OFFICIAL PUBLICATION OF THE MASTER PLUMBERS ASSOCIATION OF NSW **OFFICIAL PUBLICATION OF** MASTER PLUMBER

MPANSW GETS A BRAND RFFRFSH + NFW LOGO

Copper guidelines clearly explained **REGULATIONS** What's the purpose of business growth? **BUSINESS** The problem with flowrate overestimates **RESEARCH** 'Tradesperson' or 'businessperson'? **DIRECTIONS**

Elson is the leading manufacturer providing

LEAD FREE* Plumbing Solutions



LEAD FREE* UNION BALL VALVE instantaneous water heater connection kits

- •LEAD FREE* DR BRASS, < 0.1% Pb
- No Teflon sealing tape required
- Fast & easy installation and orientation
- •Full flow ball with robust handle
- •Flared & Press complete range



LEAD FREE* FLARED UBV KITS

LEAD FREE* Valve Solutions

- •LEAD FREE* DR BRASS, < 0.1% Pb
- •Non-Return Isolating Valves

(Max. Peak 93°C, Max. Continuous 65°C)

- Non-Return Valves (Max. Operating 99°C)
- Pressure Limiting Valves (Outlet pressure 350,500 and 600kPa; Max. Operating 80°C)
- Pressure Reducing Valves Adjustable (Outlet pressure range 150- 600kPa; Max. Operating 80°C)
- •Right Angle Pressure Reducing Valves Adjustable (Outlet pressure range 150-600kPa; Max. Operating 80°C)
- •Suitable for hot & cold water















* Elson Lead Free copper alloy products are 99.9% Lead Free and contain less than 0.1% Lead by weight.



H&G PLUMBING ARE ON THE MOVE

H&G are expanding their plumbing operations by opening a new store in Terrey Hills. This exciting new location will help support even more plumbers, all across Sydney. The new store will be opening soon, so follow H&G online for updates.

hg.com.au [f] [6]







WINTER 2023

CONTENTS



ABOUT OUR FRONT COVER

Elson

Elson is an Australianowned and operated company established in 1993, with its head office and national distribution centre based in Minchinbury, NSW. Elson's plumbing products are designed specifically for the Australian market.

Elson is the leading manufacturer of lead-free plumbing solutions, plumbing systems, brass fittings, and valves. The company is continuously expanding its lead-free DR brass fitting and valve ranges.

Please visit Elson's websites to see their extensive plumbing product ranges:

Elson.net.au epspex.com.au bushpex.com

TO BOOK YOUR OWN COVER CONTACT

Nicola Crumlin, Marketing Manager, Master Plumbers Association NSW today!

(02) 8789 7000

nicola@masterplumbers.com.au







REGULARS

- 4 From the GM's Desk
- 6 President's Message
- 8 News
- **10** Association Updates
- **17** Training
- 18 Sydney Water
- 20 Member Profile
- 22 Business Banter
- **26** Apprentice Stories
- **30** Regional Ramblings
- 32 Regulation & Safety
- **36** New Products
- **38** Executive Directory

SPECIAL FEATURES

12 Raising your standards

John Fennell from the International Copper Association Australia (ICAA) explains the main copper-related resources available to plumbers, including two newly released guides.

14 Water demand investigation

PhD candidate Brendan Josey summarises the findings of a major HCAA investigation into peak flowrates and problems with 'overestimates'.

24 'Tradesperson' or 'businessperson'?

Many plumbers dream of transitioning from being a tradesperson to a businessperson – but how do you do it? MPANSW President Greg McElroy comments.







EDITORIAL

From the GM's desk

elcome to the 2023 Winter edition of *The Master Plumber* magazine.

The Association has recently been advised of the passing of two gentlemen who were considered stalwarts of the industry and worked tirelessly for the Association.

On behalf of the Association, I convey sincere condolences to the families of Mr Alan Jolly and Mr Jack Crawford who passed earlier this year. Mr Jolly (of Munt and Jolly) was the Association President in 1974 and Mr Crawford (of Crawford and Samuels) was the Association President in 1985.

Considerable work continues on enhancing member benefits and services, which also includes the rebranding of the Association to provide a fresh, contemporary look and feel across our marketing and communications (see new logo above). For more details about these important initiatives, see the Association Updates column in this issue. The turquoise 'Hygeia' logo will continue to be used in concert with our new look and feel – particularly for ceremonial occasions and as a homage to the history and meaning behind this important part of the Association's history.

We are currently implementing a new member management system, which will provide the Association with greater service delivery to members and will be the platform on which we communicate with you, our members. It will also provide a more efficient experience with renewing memberships and finding resources and information for your business. We will keep you apprised of this enhancement.

