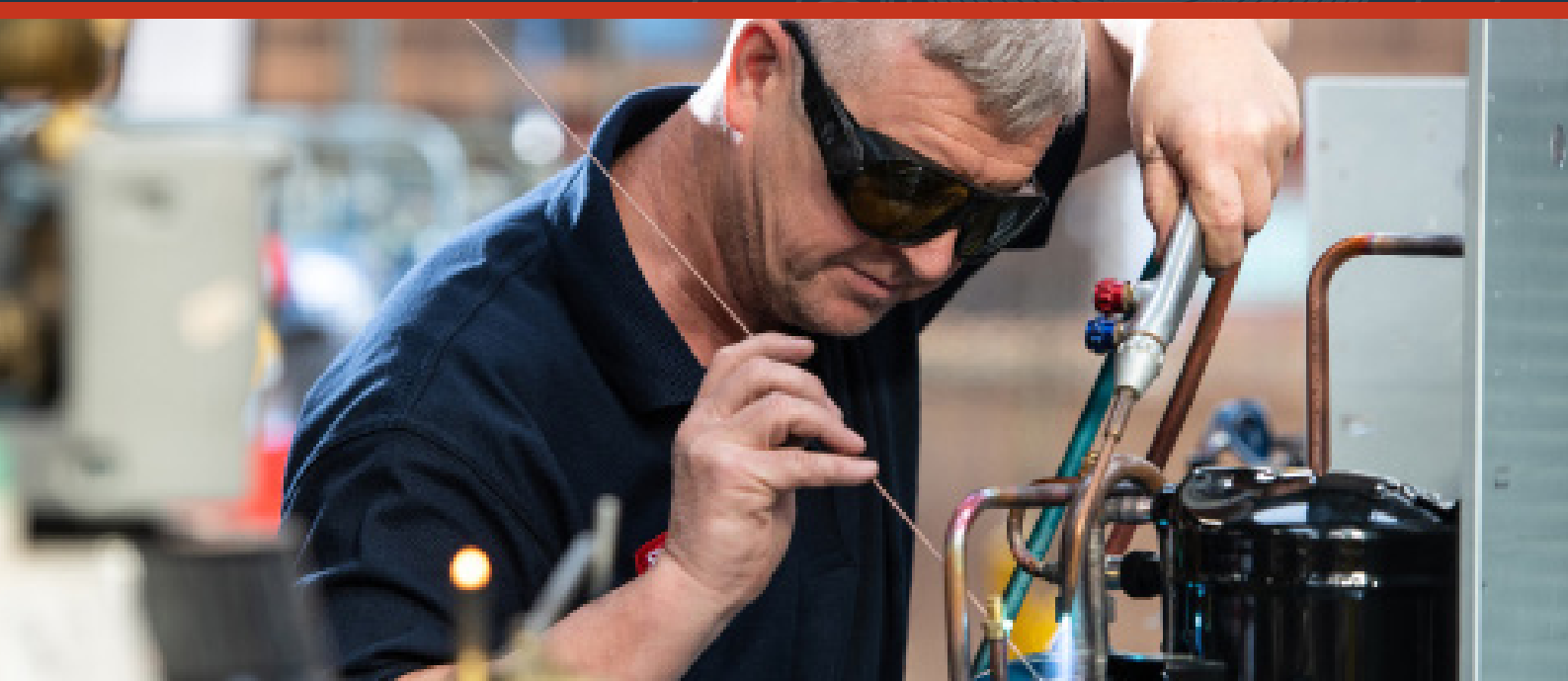


MARSTAIR

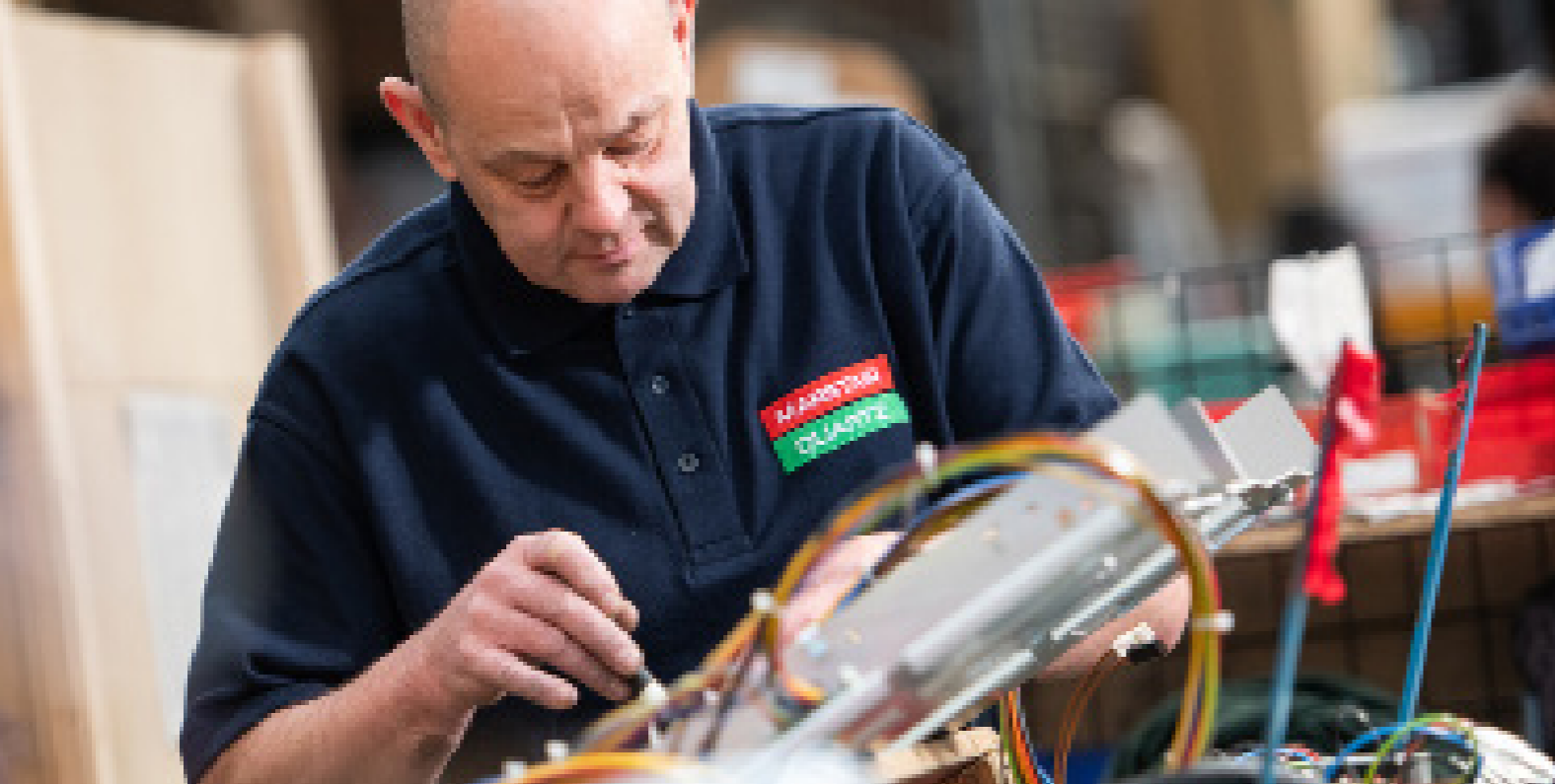
REFRIGERATION AND SPECIALIST AIR CONDITIONING



Upgrade to
A2L CABINET **MATCH**
for the UK's most efficient
retail solution



WWW.MARSTAIR.COM



Introducing **A2L**CABINET**MATCH**

A2LcabinetMatch challenges current thinking, providing a critically charged solution, **engineered to keep the refrigerant charge to a minimum.**



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
- ✓ Greener future-proof alternative to traditional refrigerants
- ✓ Improved 'Total cost of ownership' and life cycle CO2 reduction
- ✓ Can be set up using standard known controllers
- ✓ Suitable for standard general access applications
- ✓ Up to 80m pipe runs available
- ✓ Simple system selection and easy installation
- ✓ Risk Assessment Guidance Provided
- ✓ No requirement for extra safety measures such as emergency ventilation
- ✓ 5 year Parts Warranty as Standard

