

An innovative, versatile fencing system



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**CSR**

# Why PowerFence?



Hebel™ PowerFence™ is an extremely versatile fence system made from Hebel Autoclaved Aerated Concrete (AAC) that provides an effective noise barrier for residential and commercial applications.

Perfect for boundary fencing as well as low front walls, Hebel PowerFence provides a modular masonry structure using lightweight panels and steel posts which can be easily and quickly erected without the need for extensive excavation or strip footings as is the case for traditional masonry wall construction.

Hebel PowerFence is the residential cousin of Hebel SoundBarrier, an acoustic barrier system with a proven track record in noise reduction used extensively adjacent to motorways and rail corridors.

Hebel PowerFence provides homeowners with substantial benefits:

- Simple, cost effective, reflective noise barrier system
- Perfect for boundary fencing and as an alternative to standard masonry for low front fences
- Helps keep the outside world out and your home and outdoor living areas peaceful and quiet, day and night
- Range of wall profiles and looks giving you design freedom and flexibility
- Fire resistant

There are two standard PowerFence systems – Exposed and Monolithic and panels can be routed to add a stylish, finishing touch. The standard PowerFence system can also be adapted to include a range of different decorative treatments such as timber panels or ironwork.

## System Components

The primary component of the standard PowerFence system is the 75mm thick steel-reinforced panels that are manufactured from Hebel AAC.

These PowerFence 75 panels are 600mm wide and come in a standard length of 2 metres. They feature a 5mm bevel to each long edge of the panel that provides definition to the fence surface.

PowerFence posts are 75mm box section steel with flanges and are supplied in a standard 2.5m length to suit a 1.8m high fence.

CSR Cemintel™ compressed fibre cement sheets are used as vertical capping for the posts and a combination of Hebel Blocks and 76mm steel U-track is used as a top capping.

The panels are installed horizontally to purpose designed, galvanized steel posts that are anchored into concrete footings.

Construction of Hebel PowerFence can be achieved with standard tools and fasteners. Accessories are available from your local Hebel distributor.

# Standard PowerFence Systems



## Monolithic – for a streamlined uniform look.

- Panels are glued together with Hebel adhesive which is applied to the edge of the panel
- The top of the fence is capped with Hebel blocks
- Capping blocks can be cut to size using a handsaw. Blocks are laid end to end and must be glued together using Hebel Adhesive or a suitable construction adhesive
- Front and rear of posts are concealed by CSR Cemintel compressed fibre cement sheets of 24mm thickness



## Expressed – where the panel joints are accentuated.

- Panels do not require gluing
- The top of the fence is capped using a 76mm galvanized steel U track
- Hebel blocks may be cut and placed on top of each post for further detail
- Front and rear of posts are concealed by CSR Cemintel compressed fibre cement sheets of 15mm thickness

### Finishing options

Finishing options include simple acrylic paint treatments or render and texture coatings giving you the design freedom to create your own unique style. Hebel PowerFence is built to last and look good year after year with minimal upkeep and maintenance. Hebel PowerFence is solid, strong, won't rot and is not a food source for termites.

Regardless of what style of home you own, be it traditional, modern or anything in between, Hebel PowerFence is the perfect alternative for you.



