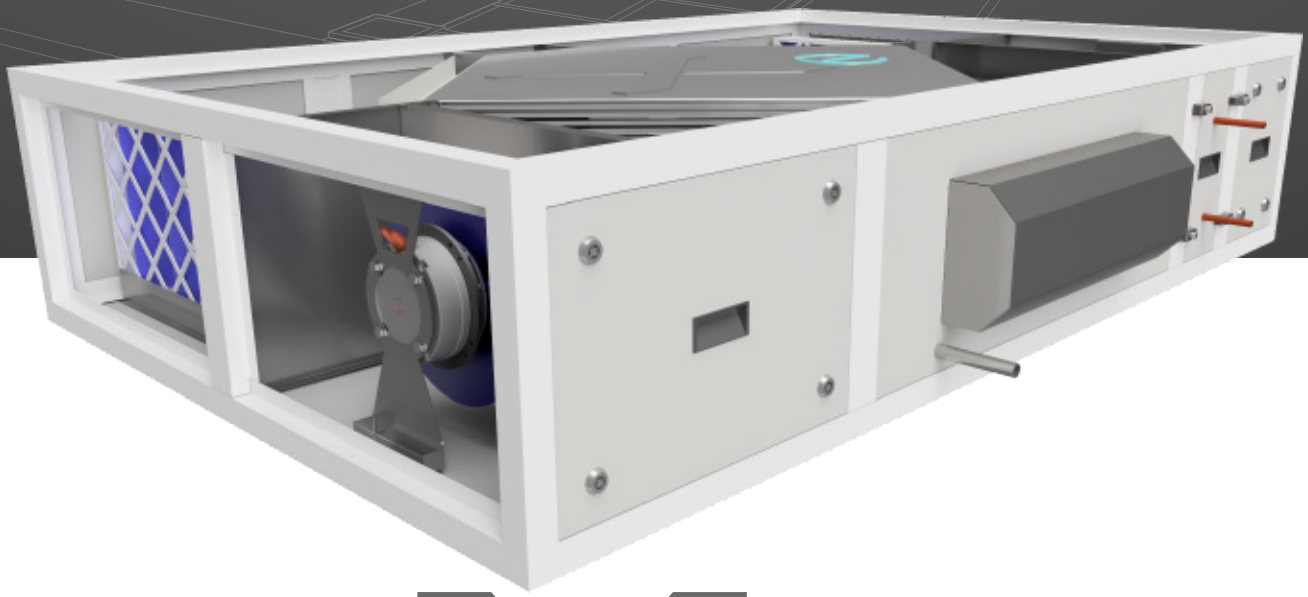
MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS

Mechanical Ventilation with Heat Recovery

MVHR



Xe

HEAT RECOVERY SERIES

HEAT RECOVERY SERIES
MVHR

by Mansfield Pollard

THE Xe SERIES OF MVHR UNITS

Mansfield Pollard have been an acknowledged market leader in the air handling industry for over 40 years. Our range of premium efficiency MVHR units offer the ultimate in energy recovery ventilation for all non-residential applications including schools, universities, commercial offices, retail, hospitality venues and healthcare facilities.

HEAT RECOVERY SERIES

DELIVERING SAFE FRESH AIR IN EVERY LOCATION

Mechanical Ventilation with Heat Recovery (MVHR) provides a continuous source of ventilation to extract stale, moisture laden air from a room and re-supply fresh, filtered air back in, resulting in a safe & comfortable environment whilst reducing its carbon footprint via a highly efficient energy recovery process.

SAVE ENERGY, SAVE MONEY, PRESERVE THE FUTURE

> **As well as providing a huge improvement in indoor air quality, MVHR units can result in a reduction in heating demand of nearly 30%. The latest units can operate at over 90% efficiency.**
>
> Passivhaus Trust

> **The benefits of a Mansfield Pollard MVHR unit aren't just restricted to saving energy.....**

Ultra-Efficient Low energy, high efficiency fans combined with oustanding levels of heat recovery	**Low Noise** Continuous acoustic housing reduces breakout and provides a superior acoustic solution	**Fully Compliant** L2 Building Regs & ErP Lot 6 2018 (non residential) compliant & achieves BB93 & BB101
Robust Superior build quality, low SFP's and airtight performance to BS EN 1886	**Energy Saving** Integrated controls with choice of HMI and BMS interface. BIM files available.	**Safe, Fresh Air** Separate extract / supply airflows & room pressure management for maximum safety.
Versatile Space saving design with versatile handling with various access options	**UK Built** Designed, tested & manufactured in the UK including a dedicated UK supply chain	**Intelligent Design** Intelligent design to minimise on-site costs and any maintenance downtime

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Xe HEAT RECOVERY SERIES MVHR