**UK 1st
innovative A2L
solution for
retail
applications**

Development & Testing

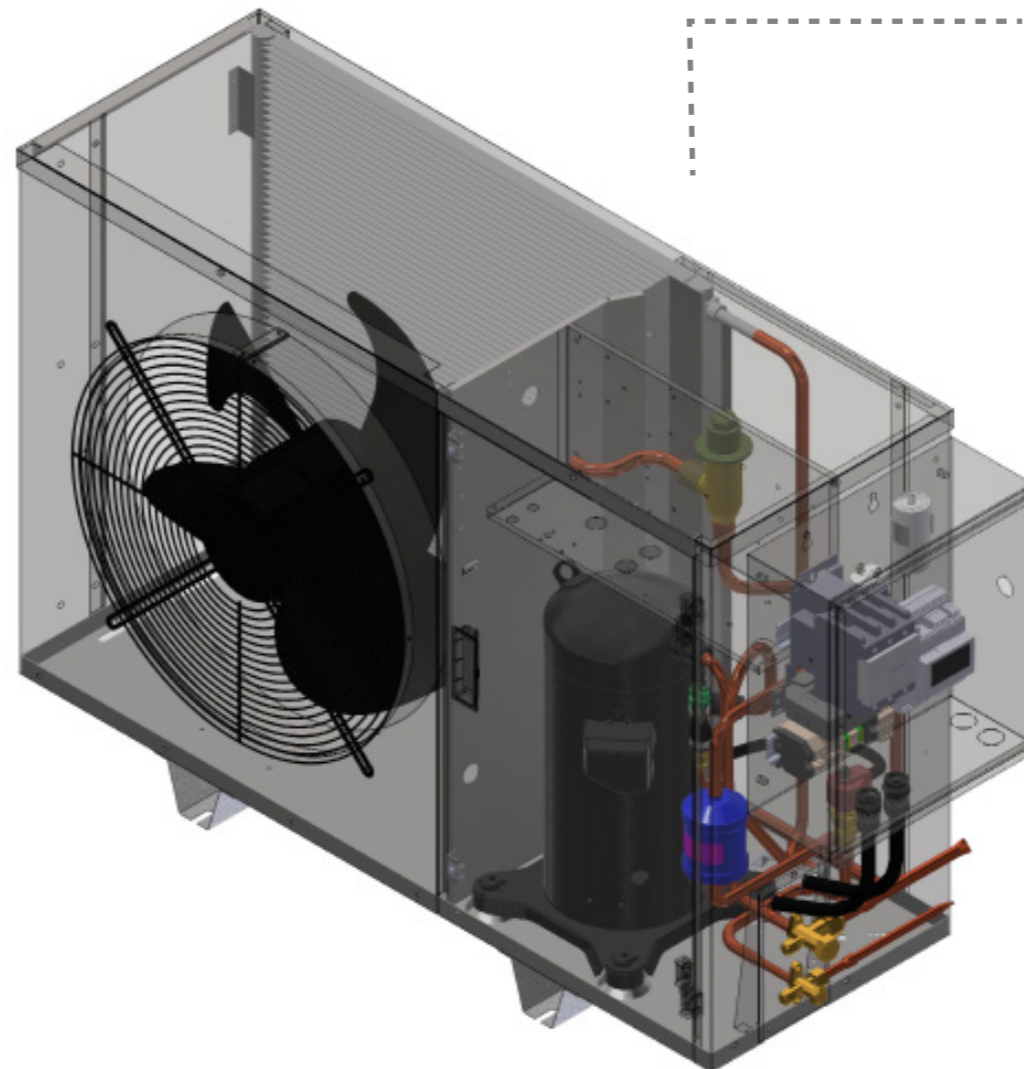
Following recent investment in newly built R&D testing facilities at Marstair's UK manufacturing plant, eight months of comprehensive testing have been completed, ensuring A2LcabinetMatch has been developed fully in accordance to BS EN 378: 2016 standards.

Testing different components to reduce the refrigerant charge

This is to ensure the refrigerant charge levels are low enough for the Marstair A2LcabinetMatch to be suitable for reasonable pipe runs within the **stringent requirements** of the regulations.

Extensive testing on multiple condensing units and evaporators

Ensuring the refrigerant charge level can be **accurately calculated** given the coil volume for every Marstair A2LcabinetMatch.



Testing with multiple refrigerants such as R454A, R454C & R455A

To give **maximum choice** to the customer and ensure that the new systems are as widely available as possible.