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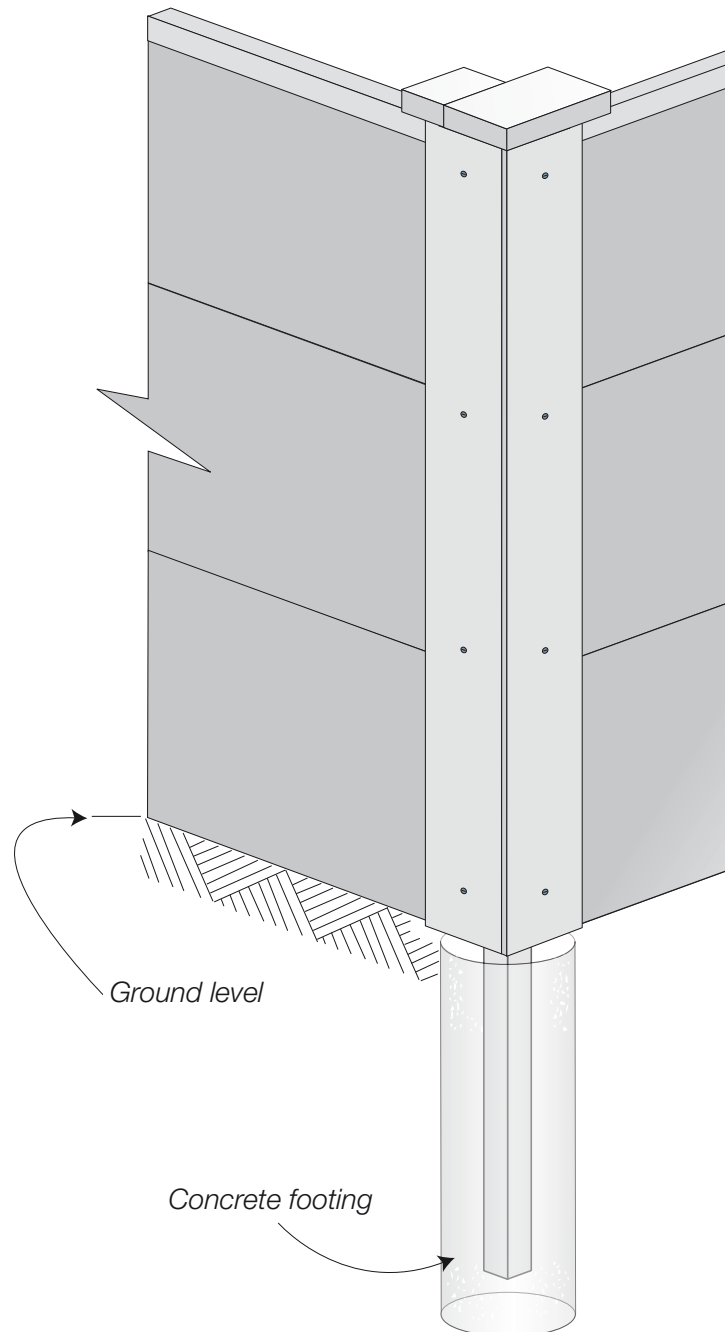
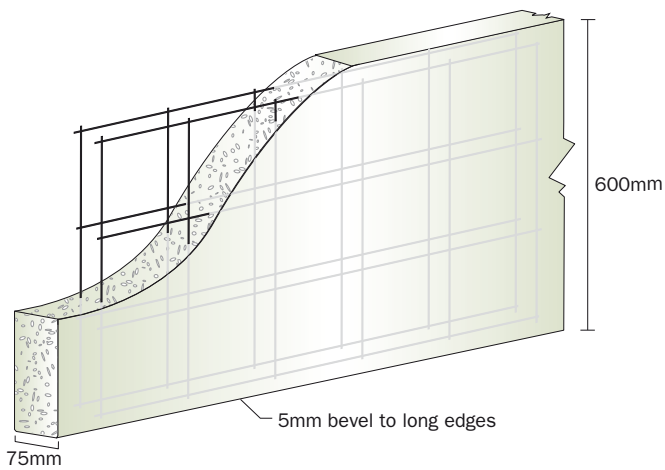
Hebel has earned the prestigious, internationally recognized 'Good Environmental Choice – Australia' label.

The endorsement is designed as a guide to consumers who want to choose environmentally friendly products. Hebel demonstrates a reduced environmental load of at least 30% in energy use in comparison to like products. To be able to qualify for this endorsement, a product must satisfy stringent requirements and CSR Hebel is proud to have been awarded the right to display the label.

