Ability Fan Coil Units

www.abilityprojects.com

Ability

Part of
Glen Dimplex
Heating & Ventilation

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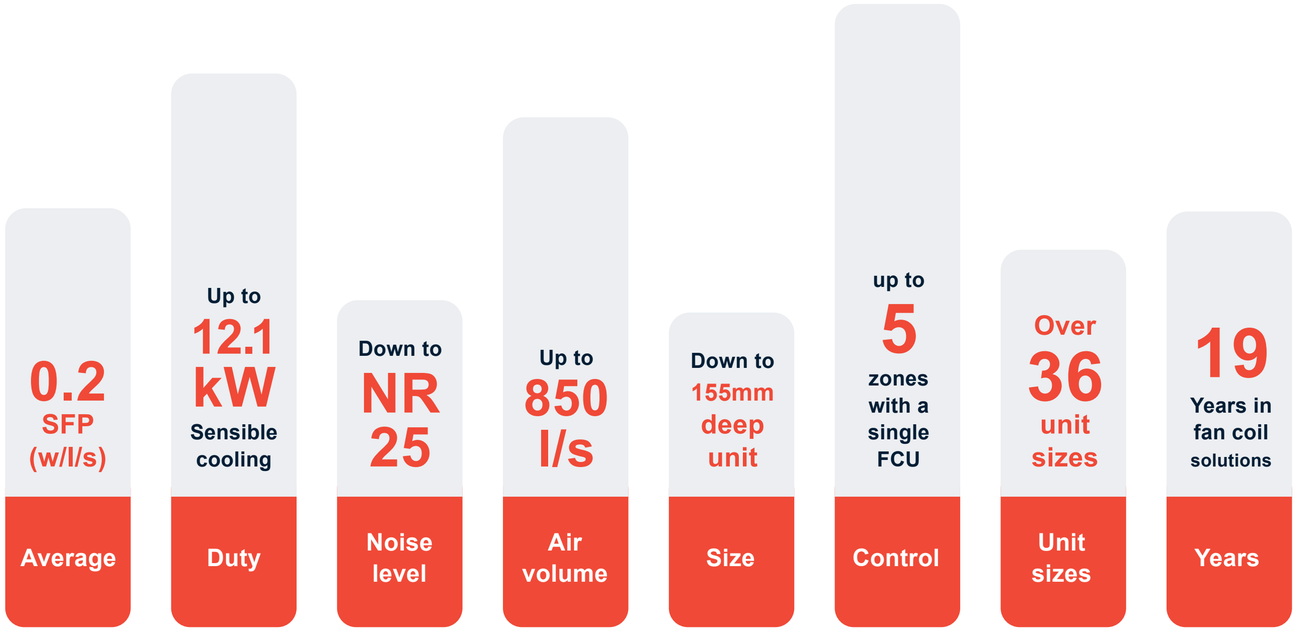
Fan coil solutions from Ability

Discover what makes Ability the UK's leading fan coil unit (FCU) provider. See how your project can benefit from our solutions' versatility, cost benefits and added value, through energy efficiency, reduced footprints and lower noise levels.

Our in-depth experience of the fan coil industry helps us to support developers, consultants, architects and contractors with complete turn-key solutions.

We are able to provide technical information and support via multiple channels, including emails, telephone support and the Microsoft Teams platform. Where an onsite presence is preferred, our dedicated technical sale team is happy to attend.

We also lead the field in CPD training (see page 14). This helps to ensure that the next generation of building service engineers is fully trained on the benefits and advantages of the Ability range of equipment.



Ability provides a full range of versatile product designs for both commercial and residential applications worldwide.

Acquisition delivers added value

When Glen Dimplex Heating & Ventilation (GDHV) acquired Ability in 2015 it brought two influential, established businesses together, creating a unique client offering. We provide you with added value through the supply of technically advanced packaged products and solutions from a portfolio of widely respected and well-known brands.

Our knowledge of the construction industry has been acquired across decades, covering a full spectrum of applications and market sectors. Our fan coil ranges have helped to create our reputation, including our **multi-award-winning Multiroom solution**, offering individual control of up to 5 separate spaces from a single fan coil and the EVO270+, which delivers a quieter, more energy-efficient and more powerful fan unit, all from a reduced footprint.

