

# CLEARING THE AIR FOR A CLEANER ENVIRONMENT

Dust Collection Case Studies



## About U.S. AIR FILTRATION, INC.

### OUR COMPANY

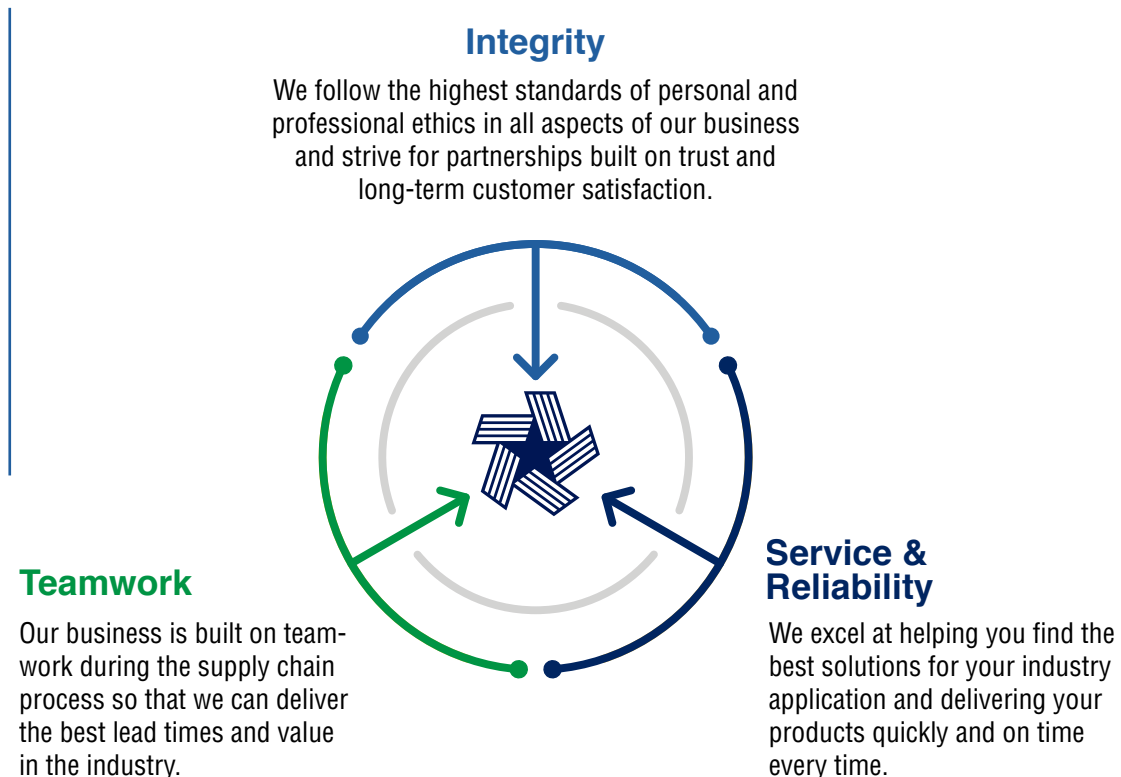
U.S. Air Filtration was established in 1987 to serve the needs of industries requiring air pollution control systems. We aim to meet and exceed United States EPA standards for air quality. Over the years, we have worked on projects ranging from \$20,000 to over \$3 million. Our Founder, Engineering and Sales Personnel has been active in the industry for over 30+ years.