I would also like to inform you that my time at your Association has now drawn to an end. I have decided on a 'tree change' to Central West NSW in order to be closer to family, and, as such, I take this opportunity to thank the incredible team at MPANSW, the Executive Committee, and you the members for the support that has been afforded to me in my role as General Manager for the last three and a half years. I have enjoyed being of service and the recruitment process has now commenced for my replacement at the time of writing.

In closing, and as always, you are invited to showcase your achievements, share innovation, or to simply tell your story in your magazine – *The Master Plumber* – by emailing info@masterplumbers.com.au or by calling (02) 8789 7000.

Best wishes for your continued success.

Michael Bennett General Manager



THE MASTER PLUMBER

A publication of Master Plumbers Association of NSW masterplumbers.com.au

(02) 8789 7000

EDITOR-IN-CHIEF

Michael Bennett

General Manager Master Plumbers Association of NSW michael@masterplumbers.com.au

EDITORIAL SUBMISSIONS

Attn: Michael Bennett info@masterplumbers.com.au

PRODUCTION EDITOR

John Power

Blue Pencil Writing Services jpowerl46@bigpond.com

EDITORIAL DESIGN

Keely Goodall

keely@itsallgood.net.au

SENIOR EDITORIAL CONSULTANT

Bill Armstrong

billarmstrong452@gmail.com

ADVERTISING

Nicola Crumlin

Marketing Manager
Master Plumbers Association of NSW
nicola@masterplumbers.com.au

CONTRIBUTORS

Bill Armstrong; Michael Bennett; Chris van Brugge; Matthew Carle; John Fennell; Greg McElroy; Rod Jackson; Brendan Josey; NSW Fair Trading; Office NSW Building Commissioner; Tomi Protuder; Peter Richardson; SafeWork NSW; Sydney Water.

SUBSCRIPTIONS

(02) 8789 7000

PRINTING

IVE Group

www.ivegroup.com.au

PUBLISHED BY

Master Plumbers Association of NSW PO Box 42 Lidcombe NSW 1825 Australia

ISSN: 2653-8172 (Print)

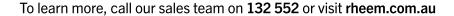
Disclaimer: The views and opinions expressed in this publication may not necessarily reflect those of Master Plumbers Association of NSW. No responsibility is accepted by the publisher for any losses arising from the use of material contained in this publication. Copyright 2023 Master Plumbers Association of NSW. Private or public reproduction of material contained in this publication is permitted providing appropriate attribution is noted.

Install with confidence. Backed by Australia's No.1 in hot water.



You can confidently recommend the new Rheem AMBIHEAT® HDc-270 heat pump, backed by extensive R&D and our expert technical support helpline, plus:

- Fitting locations make it an ideal replacement for an electric water heater
- Saves up to 73%* on energy year round
- Suitable for all weather conditions from -5°C to 43°C
- Eligible for Rheem Rewards and STCs*







COMES ON STEADY, HOT AND STRONG





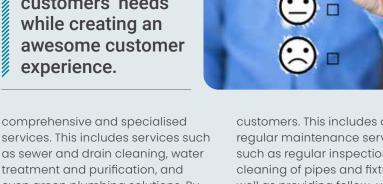
PRESIDENT'S MESSAGE

Yesterday's business models belong in the past

ust because it worked well yesterday, doesn't mean it will work well today.
It is very easy to stay in the old mindset that
I can just do the same thing every year. All businesses have to change and adapt; don't be a business that gathers moss because you stood still.

The business model of running a plumbing business has undergone significant changes over the years. In the past, plumbing businesses were primarily focused on providing traditional plumbing services such as repair and installation of pipes, faucets, and other fixtures. However, with the advent of new technologies and changes in consumer behaviour, the plumbing industry has had to adapt and make strategic changes to its business model in order to stay competitive.

One of the major changes in the business model of running a plumbing business is the shift towards providing more Remember: one of the keys to a successful business is to meet customers' needs while creating an awesome customer experience.



services. This includes services such as sewer and drain cleaning, water treatment and purification, and even green plumbing solutions. By expanding the range of services offered, plumbing businesses can differentiate themselves from their competitors and attract a wider range of customers.

Another change in the business model of running a plumbing business is the focus on building long-term relationships with customers. This includes offering regular maintenance services, such as regular inspections and cleaning of pipes and fixtures, as well as providing follow-up services to ensure customer satisfaction. By building strong relationships with customers, plumbing businesses can ensure a steady stream of repeat business, which can be more profitable in the long run than relying on one-time service calls.

