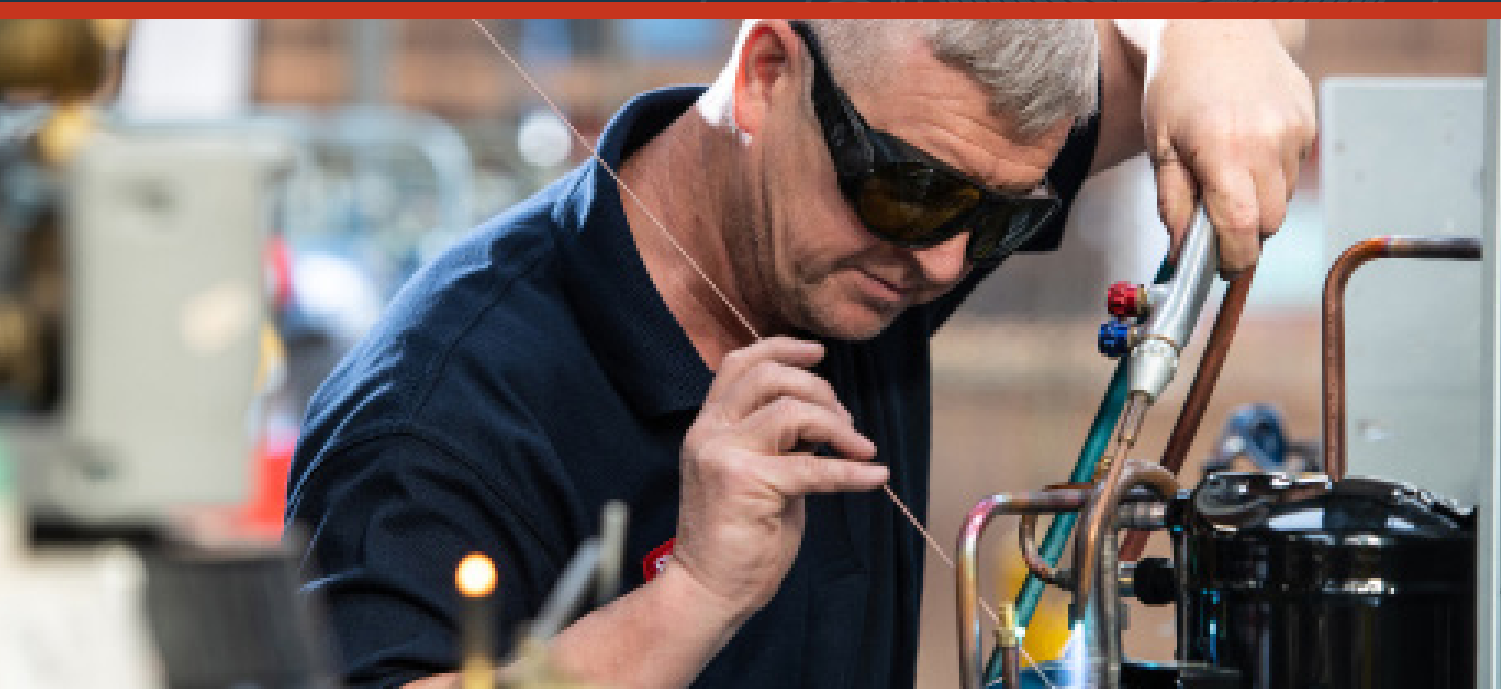


MARSTAIR

REFRIGERATION AND SPECIALIST AIR CONDITIONING



Upgrade to

A2L CELLAR **MATCH**

for the UK's First A2L
Cellar Cooler

WWW.MARSTAIR.COM





Introducing **A2L** CELLAR**MATCH**

A2LcellarMatch challenges current thinking, providing a **cutting edge solution** for cellar cooling.



We are your **trusted partner** for HVAC-R **product solutions**, with a proven ability to deliver bespoke designs for all project applications. Ensuring market leading **customer satisfaction** in our chosen HVAC-R sectors.

Experts in superior product quality, efficiency and innovation we deliver British designed and built manufacturing to the very highest standard with 50-years of proven expertise & excellence. We are your preferred partner for bespoke design and project applications. Using only quality & reliable A-grade components gives us the confidence to offer our 5 year warranty for total piece of mind.



