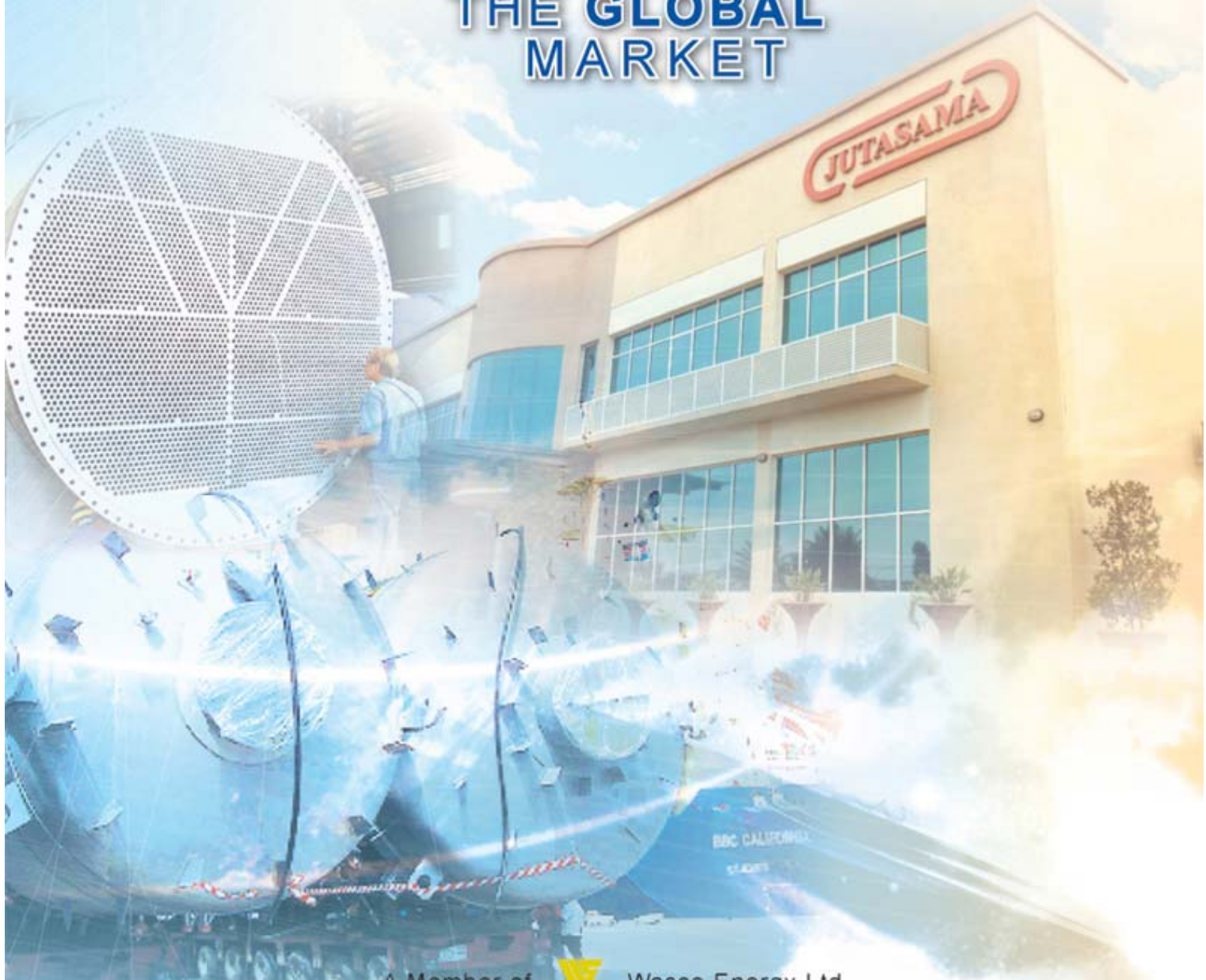




COMPANY PROFILE

PROCESS EQUIPMENT MANUFACTURER FOR THE GLOBAL MARKET



A Member of  Wasco Energy Ltd.

