

Hebel

for future living

Future Living

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Issue 2

Welcome to the second edition of Future Living, a quarterly newsletter that will give you the latest news from CSR Hebel, Australia's manufacturer of Autoclaved Aerated Concrete (AAC) products.

The by-line for Hebel – for future living – is certainly apt for the times. Legislation is driving greater thermal and acoustic performance of housing and consumers are demanding greater choice and style options.

Hebel has a natural fit in the building climate of today. Not only does it provide excellent design flexibility, it also provides unparalleled thermal and acoustic performance which makes for a more comfortable home. The concept of the 'Hebel Home' is being talked about more and more and the Hebel team is enthusiastic about exploring ways in which we can bring the benefits of Hebel to modern day living.

We hope you enjoy the read.

Kind regards,



Andrew Rottinger
General Manager
CSR Hebel



CSR

CSR Hebel injects Power into the Panel

Following an extensive review, CSR Hebel has re-named its system names, simplifying the range by reducing the number of sub-brands.

PowerWall is the new brand that applies to all Hebel wall systems - all of which use Hebel PowerPanel as their key component. PowerFloor is the replacement system name for SoundFloor in recognition that the system provides thermal, energy savings and strength benefits as well as acoustics. The SoundFence and SoundBarrier brand names will remain the same due to the specific acoustic properties of those systems.

Traditionally, the system names have been derived by application. However, the new names have been developed to provide a larger focus on segment based solutions, with a secondary focus on the system's application.

For example, a high rise multi residential design guide will be developed highlighting the PowerWall brand for external walls, internal walls, and intertenancy walls rather than simply covering off an individual wall system.

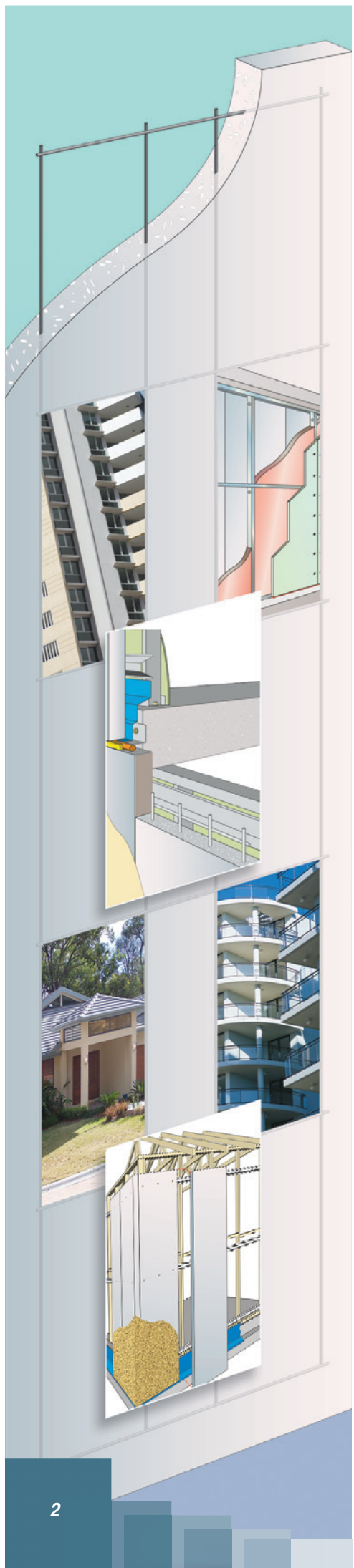
Beginning next year, Hebel will introduce the Hebel Home concept. The consumer focus will be consolidating and giving focus to the current practice, "I'm building a Hebel home".

CSR Hebel Marketing Manager, Paul Mooney says:

"Simplifying our brand hierarchy and focusing on the systems by segment will enable Hebel to develop and increase the awareness of the PowerWall and PowerFloor brands more effectively. We will also increase our consumer awareness in the mass market by driving the Hebel Home concept.

"Hebel is now working on simplifying the design and installation of building structures by integrating our individual systems into one solution. We are maximising the versatility and strength of the Hebel product, removing trades on site and reducing the number of products required to complete the same job."

The systems will be distinguished through colour and design by segment – see new range table below.



