# Technology and Innovations developed by MDEEL

- Sulfuric Acid (Small & Medium size)
- Sulfur Burning
- Metallurgical Gases
- Oleums

25%

65%

- So3 (Liquid & Gaseous)
- So2 (Liquid & Gaseous)
- Single Super Phosphate
- Alum (Ferric/Non-Ferric)
- Dedusting System





# **Technology Export Development Organisation**

A project of Confederation of Indian Industry (CII) & DSIR, Govt. of India

Plot No. 249 F, Sector 18, Udyog Vihar, Phase-IV Gurgaon - 122015 (Haryana), INDIA Tel.: 91-124-4101044 (D), 4014060-67, Fax: 91-124-4014080 E-mail: info@techbizindia.com Website: www.techbizindia.com

# Monsanto-DMCC Enviro-Tech & Engineering Ltd.

JV In 1996





A Joint Venture Company of the Monsanto India Pvt.Ltd. & the Dharamsi Morarji Chemical Co. Ltd. MDEEL is engaged in Engineering, Procurement & Construction, catering to the Fertilizer, Chemical, & Environmental Sectors in India & elsewhere, both independently & in association with Monsanto Enviro-Chem Systems inc. (MEC), USA.

# Services

## **Process Solutions & Trouble Shooting**

- Identifying Problem areas and bottlenecks carrying out applied research to simulate process design conditions.
- Solutions from concept till commissioning.

# Pre Project Services

- Techno-economic studies
- Cost estimation and feasibility reporting

# **Turnkey/EPC projects**

- Technology Supply
- Basic Engineering Package
- Detailed Engineering Package
- Procurement Construction & Commissioning
- Plant Operation Training

# **Erection & Commissioning**

- Stores management, material issue and utilization.
- Erection of equipment, Installation of piping, Instrumentation & Electrical Start-up activities & test run Process Commissioning

# **Detailed Engineering, Project Management & Procurement**

- Detailed Planning , Scheduling and Resources Planning for the Project
- Plot Planning, Equipment & Piping Layouts, Designing of Fabricated Items, Electrical & Process Control Systems
   Procurement Specifications for Package Units, Machinery, Pipe, Pipe Fittings, Valves, Instrumentation and Electrical Components.
- Procurement Activities, Inspection & Expediting, Dispatch & Delivery
- Tender Documents For Installation And Erection Work

**Instrumentation & Control System** 

Design, Detailed Engineering and Inspection

Installation, Testing & Commissioning PLC/SCADA system

# -----**TEDO** Process Plant & Machinery Solutions from India

#### Infrastructure

MDEEL employes... Technical Manpower

# **Strength of Engineering Design**

- MDEEL is equipped with a full team for carrying out engineering for process, mechanical, piping, electrical, instrumentation, inspection & civil & structural discipline, including complete system design & engineering, procurement assistance, & erection & commissioning supervision.
- Engineers have an average of over 15 years of Industry experience & have successfully engineered & completed more than 50 assignments of Sulphuric Acid, Chemicals & Fertilizer Plants.

# Major Infrastructure in Design



# Installed capacity of major services

## **Codes and References**

- MECS Design Guide
- ASME for vessels
- ASTM/ANSI
- API for storage Tank
- Units (SI/Metric & FPS)
- Indian Standards (For Civil/Structure)
- IEC & Indian Standards (For Electrical)
- ISA
- NFPA & TAC (India) for fire Protection
- IBR & ASME (For steaming equipment)

# **Major Domestic and Overseas Customers:**

- Coromondel Fertilizers Ltd
- Nirma Ltd.
- Shaw Wallace & Company Ltd
- Gujarat State Fertilizers & Chemicals (GSFC) Limited
- Indian Rayon Corporation Ltd.
- Bokaro Steel Ltd.
- Philippine Batteries Inc.
- Hindalco, Birla Copper Unit
- Two Lions Fine Chemicals & Thermal Power Companies, China
- Murrin Murrin Nickel-Cobalt Project
- Dupont (Motiva Refinery)

- Tanfac Industries Ltd
- Monomeros Colombo Venezolanos
- Udaipur Phosphates & Fertilizers Ltd
- Bharat Alums & Chemical Ltd.
- PT Indo-Bharat Rayon
- Paradeep Phosphates Ltd.
- Hind Lever Chemicals Ltd
- Vidarbha Phosphates & Fertilizers Ltd
- Hind Lever Chemicals Ltd.
- Bharat Alums & Chemicals Ltd.
- Hindustan Fluoro Carbons Ltd.

# **Financials**

Year	Turnover (USD)	Exports (USD)	R & D Expenditure (USD)	
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# **Export Countries**

# Africa

# Zambia

- Congo
- Nigeria
- Botswana
- Tunisia
- Morocco
- Egypt

#### **South America Asia Pacific**

Taiwan Argentina

Chile

Peru

Colombia

- Indonesia
- Korea
- Australia



# **Technology Arrangements**

Joint Venture

Marketing