Key Features & Benefits

- ✓ Designed and developed to BS EN 378: 2016 Standard
- ✓ Delivering a 93% reduction in refrigerant GWP with huge environmental benefits
- ✓ 11% more efficient with CXE / SMC than CXE / CKC
- ✓ Pre-calculated refrigerant charge for all interconnecting pipe lengths, allows easy identification of the EN378 charge limits relative to beer cellar size
- ✓ Simple skill level uplift required to install
- ✓ Suitable for all cellar cooling applications
- ✓ Up to 80m pipe runs available
- ✓ Simple system selection and easy installation
- ✓ Full compliance within the box
- ✓ No requirement for extra safety measures ie. emergency ventilation
- ✓ 5 year Parts Warranty as Standard



Development & Testing

Following recent investment in newly built R&D testing facilities at Marstair's UK manufacturing plant, eight months of comprehensive testing have been completed, ensuring A2LcellarMatch has been developed fully in accordance to BS EN 378: 2016 standards.

Duties
from 2.4-
7.4kW

Testing different components to reduce the refrigerant charge

This is to ensure the refrigerant charge levels are low enough for the Marstair A2LcellarMatch to be suitable for reasonable pipe runs within the **stringent requirements** of the regulations.

Developed for use with R454C refrigerant

R454C is sub 150 GWP refrigerant, ensuring that the system is **F-gas regulation compliant** for the long term

Revolutionary one piece molded body

Impregnated with an **anti-bacterial additive**, ideal for cellar cooling and food preparation areas.

Extensive testing with multiple condensing units

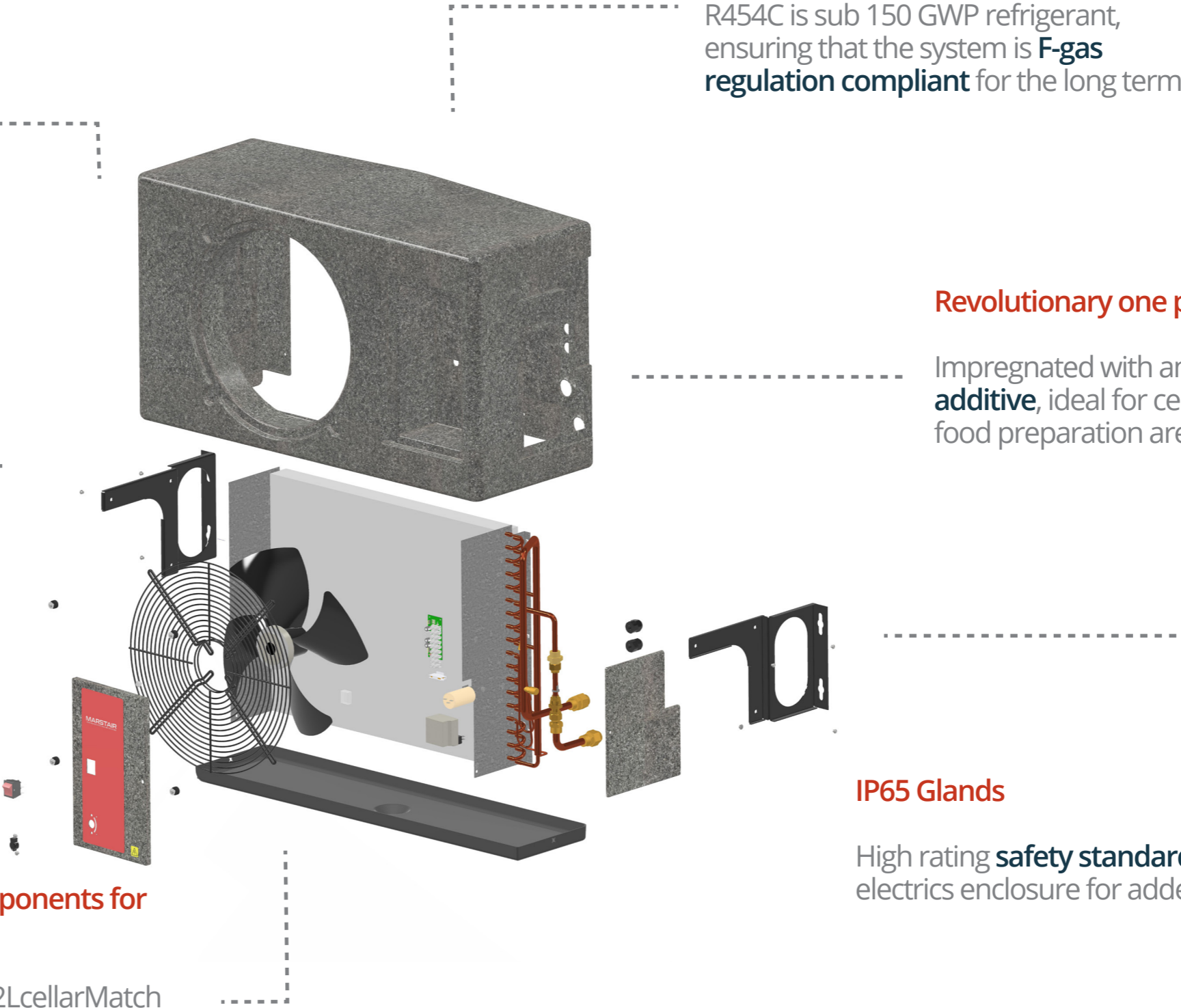
Ensuring the published refrigerant charge level information is **accurate** for every Marstair A2LcellarMatch.

