aalberts hydronic flow control

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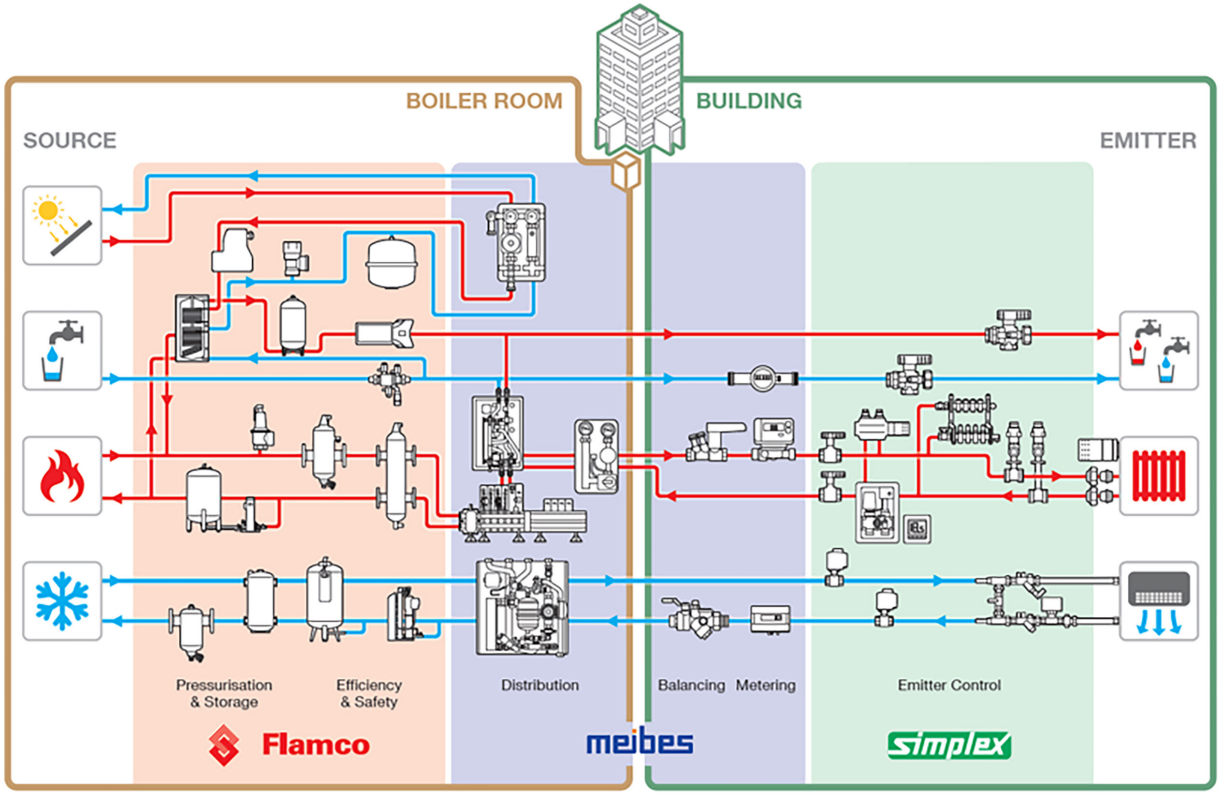
CPD Directory

Aalberts hydronic flow control are a leading manufacturer in hydronic flow control for heating and cooling systems specialising in pressurisation, expansion and distribution equipment.

Aalberts hydronic flow control CPD presentations are designed by industry leading technical experts with our customers questions at the centre of all topics.

We add value to building owners and specifiers by saving energy and improving system performance.

Detailed on the next page is a list of our CPD directory. We have also provided description of each CPD on the following pages.



To book or enquire about CPD's, call **Lisa Donohue** on **01744 744712** or email **Lisa.Donohue@aalberts-hfc.com**

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Contents

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1.1 Sealed system expansion and pressurisation

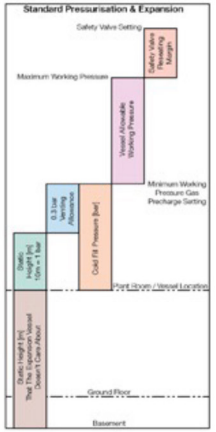
This is our standard CPD for this topic. All the key topics below are covered looking generally at heating and chilled systems. There are also more specialised versions available, which apply these principles to a particular sector.

