Admiral House, Newport

Presentation and Tour

Thursday 3rd July, 2014

ADEILADU ARBENIGRWYDD YNG NGHYMRU

CONSTRUCTING EXCELLENCE IN WALES

Welcome

Milica Kitson

Chief Executive

Constructing Excellence in Wales

Newport Presentation Culture & Delivery

3rd July 2014

Our Story

Company Information

- Started in 1993
- IPO 2004
- Turnover in 2013 £2.03 billion
- Profit £370 million before tax
- Vehicle count 3.02 million
- UK business employed 5890 people

“People who like what they do, do it better.”

Our Culture

Admiral is the 2nd Best Big Company to Work For 2014!

GREAT PLACE TO WORK® Best Workplaces 2013 PYMES España — 4

THE SUNDAY TIMES 25 BEST BIG COMPANIES TO WORK FOR 2014

GREAT PLACE TO WORK® Best Workplaces 2013 Category: Large United Kingdom — 2

GREAT PLACE TO WORK® Best Workplaces 2013 España — 5

GREAT PLACE TO WORK® Best Workplaces 2013 Canada — 8

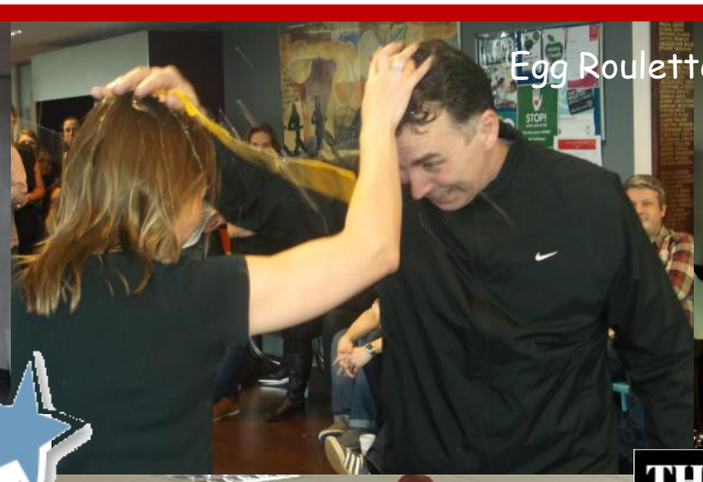
GREAT PLACE TO WORK® Best Workplaces 2014 Italia — 11

2

VIRGINIA BUSINESS BEST 2013 PLACES TO WORK — 18

GREAT PLACE TO WORK® Best Workplaces 2013 Europe — 2

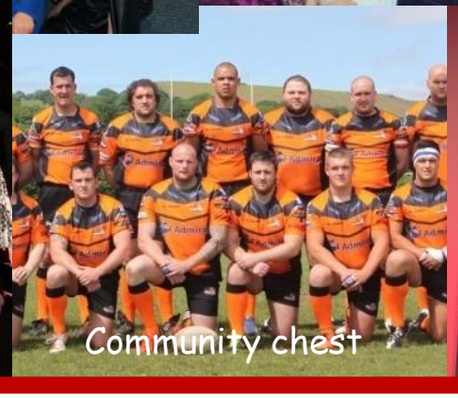
Our Culture



GREAT PLACE TO WORK® Best Workplaces 2014 Europe

THE SUNDAY TIMES 25 BEST BIG COMPANIES TO WORK FOR 2014

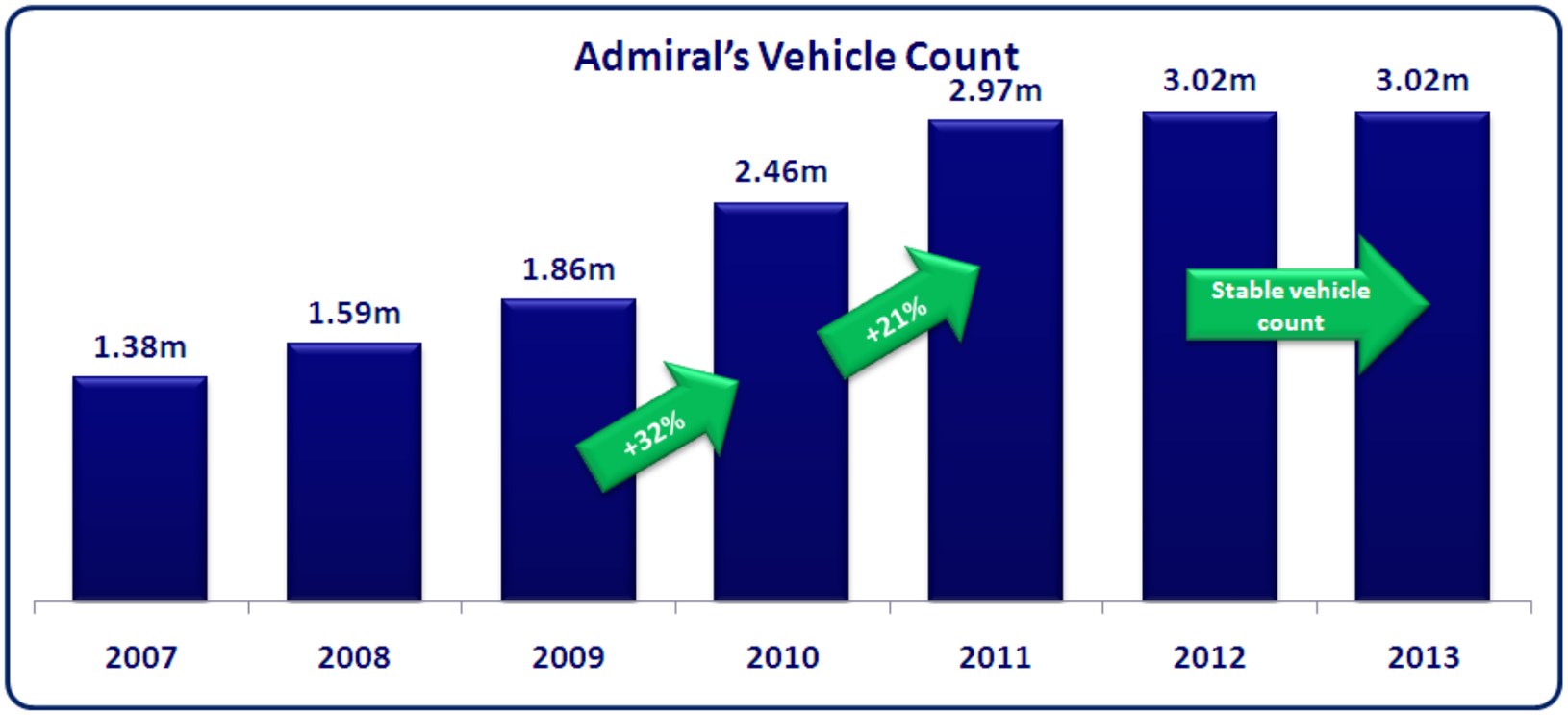
GREAT PLACE TO WORK® Best Workplaces 2014 Category: Large United Kingdom