Duties from 1-6kW

0.2 seasonal energy efficiency improvement based on BS EN 14825:2008 Seasonal calculation for condensing units

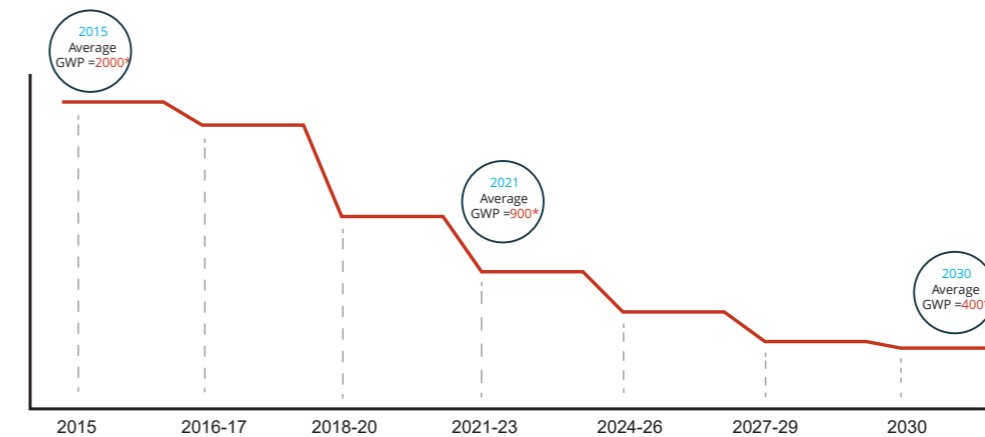
Testing different components for improved efficiency

These new Marstair A2LcabinetMatch **solutions** are even better with more efficient condensers and evaporators supplied with EEV's as standard.

Environmental 'Step-Change'

Marstair's A2LcabinetMatch provides the **solution** to accelerate the step-change needed in the retail 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

Improved Total Cost of Ownership

A greener future-proof alternative

These new systems are **more efficient** than the already highly efficient Marstair ECO design certified and ETL listed range of condensing units and come with a 5 year parts warranty as standard for total piece of mind.

A2LcabinetMatch delivers a lower **life cycle cost (LCC)** and **total cost of ownership** for end users than any other technology.

Selection made easy

Essential for the **convenience store sectors**, Marstar A2L systems gives end user clients greener future-proof alternatives, with improved total cost of ownership and life cycle CO2 reductions across their estates during this challenging economic time.

A2LcabinetMatch is the **only solution** which provides a complete system solution on A2L refrigerant for retail. 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 and coil volume can **easily be calculated**, meaning A2LcabinetMatch can easily be selected giving clients **complete confidence** their selection can be applied both safely and in compliance with regulations.

Medium Temperature - R454C (-8°C Evaporating temperature / 32°C External)																					
CU Cooling kW	Condensing unit	Required Cabinet Cooling	Cabinet Size	Doors	System charge 0m	5m Pipe Run				10m Pipe Run				15m Pipe Run				20m Pipe Run			
						System charge	BS EN 378 Min Room Size m ³	Expansion line size	Suction line size	System charge	BS EN 378 Min Room Size m ³	Expansion line size	Suction line size	System charge	BS EN 378 Min Room Size m ³	Expansion line size	Suction line size	System charge	BS EN 378 Min Room Size m ³	Expansion line size	Suction line size
1.6	SMC+20	1.600	1.250	No	0.499	0.579	9.9	3/8"	3/8"	0.659	11.3	3/8"	1/2"	0.739	12.6	3/8"	1/2"	0.819	14.0	3/8"	1/2"
2.4	SMC+40	2.400	1.875	No	0.660	0.740	12.6	3/8"	1/2"	0.820	14.0	1/2"	1/2"	0.900	15.4	1/2"	5/8"	1.260	21.5	1/2"	5/8"
3.2	SMC+45	3.200	2.500	No	1.032	1.112	19.0	3/8"	1/2"	1.192	20.3	1/2"	1/2"	1.482	25.3	1/2"	5/8"	1.632	27.9	1/2"	5/8"
5.7	SMC+80	4.800	3.750	No	1.424	1.504	25.7	1/2"	5/8"	1.724	29.4	1/2"	5/8"	1.874	32.0	1/2"	3/4"	2.024	34.5	1/2"	3/4"
1.3	SMC+15	0.880	1.250	Yes	0.512	0.592	10.1	3/8"	3/8"	0.672	11.5	3/8"	1/2"	0.752	12.8	3/8"	1/2"	0.832	14.2	3/8"	1/2"
1.6	SMC+20	1.320	1.875	Yes	0.677	0.757	12.9	3/8"	3/8"	0.837	14.3	3/8"	1/2"	0.917	15.7	3/8"	1/2"	0.997	17.0	3/8"	1/2"
1.9	SMC+30	1.760	2.500	Yes	0.882	0.962	16.4	3/8"	1/2"	1.042	17.8	3/8"	1/2"	1.122	19.1	3/8"	1/2"	1.202	20.5	3/8"	5/8"
3.2	SMC+45	2.640	3.750	Yes	1.389	1.469	25.1	3/8"	1/2"	1.549	26.4	1/2"	1/2"	1.839	31.4	1/2"	5/8"	1.989	33.9	1/2"	5/8"