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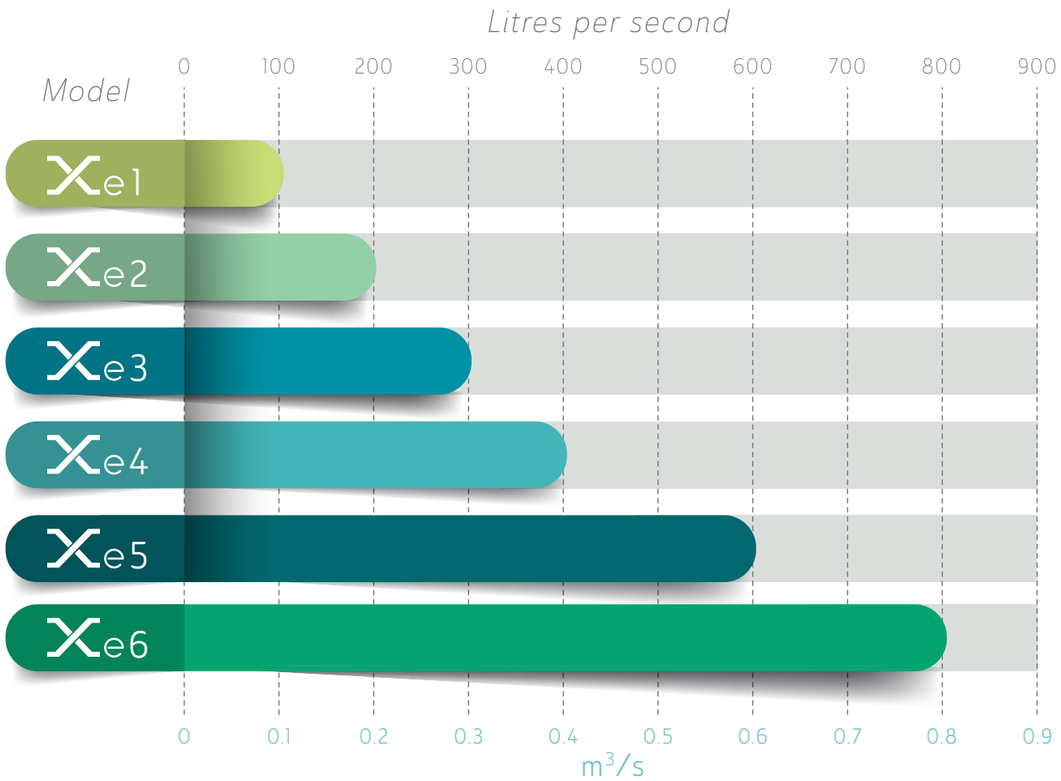
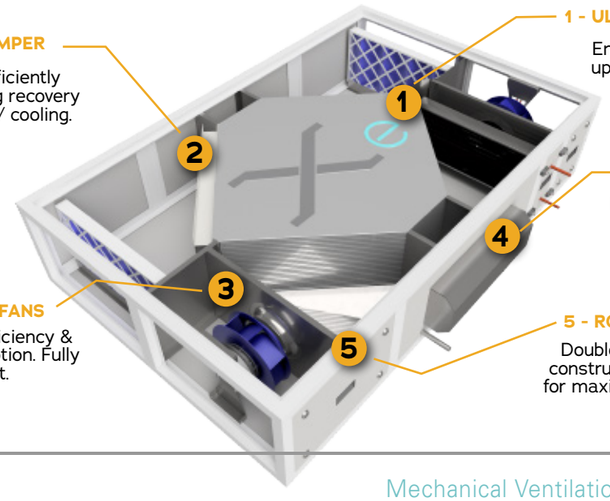




2 - FACE & BYPASS DAMPER

Modulating damper to efficiently control the heating / cooling recovery and available free heating / cooling.

1 - ULTRA-EFFICIENT HEAT RECOVERY

Energy transfer, giving efficiencies of up to 90%. Zero cross contamination of moisture, smells or fumes.

4 - PRE-WIRED CONTROLS

Intelligent energy saving technologies. via an integral controls package

3 - HIGH PERFORMANCE FANS

EC fans for maximum efficiency & minimum energy consumption. Fully ErP2015 compliant.

5 - ROBUST CONSTRUCTION

Double skinned galvanised steel construction with reinforced edges for maximum stability and longevity.

“All our MVHR units are fully customisable to suit any environment or application.

Accessories:

Heating Coils

LPHW and electric heater options are available to suit the required application.

User Interface

Choice of LCD wall mounted controller and selection of HMI panels available as required

Sensors

CO_2 sensors, Temperature / P.I.R (passive infrared) available on request

BIM Model

All models available as 3D scaled assets for perfect visualisation in preconstruction

