GST no. 06AQTPM9983F1ZZ

MAAN GLOBAL INDUSTRIES

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Quotation# MA - 18425823

Date: 14June, 2023

Commercial Offer

Item Description	Rate	Qty	Amount in Rs.
Continuous roller Conveyor Furnace for Aluminium Billet 7" Single billet heating **Gas Fired PLC Based control – with waste heat recovery system**	**42,27,000**	**01**	**42,27,000.00**
Air Recuperator Waste Heat Recovery System		**01**	8,50,000.00

Installation cost: Rs. 50,000 (Fifty Thousand only)

Total Amount in Words: Fifty Lacs and Seventy Seven Thousand Rupees Only.

Commercial Terms

PRICE : All above Prices are Ex-Works Faridabad.
Taxes: 18% GST extra
PAYMENT: 40% advance & Balance 50% before dispatch against Proforma Invoice. 10% after the installation.
DELIVERY: EX - WORKS Faridabad 10 to 12 Weeks
FREIGHT & INSURANCE: Extra To Pay
Warranty: 1yr warranty against manufacturing defect only.

Technical Specifications

Inner Size of Chamber (Tunnel) - 5000 mm L x 250 mm Dia.
Main Heating Zone - 5000 mm L

Entry Zone & Delivery Zone - 2000 mm on either side for Entry & Delivery Zone
Pre-Heating Zone – 1500mm L x 250mm Dia.

Total Furnace Length – 10,500 mm L
Temp to be maintained per 1 Mtr – 520 Degree C
Heat Output - 220 KW Max. (High Pressure, Long Flame Gas Burners)

Temperature Controller - PID Controller TAIE make
Over Temp Protection - By safety controller of TAIE Any Other Equivalent Reputed Make.

Temp Sensor - K Type Thermocouple with AISI304 Sheath

TEMPERATURE CONTROLLER FOR SAFETY

Temperature Controller - Temperature controlled by ON/OFF.
Calibration Accuracy - 0.5% of F.S.D
Type of Sensor - K Type (Universal)
Control Supply - 415V, 3Ph, 50 Hz AC Supply

HEATING SOURCE

Type – High Pressure Long Flame Gas Burners (Wesmin or a similar reputed Make)
Heating Power - 220 KW or 189165.95Kcal

INSULATION

Material - Ceramic Fiber insulation grade of 128kg/m3
Insulation Thickness - 325 mm Total

CONVEYOR ROLLER

Material - SS 304
Material Thickness – 25mm conveyor roller with chain Sprocket and rigid rod of SS304 rod System
Conveyor Sprocket – MS Dia 350mm sprocket with Bearing Mechanism
Conveyor Size - 250mm Width
Conveyor Motor - 10 Hp Motor x 1Nos with reduction gear Transtech Variable Frequency Device
Drive - 10 Hp Motor

CONSTRUCTION

1. **Outer Casing**

The Furnace Outer body will be of Rectangular Horizontal in shape made out of Mild Steel Sheet 2 mm

thick with adequate reinforcements by means of M.S. Angles with welding/bolting wherever required. The bottom of the Furnace will have fabricated stand to form the suitable working height.
The inside of heating zone shall be of SS 304 Muffle.

