



Engineered
THERMAL SYSTEMS (Pty) Ltd

Unit 41 Barbeque Bend, Hyperion Road, Barbeque Downs,
Midrand, Gauteng, South Africa
P O Box 30685, Kyalami, 1684
Tel: +27(0) 10 020 0292 /3/4
Cell: +27(0)82 575 2019
e-Mail: thermal@etsystems.co.za
Website: www.etsystems.co.za

EPCM Projects
Project Managers
Engineering Design
Engineering Draughting



Furnace Recuperators
Gasholders & Flare Systems
Aluminium Melting & Heat Treatment
Furnace Skid Systems & Pre-Cast Shapes
Steel Reheat & Heat Treatment Furnaces
Specialist Furnace & Boiler Tubing & Piping
Gas Reticulation Piping & Combustion Systems

Engineered Thermal Systems (ETS), based in Gauteng have serviced the South African Aluminium, Steel and Stainless-Steel Industry since the early 1990's.

A well-established Engineering Design and Project Management Company that designs, builds and commissions Industrial Furnaces, offering other specialist furnace related products, such as Furnace Recuperators, Alloy Dry Skids, Pre-Cast Refractory Shapes, Combustion Systems, Electrical Heating Elements, Thermocouples, Gas Piping and Gas Reticulation Systems.

We offer other specialist products such as Flare Systems, Flare Ignition Systems, Vapour Recovery and Gasholders backed by International Market Leaders.

Steel & Stainless-Steel Industry

- ✚ Reheat Furnaces for billet, bar, rod, and slab.
- ✚ Stainless Steel strip annealing, plate, etc.
- ✚ New furnace and/or furnace revamps.
- ✚ Alloy Dry Skids for Pusher Furnace Hearths
- ✚ Pre-cast refractory components.
- ✚ Combustion Systems
- ✚ Instrumentation and Computer Optimization.
- ✚ Recuperators from Peiler Montanwärme.
- ✚ Refractory and ceramic fibre – Design and Installation
- ✚ Electric Heating Elements and Systems.
- ✚ Charging and Discharging Machines
- ✚ Material Handling; Transfer Cars and Roller Tables



General Purpose Heat Treatment

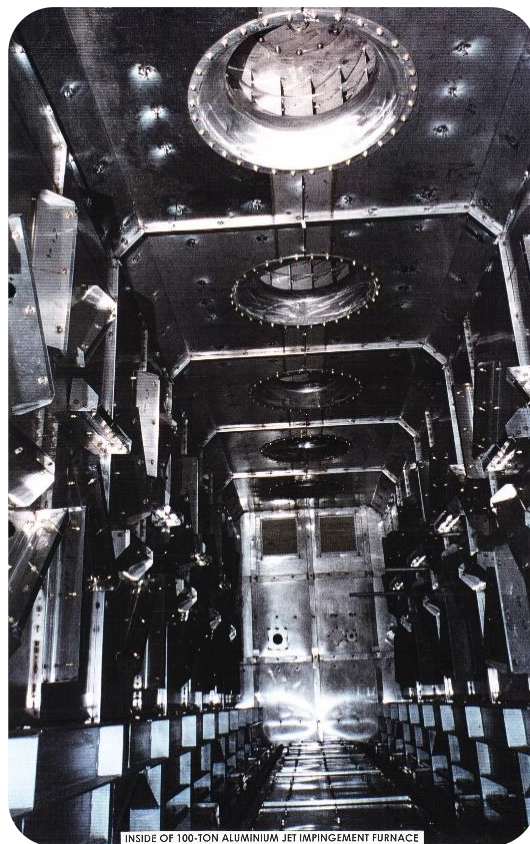
- ✚ Top Hat Furnaces (Electric / Gas / Fuel Oils)
- ✚ Bogie Furnaces (Electric / Gas / Fuel Oils)
- ✚ Roller Hearth Furnaces for Plate Heat Treatment.
- ✚ Tube Heating Furnaces.
- ✚ Spring Heating / Tempering for Coil / Leaf Springs for Motor Industry.



As Licensors of our UK Aluminium Technology Partner, Mechatherm International, we offer a range of Aluminium Melting and Heat Treatment Furnaces, including Material Handling Equipment, Charging & Discharging Machines and

Aluminum Industry

-  Aluminum Melting & Holding Furnaces
-  Aluminum Heat Treatment Furnaces
-  Coil Jet Impingement Furnaces
-  Foil & Plate Annealing Furnaces
-  Rotary Die Heaters
-  Extrusion Equipment.
-  Charging & Discharge Machines



Our association with our Peiler Montanwärme in Germany enables us to offer our customers the latest recuperator design and technology for furnace recuperators, used for energy recovery from waste heat furnace flue gases. Each recuperator unit is designed and custom built for its individual application, maximising the energy benefit.

Design and manufacture of Recuperators by Peiler Montanwärme.

Engineered Thermal Systems oversee the installation and commissioning of the recuperators.



Furnace Recuperators

-  Convection Recuperators
-  Radiation Recuperators
-  Turbomant Recuperators

Engineered Thermal Systems are also suppliers of high-quality brass condenser tubing, mild steel and stainless-steel boiler tubes of all grades and sizes, utilised on waste heat, water tube and steam boilers.

Design and Supply of all grades and sizes of Furnace Water-Cooled Skid Pipes, including Manufacture and installation of Pre-cast Skid Insulation for Furnace Skid Pipes.