Welcome Message from MD

Since inception in 1983, Jutasama has focused on continuous improvement of its working & system processes and has since become the preferred plant engineering OEM for many of our global & local clientele.

Jutasama have applied and will continuously put in our best effort in total quality management with the aim to meet and exceed our clients' expectation in terms of product quality, delivery time & price.

We believe these commitments are vital to total customer's satisfaction. We welcome enquiries from all valued customers and look forward to provide our services.

Thank you for the interest in our company.

Managing Director

Our Vision

To be the premium engineering company capable of providing reliable process equipment and services for Malaysian and global market.

Our Mission

- To be a sustainable organization through value creation and continuous growth.
- To be the competitive and reliable equipment provider of choice.
- To enhance shareholders value and nurture conducive working environment for employees' development.
- To continuously improve and upgrade our working processes.
- To respect nature and not to harm the environment.

COMPANY PROFILE



Year Incorporated : January 1983

Factory Area :

15,000 m² (Covered area)
18,000 m² (Uncovered area)

Staff & workers : 250

Jutasama Sdn. Bhd. (Jutasama) is engaged in the design, fabrication, installation and commissioning of special tanks, pressure vessels, piping and specialised processing equipment required by the chemical industry, food processing plants and other engineering undertakings. The company is capable of fabricating products in accordance to major international codes or specifications in carbon steel, stainless steel, alloy and clad materials.

Our quality workmanship is well complemented by dedicated employees deep in pursuit of performance excellence, the adoption of the latest computer systems and use of advanced processing equipment to achieve uncompromising precision and top quality.

The commitment to quality has earned the company many orders from national and multi-national companies. Jutasama also supply to international engineering companies who in turn export to regional countries like Middle East, Japan, China, Indonesia, India, Thailand, Singapore, Australia & etc.

DESIGN AND ENGINEERING SERVICES

Our design department can comply to international standards, like
* ASME * BS * API * TEMA

We have well-trained design engineers and drafting personnel who are equipped with the latest softwares and technical knowledge to efficiently carry out their duties.

