



Taking efficiency one step closer to perfection



www.technotherma.in

Introduction

Technotherma Furnaces is a professional engineering organization, specialized in the design and construction of Industrial Furnaces and Heating Systems. Formed in 1994. Technotherma is run by a technically qualified team of engineers with in-depth knowledge and experience in the field of design and construction of furnaces and heating systems.

Among the wide range of industrial furnaces successfully developed and built by us, the Oil/Gas Fired BILLET REHEATING FURNACES are a matter of pride for us. We are considered to be among the leading builders of reheating furnaces in India today, way ahead of the others in this field. Almost all the important re-rollers and steel makers in India have entrusted their responsibility of building new reheating furnaces as well as modifying the existing ones for performance upgradation to us,

It is a great pleasure and pride to have constructed more than 400 furnaces having capacities that range from 2 TPH up to 120 TPH which itself speaks volumes about our technical competence and also about our commitment to meet client's expectations.

It is difficult to halt good reputation from spreading and we have built furnaces in countries like Saudi Arabia. Zimbabwe. Sri Lanka, Egypt, Oman, Sudan. Iran, Qatar. Nigeria, Kenya. Tanzania, U.A.E., Kuwait, Bahrain, Yemen, Congo. Ethiopia, Bangladesh, Nepal. Kazakhstan, Georgia, Tunisia. Kurdistan, Ghana, Burkina Faso, Mozambique. Pakistan, etc.

At Technotherma, customer satisfaction is our prime motto. We not only design, supply, erect and commission furnaces, but also back up with unmatched servicing facilities. We believe in a long term association with our clients and repeat orders from them.

Apart from being specialists in Rolling mill furnaces, we also offer a wide range of Heat Treatment Furnaces such as Bogie hearth furnaces. Roller hearth type continuous annealing furnaces, Walking beam furnaces. Bell type annealing furnaces, etc, for various applications in Steel plants, Forging units, Foundries, Automobile spring units, Wire drawing plants, Metal processing units, etc.

We have also developed oil/gas fired Preheating Hood (Sintering System) for the Induction type Melting Furnaces. This system has received tremendous response from both Steel Melt Shops as well as from Induction furnace manufacturers. We have already supplied more than 60 Preheating Hoods in less than 5 years since it was developed by us, This speaks volumes about its success.

We also manufacture and supply Ladle Preheaters (Horizontal & vertical types) and AOD Vessel pre-heaters for Steel Melt Shops on a regular basis,



Products



BILLET/ BLOOM REHEATING FURNACES (ENTIRE RANGE)

- Pusher Type, Walking Hearth and Walking Beam Type,
- Top Fired as well as Top and Bottom Fired,
- Side Discharge as well as End Discharge Types,
- Fuel- oil Fired Types- Heavy furnace oil / LDO / HSD etc.,
- Gas Fired Types- Natural Gas / LPG / Propane / Producer Gas / Blast Furnace Gas,
- Solid Fuel Types- Pulverized coal fired.



HEATING TREATMENT FURNACES

- Bogie hearth furnaces and chamber type furnaces for steel plants, forging units & foundries,
- Walking beam type normalizing furnace, conveyer type tempering furnace, parabolic spring end heating furnace for automobile industry,
- Roller hearth type continuous annealing furnaces, Bell Si Pit pot type batch annealing furnaces, Zinc melting furnaces, etc. for Wire plants and other metal processing units.



HEATING SYSTEMS

- Ladle Pre-Heaters (Horizontal and Vertical types).
- Preheating Hood (Sintering System) for Induction type Steel Melting Furnaces,
- AOD vessel pre-heating systems.

Products (Furnace Components)



CHARGE PUSHER

Billet charging pushers in following categories are supplied by us :

- Power screw type mechanical pushers for smaller furnaces,
- Single cylinder type hydraulic pushers for charge length ranging from 1.5 mtrs, up to 6 mtrs.
- Double cylinder type hydraulic pushers for charge length ranging from 3 mtrs. up to 6 mtrs.,
- Three cylinder type hydraulic pushers for charge length of 9 mtrs.,
- Four cylinder type hydraulic pushers for charge length of 12 mtrs.