NEW TECHNOLOGY

In addition, the business model of running a plumbing business has also evolved to include the use of technology in order to improve the efficiency and effectiveness of services. This includes the use of computer-aided design and drafting, remote monitoring, and even virtual reality technology to aid in the diagnosis and repair of plumbing issues. By incorporating technology into their services, plumbing businesses can streamline their operations and

NOT YOUR MAGAZINE?WELL, IT COULD BE SO EASILY!

Join the Master Plumbers Association of NSW today.

SUBSCRIPTIONS: (02) 8789 7000



Greg McElroy has been a member of the Master Plumbers Association NSW for some 40 years. He was active on the Executive Committee from early 2000 until 2009, serving as President for several of those years. He is now serving on the Executive Committee again in 2023, with a special focus on business training and knowledge.

offer more accurate and effective solutions to their customers.

Finally, another major change in the business model of running a plumbing business is the increased focus on sustainability and environmental responsibility. This includes the use of eco-friendly materials and technologies, as well as the implementation of recycling and waste reduction programs. By being more environmentally conscious, plumbing businesses can attract customers who are interested in reducing their own environmental impact, and they can also help to reduce the overall environmental impact of the industry.

In conclusion, the business model of running a plumbing

business has undergone several strategic changes over the years. The industry has shifted towards providing more comprehensive and specialised services, building long-term relationships with customers, incorporating technology into their services, and increasing focus on sustainability and environmental responsibility.

By implementing these changes, plumbing businesses can stay competitive and continue to thrive in today's market. Remember: one of the keys to a successful business is to meet customers' needs while creating an awesome customer experience. **TMP**

Greg McElroy
President



NEWS

OWN A PLUMBING BUSINESS IN NSW?

Do you own a plumbing business in NSW?

Make sure everyone knows you're a Master Plumber in NSW!

Master Plumbers Association of NSW is one of the strongest specialist contracting organisations in the building and construction industry, and is a highly active and vocal body in trade-related matters.

MPANSW membership is designed to offer you practical benefits and maximum value services

Join today and become part of an Association that offers leadership, information and advice to support your business:

- Discounted Ampol fuel card
- Up to 15% discount on accommodation worldwide
- HR support: Wages/Awards & staff management
- Advertising/Sponsorship direct access & opportunities to communicate & showcase products to our members
- Financial resources
- Strong advocacy for plumbers & the industry
- Regulatory & compliance services
- Fleet discount (Toyota, VW & Isuzu)
- Discount of vehicle hire

ADDITIONAL BENEFITS

- E-Newsletters and updates
- Find-A Plumber Directory listing
- Conferences, awards, training and networking events
- Quarterly industry magazine

Our membership packages are designed for maximum value.

Sole Trader

Are you a licensed plumber who doesn't hire contractors or apprentices? This membership category is for sole traders with no staff. To apply for this category, applicants must:

- Operate as a sole trader
- Hold a qualification in plumbing
- Never hire contractors or apprentices.

Plumbing Company

Do you own a plumbing business? This category is for companies that employ two or more staff (apprentices and contractors included).

To apply for this category, applicants must be running or contracting a plumbing business with two or more staff (apprentices and contractors included).

Don't just be a plumber, be a MASTER Plumber!

Sign Up today:

To apply for membership, scan the QR Code or visit masterplumbers.com.au/membership-signup

Become a member of MPANSW today.



DELAYED: MANDATORY LEAD-FREE REGULATIONS

The ABCB (Australian Building codes Board) has revised its timetable for the introduction of mandatory regulations concerning plumbing products with a reduced level of lead.

The 2022 edition of the National Construction Code (NCC) will introduce a new limit for the allowable level of lead in plumbing products used for drinking water. From 1 May 2026, copper alloy plumbing products containing more than 0.25% lead will no longer be authorised for installation in a plumbing system used to convey drinking water.

REVISED TRANSITION SCHEDULE

The ABCB agreed to a three-year transition period to allow industry to make the necessary changes to provide products to the market in compliance with this requirement.

On 21 April 2023, the ABCB redetermined the commencement and completion dates for the three-year transition period to support Australia's path to reducing allowable lead levels in many plumbing products.

The ABCB expects a new 'Lead Free WaterMark' trademark to be formally registered on 2 May 2023, allowing a



Notice of Direction to be issued that same day. The three-year transition period will commence with the issue of the WaterMark Notice of Direction.

All relevant products will be required to meet the new requirements by the specified date of 1 May 2026 (previously planned for 1 September 2025).