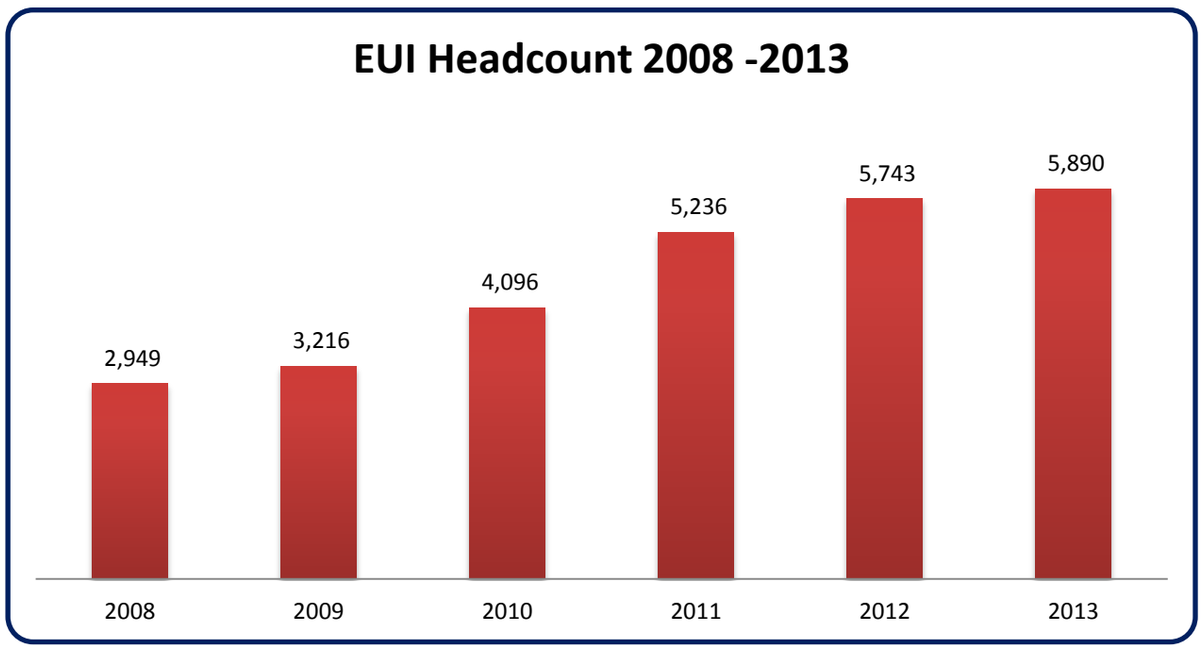


Admiral

“People who like what they do, do it better.”

Staff/Property Growth





Newport Building - Our Vision
Geographical Considerations

- **Ease of access to transport links; trains, road, bus, car parking**

- **Labour Market; continued expansion**

- **Close to shops and other amenities; banks, chemists, convenience stores**

- **Welfare of employees**

- **Sustainable location; low carbon footprint**

New Building - Our Vision
Design Considerations

- Space Efficient with plenty of elbow room (Avoiding a “call-centre” feeling)

- Designed around our working culture; teams of 12, communication & fun

- Good Acoustic Values

- Proximity to Break-out Spaces (kitchen areas and chill-out areas)

- Communal Areas for fun!!!

- Meeting rooms, training rooms, ad hoc rooms (different types)

- Cycle Storage & showers

Tenants Brief

Tenant vision combined with consultant input ; clear requirements around the environment; flexible, fun!, healthy, a nice environment to work in, sustainable, promoting communication between colleagues.

- **Led by Technical Specifications and not specific materials ; flexibility**
- **Space requirements – 65 sq ft per person, meeting rooms, training rooms, cycle store**
- **Highlighted the working requirement of working on desking/benches of 6 people with access to a solid wall for notice boards, AV/IPTV and windows for daylight**
- **Providing our kind of environment ; Excellent acoustic rating, designed heating and cooling, access to day light (beyond BCO requirements)**
- **Prioritising the stairs over the lifts**
- **IT connectivity & Resilience**

<u>“People who like what they do, do it better” = a nice environment to work in.”</u>

Newport / Project Timeline

2006 – Modus Scheme

January 2012 – HoT's agreed with SDG

August 2012 - Planning, Funding & Tenants Brief..

September 2012 – developing the tenants brief alongside HoT's, Funding & SDG

December 2012 – agreement to lease entered in to

January 2013 – SDC start on site

June 2014 – SDC finish all internals and Admiral move in!!!

How the team delivered....

- **Forward planning – understand what we wanted as a tenant and putting that into the tenant brief**

- **Communication, Communication, Communication!!!**

- **The right team; Admiral + SDG + Consultants + SDC = Partnership to deliver the product**

- **Flexible attitude to design change, material change, value engineering**

- **Quick or timely; decision making from the tenants team**

Finally, testament to SDG and Admirals relationship : The lease isn’t signed, We’re all here by invitation!

