

# REPORT OF EXAMINATION OF LOCAL EXHAUST VENTILATION AND COLLECTION PLANT

The Control of Substances Hazardous to Health Regulations

Final assessment for level of control: **CONDITIONALLY SATISFACTORY**

Overview		Client address			
Client ref	LEV02	Sipco Ltd Unit 1 The Bond, Hammond Road Knowsley Industrial Park Liverpool Merseyside L33 7UL			
Description	Local Exhaust Ventilation Fume Extraction				
Last examination date	28/03/2023	This examination date	26/03/2024	Next examination date	26/03/2025

GENERAL INFORMATION			
BV identifier	1-14633364664	Serial mark / No.	AC18/3939
Additional details	PUR Foam presses		
Manufacturer	Gas Industrial Fans	Date of manufacture	Not known
Examination made	Thorough Examination	Inspection Frequency	12 Monthly
Commissioning report, Initial Thorough Report	Initial thorough Apr 2022 BV, KD		
Do all the details still compare with the Commissioning, Initial Thorough Report?	No commissioning report from installer, compared to BV Initial Report details still the same		
N° of Extraction Points	8	Max. N° to be used at any one time	8

Process in connection with which the plant is used and the hazardous substances(s)	The system is intended to remove the fumes from the PUR Foam board process from the Injection gun operators, (Polyurethane, Isocyanate and Cyclopentane) And Welding fume (Iron, copper, zinc, nickel, cadmium, chromium).
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AIR MOVER/FAN DETAILS			
Make	Gas Industrial fans	Model/Type	Centrifugal
Motor Rating	7.5 kW	Motor Current Amps	14 A
Motor/Fan Speed	2925 RPM	Fan size (Diameter)	425 mm Dia
Direction of fan rotation	Anti clockwise	Volume flow rate (m3/s)	5.1 m3/s

PRIMARY AIR CLEANER			
Make	No filter fitted	Model	No filter fitted
Serial Number	No filter fitted	Filter Medium	No filter fitted
Auto Monitoring Devices	None fitted		

SECONDARY AIR CLEANER			
Make	No filter fitted	Model	No filter fitted
Serial Number	No filter fitted	Filter Medium	No filter fitted
Auto Monitoring Devices	None fitted		

SYSTEM ASSESSMENT			
Visual appraisal of LEV system	SATISFACTORY	Qualitative assessment of effectiveness	SATISFACTORY, Smoke
Methods by which the assessment was made	Visual, Smoke, Manometer (72/194), Hot wire anemometer (72/216)	Local conditions at the time of the test	Normal working

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Particulars of exhaust ventilation	Exhaust to atmosphere	Estimate of concentration of contaminant in returned air	Not applicable
Auto monitoring device	No auto monitoring devices fitted	Filter(s) condition, efficiency	No filter fitted

## AIR MONITORING

Substance	Relevant exposure standard	Measured exposure	Reference to Air Monitoring report
Supplied by client			

## RECORD OF PERFORMANCE DATA

	Commissioning / Initial Thorough Results	Previous Thorough Examination Results	This Thorough Examination Results
Static Pressure at Fan	-2089 Pa	-2241 Pa	-2176 Pa
Primary filter unit static pressures			
Out.	No filter fitted	No filter fitted	No filter fitted
In.	No filter fitted	No filter fitted	No filter fitted
Differential.	No filter fitted	No filter fitted	No filter fitted
Secondary Filter Static pressures			
Out.	No filter fitted	No filter fitted	No filter fitted
In.	No filter fitted	No filter fitted	No filter fitted
Differential.	No filter fitted	No filter fitted	No filter fitted

## ROUTINE TEST DATA

Test Points	Dimension (mm)	Commissioning/Initial Thorough Results	Previous Thorough Examination Results	This Thorough Examination Results	Benchmark
Dv7	150 mm Dia	34.6 m/s	31.34 m/s	30.43 m/s	10 m/s
Dv8	150 mm Dia	30.4 m/s	56.32 m/s		10 m/s
Dv Main	400 mm Dia	10.3 m/s	10.1 m/s	9.8 m/s	10 m/s
Dv1	150 mm Dia	15 m/s	6.1 m/s	>30 m/s	10 m/s
Dv2	150 mm Dia	37.6 m/s	6.6 m/s	25.62 m/s	10 m/s
Dv3	150 mm Dia	30 m/s	9.43 m/s	>30	10 m/s
Dv4	150 mm Dia	21.6 m/s	9.25 m/s	23.1 m/s	10 m/s
Dv5	150 mm Dia	12.3 m/s	10.8 m/s	>30 m/s	10 m/s
Dv6	150 mm Dia	13.4 m/s	18.8 m/s	>30 m/s	10 m/s
Fv9	160 mm Dia	17.22 m/s	Not available	17.22 m/s	1 m/s
Cv9	195 mm from hood	1 m/s	Not available	1 m/s	1 m/s

## A: Defects Affecting Safety

None.

## A: Defects Affecting Safety by the date specified

None.

## B: Other defects

The various damaged ducts at the PUR board presses should be renewed. (The damage is caused by the stowage of injection guns which should be prevented).

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### C: Observations

This is the report of the thorough examination and test of the local exhaust ventilation (LEV), a commissioning report should be obtained from the installer, supplier along with a User manual and logbook that contains schedules and forms to keep records of regular checking, maintenance and repair for the LEV system as detailed in the HSE guidance HSG 258. A multipoint extraction system used to control fumes at the PUR foam board presses and the chemical storage area. To ascertain that the system would satisfactorily control the contaminant at the working area and at the breathing zone of the operator a quantitative and qualitative assessment of extract efficiency was undertaken by measurement of airflow and by observing capture of visible smoke released from smoke generation tubes. The airflow at the presses are controlled by automatic dampers that engage once the chemical is being pumped into a press and sustained for 60 seconds afterwards to allow the operator to clean excess chemical from the injection gun. An airflow indicator should be fitted to ensure the operator is aware that the extraction is operational as per the guidance in HSG 258. Air sampling carried out by Holmes Environmental Services on 21/06/2019. For results please see the attached document. The effectiveness of the welding fume system is dependent upon the proximity of the source of contamination to the extraction point which should be as close as practicable and no more than 195 mm away to attain a capture velocity of approximately 1 m/s.

Local Exhaust Ventilation Schematic Diagram

Yes, BV, 2022, KD

### DECLARATION

I examined this plant in accordance with the requirements of the regulations and the results of this examination are as shown  
Date of Issue of Report: 26/03/2024

Report authenticated by KIRSTY DOWDEN

Qualification Engineer Surveyor