Refrigerant charge levels and resultant BS EN378 room size calculation will vary dependent on cabinet evaporator internal volume

Engineered Quality & Reliability

This new A2LcabinetMatch provides peace of mind for the safety, efficiency and ease of installation needed to ensure a positive switch to much lower GWP solution.

Improved Aesthetics

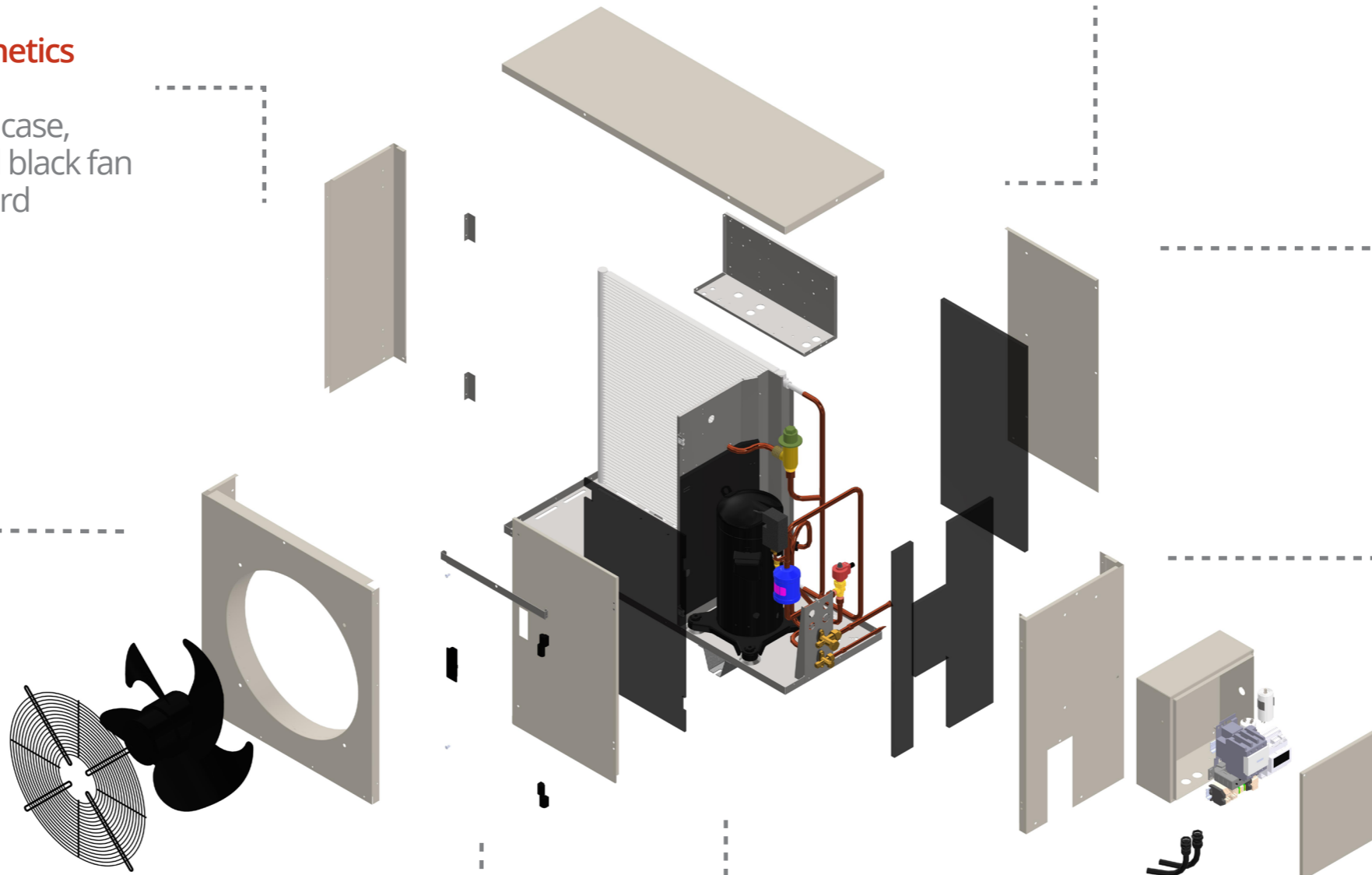
Including a new case, smaller feet and black fan guard as standard

