



**A BRIEF INTRODUCTION TO
INDUSTRIAL FURNACE COMPANY
AND THE
FLUIDIZED BED INCINERATOR OR FBI
(ALSO KNOWN AS A FLUID BED REACTOR)**



Industrial Furnace Company, Inc

Founded as a refractory installation company in 1948

Quickly became specialized in the municipal waste incineration field.

Family owned since 1948, currently in 3rd generation

Leading experts in FBI design, construction, maintenance, operations, and rehabilitation

Built and re-built FBI's for practically all major FBI manufacturers and owner/operators

Partnership with Technip USA positions us to become a leader in the US municipal Fluid Bed Incinerator Industry

Engineering, technical consulting, refractory specialty, construction

Expanded service into the privately owned, industrial market

EXPERTISE AND AVAILABILITY

- ▣ Performed projects in:
 - 47 American States
 - Puerto Rico
 - Canada
 - Europe
 - Asia
 - Africa
 - South America
- ▣ Office and skilled field crew available 24/7
- ▣ Offices in NY and GA allow instant mobilization virtually anywhere

ENGINEERING AND DESIGN

- ▣ IFCO has an in-house engineering staff
 - Also maintain excellent working relationships with several top engineering firms specializing in heat transfer along with Fluid Bed and MHF Technologies.
- ▣ Designs completed with 3-D models and 2-D drawings
 - SolidWorks
 - AutoCAD

MULTI-CRAFTED TRADESMEN

- ▣ We employ: Masons, ASME and AWS Certified Welders, Carpenters, Millwrights, Riggers, Scaffold Builders, Electricians, Integration Technicians, and Control and Instrumentation Technicians.
- ▣ Employees complete OSHA, MSHA, HAZWOPER Training, and IFCO Safety Training Courses to ensure a safe working environment
- ▣ UL listed Panel Shop



What is a Fluidized Bed Incinerator?

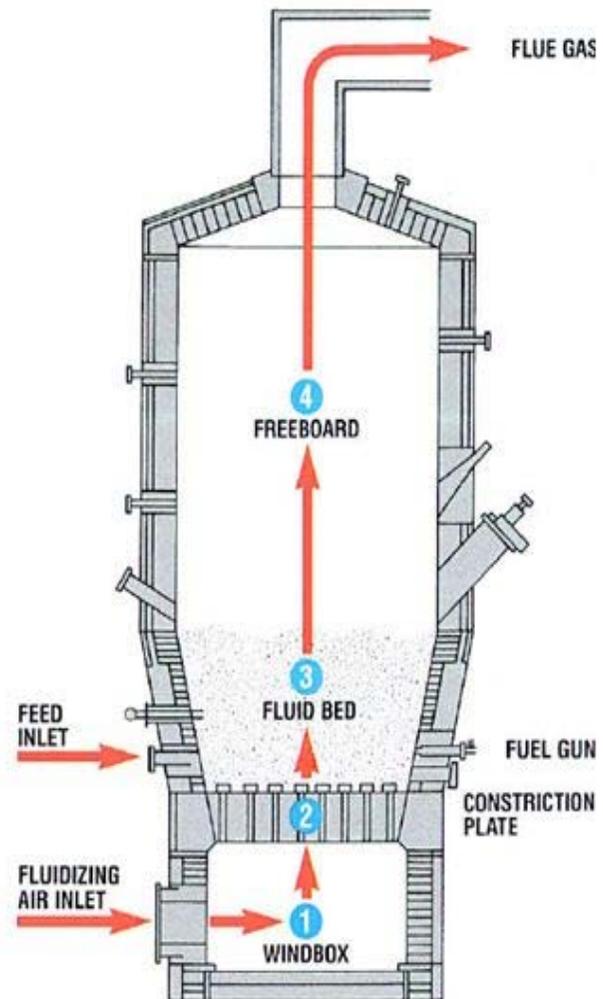
A Fluidized Bed Incinerator uses a bed of hot sand or other granular material to transfer heat directly to waste. It is commonly used for destroying municipal sludge.



