



**MARTECH<sup>®</sup>**  
**BOILER**  
The nergy Solutions



**COMPANY**  
PROFILE

# CONTENTS

<b>INTRODUCTION</b>	<b>03</b>	<b>OUR BUSINESS</b>	
<b>ABOUT MARTECH JSC</b>		Scopes of Work	18
History	04	Major Products	18
Core Value	06	▶ Boiler	20
HSE Management System	06	▶ Energy Solutions	21
Organization Chart	07	▶ Steel Structure	21
<b>OUR SERVICES</b>		▶ Flue Gas Treatment	21
One-Stop Shop	08	▶ Wind Energy	22
Design & Engineering Team	09	▶ Glove Dipping Line	22
Engineering Methodology	09	<b>QUALITY MANAGEMENT SYSTEM</b>	
Engineering Partners	10	Quality Assurance and Control	23
<b>PRODUCTION</b>		Certifications	23
Production Facility	12	<b>CUSTOMER BASE</b>	
Workshop Location	12	Industries	24
Production Capacity	13	Our Markets	24
Equipment List	14	Key Customers	26
Key Equipments	16	Reference Projects	28



## INTRODUCTION TO MARTECH JSC

### THREE DECADES OF ENGINEERING EXPERTISE

Founded in 1993 as a specialist in Steam Boilers and Pressure Vessels, MARTECH JSC has grown to become an energy solutions provider with a wide range of offerings: Boilers with various technologies and fuels, Waste-to-Energy, Co-Generation, Flue Gas Treatment, Wind Energy, Steel Fabrication, Glove Dipping Line...

Built upon 3 decades of engineering expertise, our strong 500+ workforce is capable of delivering turnkey or parts of the project included Design & Engineering, Procurement, Fabrication, Operation & Maintenance; all compliant with the most stringent requirements and certifications.

### 500+ PROFESSIONALS DEDICATED TO CUSTOMER'S SUCCESS



**519** Total Workforce  
(Exclude Back Office)



# ABOUT MARTECH JSC

## HISTORY

Of Growth Through Innovation



### Formative Years

- 1993 Founded in HCMC
- 2000 Liquid Fuel Boiler
- 2004 Chain Grate Boiler & Thermal Oil Heater
- 2011 First Biomass Boiler

1993 - 2012



### Standardization

- 2013 Achieve ISO 9001 Certificate
- 2014
  - ▶ License HRSG Technology from Germany
  - ▶ First BFB Boiler by local company
- 2015
  - ▶ Open 8.4 ha Nhon Trach Factory
  - ▶ Achieve ASME Certificate S, U
  - ▶ Export to Indonesia & Philippines
  - ▶ Key Account Knauf (Germany): Project Haiphong

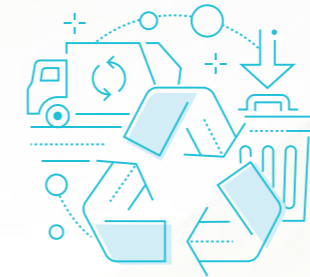
2013 - 2015



### Technical Advancements

- 2016
  - ▶ First BFB Thermal Oil Heater 3 Gcal/h
  - ▶ First HRSG for Chemical Plant: Evonik (Mexico)
  - ▶ Key Account Knauf (Germany): Project Philippines
- 2017
  - ▶ First BFB Biomass Boiler by a local company
  - ▶ First WtE BFB Boiler for Pulp & Paper Plant
- 2018
  - ▶ High efficiency CNG Firetube Boiler (eff. >95%, 6TPH)
  - ▶ First Reciprocating Hot Water Boiler 12 Gcal/h

2016 - 2018



### Environmental Solution

- 2019
  - ▶ Relocate HQ to Thuan Hai Tower
  - ▶ EPC project to install first Co-Generation & WtE Plant in Vietnam
  - ▶ WtE Plant for Industrial Sludge Treatment
  - ▶ Export to S. Korea
- 2020
  - ▶ First HRSG to utilize Waste Heat for Power Generation
  - ▶ Enter Australia & Japan Market
  - ▶ EPC Contract for 4000 tons/h Material Handling System

2019 - 2020



### Beyond Boiler

- 2021
  - ▶ R&D and Investment in New Business
    - ▶ High-capacity Glove Dipping Line:
      - EPC Contract: S&S Glove Factory
    - ▶ High-capacity BFB Thermal Oil Heater 2 x 18 Gcal/h
    - ▶ Enter Wind Tower market
      - VPL Wind Farm (30MW)

