



**Casting Industry –  
the career choice for  
makers, creators, and  
innovators**

## **Melting Moments – Sept 2022**

### **Presidents Report**

Q1 of F23 is done and dusted and have certainly remained busy in Victoria.

The word from many of our members remains positive with the order books for the quarter generally fairly good and many foundries continuing to quote 20+ weeks lead time for many products.

August saw the official introduction of a new collaboration between Adam Hassel – Hasco and Shane Corish – Race Cast Quicksand 3D Pty. Ltd. We streamed this presentation and also recorded it. Check out the article and link later in this newsletter (also now on the webinar page on the AFI website) if you missed it.

In September we were afforded the extraordinary opportunity for members to tour the Staetite Fasteners manufacturing facility. In another first off AFI Vic were permitted to film the tour ! We are currently in the process of editing the event. This will be uploaded to the AFI Website - on the Webinar Page - in the very near future. Keep a look out for a mailout when this has been uploaded.

Finally some big news as a result of WA unfortunately not being in a position to host the 2023 Annual National Conference, Victoria are excited to announce that we will be hosting the Australian Foundry Institute 57<sup>th</sup> Annual National Conference. The committee are currently working through details regarding location, theme, key note speakers and the program. We expect to have the details completed and ready for distribution before the end of the year.

*Amber Maxwell – AFI Victoria President*

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### **AFI National**

With quarter 3 almost over it's time for another update.

The electricity & gas pricing and supply for every State except WA continues to be problematic for manufacturing generally & foundries specifically. While the inflated spot prices for gas and electricity are not having impacts on most foundries as yet, unless the fundamental flaws in the market are not addressed the likelihood of cost increases well above 50% are virtually inevitable. In recent weeks a request from members for contract dates elicited responses from less than 25% but the majority need to re-contract for either or both energy sources in 2023 and 100% by end 2024. The AFI was invited to the Dept of Climate & Energy Mini Jobs Summit in Canberra which enabled us to put forward our need for cost competitive gas & electricity – that is not hyper inflated by the Russia / Ukraine conflict. In addition, we have continued our contact to Chis Bowen, Ed Husic, Madeleine King and new Assistant Minister Senator Jenny McAllister requesting a gas & coal reserve at prices pre Russia / Ukraine war.

From an AFI National perspective we want to advise that the 2023 conference will be coordinated by AFI Victoria. The 2024 conference is planned to be hosted by CTNZ. Support from the majority of members attending these conferences will make the conferences worthwhile for both participants & sponsors.

We will continue to publish an annual Foundry Industry Report. If your foundry has not yet been contacted expect an email from Alan Cooke requesting data for the 2021 year. Please support this initiative as the industry data is the key source of information for State & National committee members to lobby Council, State & Federal government for topics such as a National Training

programme which works effectively for the needs of the industry, energy costs and usage, particularly with the push to 'net zero', and waste costs / recycling opportunities.

AFI representatives have continued the discussions with the National Skills Commission & IBSA. The most recent interaction being a review of a MEM release for a Technician. The fits the key objective is to highlight the needs of our members to cover shopfloor operators, apprentices, technicians, metallurgists and managers from the perspective of both training resources and potential migration support.

Finally, to enable the AFI to represent the industry effectively we need to know the issues each member is facing to enable the State & National bodies to advocate on your behalf.

*Brett Lawrence – AFI National President*

## **Apprentices and Training**

With several metal casting businesses strongly supporting an ongoing commitment to apprenticeships, we can remain confident of a continuing stream of new tradespeople entering our industry – albeit in low numbers. We know that our apprentices of today will become our leaders of the future. We also know that it is extremely difficult to fill vacancies across all industries. I'd strongly urge all businesses to consider investing in the training and development of their existing personnel.

We do have courses from Cert II through to Diploma level that are specific to the metal casting industry, so there's a broad range of possibilities. At an administrative level, the AFI are currently actively working with the appropriate Federal and State bodies to ensure that the Cert III Casting and Moulding course, Cert III Patternmaker course and Diploma of Engineering – Materials (Metal Technology stream) course are all fully approved, have appropriate course content and are included on the 2023 Funded Courses List.

It's a complex process that we just have to keep plugging away at.

An online die casting training course has been available for some time now. A new addition to this training is a course specifically aimed at designers and engineers who are tasked with designing parts which will be made by one of the Die Casting Processes:

- Gravity Die Casting
- Low Pressure Die Casting

- High Pressure Die Casting
- Semi-solid Die Casting
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Contact Graham Wilson,  
[graham.wilson@diecasttraining.net](mailto:graham.wilson@diecasttraining.net) for details

For those with an interest in Investment Casting, there is a course developed by AWBELL and available to all – contact Matthew Harvey, [MatthewH@awbell.com.au](mailto:MatthewH@awbell.com.au) for details.