While this is eight months later than originally planned, the ABCB recognises that delays in the registration of the trademark and ongoing supply chain constraints will present difficulties for some lower-volume products.

PREPARING FOR CHANGE

The ABCB has worked closely with industry bodies, including the Australian Industry Group and Plumbing Products Industry Group, to help manufacturers and suppliers prepare for the new requirements.

During the transition period, conforming products will start to be manufactured with labelling on the product to indicate compliance with the NCC's lead requirements. This will help you easily identify compliant lead-free products.

Key manufacturers and suppliers have confirmed that many products, especially in important categories like tapware, will be WaterMark-certified lead-free within the first half of the transition period.

Many of these products will be available in the market in 2024, delivering important public health benefits to the community.

IMPACT ON PLUMBERS

Prior to 1 May 2026, plumbing practitioners may continue to install existing products that are certified in accordance with the WaterMark Certification Scheme, including products with a reduced level of lead. However, from 1 May 2026 only products marked with the 'Lead Free WaterMark' will be authorised for use.



SPONSORED CONTENT

ELSON REACHES 30-YEAR MILESTONE

Since 1 April 1993, Elson has been providing highquality plumbing products such as taps, valves, fittings, and PEX plumbing systems to customers throughout Australia. Throughout the years, Elson has grown to become a well-known and trusted name in the industry, and our commitment to providing exceptional service and top-quality products has set us apart from the competition.

As we reflect on the past 30 years, we are proud of the many accomplishments and milestones we have achieved. From humble beginnings, Elson has grown to become a key player in the plumbing industry. Our products are installed from largescale commercial projects to residential properties across the country.

Over the years, we have also embraced new technologies and innovations, such as the use of eco-friendly, lead-free materials and advanced manufacturing techniques. These efforts have helped to position Elson as a leader in the industry and have allowed us to stay ahead of the curve in terms of meeting the changing needs and expectations of consumers.

Looking ahead, there is no doubt that the plumbing industry will continue to evolve and change in new and exciting ways. But with our experience, expertise, and commitment to excellence, we are confident that we will continue to be a leader in the industry for many years to come.

Thank you all for supporting Elson and our products for the past 30 years!



Since its inception in 1985, the Master Plumbers Association of NSW (MPANSW) has grown quickly to be one of the strongest specialist contracting organisations.

New logo, new identity

PANSW understands that a commitment to the constant refinement of policies, procedures and services is required to maintain the highest standards of plumbing, draining and gasfitting in the building and construction industry. This ensures the support of industry members, as well as the ongoing protection of the public's health and safety. As a result, MPANSW are excited to announce a number of upcoming changes.

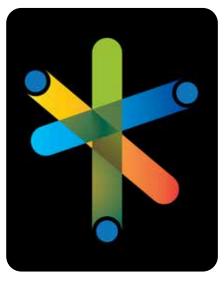
WHY REBRAND?

Our Executive Committee and management team have been working hard on refreshing our brand for several reasons.

To help attract new members and customers for our members. Our new logo is modern and represents the three pillars of our Association: our members, MPA Training, and MPAL Apprentices. Our refreshed brand is demonstrating to our longstanding current membership that we are committed to evolving and adapting to changing market conditions and members' needs.

INCREASED SUPPORT FOR MPA MEMBERS

This year, MPANSW is placing an increased focus on supporting its members and, in turn, their businesses, by creating more connections across NSW. This will establish greater resources for members in the way of employment support, tax and legal advice, technical interpretations and accounting services. This will be



The new-look MPANSW logo heralds a new era of expanded member benefits and industry strength.

achieved through MPA's plan to increase phone support and provide direct lines to businesses.

While lobbying and advocating for the plumbing, drainage and gasfitting industries has always been a core practice of MPANSW, 2023 is going to bring an increased focus. This will ensure members maintain strong, supported reputations through MPANSW's endorsement of licensed practitioners, reducing anti-competitive behaviour in the industry.

We are proud to announce the introduction of new discounts for members supporting paperless systems. Did you know that as a member you are already able to get great discounts on trade vehicles, apply for an Ampol petrol card, and get great accommodation discounts worldwide and insurance benefits?

MARKETING & LEAD GENERATION

MPANSW understands that strong marketing and lead generation services are critical to fully supporting trade members. As a result, MPANSW are working on our new website with a higher functioning membership portal. In late 2023 we will be able to offer members individualised websites at highly subsidised rates. This change will include access to discounted communications and marketing support packages, allowing members to improve lead generation and grow their online presence.

MPANSW will also be increasing their budget for local and regional advertising for the association.

