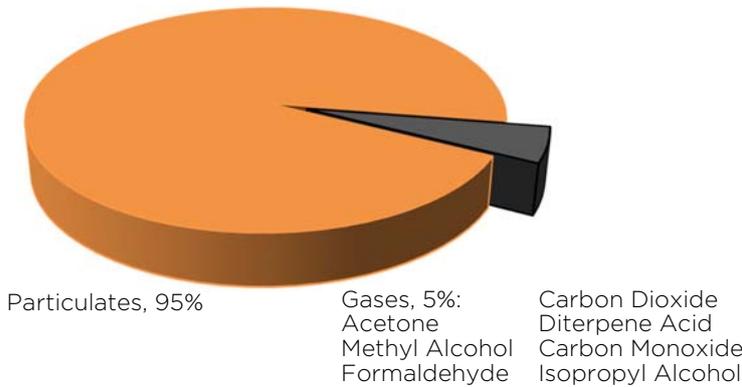# VFX-1000
Data Sheet and
Configuration Guide

METCAL™

Why Fume Extraction?

Solder smoke is more than just an irritant. It can reduce worker productivity through a loss of concentration and fatigue. These and other health concerns, occupational asthma as an example, may be a result of exposure to solder fumes during the production process. As an employer, you are responsible for properly managing the health risks associated with solder fumes, and take appropriate precautionary measures. Solder fume extraction is a simple way to manage the risks to employees and your organization

Solder Fume Composition

Particulates, 95%

Gases, 5%:
Acetone
Methyl Alcohol
Formaldehyde

Carbon Dioxide
Diterpene Acid
Carbon Monoxide
Isopropyl Alcohol

Risks to Employees

Headache

Eye Irritation

Sore Throat

Nose Bleeds

Dermatitis & Acne

Occupational Asthma & Respiratory Irritation

Systems

VFX-1000-H

VFX-1000 with HEPA Filter

VFX-1000-G

VFX-1000 with Deep Bed Gas Filter

Technical Specifications

Volume Fume Extraction System	
Ambient Operating Temperature	10 to 40 °C
Maximum Enclosure Temperature	55 °C
Input Line Voltage	100 - 240 VAC, grounded circuit
Output Frequency	50/60 Hz
Power	12.5 A / 1.1 kW
Noise	< 54 dBA
Airflow/Pressure	350 m³/hr / 96 mbar (206 CFm / 96 mbar)
Certification / Marking	TUV, CE
Dimensions w x d x h	375 x 415 x 590 mm
Weight	35 kg

The selection of the fume capture device should be guided by your application and work habits.

System performance is a function of the following factors and will decrease if
- Hose Diameters decrease
- Length of ducting increases
- Number of 90^0 bend increases
- Number of arms increases

All exhaust arms are made of ESD material and are supplied with appropriate mounting accessories. The design allows for mounting the arms to a variety of surfaces.

Nozzle Selection

Round/Funnel	Point and small area extraction for • Soldering • Gluing/Bonding • Laser marking Fumes
Oval	Point extraction for • Soldering under a microscope • Laser marking Fumes
Rectangular	Area extraction for • Soldering • Solder Pots • Gluing/Bonding • Solvent Vapors
Large Rectangular/ Large Hood	Large area extraction for • Soldering of large boards • Gluing/Bonding • Large Solder Pots • Solvent Vapors
Plenum/Funnel	Area extraction for • Soldering • Solder Pots • Gluing/Bonding • Solvent Vapors
Cabinet	Area extraction for • Volatile gases • Toxic gases • Odours

Configure your System

1	Determine # of Users and Application Requirement	
2	Select System	VFX-1000-H, Fume Extraction with HEPA Filter
		VFX-1000-G, Fume Extraction with Deep Bed Gas Filter
3	Select Arm(s) or Cabinet	
4	Add 1 x AC-VFX-HK75 per arm for 32 mm and 50 mm arms	
	Add 1 x AC-VFX-HK7563 per 63 mm arm and 1 x AC-VFX-YAD63 per 2 x 63 mm arms	
	Add 2 x AC-VFX-HS7525 per AC-VFX-CAB-75	
5	Select optional accessories, as needed	

Fume Extraction Cabinet

CABINET

Fume extraction cabinets are recommended for the capture of volatile gases and strong odors.

AC-VFX-CAB-75	Fume Extraction Cabinet with LED lighting & 2 x 75 mm Dia, 1.5 m length hoses and 2x hose clamps

ADAPTER

AC-VFX-75X75	Hose Connector 75 mm Dia.