### OUR MISSION

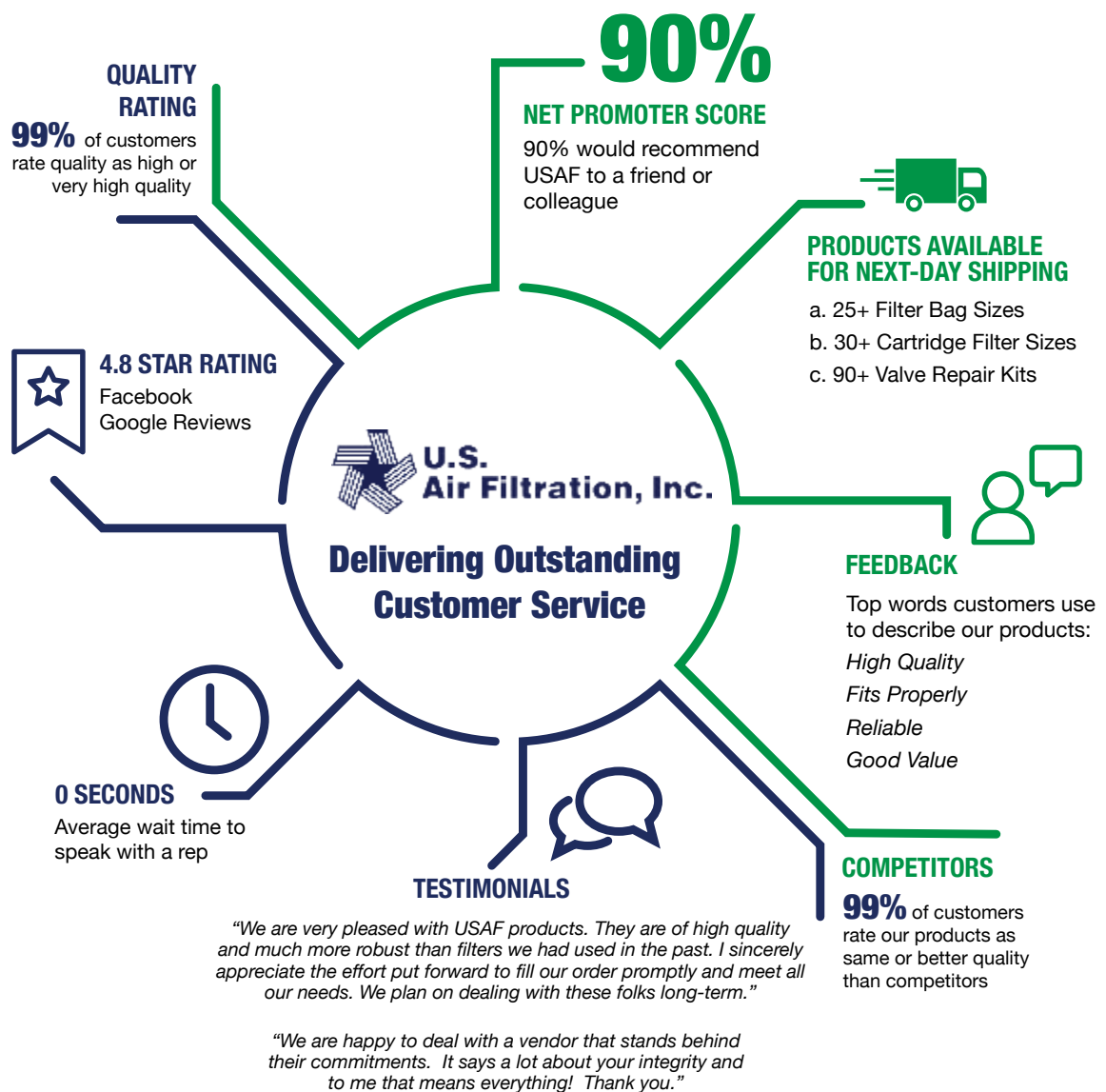
To help our customers achieve peak production by providing exceptional service, products and expertise in air pollution control.

### OUR VALUES

Our values are the foundation for our actions as leaders, colleagues, employees and citizens. At U.S. Air Filtration, our values incorporate our conduct towards our customers, our suppliers, our fellow employees, and the general public.