The versatility of our product offering is one of our most recognisable attributes, especially when combined with the solutions available through GDHV, including heat pumps, mechanical ventilation and direct electric panel heating. This enables us to provide an optimum solution across virtually any application, taking into account client instructions on key specifications relating to output, controls, footprint, aesthetics and cost.

Ability brings its experience to bear on the design and implementation of your project across all parts of the construction market, including;

- Commercial
- Residential
- Retail
- Leisure & Hospitality
- Public Sector

Ability passes the test

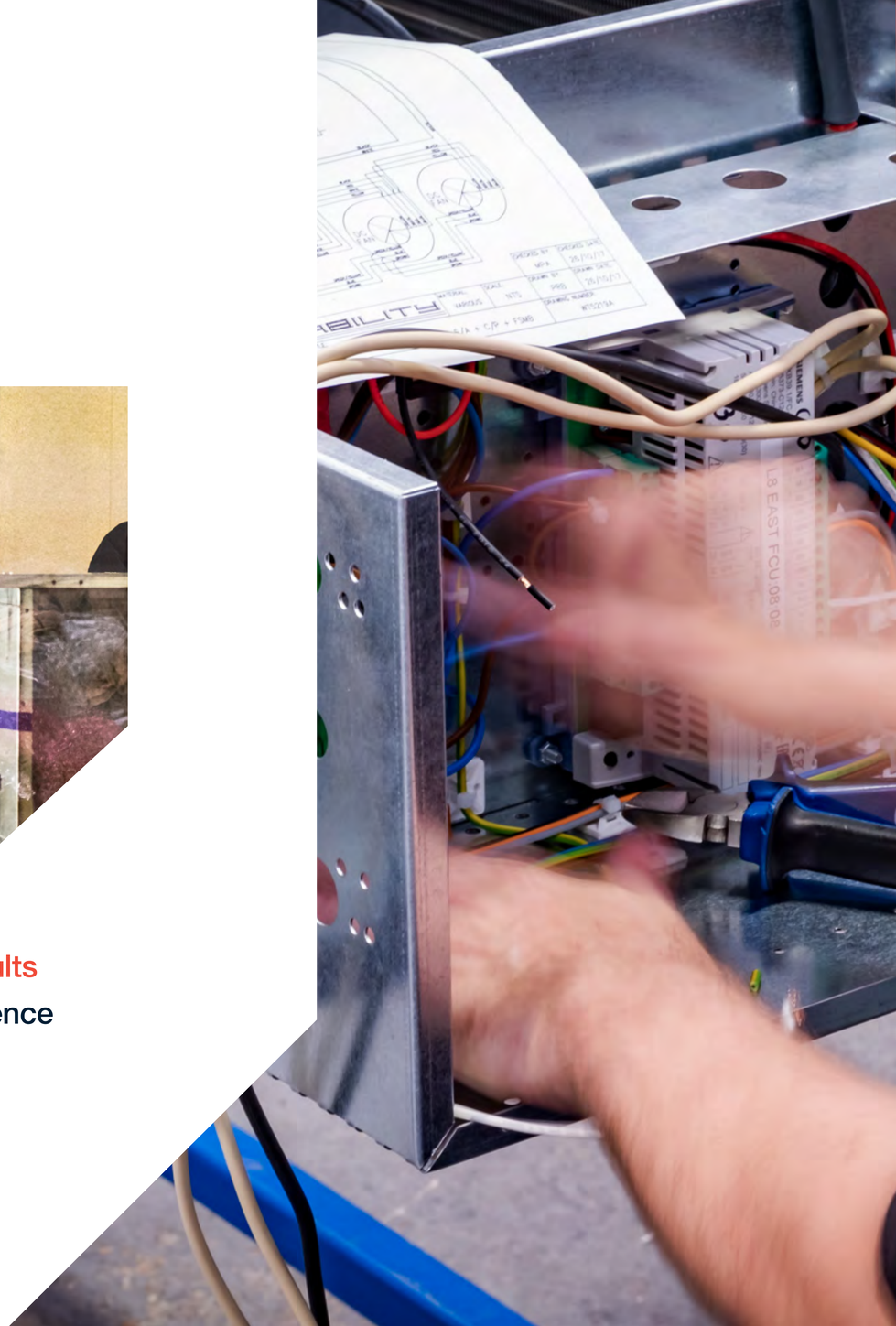
We recognise the importance of validating product performance through our dedicated testing lab, located in Poole, Dorset.

