

NOVEL INNOVATION IN THERMAL TECHNOLOGY



AXIOM THERMO FURNACES
Winning Edge in Heating Equipments

COMPANY PROFILE

OUR EXPERTISE

AXIOM is floated in 2004 by our Chairman **Mr.K.R.Sasidharan**, a technocrat having rich Experience in the field of Heat Treatment Furnaces, Ovens, etc.

We have designed, manufactured and installed various types of heating equipments in various field. We have manufactured and supplied upto 250 Tons capacity Heat Treatment Furnace, inner useful Chamber size 26 mtrs X 4 mtrs X 4 mtrs. We have also exported furnaces to few countries in Middle East and South East Asia.



OUR MISSION

Enhancing contributions to customer's long time value by providing optimum engineering solutions, fulfilling social responsibilities by providing employment opportunities and maintaining ethical management practice.

OUR VISION

To achieve global recognition for innovative approach to products, solutions and services.

OUR PEOPLE

Carefully selected, qualified and trained in management disciplines, our employees have desire for continued learning and learning from experience. Sensitive to customer's requirement, they constantly adopt innovative technology and incandescent products to suit customer's specific needs.

OUR QUALITY POLICY

- Commitment to excellence through unique design, streamlined production, consistent quality and customer satisfaction.
- Our constant endeavor is to achieve standardization in all our processes hereby achieving leadership in the field of heat treatment equipment manufacturing.

PRESTIGIOUS CONTRACTS EXECUTED



BELL TYPE FURNACES

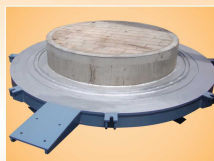
Our Bell type furnaces are excellent for Annealing, Spheroidizing Annealing, Normalizing processes.

TYPE OF HEATING

- ♦ Electrical
- ♦ Gas Fired

FEATURES

- ♦ Low cost operation & Excellent Thermal efficiency.
- ♦ Automatic temperature control system
- ♦ Multiple Bell and Multiple base option available.
- ♦ Use of Retort can be eliminated
- ♦ Perfect Thermal Sealing
- ♦ Air tightness endow zero scaling of the charges
- ♦ Multiple temperature zone control system for better Thermal uniformity & Low Thermal Mass Insulation.
- ♦ Unique Design for better and easy maintenance
- ♦ Temperature Range – 400° C to 1100° C



MODEL NO.	CHAMBER SIZE IN (mm)	CAPACITY IN KGS
ATF-BF-60	Ø 900 X 1100 HT	2000
ATF-BF-90	Ø 250 X 1500 HT	3000
ATF-BF-150	Ø 1500 X 1800 HT	5000

SPECIAL FEATURES

- ♦ Microprocessor based programmable control system with thyristor power controller for better uniformity and long life of heaters.
- ♦ Outer casing shall be leak proof welded. Ensure zero leakage and no scaling

OPTIONS

- ♦ Useful dimension and capacity can be altered according to the customer requirement.
- ♦ Air agitation facility
- ♦ Protective atmosphere furnace.

PIT TYPE FURNACES

Our PIT type furnaces are used for Gas Carburizing, Gas Nitriding, Carbo Nitriding, Nitro-Carburizing, Blueing and Ferritic Nitro Carburizing.

FEATURES

- Universal furnace for various Heat treatment processes under Protective gas atmosphere.
- Electric / Gas or Oil fired.
- Excellent Temperature Uniformity inside the Retort.
- Corrugated retort for long life.
- Gas guide cylinder.
- Drip feed Panel are also offered.
- Necessary atmosphere feeding provided.
- Microprocessor based instrumentation for precise temperature control
- Low thermal mass ceramic fibre insulation
- Hydraulic / Motorized /Manual door lifting mechanism available.
- Supporting Quenching tank can be supplied.



MODEL NO.	CHAMBER SIZE IN (mm)	CAPACITY IN KGS
ATF-PF-36	Ø 400 X 1200 HT	350
ATF-PF-60	Ø 600 X 1200 HT	500
ATF-PF-90	Ø 750 X 1200 HT	750
ATF-PF-120	Ø 900 X 1200 HT	1000

Note: Useful dimension and capacity can be altered according to the customer requirement.

BOGIE HEARTH AND CHAMBER FURNACES

AXIOMS BOGIE HEARTH AND CHAMBER FURNACES are suitable for Preheating, tempering, Hardening, Normalizing, Stress Relieving, Stainless Steel Solutionizing, etc.