Engineering calculation software

PV Elite

Heat Exchanger design & rating software

HTFS.TASC

Drafting

Autodesk Inventor, Autocad

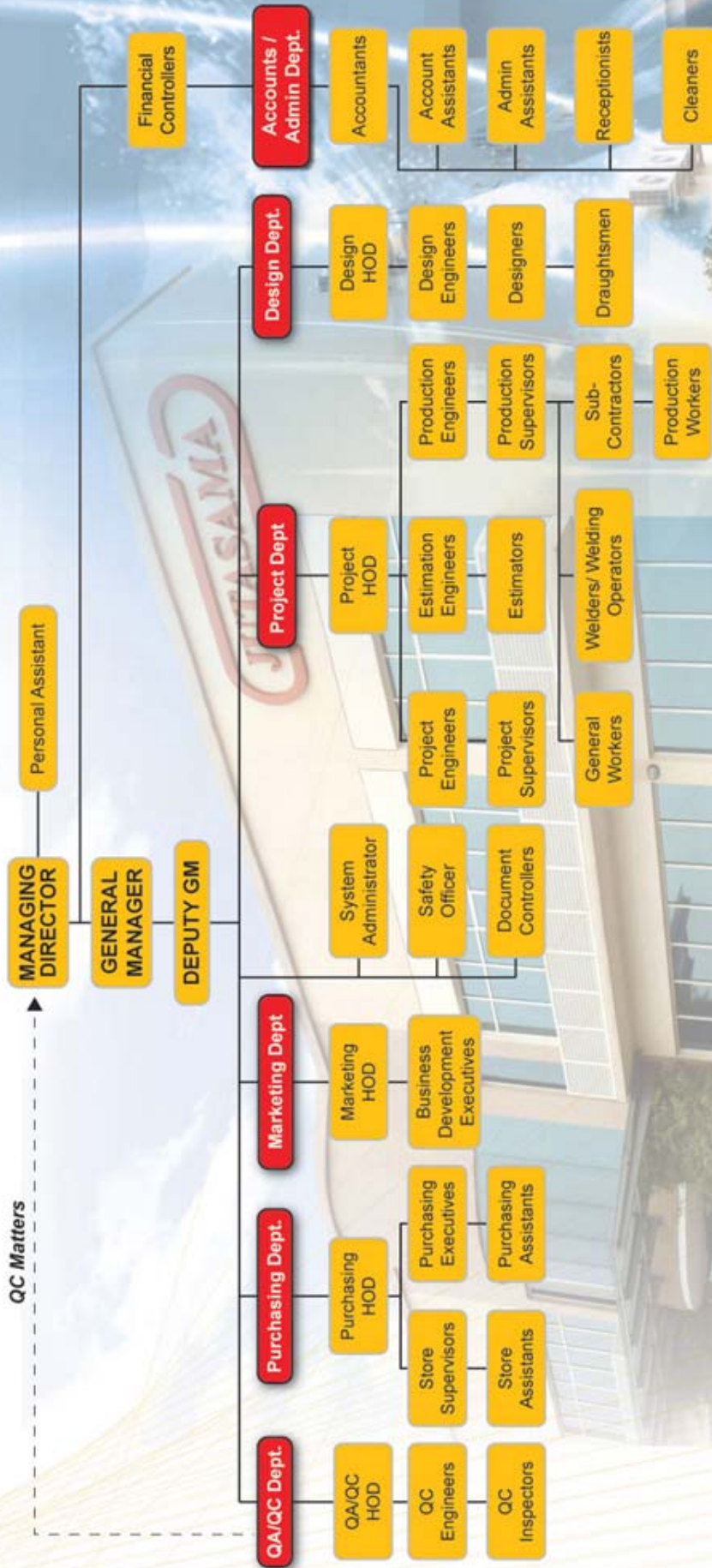


METALLURGY EXPERIENCE

We have skilled and qualified welders to cater for most of the welding processes. We are capable of fabricating pressure vessels and equipment of various ferrous and alloy materials such as:

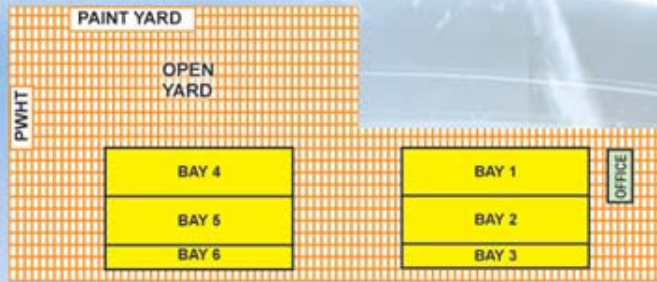
- Austenitic Steel: SS304, SS316, SS317, SS409(1.4512), SS321(1.4541)
- Heat Resistance Alloy Steel: SS309, SS310, 253MA (S30815)
- Super Austenitic Steel: 2RK65 (N08904/1.4539)
- Duplex Steel: SAF2205 (UNS S31803)
- Martensitic Ferritic Steel: SS410
- Nickel Alloy: Monel 400, Hastelloy C22 & Hastelloy X
- Cladded Steel: SA516 Gr. 70 BS1501 – 225 Gr. 490B cladded with SS316L, SS317L & S31803
- Low Alloy Steel: A333 Gr.3, A350 LF3, A387 GR.22, 16Mo3 etc.
- Carbon Steel: Corten A/B, A36, A516 Gr.70, A106 Gr.B & A105 etc.
- Abrasion Resistant Steel: AL400 etc.
- Aluminium: A5356, A5083, A6063 etc.

