

Lynx Fan Coil Unit End User Instructions

Fan Coil Unit Department - Product Data Sheet
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DUNHAM-BUSH®

PDS-1200-F-0242-01

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INSTALLER Please leave these instructions, other relevant literature and any controls/accessories with the user.

INTRODUCTION

This document is intended to guide those responsible for operating and maintaining the Dunham-Bush Lynx fan coil unit. The instructions apply only to the standard range and should be studied carefully prior to any attempt to operate or maintain the unit.

IDENTIFICATION

The fan coil unit serial number, range, and model are all displayed on a label adhered to the discharge plenum. If specified, a stencil reference may also be marked on the discharge plenum to facilitate on-site identification.

DESCRIPTION

The Dunham-Bush Lynx is a waterside control, horizontally mounted fan coil unit. It comprises of a galvanised sheet steel chassis with access panels to all serviceable components, including; fan assemblies, filter(s), drip tray, dual purpose heating and cooling coil, and controls. The unit incorporates one or two tapped wound motors, the speed of which is controlled by a 3 position switch.

STANDARD RANGE MODELS

The Dunham-Bush Lynx fan coil unit range consists of 7 models. Refer to Figure 1, Page 3.

OPERATION

The Lynx fan coil unit is capable of either cooling or heating air when used in conjunction with chilled water and low temperature hot water systems. They are designed to be installed in a ceiling, or roof void, and connected to ductwork.

The unit pulls air from the conditioned area, the primary source, or a percentage from each of the two supplies. The air is then drawn through the filter and over the coil in order to satisfy the leaving air temperature requirements. Finally, the air is discharged through spigots, ductwork and either grilles or diffusers into the space.

Typically, the fan(s) run continuously and, subject to the type of controls fitted, fan speed and temperature may be controlled by the user.

Alternative systems include those that employ cooling only fan coil units and those in which air is discharged into the ceiling, or roof void, which utilise a ductwork system on the intake side of the fan coil units.

CONTROLS

The Lynx fan coil unit is fitted with a control system which, when specified comprises the following components.

- IEC fused main inlet socket
- Fan Speed switch
- 240V AC/24V AC Transformer
- Fan coil unit controller
- Return air sensor
- Valve actuator

Optional accessories include the following items.

- Remote room air sensor
- Remote setpoint adjuster
- Remote Fan On/Off and Speed switches
- Relays for master/slave or BMS control

CLEANING AND MAINTENANCE

Cleaning and maintenance must be carried out by competent persons.

WARNING

- 1) Prior to undertaking any cleaning or maintenance, ensure the fan coil unit and any controls have been disconnected from the electrical supply at the local isolator.**
- 2) Some internal components may have sharp edges. Care must be taken when working on the fan coil unit. Protective gloves should be worn.**

Inspection

The frequency at which the Lynx fan coil unit should be inspected and cleaned is determined by the conditions in which it operates. Initially, it is recommended that the filter is inspected after 6-8 weeks of normal operation, and cleaned as required at regular intervals. Cleaning the filter ensures that the fan coil unit achieves the best possible air volume flow rate and, therefore, delivers the optimum performance. The fan coil unit should not be operated without a filter since the coil fins may become blocked with debris, which would result in reduced capacity.

Access

- 1) The Lynx fan coil unit is fitted with a single access panel, which may be released by partially unscrewing the M6 setscrews that retain it and then utilising the 'keyhole' in the access panel itself.
- 2) The filter may be removed by either sliding it from the side of the unit, releasing the access, or, while facing the intake of the unit and pushing the filter upwards, pulling the bottom of the filter frame over the retaining flange and then allowing the filter to come out of the top channel.

Cleaning

- 1) The filter may be cleaned by tapping to release excess debris and washing in warm water (up to 40°C), using detergent if necessary. The filter must be rinsed and allowed to dry naturally prior to its replacement in the unit. The filter must not be cleaned using a vacuum cleaner, since this may damage the filter media. It is recommended that the filter is replaced after approximately twenty washes.

- 2) The drip tray may be cleaned with warm, soapy water. Ensure the drip tray drains freely.
- 3) Should one be fitted, test the condensate pump by pouring clean water into the drip tray and checking it empties the drip tray efficiently.
- 4) The fan assemblies and coils should be cleaned annually. This relatively long cleaning interval is proposed since most particles are retained in the filter. An industrial vacuum cleaner may be used to clean the interior of the fan coil unit, in particular the coil and fan assemblies. Air should be sucked through the coil in the opposite direction to normal air flow. All accessible surfaces may be cleaned with a cloth.

Maintenance

- 1) Purge any air from both the cooling and heating sections of the coil using the manual air vents and a suitable key.
- 2) The fan motor has 'sealed for life' bearings that do not require any maintenance other than a visual inspection.
- 3) The control box incorporates a 5A rated fuse.
- 4) Each fan coil unit is supplied with a wiring diagram applicable to the particular controls and accessories fitted. Further copies are available on request. Please quote the serial number on the label adhered to the discharge plenum.
- 5) Test the functionality of the control loop by varying the input settings and ensuring the reaction observed is that desired.