The Site Pre-construction

HolderMathias architects

The Masterpan

HolderMathias architects

Original Scheme overview

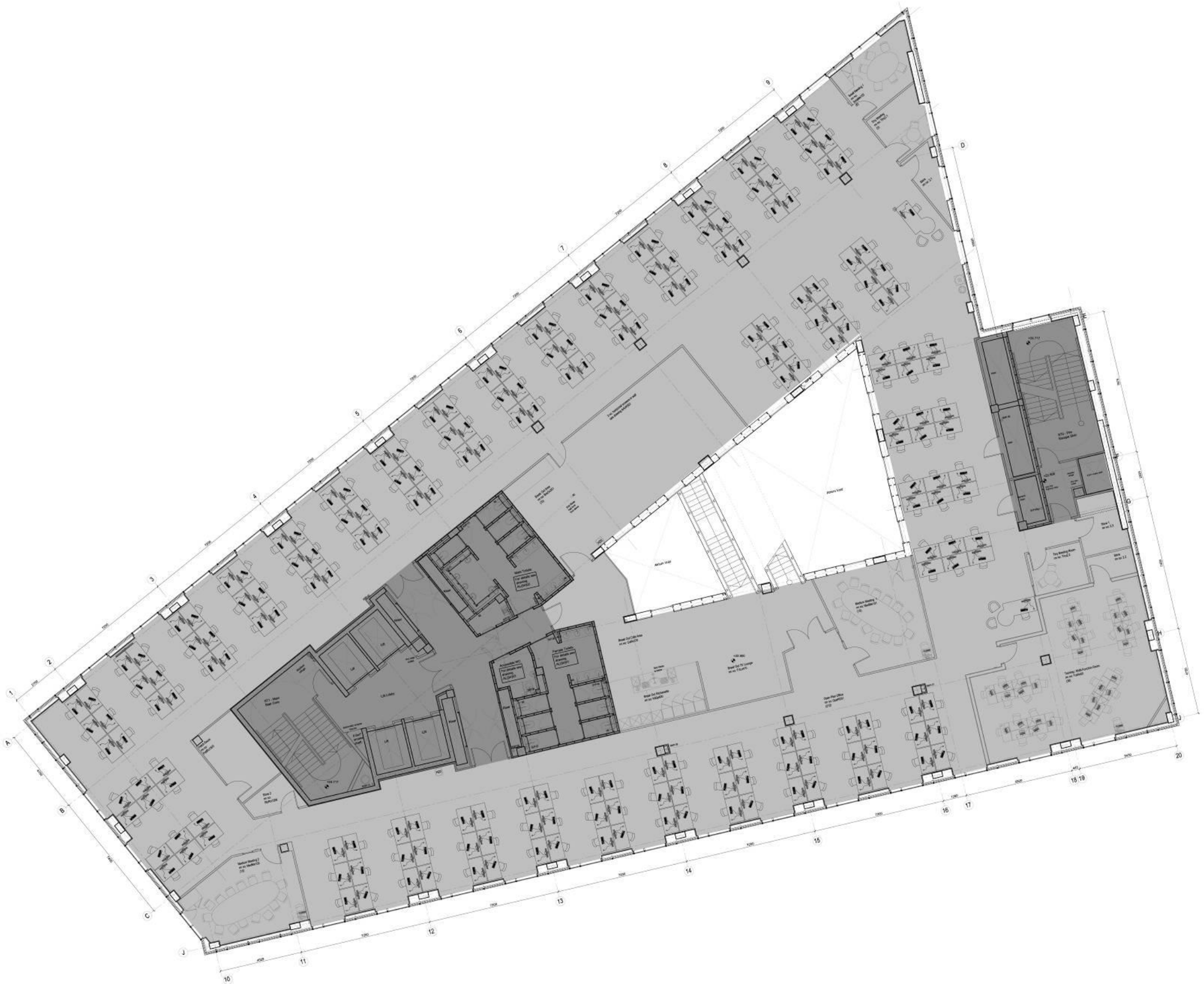
HolderMathias architects

Original Scheme overview – Proposed Office

HolderMathias architects

Original Scheme overview – Proposed Plaza

HolderMathiasarchitects



Typical Floor Plate

HolderMathias architects

Internal view of office atrium

HolderMathias architects

January 2013 – Demolition begins

HolderMathiasarchitects

March 2014 – Nearing completion…

HolderMathiasarchitects

Parametric Design with AireCAD

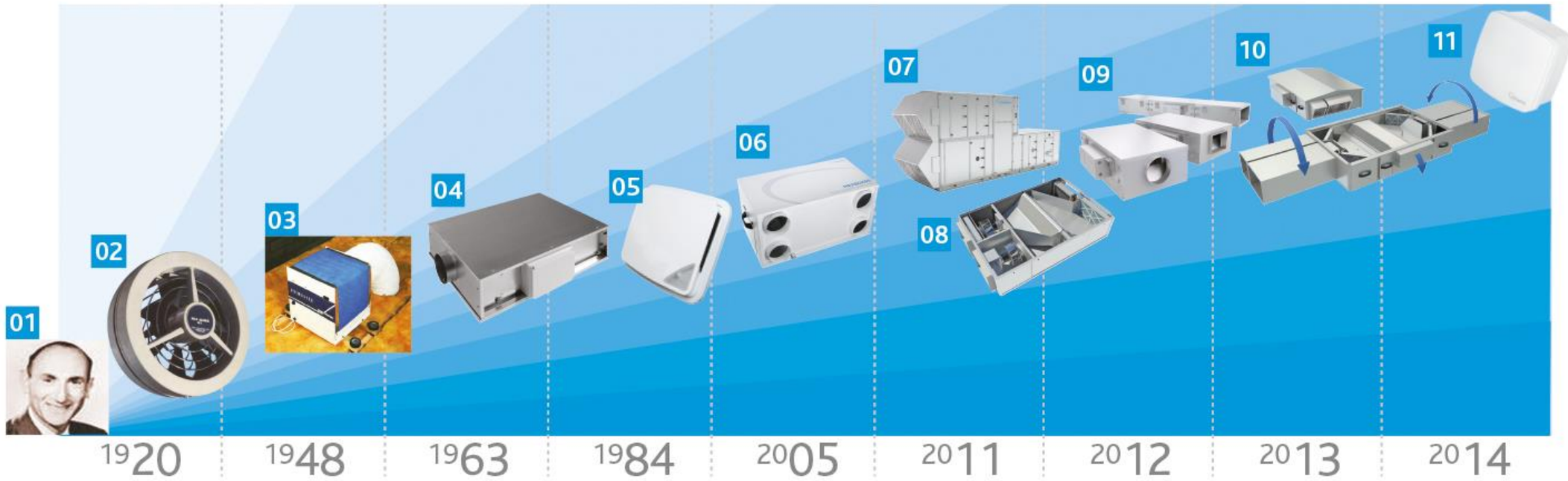
Hywel Boucher
National AHU Technical Engineer – Nuaire Group