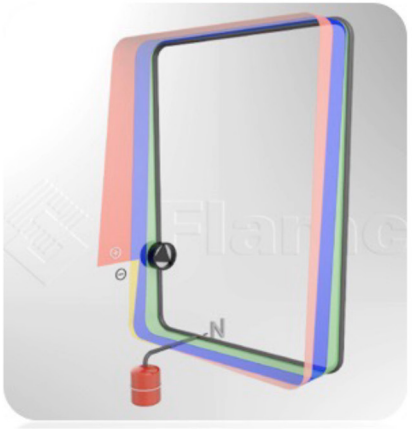
TOPICS COVERED:

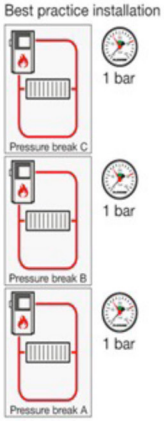
- Traditional gas charge expansion and pressurisation
- A look into how gas charge expansion vessels work to control the expansion of the system. Also, how the sizing of the expansion vessel effects the max working pressure of the system.
- Dynamic pressure maintenance (Spill & Fill)
- A detailed introduction of how dynamic pressure maintenance systems work. A look at the benefits which include reduced footprint size and increased pressure control (+/- 0.2 bar). Also how the degassing function of the Flamcomat works.
- A comparison between the 2 technologies
- A break down of the pro's and cons of each system looking at cost, footprint and pressure control etc.
- A worked example with both expansion technologies

1.2 Sealed system expansion and pressurisation for High-rise Buildings

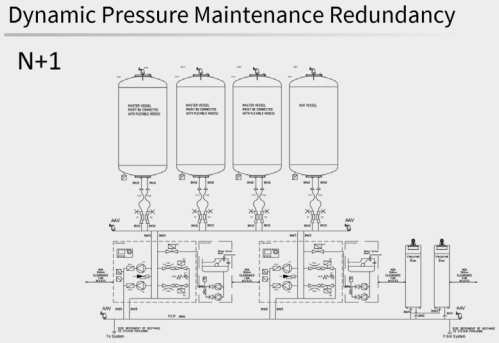
This CPD has a larger emphasis on equipment selection for Highrise buildings. These systems tend to have higher static heights and max working pressures. This CPD looks at the effect of plant room location on equipment sizing. Also, when spill and fill may be a logical solution to keep pressures low and equipment footprints acceptable. All the key topics of the standard CPD are still covered.

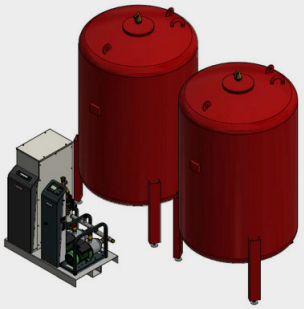






1.3 Sealed system expansion and pressurisation for mission critical systems





This CPD brings a more mission critical view to the standard CPD. It looks at levels of redundancy required in mission critical sectors such as Data Centres, DHN, hospitals etc. Why redundancy is required and what the different levels mean (N, N+1, 2N etc). What happens in the event of equipment failure in each case. All the key topics of the standard CPD are still covered.

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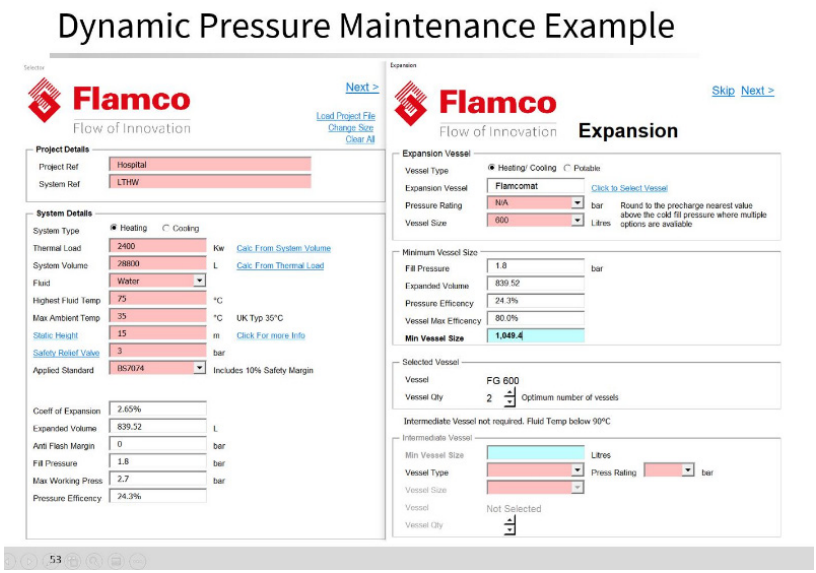
1.4 Sealed system expansion and pressurisation for Healthcare settings