TRAINING & DEVELOPMENT

MPANSW has created a specialist Training centre to pursue excellence in training. The Training Centre is operated by MPA Training, a Registered Training Organisation that delivers the full traditional 5-stream Certificate III in Plumbing. In 2023, MPANSW will be continuing to refine their training programs both online and face to face, to improve skill development and safety practices.



To learn more about the changes and member benefits coming in 2023, go to:

masterplumbers.com.au
Sign Up today: To apply for
membership scan the QRcode or
visit www.masterplumbers.com.
au/membership-signup

THE NATIONAL SCENE

FROM KEN GARDNER. MPANZ SECRETARIAT

Master Plumbers New South Wales is an active member of Master Plumbers Australia and New Zealand Ltd (MPANZ).

MPANZ comprises the Master Plumbers Associations of NSW, Vic., Qld, Tas., SA, WA, ACT, NT, and NZ. It develops, informs, and represents the industry on national issues.

Across Australia and New Zealand, plumbing businesses face similar challenges. There are differences in regulation across state boundaries, but by and large plumbing and business operations remain constant – particularly for companies which work in multiple jurisdictions. Master Plumbers

VISION

associations are united and working together on the critical issues which impact our respective members, no matter where they are based. We collectively are aware of our priorities for reform and improvement of the plumbing industry in Australia and New Zealand.

To that end the MPANZ Board and CEOs met in Brisbane in March to reconfirm our priorities and the strategic plan to deliver them.

The output from the strategic plan includes some agreed policy priorities and some key projects. A snapshot of the projects and policy priorities is set out below:

PURPOSE	Harnessing the collective power of our industry		
STRATEGIC PRIORITIES	Advancing agreed advocacy priorities	Increase the number of people choosing a plumbing career	Mo usi Plu
STRATEGIES & PROJECTS	OUTCOMES DESIRED Agreed policy position and strategy. United, nimble, and collaborative response on issues. Genuine consultation by government and agencies with MPANZ on any changes in scope to regulations impacting the plumbing industry. PROJECT: Create a 'manifesto' that outlines the key national policy priorities, the position of the association on each, advocacy strategy, and the outcomes desired. Including agreed authorising policies to enable a nimble response to emerging issues. Collaborating with member associations, develop a document outlining the agreed policy positions that will be submitted to Board for approval and funding decisions.	OUTCOMES DESIRED Increasing the number of people entering a plumbing career by promoting the industry as a desired career. Quality contractors employing more apprentices. Quality people entering the trade. Increasing diversity in the trade. PROJECT: Develop a project targeting specific career influencers (plumbers with potential apprentices in the family, guidance counsellors, coaches, etc). As part of the project, share existing state resources to identify what we can leverage. Goal of the project is to generate national campaigns that can be localised quickly and easily within each state.	PR A code virco carrincer incer of t an E.g.: of r Plur Fina people Die

choosing a plumbing career

A united industry protecting public health and the environment

number of people

OUTCOMES DESIRED

- Increasing the number of people entering a plumbing career by promoting the industry as a desired career.
- Quality contractors employing more apprentices.
- Quality people entering the trade.
- Increasing diversity in the trade.

OUTCOMES DESIRED

Plumber

· Raise consumer awareness of the dangers of unlicensed people.

More consumers

using a Master

- More people choosing a Master Plumber.
- · More unlicensed people choosing to get licensed.
- More members joining member associations.

PROJECT:

A collaboratively developed humorous viral social media campaign aimed to increase awareness of the perils of using an unlicensed person. E.g.: Is it worth the risk of not using a Master Plumber? Campaign. Final frame drives people to the website. See "Dumb Ways to Die" campaign.

LATEST HIGHLIGHTS

Now that your Association has relocated to premises in Seven Hills, the Association's College MPA Training (RTO 91087) is again in full swing, having restarted trade training for plumbing apprentices. Members are very welcome to submit expressions of interest (by emailing info@ masterplumbers.com.au or by calling (02) 8789 7000 for their plumbing apprentices to commence their trade qualification at the Seven Hills facility.

Members may be aware that Master Plumbers Australia New Zealand (MPANZ) is a Federated Association, which MPANSW has recently re-joined. After being absent from the National Association for a number of years, your Association has re-joined to ensure that MPANZ has a truly national voice and is able to advocate on behalf of all jurisdictions. An update from MPANZ on their strategic direction is featured opposite.