Warranty

2 year warranty is available as standard, with an option to extend to 5 years

Controls Check

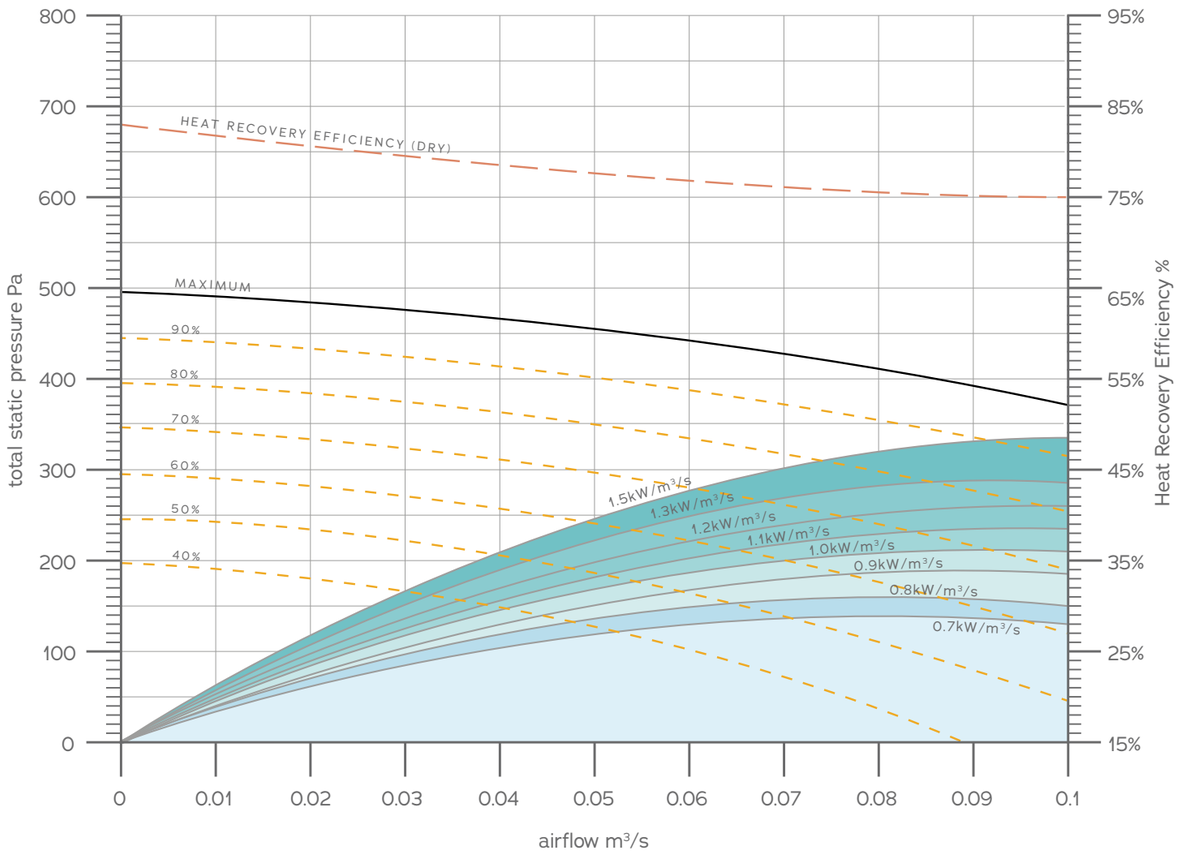
In-house MVHR specialist engineers available post install to fully check all units

Xe1 Technical Data

100L/s or 0.1m³/s

MANSFIELD POLLARD AIR MANAGEMENT EXPERTS

Performance Data



Acoustic Data

		Sound Power Lw In-Duct Levels (dB)								
		63	125	250	500	1k	2k	4k	8k	
Induct Intake	LwA	27	44	48	50	53	51	45	31	
Induct Supply	LwA	32	49	53	55	59	60	55	42	
Induct Discharge	LwA	34	48	54	56	60	67	58	44	
Induct Extract	LwA	29	43	49	51	54	58	48	33	
Casing Breakout	LpA	10	27	25	12	15	23	19	5	31 dBA

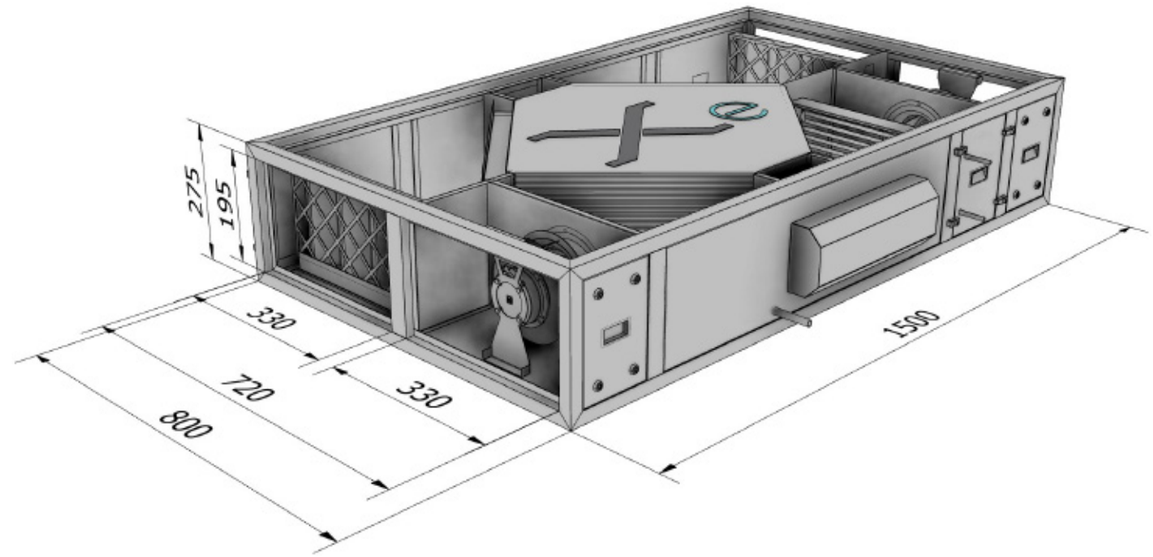
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: +/- 3dB
By octave band: +/- 5dB

