
- Raw material: mild steel, carbon, galvanized steel for HR, CR coil
- Application: API, ASTM, ARAMCO, BS, KS, JIS, etc.
- Diameter:  $\frac{1}{2}$ " to 24" pipe
- Production speed: 20 to 150 m/min
- Welding method: ERW for carbon steel, HFI for stainless steel





# Crane & MHS(material Handling System)

LLC(100ton)



Goliath crane(3,000ton)



Floating crane(25,000 ton)



**MTi** has produced special crane like nuclear crane in SFP and DLP, Goliath crane in Shipyard, RMQC, RTGC and LLC in seaport, MHS (Material Handling System) for coal, cement clinker, lime stone, sand, minerals last for 30 years.

RMQC



RMQC



RMQC



RTGC



RTGC



Ship loader & unloader, CSU (Continuous Ship Unloader)



**MTi** offers total solution for all handling system in Coal fired power plant, cement plant, concrete plant, and so on.

The system will contain system calculation and evaluation data and the CSU on a jetty, stacker and reclaimer in a stock yard and conveying system to a boiler bunker.

Stacker & Reclaimer, Dome type of cokes yard



Overland conveyor system



Global network

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- 40 Agents & 7 Sub-contractors in the World.