Our specialist team and facilities provide project-specific Factory Approval Testing (FAT) for both thermal and acoustic performance, which we offer to our clients to witness in person or online. Test procedures are extensive and rigorous, often including elements of the solution such as bulkheads, ceilings, ductwork and any diffusers to mirror or replicate the final installation as closely as possible.

Working closely with our sales department, our test engineers will be able to offer a comprehensive, fit-for-purpose overview from design stage through to the final project plan. This includes recommendations on the FCU installation, further informed by considerations of air and water flow rates, as well as the desired acoustic performance.

Thermal testing is also conducted to confirm the cooling and heating outputs, in addition to the specific fan power. Where appropriate, we work with industry-recognised independent testing organisations.

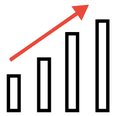
Rigorous testing and accurate results provide peace of mind and confidence in the product design.



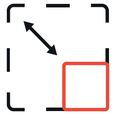
FCU development drives innovation, improves performance, reduces cost

As industry innovators, our research and development team continuously monitors market trends and technical developments, ensuring that our service to clients is always at the leading edge. This includes our focus on balancing maximum duty with the unit's footprint, to offer you powerful, yet compact, units.

Ease of installation



Improved efficiency



Reduced footprint for duty point

Multiple control and connection options

Potential commercial benefits

EVO

The EVO range is a quiet, highly efficient and cost-effective solution which can be configured for multiple sectors. Featuring EC motors, optimised coils and an array of filter options, the EVO's various sizes allow product selections to closely match design requirements, reducing the risk of oversizing.

Multiroom

The award-winning Multiroom range has taken fan coil 'intelligence' and control a step further, offering project designers much greater scope at concept stage, with individual control of up to 5 separate spaces from a single FCU.

Matrix

The ground-breaking Matrix range incorporates an internally divided plenum with individual self-balancing fans. One fan per spigot allows quicker installation and commissioning, with air and water balancing completed remotely via a laptop.

More information about our Multiroom, EVO and Matrix fan coil ranges, which all offer advanced design, high performance and cost-effective operation, can be found at www.abilityprojects.com/fan-coils

Ability Fan Coils

270+

This is our high-performance FCU, ideal for exposed service applications such as ‘loft-style’ spaces which have grown in popularity for commercial developments, especially in tech and media industries. This fan coil, available in the EVO range only, delivers high output and low noise to give the best performance. It can be exposed to view where the application or the aesthetics require it.

Available in: EVO

Range	Sensible cooling kW 6-12°C	Total Cooling kW 6-12°C	Heating kW 70-40°C	Air Volume l/s	Depth mm	Overall Width mm	Length mm	Spigot Size mm Dia	Spigot Quantity
100	1.976	2.410	1.542	144	270	803	900	250	3
200	3.036	3.702	2.410	225	270	1103	900	250	4
250	3.664	4.468	2.989	279	270	1103	900	250	4
300	3.664	5.627	3.675	343	270	1403	900	250	5
400	5.551	6.770	4.575	427	270	1703	900	250	6
500	7.115	8.677	5.668	529	270	2003	900	250	6
550	7.477	9.118	6.000	560	270	2003	900	250	6
600	8.699	10.609	6.975	651	270	2303	900	250	7

Figure shown are for a typical ceiling void installation for a room requirement of NR35. Full setup and details available upon request. Thermal performance selections based on Summer: 23°C 50% RH / Winter: 21°C 50% RH. All testing performed using standard units, featuring integral discharge plenums with circular connections. Units are fitted with G3 filter media and (unless specifically mentioned) include heat exchangers with 12FPI fin pitch.