NUAIRE FOR THE COMPLETE VENTILATION SOLUTION

Nuaire Leading The Way

DESIGNED & MANUFACTURED IN GREAT BRITAIN

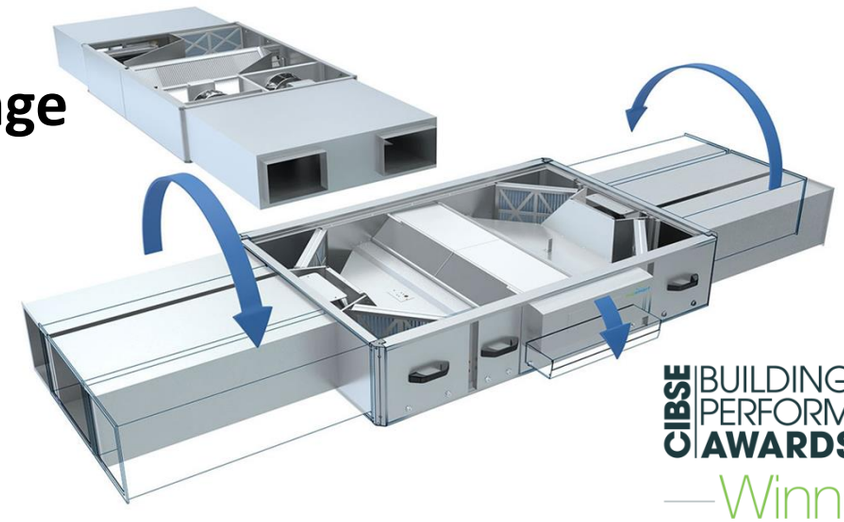
Nuaire's Pedigree in Ventilation



BOXER BESPOKE

ErP COMPLIANT 2015

XBC Range



CIBSE BUILDING PERFORMANCE AWARDS 2014 — Winner —

Targets for the Admiral

Venables Associates
Building Services Engineering Consultants

- Ventilation rate:
  - 16.7 m^3/sec of fresh air *(24 Olympic pools/hour)*
- Heating:
  - -4°C to 22°C *(0.5 MW of heating ~ 8700 lighbulbs)*
- Cooling:
  - 28°C to 16 °C *(450 fridge/freezers)*
- BREEAM *Excellent* Target
  - 75% Efficient recovery device
  - SFP's max of 1.84