Save the date! The MPANSW Industry Dinner has now been locked in for the 6 September 2023 at the beautiful Oatlands House, and will again feature media personality Jean Kittson as the Master of Ceremonies. The evening will be a celebration of industry excellence with recognition of membership milestones, training excellence, and outstanding apprenticeship achievement. Keep an eye out for tickets, as it is expected to fill up fast.



Michael Bennett General Manager



FEATURE: Copper fittings

Know your copper regulations

Getting to know all the regulations and standards relating to copper fittings can be a daunting task! **JOHN FENNELL** from the International Copper Association Australia (ICAA) outlines the main resources you should be consulting.

s the CEO of the
International Copper
Association Australia
(ICAA), I regularly
get asked questions
by plumbers, builders and even
DIY consumers about all sorts of
plumbing issues. We're able to help
on most topics, but there are also
many resources out there that can
help plumbers and those associated
with the plumbing industry.

Much of this information is available in the various standards and regulations of course, and they should always be your first port of call. There are also lots of other helpful sources of technical information based on the information in the standards that also provide useful and practical methods of installing copper plumbing and solving problems.

PRIMARY DOCUMENT

The primary document governing plumbing regulations is the Plumbing Code of Australia, which is Volume 3 of the National Construction Code (NCC). This is available free electronically from: http://www.abcb.gov.au/Resources/NCC.

The NCC prescribes many requirements but also references Australian Standards that are regularly being revised and updated and must be considered. These include, but are not limited to:

- AS/NZS 3500.1-2021 Plumbing and drainage - Water services
- AS/NZS 3500.4-2021 Plumbing and drainage – Heated Water services.
 One important Standard

for copper plumbing is AS 4809-2017 Copper pipe and fittings -Installation and commissioning. This Standard is a concise extract of all the relevant information pertaining specifically to the installation of copper plumbing.

Standards can be purchased from the SAI-Global Bookshop at: https://infostore.saiglobal.com/store/

WATERMARK

One of the most important things that is needed from the start is good-quality, appropriate products, and this is generally assured if the product has a valid WaterMark approval.

With the introduction of 'Lead-Free' copper alloys, there most likely will be a modification of the WaterMark logo to include validation of Lead-Free conformance. At the time of writing, the ABCB was seeking approval for registration of the new trademark. Product marking cannot be finalised until

this approval has been granted. Refer to Notice of Direction 2022/2.0 Marking requirements for Lead-Free plumbing products, to be published by the ABCB, for final marking requirements for Lead-Free plumbing products.

It is important for every installer of plumbing products to understand that the responsibility for the use of compliant products rests with the licensed plumber at the point of installation. Enforcement of the requirements will be undertaken at the point of installation by the state or territory plumbing administration having jurisdiction. The regulations include repairs and renovations, and even for customer-supplied products the installer must ensure they comply with the regulations.

There have been issues where substandard products, or products not suitable to Australian conditions, have caused major problems. Purchasing from reputable suppliers and having the product installed by properly trained and licensed plumbers will minimise the risk of problems occurring.

GET THE HANDBOOK

The ICAA, in conjunction with MM Kembla, has been at the forefront of providing information on copper plumbing and installation methods. Recently, it released the tenth edition of *The Plumbers Handbook*, which is available from most major plumbing outlets. It is also available as an electronic, downloadable document from the ICAA website at: https://copper.com.au/resources/plumbing/

HYDRAULIC GUIDE

The ICAA has also released an update of the *Hydraulic Services Design Guide* (HSDG), which is available electronically at the same site stated above, but is now also available as a printed version. If you



The Hydraulic Services Design Guide is now available in printed form as well as digitally.

would like a copy, please email your request to plumbing@copper.com.au

In due course, we hope this Design Guide will be given to every plumbing apprentice at all the TAFE colleges.

GREEN COPPER

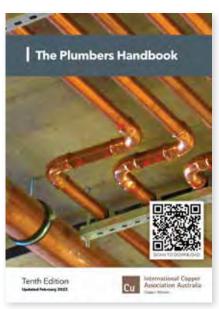
Environmental aspects of plumbing play an important part in every building and are becoming more important. Copper is getting a reputation as a 'green' metal, but a new study is suggesting it can also help reduce carbon emissions in the construction industry.

That's big news. The building and construction sector globally accounts for roughly 40% of energy and carbon dioxide (CO₂) emissions a year, while manufacturing building materials and construction are responsible for an additional 11%.

The study by the International Copper Association and Sphera looked at the environmental impacts of three water installation tube systems: copper, plastic multilayer pipes (PEX-AI), and plastic crosslinked polyethylene (PEX).