Ability Fan Coils

270

Our flagship FCU, the 270 is ideal for commercial applications, office and multi-use developments. This tried, tested, reliable, efficient unit is available in our EVO, Matrix and Multiroom ranges. Higher duties and lower noise levels make the 270 a sound choice for commercial developments.

Available in:
EVO
Matrix
Multiroom

Range	Sensible cooling kW 6-12°C	Total Cooling kW 6-12°C	Heating kW 70-40°C	Air Volume l/s	Depth mm	Overall Width mm	Length mm	Spigot Size mm Dia	Spigot Quantity
100	1.600	1.951	1.221	114	270	803	900	250	3
200	2.293	2.796	1.767	165	270	1130	900	250	4
250	3.060	3.732	2.432	227	270	1103	900	250	4
300	3.816	4.654	2.967	277	270	1403	900	250	5
350	4.579	5.584	3.643	340	270	1403	900	250	5
400	5.160	6.293	4.210	393	270	1703	900	250	6
500	5.694	6.944	4.414	412	270	2003	900	250	6
550	6.482	7.905	5.100	476	270	2003	900	250	6
600	7.280	8.878	5.700	532	270	2303	900	250	7
650	7.597	9.265	5.978	558	270	2303	900	250	7

Figure shown are for a typical ceiling void installation for a room requirement of NR35. Full setup and details available upon request. Thermal performance selections based on Summer: 23°C 50% RH / Winter: 21°C 50% RH.All testing performed using standard units, featuring integral discharge plenums with circular connections. Units are fitted with G3 filter media and (unless specifically mentioned) include heat exchangers with 12FPI fin pitch. Testing based on EVO range and may differ for the Matrix or Multiroom. For Matrix and Multiroom applications contact our applications team.

Ability Fan Coils

235

An industry-standard fan coil unit, available in the EVO, Matrix and Multiroom ranges, generally used in restricted depth ceiling voids making it ideal for bulkheads and residential developments.

Available in:
EVO
Matrix
Multiroom

Range	Sensible cooling kW 6-12°C	Total Cooling kW 6-12°C	Heating kW 70-40°C	Air Volume l/s	Depth mm	Overall Width mm	Length mm	Spigot Size mm Dia	Spigot Quantity
100	1.533	1.870	1.103	103	235	803	900	200	3
200	2.246	2.739	1.607	150	235	1103	900	200	4
250	3.500	4.268	2.614	224	235	1103	900	200	4
300	4.079	4.974	2.989	279	235	1403	900	200	5
350	4.263	5.199	3.139	293	235	1403	900	200	5
400	5.043	6.150	3.685	344	235	1703	900	200	6
500	5.587	6.813	4.093	382	235	2003	900	200	6
550	6.259	7.633	4.585	428	235	2003	900	200	6
600	6.771	8.257	4.960	463	235	2303	900	200	7
650	7.046	8.593	5.143	480	235	2303	900	200	7

Figure shown are for a typical ceiling void installation for a room requirement of NR35. Full setup and details available upon request. Thermal performance selections based on Summer: 23°C 50% RH / Winter: 21°C 50% RH. All testing performed using standard units, featuring integral discharge plenums with circular connections. Units are fitted with G3 filter media and (unless specifically mentioned) include heat exchangers with 12FPI fin pitch. Testing based on EVO range and may differ for the Matrix or Multiroom. For Matrix and Multiroom applications contact our applications team.

Ability Fan Coils

155

Ability's EVO 155 FCU is a slimline unit which we recommend highly for refurbishment projects or older buildings with a shallow ceiling void. This space-saving unit is ideally used where there is not space for a standard fan coil and is available only in the EVO range.

Available in: EVO

Range	Sensible cooling kW 6-12°C	Total Cooling kW 6-12°C	Heating kW 70-50°C	Air Volume l/s	Depth mm	Width mm	Length mm	Spigot Size mm Dia	Spigot Quantity
100	1.575	2.083	2.074	100	155	916	800	150	4
200	2.978	3.918	3.914	191	155	1316	800	150	6
300	4.007	5.272	5.016	257	155	1716	800	150	7
400	5.279	7.039	6.602	328	155	2116	800	150	7

Figure shown are for a typical ceiling void installation for a room requirement of NR35. Full setup and details available upon request. Thermal performance selections based on Summer: 23°C 50% RH / Winter: 21°C 50% RH. All testing performed using standard units, featuring integral discharge plenums with circular connections. Units are fitted with G3 filter media and (unless specifically mentioned) include heat exchangers with 14FPI fin pitch.