Before

	Residential	Low rise	High Rise	Comm/ind	Civil
External Walls	Panel Wall Systems, RWS, Block Wall Systems	RWS / FAACADE	FAACADE	CIWS	
Internal Walls	Block Wall Systems	IWS PartEWall	AWS IWS	-	
Sound containment	?	AWS	?	?	
Home theatre	?				
Flooring	SoundFloor	SoundFloor	-	Floor Panels	
Fencing/Barrier	SoundFence	SoundFence	SoundFence	SoundFence	SoundBarrier

After

	Residential	Low rise	High Rise	Comm/ind	Civil
External Walls	PowerWall™				
Internal Walls					
Sound containment					
Home theatre					
Flooring	PowerFloor™				
Fencing/Barrier	SOUNDFENCE™		ISOUNDBARRIER™		

This new system will be phased in over 12 months

Innovative PowerWall™ revolutionises low rise multi residential Intertenancy walls

Low rise multi residential Intertenancy (Party) walls have presented a major headache to builders due to the fire rating requirements and build ability issues such as inclement weather and step down construction of units.

The CSR Hebel PowerWall solves these issues by providing a solid masonry separation between units that can also become the external wall in exposed situations. At the same time, PowerWall also delivers the important fire, acoustic and thermal requirements in one simple to construct solution.

Hebel PowerPanel combines with CSR Gyprock and CSR Bradford insulation to create the Hebel PowerWall for low rise multi residential Party Walls. The system provides the ideal cost-effective, time-efficient and durable wall system.

Hebel's PowerPanel is made from Autoclaved Aerated Concrete (AAC) and is steel reinforced. It is lightweight yet strong and has excellent thermal, fire and acoustic properties. PowerPanel is environmentally friendly and is widely accepted as a superior building material for use in internal and external walls for multi residential construction.

PowerWall is available as load bearing and non-load bearing intertenancy (party) wall systems. And the systems can be applied as top hat connections for non-discontinuous construction and bracket connections for discontinuous construction, as per the diagrams to the right:

The benefits of the PowerWall include:

- Fire rating: Excellent fire resistance properties providing up to a 90 minute fire rating (90/90/90);
- Solid: Steel reinforcement in each panel makes the concrete strong and solid;
- Speed of construction: Fast installation with smaller crew requirements; and
- Versatile: Can be used as the external wall where two units do not meet up at the roof.

Diagram 1: Top hat connection

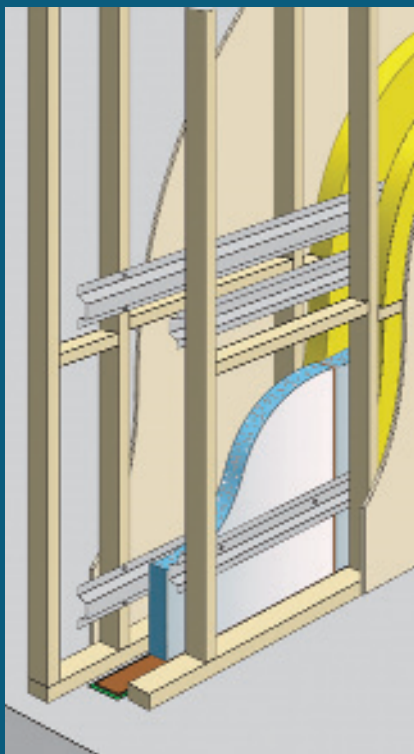
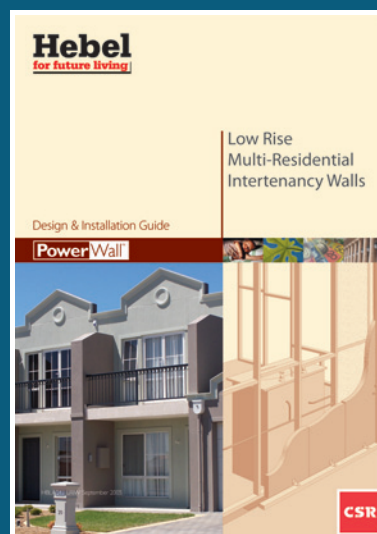