## About U.S. AIR FILTRATION, INC.



## PRESIDENT'S MESSAGE

*U.S. Air Filtration was established in 1987 to serve the needs of all industries that require air pollution control collector systems. We intend to meet and exceed United States EPA standards for air quality. Over the years, we have worked on projects ranging from \$20,000 to over \$3 million. As licensed contractors, we have worked with private companies, local municipalities, and state regulatory agencies in permitting and installing hundreds of dust collection systems. As Founder, I have been active in the air and waste management industry for over 20 years, with experience in design, engineering, sales, installation, and service.*

*Our mission is to create value for our customers by providing exceptional service, products, and expertise in air filtration collector systems. We measure value, in part, by the companies that choose to do business with us - again and again. The following partial list of customers has selected U.S. Air Filtration as the solution to dust collection.*



- The 3M Company
- Asama Manufacturing (Honda)
- Air Products and Chemicals, Inc.
- ArcelorMittal Dofasco
- Armstrong World Industries
- California Portland Cement Co.
- Cambridge Lee Industries, LLC
- CertainTeed Corporation
- Congoleum Corp.
- Dow Chemical Company
- The DuPont Company
- Dynatec Mining Corporation
- Edward C. Levy Indiana Flame
- Evergreen Community Power (Indevco)
- Exide Technologies
- Exxon Mobil Corporation
- Ford Meter Box
- Gannon & Scott
- Georgia-Pacific Corporation
- Haldor Topsoe
- Hanson Building Materials America
- Hexion Specialty Chemicals
- Intat Precision (Foundry)
- James Hardie Building Products
- Jerritt Canyon Gold (Mining)
- Kinder Morgan
- Levy Co./Indiana Flame Services
- Logan Aluminum
- McWane Industries (Ductile-Poles)
- Newmont Mining Corporation
- Nucor Steel
- Omnova Solutions, Inc.
- Praxair, Inc.
- Saint Gobain
- Teknor Apex Company
- ThyssenKrupp Stainless
- TMP IPSCO - Koppel Tubulars
- Tyler Pipe
- United Airlines
- Urick Foundry
- USG Corporation
- US Granules
- US Zinc
- Vulcan Materials Company

*To those companies listed above, as well as all of our customers, we appreciate your confidence in U.S. Air Filtration and thank you for your business. **To those companies seeking our services, we stand ready to deliver on the same promise that we have made to all of our customers - 100% satisfaction.** Please feel free to contact us by telephone, mail, fax, or e-mail. We look forward to serving you.*

## PROJECT PHOTOS OF BAG HOUSES

Baghouse collectors have been used for industrial dust collection for over 50 years while providing a full range of baghouse problems from nuisance dusts to extremely heavy dust loads. A great variety of filter bag materials have been developed so that pulse jet bag houses are appropriate for almost any dust collection application including moist, chemical, and high temperature applications with the right gauge, timers, and/or controls.

Changing the filter bags in a pulse jet baghouse dust collector typically costs less than replacing the cartridges in a cartridge dust collector. However, because there are more bags to change, the cost of change-out labor is generally higher.



### **Wood Plant**

*Baghouse Sawdust Extraction*

*50,000 CFM Model #1515-PT-180-6*



### **Cement Plant**

*Bag house Collector*

*15,000 CFM Model #287-CKPT-120-6*



### **Oil Refinery**

*Bin Vent*

*1,000 CFM Model#22-CBVPS-26-12-75*





**Fibre Board Plant**  
*Bag house Collector*  
 31,000 CFM Model #2413-PT-144-6



**Fibre Board Plant**  
*Baghouse Collectors*  
 18,000 CFM Model #1214-PTH-144-6



**Sand Plant**  
*Bag house Collectors*  
 38,000 CFM Model #2111-PT-120-6



**Battery Plant**  
*Cartridge Collector*  
 112,500 CFM Model #192-DCP4-26-75



**Mining Plant**  
*Baghouse Collector*  
 45,000 CFM Model #2415-PT-144-6



**Rubber Plant**  
*Baghouse Collectors*  
 22,000 CFM Model #1315-PT-120-6



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A low-angle, upward-looking photograph of industrial machinery, likely a large air filtration system. The image is heavily tinted with a dark blue color. It shows a complex network of dark metal structural beams and supports. In the foreground, a large, curved, light-colored metal component, possibly a filter housing, dominates the left side. To the right, another similar curved structure is visible. A yellow metal walkway or platform with a metal grate floor extends diagonally across the middle of the frame. The overall composition creates a sense of height and industrial scale.