## **Foundry In a Box**

Foundry In a Box workshop and demonstrations continue to be well received and generates considerable interest amongst students.

The most recent workshop was with a small group of Gordon TAFE students in Geelong. AFI(Vic) have now provided a list of equipment and materials that we have used to develop our version of FiaB to all other AFI States, with several State branches now in the process of kitting themselves out.

If you're aware of any schools or youth groups that are interested in having a FiaB workshop or demonstration please direct them to Alan Cooke, [agcooke52@gmail.com](mailto:agcooke52@gmail.com)

## **Foundries – Code of Compliance Update**

The very slow progress on updating of the Foundry Code of Compliance has ground to a halt. This document originally released in 2008 summarises the many and varied OH&S rules and regulations that metal casting businesses need to protect for. In late 2019 WorkSafe Victoria flagged that an update would be developed with consultation with all parties – employers, unions, industry bodies. The AFI was represented in the one face to face meeting that occurred prior to the onset of the global pandemic.

WSV resources were stretched to the limit dealing with the consequences of the pandemic and as a result very little progress was made on the Code of Compliance update. A more recent communication from WSV (28/6/22) indicated that they do not have the internal expertise to complete this update. WSV canvassed a choice of keeping the existing 2008 Code with no update or continuing with an update. We responded with the view to continue with the update and also offered access to technical expertise within the industry to help. AFI(Vic) have not heard anything further at this stage.

## Quicksand Presentation Wed 17/8

Quicksand 3D sand printing hosted a presentation for AFI Victoria on the 17<sup>th</sup> August. The event was live streamed and is also available to view on YouTube at the following address:

<https://www.youtube.com/watch?v=lajXttF9xFc&ab>

The presentation focused on how to take advantage of 3D printing sand for production, prototyping and one-off castings. Six case studies were presented outlining some of the ways to take advantage of this technology.

The first study showed how simple geometry like stick cores can be made quickly, accurately and cheaper than a conventional blown or hand rammed core. Case study 2 showed how handmade core assemblies glued together could be printed in one piece, with vent paths included, which would be impossible to make from conventional tooling.

Case studies 3, 4 and 5 showed how to reverse engineer existing core tooling into CAD models using existing 2D drawings, a 2D flatbed scanner and a 3D point cloud scan obtained from an inexpensive handheld 3D scanner. A novel approach to localised strengthening of cores in fragile regions without adding excessive binder to the entire core was also shown.

Lastly in case study 6, the printing, simulation and casting of a bespoke V12 Engine block mould was shown. If you have any questions after watching the presentation, feel free to contact Adam Hassell from Hasco Foundry or Shane Corish from Race Cast Engineering for further information.

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## Welcome to Paul Longshaw of IXL Metal

Paul Longshaw has joined the IXL Metal Castings team as Foundry Manager in June 2022. Paul commenced his career in the UK, where he became a qualified Moulder at the Brookfield Foundry based in the English Midlands manufacturing heartland developing with various production related roles in ferrous and non-ferrous operations at the Newby Foundries business. He emigrated to Australia in 2010 taking up a senior role within the InAlco business running salt free

operations with a rotary furnace processing dross and blending aluminium oxides for resale. Paul is an experienced foundryman with a furnace background that brings a high safety focus and team creation culture to the IXL Foundry, where he will be able to utilise his expertise and strong people management skills.

A Geelong based local, we congratulate Paul and his partner Cheryl, on recently becoming a grandfather for the first and second time in a matter of weeks as he settles into the IXL Foundry operations.



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## Staetite Fasteners Site Visit Wed 14/9

On Wednesday 14<sup>th</sup> September AFI Victoria and ADCA Members and associates were privileged to tour the Staetite Fasteners Heidelberg West, Manufacturing facility.

Rich in engineering history this business started as a local electrical manufacturer in 1919. In 1930 the business began manufacturing Fasteners Screws and pressed nuts – and began trading as Staetite Fasteners as we know them today in 1931. Staetite began cold forging in 1938 outgrowing that facility and moving to a larger premises in 1948. They continued to extend their product range, today producing over 7000 products. As the business grew Staetite also set up manufacturing facilities in Singapore in 1974.

Supply into the Automotive Sector commenced and Staetite was first Australian-owned Company to be recognised for its superior Quality by Ford in 1991.

Today over 70% of their production is specific to the Automotive market.