IP65 Glands

High rating **safety standard** on the electrics enclosure for added protection

Testing different components for improved efficiency

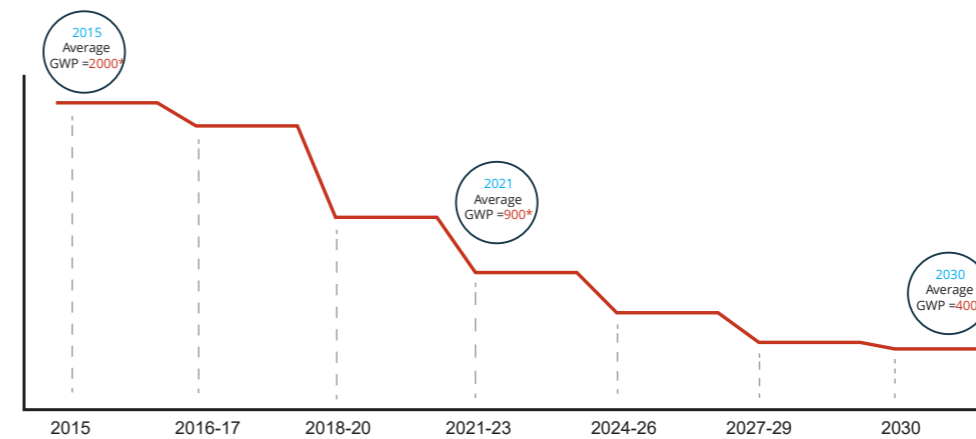
These new Marstair A2LcellarMatch **solutions** are even better with more efficient condensers



Environmental 'Step-Change'

Marstair's A2LcellarMatch provides the solution to accelerate the step-change needed in the cellar cooling sector allowing a major shift in refrigerant GWP reduction. Critically this will also give end user clients seeking greener future-proof alternatives, confidence for better total cost of ownership during this challenging economic time.

F-gas phase-down & average GWP



93%
Reduction
in GWP

11%
More
Efficient

These new systems are 11% more efficient based on a comparison as an example CXE 80 / SMC 80 to the Marstair CXE 70 / CKC 80 using R407C .



Selection made easy

A2LcellarMatch is the only solution which provides a complete solution on A2L refrigerant for cellar cooling. Installed using standard controllers, it is also suitable for applications with up to 80m pipe runs, and which requires no extra safety measures.

The refrigerant charge for any system match with a known pipe run can easily be calculated, meaning A2LcellarMatch can easily be selected giving clients complete confidence their selection can be applied both safely and in compliance with regulations.

R454C (12.7°C return Air / 32°C External)											
Cooling kW	Condensing unit	CXE A2L	System charge 0m	5m Pipe Run		10m Pipe Run		15m Pipe Run		20m Pipe Run	
				System charge	BS EN 378 Minimum Room Size m ³	System charge	BS EN 378 Minimum Room Size m ³	System charge	BS EN 378 Minimum Room Size m ³	System charge	BS EN 378 Minimum Room Size m ³
2.4	SMC+20	30	0.295	0.375	6.4	0.455	7.8	0.535	9.1	0.615	10.5
2.7	SMC+30	30	0.320	0.400	6.8	0.480	8.2	0.560	9.6	0.640	10.9
4.4	SMC+45	50	0.655	0.735	12.5	0.815	13.9	1.105	18.9	1.255	21.4
6.2	SMC+50	70	0.760	0.840	14.3	1.060	18.1	1.210	20.7	1.360	23.2
7.4	SMC+80	70	0.970	1.050	17.9	1.270	21.7	1.420	24.2	1.570	26.8

Engineered Quality & Reliability

This new A2LcellarMatch provides peace of mind for the safety, efficiency and ease of installation needed to ensure a positive switch to much lower GWPcellar cooling solution.