# 01

PROJECT 59265

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# 01

## ***Project 59265 - Installed "2019"***

**138,000 CFM System – Fiber Board Cement Siding, Hardie Board  
Fiber Cement Lap Siding & Planks**

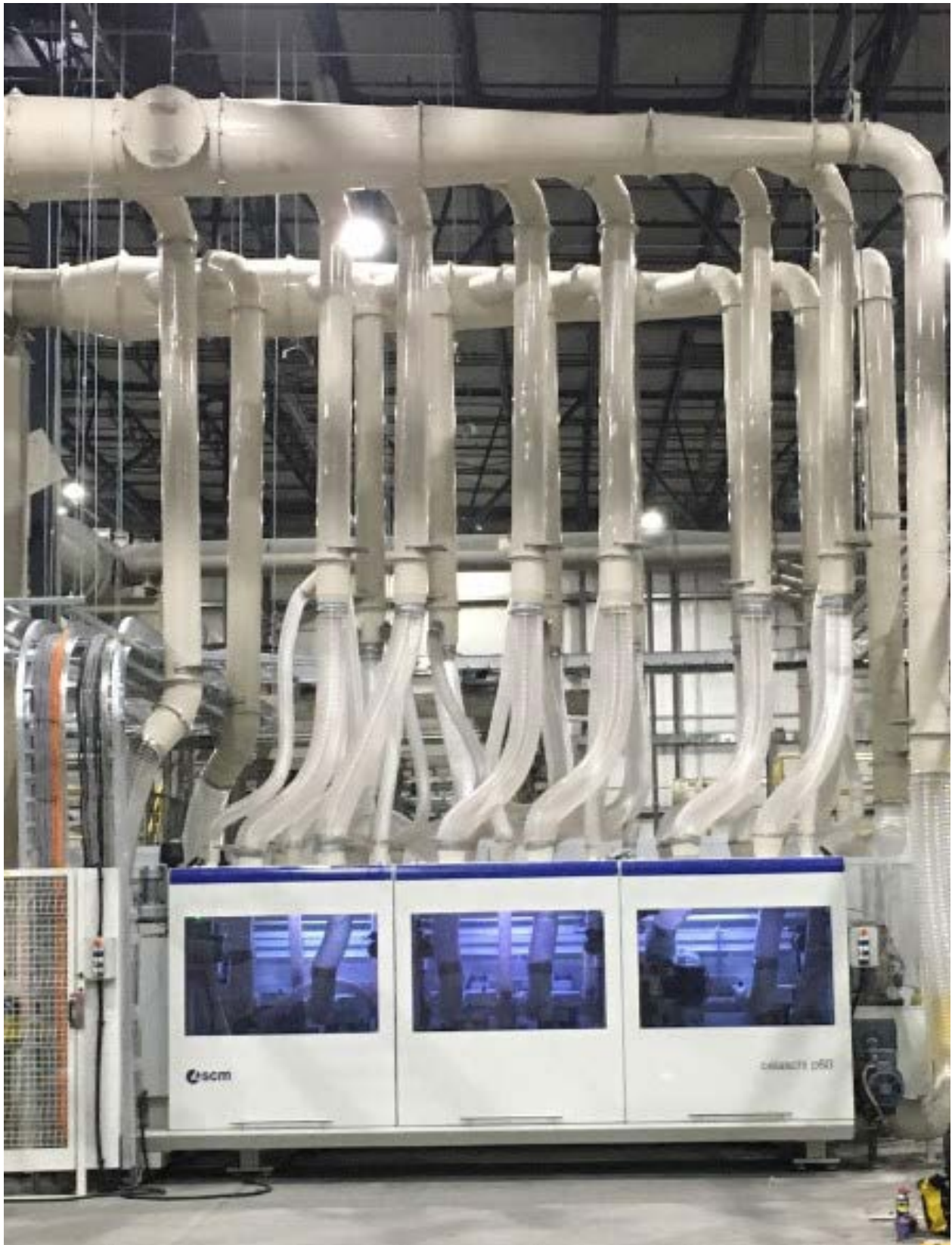
**Model:** Four Model 3612-PTHHEI-120-6 Stainless Steel Baghouse

