

**MAJOR<sup>®</sup>**

# **DISCOVERY**

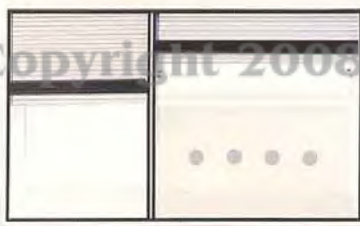
**100 • 120 • 150 • 180 • 200**



MAJOR SCIENTIFIC PRODUCTS CO., LTD.

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**Standard Fume Cupboard**



## New Aerodynamic Design

Normally case of fume cupboard designer, designed the air movement pass on the working area top, this important reason, the operator made wrong decision on experiment, we can not control the temperator of heater for boiling the sample or the glassware have fallen from windy. The new design make the air movement pass under the working area top under working area pass system through to the back of baffle and adjust the flow rate by itself.

## Fume Cupboard Structure

The fume cupboard are manufactured from glass reinforced unsaturated polyester resin (F.R.P.) fire retardant, corrosion resistant, with no metal contain in the structure. The frontage of fume cupboard is aerodynamically Shaped to ensure an even flow of air in the chamber. It has large radius corners.

## Fume Cupboard Chamber

The one piece moulded chamber has excellent aerodynamically shaped roof which is contoured towards a rectangular extraction outlet. The interior is fitted with aspecially designed removable back baffle for cleaning purpose. The floor has two levels, Top for working area, easily to changing or cleaning, Lower for drainage.

## Safety SASH

The counter-balanced sash are of the vertically sliding sash type supported on chemical resistant cable and running bearing pulleys which are bullet embedded in rigid nylon. Sash is 6 mm. safety glass fixed in F.R.P. frame, polypropylene handle.

## Storage Cabinet

The storage unit is manufactured from F.R.P. completed with polypropylene roller shutter, has two seperate parts, one for LPG tank and the other designed for chemical storage. The back of storage part can be removed for access to any service.

## PIPE LINE

The pipe are manufactured from F.R.P. with filament winding process, smooth interior, low resistance air flow. The end of pipe has 135° elbow for bird and rain protection.

## Acid Trapping System

The acid trapping system is designed principle to handle acid fume in pipe line. The interior of system has tranfer 2 holes for air turbulent protection. The air movement control is reverse air transparent type.

## Micro Processor Control

Blower switch and lighting switch completed with visual light in only one piece micro processor control panel, soft touch type, 24 hours Timer also can add to the panel.

## Checking

Air velocity is checked with ANEMOMETER at 100 FPM.while the door opening at 30 cm., height from the floor.

## Warranty

12 months, Life time service.



## Discovery Specification

MODEL	TOP (W x D x H) (cm.)	STORAGE (W x D x H) (cm.)	WORKING AREA (W x D) (cm.)	OUTLET PIPE Ø (Inch.)
Discovery 100	100 x 95 x 150	100 x 80 x 85	75 x 70	8
Discovery 120	120 x 95 x 150	120 x 80 x 85	95 x 70	8
Discovery 150	150 x 95 x 150	150 x 80 x 85	125 x 70	10
Discovery 180	180 x 95 x 150	180 x 80 x 85	155 x 70	10
Discovery 200	200 x 95 x 150	200 x 80 x 85	175 x 70	10

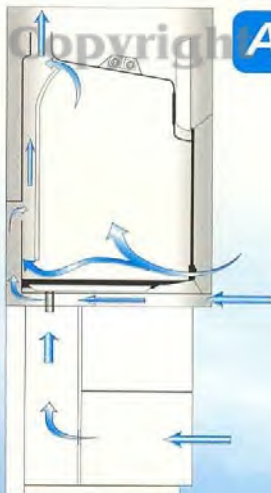
### Electricity

Main switch breaker 30 AMP.

Blower switch ( visual light ) with magnetic and overload for motor damage protection.

Fluorescent switch ( visual light ) with 2 sets of 18 watts fluorescent lamp covered with safety glass.

Electrical service ( Double plugs type ) with 2 or 3 legs plug, 10 AMP. with covered



## Air Flow diagram

Sash lowered. Velocity was controlled through **under working area pass** for adjust the flow rate by itself



# SCRUBBER

The elamination of acid-base fume by water is the easiest way to make the environment better. The fumes in the laboratory must be eliminated before emission through the air. In case of using large amount of acid-base for example, Digestion; acid-base fumes have to be treated before emitted through the environment. Treating process is passing these fumes into the pack-media tank in order to increasing the contact time between the fumes and water spray. Next, Passing its through 5 micron filter to seperate water spray from treated fume (cleaned-air). Finally, The remain cleaned-air is emitted through the environment.

