# **EUROVAC**

# FEED MILL INSTALLS A EUROVAC HIGH VACUUM SYSTEM WITH EXPLOSION RELEIF VENTING FOR HOUSEKEEPING

A local feed mill contacted Eurovac with a need for a vacuum system to clean their facility. The dusts produced are explosive in nature and the system designed required explosion venting, bag in bag out filters and a rotary air lock for dumping the dust. The system also has pulse cleaning on the filters and a shaker on the cone to ensure all the dust makes it to the bottom of the system. Ducting was plumbed through the facility with vacuum ports at convenient locations for a safe, efficient method of keeping the facility clean.





# **CHALLENGE**

- The dusts produced in a feed mill are explosive and require explosion venting.
- The installation of the ducting was a challenge due to the nature of the building with several floors and tight areas.

# **IMPACT**

- After the system was installed the workers moral improved as the facility was much cleaner and do so in a safe manner.
- The customer was satisfied as the system met the needs while dealing with the sensitive nature of the explosive dusts.

### **SOLUTION**

- Designed a system with explosion venting, bag in, bag out filters so the workers are not exposed to the dusts and a shaker on the cone to ensure all dusts make the rotary air lock.
- An engineered ducting system with graduated galvanized (anti-static) ducting was provided through the facility at locations requested by the customer.
- A cleaning package with 1 1/2" x 25' hose, wand, 14" floor tool and crevice tools were provided where the technician can plug the hose in at the locations selected and safely clean the facility.

# CASE STUDY

High Vacuum Housekeeping: Feed Mill

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# Eurovac

We're the Central Vacuum Specialists with Products for Every Need and Budget

# High Performance Central Vacuum Systems

- Superior products designed to run all day, every day – with minimal maintenance requirements
- Superior filtration all Eurovac systems have built-in primary cyclonic separation located ahead of the final bag or cartridge filters
- Properly engineered layouts
- Complete line of quality cleaning accessories
- Increase productivity and efficiency: Place vacuum drops exactly where you need them and eliminate the use of portables ... which can often hinder production
- EUROVAC
- Eliminate breakdowns: High efficiency industrial grade motors and superior filtration systems keep your Eurovac equipment up and running, and always ready for use
- Eliminate unsafe cords on the floor of your work areas: With a Eurovac system installed in your shop, there are no cords to trip on, or to create potentially dangerous situations

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# EUROVAC III CENTRIFUGAL MULTI-STAGE PUMP SYSTEM

deal for large plants with 4 to 60 technicians vacuuming at the same time. The 15 to 150 HP centrifugal multi-stage pump can be set at various vacuum levels from 5" HG (68" water column) for relatively short pipe runs to 10" HG (135" water column) to offset friction losses on relatively long pipe runs, or to enhance the pick-up of heavy materials. Airflow ranges from 400 to 5,000 CFM.

The unique Eurovac design includes spacial arrangements that make our pumps more efficient than most competitive brands on the market.

The standard Eurovac III system is supplied with cartridge filters, automatic compressed air Pulse-Jet cleaning and primary cyclonic separation.

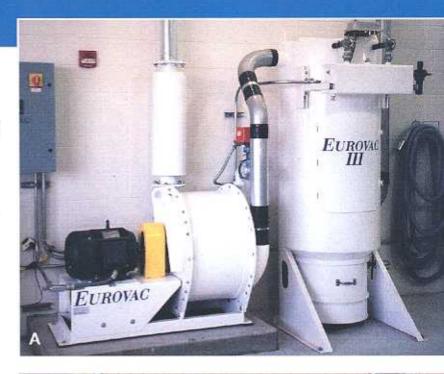
Eurovac's industrial grade induction motors have a 20,000 hour rating.



With 5 to 10 HP, 220, 440 or 575 volt threephase induction motors and regenerative blowers, this system is ideal for 2-man and 3-man operations. The induction motors have a 20,000 hour rating and the pumps and separators are designed to run continuously with little or no maintenance required.

The standard system comes equipped with cartridge filters, automatic compressed air PulseJet cleaning and primary cyclonic separation. Also available with bag filters.

The system can be set up via microswitches to start and stop when the technician puts the hose in and out of the inlet.