The Xe Heat Recovery Series: MVHR by Mansfield Pollard

Xe1 Dimensions & Weight

100L/s or 0.1m³/s

MANSFIELD POLLARD AIR MANAGEMENT EXPERTS



Unit Dimensions

Width	Height	Length	Inlet Spigot	Outlet Spigot	Weight
800 mm	275 mm	1500 mm	330 X 195 mm	330 X 195 mm	127.6 kg

Electrical Power Info

Voltage / Phase / Frequency	Input Power Per Fan (W)	FLC Per Fan (A)	Max (RPM)
230 / 1 / 50	85	0.6	3266

Electrical Heater Battery (thyristor control)

Voltage / Phase / Frequency	Max Air Flow (m^3/s)	Max Output (kW)	Air On / Off °C
230 / 1 / 50	0.1	2.0	15 / 31

Air off temperature based on upon entering air at -5°C. Power = air volume x constant x temperature rise. kW = m³/s x 1.21 x ΔT°C

Low Pressure Hot Water Coil

Max Air Flow (m^3/s)	Air On / Off °C	Water Flow Rate l/hr	Fluid Pressure Drop kPa	Coil Connection Size BSP
0.1	15 / 31	88	1	½" BSP

LPHW coil, designed for LPHW 80/600C , EAT -50C, LAT +250C, coil construction: copper tubes, aluminium fins, coil connections 1/2"BSP.

Product Code Guide

Unit Size	Unit Configuration	Heating	Handing	Controls
Xe1, Xe2, Xe3	**P** = internal/plantroom	**W** = water	**LH**	**SC** = standard
Xe4, Xe5, Xe6	**W** = external	**E** = electric	**RH**	**BC** = basic