# Hebel PowerFence

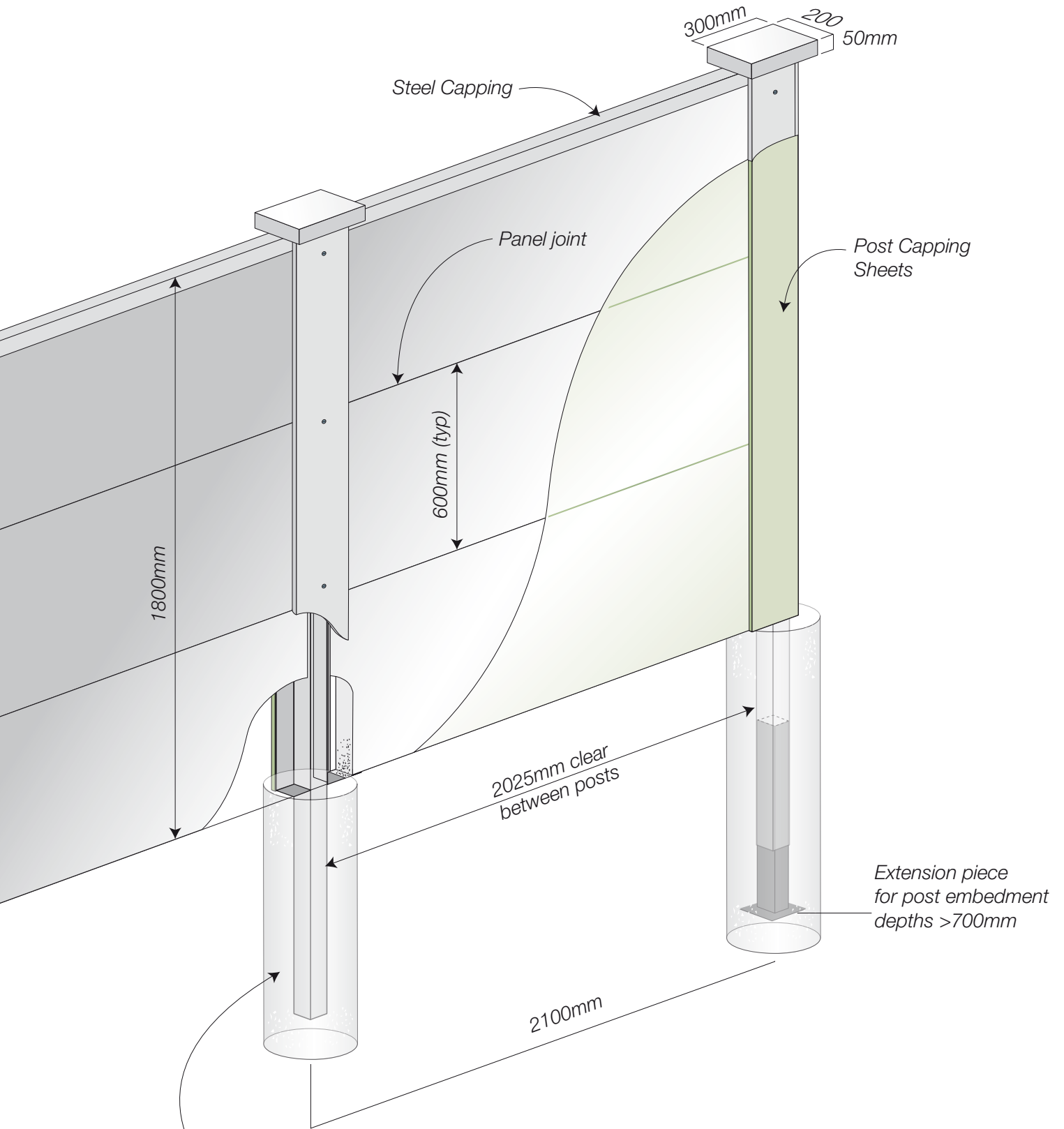
## What is a Hebel PowerFence Panel?

CSR Hebel products are made from a non-toxic, lightweight masonry called Autoclaved Aerated Concrete (AAC). The advanced process produces extremely small, finely dispersed air pockets within the material. This results in a lightweight aerated concrete panel which is about a quarter the weight of conventional masonry. Steel reinforcing is placed within the panels during production to provide a strong and robust construction panel ready for installation.