2. **Insulation Lining**

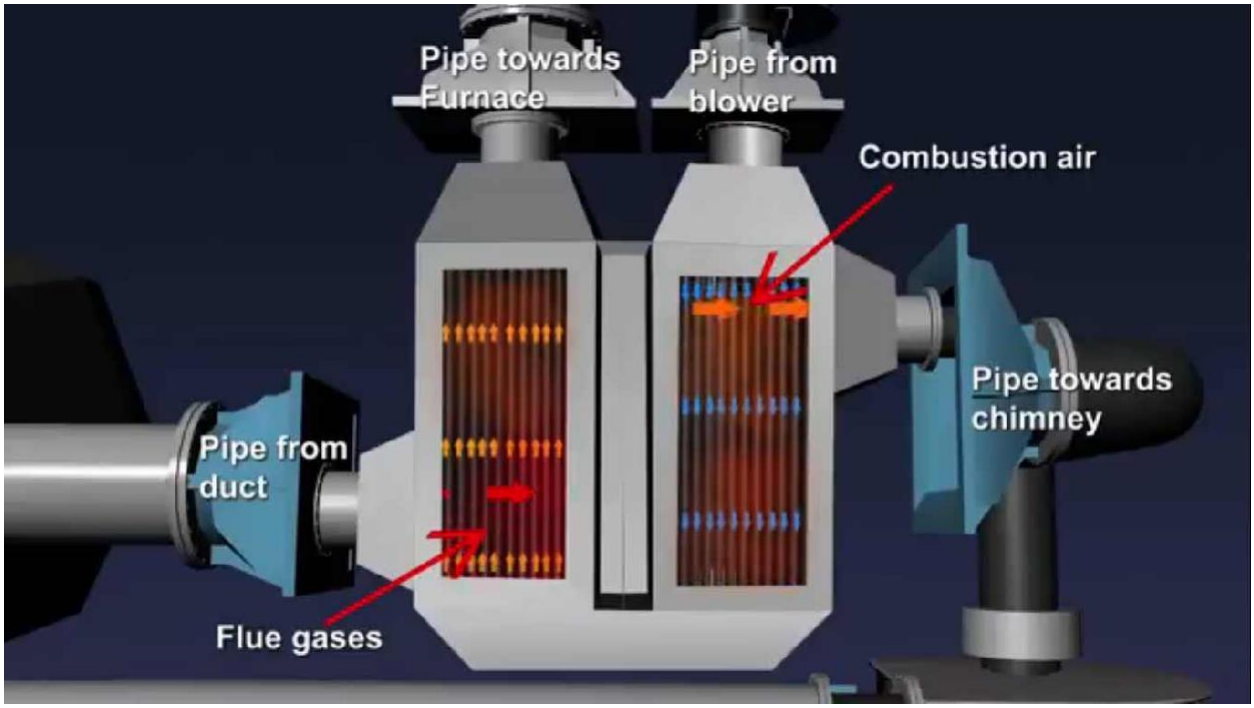
The Furnace will be of double walled construction and the gap in between will be filled with Ceramic Fiber. Blanket of 325mm thick to avoid heat loss from the hot Zone.

3. **Heating System**

Long Flame High Pressure Gas Burners from Ecoflam/Riello,Wesmin 220KW producing 189165.95Kcal or 791470.3348KJ of energy.

Heat Recovery System from Exhaust/Flue Gases

Air Recuperator/Heat Recovery System to recover heat from Exhaust Gases. Air Recuperator Waste heat recovery system offers upto 80% recovery of waste heat resulting in fuel savings.



4. **Conveyor System**

The Furnace shall be provided with 1 No. SS 304/316 Stainless Steel Conveyor, mesh type throughout the chamber. Lined SS rods shall be provided for supporting the Conveyor Belt. 1 No.5 HP Capacity.

Reduction Gear Box will be provided for Conveyor Movement.
Conveyor Speed varying and controlling will be affected by means of
1 No. Schneider/C.G / Any Other Reputed make A.C. Drive (VFD).

Drive fitted in the Control Panel. Reduction Gear Boxes will be provided to reduce the speed at the suitable level.

5. Temperature Indication and Control

It shall be achieved with PID controllers as main controller and with help of safety controllers to take charge incase the main controller fails. It shall be digital type.
Full scale reading of the instruments shall be employed for temperature indication and control. This shall be mounted on a separate control cubicle. This shall also be fitted with double element thermocouple of K Type for sensing the temperature inside the chamber, along with compensating cable.

6. Safety Devices

Limit/proximity switches will be provided for moving systems, so as to cut off, lock or inter lock the supply for each system with heater. The automatic temperature controller will have built in broken thermocouple safety device so that incase the sensor fails the heater shall be cut off.

7. PLC based control panel for Controlling the Furnace Functions & Management – Siemens/Schneider

The electrical system is designed to work on 400/440 volts, three phase, 50 Hz AC supply. The electrical connections are so made that it affords the **facility** to locate electrical fault if any, easily. This shall be provided with
MCB,MPCB, PID control, Voltmeters, Ammeters, Air Break Magnetic Contactors, Main and Auxiliary Fuses, Starters for the motor, Overload Relays, ON/OFF Switches etc, will be mounted in the a separate control panel. All electrical wiring will be completed in the panel prior to its dispatch and for wiring conductors of sufficient capacity will be employed. Indicating Lamps for visual indication will be neatly positioned in the panel. The control
panel will be separate unit self standing floor mounting type with a hinged back access door. The control panel will be finished with powder coated paint. Thyristorized firing heating and convection system.