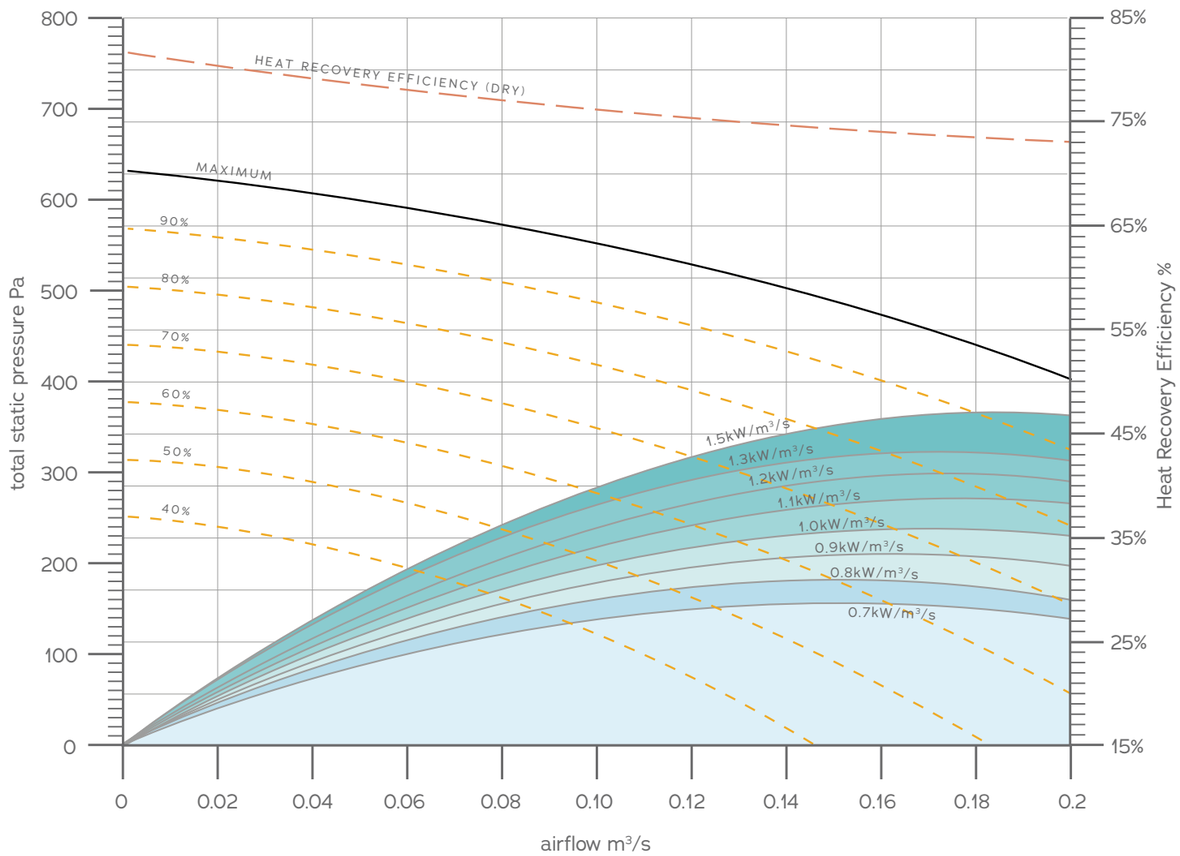
Example code: **Xe3/P/E/LH/SC**

Xe2 Technical Data

200L/s or 0.2m³/s

MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS

Performance Data



Acoustic Data

		Sound Power Lw In-Duct Levels (dB)								
		63	125	250	500	1k	2k	4k	8k	
Induct Intake	LwA	39	48	59	63	65	61	57	56	
Induct Supply	LwA	44	53	64	68	71	70	67	67	
Induct Discharge	LwA	45	53	65	68	73	76	72	70	
Induct Extract	LwA	40	48	60	63	67	67	62	59	
Casing Breakout	LpA	20	26	29	24	28	32	33	31	38 dBA

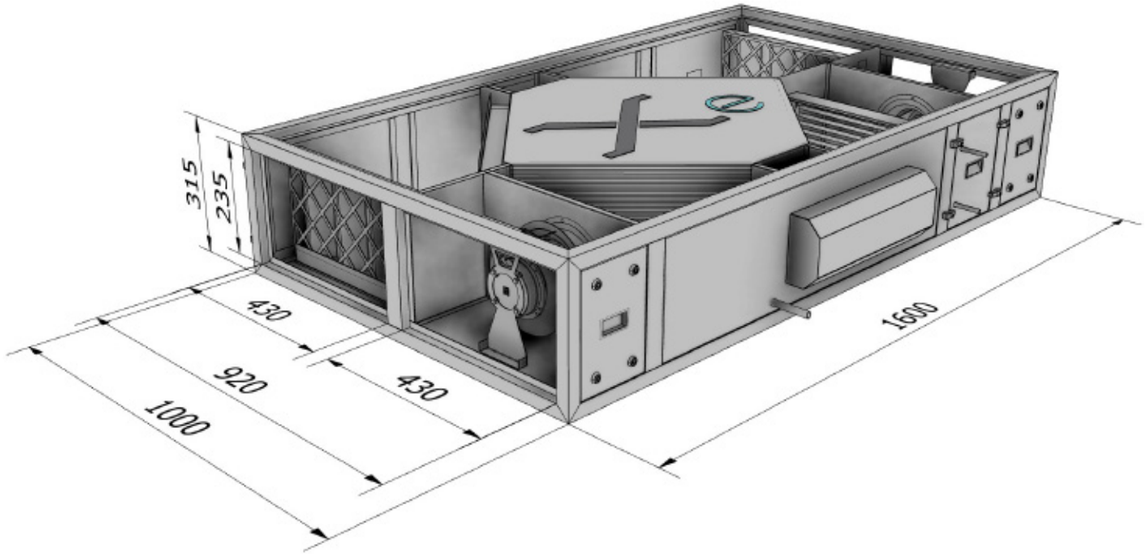
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: +/- 3dB
By octave band: +/- 5dB

The Xe Heat Recovery Series: MVHR by Mansfield Pollard

Xe2 Dimensions & Weight

200L/s or 0.2m³/s

MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS



Unit Dimensions

Width	Height	Length	Inlet Spigot	Outlet Spigot	Weight
1000 mm	315 mm	1600 mm	430 X 235mm	430 X 235mm	132.4 kg

Electrical Power Info

Voltage / Phase / Frequency	Input Power Per Fan (W)	FLC Per Fan (A)	Max (RPM)
230 / 1 / 50	166	1.1	3197

Electrical Heater Battery (thyristor control)

Voltage / Phase / Frequency	Max Air Flow (m^3/s)	Max Output (kW)	Air On / Off °C
230 / 1 / 50	0.2	4.0	15 / 31

Air off temperature based on upon entering air at -5°C. Power = air volume x constant x temperature rise. kW = m³/s x 1.21 x ΔT°C

Low Pressure Hot Water Coil

Max Air Flow (m^3/s)	Air On / Off °C	Water Flow Rate l/hr	Fluid Pressure Drop kPa	Coil Connection Size BSP
0.2	15 / 31	177	4	½" BSP

LPHW coil, designed for LPHW 80/600C , EAT -50C, LAT +250C, coil construction: copper tubes, aluminium fins, coil connections 1/2"BSP.