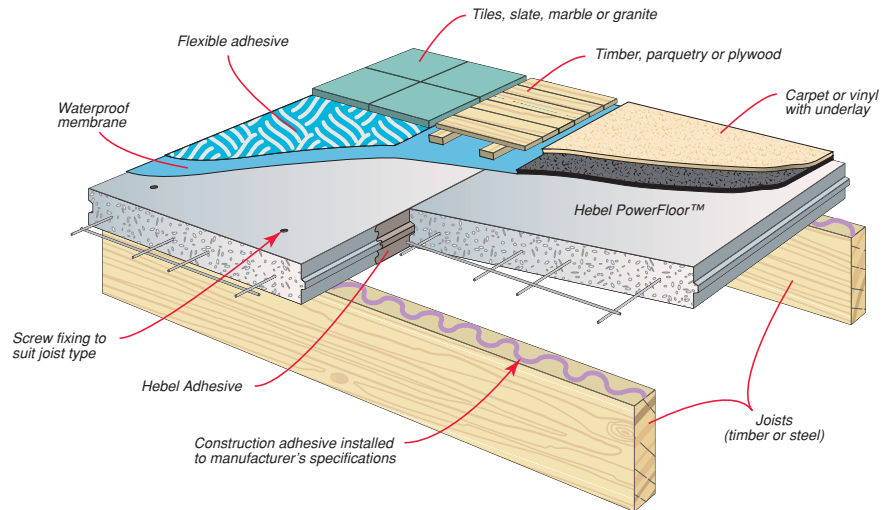
Diagram 2: Bracket connection



Hebel has developed a design and installation guide for intertenancy wall systems in low rise multi residential buildings and a copy can be obtained by calling Tel: 1300 369 448 or by visiting www.hebelaustralia.com.au.



PowerFloor™ helps homes achieve 5 star rating



With the implementation of PowerFloor in houses, 5 Star compliance can be made easier. The use of PowerFloor can help houses increase their rating by one or more stars to help achieve energy efficient homes*.

Timber flooring in an unenclosed suspended floor environment does not comply with the rating system and there is no compliance solution without sub-floor insulation. However, there are problems with sub-floor insulation in that the area under the floor needs to be closed to obtain the benefits of the insulation. This in turn creates moisture problems for the particle board causing it to bow and rot. Therefore, there is no practical solution for timber particle board flooring.

The only answers are concrete slabs, which are expensive, or PowerFloor. PowerFloor works by providing:

- Additional insulation required for unenclosed suspended floors at a rating of R1.0;
- Eliminating the need to enclose the sub-floor;
- Good sealing – all the joints are fully glued to minimise air infiltration;
- Increased durability and stability – not affected by moisture or dampness the way timber flooring is;
- Improved stiffness with PowerFloor acting as a monolithic plate; and
- Eliminating squeaking and popping noises under foot traffic.

CSR Hebel has been working with a 5 star consultant to develop an information pack on how to rate PowerFloor (formerly known as SoundFloor) in the first rate system. Contact CSR Engineering services for details on Tel: 1 300 369 448.

* A recent report by a 5 star consultant found that changing from timber flooring to PowerFloor over an elevated unenclosed subfloor increased the rating by 13 points.

Hebel Re-launches wall systems to commercial and industrial sector

CSR Hebel has introduced a Commercial & Industrial Wall System (CIWS), providing lightweight concrete to the commercial and industrial market. This system is applicable for projects where lightweight construction, high fire rating and site access are important.

Hebel has proven to be a cost effective option for a wide variety of commercial and industrial projects due to its ease and speed of construction. Being lightweight it reduces the sub structure required to support traditional masonry.

The new CIWS offers non load bearing external walls attached to a steel portal frame and provides horizontal and vertical applications.

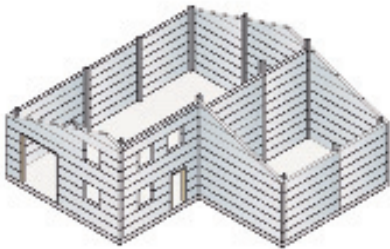


Diagram 1: Column support spacing is $\leq 6\text{M}$, maximum wall height is $\leq 12\text{M}$