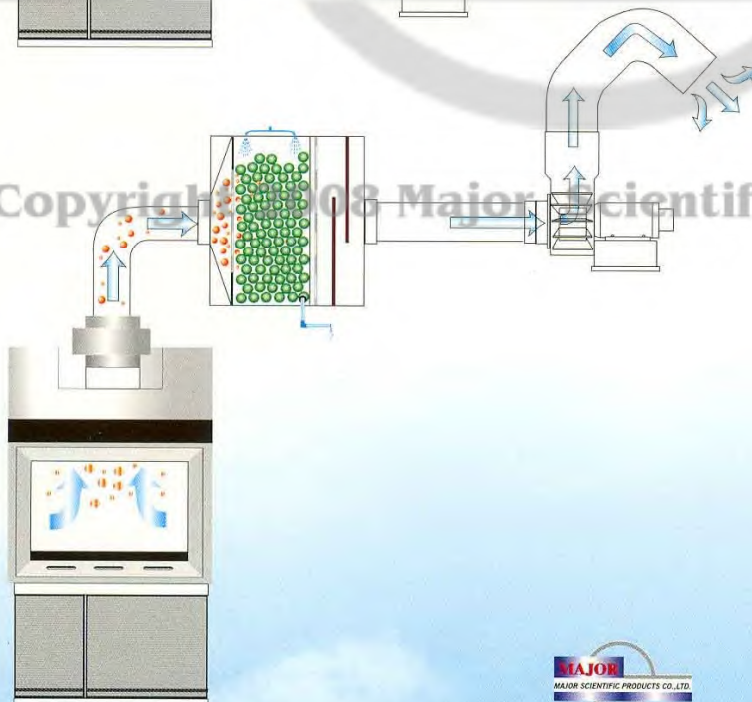
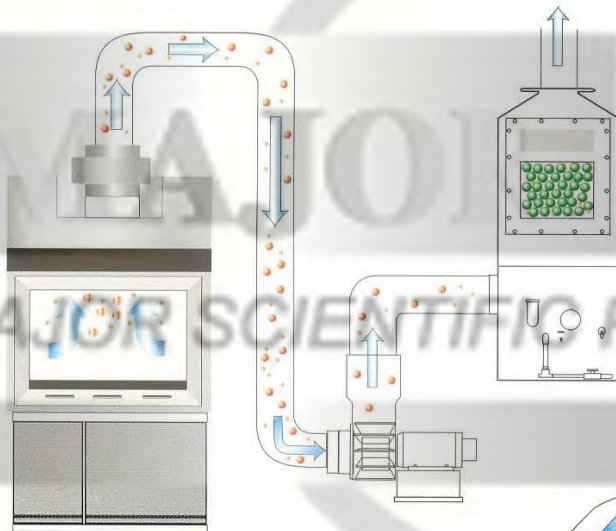
## FUME SCRUBBER SPECIFICATION : HORIZONTAL TYPE

MODEL	DIMENSION (WxDxH)	DISCOVERY FUME HOOD SIZE	P.P.M*
SCB 120X	120 x 75 x 120 cm.	120	1,000
SCB 150X	150 x 75 x 120 cm.	150	1,200
SCB 180X	180 x 75 x 120 cm.	180	1,500

## FUME SCRUBBER SPECIFICATION : VERTICAL TYPE

MODEL	DIMENSION (WxDxH)	DISCOVERY FUME HOOD SIZE	P.P.M*
SCB 60Y	60 x 60 x 175 cm.	120	1,000
SCB 70Y	70 x 70 x 175 cm.	150	1,200
SCB 80Y	80 x 80 x 175 cm.	180/200	1,500

P.P.M\* = Polypropylene Pack Media



Vertical Type



Horizontal Type

# ACCESSORIES

*Remote control valve with polypropylene handle  
DIN 12920 B color coding panel  
Epoxy electro-plating  
300° F coating valve*

## Remote control valve for Automatic Cleaning System



## Remote control valve for Hot or Cold Water



## Remote control valve for High Pressure Gases



## High pressure gas valve for bench or wall



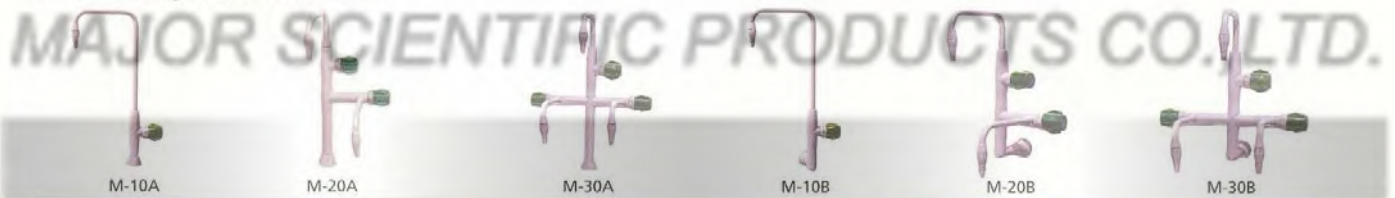
## Remote control valve for LPG



## LPG valve for bench or wall



## Water valve for bench or wall



## Drainage System

*Polypropylene sink ø 6" (ø 5.5" inner) complete with polypropylene bottle trap, corrosion and removable jointed to drainage line with P.V.C pipe.*



## High-Grade Chemical Resistance

*16, 22, 26 mm. Thick of Epoxy Resin, more than 1.90 density value, in ash, darkgrey and saphire color can be changing to the work top for special experimentation. For example; experiment with high temperature more than 1 hour with concentrate acid, etc.*



## Chemical Resistance SIRENA PLATE 6 mm. Thickness

*Reinforced with chemical resistance resin*



# OPTION

## CANOPY

Major ® Canopy is aerodynamic and well designed. Using double wall type, Canopy has qualify to elaminated the fume which is more condense than air, such as acid-base fumes. The canopy was produced from fiber glass reinforced resin which is chemical resistance. Canopy have many sizes depend on the working area from 0.50 m., 0.75 m., 1.0 m.,....., 3.0 m., as request



## TRAPPING TANK

The experiment which used a large amount of acid-base for warming or boiling needs equipment to elaminated acid-base fume before sending into the air. Especially, the system which has no the elamination of acid-base at the end of pipe is very hazardous. Short pipe or static air condition can cause less distribution of acid-base fumes. Trapping tank can solve this prolem by accelerate the acid-base fume condensation.



### TRAPPING TANK SPECIFICATION

<b>Tank Structure</b>	Fiberglass
<b>Tank Size</b>	50 x 50 x 50 cm <sup>3</sup>
<b>Condensing Process</b>	Wind circular attack with 4 multiple half curve
<b>Filter</b>	Polypropylene ø 2"
<b>Inlet / Outlet</b>	8" or 10" selectable