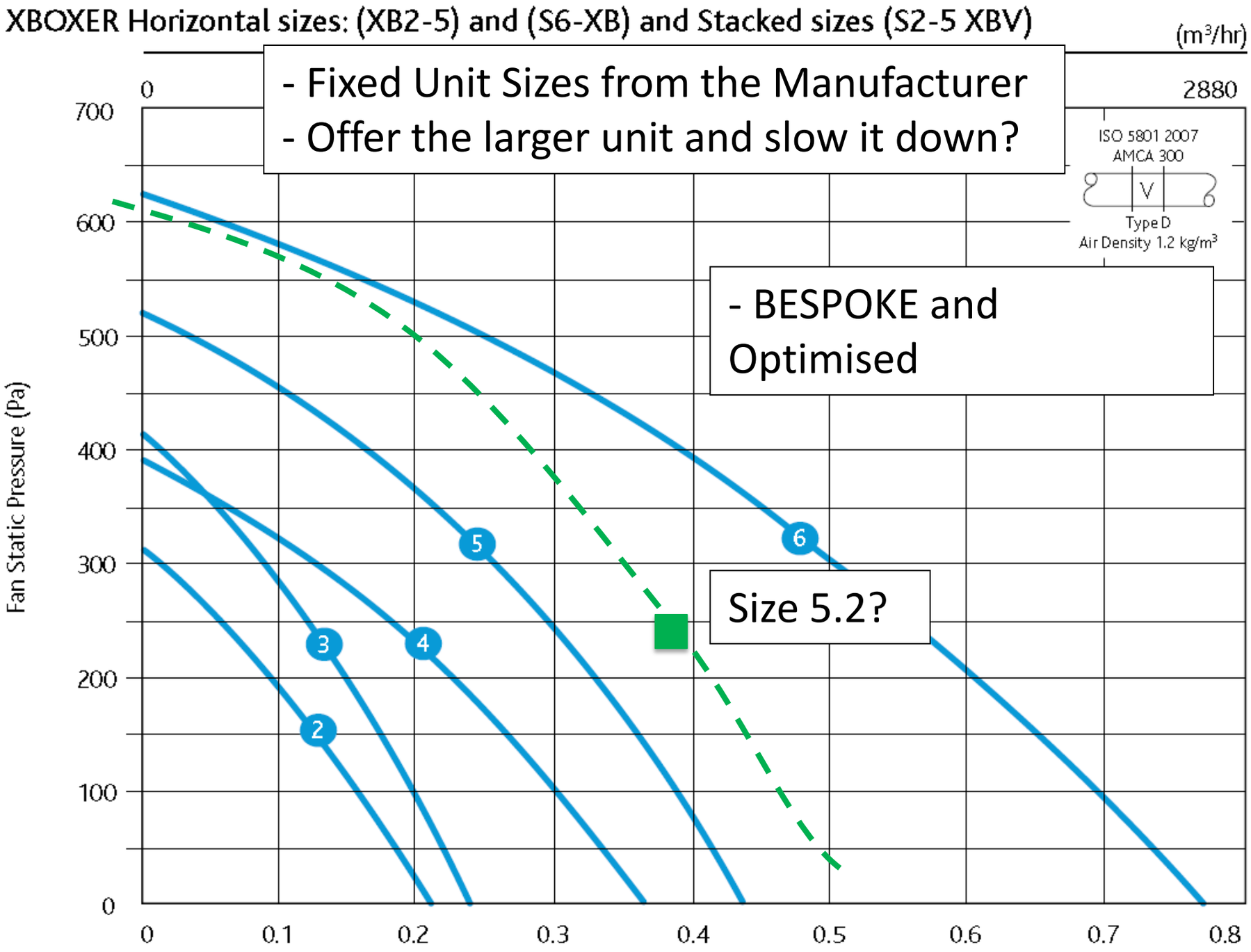
Targets for the Admiral

- Clear information
  - Data sheets to allow proper planning *(pipe sizes etc.)*
- Manageable AHU sections
  - Easily identifiable to streamline build program
- Attenuators:
  - To be included in the unit
- Weatherproof:
  - Coastally protected unit
- Access:
  - Access doors to allow adequate maintenance

Ventilation and BREEAM®

- BREEAM Excellence requires the Ventilation equipment to be:
  - Highest efficiency energy recovery devices
  - Reduced heating and cooling loads
  - The lowest *'Specific Fan Powers' (SFP)* = Running Costs
- But these requirements can conflict in an AHU:
  - Standard sizes are not optimised for every duty point
  - Units end up oversized (and expensive)

The Problem


XBOXER Horizontal sizes: (XB2-5) and (S6-XB) and Stacked sizes (S2-5 XBV)
(m³/hr)
0
2880
- Fixed Unit Sizes from the Manufacturer
- Offer the larger unit and slow it down?
ISO 5801 2007
AMCA 300
Type D
Air Density 1.2 kg/m³
- BESPOKE and Optimised
Size 5.2?
Fan Static Pressure (Pa)
700
600
500
400
300
200
100
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
2
3
4
5
6