This covers all the topics covered in the standard CPD, with additional information on designing systems for healthcare settings. This includes examples based on selecting equipment for healthcare. Also implications of retrofits and keeping pressures low for potentially old corroded pipework.

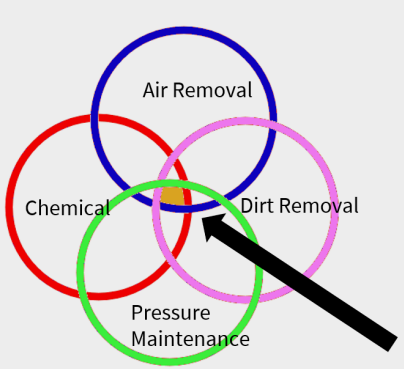


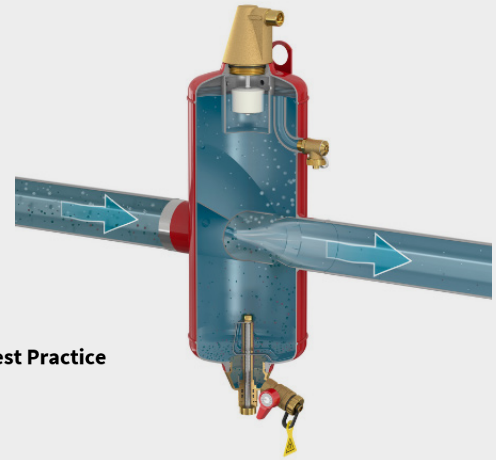
2.1 Air and Dirt separation with Vacuum Degassing

This CPD looks at how to condition a system to minimise corrosion, through air removal and inhibitors. Also removal of any dirt from the system to ensure reliable and efficient performance of the system.

TOPICS COVERED:

- Materials of construction in our plantroom
- Causes of corrosion
- How inline air and dirt separation works
- When to use a vacuum degasser
- Side stream dirt separation
- Inhibitor replenishment