Pressure Release Valve

For improved safety and **complete peace of mind** if high pressure is detected refrigerant is released

450mm Fan

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



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

Hinged door for easy access

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

Unique Compressor

Specifically manufactured for an A2L system

Enclosed electrics

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

System Splits



Step by Step Cabinet Match Selection

Inputs

- 1 Establish Duty requirement
- 2 Confirm Evaporating Temperature
- 3 Estimate External Ambient
- 4 Establish cabinet internal evaporator volume
- 5 Measure Pipe run length
- 6 Confirm Retail Space Volume
- 7 Choose Refrigerant type

Outputs

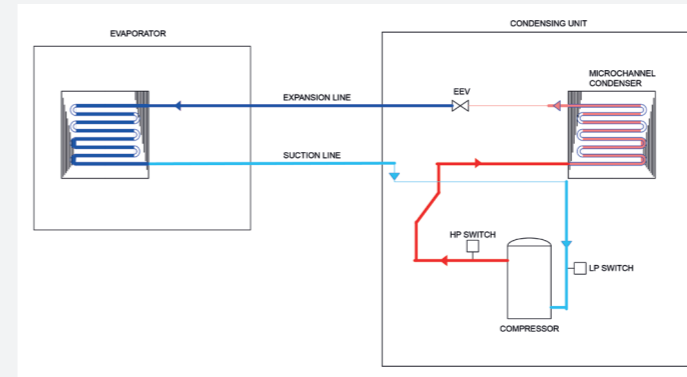
- 1 Condensing unit selection
- 2 Suction Pipe Size
- 3 Expansion Pipe size
- 4 Refrigerant charge
- 5 Minimum room size BS EN 378

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

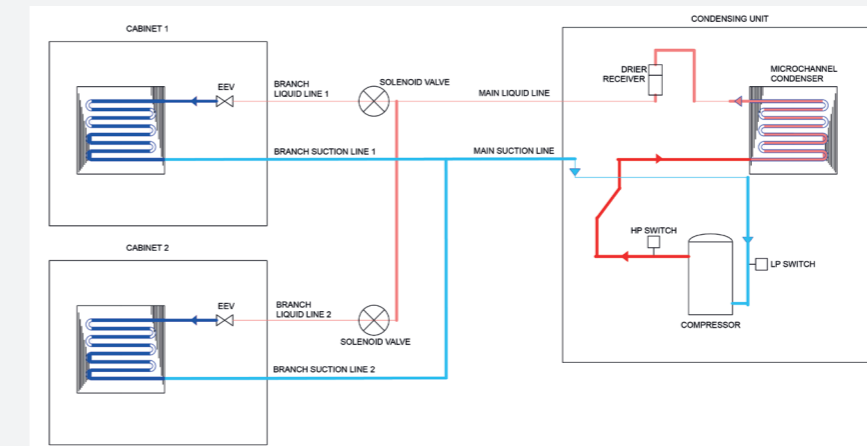
T: 01484 405 666 E: sales@marstair.com

Single Split Match



Run on Expansion line, Use SMC+ units with fitted EEV and no Receiver.

Multi - Split Match



Run on liquid lines, USE SMC+ unit with receiver and no fitted EEV.

Risk Assessment Guidance

Comprehensive R&D work ensures the system can be easily specified and installed safely. To support this, Marstair also provide installation, application and risk assessment guidance within its instructions giving best practice information to installers.

Contact Us Today

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Supply Chain Partner

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