Construction

- Sizing based on heat balance air and gas volumes
- Auxiliary fuel choice (typically oil, gas, or dual fuel)
- Overbed air option for highly volatile wastes
 - Improves reactor temperature profile
 - Improves efficiency in turndown conditions
 - Usually results in smaller dome diameter
 - Generally not required for hot windbox municipal sludge incinerators (overbed air is not preheated)

Material Movement

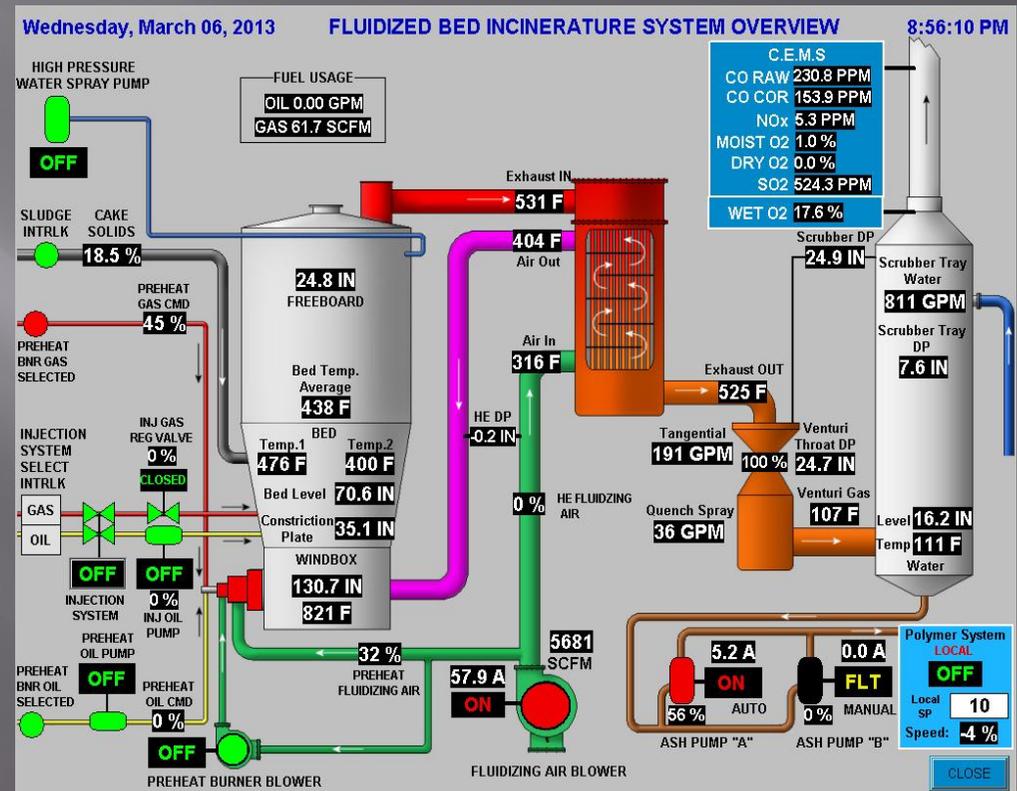


Heat Recovery

- Typical for municipal applications
- Minimal auxiliary fuel requirements
- Refractory dome distributor
 - Developed by Dorr-Oliver in the 1950s
 - Low risk design up to 22' diameter dome
- Air preheater is a proven low-risk design
- Typical preheated air temperatures to 1200°F (air preheat to over 1400°F is possible when required)

INSTRUMENTATION AND CONTROLS

- Fluidized Bed Incinerators can be built, or rebuilt with state-of-the-art control systems. Advanced Process Controls can be used to optimize the system for maximum product yield, product quality, and fuel savings.
- Control packages can be customized to give the customer a fully automated machine, to a basic package that requires manual intervention at every step.
- All systems can be automated.



Contact Us to Learn More

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