Fan Coil Controls

At Ability we have an in-house controls team which is experienced in writing software and designing strategy. Bespoke control set-up can be configured to meet client specifications, ensure an efficient system performance and further enhance the added value proposition which we bring to our customers. FCU controls can be incorporated into any BMS system utilising BACnet protocols. We can also accommodate other product controls at this stage, such as towel rails and underfloor heating.

The number one manufacturer of the most innovative fan coil range with the most advanced test facilities in the UK

Ability Refurbishment Services - support after installation

With our purpose-designed refurbishment programme we go on bringing value to your project even after your fan coil installation is complete.

This additional service function is provided by our specialist team, including site visits or the supply of spares and repairs. This is available for all types of fan coil units, no matter the manufacturer or whether they are still in production.

From site surveys, our team will use its vast, hands-on experience in the market to recommend how and when refurbishment is the right option, leading potentially to multiple benefits including reduced energy consumption, minimised downtime/disruption and of course, cost savings.

Refurbishment can result in up to a 10-15-year extended lifespan of an existing unit, whilst still incorporating the benefits of newer Ability technologies and helping to meet the requirements of the 2018 Minimum Energy Efficient Standard.

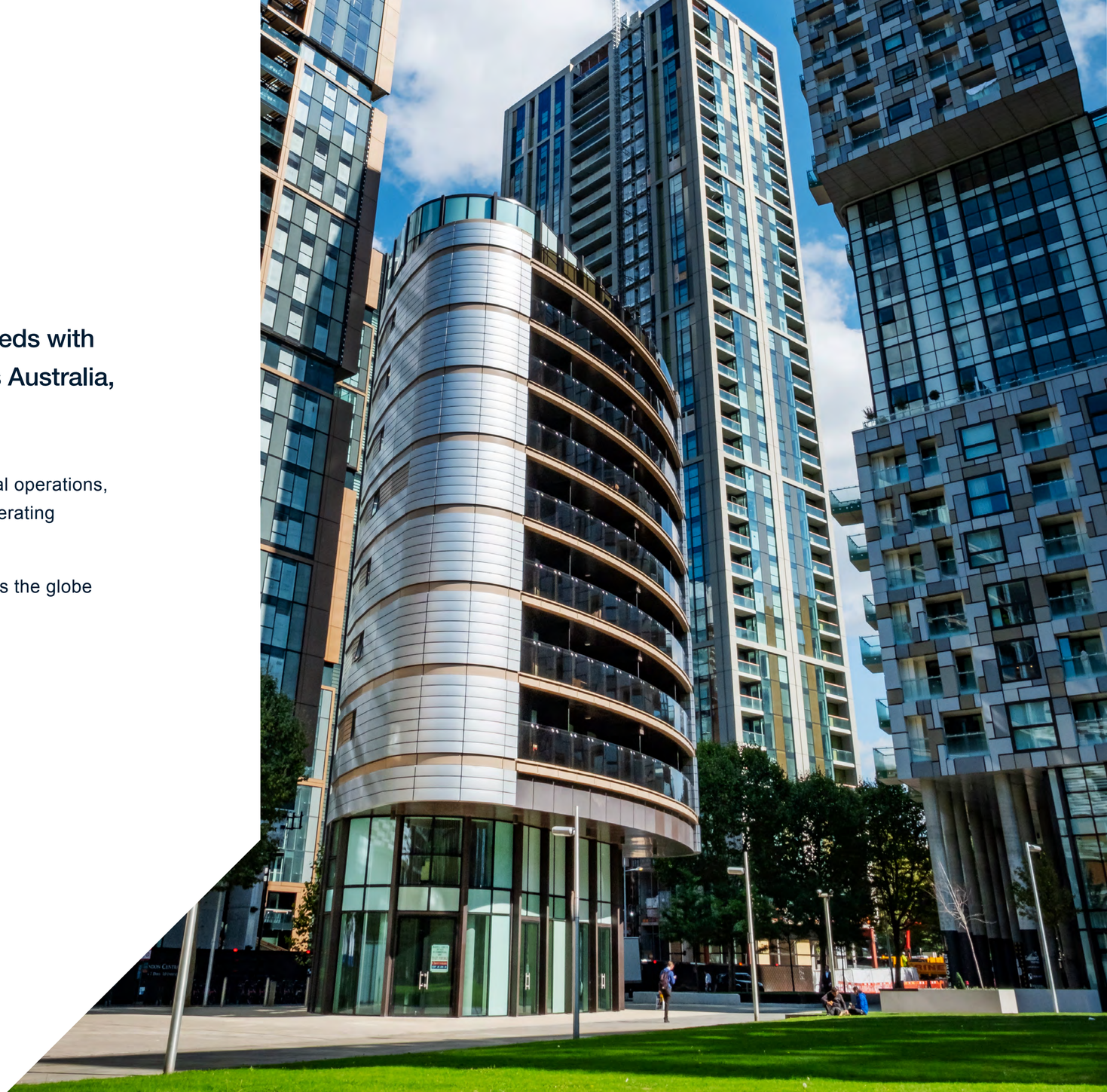
To find out what you could gain from this service, contact us at technical.enquiries@abilityprojects.com to arrange a site survey with full viability report to follow.