The summary of the study is comprehensive, and we recommend reading it, but a quick summary of some findings suggest:

 Compared to systems made from plastic (PEX-AI and PEX), copper tube systems used to transport fluids in buildings



The Plumbers Handbook is available in print or online at: https://copper.com.au/resources/plumbing

(e.g., drinking water, heating, air conditioning, gases) are better for decarbonisation.

 Compared to the plastic systems, only the copper system has guaranteed material circularity.
 Copper's circularity greatly reduces the environmental impact of buildings, particularly if the future product lifecycles consider the use of recycled copper.

The summary of the study is available at: https://copperalliance.org/wp-content/uploads/2022/09/ICA-ExecSummary-ReduceCarbonEmissions-202210-R3.pdf

Obviously, there's a ton of official information out there and it's easy to get confused, but being familiar with some of the simple guides can save you time and money, and, more importantly, protect you when things go wrong. **TMP**



John Fennell is the CEO of the International Copper Association Australia Ltd, which is the pre-eminent marketing and technology development body for the copper industry in Oceania.



FEATURE: HCAA water demand investigation

Peak flowrate problems

The Hydraulic Consultants Association of Australasia (HCAA) has commenced a water demand investigation to examine water useage in Australian buildings, with a special focus on typically overestimated flowrates. Researcher **BRENDAN JOSEY** provides an overview of the project.

etermining the size of cold and heated water plumbing networks in buildings is a common task conducted by hydraulic practitioners. This design task relies heavily on the estimation of flowrates experienced during peak water consumption periods. The industry has recognised that the current method defined in the Australian plumbing standards (AS/NZS 3500.1:2021) may result in significantly overestimated peak flowrates for Australian multilevel residential buildings, which then leads to the construction of oversized plumbing networks.

Besides the additional material costs, construction time and space needed to construct oversized plumbing networks, there are also several negative impacts towards a plumbing network's operation and lifecycle.

Larger pipe diameters hold a greater volume of water. When

considering heated water networks, more energy is consumed to heat and maintain desired water temperatures, and more water is wasted waiting for heated water to arrive at fixture points.

The low flow velocity in oversized networks means the system rarely generates enough force to properly 'self-cleanse' air pockets or unwanted suspended solids that can exist in plumbing networks. This can significantly reduce water quality, as well as lead to corrosion and eventually premature failure of pipes.

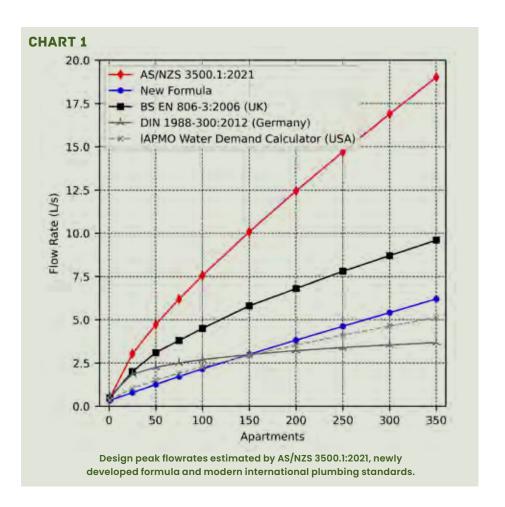
Since the actual hydraulic condition can be far from the designed condition in oversized plumbing networks, control valves and other hydraulic devices may not operate properly as intended. This can further exacerbate the already inflated energy consumption, maintenance costs and risk of premature failure.

WHY ARE PEAK FLOWRATES OVERESTIMATED?

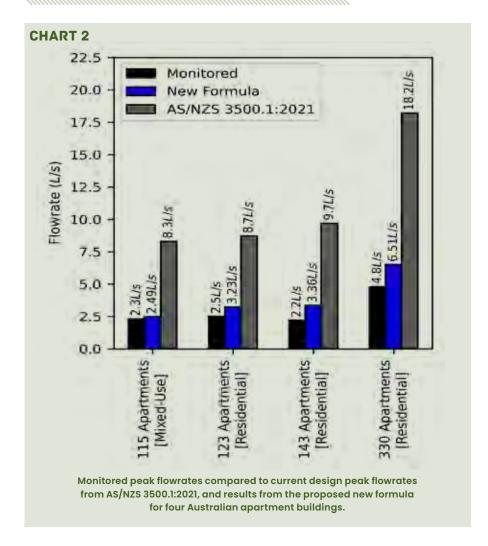
Current practices originate from design guidance developed in the 1970s. Between the 1970s and now, and especially since the Millennium Drought, our focus to consume less water has intensified. This has driven technological changes towards plumbing fixtures and appliances, as well as behavioural changes in water users. Through the adoption of 'low flow' shower heads and being more 'water wise' when purchasing appliances, it is well documented that we now consume less water per person. For example, Melbourne has introduced permanent water-saving rules since 2011 and has a Target 150 initiative (150 litres per person per day). However, design formulas and methods have yet to undergo significant updates to reflect the changed water consumption experienced in Australian buildings (see Chart I, comparing AS/ NZS 3500.1 to modern international plumbing standards).