SPARES

Most essential components, including; coils, fan assemblies, filters, controls, and transformers are available as spares. Should any items be required, please contact our Spares Department, quoting the serial number, range, and model of the unit for which they are required.

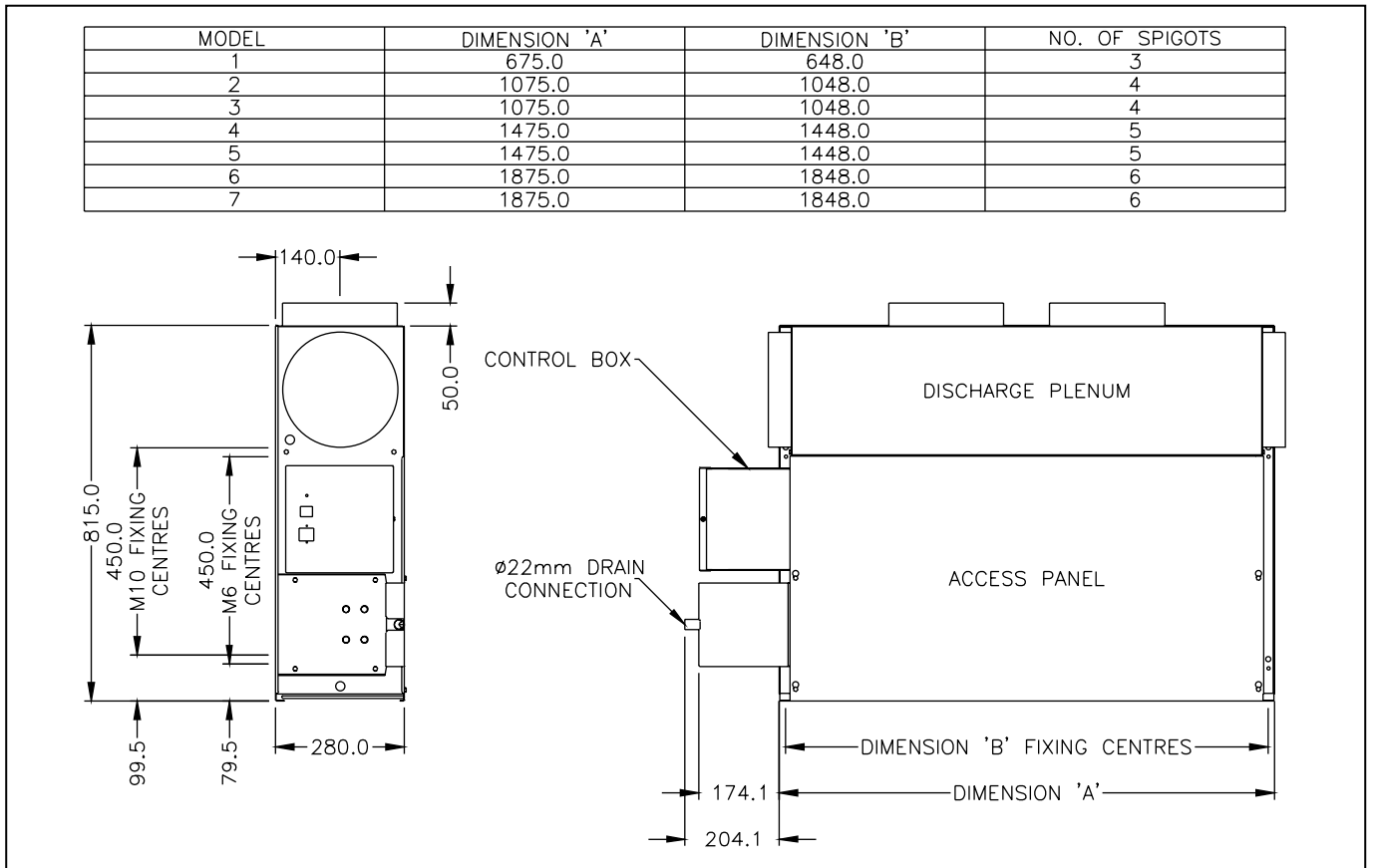
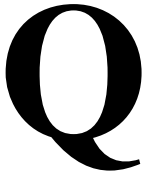


Figure 1: Standard range models.



QUALITY

Dunham-Bush operates a quality control system and is a registered company of assessed capability to BS EN ISO 9001:2000

What ever the product, wherever its eventual destination, Dunham-Bush design and manufacturing policy has always been firmly based on technical quality.

PRODUCTS

Series AM fan convectors
Series BM fan convectors
Series CM fan convectors
Series L fan convectors

Series F fan coil units
Cougar fan coil units
Jaguar fan coil units
Leopard fan coil units
Lynx fan coil units
Panther fan coil units
Puma fan coil units

Dunham Strip radiant heating
Evolution radiant panels
Evo-Lite radiant panels

Voidpak air handling units
Finvector perimeter heating
Hydrocourse trench heating
WarmSAFE LST radiators
Series UH unit heaters

Sentry air curtains
Gas fired heating



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The manufacturer reserves the right to amend any product specification without notice.

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