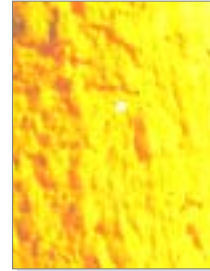


Litharge Furnaces

Powdered Litharge

- ✓ ***Two sizes available***
5 - 30 ton/day
- ✓ ***Litharge to as low as***
0.05% free metal lead
- ✓ ***Continuous production***



Agglomerated Litharge

- ✓ ***Non-dusting***
- ✓ ***Spherical shaped pellets***
- ✓ ***Pellet size classification***
- ✓ ***Wet agglomeration with fused surface***





DATA SHEET MODEL LCF 1.000 LITHARGE FURNACE

DESCRIPTION

SPECIAL DESIGN FEATURES

The **EAGLE OXIDE SYSTEM LITHARGE FURNACE** has been developed and patented by a leading independent lead oxide manufacturer based in the United States. The Furnace System is capable of economically producing Litharge products (PbO), suitable for use in stabilizers, batteries, glass, ceramics and specialty chemicals.

As a feed material, this continuous Litharge production process uses leady oxide (12% - 25% Pb depending on the required Litharge quality) made either in a Barton style lead oxide reactor or another suitable reaction process. The leady oxide is processed through the furnace to produce Litharge with a free metallic lead content as low as 0.01%

PRODUCTION RATE

180 to 360 Kilograms per hour

400 to 800 Pounds per hour

the reaction chamber and controls a motor actuated damper.

An oxygen enrichment system enables production of produce high quality Litharge with less the 0.05% metallic lead and the use of high free metal feed material for standard quality litharge.

When Litharge is discharged from the reaction pan, it first falls into a water cooled screw conveyor to prevent the formation of Red Crystal Litharge or Red lead and then passes through a crusher to break up agglomerates.

After being either mechanically or pneumatically conveyed to a storage tank, the product is milled to achieve the final

product specifications.

FURNACE OPERATION:

First, the Furnace Reaction chamber is pre-heated with a gas burner to about 525 °C (977 °F).

Leady oxide is metered into the heated chamber at a rate that is depending on its free metal content. The furnace contains a turning reaction pan with water cooled augers to assure good material mixing and enough contact with oxygen for faster reaction.

Since the transformation of lead to lead oxide is an exothermic reaction, heat is created. Due to the continuous process, part of the necessary reaction heat is constantly produced by the transformation process itself. Once the reaction has started, less heat is needed from the burner system so its output is decreased making the furnace more economical.

During the reaction the furnace operates under negative pressure. Draft from a sanitation baghouse vents and cleans combustion exhaust gases. A draft indicator measures the negative static pressure inside

REACTION CONTROLS:

Temperature Control

During operation the temperature inside the furnace is monitored and controlled by automatically modulating dual burners.

Feed Material Control

The feed rotary valve can be adjusted to different speeds depending on the free metal lead of the feed material. This ensures that the same amount of exothermic heat is produced even when using different feed materials.

Reaction Time Control

The speed of the reaction pan and the agitator augers inside the furnace are adjustable to control the retention and reaction time of the oxide inside the furnace.

Furnace Sanitation Control

By using a motor actuated damper the furnace is kept under negative pressure during operation.

OXIDE SPECIFICATIONS

<u>LITHARGE SPECIFICATION</u>	<u>PRODUCTION RANGE</u>
TOTAL PBO (%)	> 99.5 %
TOTAL FREE METALLIC LEAD (%)	0.01 TO 0.1%
INSOLUBLE IN ACETIC ACID	0.01 TO 0.1%
RED OXIDES OF LEAD (E.G. RED LEAD)	< 0.05%

Note: Trace impurities in the finished products are dependent on the quality of raw material lead.

STANDARD EQUIPMENT

ROTARY FEED AIRLOCK

- 6 inch (25.4cm) air lock
- Tapered rotor
- 1 HP motor
- Furnace transition

FURNACE

- Nominal Diameter: 2.1 meter (7')
- Nominal Heights: 2.3 meter (7.5')
- Speed controllable reaction pan
- Water cooled stainless steel agitators
- 0.6 million BTU rated gas burner system
- Pre-piped "IRI" gas valve assembly
- High density refractory modules
- Water cooled exhaust stack
- High temperature draft control valve

DISCHARGE CRUSHER

- Stainless Steel Crusher
- Cog belt driven

WATER COOLED DISCHARGE SCREW

- Stainless steel 6 inch flight
- Water cooled housing

ROTARY DISCHARGE AIRLOCK

- 6 inch (25.4cm) air lock
- Tapered rotor
- 1 HP motor

CONTROL PANEL

- Free standing panel with disconnect and overload protection
- Control Panel pre-wired and pre-tested
- Integral Motor starters
- Frequency drives for variable speeds
- All circuit breaker protection, no fuses
- PLC Control System
- Touch screen control, Color
- Alarm handling system

MANUALS AND INSTRUCTIONS

- Installation manuals and blueprints
- Operating procedures
- Material testing procedures
- Maintenance procedure
- Supplier and manufacturer warranties

CONTAINERIZATION

The furnace is shipped fully assembled and requires special shipping and handling.

INSTALLATION, START UP, TRAINING

- Fee for Installation supervision (500 US/day + travel & living expenses)
- Fee for Startup and training supervision (500 US/day + travel & living expenses)

Usually 15 days for start up and training are necessary.

Standard equipment may vary as new technologies are developed and implemented.



COST SUMMARY FOR LITHARGE FURNACE LCF 1.000

Prices will be quoted in **US DOLLARS**

Prices are **EX WORKS**; Our shop, USA

Special packing not included

Standard **TERMS AND CONDITIONS** apply

Standard **DELIVERY** is 16 weeks

OPTIONAL EQUIPMENT AND SERVICES

CONSULT AN EAGLE REPRESENTATIVE FOR UNIT PRICES AND PRICES ON MULTIPLE SYSTEM APPLICATIONS, OPTIONAL OXIDE SYSTEMS, MATERIAL HANDLING EQUIPMENT, AND ENGINEERING SERVICES.

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