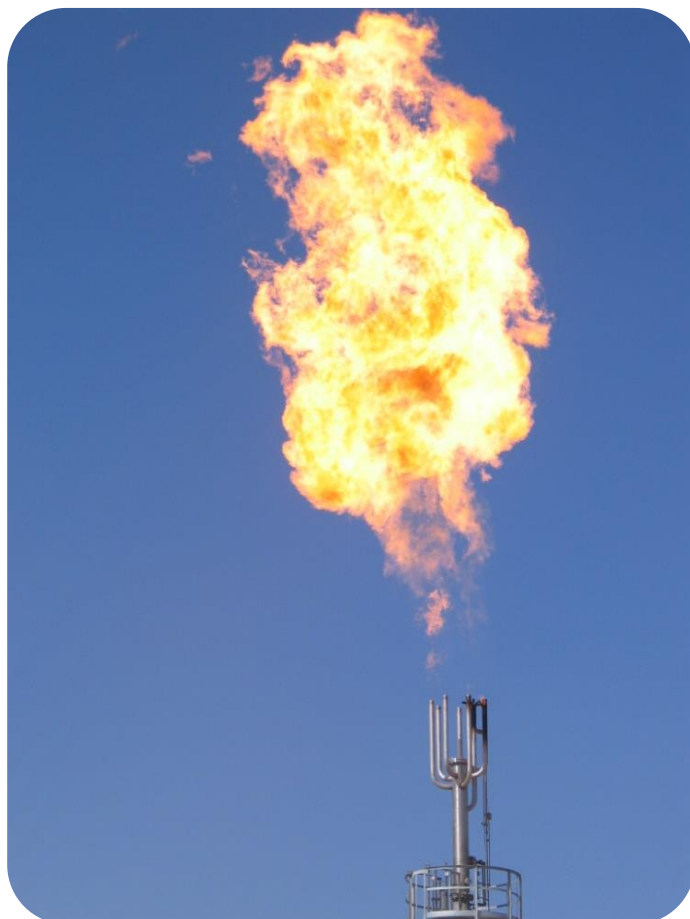


Alloy Dry Skids for Pusher Furnace Hearths, that will extend the life of your Furnace Hearths, with record tonnages in excess of 1 million tons

Our product range of Flares, Flare Ignition Systems and Gasholders are an integral part of energy co-generation plants, where gas pressure control to gas powered engines are critical, with Flare Stacks providing relief during emergency or high flow conditions.

Engineered Thermal Systems are representative agents for ENCORE THERMOENGINEERING S.R.L from Milan, Italy and offer a wide variety of innovative Flare Stack solutions, Flare Ignition Systems, Thermal Oxidizers (Incinerators)

We offer refurbishment of existing flares and upgrade of Flare Ignition Systems, compliant with SANS 329 Gas Regulations.



Flare Systems

- ✚ *Elevated Flare Structures*
- ✚ *Flaring Technologies*
- ✚ *Sonic Flares*
- ✚ *Flare Ignition Systems*
- ✚ *Bio-Gas Flares*
- ✚ *Off-Shore Flare Systems*
- ✚ *Recuperative Thermal Oxidiser*
- ✚ *FireCat™ Oxidizer Systems*
- ✚ *Combustidizer™ Oxidizer Systems*

With our UK Gasholder technology partner, Altrad Motherwell Bridge International, Clayton-Walker Gasholders, Engineered Thermal Systems can offer a range of wet and dry seal gasholders for a range of stored gases.

Suppliers of Gasholder Seal Replacements and Gasholder Instrumentation Systems for Monitoring and Protection of Gasholders.

Motherwell Bridge International are also leaders in the field of Fuel Storage Tanks for the Petroleum Industry.



Gasholder

✚ *Single Lift Column Guided Water-Sealed*

✚ *Mult-Lift Spiral Guided Water-Sealed*

✚ *Wiggins Type Dry Seal*

We also offer the following specialist services for gasholders:

- Gasholder steel shell repairs
- Gasholder conversions/modifications
- Gasholder Statutory Inspections
- Gasholder Dry Seal Replacement
- Gasholder Electrical & Instrumentation Packages

Manufactured under licence from Johnson Thermal Engineering (JTE), Engineered Thermal Systems are suppliers of the latest JTE Cremator, associated crematorium equipment and Incinerators. The JTE cremator design has been around for more than a decade and a proven track record of successful operation that meets the Air Emission requirements for new plants as specified by the National Environmental Management: Air Quality Act (NEM:AQA)



JTE BA2 CREMATOR

- ✚ South African designed and built for African conditions and altitudes
- ✚ Modern clean appliance type appearance
- ✚ Smokeless and odourless operation
- ✚ Installation and Operator Training Included
- ✚ Maintenance plans and all consumables can be provided
- ✚ Hot heart design for rapid cremation process.
- ✚ Carry out 5 cremations in a normal 8-hour shift.
- ✚ Self-sealing hydraulically operated loading door controlled via push buttons
- ✚ Fully automatic simple operating touch screen HMI and PLC
- ✚ Minimal operator input
- ✚ SANS 329 compliant combustion system.
- ✚ Fully modulated primary and secondary burner controls.
- ✚ Natural Gas or LPG fired.



The cremator turnkey solutions include the cremulator, hydraulic lift biers, self-cleaning magnets, and cleanout tools. The designs and manufacture are carried out with the operator in mind to maximise on ergonomics and efficiency.