Product Code Guide

Unit Size	Unit Configuration	Heating	Handing	Controls
Xe1, Xe2, Xe3	**P** = internal/plantroom	**W** = water	**LH**	**SC** = standard
Xe4, Xe5, Xe6	**W** = external	**E** = electric	**RH**	**BC** = basic

Example code: **Xe3/P/E/LH/SC**

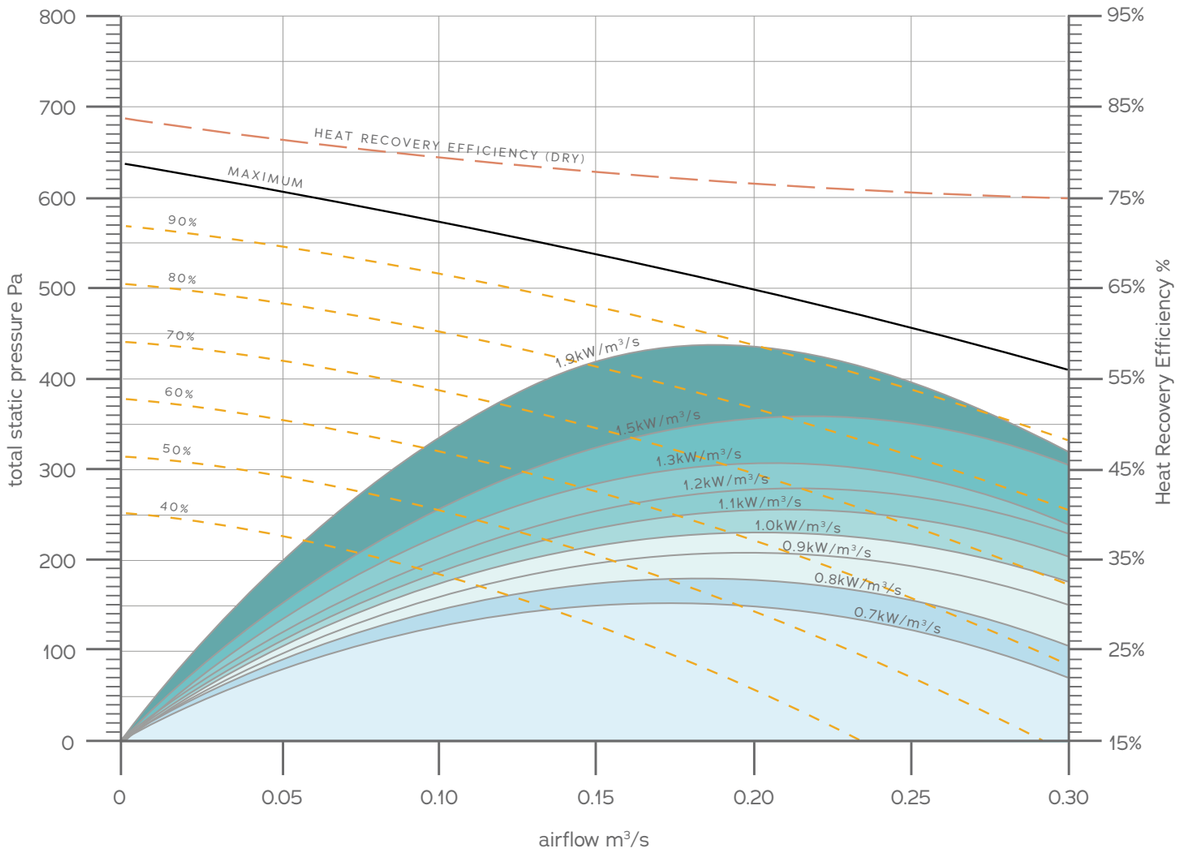
Xe2

Xe3 Technical Data

300L/s or 0.3m³/s

MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS

Performance Data



Acoustic Data

		Sound Power Lw In-Duct Levels (dB)								
		63	125	250	500	1k	2k	4k	8k	
Induct Intake	LwA	34	44	52	57	60	56	56	58	
Induct Supply	LwA	39	49	57	62	66	65	66	69	
Induct Discharge	LwA	37	49	60	64	71	72	68	67	
Induct Extract	LwA	32	44	55	59	65	63	58	56	
Casing Breakout	LpA	14	22	24	20	26	28	29	30	35 dBA

Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: +/- 3dB
By octave band: +/- 5dB

