

# Not a ripple of doubt

*Garry Long from Abgal Liners and Covers, overall winner of ACASPA's 2010 Awards for Excellence, told Nicola Card about the manufacture of his family company's award winning pool liner.*

Last year when Abgal was approached by a pool company to fabricate a pool liner, there were several signs that it would not be a straightforward project.

Among some of the challenges:

*The client was situated the other side of the country – specifically, Kacamunda which is 3600 km to the west*

*The free-form design of the pool and spa was relatively complex and contained 11 steps*

*... plus three bar stools - underwater of course, and*

*The client wanted a one-piece prefabricated liner shipped over and ready to install.*

Little wonder then that Garry Long described it as one of the most complex domestic swimming pools they had embarked on. A big statement coming from the man at the helm of Australia's largest manufacturer of pool liners and covers.

"In all our years of manufacturing liners, this pool was the biggest challenge we have ever met, there were difficult angles and curves to work with," Garry said. "It was one of those jobs you think is going to be tough and fingers crossed it works as it should!"

"We've done liners with steps but not

one with a wet area where you have that dramatic three sided bar and change of shape protruding into the pool. The stools had to fit perfectly as there was no adjustment available from an installation point of view; they were within a closed area, adjacent to the wall of the wet bar and with entry steps the other side."

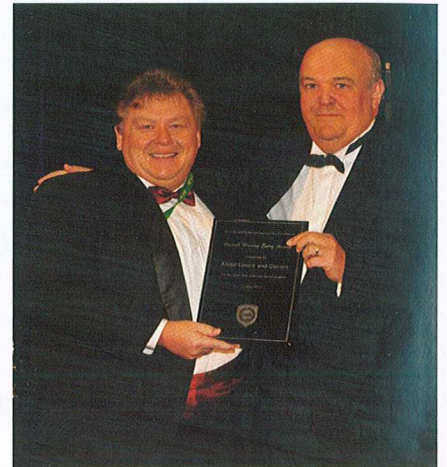
What was critical from the outset was the accuracy of measurements of the pool's concrete shell. A Queensland based surveyor flew over to WA and spent half a day or so sizing up the 725 points necessary to recreate the multifaceted shape of the pool, bar, spa, stools and steps.

For the layperson – that number of measurements represents as many as ten times the average normally required for a pool liner.

"All the pool measurements were done in three dimension using XYZ co-ordinates by an electronic device which improves accuracy. Good data in gives you good accuracy out," Garry explained.

## ACCURACY

"It's a combination of the accuracy of measuring and manufacturing that allow the liner to fit. The original measurements are critical and the design part of it where



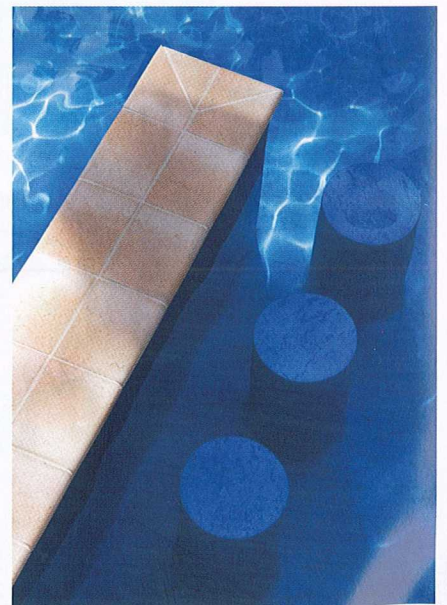
*Garry Long receives the Overall Award for Excellence presented by Brendan Hall*

all the pieces are going to fit together and you need to take into consideration seam allowances as well as fabric stretch. We need to make it ever so slightly undersize so when it goes in there are no wrinkles, so that it fits everywhere."

With all measurements carefully documented, the Abgal team carefully created a 3D model of the pool and then 'unfolded' the pool, the steps and the bar stools into 2D sections that could be cut from the liner fabric.



*Non-standard shaped, free-form pools such as this are designed to suit individual backyards and landscapes, following the contours of the house and property line.*



*Aerial shot of the bar and stools designed to customer specification*

"There were more than 700 data points that gave us a data cloud to work out the seam lines and the junctions from the stool to the floor and steps to each other and the floor to the wall so we could flatten all those pieces to be cut out of fabric so it all has to come back to two dimension."