HOT BILLET EJECTOR

Hot billet ejector machines in following categories are supplied by us :

- Single drive light model for charge billet length up to 4 mtrs. and billet weight up to 600 kgs..
- Single drive medium model for charge billet length of 4 to 6 mtrs. and billet weight up to 1200 kgs.
- Double drive heavy model for charge billet length of 6 to 12 mtrs. and billet weight up to 2400 kgs,



PINCHING cum PULL OUT ROLL ASSEMBLY

- This machine is used in combination with the ejector machine where the furnace chamber width is more than 6 mtrs.
- Available in 3 sizes with billet weight ranging from 600 kgs, up to 2400 kgs.

Products (Furnace Components)



RECUPERATOR

Various types of recuperators offered by us:

- Two pass recuperators for medium heat duty,
- Four pass recuperators for high heat duty,
- Straight pipe recuperators for smaller furnace capacities,
- Bent pipe recuperators for bigger furnace capacities,
- Vertical recuperator for pulverised coal firing.



FLUE DAMPER

Flue dampers are used to regulate the flue gas movement and control the furnace pressure. The flap and shaft will be made out of heat resisting steel. Handle for manual operation is provided. Provision for fitting the actuator is also made for the purpose of automation,

Available in various sizes up to 8000 mm diameter.



COMBUSTION EQUIPMENT

- Burners and accessories for various applications and for oil, natural gas, producer gas and pulverised coal firing,
- Combustion air blowers, two-stage high pressure atomising air blowers, I. D. fans and dilution air blowers,
- Fuel oil pumping, filtering and heating systems, fuel oil tank outflow heaters, online oil pre-heaters and accessories,
- Gas line supply manifolds for pressure regulation and safety interlocks,
- Gas line valves, filters and accessories,
- Air line butterfly valves and expansion bellows,
- Coal pulverising and coal feeding systems.

Products

REFRACTORIES AND INSULATING MATERIALS

All type of Refractories and Insulating materials such as:

- Standard Fire bricks in regular & high alumina grades,
- Shaped bricks/blocks in all alumina grades such as arch bricks, abutment blocks, tiles, wall holding bricks, roof shapes, etc.
- Magnesite bricks, chrome magnesite bricks, basic mortars, etc.,
- Insulation bricks (hot 8t cold face), calcium silicate blocks, mineral wool mattresses, glass wool mattresses, etc.,
- Conventional castables, low cement castables, Insulating castables, etc.,
- Precast and pre-fired blocks for reheating furnace hearth top applications.,
- Precast and pre-fired primary and secondary burner blocks and other shapes.,
- Ceramic fibre blankets, modules, paper and boards.,
- Refractory and insulating mortars in various grades.

FURNACE AUTOMATION SYSTEM AND CONTROLS

- * Simple, yet effective, automatic furnace temperature control systems for oil & natural gas firing using stand alone type controllers.
- * Automatic furnace pressure control system using stand alone type PID controller.,
- * Automatic continuous excess oxygen control systems.,
- * Flame failure safety and auto ignition system using automatic burner sequence controllers for natural gas fired furnaces.,
- * Mass flow measurement based accurate furnace temperature control systems using stand alone type PID controllers.,
- * Complete furnace automation Si safety schemes based upon PLC system and dedicated software.



List of Major Clients

No.	Client	Year	Fuel	Capacity (TPH)
1.	Al-Ittefaq Steel Products Factory, Mill No. 1, Dammam, Saudi Arabia.	1999	Furnace Oil	100
2.	Al-Ittefaq Steel Products Factory, Mill No. 2, Dammam, Saudi Arabia.	2000	Furnace Oil	100
3.	National Port Said Steel, Egypt	2003	Furnace Oil	40
4.	Sudanese Malaysian Steel Factory, Mill No. 1, Jeddah, Saudi Arabia	2004	Furnace Oil	30
5.	Al-Ittefaq Steel Products Factory, Mill No. 1, Jeddah, Saudi Arabia.	2006	Furnace Oil	100
6.	Suez Iron Industries Company, Egypt	2006	Furnace Oil	40
7.	Al-Ittefaq Steel Products Factory, Mill No. 3, Dammam, Saudi Arabia.	2007	Furnace Oil	120
8.	Electrotherm India Ltd., Gujarat	2007	Furnace Oil	25
9.	MITC Rolling Mills Pvt. Ltd., Nashik	2007	Producer Gas	30
10.	Kuwait Reinforced Steel Mfg. Ltd., Kuwait	2008	Furnace Oil	70
11.	Bhagyalaxmi Rolling Mills P. Ltd., jalna	2008	Producer Gas	28
12.	SRMB Srijan Pvt. Ltd., (Unit 2 Drapers), Kolkatta	2008	Furnace Oil	30