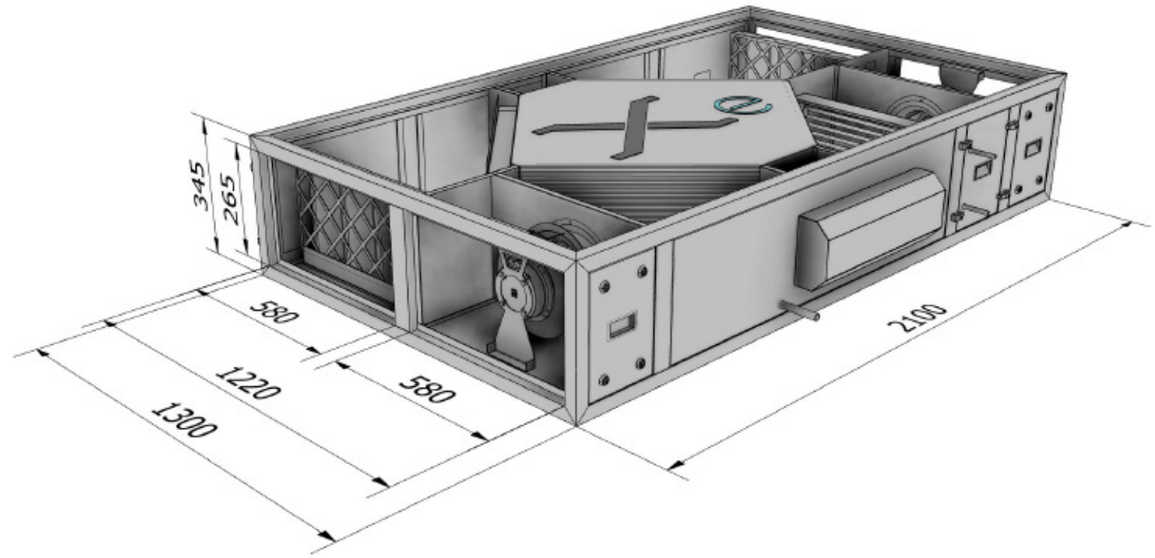
Xe3

The Xe Heat Recovery Series: MVHR by Mansfield Pollard

Xe3 Dimensions & Weight

300L/s or 0.3m³/s

MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS



Unit Dimensions

Width	Height	Length	Inlet Spigot	Outlet Spigot	Weight
1300 mm	345 mm	2100 mm	580 X 265 mm	580 X 265 mm	267.4 kg

Electrical Power Info

Voltage / Phase / Frequency	Input Power Per Fan (W)	FLC Per Fan (A)	Max (RPM)
230 / 1 / 50	200	1.2	2648

Electrical Heater Battery (thyristor control)

Voltage / Phase / Frequency	Max Air Flow (m^3/s)	Max Output (kW)	Air On / Off ^0C
230 / 1 / 50	0.3	6.0	15 / 31

Air off temperature based on upon entering air at -5^{0}C. Power = air volume x constant x temperature rise. kW = m³/s x 1.21 x ΔT^0C

Low Pressure Hot Water Coil

Max Air Flow (m^3/s)	Air On / Off ^0C	Water Flow Rate l/hr	Fluid Pressure Drop kPa	Coil Connection Size BSP
0.3	15 / 31	265	9	½" BSP

LPHW coil, designed for LPHW 80/600C , EAT -50C, LAT +250C, coil construction: copper tubes, aluminium fins, coil connections 1/2"BSP.

Product Code Guide

Unit Size	Unit Configuration	Heating	Handing	Controls
Xe1, Xe2, Xe3	**P** = internal/plantroom	**W** = water	**LH**	**SC** = standard
Xe4, Xe5, Xe6	**W** = external	**E** = electric	**RH**	**BC** = basic