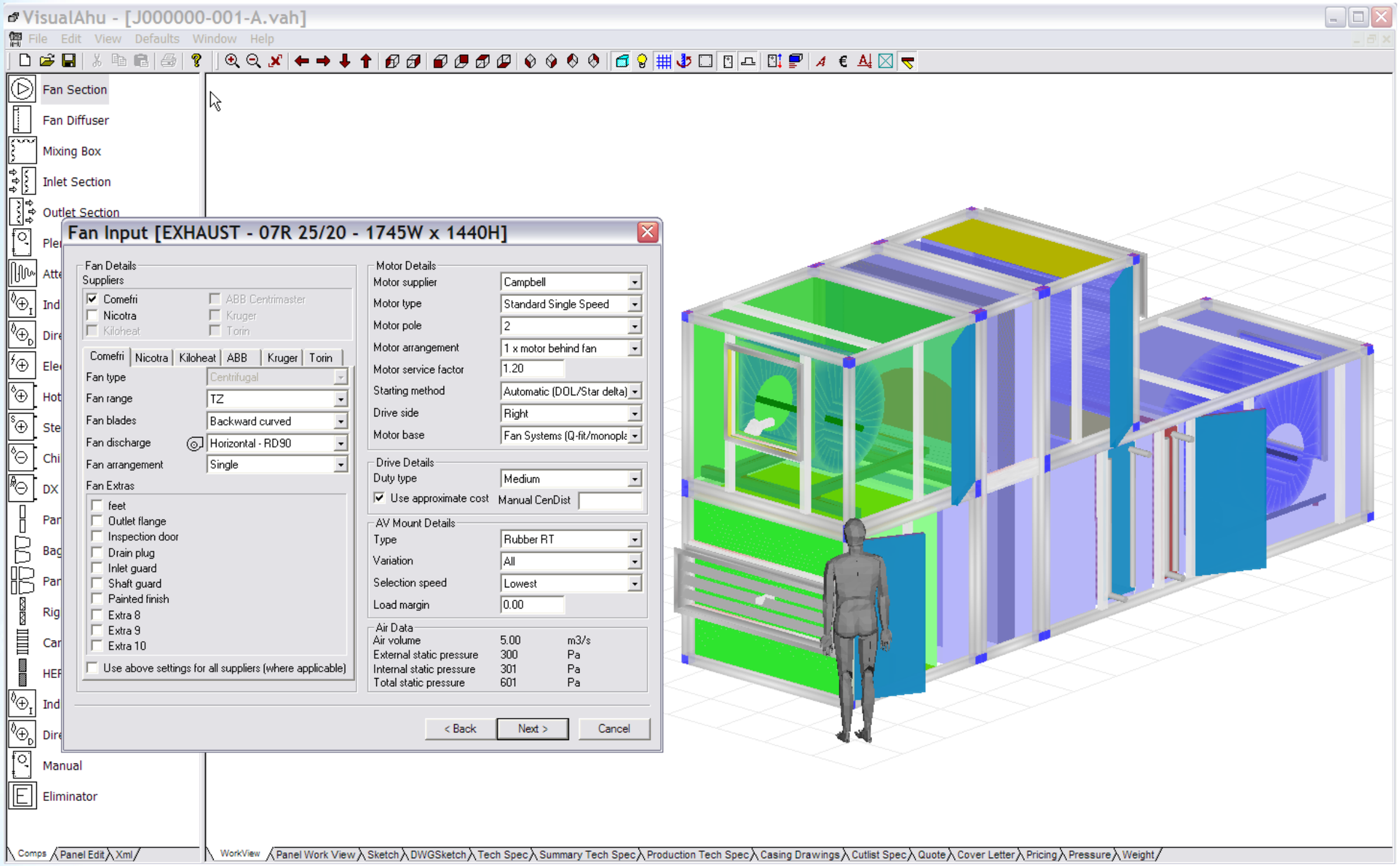
The Solution

aireCAD

Design, selection and technical support

airecad@nuaire.co.uk

The Solution

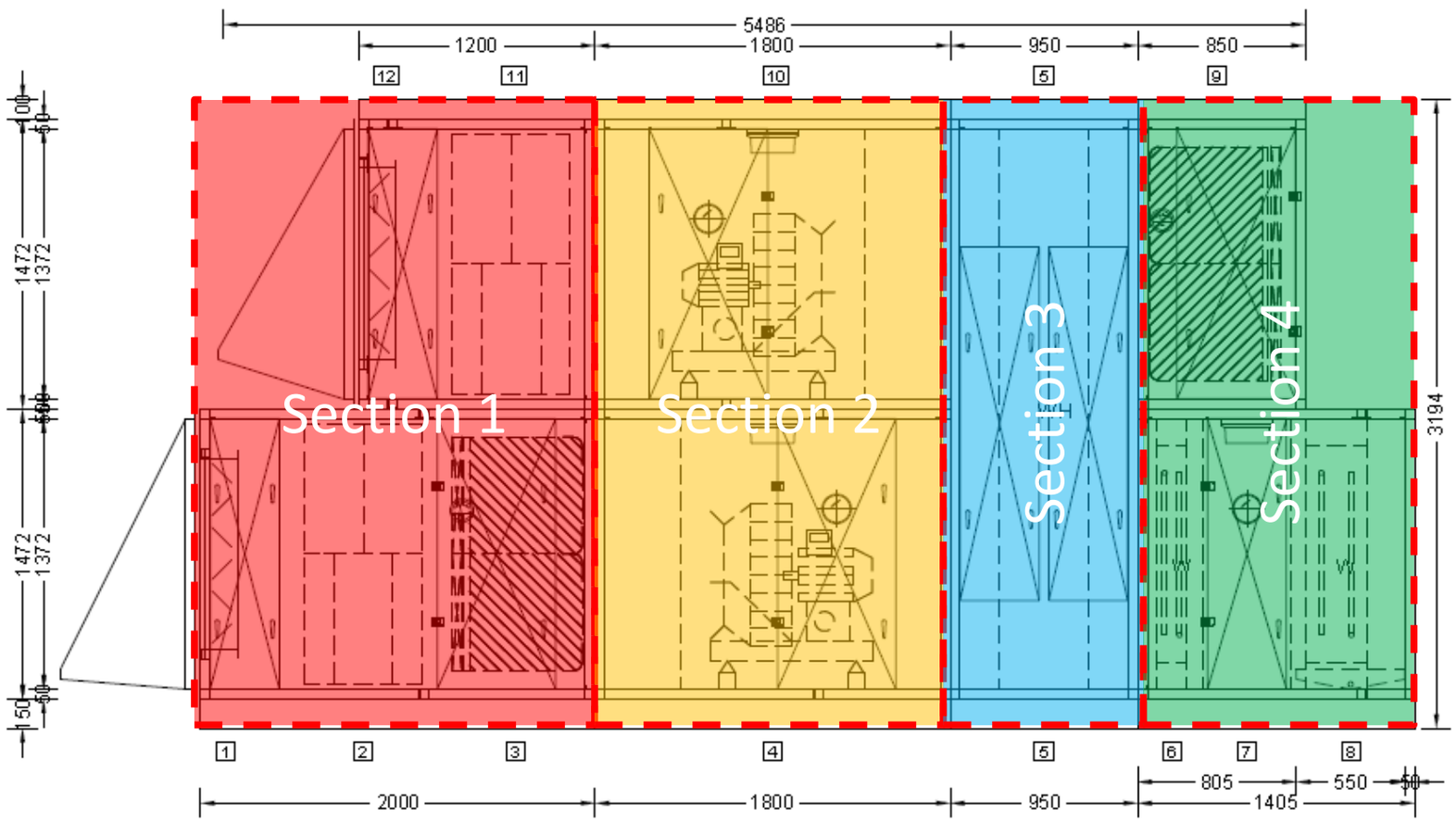


Admiral AHUs - Flexibility

- BESPOKE Selections have allowed our customers:
  - 77% Efficient Sorption Wheel recovering 436kW of energy (heating and cooling)
  - Reduced loads on the Boiler / Chiller plant
- Achieved 1.8W/l/sec by:
  - Selecting custom components with lowest resistance
  - Maximising the unit Area
- All of this achieved with 3 units:
  - 3m x 3m x 7m long

Admiral, Newport

Project: 13/07713 - Admiral Cambrian Centre, Newport Client: Quote No: 1005548



Supply:
- Size: Non-standard
- Airflow: 6.7000 m3/s
- E.S.P.: 350 Pa

Exhaust:
- Size: Non-standard
- Airflow: 6.7000 m3/s
- E.S.P.: 250 Pa
- Unit Wgt: 4604.24 kg

Section Q1005548-01-L/A:

S.No	Module	Length(mm)
1	Inlet Section	425
2	Attenuator	750
3	Panel & Bag Filter	825

Section Q1005548-01-L/B:

S.No	Module	Length(mm)
4	Plenum Fan	1800

Section Q1005548-01-L/C:

S.No	Module	Length(mm)
5	Heat Wheel	950

Section Q1005548-01-L/D:

S.No	Module	Length(mm)
6	LPHW Heater	330
7	Plenum	450
8	CW Coil	625

Section Q1005548-01-L/E:

S.No	Module	Length(mm)
9	Panel & Bag Filter	850

Section Q1005548-01-L/F:

S.No	Module	Length(mm)
10	Plenum Fan	1800

Section Q1005548-01-L/G:

S.No	Module	Length(mm)
11	Attenuator	775
12	Outlet Section	425

ELEVATION

NOTES:
1)Please refer to the Installation & Maintenance manual and the Nuaire website www.nuaire.co.uk for further information.
2)Please note that double deck sections of AHU's will leave Nuaire already assembled where possible.