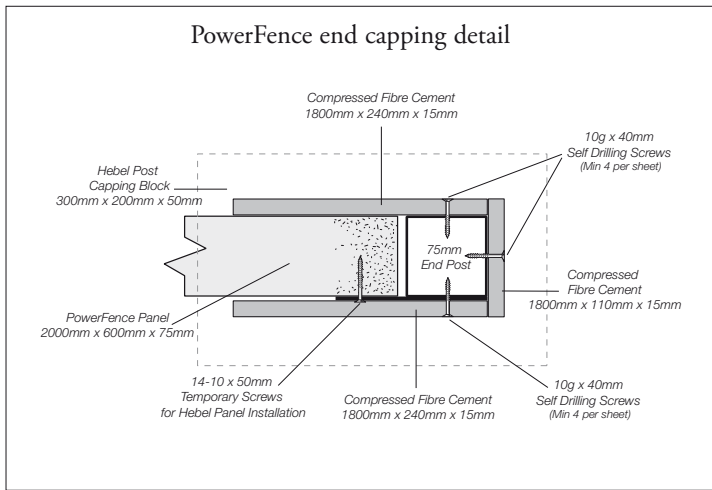
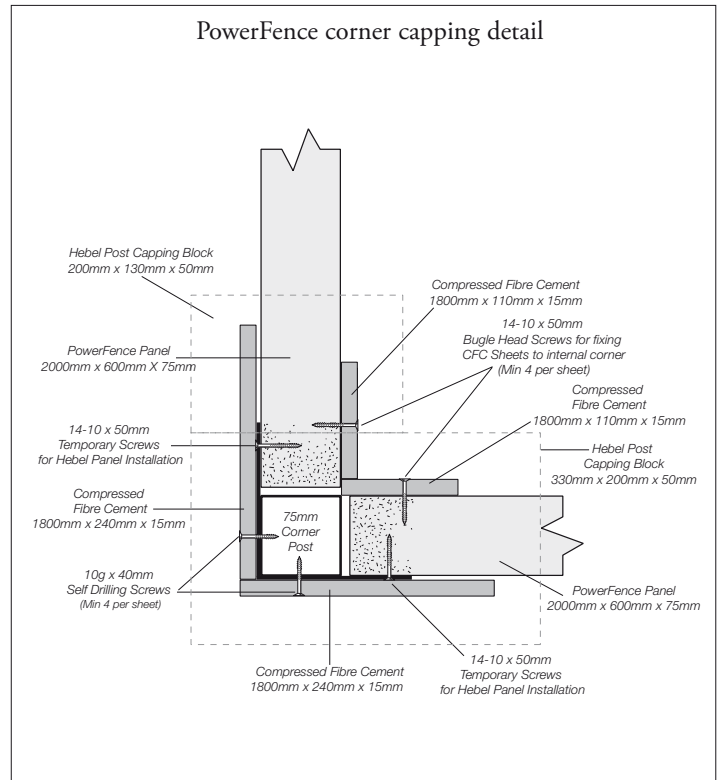
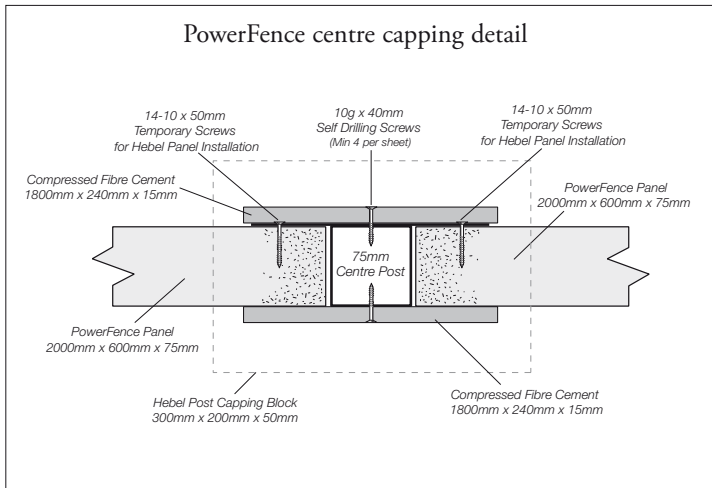
Fence Panel Specifications	
Thickness	75mm
Width	600mm
Length	2000mm
Density	510kg/m <sup>3</sup> (dry)
Working Mass	Approximately 60kg
Bevel	5mm
Edge Profile	NIL
Reo	Caged, 20mm cover to top & bottom reinforcement

# Hebel PowerFence



Standard posts accommodate a footing depth of 700mm.  
For the required footing depth, refer to the Footing Embedment Depth Table.