Ability - a global player

Our experienced export team is here to help support your needs with a track record of turn-key project delivery in markets such as Australia, New Zealand, Middle East, Far East and Europe.

While our service-level commitments remain consistent throughout our international operations, we recognise and respect differences in cultural norms, business practices and operating conditions then respond accordingly.

Our capacity to devise and produce high-end, bespoke solutions for projects across the globe enables us to foster relationships with consultants and designers worldwide.



Knowledge is power, we'll share it with you

As part of our ongoing service to clients, we offer expert-based fan coil CPD training courses which are all CIBSE approved.

In order to make these available in ways which best suit client requirements we offer both online or in-person presentations, including at our Innovation Studio in Shoreditch, where we can hold CPDs next to installed units.

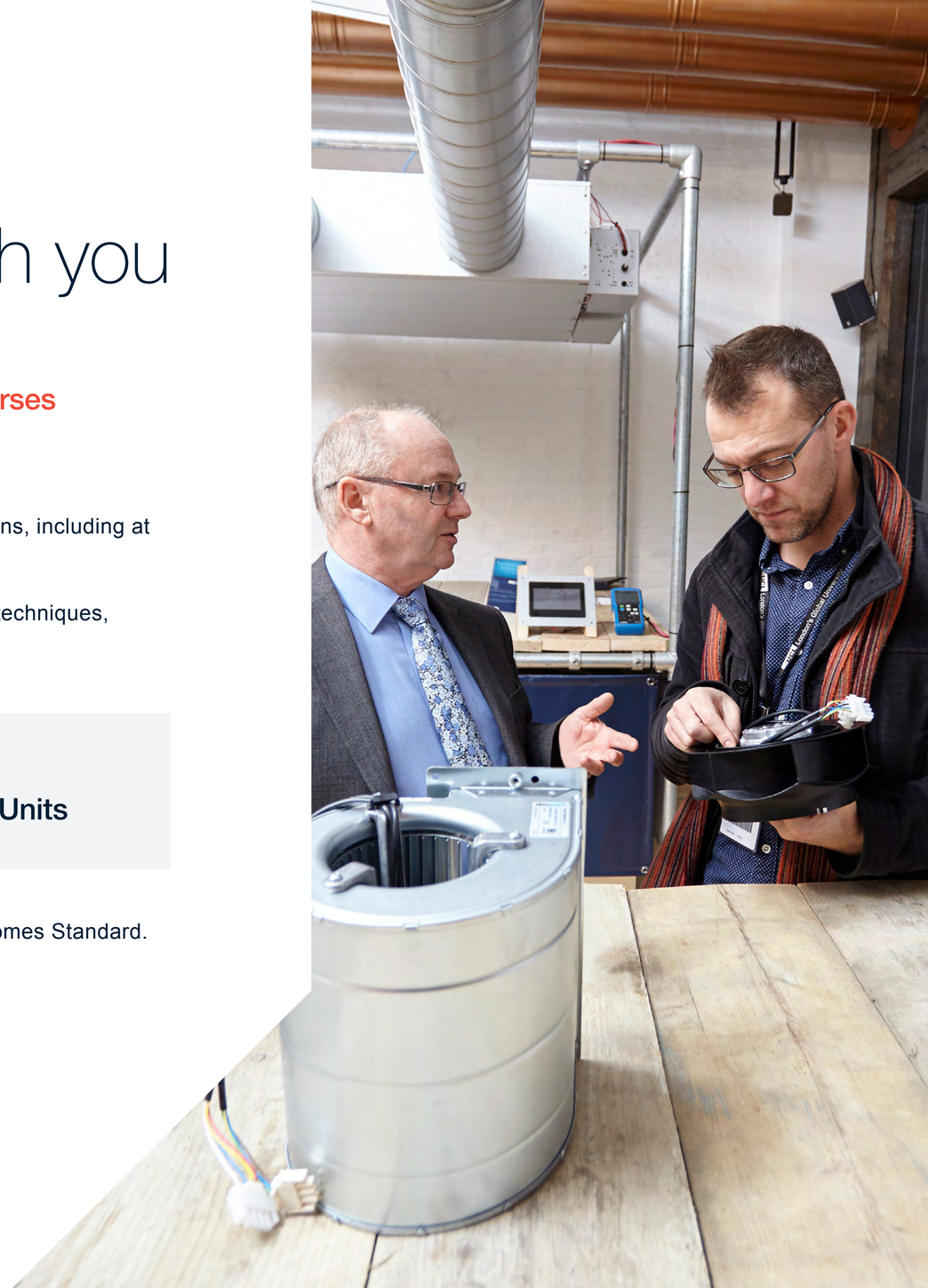
All our trainers have first-hand experience working out in the fan coil market and presentations will take you through the techniques, technologies and regulatory environment involved with FCUs, with the accent on practical application.

Three courses are available:

- Fan Coil Fundamentals
- Advances in FCU Technology
- Chilled Beams vs Fan Coil Units

Through our GDHV organisation we also offer other CPDs, for example on our Zeroth Energy System and the Future Homes Standard.

To book one of our CPDs, contact us on technical.enquiries@abilityprojects.com



Case Studies

Embassy Gardens

South Bank, London