ORGANIZATION CHART



PLANT & EQUIPMENT

Shop Facility	Qty.	Spec. / Capacity
No. of Bay	6	Bay 1 : 23mW x 135mL (40 tons OH crane) Bay 2/4/5 : 23mW x 135mL (50 tons OH crane) Bay 3/6 : 10mW x 135mL (6.3 tons OH Crane)
Open Yard	1	60mW x 228mL
Covered Area	15,000	m ²
Uncovered Area	18,000	m ²
Office (Main)	1,330	m ²



Bending Roller	4	3000W for 45thk., min. 900dia. 3000W for 16thk., min. 600dia.
Hydraulic Press	1	300 tons capacity x 3000mm width
Shearing M/C	2	up to 10mm thk.
Turning Roller (Driven)	40	Max capacity : 200 tons
Positioner	4	10 tons/ 5 tons & 2 @ 2 tons
Bevelling Machine	3	1 @ fix, 2 @ portable
Manipulator	3	Stroke : 4m Lateral x 4m Vertical
Punching Machine	2	
Pipe Bender	2	Tight Bend up to 127mm OD
Angle/Channel Roller	1	
Air Compressor set	6	
Magnetic Drill / Raw	6	
Roll Expanding M/C	4	Torque control pneumatic-powered
CNC Drilling M/C	1	2300mm max. plate dia.
Radial Drilling M/C	6	
Gas Cutting M/C	20	
Plasma Cutting M/C	10	max. 65mm thk. (Stainless Steel)
SAW M/C	7	
SMAW M/C	70	
GTAW M/C	12	
GMAW M/C	10	
FCAW M/C	15	
Plasma Welding M/C	1	
Fume extractor	4	
Carbon Arc BackChip M/C	4	
Baking Oven	6	
Holding Oven	3	
Flux Oven	6	
Quiver	40	
Circle Burner	1	Cypress CB-2
Low Bed Trailer	1	3 axles - 40 ton capacity
Terrain Crane	1	Tanado / 35 tons
Forklift	3	1 @ 6 tons, 2 @ 2 tons



QC TOOLS & GAUGES



Shop Facility

Qty. Spec. / Capacity

QC Tools

PMI Tester	1	Brand : Master Plus
Digital Hardness Tester	1	Brand : Time
Ferrite Tester	1	Brand : Fischer, 0 - 10 Fe
Ultrasonic Thickness Gauge	1	Brand : Kawatetsu, 1 - 200 mm thk.
Surface Roughness Tester	1	Brand : Mitutoyo, Digital, 0.01 - 75 Ra
Coating Thickness Gauge	1	Elcometer 345 , 0 - 1250 μ m
Digital Clamp Meter	2	Brand : Kyoritsu
Densitometer	1	Brand: DDS2 , 0 to 4.0 D
Digital Thermometer	2	Range : 0 to 400 $^{\circ}$ C
Magnetic Thermometer	1	Range : 0 to 120 $^{\circ}$ C
Manometer & Pitot Tube	1	Measure air flow, pressure
Anemometer	1	Brand : Prova

QC Gauges

Vernier Caliper	3	Brand : Digimatic, Kern
Forcep Callipper	4	Brand : Two Axial, outside & inside
Dial Gauge	3	Brand :Mitutoyo(0-5mm) & Teclock (0-10 mm)
Hole Tester	7	Brand : Mitutoyo, various range 12 to 40 mm
Holtest Expander	1	Brand : Mitutoyo, 150 mm
Welding Gauge	4	
Taper Gauge	3	
High Low Gauge	1	
Moore & Wright Water Level	2	
Magnetic Water Level	2	

Tools For Hydrotesting

Hydraulic Test Pump	10	Max. 700 barg (10,000 psi)
Chart Recorder (Pressure)	8	Range : 0 - 400 barg
Pressure Gauge	100	15 psi to 10,000 psi



QUALITY CERTIFICATES



ISO 9001: 2000 Certification by Lloyd's Register
 China's Manufacturing License for pressure vessel
 National Board of USA for pressure vessel & boiler
 DOSH Registration as pressure vessel manufacturer

Certificate No. : 403939
 Certificate No. : TS2200757-2008
 Since 1999
 Since 1983