# Technical Information



**Note:** Expressed fence details shown, for Monolithic fence 24mm Thick Compressed Fibre Cement Sheet may be ordered from CSR Hebel to provide a more robust look to the fence posts and 600mm long capping blocks are used to cap the top of the fence.

## Footing Embedment Depth Specification

Maximum fence height: 1800mm. Centre to Centre post spacing: 2100mm (nominal). Post size: 75mm x 75mm x 2.5m SHS (Grade C350)

Wind Region and Terrain Category	Minimum Footing Embedment Depth (mm) for Soil Type (General Non-End Zone Posts Only)					W <sub>U</sub> Ultimate Wind Load (kPa)
	Gravel	Sand	Silty Sand	Stiff Clay	Soft Clay	
<b>Region A</b>						
Terrain Category 2	750	850	900	1100	1200	1.06
Terrain Category 3	700	800	850	1000	1100	0.88
<b>Region B</b>						
Terrain Category 2	800	900	1000	1200	1350	1.31
Terrain Category 3	750	850	950	1100	1200	1.09

- For fence heights greater than 1800mm with different post configurations contact your local engineer.
- For wind region and terrain category definition please refer to the Australian Standard for wind action AS1170.2:2002.
- Footing depths for freestanding end zone posts may vary from the above table, for recommended depths please refer to CSR Hebel Technical Services.

# Technical Information

## Safety Notes:

Hebel products are cement based, which may irritate the skin. The wearing of gloves and suitable clothing to reduce the risk of skin irritation is recommended when handling Hebel products.

The use of power tools when cutting concrete or cement based products may cause dust containing respirable crystalline silica, with the potential to cause bronchitis, silicosis and lung cancer after repeated and prolonged exposure.

1. When using hand or power tools on Hebel products a P1 or P2 respirator and eye protection must be worn.
2. Additionally when using power tools for cutting, routing or chasing Hebel products, the use of dust extraction and the wearing of hearing protection is required.

3. Hebel panels are delivered to site in bundled packs and strapped for stability. Prior to cutting of the strapping, the bundles should be stabilised with temporary restraints such as sash clamps, ratchet straps or Hebel stabilising bars. This will prevent panels from toppling over and reduces the risk of panel damage or injury. Care should be taken to ensure panels do not topple when removing individual panels from bundles.
4. Refer to the CSR Hebel MSDS and Safe Work Method Statements (available from [www.hebelaustralia.com.au](http://www.hebelaustralia.com.au)) for guidelines on safe handling practices for Hebel products.
5. Do not stand on capping blocks or fence.

## Construction Notes:

1. When the Hebel PowerFence is in contact with the ground, a suitable waterproofing membrane must be used on the panels that will be covered by or exposed to soil. This is applied to both faces, the base and vertical ends of the panel to a minimum height of 100mm above the finished ground level.
2. PowerFence panels may be cut along the length to a minimum width of 270mm as required, reinstate the bevel as necessary.
3. Paint any reinforcement exposed by cutting with CSR Hebel Anti-Corrosion Paint. If the top panel has been cut along the length, it is best practice to place the cut side facing down.
4. Patch any holes and damage to the panels with Hebel Patch prior to coating.
5. Pre-drill and countersink pilot holes in the Compressed Fibre Cement sheets prior to capping sheet installation. Pilot holes should also be drilled in the steel posts, using the capping sheets as a template.
6. Vertical movement joints require a knife cut in the render/coating base prior to application of the final surface coating, to allow differential movement between panels and posts without cracking the coating system.
7. **Monolithic option** - All top capping blocks are to be glued and screwed (where practical) in place using Hebel adhesive and 14-10x100mm Bugle Head type 17 screws, capping blocks above posts must have saw cuts either side of each post to allow movement without cracking of the capping structure, these movement joints must be filled with a suitable construction sealant and the coating systems must allow movement without cracking of the render or texture.
8. A suitable waterproofing system must be applied to all horizontal and vertical surfaces within 50mm from the top of the fence. In lieu of the waterproofing system a capping channel may be used to cap off the Hebel PowerFence.
9. Fixing of decorative panels to or across posts and any capping blocks should be done in a way that permits differential movement.

