



To whom it may concern :-

Please find our ventilation proposal for the site named below. This includes odour, grease control.

Site Address

SEVEN BROTHERS BEERHOUSE
39 Blossom St,
Ancoats,
Manchester
M4 5AF

Type of Meals:

Gastro Style / Bar Snack

Number of covers:

Less than 60 at one time

Hours of Operation:

12pm until 9pm

Plant Specification

5 x Greasebloc Zebra Filters
1 x Plasmaclean Xtract 2100

Maintenance of Plant and System :

Frequency of inspection / cleaning:

Canopy Filters	n/a		ONCE A DAY
Canopy hood	n/a		ONCE A WEEK
Xtract 2100	n/a		EVERY 12 MONTHS
Ductwork:			
Heavy Use	12 > 16	hours per day	EVERY 3 MONTHS
Moderate Use	6 > 12	hours per day	EVERY 6 MONTHS
Light Use	0 > 6	hours per day	EVERY 12 MONTHS

A TR19 Cleaning risk assessment should be put in place once the system is in regular use.

Overview :

ACS requested our support to inspect an existing kitchen ventilation system and review the options to adding in odour and grease control, the current system has no odour or grease control other than primary baffle filters. The ductwork run is about 20m long in total and leads itself to ozone injection (this requires very little maintenance or user input and is ideal for this type of installation) to get the best result from the injection unit high efficiency filters should be used in this case the greasebloc zebra filter, this provides the first stage of the process and can be easily maintained by the user with a clear visual indicator when the media requires changing, the existing termination isn't ideal as it's horizontal, the proposal would be to extend the ductwork past the gable end and away from any roof voids or gutters and terminate with a vertical high velocity no loss cowl, this pushes the plume of extract up in to the atmosphere where it can naturally dilute to appoint where it's unlikely to cause nuisance to others.

Risk Assessment for Odour

The following 'Risk Assessment for Odour' has derived from criteria outlined by DEFRA, Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems Appendix C. The assessment has been undertaken by Plasma Clean to accurately score the site to DEFRA standards.

Odour control must be designed to prevent odour nuisance in a given situation. The following score methodology is suggested as a means of determining odour control requirements using a simple risk assessment approach. The odour control requirements considered here are consistent with the performance requirements listed in this report.

Impact Risk	Odour Control Requirement	Significance Score
Low/Medium	Low Level Odour Control	Less than 20
High	High Level Odour Control	20-35
Very High	Very High Level Odour Control	More than 35

Based on the sum of contributions from dispersion, proximity of receptors, size of kitchen and cooking type:

Criteria	Rating	Score	Details
Dispersion	Very Poor	20	Low level discharge, discharge into courtyard or restriction on stack
	Poor	15	Not low level but below eaves, or discharge at below 10 m/s.
	Moderate	10	Moderate 10 Discharging 1m above eaves at 10 -15m/s
	Good	5	5 Discharging 1m above ridge at 15 m/s
Proximity of Receptors	Close	10	Closest sensitive receptor less than 20m from kitchen discharge
	Medium	5	Closest sensitive receptor between 20 and 100m from kitchen discharge
	Far	1	Closest sensitive receptor more than 100m from kitchen discharge
Size of Kitchen	Large	5	More than 100 covers or large sized take away
	Medium	3	Between 30 and 100 covers or medium sized take away
	Small	1	Less than 30 covers or small take away
Cooking Type (odour/grease loading)	Very High	10	(high level of fried food), fried chicken, burgers or fish & chips
	High	7	Kebab, Vietnamese, Thai or Indian.
	Medium	4	Cantonese, Japanese or Chinese.
	Low	1	Gastro Pubs, Italian, French, Pizza or Steakhouse.



Site Details

Client:	ACS
Contractor:	Inox Fabrications Ltd
Site Name:	Seven Bro7thers
Postcode:	M4 5AF

Evaluation Date:	04 / 12 / 17
Inox Job Ref:	JRN 7669
Type Of Build:	Existing System
Site Visited:	Yes

Below is an evaluation for the site based on the criteria on the previous page

Criteria	Rating	Score	Details/ Comments
Dispersion	Poor	15	Not low level but high velocity vertical discharge
Proximity of Receptors	Close	10	Less than 20m away
Size of Kitchen	Med	3	No more than 60 at any one time.
Cooking Type	Low	1	Gastro Style

Impact Risk	Odour Control Requirement	Significance Score
High > Medium > Low Due to type of cooking	5 x GreaseblocZebra Filters 1x Xtract2100 Odour Unit	29

Using our considerable knowledge and experience within this industry and that due to the type and volume of cooking we feel that the high velocity discharge design proposed alone should reduce the impact of any odours, in addition to this the greasebloc filters will reduce any carry over of grease in to the system and the xtract 2100 will deal with any odour, we believe it's unlikely to cause any further problems once the recommended works have been carried out.

Please note this document is for the assessment and review of the design only and not for tender use. The Information in this document remains the property of Inox Fabrications Ltd and should not be copied or changed without written consent by a director. Inox are an approved reseller for all plasmaclean products should you need to contact plasmaclean direct you must inform them of our prior involvement and quote our job ref number.