Nuaire Limited
Western Industrial Estate
Caerphilly CF83 1NA
United Kingdom
www.nuaire.co.uk
(+44) 2920 858 200

AHU No.	1	Quantity	1	This Drawing is property of NUAIRE and should not be reproduced in any form	All dimensions are in mm Do Not Scale	
Unit	Q1005548-01-L			Initial		Date
Location:	AHU South			Selected		
Model	Non-standard / Non-standard			Approved		

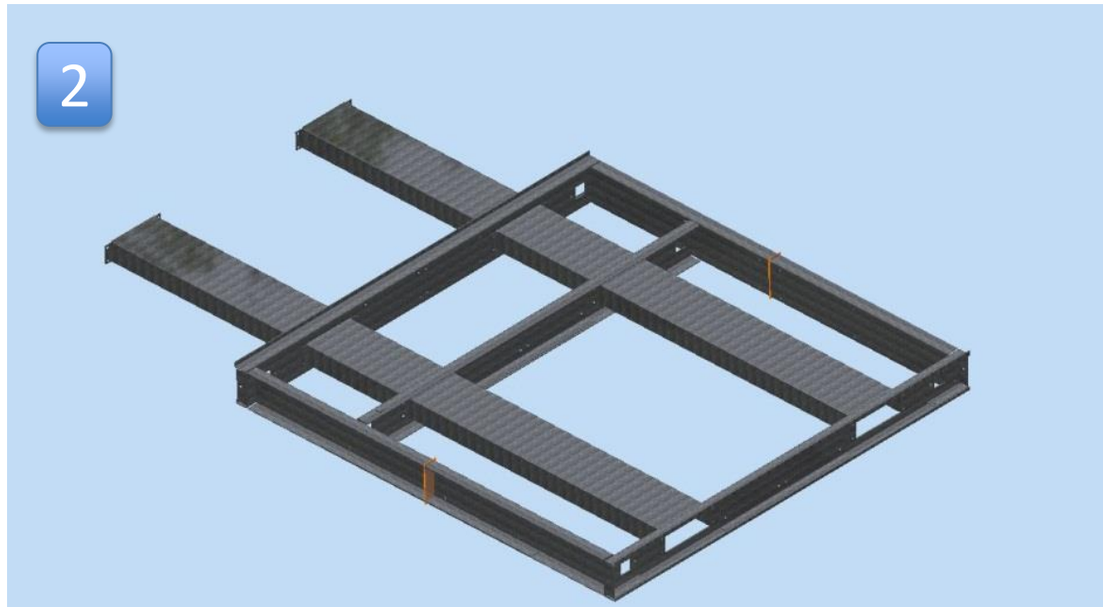
Please Note: This drawing must be signed and returned with the official order for manufacturing to be scheduled. Nuaire will then advise delivery detail with order acknowledgement. Approval refers to CAD drawing only and not any other images.

Arrangement Approval

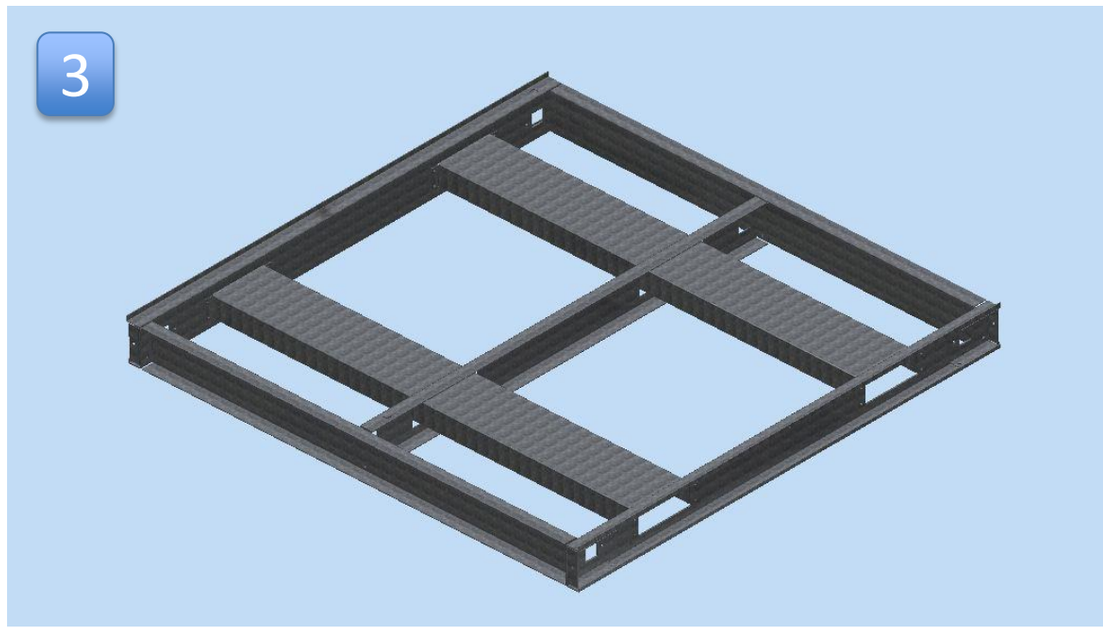
Date: Signature:

Name (please print):