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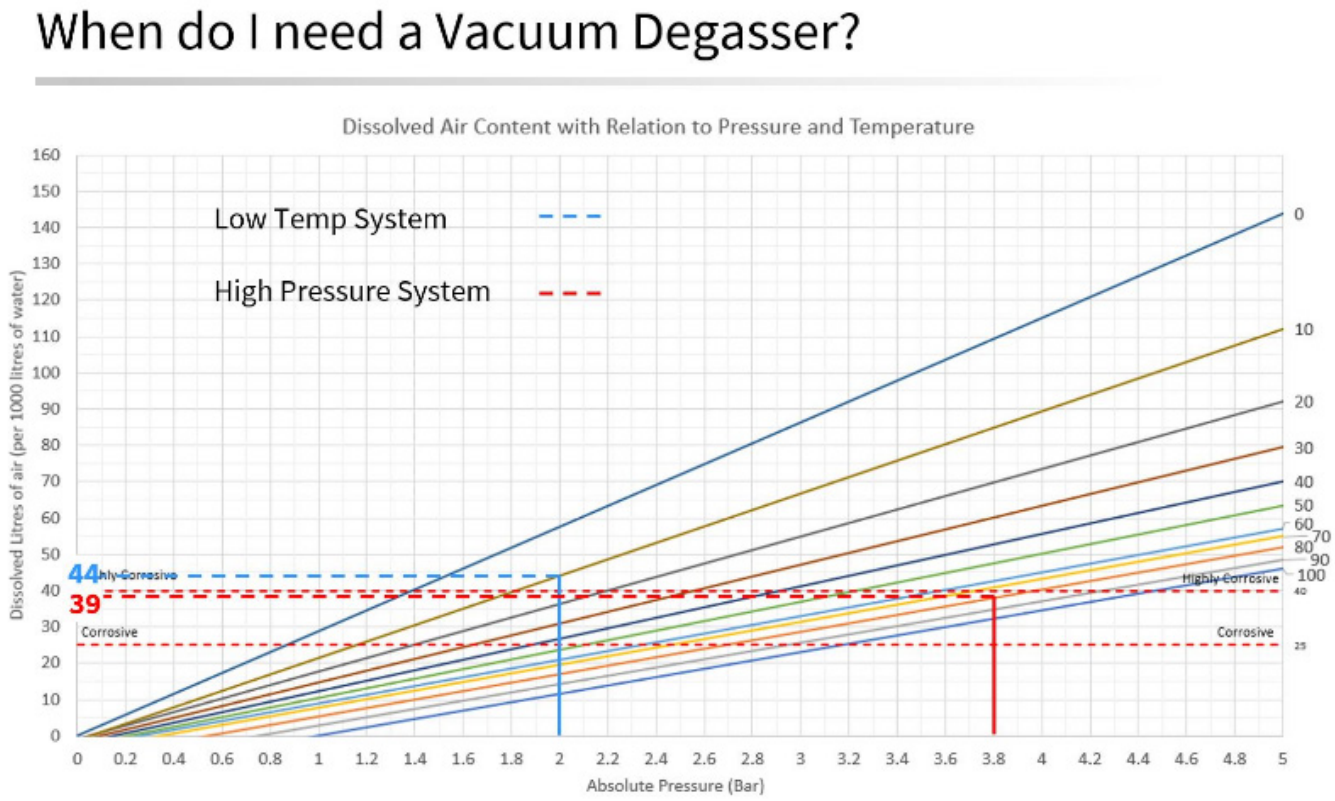
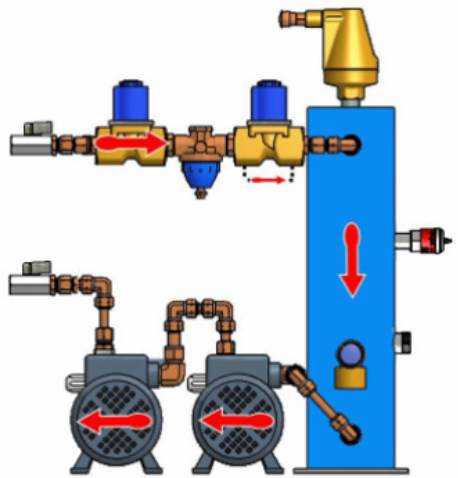
2.2 Air and Dirt separation with Vacuum Degassing for Healthcare settings

Covers the same topics as the standard CPD, with additional information on designing systems for healthcare settings. Retrofit solutions on existing systems to condition old and aging systems, slowing down corrosion and removing dirt from the system.





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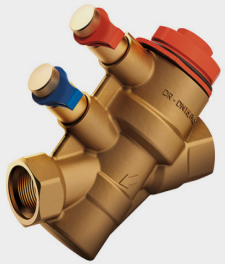
3. Potable water system control

This CPD looks at compliance with standards applicable all sectors including healthcare. This looks at best practice for potable system design, which can also be applied to healthcare applications.

TOPICS COVERED:

- How to handle expansion on a potable water system
- Flow through technologies
- Legionella control (ACOP L8 & HTM04)
- Thermal balancing for efficient system operation
- Pressure control for hot water systems

4. Balancing of water distribution system – Valve selection



This CPD covers the why hydraulic balancing a system is important for efficient operation. It looks at the different valves available and how they can be used to balance a system. Properly balancing a system can lead to large energy and therefore cost savings.

TOPICS COVERED:

- Purpose of balancing a system
- Consequences of an unbalanced system
- Static balancing valves
- Dynamic balancing valves
- Valve authority

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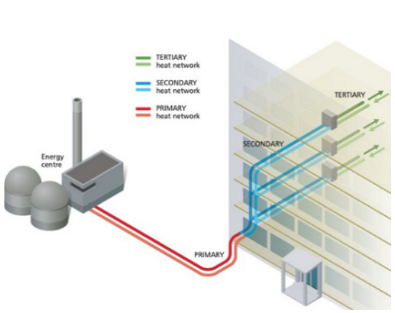
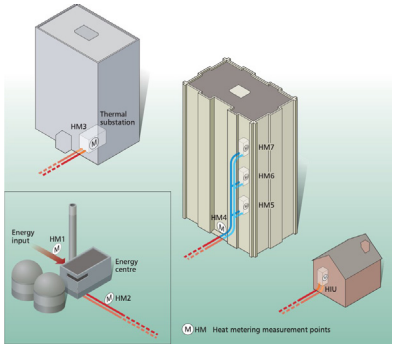
5. Heat Networks Design to meet CP1 2020