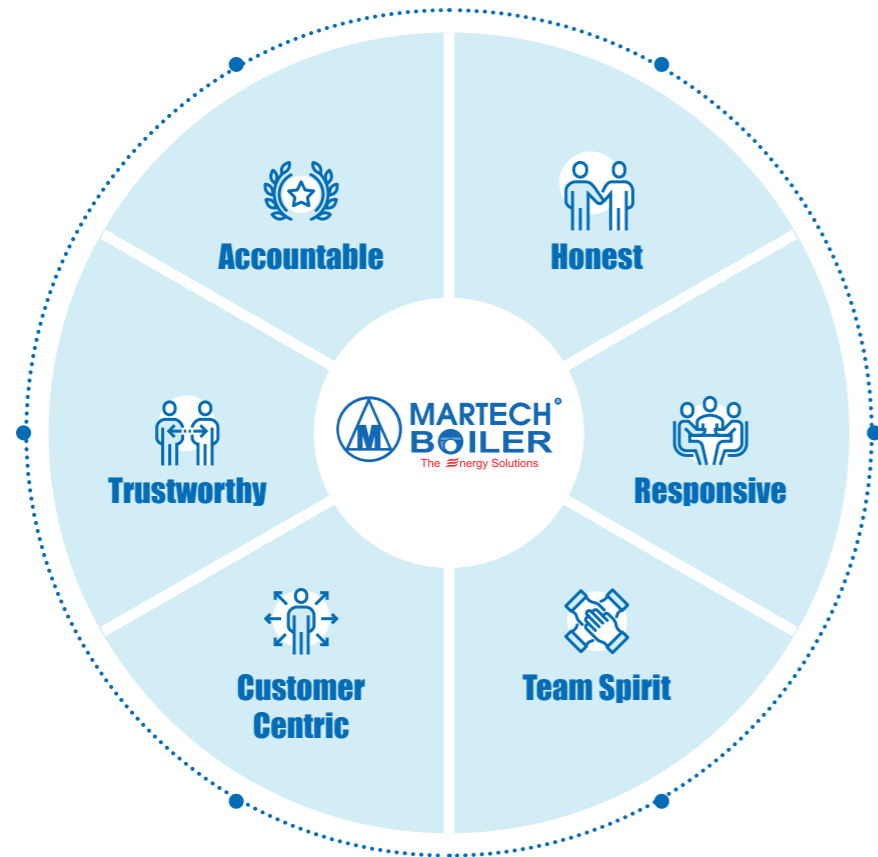
2021 -



# ABOUT MARTECH JSC

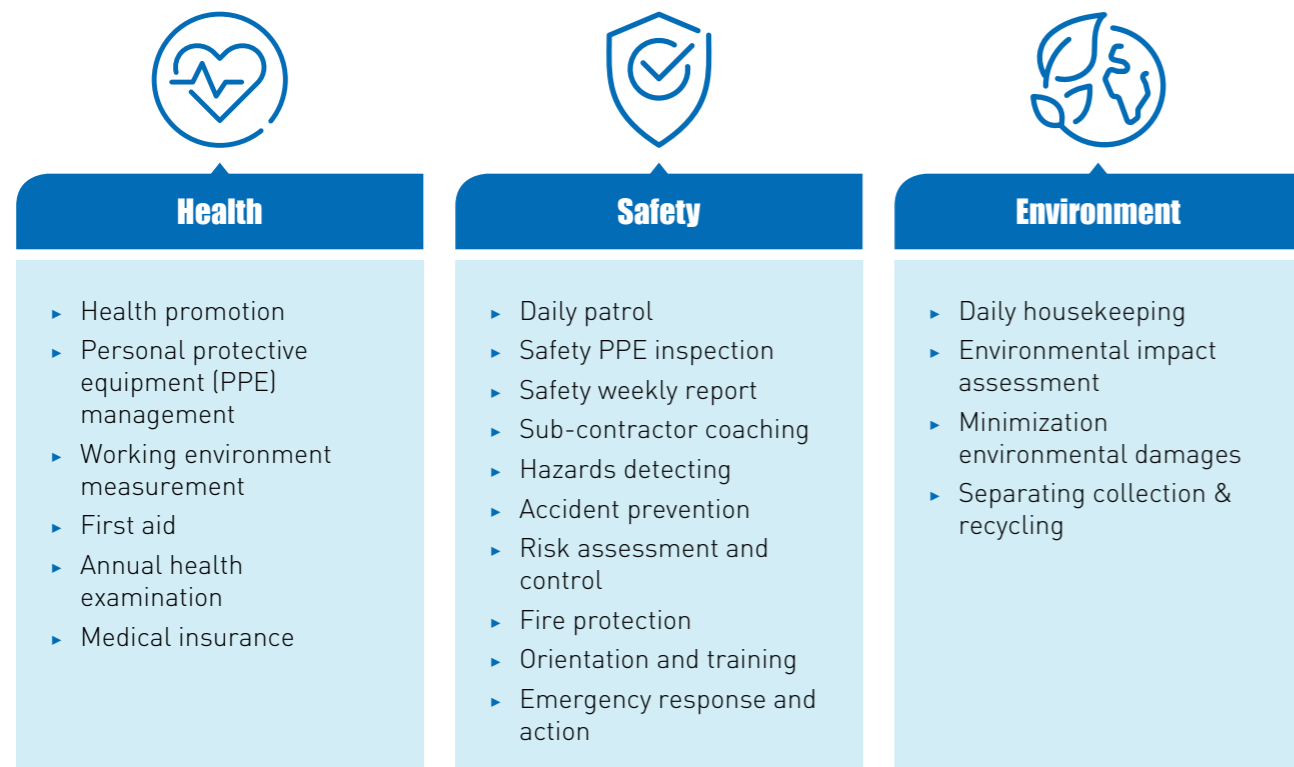
## CORE VALUE

Principle of Everything We Do

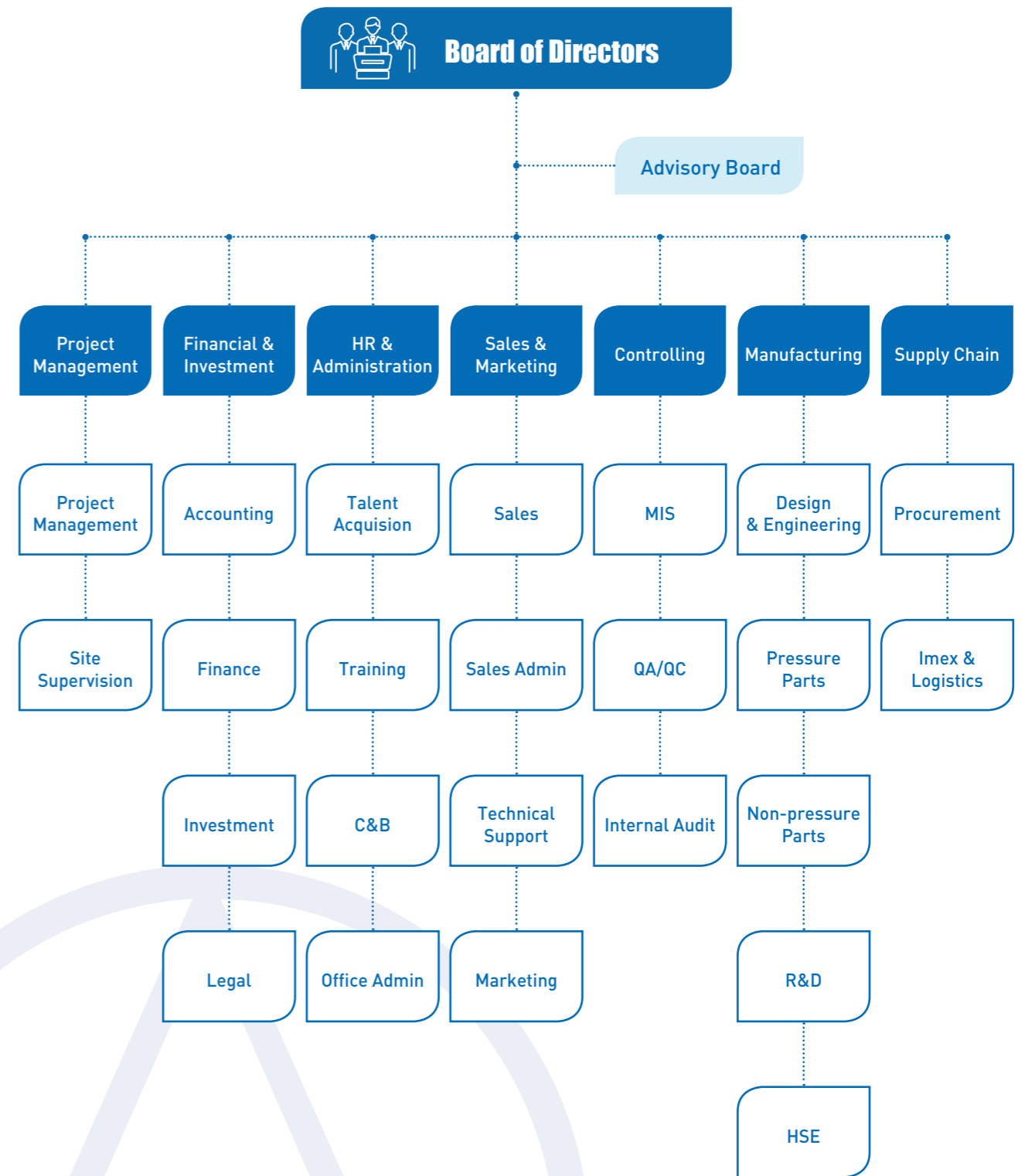


## HSE MANAGEMENT SYSTEM

We Do Care About Our Employee, and Our Planet



## ORGANIZATION CHART



# OUR SERVICES

## ONE-STOP SHOP

For All of Your Engineering Needs

We offer a wide range of Engineering Services include concept design and customized solutions

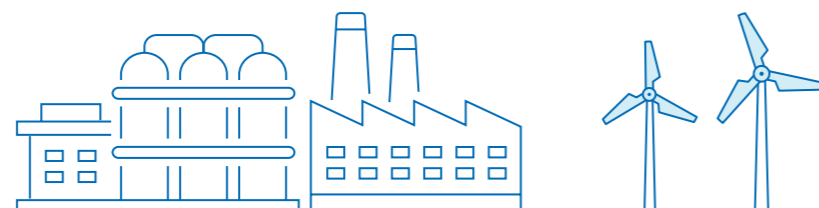


To ensure quality and conformance of our products, we only use qualified materials and parts from trusted and renowned partners



We help customers to optimize cost, increase up-time, and focus on their core business

Modern workshop and skillful workforce to fabricate products complied to most stringent requirements and regulations



## DESIGN & ENGINEERING TEAM

From Concept to Solution

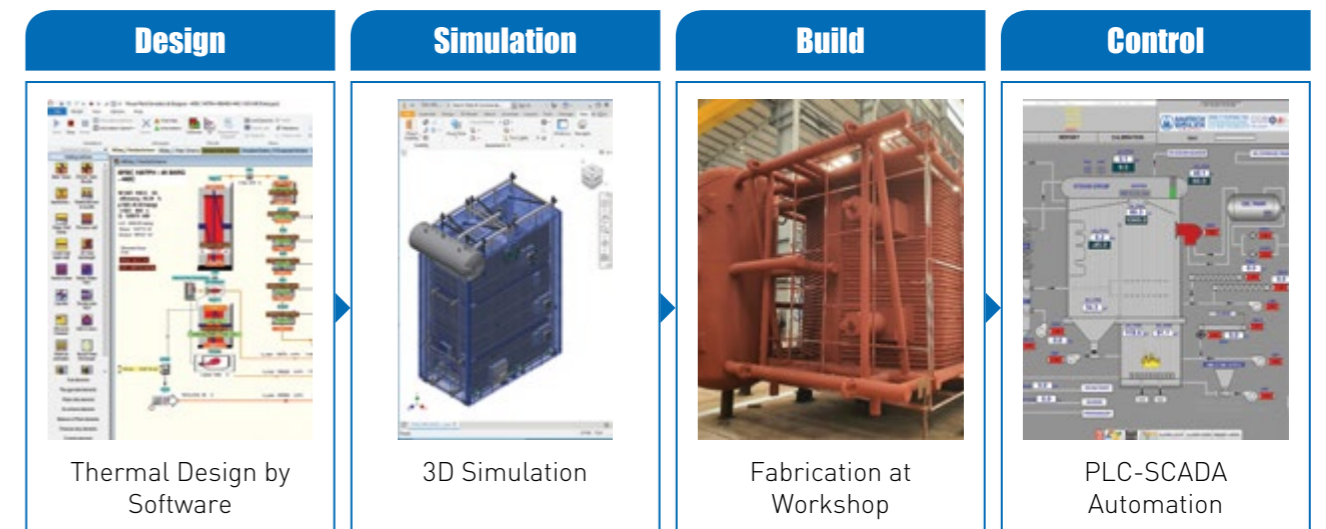


We offer a wide range of Engineering Services include concept design and customized solutions

- ▶ Mechanical engineering design and modelling using 2D/3D CAD software
- ▶ Thermal/Fluid Flow/Structural simulation and optimization
- ▶ Piece-part selection and post development Cost Reduction

## ENGINEERING METHODOLOGY

Our Approach: Design – Simulation – Build – Control



## OUR SERVICES

### ENGINEERING PARTNERS

Design Partner: MARTECH is an Official Licensee since 2015

#### About the Design Partner

- ▶ With over 6,100 boiler and heater references and more than 80,000 megawatt capacity of installed systems worldwide, The Partner has a unique history of design expertise. Sharing and collecting knowledge is at the heart of the Partnership.
- ▶ Started in Berlin in the late 1920s, The Partner's energy system design services are being applied worldwide with a long history of success. The Partner's designs cover multiple industries and a large variety of solid, liquid and gaseous fuels.