No.	Client	Year	Fuel	Capacity (TPH)
13.	Shree Om Rolling Mills Pvt. Ltd., Jalna	2008	Furnace Oil	25
14.	Rajuri Steels Pvt. Ltd., Jalna	2008	Producer Gas	25
15.	SKS Ispat Ltd., Wire Rod Mill, Raipur	2008	Furnace Oil	35
16.	Al-Ittefaq Steel Products Factory, Mill No. 2, Jeddah, Saudi Arabia.	2009	Furnace Oil	120
17.	Universal Rolling Mill, Manama, Bahrain	2009	Natural Gas	35
18.	Star Steel International LLC., (ETA Group), U.A.E.	2009	Furnace Oil	60
19.	Star Steel International LLC., (ETA Group), U.A.E.	2009	Furnace Oil	55
20.	Jagadamba Steels Pvt. Ltd., Nepal	2009	Producer Gas	35
21.	Yesu PLC, Ethiopia	2009	Furnace Oil	30
22.	Bhuwalka Steel Industries Ltd., Mill No. 4, Wada, Maharashtra.	2009	Furnace Oil	25
23.	Om Sai Ram Steels and Alloys Pvt. Ltd., Jalna	2009	Furnace Oil;	25
24.	Surya Alloy Industries Pvt. Ltd., Kolkatta	2009	Furnace Oil	45

List of Major Clients

No.	Client	Year	Fuel	Capacity (TPH)
25.	Tulsyan NEC Ltd., Chennai	2009	Producer Gas	50
26.	Pushpit Steel, Nigeria	2010	Natural Gas/ Furnace Oil	30
27.	VSP Udyog Pvt. Ltd., Kolkatta	2011	Producer Gas	25
28.	Mahalaxmi TMT Pvt. Ltd., Wardha	2011	Producer Gas	75
29.	Mahalakshmi Profiles Pvt. Ltd., Hyderabad	2011	Producer Gas	30
30.	Shyam Steel Industries Ltd., Kolkata	2011	Producer Gas	50
31.	Shree Parasnath Re-Rolling Mills, Kolkatta	2011	Furnace Oil/ CBM Gas	30
32.	Viki Industries Pvt. Ltd., Gummidipoondi	2012	Producer Gas	25
33.	Kamachi Sponge & Power Corporation Ltd., Chennai	2012	Furnace Oil	40
34.	Sharda Shree Ispat Ltd., Nagpur	2012	Producer Gas	55
35.	Prakash Ferrous Pvt. Ltd., Chennai	2012	Producer Gas	60
36.	Top Metal, Lagos, Nigeria	2012	Furnace Oil	30

No.	Client	Year	Fuel	Capacity (TPH)
37.	Woofer Rolling Mill Factory, Riyadh, Saudi Arabia.	2012	Furnace Oil	30
38.	Hill Metals EST, Jeddah, Saudi Arabia.	2012	Furnace Oil	50
39.	Topworth Urja and Metals Ltd., Naoour.	2013	Producer Gas	25
40.	Tata Steel Ltd., Tarapur.	2013	Natural Gas	45
41.	SKS Ispat and Power Ltd., Mill No. 1, RaiDur.	2013	Producer Gas	35
42.	Universal Gear Ind. and Engg, Works, (SAIL Proiect) Kolkata.	2013	Furnace Oil	35
43.	Al-Jazeera Steels, Saudi Arabia.	2013	Furnace Oil	25
44.	Amir Kabir Khazar Steel Company, Tehran. Iran.	2013	Furnace Oil	45
45.	Navard Mi lad Yazd, Iran.	2013	Natural	30
46.	Al-Watania Steel Company,	2015	Furnace Oil	30
47.	Kalika Steels Pvt. Ltd., Jalna.	2015	Pulverised Coal	25
48.	Sagamu Steels Ltd., (Sunflag), Nigeria._	2016	Natural Gas/ Furnace Oil	50