FEATURES

- Low cost operation
- High Efficiency
- Automatic temperature control system
- Excellent Thermal Uniformity
- Easy replacement of Heating Elements and other accessories
- Low Thermal Mass Insulation
- Temperature Range : 250° C to 1200° C

INSTRUMENTATION & CONTROL SYSTEM

- Automatic microprocessor based Temperature control system.
- Automatic spark ignition system for oil or LPG firing
- Automatic temperature programming and recording

SPECIAL FEATURES

- An integrated quenching system for quenching the charge can be supplied. The furnace temperature is controlled by a PID controller / PLC system through Thyristor.
- The furnaces can be used as a single furnace or as a part of battery of Furnaces. Charge support for various types of charges and charging machines can be supplied.
- Furnace can be supplied with double door and double bogie.

Note: Furnace useful chamber size, power rating and capacity shall be as per customer requirement.



SEALED QUENCH FURNACES

SEALED QUENCH FURNACES are Electrically heated, gas fired, suitable for Carburizing, Carbo Nitriding, Hardening and Case Hardening under protective atmosphere like Endo Gas / Carbo trip. Axioms Sealed Quench Furnaces are of straight through type with both oil quenching and gas quenching.

FEATURES

- Allied Equipments such as preheating furnace, Washing machine, tempering furnace, traverser And loading machine, form a part of the Sealed Quench Furnace.
- Fully Automatic PLC control furnaces suitable For Carburising, Carbo-Nitriding under protective.
- Atmosphere like Endogas, Methanol etc.
- Straight through type for integral oil quenching.
- Good Thermal Uniformity.
- Safety controls for full safety of equipment and user.

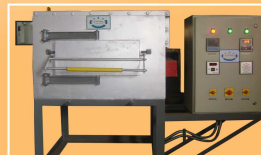


MODEL NO.	CHAMBER SIZE IN (mm)	POWER RATING KW
ATF-BCS-SQ 350E	1000 x 530 x 433	40
ATF-BCS-SQ 600 E	1200 X 650 X 600	80
ATF-BCS-SQ 850 E	1400 X 800 X 750	100

AXIOMS INDUSTRIAL OVENS

SPECIAL FEATURES

- Maximum operating temperature Ranges from 100° C to 500° C.
- Choice of highly accurate temperature Controllers, programmers and temperature recorders.
- Powerful fan and air guide system to Ensure excellent thermal uniformity.
- Incorporate high efficiency mineral insulated metallic sheathed heating elements or with 80/20 Ni/Cr heating elements.
- Ideal for Pre-heating, baking, drying, curing & ageing.
- Adjustable chamber ventilation to exhaust smoke or other fumes.



Axioms Industrial Ovens and Kilns have been designed to meet the most unique and stringent requirement of the customer's heat profile and characteristic requirement.

ALUMINIUM MELTING FURNACES

AXIOMS : AL – MELT, AL – HOLD, AL – MELT & HOLD

The Al-melt, Al-hold and Al Melt & Hold series of resistance heated, oil, gas fired, Aluminium melting and holding furnaces have the technology to meet the challenges of your production requirement with less cost and less down time for maintenance.

FEATURES

- Low cost operation & high efficiency.
- Automatic temperature control system
- Optimum heating elements & energy efficient burners.
- Uniform heating around the crucible.
- Easy replacement of crucible and heating element.
- Swing cover to avoid heat loss.
- Fully integrated self contained combustion system
- Additional raw material handling system also offered for greater productivity.



ALUMINIUM MELTING FURNACE

MODEL NO.	CAPACITY IN KGS	BATH VOLUME
ATF-ALT 500	500 KGS	0.185 M3
ATF-ALT 1000	1000 KGS	0.370 M3
ATF-ALT 1500	1500 KGS	0.555 M3
ATF-ALT 3000	3000 KGS	1.111 M3

LEAD MELTING FURNACE

MODEL NO.	CAPACITY IN KGS	BATH VOLUME
ATF-PB 1000	1000 KGS	0.074 M3
ATF-PB 2000	2000 KGS	0.149 M3
ATF-PB 3000	3000 KGS	0.223 M3
ATF-PB 5000	5000 KGS	0.373 M3



Availability of heating elements Crucible and other Measurement system throughout the year make these series of furnaces the first choice of the customer.

NOTE: The effective dimension and capacity can be altered according to the customer requirement.

We also supply following spare parts and allied equipments of the furnaces:



OIL FIRED BURNER



CHARGE BASKET



SINGLE CASTING IMPELLER



CHARGE GRID



THERMOCOUPLE



HEATING ELEMENT



SKID RAIL



FAN & FAN SHAFT



ROLLER TABLE



BUNDLE ROD HEATING ELEMENT



RADIANT TUBE



DIE STAND



AXIOM THERMO FURNACES

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