



News and Information to help manufacturers who use process air systems

**SPRING 1996** 

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What's New?

# **New Application for Final Filter Liberates Factory Floor Space** and Cuts Equipment Costs

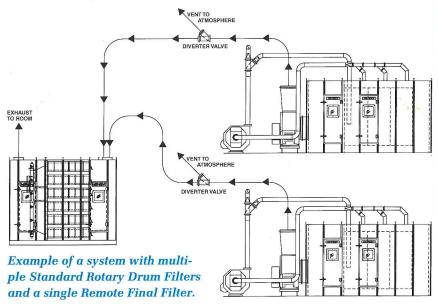
by Jeff Orwig

A few months ago a European manufacturer came to us for a filtration system for his manufacturing facility. He wished to use the new Osprey Phoenix Filter on each of his production lines. He also wanted his filtration efficiency to approach the levels achieved by the Final Filter. However, he had limited floor space. In our preliminary drawings, fitting a Final Filter at the end of each production line proved impossible.

The solution was the Remote Final Filter. In standard applications, a Final Filter is fitted at the end of each Rotary Drum Filter. The Remote Final Filter we developed in this case stands in a separate housing and receives air from multiple Phoenix Drum Filters.

Diverter valves can be fitted on the main fan outlets of each Phoenix, to allow the Final Filter to be serviced. The diverter valves allow the air coming into the Final Filter to be temporarily discharged into the atmosphere. For cases when one or more production lines are shut down while another remains in operation, backdraft dampers prevent buildup in the lines that are not running.

This single Remote Final Filter saved this manufacturer in both equipment costs and factory floor space, and the final advantage became apparent when we gave him the option of routing the clean air from the Final Filter into his production area. Heated from its long trip down the ductwork and through the filter, the air helped warm the plant in cold weather. Not only did the manufacturer save space and equipment costs, but he also cut his utility bill.



INDEX '96 -February 13-16 **Manufacturers** Congregate In Osprey Booth to Hear About New Technology in **Filtration and** Other Engineered Air Systems

#### by Kirk Harpole

Osprey booth 1334 was crowded during the four days of INDEX. Friends and customers, old and new, gathered there to learn more about their systems, and to get a glimpse of the advances coming to the process air systems industry in the next few years.

Filtration developments led the way. High points from the past year included the recently patented **Multi-line Filtration System**. The system allows a single rotary drum filter to separately handle dust and particulate from more than one production

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# Ask Osprey THIS ISSUE: Is Your Hammermill Enclosure a Risky Place?

This quarter we have chosen to share with you a question one of our customers brought to Dave Colburn. Dave leads our field service department and is also a Firefly sales technician, and his answer could be helpful to you. Here's the question:

"I have a sound enclosure around my hammermill that is at risk for fire—dust explosions, electrical fires, etc. Right now it is protected by CO2 extinguishing systems. Recently it was brought to my attention that if a fire began while someone was in the enclosure, the CO2 could be harmful or even fatal. We have gone to a manual release, but we're still concerned with malfunction or accidental release while someone is in there. Can you help me?"

Dave Colburn had this answer:

"First of all, replace your CO2 extinguishers with water nozzles. This will eliminate the danger of asphyxiation to any personnel working in the enclosure when the system is activated. As for the safety of the rest of your system, you may want to confirm that it has the capacity to fully protect the area inside the enclosure. When we install a Firefly system in a hammermill enclosure, two sensors and four extinguishing nozzles are typically sufficient. The Firefly system is a good choice for hammermill enclosures because it detects heated particles at temperatures as low as 400 degrees C. This means that a heated cellulosic particle is detected and extinguished before it even reaches its ignition tem-

perature of 410 degrees C. One last thing to note - if electrical wiring inside the enclosure makes water extinguishing a hazard, the control unit can be programmed to disconnect all the power instantly when the alarm is activated."

If you're interested in adapting the fire protection system described above for your hammermill enclosure, call Dave for help. If you do not already have an enclosure, the Osprey Sound Enclosure might be an option for you. It contains a 4" thick insulated core, and is custom-built to accommodate access needs, size, and ducting.

"Ask OSPREY" is a new column for the <u>Osprey Newsletter</u>. Each quarter we will publish a customer question, and give you the solution recommended by a member of our long-time engineering and tech-

nical staff. The person who submits the winning question will receive \$50 worth of Osprey merchandise, including the Osprey hat, Osprey calculator, and Osprey tape measure with duct conversions. Send your questions to Ann Litrel, OSPREY Newsletter, 1835 Briarwood Road, Atlanta, GA 30329, USA, or fax them to Ann's attention at (404) 321-7776.

#### Index '96 Continued from page 1

line, and it has significantly changed the way we set up filtration systems for many applications.

The Phoenix
Rotary Drum Filter is
another breakthrough
in drum filter technology. Because this filter
virtually eliminates
dust accumulation
within the filter enclosure, it greatly reduces
the chances of a dust
explosion in the
Phoenix filter.

(Constant air volume and pressure, critical to the production of quality disposable hygienics, remain standard features in the Phoenix, just as they are in the conventional Rotary Drum filter.)

Both of these filtration developments can be applied to our usual range of applications, including nonwovens, textiles, fiberglass, and pulp and paper applications.

We announced the availability of a new Nonwoven Trim Pelletizing System, which gives more flexibility in trim handling than previous scrap and trim collection systems. It collects the nonwoven trim and offers several options for handling: trim can be routed directly back to production after pelletizing, or it can be compacted and baled for future use. The sys-

tem can be engineered for the particular production process, whether spunbond or meltblown.