**Company Name:** James Hardie

**Location:** Prattville, AL

- **Baghouse Style:** Pulse Jet, Top Access, End Inlet)
- **Total Air Volume Rate:** 138,000 ACFM
- **Air-to-Cloth Ratio:** 5.01 to 1
- **Dust Characteristics:** Fiber cement board dust
- **Filter Media:** 16 oz. Polyester with PTFE





D u c t w o r k



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# 02

PROJECT 41598

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## 02

***Project 41598 - Installed "2018"*****Albemarle | 15,000 CFM System – Specialty Chemicals Plant**

**Model:** 1010 Round Titanium Gr. 2 Baghouses

**Location:** Country of Jordan

- **CFM:** 7500 CFM (per unit)
- **Air-to-Cloth Ratio:** 4.8:1
- **Dust Characteristics:** ChemicalsMoisture
- **Filter Media:** Ryton with PTFE Membrane





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# 03

PROJECT 31387

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# 03

## ***Project 31387 - Installed "2017"***

### **10,700 CFM System – Flooring / Linoleum Manufacturing Processes**

**Model:** 1111WPT-120-6 Pulse-Jet Dust Collector System

**Company Name:** Congoleum Corp.

**Location:** Trenton, NY

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04

PROJECT 20928

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04

**Project 20928 - Installed "2015"**



**100,000 CFM System – Hardie Board Sanding/Trimming**

**Model:** Dual Model 4515PTHHEI-144-6 Pulse-Jet Dust Collectors / System

**Company Name:** James Hardie Building Products

**Location:** Plant City, FL

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# 05

PROJECT 17360

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## Project 17360 - Installed "2013"

### 150,000 CFM System - Foundry - Pouring/Mold Cooling/Shake-out/Blast

**Model:** 6515WPT-120-6 Pulse-jet Dust Collectors / System (2); 32,000 CFM System - Foundry - Sand System; 2815WPT-120-6 Pulse-Jet Dust Collector; 16,000 CFM System - Foundry - Induction Melting Furnace; 2113WPT-120-6 Pulse-Jet Dust Collector; Intat Precision

**Company:** Line 4 - Plant Expansion Project

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A large industrial air filtration system, likely a baghouse, with two tall, vertical cylindrical chambers. The chambers are painted a light blue or grey. They are supported by a complex network of steel beams and ladders. A yellow safety platform is visible on the left chamber. At the base of the chambers, there are large, horizontal, yellow cylindrical components, possibly hoppers or part of the collection system. The background shows a large, reddish-brown industrial building.

06

PROJECT 13578

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## Project 13578 – Installed “2012”

Dual 24,500 CFM Systems, Thyssenkrupp Stainless / Danieli Corporation. Slab Grinding Apc System

**Model:** Model 1515WPT-144-6 Pulse-jet Dust Collectors / System (3)

**Company Name:** Thyssenkrupp Stainless / Danieli Corporation

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07

PROJECT 7916

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## Project 7916 – Installed “2010”

100,000 Cfm Total System, Scrap Coil Cutting Apc System

Model: 6515WPT-120-6 Pulse-jet Dust Collector

Company Name: Kinder Morgan

Location: Kuger, SC

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08

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## **Project 4555 – Installed “2008”**

**50,000 Cfm Total System, Holding Furnace/Inoculation Apc System**

**Model:** 5415WPT-120-6 Pulse-jet Dust Collector with Spark Arrestor

**Company Name:** Elyria Foundry

**Location:** Elyria, OH

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09

PROJECT 3042

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## Project 3042 - In Progress "2008"

**Continuous Reverb Furnace & Dross House –  
70,000 Cfm Apc System**

**Model:** 7515WPT-120-6 Pulse-jet Dust Collector

**Company Name:** Logan Aluminum

**Location:** Russelville, KY

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Continuous Pre-coat System Bulk Bag