Inox Fabrications are an independent commercial kitchen ventilation specialist and only deal through a network of approved distributors, any changes or questions in relation to this document must be done in writing.

Regards
Inox Fabrications Ltd



Plasma Clean Grease Bloc

Grease Bloc is a high efficiency primary grease and smoke filtration system. It is a three stage system which combines a proprietary Grease Bloc Zebra filter pad with a high efficiency baffle and mesh filter to remove over 99% of grease, oil and smoke particulate before they enter the kitchen canopy.

There are no canopy modifications required and the installation of the Grease Bloc system dramatically reduces canopy and duct cleaning requirements, which is a significant environmental benefit.

The Grease Bloc is suitable for:

- Foodservice Ventilation
- Pub chains
- Restaurants and takeaways
- Fast food bars
- Food processing and manufacturing

The Grease Bloc Zebra filter pad captures the grease and so reduces baffle filter cleaning frequency. The Grease Bloc Zebra pad is easily exchanged by kitchen staff on a routine basis.

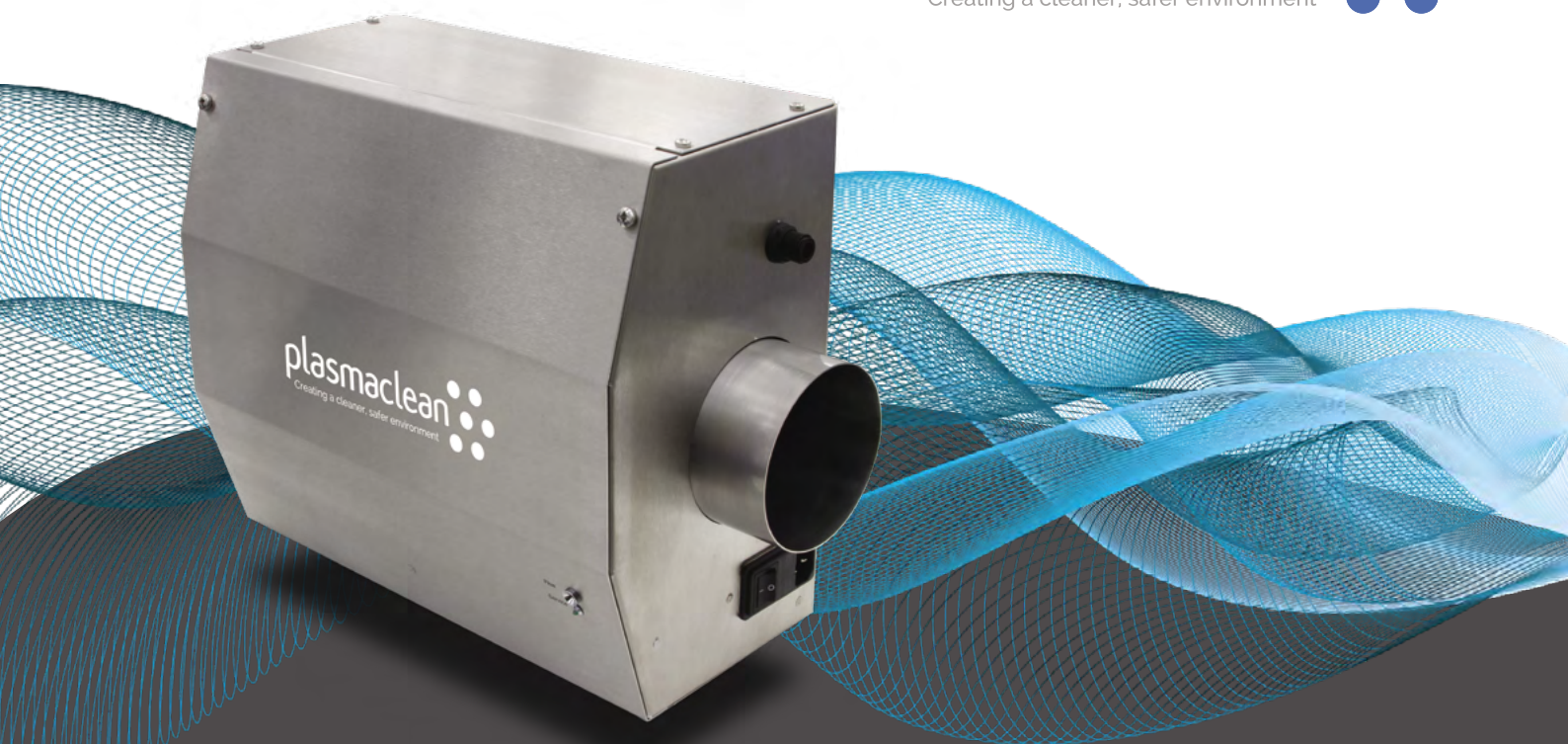
Features and Benefits

- Captures over 99% of grease and smoke particulate
- Assists with TR/19 compliance
- Reduction in canopy and duct cleaning requirement
- Reduction in fire risk to help reduce insurance premiums
- Direct replacement for standard baffle filters
- No costly modifications to the canopy required
- Self indicating Zebra filter replacement system

Product Specification | Grease Bloc

Baffle Filter Size	495 x 495 x 45 / 495 x 395 x 45 395 x 395 x 45 Other sizes available on request
Filter Construction	Grade 304 Stainless Steel
Grease Bloc Zebra Pad	Thermal tolerant media
Installation	Canopy Mounted
Static Pressure (Pa)	100
Compliance	VDI 2052, EN779, UL94HF1 DIN 53438

Plasma Clean is continuously improving its products and services and reserves the right to alter designs without prior notice. Patent pending.