ACCESSORIES

AC-VFX-HS7525	Hose 75 mm Dia. 2.5 m length

Technical Data

Dimensions (HxWXD)	350 x 540 x 360 mm
Opening Dimensions	315 x 540 mm

Configuration

2 ports per unit	
	1 x AC-VFX-HS7525 per port

32MM Arms

ARMS

AC-VFX-ARM-32F	32 mm Dia. Arm, 650 mm long w/rnd funnel, blk
AC-VFX-ARM-32N	32 mm Dia. Arm, 650 mm long w/oval nozzle, blk

ADAPTER/HOSE KITS

AC-VFX-HK75	Hose Kit with 75 mm Dia. to 50 mm Dia. adapter

Configuration	Adapter/Hose Kit	
Up to 7 arms per system Up to 4 arms per port	 1 x AC-VFX-HK75 per arm	 Arm AC-VFX-ARM-XXX

50MM Arms

ARMS

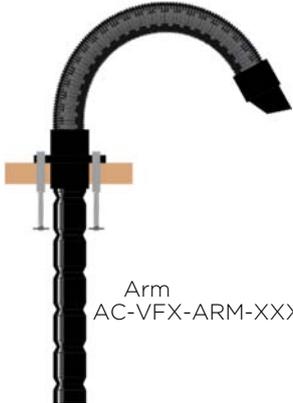|	
AC-VFX-ARM-RF	50 mm Dia. Arm, 650 mm long w/rnd funnel, blk
AC-VFX-ARM-PF	50 mm Dia. Arm, 650 mm long w/ plenum/funnel, blk
AC-VFX-ARM-LF	50 mm Dia. Arm, 650 mm long w/rnd funnel, LED, blk

ADAPTER/HOSE KITS

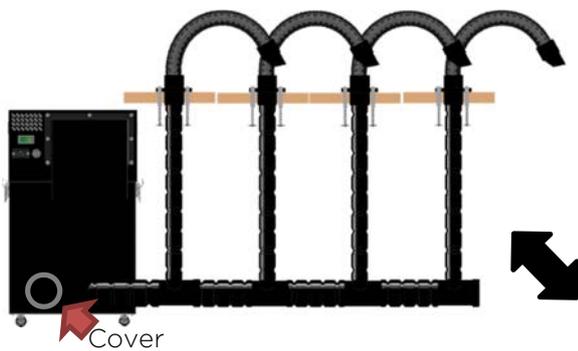|	
AC-VFX-HK75	Hose Kit with 75 mm Dia. to 50 mm Dia. adapter

ACCESSORIES

AC-VFX-HS7525	Hose 75 mm Dia. 2.5 m length

Configuration	Adapter/Hose Kit	
Up to 5 arms per system Up to 4 arms per port	 1 x AC-VFX-HK75 per arm	 Arm AC-VFX-ARM-XXX

Cover

Example Configuration:
- VFX-1000-H
- 4 AC-VFX-ARM-RF
- 4 AC-VFX-HK75

63MM Arms

ARMS

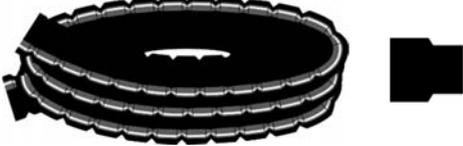|	
AC-VFX-ARM-ORN	Omniflex Arm with Rectangular Nozzle, 63 mm Dia. hose (1m), bracket, C-clamps & hose clamp
AC-VFX-ARM-OTN	Omniflex Arm with Oval Nozzle 63 mm Dia. hose (1m), bracket, C-clamps & hose clamp
AC-VFX-ARM-OLH	Omniflex Arm with Large Hood, 63 mm Dia. hose (1m), bracket, C-clamps & hose clamp

ADAPTER/HOSE KITS

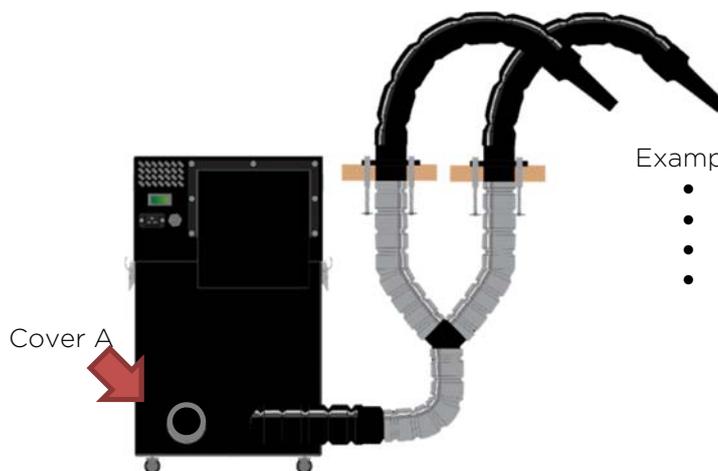|	
AC-VFX-HK7563	Hose Kit with 2m hose and 75 mm Dia. to 63 mm Dia. adapter