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No.	Client	Year	Fuel	Capacity (TPH)
49.	Astlaxmi Steels Pvt. Ltd., Jalna	2017	Pulverised Coal	30
50.	Steefo Industries, Ahmedabad (Overseas Project)	2017	Furnace Oil	30
51.	Shree Steels Pvt. Ltd., Nepal	2018	Furnace Oil	40
52.	Beekay Steel Industries Ltd., Parawada	2018	Pulverised Coal	40
53.	Faizan Steels, Pakistan	2018	Natural Gas / Furnace Oil	30
54.	Goenka Steels Ltd., Nepal	2018	Pulverised Coal	25
55.	Agni Steels Pvt. Ltd., Ingur	2018	Pulverised Coal	25
56.	Kalika Steels Pvt. Ltd., Jalna	2018	Pulverised Coal	25
57.	Jay Ambe Steels Pvt. Ltd., Nepal	2019	Pulverised Coal / Natural Gas	35
58.	Anwar Ispat Ltd., Bangladesh	2019	Natural Gas / Furnace Oil	30
59.	Tononoka Kenya Project	2019	Furnace Oil	30
60.	Beekay Steel Industries Ltd., Autonagar	2019	Pulverised Coal	25

No.	Client	Year	Fuel	Capacity (TPH)
61.	Bhagyalaxmi Rolling Mills P. Ltd., Jalna	2019	Pulverised Coal	25
62.	Shri Parmeshwar Steels Pvt. Ltd., Ahmedabad	2019	Pulverised Coal	25
63.	Sugna Metals Ltd., Hyderabad	2020	Pulverised Coal	35
64.	Bhuleshwar Steels & Alloys P. Ltd., Pune	2020	Pulverised Coal	34
65.	Indore Steel & Iron Mills Ltd., Indore	2020	Furnace Oil / Natural Gas	30
66.	VMS TMT Pvt. Ltd., Gujarat	2021	Pulverised Coal	40
67.	Western Steel Co., Jeddah (Saudi Arabia)	2022	Furnace Oil	40
68.	Al Madina Group. Egypt	2022	Natural Gas	40
69.	SARL SFM, Algeria	2022	Furnace Oil / Natural Gas	40
70.	Viki Industries P. Ltd., Gummudipoondi	2022	Pulverised Coal	40
71.	Viraj Steel & Energy, Odisha	2022	Furnace Oil	40
72.	Gulf Steel Industries Co. Ltd., U.A.E.	2022	Natural Gas	30

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No.	Client	Year	Fuel	Capacity (TPH)
73.	Sri Vadivudai Amman Steel Co., Myanmar	2022	Furnace Oil	30
74.	MS Agarwal Foundries P. Ltd., Hyderabad	2022	Pulverised Coal	30
75.	Julfikar Steel Re-Rolling Mills Ltd., Bangladesh	2022	Natural Gas	25
76.	Saudi National Steel, Saudi Arabia	2022	LDO	25
77.	Sanvijay Rolling & Engg. Ltd., Nagpur (B-1)	2022	Pulverised Coal	25
78.	EID Metal Industries – Mill R1, Jeddah	2023	LDO	40
79.	Rajuri Steel & TMT Bars Pvt. Ltd., Jalna	2023	Pulverised Coal	40
80.	SOLB TOHAMA, Saudi Arabia	2023	Furnace Oil	40
81.	Growmech Industries (OHSM), Nigeria	2023	Furnace Oil / Natural Gas	25
82.	Al Usaimi Steels, Saudi Arabia	2023	Furnace Oil	25
83.	Veer Steel (Mill C), South Africa	2023	Natural Gas / Furnace Oil	25


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