Basic considerations when planning or extending a heat network, covering the subjects of temperature mapping, heat sources, thermal stores. Also the theory and practical application of diversity in residential heat networks, including potential design challenges and best practice approaches. A simple example of sizing pipes and heat source in a new build multi occupancy residence.

TOPICS COVERED:

- CP1 2020 compliance and best practice
- Diversity & Pipe Sizing
- Heat Sources
- Minimising Heat losses
- Temperature Schemes



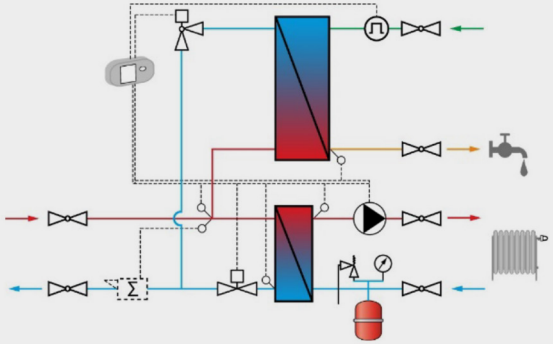


6. Heating and Cooling Interface Units

This CPD covers both HIU and CIU technologies and applicable design approachs. It looks at the key components and sizing of the units. Also the application of diversity in system design.

TOPICS COVERED:

- Brief overview on principles of heat networks
- Awareness and understanding on the different types of system approaches
- Understanding of the different types of HIUs/ CIUs – benefits and considerations
- Sizing of units
- Design considerations



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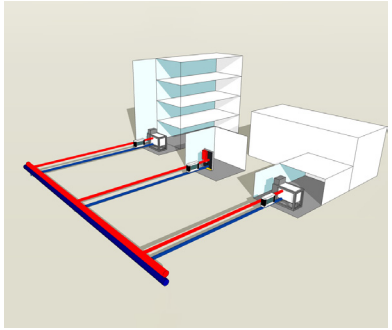
7. Thermal Substation Design to meet CP1 2020

This CPD looks at how to design a thermal substation that will meet the requirements of CP1 (2020). It also looks at efficient PHE design to ensure the system operates as intended.

TOPICS COVERED:

- Best Practice and principles of design in CP1
- Direct and indirect connection to heat network
- Diversification on heat network design
- Commissioning requirements
- How to ensure low return temperatures

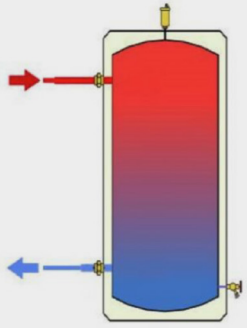


8. Thermal Stores design and application

This CPD looks at the design of thermal stores. It looks the definition of a thermal store and how one can be used to provide additional heat demand in a period of peak load.

TOPICS COVERED:

- Piping arrangements (4/3/2 pipe)
- What is a thermocline?
- Using multiple vessels
- Sizing thermal stores for peak demand
- Additional Features



Thermal layering in heating water
Simple Buffer Tank

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If you see more than one you are interested in, we can combine some of the CPD's alternatively we are happy to cover numerous CPDs over a set number of dates.

Flamco are happy to reimburse costs for food/drink at CPD at event dates.
(Please let us know if this is of interest.)

If you have any questions do not hesitate to contact me.

Lisa Donohue

Digital Account Manager

M 01744 744712
E Lisa.Donohue@aalberts-hfc.com

Click here to book a CPD

United Kingdom
Aalberts hydronic flow control
Washway Lane
St Helens, Merseyside
WA10 6PB
T +44 1744 744 744
F +44 1744 744 700
E info@flamco.co.uk
I www.flamcogroup.com

Head Office
Aalberts hydronic flow control
Fort Blauwkapel 1
1358 DB Almere
Netherland
T +31 30 307 9300
E connect@aalberts.com
I www.aalberts.com

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