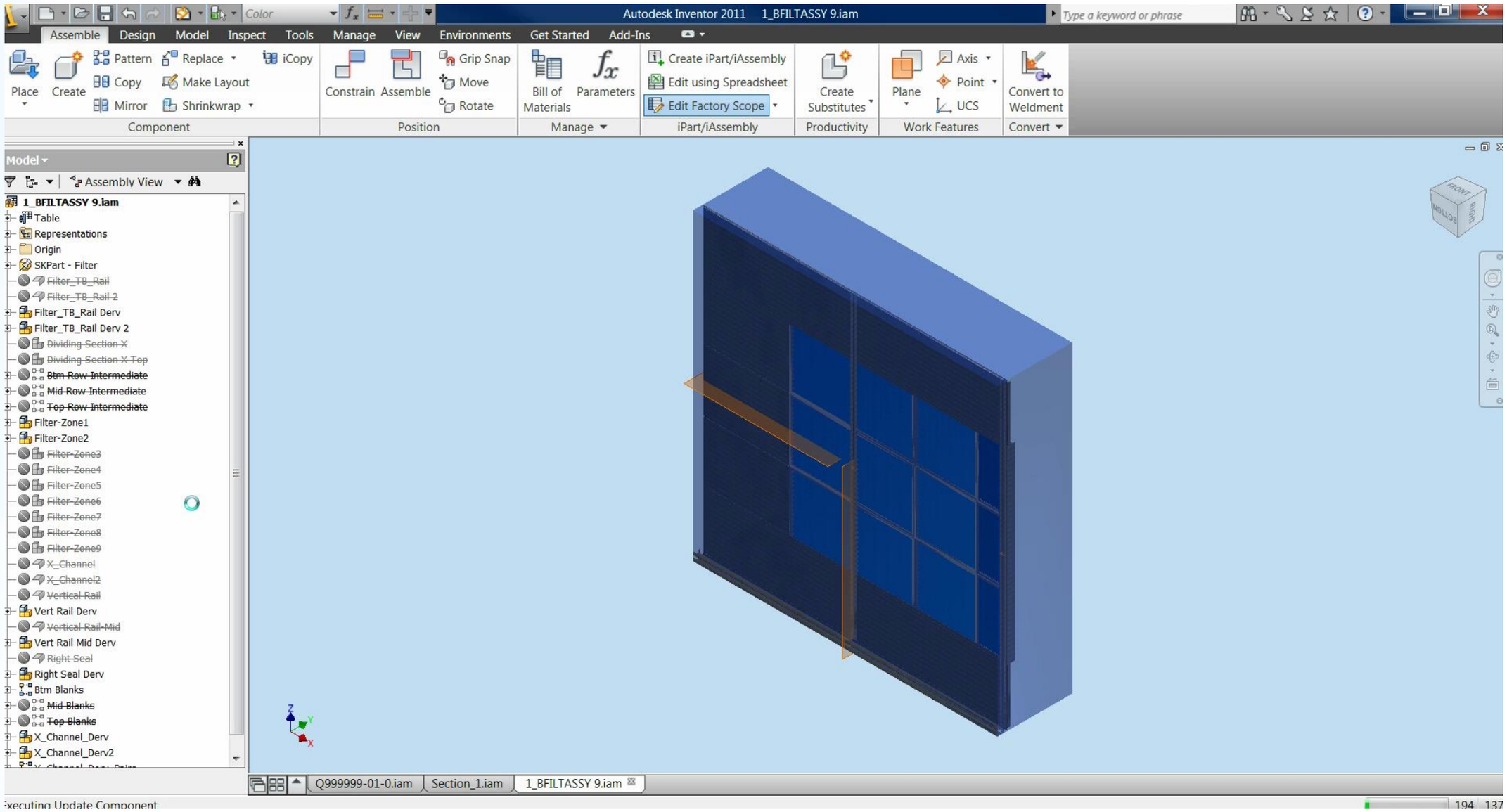
State of the Art - Parametric



Parametric: a single parent part that be automatically altered by changing some of the parameters that describe it. I.e. changing the length of the base from 1m to 2m will allow the base to automatically change its shape to the new dimensions required – without the need for someone to redesign/redraw it.



State of the Art - Parametric



State of the Art - Parametric

Visualise

Automate

Manufacture

Deliver

DESIGNED & MANUFACTURED IN GREAT BRITAIN

Installation is a Breeze

Hurley experienced benefits such as:

- Clearly labelled sections with colour coded corners.
- Alignment devices to prevent the units being installed incorrectly.
- 99.6% on-time delivery record working with the Project Engineers timelines.
- Thinking about Facilities Managers (Admiral) – QR Codes

Conclusion

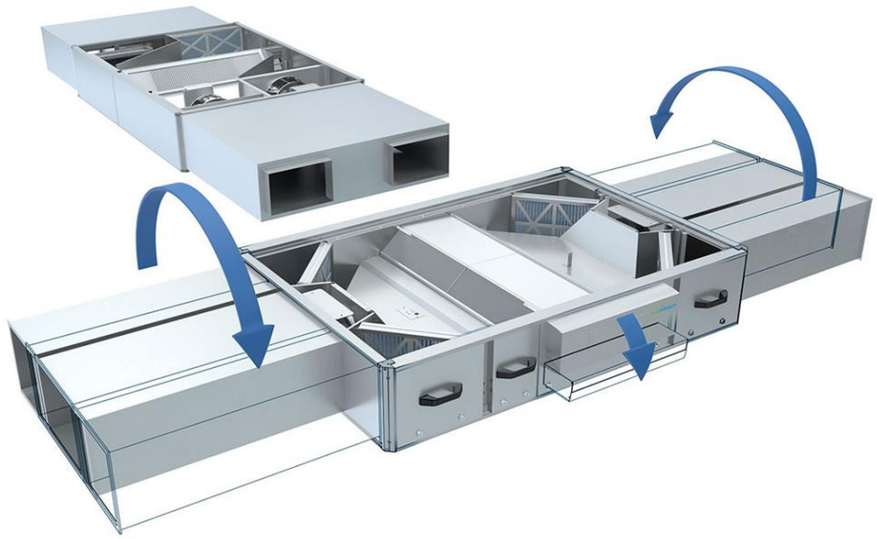
- Nuaire have achieved the BREEAM targets through BESPOKE solutions.
  - Parametric modelling
  - Optimise unit at duty point
- Nuaire have listened to our Customers
  - Consultant: Specification requirements
  - Contractor: Assembly and Site Innovation
- The best solution is when all parties requirements are met……

We have the technology……

And the willingness to help……

Hywel Boucher, AHU Technical Engineer, Nuaire

THANK YOU



Carl Bennett
Construction Manager - SDC

Andy Roberts
Project Design - SDC

Q & A

Followed by

Tour of the Building