## **Project 2833 - Installed “2008”**

**Asama Coldwater Manufacturing (Honda)**

**System 1 – Induction Melting Apc System – 37,500 Cfm - Guaranteed Outlet Emission .001 Gr/Dscf**

**System 2 – Sand System Apc System– 56,900 Cfm- Guaranteed Outlet Emission .005 Gr/Dscf**

**System 3 – Mold Cooling / Shake-Out Apc System – 61,200 Cfm- Guar. Outlet Emission .005 Gr/Dscf**

**System 4 – Casting Cooling / Shot Blast – 65,350 Cfm- Guaranteed Outlet Emission .005 Gr/Dscf**

**Location:** (Contracted by “The Mouat Company”) Coldwater, MI



Shake-out, Disamatic & Return Sand Belts



Inductotherm Furnace

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## Project 1975 - Installed "2005"

**SYSTEM 1 – Mold Pouring & Cooling APC System – 180,000 CFM**

**SYSTEM 2 – Roof General Ventilation System – 120,000 CFM**

**Location:** Tyler Pipe, Tyler, TX

### Included:

(2) Model 7515-WPT-120-6 Pulse Jet D.C. – System 1

Mold Cooling Enclosure with Overhead Bridge Crane System

(3) Stack Extensions to 100'-0"

Backward Incline Fan with Motor

Electrical Controls, MCC, & VFD

Electrical Control Building

Pre-Coat Building

Lighting and receptacles

Continuous bulk bag filter pre-coat system

Compressed Air Dryer, Receiver tank and piping

Flamex – Spark Detection System

Guaranteed Outlet Emission .01 Gr/DSCF

Turnkey Mechanical and Electrical Installation

Engineering, Project Management & Field Supervision

Start-up and air balancing service

Inlet and outlet ducting with main support structures

Stack 100' Tall with testing platform

Foundations (PE approved and stamped)





Model 7515-WPT-120-6 Baghouse, Fans & 100'-0" Stack (2)



Spark Detection System Access Platform System (Flamex)

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Stack with Emission Testing Platform

12

PROJECT 1693

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Model 7515-WPT-120-6 Baghouse and Electrical Control Building





## **Project 1693 – Installed “2004”**

### **580,000 CFM TOTAL SYSTEM**

**SYSTEM 1 – 40T Iron Holding Furnace APC System – 75,000 CFM**

**SYSTEM 2 – Pipe Casting General Ventilation System – 205,000 CFM**

**SYSTEM 3 – Pipe Cooling General Ventilation System – 150,000 CFM**

**SYSTEM 4 – N. Scrap Bay General Ventilation System – 150,000 CFM**

**Location:** Tyler Pipe, Tyler, TX

#### **Included:**

Model 7515-WPT-120-6 Pulse Jet D.C. –  
40T System only

Backward Incline Fan with Motor

Electrical Controls, MCC, & VFD

Electrical Control Pre-engineered Building

Lighting and receptacles

Continuous bulk bag filter pre-coat system

Compressed Air Dryer, Receiver tank and piping

Flamex – Spark Detection System

Guaranteed Outlet Emission .001 Gr/DSCF

Turnkey Mechanical and Electrical Installation

Engineering, Project Management & Field  
Supervision

Start-up and air balancing service

Inlet and outlet ducting with main support  
structures

Stack 125' Tall with testing platform

Foundations (PE approved and stamped)





Inlet Ducting from New Pipe Casting Equipment (90"Ø ducting)



Stack with Emission Testing Platform



Dust Collector & Stack 160" dia. x 125' Tall

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# 13

PROJECT 1731

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## Project 1731 - Installed "2004"

80,000 CFM Total System

Electric Arc Furnace Apc System

Location: Saint Gobain Ceramic Materials, Huntsville, AL







14

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**Project 1484 - Installed "2003"**

**36,000 CFM Total System**

**Induction Melting Furnace APC System**

**Company Name:** Urick Foundry

**Location:** Erie, PA



Spark Arrestor / Drop-out box



10T Induction Furnace and Close Capture Hooding