
Welcome to The Savoy

Radiators: The Smart Choice

FACT not **FICTION**

John Colling

**Ideal Stelrad Group
Group Marketing Director**

Agenda

- What is BARMA and MARC: A Brief Overview
- MARC Delegates
- Radiators: The Smart Choice
- Radiators: **FACT** not **FICTION**
- Radiators: The External Report Findings
- Summary

What is BARMA?

- BARMA: The Boiler and Radiator Manufacturers' Association
 - 70th anniversary of BARMA, formed in 1941
 - Originally the Cast Iron Heating Boiler and Radiator Manufacturers' Association
 - Second World War foundry capacity rationed by Lord Beaverbrook
 - Delivery lead times of 12-18 months
 - Representing industry interests ever since
 - Current boiler sales in the UK are 1.619m units (BRG Consult)

What is MARC?

- MARC: The Manufacturers Association of Radiators and Convectors
 - Established to give particular voice to radiators and convectors
 - Represents more than 80% of the UK radiator heat emitter market
 - Key issues debated include changes in legislation, European initiatives, market statistics and energy efficiency matters
 - Membership:
 - Rettig Group: *Myson, Purmo, Vogel & Noot*
 - ISG: *Stelrad, Henrad*
 - Quinn: *Quinn Radiators, Merriott*
 - Zehnder Group: *Bisque, Zehnder*
 - Vaillant Group: *Heatline*

MARC Delegates



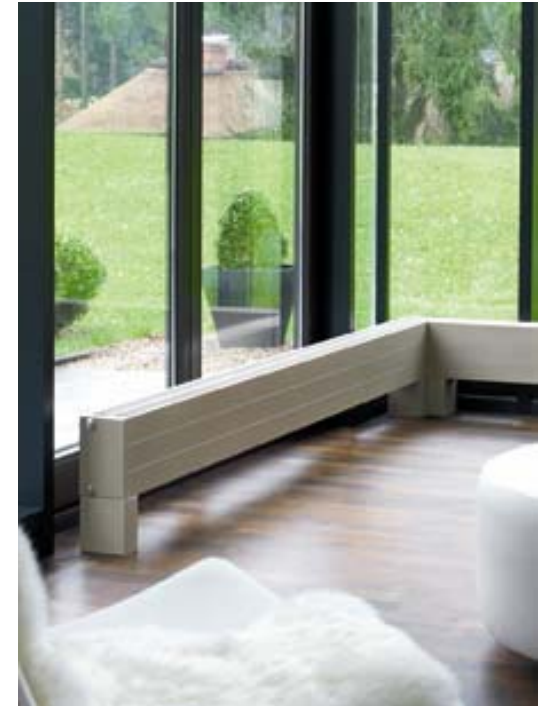
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MARC Delegates

- MARC Delegates Key Data
 - Over 250 years experience in the industry
 - 26 factories
 - 6500 employees
 - Turnover in excess of 1 billion Euros

Radiators: The Smart Choice



Radiators: The Smart Choice



Manufacturers Association of Radiators & Convectors

MARC

Radiators: The Smart Choice

- **FACTS not FICTION:** These facts are not biased as we offer all emitter types
 - 26.3 million homes in the UK, 23.6 million have wet systems
 - Circa 190 million radiators installed in the UK
 - All of which will need to be replaced in the future
 - 70% of the housing stock in 2050 is here today and most properties have radiators
 - Radiators remain the most cost effective solution to heat your home for extensions, refurbishment and new build
 - Radiators remain the 1st choice emitter within the UK new build arena accounting for 90%+ of all installations
 - Radiators are the main heat source of heat emission within 31 out of 32 European countries (BRG Consult)

Radiators: The Smart Choice

- **FACTS** not **FICTION**: These facts are not biased as we offer all emitter types
 - The radiator market within Europe was 27m units in 2010, this is set to grow to 29.5m units by 2014 (BRG Consult)
 - Boilers/Renewables + radiators + controls = tried and tested system efficiency
 - Radiators have evolved and improved.....less steel, more output
 - Decorative radiators can be used as a feature within various settings
 - Radiators can last a lifetime if treated correctly
 - Reports conclusively prove that radiators are effective and efficient with low water temperatures
 - Correct system design and installation remains critical to performance

Martin Wright

**Myson
Sales & Marketing Director**

Introduction

- The efficiency of radiators in water-based heating systems is increasingly questioned by our competitors
- Our business depends upon the very real benefits of radiator-based heating continuing to be recognised by our customers as the first choice, irrespective of the building involved
- Today, when the world struggles to lower energy consumption and CO₂ emissions, energy-effective heating systems with high indoor climate qualities are very much in focus
- The goal of this programme is to provide evidence as to how well radiators fulfil the requirements of modern heating systems
- The programme revolves around facts, not opinions

Background

- Radiator heating has been the subject of great debate in relation to renewable technologies
- Organisations promoting a single product solution can be narrow in their focus.....the best solution is often a multi product approach
- There is a misconception that radiators are energy *inefficient* when used with low water temperatures
- Radiators are efficient, do have a long term future and will continue to dominate the heating emitter markets across Europe

Scientific Cooperation

- Project started by Rettig ICC R&D
- Supported by the following institutions
 - Helsinki University of Technology, Prof. Dr. Jarek Kurnitski, - HUT
 - Technical University Dresden, Prof. Dr. Wolfgang Richter, - TUD
 - Royal Technical Academy of Sweden, Prof. Dr. Sture Holmbeg, - KTH
 - Finnish National Research Center, Prof. Dr. Miimu Airaksinen, - VTT
 - Wärmetechnische Prüfgesellschaft Berlin GmbH, Dr. Martin Konzelmann, - WTP
 - EQUA Building Physics Simulations Finland Ltd., Tech. Lic. Mika Vuolle, - EQUA

Why Use Radiators?

- Radiators and convectors are the best way of introducing energy-efficient generators into existing properties
 - 70%+ of UK market is renovation
 - UFH is unrealistic in most of these projects
 - Disruption
 - Cost
 - UFH is less forgiving of poor insulation levels
 - Skill levels relatively low
 - Radiators are as efficient as other emitters with renewable heat generators
 - Proven technology

Energy Efficiency

- Why are radiators energy efficient?
 - Very responsive to changing temperature requirements due to low water content
 - Heat emitters with high thermal masses are always slower to heat up and cool down
 - Modern control systems prefer fast-acting emitters
 - Individual room control is easily achieved
 - Quicker response to secondary gains e.g. people

Low Temperature Heat Sources

- Radiators work well with low temperature heat sources
 - First step in renovation projects must be to improve insulation levels
 - Reduced heat loads will enable similar sized radiators to meet heating requirements at lower system temperatures
 - Lower system temperatures maximise the energy efficiency of the generator

New Build

- Insulation levels are still determinant
- Radiator systems are the most cost effective
- Radiator systems are equally compatible with all building methods
 - Screeded floors, timber joist floors, engineered joist floors
- Existing skills make installation easy
- Radiators are tolerant of installation errors
- Radiators will continue to dominate this sector

Summary

- MARC members do not represent a single product solution
- Radiators: Quick reaction time, low heat losses, efficient with renewable energies and low water temperatures
- Total energy efficiency of radiator-heated buildings is excellent
- Flexibility is essential, especially in the replacement sector
- Ease and cost of installation is a key consideration
- The current radiator sizes suit future market requirements
- In a low-temperature heating system it is possible to use the same heating water for both radiators and floor heating
- The future will be 'mix and match' with cost a key consideration

Radiators Are The Smart Choice

FACT not **FICTION**