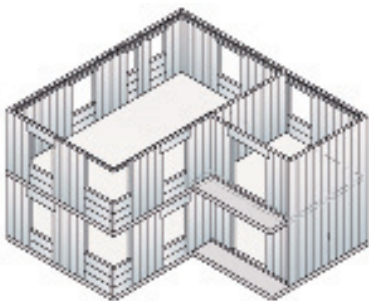
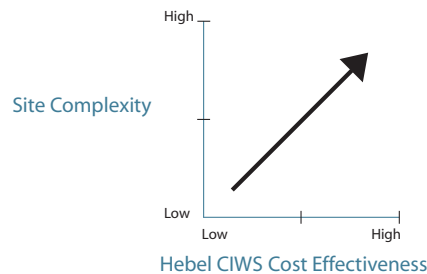


Diagram 2: Column support spacing is $> 6\text{M}$, maximum wall height is $\leq 6\text{M}$

The benefits of the CIWS include:

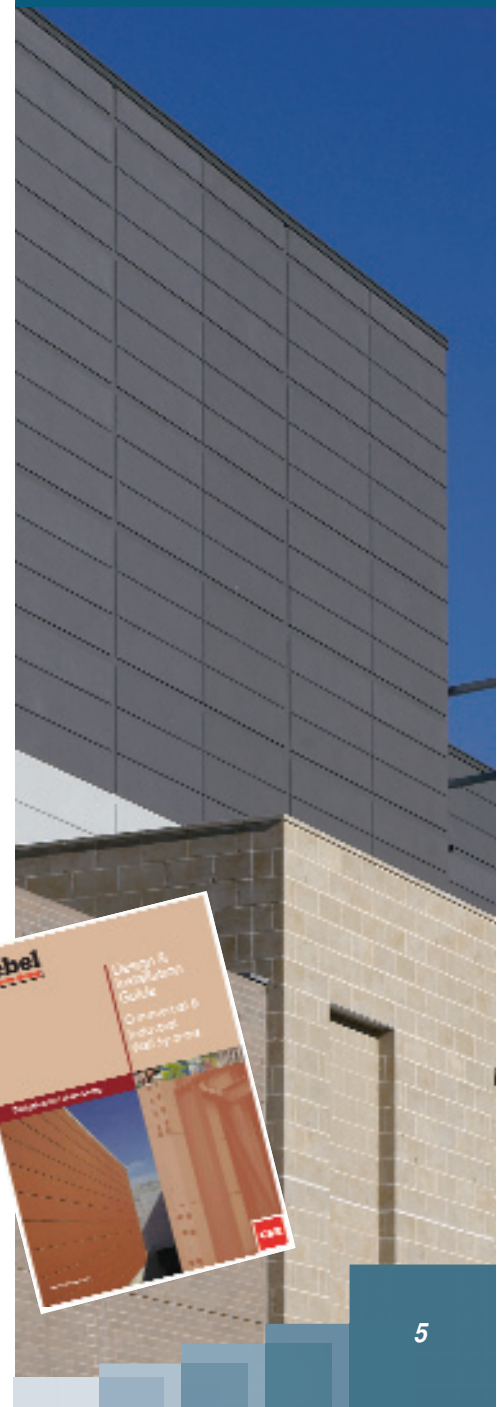
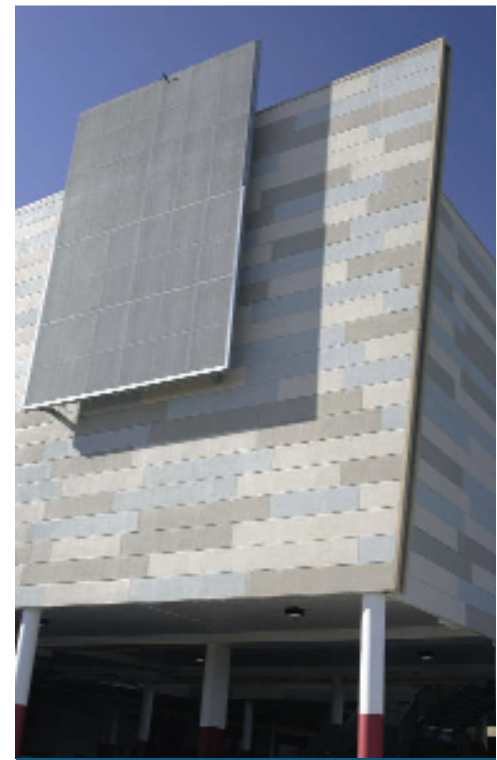
- **Lightweight:** The panels are one quarter of the weight of concrete, requiring no strip footings. This reduces costs on excavation and concrete. Smaller cranes are required and on many sites, fork lifts can be used to move panels around rather than cranes;
- **Fire rating:** Excellent fire resistance properties providing up to a four hour fire rating (240/240/240) for a 125mm panel. Boundary fire rating can be accommodated;
- **Solid:** Steel reinforcement in each panel makes the panel strong and solid;
- **Site access and existing sites:** The more difficult the site access becomes, the more cost effective CIWS becomes. Existing structures can not easily be excavated to accommodate strip footings and does not provide the space necessary for large heavy weight concrete panels;



