



Manufactured
in the UK



Safelab Systems Products

Filtration Fume
Cupboards

Ducted Fume
Cupboards

Extract Systems

Cyclonic Scrubbers

Horizontal Laminar
Flow Cabinets

Vertical Laminar
Flow Cabinets

Safety Cabinets

Forensic Safety Cabinets

Polypropylene Cabinets

Glove Boxes

Storage Cabinets

Safelab Systems Service

Maintenance Contracts

Airflow Testing

Ductwork Testing

Filter Testing

DOP Testing

K1 Discus Testing

Installation

Commissioning

Lab Furnishings

Laboratory Furniture

Modular Buildings

Turnkey Projects

Cyclonic Fume Scrubbing

With the ever increasing concerns over pollution and the environment, Safelab Systems has invested heavily in the development of Cyclonic Scrubbing Systems for Fume Cupboard exhausts.

The system is highly patented and utilises non-blocking spray nozzles within the vortex chamber. This allows for very high, consistent and reliable absorption efficiencies from a unit that requires significantly lower maintenance than our competitors' units.



**Remote Roof
Mounted Scrubbers**



**Integral
Fume Cupboard Scrubber**

Safelab Systems range of compact Fume Cupboards Scrubbers have been specifically designed for Laboratory Fume Cupboards and therefore kept as simple and compact as possible. This proven, robust and patented cyclone scrubbing technology provides efficient and intense mass transfer in the absence of any packings, as would normally be present in conventional scrubbing systems.

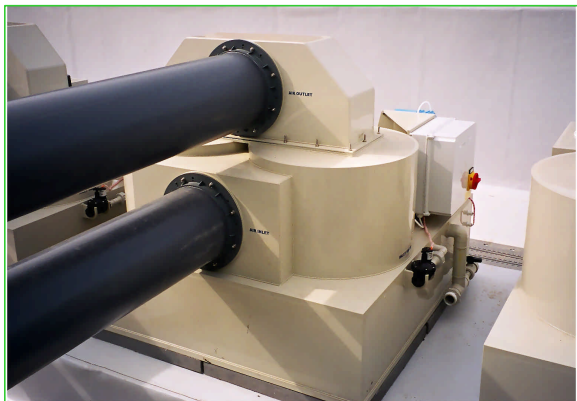
This allows efficient operation with potentially fouling applications and is important where solids removal or salt precipitation is anticipated. The accumulation of insoluble solids in the scrubbing liquor poses not threat of blockage for the Safelab Systems Scrubber.

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Cyclonic Fume Scrubbing



DUCT INLET & OUTLET
CONFIGURATION

(REAR VIEW)



CONTROL PANELS & SERVICE
CONNECTIONS

(FRONT VIEW)

Features

Remote or integral system – located within fume cupboard or remote roof mounted unit

Inherently resistant to blocking/fouling through lack of internal packers

Little or no maintenance required – very low through-life running costs

Up to 50% smaller than conventional packed tower units – smaller installation footprint

Easy to retrofit

High efficiencies > 98% can be readily achieved for acid and alkali gas removal

Infinite turndown ratio – highly flexible over a very wide range of flow rates

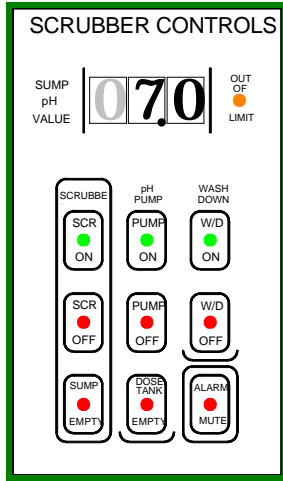
Choices of sizes to suit cupboard (M120 & M180)

Pre-commissioned units ready to install

No on-site commissioning (other than pH probe calibration)



Technical Specification



Digital Control System

- Scrubber 'On' button/scrubber 'Off' button with LED
- pH pump 'On' button/pH pump 'Off' button with LED
- Washdown 'On' button/washdown 'Off' button with LED
- Sump empty warning LED
- pH dosing concentrate tank empty warning with LED
- General alarm/mute with LED
- Sump pH value
- pH level out of limit

Construction

Double (M120) or triple (M180) cyclone chambers

Manufactured in polypropylene

- Stainless Steel nozzles & EPDM 'O' rings

Standard volume (180 litres) sump vessel

- Automatic level control
- Overflow & drain valve
- Drip cup drain connection

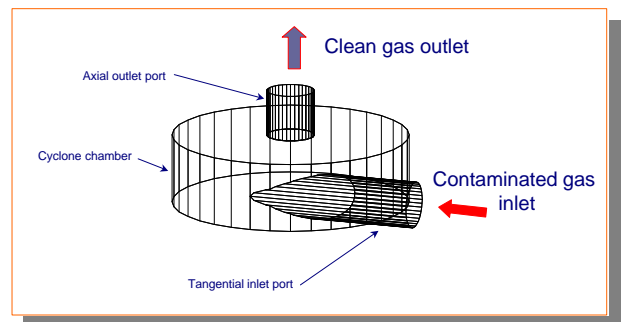
Scrub liquor recirculation pump

- Vertical, immersible type (316l stainless steel)

pH dosing system (including LED display)

- pH probe, dosing pump & injector
- Concentrate storage tank (20 litres)

Airflow Diagram



M120 – Max Flow Rate 980 m³/hr (576 cfm)
M180 – Max Flow Rate 1470 m³/hr (865 cfm)