ASME 'U', 'U2' & 'S' STAMP HOLDER

"U" Certificate No.: 31099

"U2" Certificate No. : 33317

"S" Certificate No. : 31098

OVERSEA

Company Name	Country
• AARDING Thermal Acoustic BV	Netherlands
• A - Foss Asia Pte. Ltd.	Singapore
• Ahlstrom Machinery	Finland
• Auto Chemical Ind. Co. Ltd	Japan
• Braden - Europe b.v	Holand
• Challenge Engineering Ltd.	New Zealand
• CLYDE Bergmann Materials Handling Ltd.	England
• Daido Machines Co. Ltd.	Japan
• DeSmet Ballestra Oleo s.p.a	Italy
• Ebner Industrieofenbau	Austria
• Evan Deakin Engineering Pte. Ltd.	Australia
• Gas Services International (S) Pte. Ltd.	Singapore
• GEA Btt	France
• Gerb Vibration Control Systems	Germany
• G + H Schallschutz GmbH	Germany
• Jenkins Newell Dunford	England
• Kaneka Engineering Corporation	Japan
• Kansas City Deaerator Co.	U.S.A
• Mc - Connell Dowell Interbeton J.V.	Singapore
• Mitsubishi Heavy Ind Ltd.	Japan
• Mitsui Eng & Shipbuilding Co. Ltd.	Japan
• Nippon Aluminium Co. Ltd.	Japan
• PT Balcke - Durr	Indonesia
• PT Musim Mas	Indonesia
• S.A. Fractionnement TIRTIAUX	Belgium
• Singapore Syngas Ltd.	Singapore
• Sumitomo Chemical Engineering Pte. Ltd.	Singapore
• Sumitomo Chemical Engineering Pte. Ltd.	Japan
• Tate & Lyle Lockwood Greence Engineers, INC,	USA
• Technip Eng (Thailand) Ltd.	Thailand
• Technip	France
• Toray Engineering Co. Ltd.	Japan
• Woodfield Systems Ltd.	England

LOCAL

- Acidchem International Bhd.
- Alstom Export Sdn. Bhd.
- Air Products STB Sdn. Bhd.
- Alfa Laval (M) Sdn. Bhd.
- BASF Petronas Chemicals (M) Sdn. Bhd.
- Bukit Fraser Thermal Technology Sdn. Bhd.
- Burgmann Malaysia Sdn. Bhd.
- Cabot (M) Sdn. Bhd.
- Cognis Oleochemical (M) Sdn. Bhd.
- Cognis Rika (M) Sdn. Bhd.
- Dialog E & C Sdn. Bhd.
- Esterol Sdn. Bhd.
- Eversafe Marketing Sdn. Bhd.
- Flexsys Chemicals (M) Sdn. Bhd.
- FPG Oleochemical Sdn. Bhd.
- Hexagon Tower Sdn. Bhd.
- HLE - BWM - SP Consortium
- Jebsen Jessen Engineering - Lurgi Sdn. Bhd.
- Kertih Terminals Sdn. Bhd.
- Kilang Makanan Mamee Sdn. Bhd.
- MHE - Demag Logistics (M) Sdn. Bhd.
- Nestle Foods (M) Sdn. Bhd.
- Oil - Line Engineering & Associates Sdn. Bhd.
- Mechmar Energy Sdn. Bhd.
- Natural Oleochemical Sdn. Bhd.
- Palm - Oleo Sdn. Bhd.
- Pasir Gudang Edible Oils Sdn. Bhd.
- PMT Industries (M) Sdn. Bhd.
- Pofachem Sdn. Bhd.
- Regelung Automation (SEA) Sdn. Bhd.
- Samsung Corning Sdn. Bhd.
- Siemen Power Plant Asia Pacific Sdn. Bhd.
- Southern Acid (M) Bhd.
- Southern Lion Sdn. Bhd.
- Synthomer Sdn. Bhd.
- Technip Far East Sdn. Bhd.
- T.I.P.P. (M) Sdn. Bhd.
- TOYO Engineering & Construction (M) Sdn. Bhd.
- ToyoChem (M) Sdn. Bhd.
- Uniqema (Malaysia) Sdn. Bhd.
- Usahawan Bersama Teknik Sdn. Bhd.
- VBSC Sdn. Bhd.
- Zanwa Sdn. Bhd.