#### MARTECH benefits from the Partnership



- ▶ Leading technology provider



- ▶ Cutting edge innovation



- ▶ Engineering and design support



- ▶ Specialist knowledge for partners

### Specialized Software Partner: Cooperation Agreement since 2016

#### About the Software Partner

- ▶ Established in 1975, The Partner's main activities were piping calculations for nuclear power stations, the automotive and chemical industries, together with the development of computer programs.
- ▶ The Partner is the market leader in Germany with the programs to design and simulate power plant, heat generator & exchanger system since 1995. A long side a CAD and a pipeline calculation that also have the absolute best specialists in the field of fluid and structural dynamics and FE calculations.

#### Design & Simulation Software

A world leading program for designing Power Plants, Boiler System, Heat Exchanger Equipment and Heat Balance with more than 100 different templates available.

MARTECH uses this software to calculate and simulate the thermodynamics for all of our Boiler and Steam Products.

#### Reference

The Partner has designed hundreds of large-scale boilers, some are world largest:

- ▶ Project for Talara Peru Refinery: 332TPH, 518°C, 90barg
- ▶ Project for JSC Metafrax, Guubakha, Russia: 240TPH, 280°C, 41barg



# PRODUCTION

## PRODUCTION FACILITY

8.4 ha Factory with Modern Equipment



### 1 WORKSHOP 4 – WAREHOUSE

- ▶ Dimensions: 80m(W) x 100m(L)
- ▶ Application: Warehouse, Cutting and Machining machineries

### 2 OFFICE BUILDING 2

- ▶ Dimensions: 20m(W) x 20m(L)
- ▶ Application: Production, QA/QC

### 3 WORKSHOP 1 – NON PRESSURE

- ▶ Dimensions: 72m(W) x 200m(L)
- ▶ Application: Combustion chambers, Vessels, Dust collectors, Ducting, Steel structures, Stack

### 4 WORKSHOP 2 - PRESSURE

- ▶ Dimensions: 72m(W) x 200m(L)
- ▶ Application: Steam drums, Membranes, Convection tubes, Thermal oil coils, Trial assembling

### 5 WORKSHOP 3 - FINISHING

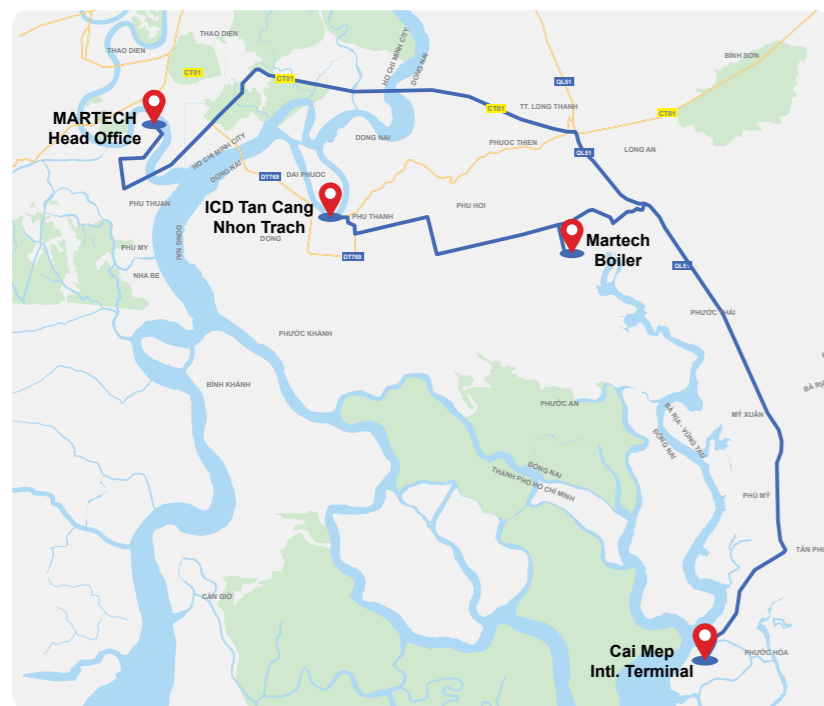
- ▶ Dimensions: 72m(W) x 170m(L)
- ▶ Application: Finished products, Painting room

### 6 OFFICE BUILDING 1

- ▶ Dimensions: 20m(W) x 20m(L)
- ▶ Application: Procurement, Technical Department

## WORKSHOP LOCATION

Strategically Located Near Major Ports for Maritime Transportation



**MARTECH Head Office**  
60 km

**Cai Mep Intl. Terminal**  
Deepwater Port  
36 km

**Tan Cang - Nhon Trach**  
Inland Port  
17 km

*Distant From*  
**MARTECH Factory**  
Nhon Trach III Industrial Zone  
Nhon Trach Dist., Dong Nai