The accuracy of the cutting is vital and these days hi-tech cutting equipment made by companies such as Aeronaut are used for the purpose.

## MANUFACTURE

Using a fabric width of 1140mm, the pool contains six panels with heat-welded seams running through the length and the steps on the wall to floor junction and around tops and bottoms of bar stools. The liner was finished at the top with a welded flexible PVC extrusion ready to simply "clip" into the pool concrete shell.

"The pool itself has a rigid PVC extrusion that fastens around the top edge just under the coping. This has a small channel about 5mm wide and 4mm deep and we weld a flexible hook that is a bit like the tip of an arrow with a tail onto the top edge of the pool liner. The hook just pushes into the extrusion and when you pull down on it vertically it locks the liner into place," Garry said.

"One of the complex parts of this job was there was no room for adjustment. So this hook just hooked in and we had to rely on the accuracy of the measurements."

Abgal pool liners come with a DVD for care and maintenance and a ten year warranty but Garry commented that the expected life span of Nylex liners is 15 years or more, and depending on how well they are looked after most are known to last 25 years.

## VINYL

Why vinyl not tiles? "Usually it is to do with construction of the pool and it was brick which is common in Western Australia because of the soil properties, it's mostly sand over there," Garry explained.

"The liner works well as it's a flexible waterproof finish – there is no risk of cracking and leaking down the track. The vinyl was manufactured by Nylex in Victoria, The Australian made fabric is excellent, good quality material, Nylex were world leaders in my view for in-ground pools."

## INSTALLATION

Because products leave Abgal in a cardboard box the team rarely gets to see the finished product. In this case the Perth-based pool company "just clipped it in... and it fitted just perfectly, which is just wonderful. The installer sent three images from his mobile phone as he was so impressed by the fitting, so we got to see it early on."



The concrete shell of the complex pool that is yet to be adorned with an Abgal custom-made liner



The award-winning Long family: Amanda, Bev, Alan and Garry

Garry added that the weight of the water helps secure the liner, but it is important the liner is not subject to too much tension. "Just enough to smooth out wrinkles."

The hands-off installation presents a challenge for Abgal gaining images of liners for their website and for marketing purposes. "But good shots of this job were taken by the Perth pool company as they wanted to enter it for an award run by the Swimming Pool Association of WA in the category domestic pool built with a vinyl liner. It won first prize!"

As well of course as ACASPA Category 1: Geosynthetics/linings/covers award and overall Award for Excellence.

Full marks to the team at Abgal.

## ALL ABOUT ABGAL

Founded in 1976 by Alan and Bev Long, ABGAL Liners and Covers is an all Aussie family business. The origins of the company name? In short, it's the first letters of parents Alan and Bev and children Garry and Amanda followed by first letter of the family name Long.

Today supplying more than 15,000 liners and covers each year, ABGAL is Australia's largest manufacturer of pool liners and covers. The company also fabricates solar blankets, tank liners and covers, dam liners and covers and large vinyl membranes at its large, modern facility in Crestmead, Queensland.

Boasting the latest technology Hot Air, Hot Wedge and High Frequency seaming equipment along with Robotic Cutting and 3D CAD computer capabilities projects are quality assured to ISO 9001:2008.

With customers in France and Belgium, Singapore, Malaysia, New Zealand and Fiji, Abgal exports about ten per cent of product (predominantly liners) to Asia and Europe. One of the more unusual destinations for an in-ground liner was Netherland Antilles in the Caribbean.

## WINNING WAYS

Alan and Bev Long, who built the business from nothing and these days are only semi-retired, were present at ACASPA's big night at Palazzo Versace. They were naturally overjoyed when named the overall winner in the 2010 Award for Excellence.

Garry's reaction to the big win? "On the night I was overwhelmed, I was very surprised to win the overall award. Just elated and excited on behalf of the ten staff at Abgal involved in the project," he said.

Not long after stepping down from the stage – but still on a high – Garry phoned his sister Amanda to relay the good news. After all she is the second 'A' in Abgal and rightly deserved recognition for the family company's big win at this year's ACASPA's awards.

For more information call 1300 369 495 or 07 3803 9000 or visit [www.abgal.com.au](http://www.abgal.com.au)