- A Eurovac III 20 HP Centrifugal Multi-Stage Pump and 30" Separator
- B Eurovac III Dual 60 HP Centrifugal Multi-Stage Pumps, a Cyclonic Pre-separator, and a 12-centridge Filter Separator with Automatic Compressed Air PulseJet Cleaning
- C. Eurovac J. 10 HP Regenerative Blower and 2-Carthoge Filter Separator. Also available with Automatic Compressed Air PulsaJet Cleaning



### **EUROVAC II SYSTEMS**

An economical alternative to the Eurovac I System, either for a single technician or for two technicians vacuuming at the same time.

Filtration consists of primary cyclonic separation and a final 8"x16" cartridge filter, making Eurovac II systems superior to any portable. The system can be set up via microswitches to start and stop when the technician puts the hose in and out of the inlet. This maximizes the operating life of the brush motors, which are rated at 3,500 hours (and inexpensive to replace, if required).





The standard system is supplied with a 10-gallon collection canister. Automatic Compressed Air PulseJet cleaning and continuous run brushless motors (rated at 10,000 hours) are available as options.

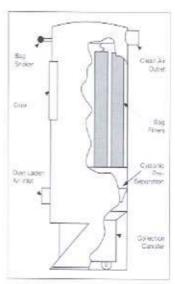
### SUPERIOR FILTRATION

We offer a wide range of filter options to fit virtually every application. For fine dust we primarily use polyester cartridge filters (99.7% efficient to 1 micron).

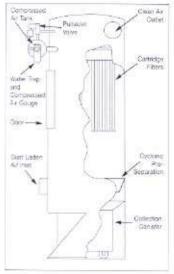
Most Eurovac systems feature automatic compressed air PulseJet cleaning, and our larger systems have multiple cartridges and alternating PulseJet cleaning (filters are cleaned individually). All Eurovac dry separators have primary cyclonic separation, which removes more than 85% of dust before reaching the final cartridge filters. For production environments with large amounts of dust, we usually install a separate cyclonic pre-separator before the final cartridge filter separator. For collecting liquids and wet materials, we offer a full range of portable and inline separators.

Eurovac also has broad experience with HEPA filters (99.97% efficient to .3 microns), rotating airlocks, and various collection choices – including canisters, bags, tote bins and dumpsters.

Bag-in/Bag-out filter systems are available for use in the pharmaceutical industries. Explosion panels and wet mix separators are available for use with explosive materials.



Bag Filter Separator with manual shaker



Cartridge Filter with automatic alternating compressed air PulseJet cleaning



A Wet Mix Separator for explosive materials

- B. Mobile Wet or Dry Pre-Separator
- C Inline Wet Separator



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# DROPS AND PIPE FITTINGS

urovac systems are designed for convenient use.

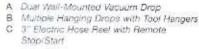
Hanging drops attached to galvanized graduated vacuum tubing by 2" flex hose, or wall mount drops with metal inlet valves and self-closing covers are standard. Inexpensive wire hose hangers are available, as well as manual and electric hose reels (controlled by a remote stop/start hand controller on the cleaning wand). 10-30 ft articulated arms are also optionally available.

Eurovac systems are engineered to provide a constant air speed of 4,500 feet per minute (for standard materials). This is accomplished by using 2" drops and 2-1/2" pipe at the end of the pipe run, with 3" to 8" pipe at the pump (depending on the size of the system and the number of drops on the pipe run).

Both PVC and metal pipe is available. When moisture is not a factor, we recommend metal pipe because of the longer radius bends, which maximize performance and minimize clogging. Metal pipe is extremely durable and eliminates static electricity build-up.









# CLEANING TOOLS AND VACUUM HOSES

urovac has a wide range of standard 1-1/2" and 2" industrial "off-the-shelf" cleaning tools, including dust collection, wet collection, bulk collection and pipe cleaning tools. If larger sized hoses are required (for pick-up of large debris or faster pickup of large quantities of materials, for example) 3" vacuum hoses are available, as well as a number of Eurovac-designed specialty tools (an example is shown on the far right). We also offer a wide variety of specialty vacuum hoses, including anti-static and high temperature hoses.