## PRODUCTION CAPACITY



Pressure Parts **4,000 TONS**



Non-Pressure Parts **8,000 TONS**



Annual Capacity **12,000 TONS**

## PRODUCTION

### EQUIPMENT LIST

#### PRESSURE PARTS WORKSHOP

Equipment	Specification	Origin	Qty.	Unit
Plate Rolling CNC Machine	Wmax: 3,000 mm; Tmax: 140 mm	Italia	03	set
Plate Beveling Machine	Length: 24,000 mm; Width: 1,500 mm		02	set
Automatic Welding Machine <i>Saw Welding Machine</i>	Height: 4,000 mm; Length: 4500 mm	USA	01	set
Steam Drum Milling Machine	Length: 6750 mm; Width: 4600mm; Height: 5150 mm	Japan	01	set
Tube Expansion Machine	Φ21 – Φ42	Japan		set
Tube Bending Machine	4 Inch – Φ½ Inch; Rmax: 400 – Rmin: 34	Germany	02	set
Tube To Tube Welding Machine	Gtaw (Tig); Length: 36m Φ 6 Inch	Germany	01	set
Tube Shot Blasting Machine	06 Turbine; Length: 12,000 mm; Width: 2,000 mm; Height: 500 mm	Netherlands	01	set
Fin Bar Calibrate Machine		Germany	02	set
Membrane Wall Welding Machine <i>Saw Welding Machine</i>	04 Torch; Width: 1200 mm; Length: 36,000 mm	Germany	01	set
Membrane Wall Cutting Machine	Max Cut: 85 mm; Speed: 5900 rpm; Power: 4400W At 6.2bar	Germany	03	set
Membrane Wall Bending Machine	Width: 2000mm	Germany	01	set
Crane	10 tons – 30 tons – 50 tons	Korea	11	set



#### NON-PRESSURE PARTS WORKSHOP

Equipment	Specification	Origin	Qty.	Unit
Drilling And Sawing CNC Machine	Shape: U, I, H, V Length: 12,000 mm; Height: 500 mm; Width: 1,000 mm	Germany	01	set
Drilling And Cutting CNC Machine <i>Plasma &amp; Oxygen/Gas</i>	Length: 12,000 mm; Thickness: 5 mm – 100 mm; Width: 2,600 mm	Germany	01	set
Plasma Cutting Machine <i>Plasma &amp; Oxygen/Gas</i>	Length: 12,000 mm; Thickness: 5 mm – 12 mm; Width: 1,500 mm	Vietnam	03	set
Punch & Shearing CNC Machine	Shape: Plate, U, V Length: 12,000 mm; Width: 500 mm; Thickness: 22 mm Hole Φ 26 mm	Germany	01	set
Plate Press Brake Machine	Length 6,000 mm; Thickness 16mm	Germany	01	set
Shot Blasting Machine	06 turbine; Length: 12,000 mm; Width: 2,500 mm; Height: 500 mm	Netherlands	01	set
Welding Machine	SMAW 300; MIG/MAG 505S; GTAW 400	G7	120	set
Crane	1.5 tons – 5 tons – 10 tons – 30 tons	S. Korea	24	set

#### PAINTING WORKSHOP

Equipment	Specification	Origin	Qty.	Unit
Automatic Shot Blasting Machine	16 turbine; Width: 3,000 mm; Height: 1,000 mm	Germany	01	set
Manual Shot Blasting Room	Length: 15,000 mm; Width: 7,500 mm; Height: 15,000 mm	Germany	01	set
Painting Machine	63.1	Korea	06	set
Crane	10 tons – 50 tons	Korea	04	set

#### TEST EQUIPMENT & OTHERS

Equipment	Specification	Origin	Qty.	Unit
Balancing Machine (For Fans)	Max Load: 3,000 kg; Diameter: 15-120 mm; Power: 7,5kw. Measure Instrument: CAB820	Germany		set
Radiographic Testing (RT)	Ir. 192 source	USA, EU	02	set
Ultrasonic Testing (UT)		USA, EU	02	set
Magnetic Particle Testing (MT)	AC Yoke	Korea	02	set
Phased Array Ultrasonic Testing (PAUT)		Canada	01	set



# PRODUCTION KEY EQUIPMENTS



Drilling & Sawing CNC Machine



Shearing CNC Machine



Shot Blasting System



Plate Cutting & Drilling CNC Machine



Plate Roll CNC Machine



Automatic SAW Station



Pipe Welding Station



Tube Bending CNC Machine



Membrane Water Wall Bending Machine



Membrane Water Wall Welding Machine



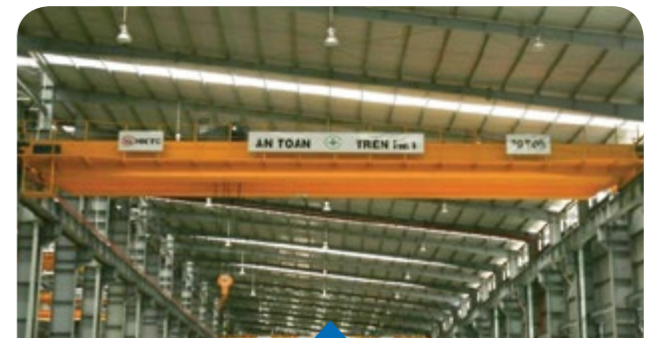
Membrane Water Wall Cutting Machine



Fin Bar Calibrate Machine



Electromagnetic Crane 50 Ton (2 units)



Crane 30 Ton (7 units)



Crane 10 Ton (24 units)



Crane 1.5 Ton (14 units)

# OUR BUSINESS

## SCOPES OF WORK

From Design to Installation



Consulting



Engineering



Procurement



Fabrication



Construction



Commissioning

## MAJOR PRODUCTS



Boiler



Co-Generation (Combined Heat Power)



Wind Power



Glove Dipping Line



Waste To Energy



Steel Structure



Flue Gas Treatment



Piping

# OUR BUSINESS

## BOILER

Advanced Technology – Multi-Fuel – High Performance



Liquid Fuel Boiler



Bubbling Fluidized Bed Boiler (BFB)



Circulating Fluidized Bed Boiler (CFB)



Heat Recovery Steam Generator (HRSG)



Chain Grate Boiler



Step Grate Boiler



Thermal Oil Heater



Water Tube Boiler

## ENERGY SOLUTIONS

Reduce Waste – Increase Efficiency



Co-Generation  
(Combined Heat Power)