- **Speed of construction:** Fast installation with smaller crew requirements and reliable product availability; and
- **Design flexibility:** Panels can be easily cut and routed to suit creative requirements and provide excellent flexibility for intricate corners, angles and shapes for modern design.

Completed projects using the CIWS include: Westfield East Gardens, Westpoint Blacktown, Cockle Bay Wharf – Darling Harbour, and DFO Homebush.

Hebel has developed a design and installation guide for CIWS and a copy can be obtained by calling Tel: 1300 369 448 or by visiting www.hebelaustralia.com.au



Contact Hebel on 1300 369 448 for more information on the CIWS seminars and to confirm your attendance in VIC - Nov 8, NSW - Nov 16, QLD - Nov 17.

Keeping things quiet on the home front with Hebel SoundFence™

CSR Hebel has introduced Hebel SoundFence, a versatile residential fencing system which provides an excellent noise barrier for homes.

SoundFence is the residential cousin of SoundBarrier, a system used extensively adjacent to motorways and rail corridors to reduce noise transfer.

SoundFence consists of 2M long 75mm thick Hebel panels, which are horizontally placed between or attached directly to the face of steel posts anchored on concrete foundations.

Decorative post and capping treatments are available to enhance the design, and the panels can be teamed with other fencing materials such as timber pickets and slats or wrought iron to achieve individual designs.

SoundFence can be finished with a simple acrylic paint system or rendered with Hebel HighBuild or Hebel SkimCoat followed by an acrylic texturing coating system to provide a monolithic appearance.



Introducing BRAACE™, a Hebel panel retaining wall system

BRAACE is a new retaining wall system which has been developed by a major Hebel customer Trade West – famous for installing Hebel's SoundBarrier system around NSW. It was developed to offer a cost-effective and durable masonry retaining wall system for a wide variety of residential and commercial applications.

With some councils now having concerns about treated timber retaining walls (CCA leaking into the ground, longevity due to shrinkage and cracking) the BRAACE system provides an environmentally friendly alternative that will stand the test of time.

CSR Hebel lightweight panels are used as the façade to galvanised steel post and mesh structures. Within current design parameters, the wall can be constructed in 300mm increments, up to 1,800mm high. The system also allows the flexibility of the carriage of surcharge loads. In addition, boundary fencing, walls and sound barriers can be built into the system.

Benefits of the BRAACE system include:

- **Versatility and style:** Hebel panels provide the perfect substrate for a range of finishes. You can choose from a simple acrylic paint treatment to a variety of texture finished, or decorative approaches using skim coats and renders;
- **Quick to install:** The solid yet lightweight BRAACE system makes it easy and fast to install, without the need for mechanical lifting equipment. 40 metres of wall can be erected in just two days;
- **Reduced site works:** Unlike other retaining wall systems, the streamlined design of the BRAACE system requires access of as little as one metre to facilitate construction; and
- **Fire and pest resistance:** Hebel panels have a four hour fire resistance rating and will not ignite. The panels are not a food source for termites and because they are solid, will not harbour other pests.

For your copy of the BRAACE brochure, please contact Hebel on Tel: 1300 369 448 or by visiting www.hebelaustralia.com.au.



Improved EnviroSeal™ range makes choosing sarking and wall wraps easy



CSR Bradford Insulation has improved the specifications and quality of its EnviroSeal range, making choosing and installing sarking and wall wraps easy. Using EnviroSeal in conjunction with CSR Hebel and CSR Bradford Insulation means that high quality products are combined to ensure durability and longevity of a building.