Exporting begins in 1993 and Staetite currently export to the USA as well as a number of Western European countries and Southeast Asia. In fact, 90% of their production is exported.

Staetite are proud of their product, their process and their people and have a recognised Quality record of only 3 ppm rejects.



Staetite have set the standard when it comes to quick reaction to new products, with their prototype manufacture down from pre-pandemic times of 16 – 20 weeks to an incredible 4 -6 weeks in 2022. The business continues to expand, currently operating 24 hours 7 days a week.

Thank you to the team at Staetite for allowing AFI and ADCA visit your plant and for openly sharing your insights and successes.

### Casting Industry Icons at Play



White Brothers, Craig, Bruce and Neil took part in this year's [Variety BASH Queensland](#). They left Dalby for Winton on Friday 26<sup>th</sup> August to make registration in Winton on Sunday. No doubt a lot of fun was had by all teams that entered.

For those who aren't familiar, the Variety Bash is an adventure with mates driving 30+ year old cars through regional parts of Queensland that you might otherwise not see. All to help give Aussie kids a fair go.

Variety the Children's Charity supports kids and families who are facing many challenges through sickness, disadvantage or living with a disability. Their work allows kids to gain mobility, get out and

about in the community, to communicate, achieve independence and increase their self-esteem. They make sure the kids who miss out, can always join in.



Registration - Sunday 28th Aug - Winton  
 Day 1 - Monday 29th Aug - Kynuna  
 Day 2 - Tue 30th Aug - Cloncurry  
 Day 3 - Wed 31st Aug - Boulia  
 Day 4 - Thur 1st Sep - Bedourie  
 Day 5 - Fri 2nd Sep - Birdsville  
 Day 6 - Sat 3rd Sep - Birdsville  
 Day 7 - Sun 4th Sep - Windorah  
 Day 8 - Mon 5th Sep - Tambo  
 Day 9 - Tue 6th Sep - Dingo  
 Day 10 - Wed 7th - Yeppoon

Great to hear of the good deeds that people in our industry are doing away from the workplace.

### Around the Traps

*AFI(Vic) is now the official 2023 Conference host. Big decisions to be made in the very near future re: venue, etc. Stay posted !!*

*Ron Guerts and Alan Cooke represented the AFI at the recent Technologist Picnic at Sovereign Hill on 2/10.*

### NEXT AFI VIC Meetings

**Wed 19/10** – Legends Night and AGM  
 The Village Green Hotel

**Wed 16/11** – Presentation / Plant Tour (TBA)

**Wed 7/12** – 2023 Planning meeting

### \*\*\* STOP PRESS\*\*\*

Please don't forget this publication has now become the National Foundry newsletter. We publish on a quarterly basis and encourage all AFI members and states to forward articles, snippets, slaps or sledges to be included. Please forward your contributions to Alan Cooke [agcooke52@gmail.com](mailto:agcooke52@gmail.com) or myself at the new email address [ambermaxwell0701@gmail.com](mailto:ambermaxwell0701@gmail.com) By the first week of the next December, March, June and September .





## Australian Foundry Institute (Vic Branch) 2022 Program v7

Month	Date	Location	Topic	Presenter	AFI / ADCA Contact
Feb	Wed 16th	Village Green	Robotic Fetting of Castings - presentation	Fred Kolak	Graham W
Mar	Wed 16th	Geelong	Newcomb HS and GMC Presentation / Bill Pratt 100 <sup>th</sup> Celebration		Sean B
Apr			No activity scheduled for April		
May	Thur 12 <sup>th</sup> – Sat 14 <sup>th</sup>	Brisbane	National Conference		AFI(Qld)
June	Wed 22 <sup>nd</sup>	Hawthorn	Industry 4.0 – Swinburne Tech – site visit		Alan C
Jul	Wed 20th	Dandenong	Arrow Bronze – site visit		Matthew P
Aug	Wed 17 <sup>th</sup>	Village Green	Quicksand – Sand Printing		Gary S
Sep	Fri 2nd	Sovereign Hill, Ballarat	Annual Technologists Picnic - presentation		Gary Bunn – MA
Sep	Wed 14th	Heidelberg	Staetite Fasteners – site visit	Matt Cervelli	Alan C
Oct	Wed 16 <sup>th</sup> – 20th	Busan, Sth Korea	WFO Congress		Ian F
Oct	Wed 19th	Village Green	Legends Night and AGM		Amber M
Nov	Wed 16 <sup>th</sup>		TBA		
Dec	Wed 8 <sup>th</sup>	Errols, Nth Melb	Planning meeting		