Waste To Energy

## STEEL STRUCTURE

Build on a Strong Foundation



Steel Fabrication



Steel Structure Erection

## FLUE GAS TREATMENT

Control Emission and Protect Environment



Multi Cyclone



Bag Filter

# OUR BUSINESS

## WIND ENERGY

### Wind Tower and Support System



WIND TOWER



MONOPILE

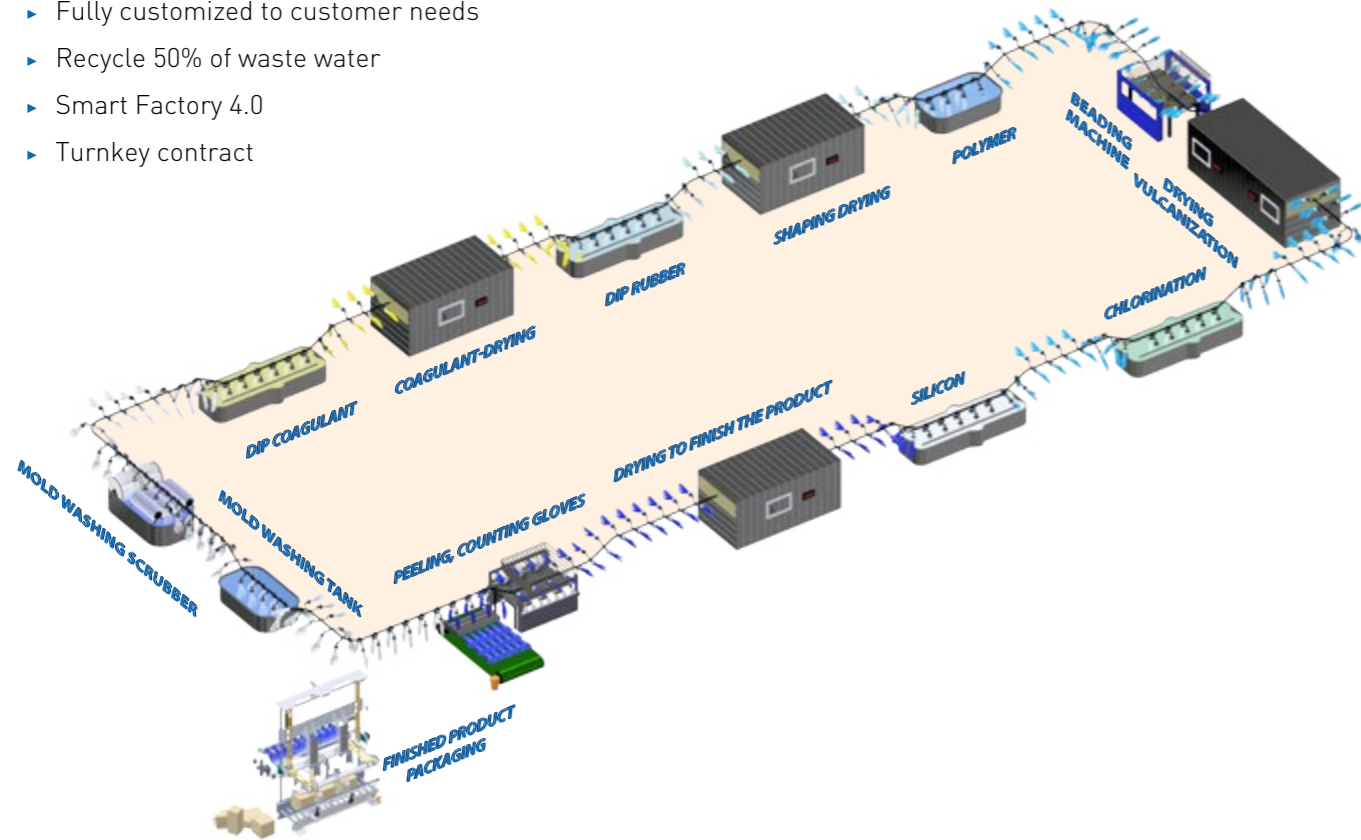


SUPPORT SYSTEM

## GLOVE DIPPING LINE

### High Capacity Rubber Glove Dipping Line

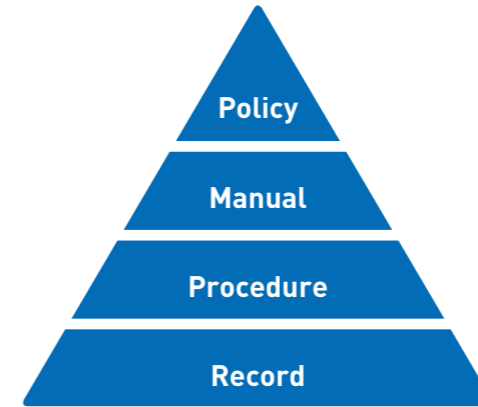
- ▶ Capacity: Up to 42,000 pcs/h
- ▶ Fully customized to customer needs
- ▶ Recycle 50% of waste water
- ▶ Smart Factory 4.0
- ▶ Turnkey contract



# QUALITY MANAGEMENT SYSTEM

MARTECH has implemented a Top Quality Management Direction for Quality Assurance in order to achieve customer satisfaction.

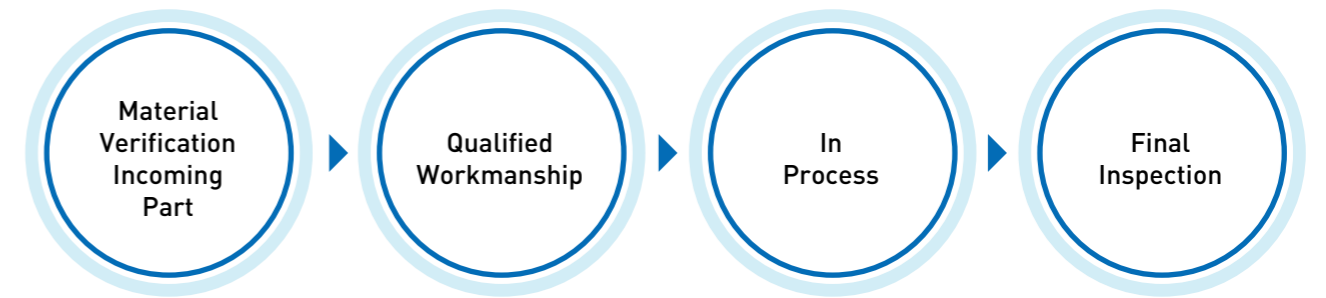
### Quality Management Structure



### Quality Implementation Activity

- ▶ Attentive Inspection (ITP)
- ▶ Effective Quality System (KPI, ERP)
- ▶ Raw Material Quality Control
- ▶ Manpower Training