"Changes were made to the EnviroSeal range to improve the quality and strength while retaining the great value of the products," said Ashley Whitter, Market Segment Manager - Residential, CSR Bradford Insulation.

"The revised range consists of six products, designed to provide optimum performance and to make it easier to get the best result for both residential and commercial buildings."

During construction, EnviroSeal will help wrap and protect the building so work can continue on schedule with minimum disruption in wet weather. EnviroSeal protects buildings, providing condensation control, dust barrier, bushfire protection, and storm protection.

All EnviroSeal products are manufactured to quality assured standards and come in a range of sizes to suit your individual project requirements. CSR Bradford's colour coded range of EnviroSeal wall and roof foils include the following products:

- **Wall Wrap** – is a super tough, light duty wall wrap for use in brick veneer exterior walls. It is exceptionally tear resistant and light, allowing for easy installation and handling on site;
- **Wall Breather** – is a micro-perforated version of Wall Wrap for use under lightweight cladding such as weatherboard and fibre cement;
- **RoofTile** – is an economical heavy duty foil for use as a sarking under roof tiles suitable for use in bushfire prone areas;
- **RoofTile Plus** – is a heavy duty foil specifically designed for use as sarking under roofing tiles. Its extra weight and stiffness make for easy installation. It provides superior protection and can be used in cyclone areas. Its fire resistance makes it suitable for use in bushfire prone areas where sarking is mandatory;
- **RoofTile Safety** – is the ultimate sarking material. Its extra heavy-duty construction allows it to meet the fall protection criteria of AS/NZS4040.4 (modified) and provides the highest level of weather protection including resistance to hail. It can also be used in spans up to 600mm without the need for safety mesh; and
- **Roof Metal** – is a light weight foil designed to provide thermal insulation and additional weather protection under metal deck roofs. It is also suitable for use as an economical wall wrap.



Hebel

for future living



Designing for future living

CSR Hebel is a quality building product, and is backed by CSR Building Products Limited. Further details on engineering and building with Hebel systems are available in the CSR Hebel Design Guides and Technical Manual. To obtain a copy, or further sales or technical assistance, please visit our website or contact our help line:

CSR Hebel Website:

www.hebelaustralia.com.au

For sales enquiries or further information, please telephone us from anywhere in Australia: 1300 369 448

Hebel participates in the international AAC conference

Hebel recently presented a paper at the 4th International Conference on Autoclaved Aerated Concrete (AAC), which was held at Kingston University in London during September. The focus of the conference was on innovations and developments in AAC, which was particularly relevant given the last international conference was held more than 10 years ago.

CSR Hebel presented a paper titled 'A fundamental investigation of the composite behaviour of a AAC panel and timber joist floor system', which was prepared by Kevin Graham, KI Crew and SA Bolden. The paper was well received with the UK National Housing Board keen to develop further testing in this area as a joint initiative with CSR. 180 delegates from 23 countries attended the conference and 64 papers were presented across six major themes including:

- Raw Materials & Production;
- Product Properties & Performance;
- Codes, Standards & Regulations;
- Design & Performance;
- Developments In Construction Techniques; and
- Environment & Building Performance Aspects.

The conference also enabled Hebel to establish contacts with other AAC manufacturers and technology suppliers, providing an opportunity to enhance the benchmarking initiatives.

It was interesting to hear that most countries in the world were largely producing and selling blocks with the exception of Japan (and of course Australia), which is almost totally a panel market.

The use of flyash as a substitute for sand was also a popular topic and seems to be gaining ground as a means to further promote the AAC environmentally friendly tag-line.

At the end of the conference, the delegates were unanimous in agreeing that the conference was a huge success and mooted that the next AAC International Conference should be held in two to three years' time rather than waiting another 10 years.

Thanks to Ron Pickering, General Manager – AAC Malaysia, who attended the conference for providing Hebel and the industry with this report.

Kennards Lift & Shift

CSR Hebel equipment is now available for hire at Kennards Lift and Shift. Equipment including: PowerPanel trolleys, Block cages, and horizontal floor panel lifters can be hired from Kennards to facilitate the installation of Hebel materials in building projects. For a free catalogue go to www.liftandshift.com.au.

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