Example code: **Xe3/P/E/LH/SC**

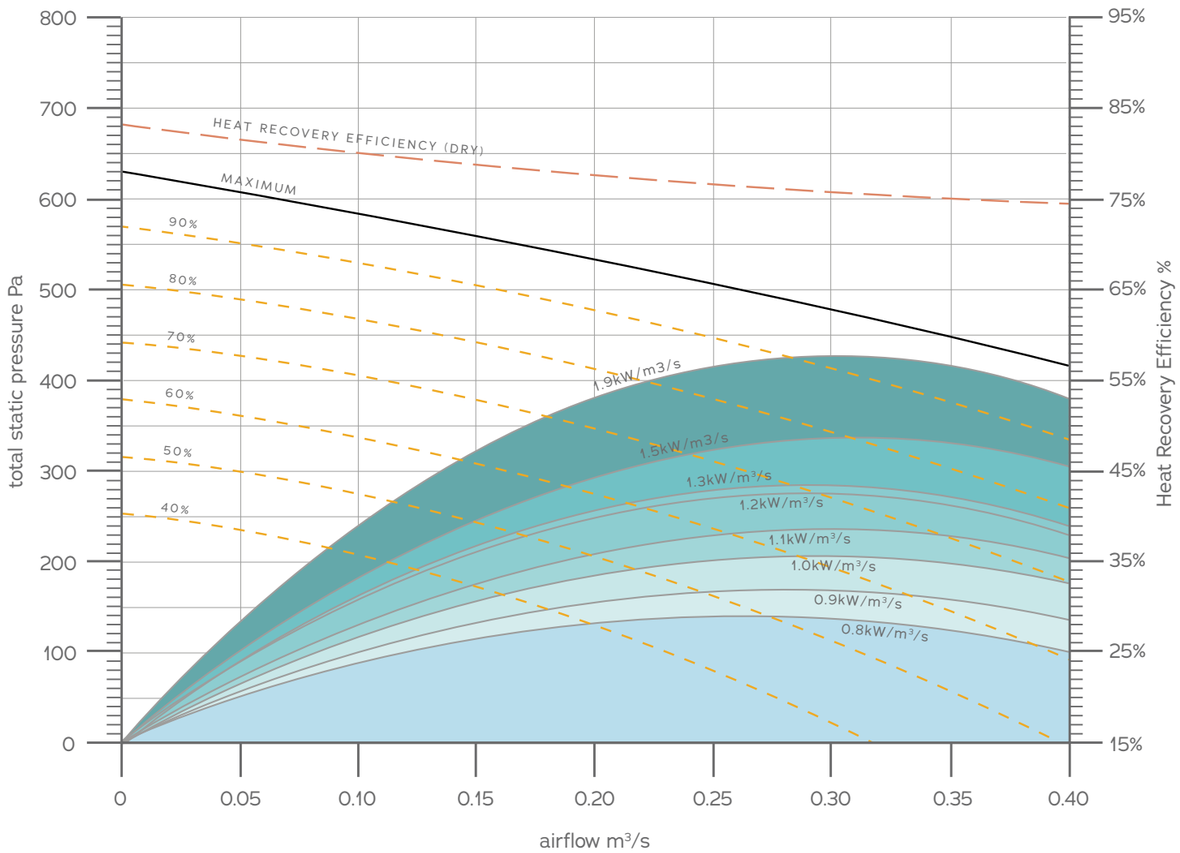
Xe3

Xe4 Technical Data

400L/s or 0.4m³/s

MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS

Performance Data



Acoustic Data

		Sound Power Lw In-Duct Levels (dB)								
		63	125	250	500	1k	2k	4k	8k	
Induct Intake	LwA	34	49	58	64	62	55	53	46	
Induct Supply	LwA	39	54	63	69	68	64	63	57	
Induct Discharge	LwA	39	56	64	69	73	73	66	61	
Induct Extract	LwA	34	51	59	64	67	64	56	50	
Casing Breakout	LpA	14	29	28	25	28	29	27	22	36 dBA

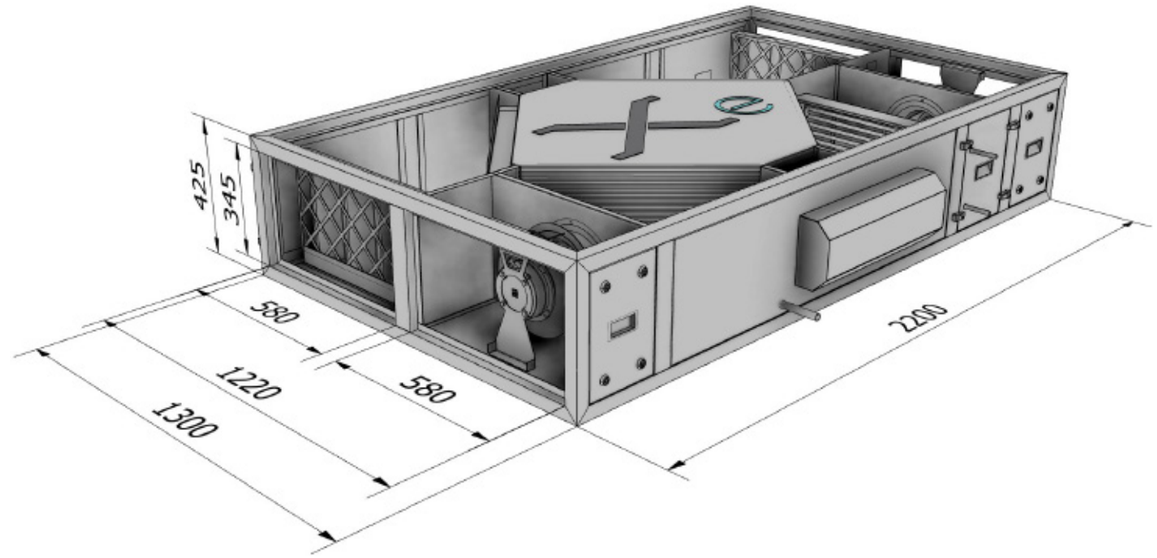
Tolerances:
On flow rates: +/- 5%
On acoustic power and pressure: +/- 3dB
By octave band: +/- 5dB

The Xe Heat Recovery Series: MVHR by Mansfield Pollard

Xe4 Dimensions & Weight

400L/s or 0.4m³/s

MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS



Unit Dimensions

Width	Height	Length	Inlet Spigot	Outlet Spigot	Weight
1300 mm	425 mm	2200 mm	580 X 345 mm	580 X 345 mm	289.9 kg

Electrical Power Info

Voltage / Phase / Frequency	Input Power Per Fan (W)	FLC Per Fan (A)	Max (RPM)
230 / 1 / 50	429	1.9	3000

Electrical Heater Battery (thyristor control)

Voltage / Phase / Frequency	Max Air Flow (m^3/s)	Max Output (kW)	Air On / Off ^0C
415 / 3 / 50	0.4	8.0	15 / 31

Air off temperature based on upon entering air at -5^{0}C. Power = air volume x constant x temperature rise. kW = m³/s x 1.21 x ΔT^0C

Low Pressure Hot Water Coil

Max Air Flow (m^3/s)	Air On / Off ^0C	Water Flow Rate l/hr	Fluid Pressure Drop kPa	Coil Connection Size BSP
0.4	15 / 31	354	20	½" BSP

LPHW coil, designed for LPHW 80/600C , EAT -50C, LAT +250C, coil construction: copper tubes, aluminium fins, coil connections 1/2"BSP.

Product Code Guide

Unit Size	Unit Configuration	Heating	Handing	Controls
Xe1, Xe2, Xe3	**P** = internal/plantroom	**W** = water	**LH**	**SC** = standard
Xe4, Xe5, Xe6	**W** = external	**E** = electric	**RH**	**BC** = basic

Example code: **Xe3/P/E/LH/SC**

Xe

HEAT RECOVERY SERIES

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