**Note:** Refer to the manufacturer's data sheets for suitability of the waterproof membrane systems for this application.

# Coating Selection Guide

Style	System Components	Skills / Application	Appearance	Coating Thickness	Selection Considerations
<b>Monolithic Premium</b>	Hebel SkimCoat	Plastering/hawk & trowel	• Uniform sand texture (render style)	3-5mm	<ul style="list-style-type: none"> <li>• Render-texture profile applied by plastering technique.</li> <li>• Acrylic texture over fibre reinforced cementitious levelling coat. Good flexibility &amp; excellent weather resistance protection.</li> <li>• Colour incorporated throughout the texture body coat. Long term durability enhanced with acrashield topcoat.</li> <li>• Premium impact resistance</li> </ul>
	Dulux AcraTex Coventry Trowel	Plastering/hawk & trowel	• Various alternate texture styles are available - refer coating manufacturer		
	Dulux AcraTex AcraShield	Painter/nap roller			
<b>Monolithic Economical</b>	Hebel PowerBase	Plastering/hawk & trowel	• Uniform sand texture (render style)	3-5mm	<ul style="list-style-type: none"> <li>• Render-texture profile applied by plastering technique.</li> <li>• Full acrylic texture levelling and finishing system. Excellent flexibility &amp; weather resistance protection.</li> <li>• Colour incorporated throughout the full system. Good impact resistance.</li> </ul>
	Hebel PowerFinish	Plastering/hawk & trowel			
<b>Express Joint Premium</b>	Dulux AcraTex Contempo Coarse	Painter/nap roller, float or sponge float finishing	• Fine grain profile following the panel joint profile	1mm	<ul style="list-style-type: none"> <li>• Express joint feature panel appearance, with defined capping detail.</li> <li>• 1mm coating thickness, covering the hebel surface texture. Applied by painters technique, "heavily" at 5x conventional paint thickness. Finished by plastic float or sponge to cover the surface texture and follow the express joint profile.</li> <li>• Full acrylic finishing system. Good weather resistance.</li> <li>• Moderate impact resistance.</li> <li>• Colour incorporated through the system.</li> </ul>
	Dulux AcraTex Contempo Coarse	Painter/nap roller, float or sponge float finishing			
<b>Express Joint Economical</b>	Dulux AcraTex AcraSand	Painter/medium black texture roller	• Following the panel texture and joint profile, producing light texture pattern	0.5-1mm	<ul style="list-style-type: none"> <li>• Express joint economical system, with defined capping detail.</li> <li>• Fine "grit" paint style coating - with light relief texture pattern. Applied by painters technique, at 5x conventional paint thickness.</li> <li>• Full acrylic finishing system. Good weather resistance.</li> <li>• Colour incorporated through the system.</li> <li>• Low impact resistance.</li> </ul>
	Dulux AcraTex AcraSand	Painter/medium black texture roller			

\* The edge bevels on Hebel PowerFence panels give definition to the fence surface. If a monolithic finish is desired, panels must be glued with Hebel Adhesive to prevent movement and consideration should be given to meshing the joints to prevent hairline cracking.