Xtract 2100

The Plasma Clean Xtract uses ozone - a well known disinfectant and odour neutralizer - which is released directly into the kitchen ventilation system. Here it immediately starts to act on the cooking odours.

Simple to install, with low maintenance and running costs, this versatile modular solution provides affordable and reliable odour control, making it the perfect partner for a wide range of cooking applications.

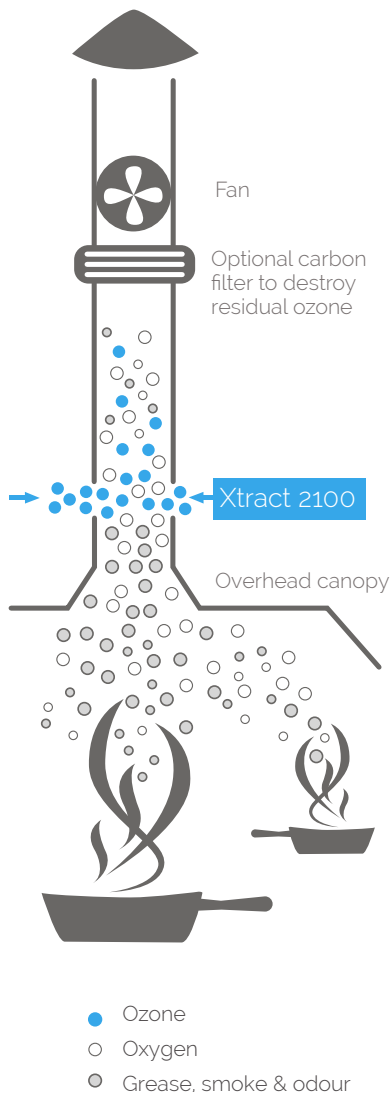
Product Specification		
Model	Xtract 2100	Xtract 2100 Plus
Capacity	Up to 1.5 m ³ /s	Up to 2 m ³ /s
Power	160W	220W
Pressure Drop (Pa)	0 (ozone injection)	
Supply	230Vac / 1 phase / 50-60Hz	
Dimensions	307H x 343W x 180D mm	
Weight	10kg	
Safety	Circuit breaker 5A required Air flow proving switch installed Fan power supply interlock recommended	
Operation	Fully automatic	



The compact and lightweight units have been designed for modern kitchens, where space is at a premium, and are an ideal solution for fast food bars, pubs and restaurants.

Xtract 2100 versus conventional odour control solutions

- Low capital and running costs
- Simple installation and maintenance
- No consumable chemicals
- Compact, lightweight and robust
- Quiet operation
- Environmentally friendly
- Tested to EN13725:2003



Oxidation using ozone and activated oxygen ions is used to treat odour emissions from commercial and industrial kitchen processes (DEFRA, 2005: Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems). The Plasma Clean Xtract injects ozone into the kitchen extraction canopy where it reacts with odour. The ozone itself is consumed during the process and is converted back into oxygen.

Compact and Lightweight

The unit has been designed to be compact 307mm (H) x 343mm (W) x 180mm (D) and lightweight (10kg) so that it can be installed in kitchen areas where space is at a premium and / or where there is little load bearing capacity.

Installation

The unit has been designed to attach to the wall adjacent to the kitchen canopy or adjacent ductwork. The outlet is then connected into the extraction system and the unit is plugged in or hardwired into mains electricity (230V / single phase / 50-60Hz) via a main fan control box. Full installation and operating instructions are provided.

Silent Operation

The unit sits outside of the kitchen extraction system and ozone is drawn in by the existing fans. There is no need to upgrade the existing fan and the unit operates silently.

Servicing

Plasma Clean recommends a yearly service to ensure efficient operation, and can offer a planned maintenance contract.

Additional Options

A booster fan can be fitted in the unlikely event that the kitchen extraction fan can not draw air through the unit. A site survey option is available, as is a planned maintenance contract.

Any questions?

Contact one of our engineers who will be at hand to advise on the most appropriate odour control solution.

Email: ask@plasma-clean.com
Tel: +44 (0)161 870 2325



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Global distribution

plasmaclean ●●●●
Creating a cleaner, safer environment

Plasma Clean Limited, SBIC
Broadstone Mill, Broadstone Road,
Stockport, Cheshire, SK5 7DL . UK

Email: ask@plasma-clean.com
Tel: +44 (0)161 870 2325
www.plasma-clean.com

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