## QUALITY ASSURANCE & CONTROL

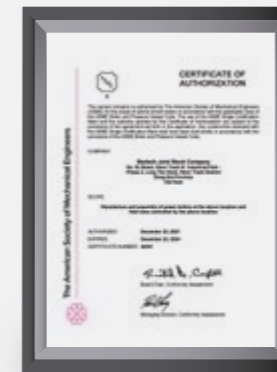


ASME AIA and PED NOTIFY BODY: LRQA Verification Limited

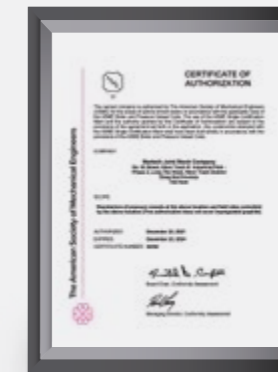
## CERTIFICATIONS



ISO 9001:2015



ASME (S)



ASME (U)



National Board (R)

# CUSTOMER BASE INDUSTRIES

Expert in Engineering, Steam, Thermal and Energy – We Proudly Serve



Power Generation



Chemical



Renewable Energy



Pharmaceutical



Pulp & Paper



Food & Beverage



Metallurgy



Rubber



Oil & Gas



Sugar Mill



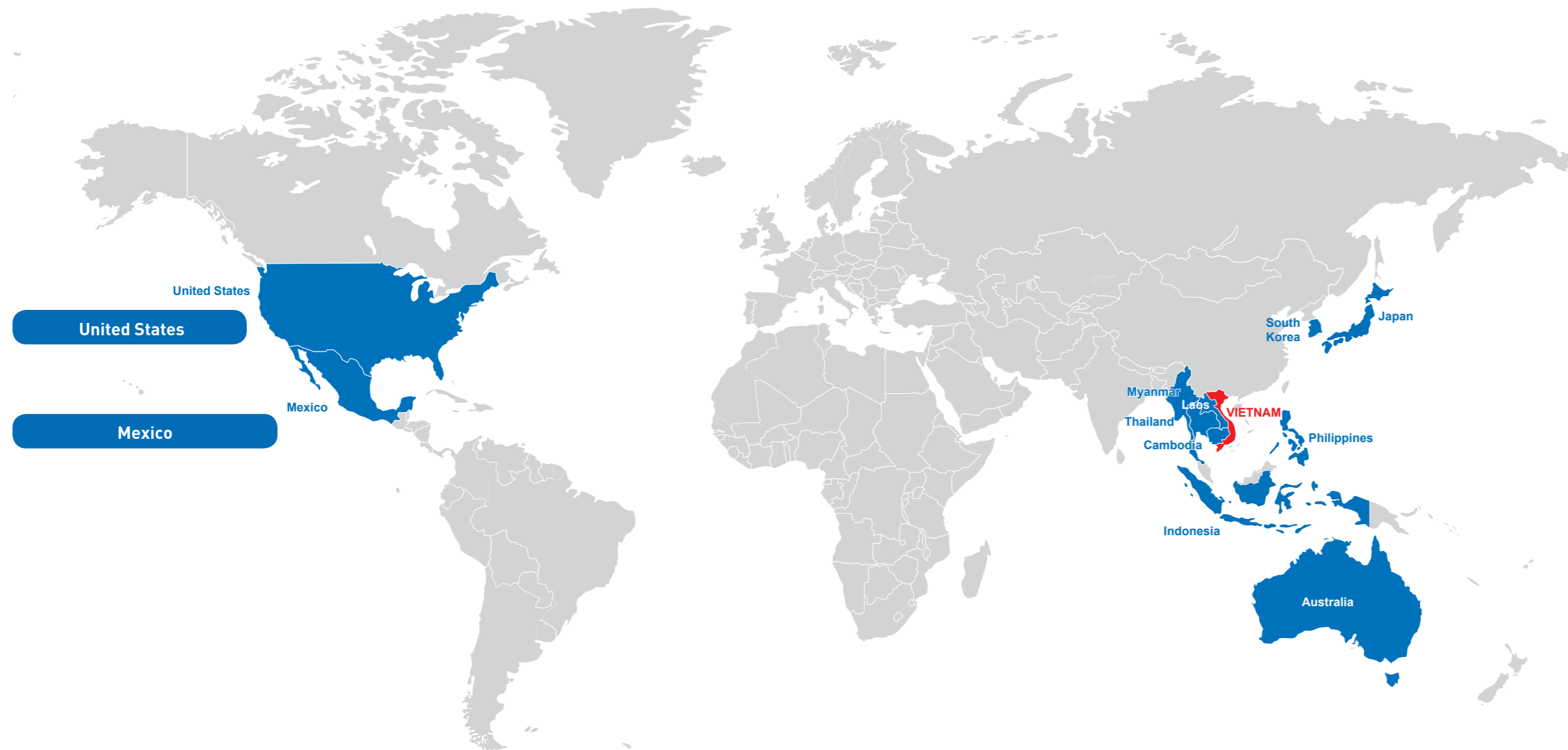
Textile



Feed Mill

# OUR MARKETS

We Have Provided Products and Solutions to Major Domestic and International Customers



United States

Mexico

Japan

South Korea

Myanmar

Laos

Vietnam

Thailand

Cambodia

Philippines

Indonesia

Australia

# CUSTOMER BASE

## KEY CUSTOMERS



# CUSTOMER BASE

## REFERENCE PROJECTS

### Pulp & Paper



#### TCE - Dong Hai Paper

EPC Contractor

##### BFB Steam Boiler 2 x 75 TPH

Specification:

