

# The sweet smell of success - Lush Ltd draws on Mitsubishi Electric's expertise to transform its air conditioning

## Air Conditioning



Lush Ltd is best known for its sweet-smelling, handmade cosmetic and bath products and a highly ethical approach to business life. So when it came to the comfort of their staff in a new office, energy efficiency was a key priority.

## Case Study

## Lush Ltd, Dolphin Quays, Poole

“ We were looking for an efficient and cost-effective system for our new office space in Dolphin Quays and City Multi ticked all the boxes ”

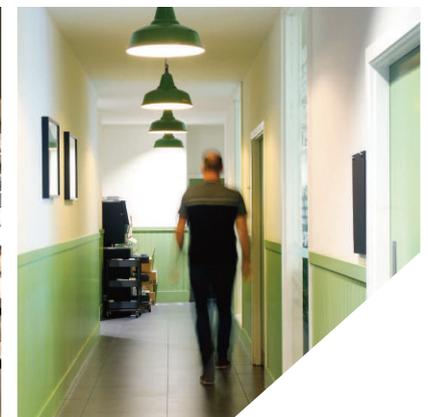
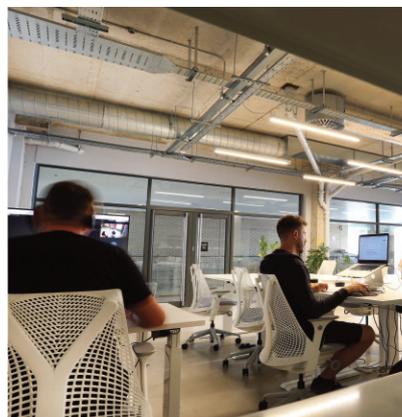
**Krystal James**

Project Coordinator,  
Lush Ltd

When Lush decided to expand its office space, the company leased out a new unit in Dolphin Quays, Poole, a prestigious complex of apartments and office spaces. The leased units came with running water and electricity, but other comforts like air conditioning all needed to be arranged by the tenant.

Lush decided to bring together multiple contractors for the different elements and for its new air conditioning system, chose Modern Facilities Services Ltd to lead on the installation of Mitsubishi Electric's City Multi VRF heat recovery system to serve the entire office area. Modern Facilities Services are an Accredited Installer of Mitsubishi Electric equipment.

Across the space, 12 ceiling-suspended indoor units have been fitted, with one additional floor positioned unit for a specific area. The beauty of the City Multi system is that excess heat from an area being cooled can be moved to other parts of the building that need heating, helping improve the overall efficiency.



This is a highly efficient option for Lush Ltd as it allows the air to be heated during the winter and heat to be removed from the air in the summer.

“We wanted a system that would create a pleasant working environment for our staff, whilst fitting comfortably into the office environment. We also wanted to make sure we avoided any draughts for our employees”, said Krystal James, Project Coordinator at Lush Ltd.

The Modern Facilities Services team came up with a solution using swirl diffusers which distribute the airflow in the building more evenly and ensure the experience is discreet. City Multi air conditioning is one of the most popular solutions in the UK because of its outstanding energy saving performance, advanced control system, and the flexibility of design it offers to specifiers and installers. With systems available to suit almost any building, long pipe runs and up to 50 indoor units connected to each outdoor condenser, City Multi offers advanced, controllable, energy efficient comfort.

Alongside the City Multi system, two Lossnay Mechanical Ventilation with Heat Recovery (MVHR) units were installed. These remove stale air from the office environment by passing it across Lossnay’s unique, paper-based core.

As the stale air is removed, this paper core enables up to 80% of the temperature to be captured and passed to the fresh, incoming air, meaning it needs less energy to bring it up to the indoor temperature.



## Case Study

## Lush Ltd, Dolphin Quays, Poole

“ This was an exciting project to work on, given the location, there were strict time restrictions we had to adhere to, so as not to disturb the tenants above and below the site ”

**Gary Whitcher**  
Director, Modern  
Facilities Services  
Ltd.

During the project, there were a few challenges for Modern Facilities Services. Working with multiple contractors on one project meant that there needed to be a high level of collaboration to ensure each team was able to complete their work and everything was delivered on time.

The team also discovered that Lush Ltd wanted the outdoor units to sit at a higher level in the building. To accommodate this, additional frameworks needed to be created that would fit around the existing system to provide structural support - something that was not part of the initial project plan.

Finally, there was a lot of existing pipe work running throughout the building that wasn't considered in the original drawings. This made the installation of the MVHR units more challenging, resulting in real-time adaptation to ensure the units fitted within the space provided.

“With a tight eight-week time scale to work towards, the team had to work hard and fast to ensure everything was delivered when promised. We are proud of the result and are pleased to hear that Lush Ltd is considering rolling out the same system to its other sites”, said Gary Whitcher, Director at Modern Facilities Services Ltd.



# Installation Summary

CITY MULTI CONTROLS

## Heat Recovery VRF

- x 1 PURY-P800YSNW-A
- x 1 CMB-P108V-JA BC Controller R410A
- x 1 CMY-R102S-G Main BC Joint V-(J)KA
- x 1 CMB-P108V-KB BC Controller R410A
- x 13 PEFY-P20VMA-E2 Ducted Indoor Unit (x 1 P20VMA-E2 / x 3 P25VMA-E2 / x 1 P32VMA-E2 / x 1 P40VMA-E2 / x 2 P50VMA-E2 / x 4 P125VMA-E2
- x 1 PFFY-P50VLRM-E Floor Standing Unit R407C/R410A

## Controls

- x 7 PAR-33MAA-J Mr Slim Remote Controller
- x 10 KS9-BS1-A Discreet Remote Temperature Sensor
- x 1 AT-50B-J Touch Controller
- x 1 PAC-YT51HAA-J 5 Wire Adapter for connection to AT-50B Centralised Controller.



PURY-P800YSNW-A



CMB-P108V-JA



CMB-P108V-KB



PEFY-P20/25/32/40/50/125VMA-E2



PFFY-P50VLRM-E



PAR-33MAA-J



AT-50B-J

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Note: The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air-conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2089), R32 (GWP:675), R407C (GWP:1774) or R134a (GWP:1430). \*These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP: 55), R407C (GWP:1650) or R134a (GWP:1300).



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