SAFETY FEATURES (Fully PLC based System controls and Management)

7. Furnace Control System & Electrical Switch Gear

PLC*/* based furnace management, control and operation. Synchronization with production conveyor lines through PLC programs and devices:

a) ST30 18/12 CPU – SIEMENS

c) AI CARD 8CH – SIEMENS
b) d)S HMI KTP 400 – SIEMENS
e)T VFD 5 HP 3P – SIEMENS
f)3 MCB -16A TP – SCHNEIDER
g)0 START/STOP SWITCH – SCHNEIDER
h) ON/TRIP – SCHNEIDER
i)1 CONTACTOR 9A – SCHNEIDER
j)8 OLR -3-5 A – SCHNEIDER
k)/ MCB - 16A TP – SCHNEIDER
l)1 PUSH BUTTONS – SCHNEIDER
m)2 SMPS 4.5A – MEANWELL
n) RELAY CARD 8 CH – OMRON
o)C POWER SOCKET – ANCHOR
p)P MCCB 100A TP – SCHNEIDER
q)a RYB IND. – SCHNEIDER
r) MCB 6A SP – SCHNEIDER
s) PANEL BOX - MGI
M
E

UTILITIES THAT SHALL BE ARRANGED AT YOUR SITE

Electric Power - 440 volts 3 phase, 50 Hz. AC Cabling - From the Main Electricity Supply to the Furnace from Furnace to Control Panel, Motor etc.

Scope of supply

Customer
*All civil work
*All utilities
*Interconnection Power and all Cables and Wires
*Trench or Cable Tray to be laid from Panel to Furnace

Note:

1:All above dimensions are approximate, and are meant for reference only.
The system's design may be changed without affecting its rated capacity, due to continuous improvement.
2:This data furnished concerning your request for quotation, shall not be passed on outside of your organization and shall not be duplicated, used or disclosed partially or entirely for any purpose other than to evaluate the proposal. This applies to all pages and drawings/photos of the proposal.

Length of the Heating Zone can be customized as per the requirement of the customer and the application.

Our Vendor List


MGI


MGI
Maan Global Industries


Schlumberger
(USA)
FORVIA
(Germany)
SWAROVSKI
(Austria)
HELLA
JF Machinery
(Australia)
FURA
EMERALDS • RUBIES • SAPPHIRES
(Canada)
gevasol
fluid and motion control
(Israel)
Buddha Air
(Nepal)
DIAMOND BEST FOODS
(Sri Lanka)
40 YEARS
LEGACY IN MOTION
MTCC
(Maldives)
Gulf Craft
(UAE | Maldives)
AUTO SPRINGS
Auto Springs East Africa Plc
(Kenya)
MENENGAI
(Kenya)
AMEERI
(Kingdom of Bahrain)
INDUSTRIES
ESCORTS
HAL
Hindustan Aeronautics Limited
L&T Construction
VGN
CREATING ASSETS SINCE 1942
S P Singla Construction Pvt. Ltd.
Building infrastructure for future...
भारतीय प्रौद्योगिकी संस्थान जम्मू
INDIAN INSTITUTE OF TECHNOLOGY JAMMU
HINDUSTAN PLATINUM PVT. LTD.
हिंदुस्तान प्लॅटिनम प्रायवेट लिमिटेड
PUNJAB AGRICULTURAL UNIVERSITY
1962
PINNACLE
Engplast Pvt. Ltd.
萬豐奧特控股集團
WANFENG AUTO HOLDING GROUP
ALOK
Orient Steel and Industries Ltd
Jss Aviation
VICAT
Vicat, France
Bharathi CEMENT
talbros
VISION
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JMC PROJECTS (INDIA) LIMITED
(A Kalpataru Group Enterprise)
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Industrial Forge & Engineering co.ltd.
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Securing Shapes Forever