Improved Aesthetics

Including a new case, smaller feet and black fan guard as standard

Pressure Release Valve

For improved safety, a pressure relief valve gives a **second level high pressure protection** above the fitted HP switch

450mm Fan

The use of a larger fan means the system is both **more efficient and quieter**

Hinged door for easy access

Giving **easy installation**, access and maintenance for all components

Micro channel coil

Providing a huge **reduction in refrigerant** accompanied with **increased efficiency**

Fan Speed controller

As standard

Electronic Expansion Valve

The **most advance valve** available to maintain efficiency and control superheat.

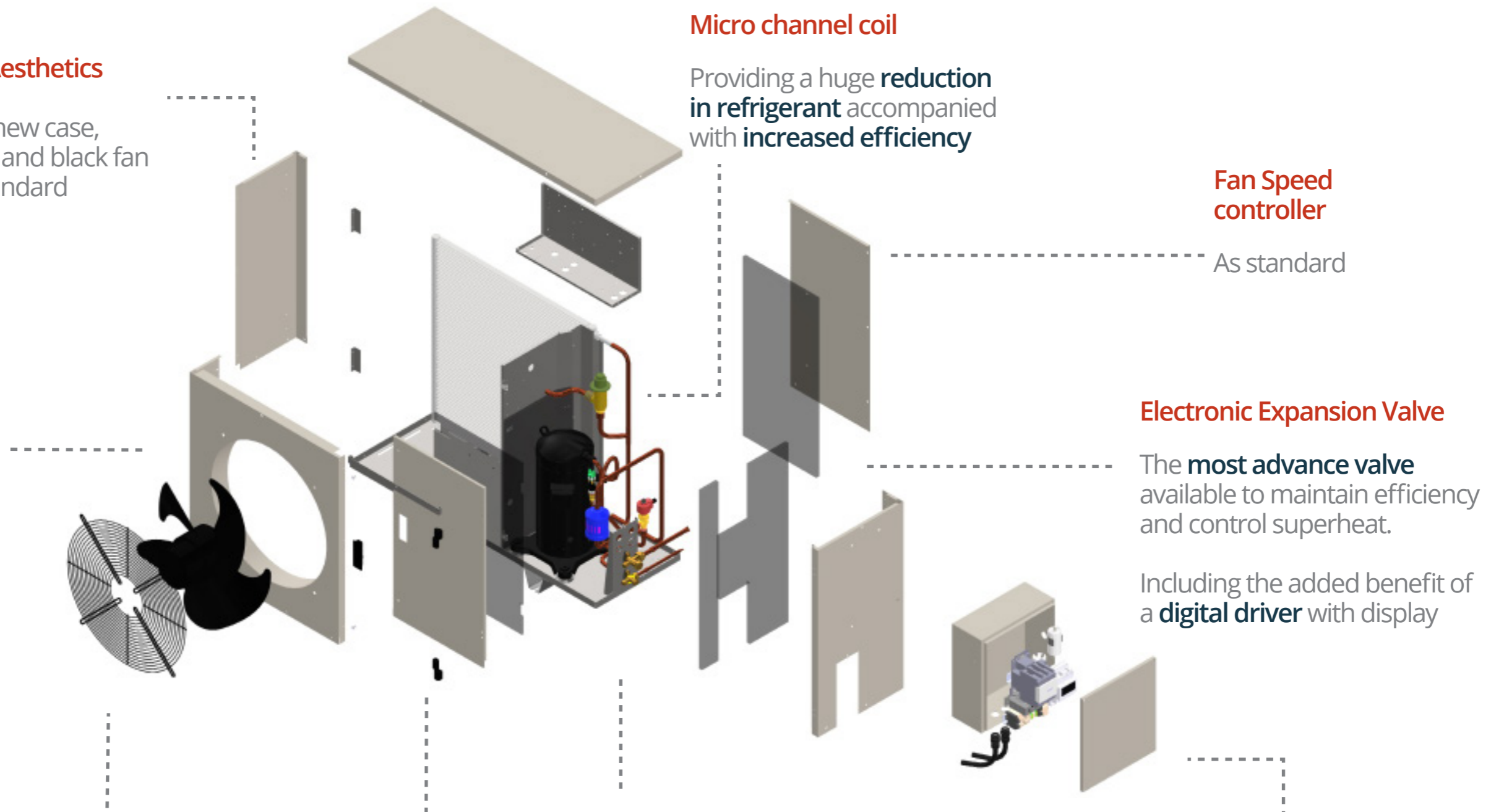
Including the added benefit of a **digital driver** with display