In fire protection, we continue to offer the Firefly Fire Prevention System. This system was recently re-engineered. Among some of the updated features is the ability of the new sensor to detect accurately not only the number of particles that pass it,

but also their highest registered energy value. The new control panel has extensive programming options that allow the system to be completely customized.

The above systems were just a few highlights from the show. For literature on any of these new systems, please contact us and we'll be happy to send you some information.

# Viewpoint

Process Air Systems in the 21st Century—Trends That May Affect Your Business

by Steve Smith

In the past 20 years, the basic functions of process air systems haven't changed. These include filtration, scrap and trim collection, material reclamation, handling, and metering. But the scope and focus of process air systems have shifted somewhat. These are a few of the trends we've seen that might affect your systems in the future, if they haven't already:

#### **Total System Integration**

Twenty years ago, in the beginning years of this business, it was a common occurrence for a customer to order a single rotary drum filter, add components from a few other sources, and piece them together at installation. Not anymore. Now the scope of air systems seems to make start-to-finish engineering essential. Concept, design, installation, support and maintenance all come from a single source. Detailed pre-installation layout drawings ensure that air systems are integrated with the entire production process. Modifications may then take place on computer time, not on location during assembly.

#### **More Efficiency, More Profit**

Companies make better use of their materials and factory waste than ever before, and the efficiency of filtration and reclaim systems has risen to meet the demand. "Nothing goes out the back door but product," is the policy of one well-known company. Two factors are at work in this trend: rising environmental controls from local and governmental agencies, and a growing interest in recovering material costs. Process air sys-

tems have been re-engineered again and again to accommodate this trend.

#### More Automation and Precision

Instant
information is a
luxury of the computer age. Many
recent process air
systems integrate
computer
technology with
traditional air
flow controls. These

systems are self-moni-

toring, with control panels that give the operators information about actual system conditions from second to second, allowing for continuous, precise metering and automatic adjustments in measuring operations.

#### Customization

Finally, customization may be the single most noticeable trend we've witnessed in process air systems. Every job results in a unique process air solution, and occasionally, even a total innovation. In some ways, the truly challenging problems are the best ones. In the end, they're what keep us on the leading edge, engineering air systems for the 21st century.

Pat Phillips was awarded his Professional Engineering License. As the new Lead Engineer for Osprey, he helps manage the work and resources of Osprey Engineering.

**Barry Shaw** recently completed training on MAZAK maintenance. He'll use this know-how as he continues to work with our sophisticated

CNC Vertical Machining Center at the Product Development Center.

We received news from the office of our representative company in Taiwan, Formosa Nawonsuith Corporation. On March 2, 1996, Mr. J.C. Chen and his wife greeted the arrival of their second child, a baby girl. Congratulations to the Chen family!

## It's Not Too Late - Get Your Olympic Tickets By Phone

You can still purchase tickets to some Olympic events, including baseball, basketball, canoeing and kayaking, soccer, rowing, hockey, shooting, softball, and yachting. Call (404) 744-1996 to see what's available.

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## E-mail address for Osprey Engineering

You can reach us by email at the mailbox of Jeff Hinson, Engineering Manager: jhinson@ix.netcom

We will eventually have the capability to receive large files and technical drawings.

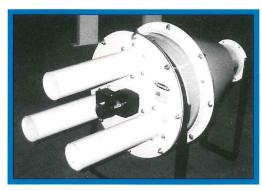
Let us know if you would find this helpful.

# What's New?

by Marty Price

#### Dependable, Flexible Rotary Diverter Valve for Vacuum Nozzles

We've designed a mechanism that can stand in for the standard diverter valve. We're calling it a Rotary Diverter Valve, and it has several advantages over the old manifold. Because it has fewer moving parts, it's more dependable and requires less mainte-



nance. It also eliminates the spikes in air flow that occur when the standard diverter valve switches from vacuuming one nozzle to another. It can be adjusted to alternate suction from one nozzle to another, or to alternate high and low suction from one nozzle to another. It is relatively compact and runs on a simple electrical motor.

# **Surplus FANS**

(4) IE-9 MH 5 HP 1,300-2,200 CFM

(2) IE-13 MH 10 HP 2,500-5,300 CFM

(1) IE-23 MH 75 HP 8,800-14,809 CFM

(1) IE-26 MH 50 HP 11,300-18,800 CFM

(6) 917 MH (no motors)

Fan range is 4,800-8,200 CFM Surplus motors in stock, 15 to 50 HP

Call Osprey Sales Department for prices and quick delivery.

#### **Accurate Air Flow Control**

In conjunction with the new Diverter Valve, we've designed a new Nozzle and Nozzle Mounting System. A machined faceplate keeps the width of the nozzle slit stable, and redesigned mounting hardware allows staggered nozzle placement on the drum filter. Together, these features give us more accurate control of air flow. They will be standard on the Osprey Phoenix Filter, and can also be used on the Standard Drum Filter.

#### On the Drawing Board

We're working on a high-velocity drum filter that will be stronger and smaller than the standard filter. Incorporating most of the features of the **Phoenix Drum Filter**, the unit will fit more easily into the production area than the original Phoenix. Collected dust will return to production or to a single off-line collection point, and discharge air will go to a Final Filter, to ensure air quality.

Bulk Rate U.S. Postage **PAID** Permit No. 365 Atlanta, GA



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