PRODUCTS & SERVICES

COLUMNS

1. Column for SMAG II project, Singapore
2. Deodoriser
3. Monel 400 Column for MP1 Project
4. SS317L cladded column



1.
2. 3. 4.



DRUMS

1. Mercury Removal Absorber
2. Deaerator
3. Drum with external heating coils.
4. 22 Nos. Launchers & Receivers for Thar Jath project, Sudan.

1.
2. 3. 4.



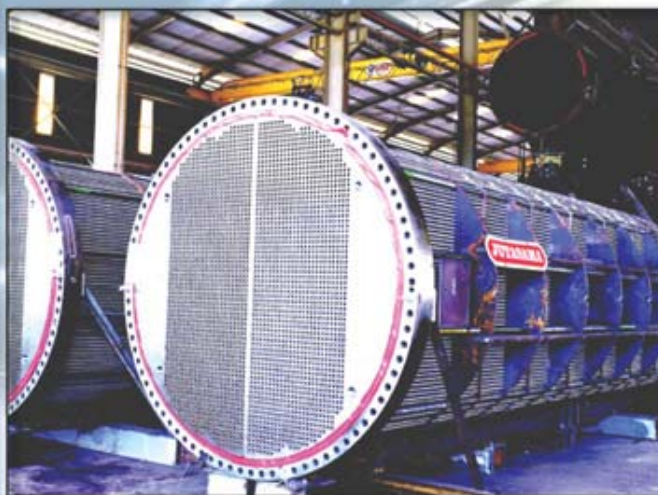
PRODUCTS & SERVICES

SHELL & TUBE HEAT EXCHANGERS

1. Gas Cooler for Offshore
Duplex & Cladded
ID1820 X 5500L
2. Condensator for SMAG II
2500ID x 5000SL
3952 nos- 27.2OD x 1.8mmthk.
3. Hydro-generation Preheater
176thk. Cladded tubesheet
4. Round Surface Condensator
B111 C44300 Al. Brass tube

1.

2. 3. 4.

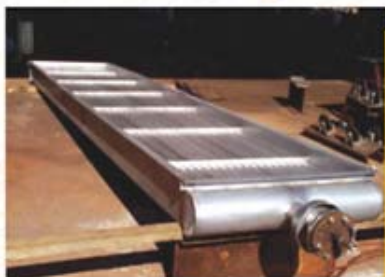


AIR COOLERS

1. Air Finned Cooler Delivery to Kemaman (11 set)
2. Installation of 2 units A-frame Air Cooled Condensors
Erection Weight : 2400 tons
3. Natural Flow Air Cooler
4. Feedstock Air Heater
Material: 2RK65/253MA

1.

2. 3. 4.



PRODUCTS & SERVICES

TANKS / SILOS

1. 6 Nos. Bulk Storage Silo
Silos Weight: 500 tons
2. SS304 PVC Slurry Tanks
with painting
3. Blending Silo with Al. Blend Tubes
4. Powder Hopper for TITAN

1.

2. 3. 4.



MIXING VESSELS

1. AANS Reactors
*Buff to 400#, side picture shown
dynamic balancing of blade in
Jutasama complex.*
2. AKK Mixing Plant
3. TIPP & UPP Reactors
*10 units various sizes,
trial run upto 75kw*
4. SNC II Reactors

1.

2. 3. 4.



PRODUCTS & SERVICES

BWK'S GRAVITY SAND FILTER

1. ASF 63N (450 m³/hr x 6,300ID) for BASF Gebeng
2. ASF 52H (600m³/hr x 5,200ID) for SynGas Singapore
3. ASF 36H (250 m³/hr x 3,600ID) for TITAN
4. ASF 39H (300 m³/hr x 3,900ID) for Turkmenistan Refinery

1.

2. 3. 4.