Unique Compressor

Specifically manufactured for an A2L system

Enclosed electrics

All electrics are external to give **total protection** against any sparks





Cellar Size Guide

Approximate Guide to Cellar Sizing in m³ at 32°C Ambient

System	Duty		Above Cellar m ³		Below Cellar m ³	
	8°C	12.7°	8°C	12.7°	8°C	12.7°
	CXE30 A2L + SMC20	1.9	2.4	17	24	28
CXE30 A2L + SMC30	2.2	2.7	21	30	35	50
CXE50 A2L + SMC45	3.6	4.4	40	57	65	93
CXE70 A2L + SMC50	5.0	6.2	62	89	99	141
CXE70 A2L + SMC80	6.0	7.4	78	111	122	175

Step by Step Cellar Match System Selection

Inputs

- 1 Establish **Duty requirement**
- 2 Confirm **Internal Room Temperature**
- 3 Estimate **External Ambient**
- 4 Confirm **Evaporating temperature**
- 5 Measure **Pipe run length**
- 6 Confirm **Room Volume**
- 7 Choose **Refrigerant type**

Outputs










- 1 **Evaporator Selection**
- 2 **Condensing unit selection**
- 3 **Suction Pipe Size**
- 4 **Expansion Pipe size**
- 5 **Refrigerant charge**
- 6 **Minimum room size BS EN 378**

Approximate refrigeration charge based on pipe run

System	System charge Om	5m Pipe Run		10m Pipe Run		15m Pipe Run		20m Pipe Run	
		System charge	BS EN 378 Minimum Room Size m ³	System charge	BS EN 378 Minimum Room Size m ³	System charge	BS EN 378 Minimum Room Size m ³	System charge	BS EN 378 Minimum Room Size m ³
CXE30 A2L SMC20	0.295	0.375	6.4	0.455	7.8	0.535	9.1	0.615	10.5
CXE30 A2L SMC30	0.320	0.400	6.8	0.480	8.2	0.560	9.6	0.640	10.9
CXE50 A2L SMC45	0.655	0.735	12.5	0.815	13.9	1.105	18.9	1.255	21.4
CXE70 A2L SMC50	0.760	0.840	14.3	1.060	18.1	1.210	20.7	1.360	23.2
CXE70 A2L SMC80	0.970	1.050	17.9	1.270	21.7	1.420	24.2	1.570	26.8

For all specific selection or projects please contact the sales team

Our Project Support

								
ENQUIRY	SELECTION ADVICE	QUOTATION PROPOSAL	ORDERING PROCESS	FOLLOW UP	MANUFACTURING	PRODUCT DELIVERY	COMPLETION MEETING	AFTERSALES SUPPORT
DEFINE REQUIREMENTS	EXPERT ADVICE	DISTRIBUTOR NETWORK	ORDER PLACED	PROJECT QUERIES	BRITISH DESIGNED & BUILT	NATIONWIDE DISTRIBUTORS	PROJECT CLOSE OUT	GENERAL QUERIES
PROJECT SCOPE	BESPOKE DESIGN	PRICE & LEAD TIME	TECHNICAL SUBMISSION	SITESUPPORT	EXCELLENCE IN TESTING	STOCK AVAILABILITY	ENCOURAGE FEEDBACK	TECHNICAL BACKUP
ACCURATE RESPONSE	COMPLIANT SOLUTION	LEAD TIME SCHEDULING	UNRIVALLED SUPPORT	PEACE OF MIND	QUALITY ACCREDITATION	ON TIME IN FULL	CONTINUOUS IMPROVEMENT	ENGINEER SUPPORT

Contact Us Today

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Supply Chain Partner

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