- ▶ Steam Temperature: 480°C
- ▶ Operating Pressure: 71 barg
- ▶ Power Output: 19.5 MW

Fuel: Coal, Biomass

Location: Ben Tre, Vietnam

Special Purpose: Cogeneration



#### Thuan An Paper

##### BFB Steam Boiler 35 TPH

Specification:

- ▶ Steam Temperature: 180°C
- ▶ Operating Pressure: 12 barg

Fuel: Coal, Recycled Paper Waste, Sludge

Location: Binh Phuoc, Vietnam

Special Purpose: Waste to Energy



#### Hung Ha Paper

##### BFB Steam Boiler 30 TPH

Specification:

- ▶ Steam Temperature: 180°C
- ▶ Operating Pressure: 10 barg

Fuel: Coal, Recycled Paper Waste, Sludge

Location: Hung Yen, Vietnam

Special Purpose: Waste to Energy



#### Xuan Mai Paper

##### BFB Steam Boiler 30 TPH

Specification:

- ▶ Steam Temperature: 180°C
- ▶ Operating Pressure: 10 barg

Fuel: Coal, Recycled Paper Waste

Location: Ho Chi Minh City, Vietnam

Special Purpose: Waste to Energy

### Chemical & Textiles



#### Hyosung Vina Chemical

##### Water-tube Boiler 110 TPH

Specification:

- ▶ Steam Temperature: 480°C
- ▶ Operating Pressure: 52 barg

Fuel: Off Gas, Pyrolysis Gasoline, NG/LPG

Location: Ba Ria – Vung Tau, Vietnam

Special Purpose: Co-Gen, Waste to Energy



#### Samil Hi-Knit

##### Chain Grate Thermal Oil Heater 16 Gcal/h & BFB Steam Boiler 25 TPH

Specification:

- ▶ Thermal Oil Temperature: 260°C
- ▶ Steam Temperature: 190°C
- ▶ Operating Pressure: 12 barg

Fuel: Biomass, Coal

Location: Dong Nai, Vietnam



#### Hwaseung Dae Young Textile

##### Chain Grate Thermal Oil Heater 20 Gcal/h & Evaporator 20 TPH

Specification:

- ▶ Thermal Oil Temperature: 300°C
- ▶ Thermal Oil Pressure: 6.5 barg
- ▶ Steam Temperature: 190°C
- ▶ Operating Pressure: 12 barg

Fuel: Biomass, Coal

Location: Dong Nai, Vietnam



#### Polytex Far Eastern

##### Chain Grate Thermal Oil Heater 15 Gcal/h

Specification:

- ▶ Thermal Oil Temperature: 380°C
- ▶ Thermal Oil Pressure: 14 barg

Fuel: Coal

Location: Binh Duong, Vietnam

High pressure, high temperature thermal oil heater

## CUSTOMER BASE

### REFERENCE PROJECTS

#### Food & Beverage



#### Marubeni (Iguacu Coffee Plant)

##### BFB Steam Boiler 2 x 30 TPH (2 units)

Specification:

- ▶ Steam Temperature: 215°C
- ▶ Operating Pressure: 20 barg

Fuel: 100% Biomass (rice husk, wood chip, spent coffee ground)

Location: Ba Ria – Vung Tau, Vietnam



#### Ajinomoto (Vietnam)

##### Chain Grate Steam Boiler 3 x 30 TPH (3 units) & 1 x 40 TPH (1 unit)

Specification:

- ▶ Steam Temperature: 190°C
- ▶ Operating Pressure: 12 barg

Fuel: 100% Biomass

Location: Dong Nai, Vietnam



#### Universal Robina (URC)

##### Chain Grate Steam Boiler 2 x 15 TPH

Specification:

- ▶ Steam Temperature: 200°C
- ▶ Operating Pressure: 16 barg

Fuel: Biomass, Coal

Location: Binh Duong, Vietnam



#### Nissin (Vietnam)

##### BFB Steam Boiler 2 x 10 TPH

Specification:

- ▶ Steam Temperature: 180°C
- ▶ Operating Pressure: 10 barg

Fuel: Biomass, Coal

Location: Binh Duong, Vietnam

#### Other Industries



#### S&S Glove Corporation

EPC Contractor

##### High-Capacity Glove Dipping Line 42,000pcs/line/h & BFB Thermal Oil Heater 2 x 18 Gcal/h (2 units)

Specification:

- ▶ Thermal Oil Temperature: 300°C
- ▶ Thermal Oil Pressure: 6.5 barg

Fuel: Biomass, Coal

Location: Ba Ria – Vung Tau, Vietnam



#### Knauf Gypsum

##### Chain Grate Steam Boiler 25 TPH & Hot Gas Generator 5 Gcal/h

Specification:

- ▶ Steam Temperature: 236°C
- ▶ Operating Pressure: 30 barg

Fuel: Biomass, Coal

Location: Hai Phong, Vietnam



#### Evonik Industries (Mexico)

##### Heat Recovery Steam Generator (HRSG) 21 TPH

Specification:

- ▶ Steam Temperature: 276°C
- ▶ Operating Pressure: 60 barg

Fuel: Off Gas

Location: Mexico

Recover Waste Heat from Off Gas Burning



#### Cai Mep Port

##### Material Storage and Conveyor System

Specification:

- ▶ Storage capacity: 200,000 tons
- ▶ Transferring capacity: 4,000 T/h

Location: Ba Ria – Vung Tau, Vietnam

Coal Handling System





#### **MARTECH JOINT STOCK COMPANY**

##### **🏢 HEAD OFFICE**

Thuan Hai Tower, Road 24, Tan Thuan EPZ, District 7,  
Ho Chi Minh City, Vietnam.

Tel: +84 (28) 3622 6869    Hotline: +84 (34) 244 2266

##### **🏭 FACTORY**

No. 2 Street, Nhon Trach III Industrial Zone - Phase 2,  
Nhon Trach District, Dong Nai Province, Vietnam.

Tel: +84 (251) 356 6345    Fax: +84 (251) 356 634

**🌐 <https://martech.com.vn>**



Scan QR code  
to visit us