

Questron's Quest

INNOVATIVE SOLUTIONS FOR ANALYTICAL LABORATORIES

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Questron's Exhaust Fume Scrubber *Our compact solution for your lab's pollution control needs*

Questron Technologies Corp., Canada

Most analytical laboratories undertake processes that generate highly acidic and toxic fumes. Controlling these types of hazardous elements is important as it prevents the direct release of these fumes in the atmosphere. It also ensures regulatory compliance, and protects employees' safety and health.

In recent years there has been increased emphasis on laboratory operator safety. Also, concerns for environmental health and protection have resulted in new regulations being implemented. Governments all over the world have set stricter rules to control the emission and quality of exhaust fumes from industries and laboratories. Therefore, more and more laboratory designers and facility operators are considering the use of environmentally responsible products like scrubbers for their fume hoods.



Please join us in welcoming the newest member of Questron's team, **Chris Wright**.

Chris joined Questron Technologies recently as Electronics Technologist. He holds two diplomas in Electronics Engineering Technology. His 3-years' experience as a millwright apprentice working in the manufacturing industry has made him a very valuable addition to our production team. He is also an experienced computer technician and in addition to his regular responsibilities, looks after Questron's internal computer network.

His interests include alternative energy, computer programming and watching movies.

We all wish Chris a long and rewarding career with Questron.

Questron's exhaust fume scrubber is designed to efficiently treat and remove toxic fumes from the laboratory. Primarily designed as an accessory to remove acids from fumes generated by our Vulcan 84 Automated Digestion and Work-up Station, it can be used independently with other instruments as well.

Our exhaust fume scrubber is based on the principle of mass transfer, also called *Gas Absorption*. This principle allows fumes in the air stream to transfer into a liquid scrubbing medium. Gas absorption is a mechanism whereby one or more constituents are removed from the fume stream by dissolving them in water. This action continues as long as the concentration of toxic chemicals in water is lower than the vapour pressure of the liquid phase.

ABOUT QUESTRON

Questron Technologies Corp. is a Canadian manufacturer of sample preparation equipment for analytical laboratories

Our product line includes:

Microwave Digestion Systems

- > **QLAB 8000**
Computer controlled
- > **QWAVE 4000**
Temperature and pressure control
- > **QWAVE 1000**
Power-based sample digestion

Microwave Ashing System

- > **QAsh 1800**
Computer controlled

Hot Block Digestion

- > **QBlock Digestion System**
with QBlock Commander Quad-Channel Heating Controller

Automated Hot Block Digestion

- > **Vulcan 84**
Automated Digestion and Work-up Station
Computer controlled

QUESTRON'S EXHAUST FUME SCRUBBER

HOW THE MAGIC HAPPENS

The removal of contaminants is accomplished by passing the fumes through the following stages of scrubbing:

- The fumes pass first through a water spray during which some of the larger contaminant particles drop out and the remaining fumes are saturated.
- Next, the fumes pass through a pack of polypropylene, non-clogging, spherical type mass packing which is kept constantly wet by a continuous spray of water.
- The saturated fumes are then impinged upon the packing and the contaminants are absorbed and carried away in the wash water.
- A drain at the bottom of the scrubber collects the scrubbing liquid. The liquid can then be recycled, reused or disposed off as per the laboratory practices.
- Finally, the treated fumes are exhausted from the top of the scrubber to the central ventilation system.

CALENDAR OF EVENTS

In September 2010, we will be exhibiting at the following conference:

Canadian Mineral Analysts Conference CMA 2010

September 13 – 15, 2010

Prestige Hotel
1919 Columbia Avenue
Rosland, BC V0G 1Y0

Canada

Sample Preparation, Treatment and Automation

Questron's exhaust fume scrubbers are compact in size and can be installed in any laboratory. They are vertically mounted and are easy to install and maintain. All plastic construction prevents corrosion and extends the life of these scrubbers.

To request a no-obligation assessment of your scrubbing needs, please contact one of our product specialists at sales@qtechcorp.com or your local distributor.



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