ACCESSORIES

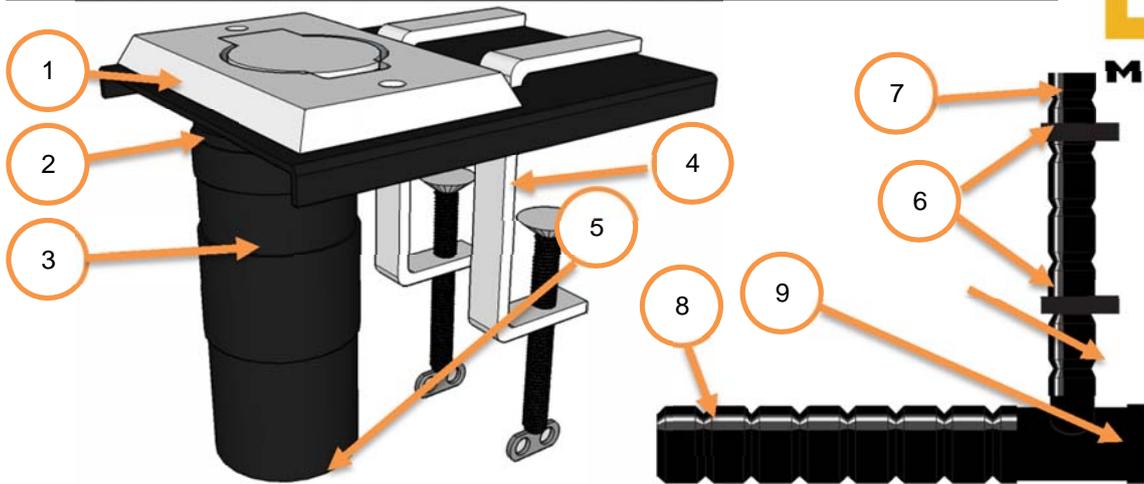|			
AC-VFX-YAD63	Y Adapter, 63 mm Dia. with Hose (305 mm) and 3x hose clamps		
Q-AD426530	Replacement nozzle – Rectangular - 150 x 88 mm		
Q-AD426550	Replacement nozzle – Tapered		
Q-AD426560	Replacement nozzle – Large Hood - 350 x 212 mm		
AC1101	Damper for Omniflex Arm	AC1102	Omniflex Arm Extension 30 cm
CH0251	Connection Hose 2.5m x 63 mm Dia. with hose clamps	CH0252	Connection Hose 3.5 m x 63 mm Dia. with hose clamps
CH0253	Connection Hose 7.5m x 63 mm Dia. with hose clamps	AC2025	63 mm dia. Y Adapter

Configuration	Adapter/Hose Kit	
Up to 4 arms per system Up to 2 arms per VFX port	1 x AC-VFX-HK7563 per port	Omniflex-Arm AC-VFX-ARM-XXX
	1 x AC-VFX-YAD63 per 2 arms	

Cover A

Example Configuration:
- VFX-1000-G
- 2 AC-VFX-ARM-OTN
- 1 AC-VFX-HK7563
- 1 AC-VFX-YAD63

AC-VFX-HK75			
	Description	QTY	
1	AC-VFX-HK75CONN Arm Connection Receptacle with Seal and Hardware	1	
2	AC-VFX-HK75BRK Bracket with 2 clamps	1	
3	AC-VFX-HK75RED Reducer 50 - 40 mm	1	
4	AC-VFX-HK75HC Hose Clamp	1	
5	AC-VFX-HK75CL 50 mm Hose Clip	4	
6	AC-VFX-HK75H50 50 mm Flexible Hose, 1 m	1	
7	AC-VFX-HK75H75 75 mm Flexible Hose, 2.5 m	1	
8	AC-VFX-HK75TCONN 75 x 50 x 75 mm T Connector and Cover	1	
9	AC-VFX-HK75CAP 75 mm Cap	1	
10	AC-VFX-HK75CUFF75 75 mm Connection Cuff	2	Not Shown
11	AC-VFX-HK75CUFF50 50 mm Connection Cuff	1	Not Shown

Replacement Filters

AC-VFX-FIL-PRE

Deep Pleat Pre-Filter Specification	
Surface Media Area	6m² approx.
Fiilter Media	Glass Fibre
Filter Media Construction	Folded
Filter Efficiency	F8 (95% @ 0.9 microns)

AC-VFX-FIL-HEPA

Combined HEPA Filter Specification	
HEPA Filter Media	Glass Fibre
HEPA Media Construction	Maxi Pleat Construcution with Webbing Spacers
Gas Filter	Treated Activated Carbon
Filter Housing	Zintec Mild Steel
Filter Efficiency	99.997% @ 0.3 microns

AC-VFX-FIL-GAS

Deep Bed Gas Filter Specification	
Gas Filter	Activated Carbon
Filter Housing	Zintec Mild Steel