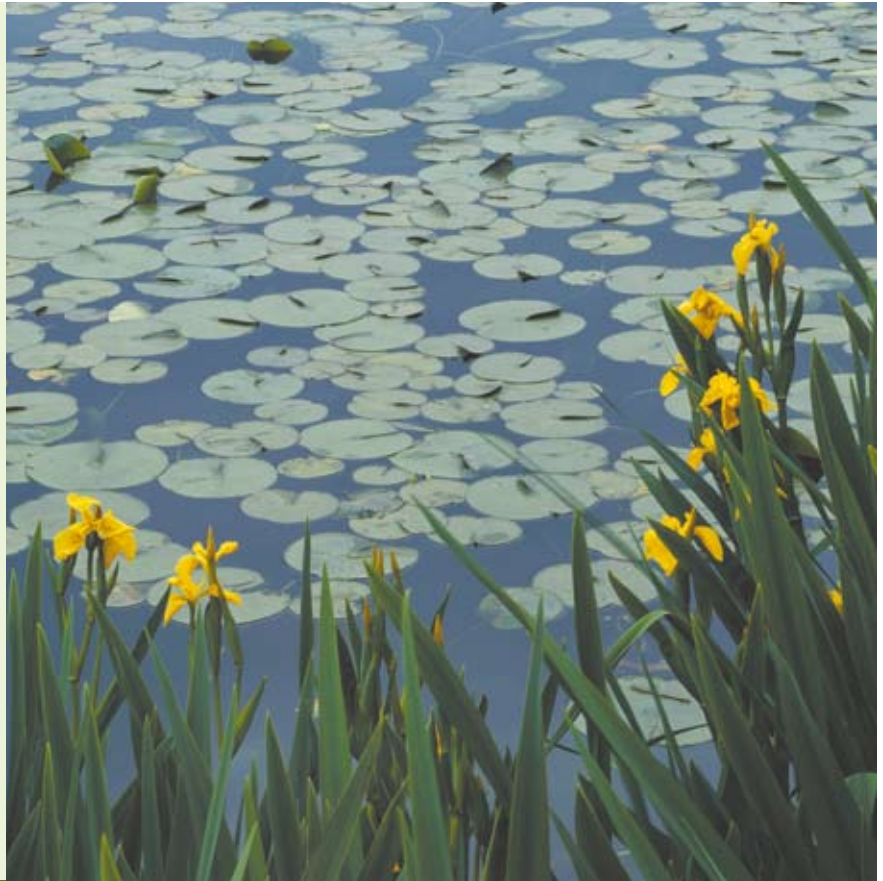
Finishing system recommendations are intended as a guide to meet Hebel PowerFence technical and aesthetic requirements. The performance of any finishing system relies on its installation in strict accordance with manufacturer's specific product guidelines and the suitability of individual system components and specification. Refer to individual component supplier for detailed advice on their products and systems.

For complete process details on Hebel finishing systems, visit [www.hebelaustralia.com.au](http://www.hebelaustralia.com.au)

# 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 for further sales or technical assistance, please telephone us from anywhere in Australia: 1300 369 448.



[www.hebelaustralia.com.au](http://www.hebelaustralia.com.au)

## Disclaimer

The information presented herein is supplied in good faith and to the best of our knowledge was accurate at the time of preparation. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their particular purpose or specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, no responsibility can be accepted by CSR Hebel, or its staff for any loss or damage caused by any person acting or refraining from action as a result of misuse of this information.

## Guarantee

CSR Hebel guarantees the products manufactured by itself and the systems described in CSR Hebel literature for 7 years, subject to the terms and conditions of the CSR Hebel Guarantee which can be inspected on the CSR Hebel website at [www.hebelaustralia.com.au](http://www.hebelaustralia.com.au). CSR Hebel does not however guarantee the components, products or services, such as installation, supplied by others. CSR recommends that only products, components and systems recommended by it be used.

## Health & Safety

Information on any known health risks of our products and how to handle them safely is on their packaging and/or the documentation accompanying them. Additional information is listed in the Material Safety Data Sheet (MSDS). To obtain a copy of a MSDS, telephone 1800 807 668 or download from [www.hebelaustralia.com.au](http://www.hebelaustralia.com.au). Contractors are required by law to perform their own risk assessments before undertaking work. CSR Hebel has sample Safe Work Method Statements (SWMS) to assist in this. To obtain a sample SWMS, refer also to the above sources.

# Hebel

**for future living**

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