ROTARY EQUIPMENT

1. SS321 Rotary Roaster
2. Hastelloy - X & C22 Rotary Dryer Drum for Carbon Black OD3,048 x 22,000L
3. SS316L Rotary Conditioner Dryer with internal sparging pipe.
4. Steel Coil Tilters

1.

2. 3. 4.



PRODUCTS & SERVICES

PIPING WORKS

1. Dairy Piping Works for Milk Plant
2. SS Piping Works
3. Rubber-lined piping for Ash Handling Plant
4. CS Insulated piping works for Kulim power plant (16,000 dial)

1.
2. 3. 4.



DUCTING WORKS

1. 300 tons of Steam Duct & Manifold (2,767OD/ 2,032OD A516-70)
2. 1800NB Cross Over Pipe for Paper Mill
3. Hastelloy C22 & 253MA Flue Gas Ducting
4. 100%RT Air Duct for Petlin LDPE Project (2mm/3mm thk. SS304, 16 tons)

1.
2. 3. 4.



PRODUCTS & SERVICES

PROCESS PACKAGES

1. EPC of Ex-proof zone Wire Insulation Varnish Plant.
2. Blender Silo Skid Package for EXXON Chemical.
3. 3 Stage Vacuum Ejector package for Kaneka.
4. Process Sizing of S&T Heat Exchangers for Synthomer.

1.

2. 3. 4.



MECHANICAL EQUIPMENT

1. Main unit Filter with SS316L & Duplex hoppers(weight: 210t)
2. Scraper conveyor for Manjung Power Plant (450 tons)
3. Air Seal test for diverter
4. 8 Nos. of Marine Loading Arm for VLCC Jetty, Singapore Port.

1.

2. 3. 4.



ASSOCIATE COMPANIES

Mackenzie Industries Sdn. Bhd. is engaged in the design, engineering and construction of boiler and energy system. The company is operated by a team of boiler engineers with more than 30 years experience in the field.

MI is capable of design and engineered various industrial boiler energy systems, particular in the Biomass Fired Power Plant and Waste Heat Fired Boiler (HRSG).

MI's steam boiler is also used in palm oil industry, wood industry, food processing plant & etc. The range of products includes:

WD Series:

- Natural circulation membrane wall Bi-drum water tube boiler.
- Design for biomass fired industrial power plant which requires high efficiency performance as well as uninterrupted continues operation.
- Grate: reciprocating grate, air cooled, and water cooled vibrating grate, traveling grate etc.

BD Series:

- Same construction as the WD Series except the furnace tubes are of tube & tile construction.
- Most suitable for supplying steam for most industrial plant application.
- Fuel: palm waste, wood waste.
- Grate: stationery horizontal fix grate or reciprocating grate.

WH Series:

- The industrial HRSG designed for waste heat recovery from gas turbine exhaust.
- Suitable for gas fired cogen plant application.
- Additional duct fired burner can be incorporated, if required.
- Bi-drum with fin tube construction, shop assembled unit.

Address : Lot 1945, Jalan Klinik, Seksyen 32, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.

Email : general@mackenzie.com.my



Waste Heat Boiler Model WH23SSEOG equipped with Post Combustion System

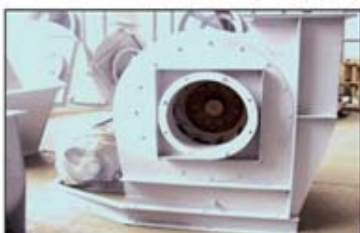


Dust Collector, Economizer & Air Preheater For Power Plant Biomass Boiler WD30SSEAB Model

PHOENIX INDUSTRIES SDN. BHD. is manufacturer and distributor of industrial Centrifugal Fans, Blowers and Axial Fans.



Industrial Fan – SWSI



Material Handling - LF Model

TEL: +6-03-5121 1513
E-MAIL: cgyap@pisb.com.my

PMT INDUSTRIES SDN. BHD. is involved in Agro-Engineering sector and is the sole agent of Shinko Steam Turbine from Japan.



Generator Drive Steam Turbine



Parts

TEL: +6-03-5122 5522
E-MAIL: pmt@pmtindustries.com