Ability Projects' thermostatically-controlled fan coil solution was specified throughout the buildings and apartments of Ballymore's flagship development, Embassy Gardens. Ability Projects supplied a total of 2042 fan coil units with unique controls and valve assemblies over the four phases of the development.

22 Bishopsgate

The City, London

3000 Ability Fan Coil Units were installed as part of a huge M&E infrastructure at 22 Bishopsgate. Designed to be at the leading edge of commercial building design the 62 storey skyscraper has unrivalled amenity and service packages to bring a visionary workplace in the heart of London's financial district The EVO 270+, our high performance FCU, was chosen for high performance output with low noise levels.

The mark of approval

Don’t just take our word for it – we have a list of industry accreditations and certifications which highlight the quality of our products and our commitment to maintaining high standards.

2020 ROSPA Silver Award

SafeContractor APPROVED www.alcumusgroup.com

bsi ISO 45001 Occupational Health and Safety Management CERTIFIED

bsi. ISO 9001 Quality Management

bsi. ISO 14001 Environmental Management

We are also active members of:

FETA

BSRIA Member

Unrivalled innovation you can trust

To find out more about the products and services we offer, and how we can bring value to your next project, contact us today on technical.enquiries@abilityprojects.com

"Our business and manufacturing process has been optimised for total efficiency; from our expert specification support service through to our precise and controlled manufacturing process. Working with Ability ensures you receive reliable, proven service alongside efficient, innovative products."

Chris Page - Commercial Operations Director at Ability

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