DRIVING CHANGES

The Hydraulic Consultants Association of Australasia (HCAA) has initiated a water demand investigation. Beginning in July 2019, the project has set out to monitor the water consumption of Australian buildings to better understand the flowrates experienced during peak water consumption periods. The project is currently focussing on the cold and heated water consumption of multi-level residential buildings. It plans to expand to other building types such as hospitals, offices, schools, and various commercial buildings in the future. All data is uploaded to the project website, and access is available upon request, see the QR code below.







Four residential buildings located in Sydney and Canberra are currently being monitored. The sizes of the buildings range from 115 to 330 apartments and the number of fixture points is approximately 900 to 3,000. As shown in Chart 2, the measured flow data demonstrate that the actual peak flow rates were just 31 to 45% of the design values, confirming the current plumbing standard is outdated (more information available in a technical paper freely downloadable at https:// ascelibrary.org/doi/full/10.1061/%28A SCE%29WR.1943-5452.0001625). The results indicate for all four buildings, the main cold-water pipe servicing each building could be significantly reduced in size.

A case study by HCAA on another 13-storey residential building with around 120 apartments found the pipe size would have been 40mm instead of 100mm if designed for actual peak demand. If all pipes

within the building were sized accordingly, this could save \$120,000 in building costs. This suggests very large savings could be made across the construction sector. And for the hot water system, the smaller pipe could reduce heat loss by 30-40%, saving another \$2,000 a year in energy costs.

COLLABORATION

The project has attracted the attention of Deakin University researchers and the Australian Building Codes Board (ABCB). The HCAA is expected to release a free toolkit to estimate cold-water peak flow rates for residential buildings out to the industry in Q3, 2023. This toolkit adopts the new peak flow design formula developed by Deakin researchers (see Chart 2 for results from the new formula for the four aforementioned apartment buildings). The new formula is currently undergoing a review from the ABCB and

experienced industry personnel to gain regulatory endorsement for hydraulic practitioners to use as a performance solution. There are discussions in place to have the design formulas written in as an alternate pathway to estimate the peak flow rate in buildings for the 2025 release of the National Construction Code (NCC Volume 3).

WANT TO HELP DRIVE THE CHANGE?

The water demand investigation task force is always looking for access to new residential buildings for monitoring. It could be a small low-rise apartment block or a large high-rise apartment building. A wide array of building sizes is needed to refine the newly develop plumbing design formula. Feel free to reach out via the Water Demand Investigation website (https://www.waterdemand.com. au or use the QR code opposite) or directly get in contact with Brendan Josey at bjosey@deakin.edu.au. TMP



Scan for more information HCAA Water Demand Investigation.



Brendan Josey is a PhD Candidate at
Deakin University. He holds a Bachelor of
Civil Engineering (Honours) degree.
Brendan's professional interests include the
improvement and optimisation of design
practices for Building Services.
Email: bjosey@deakin.edu.au



TRAINING

As previously covered by **ROD JACKSON** in his Vocational Training articles, enrolments in the Diploma of Hydraulic Services Design qualification continue in 2023. Meantime, the 2022 cohort of 34 students is progressing well, with most expecting to complete their diploma qualification in June 2024.

Diploma of Hydraulic Services Design CPC50620 Update

he delivery location for the Diploma qualification remains with the Plumbing section at St Leonards TAFE Campus in the TAFE NSW Sydney Region, and students can attend face-to-face classes of an evening or online through Microsoft Teams.

In addition, the St Leonards teaching team were able this year to accommodate a new day class of 15 students who have commenced the Certificate IV in Plumbing and Services (Hydraulic Design Stream). It is anticipated that this cohort will also finish in June 2024 before progressing into the Diploma.

ONLINE PLATFORM

Delivery of this qualification through an online platform was a significant improvement in capability and resources, with the recommencement of the new qualification in 2022. This provided greater access to people wanting to commence in the Hydraulic Design industry from around Australia and New Zealand.

Approximately 50% of enrolments continue to come from those needing to update their qualification or complete their qualification from previous study in the Diploma to meet the requirements to register as a certifier, as required to meet the Design and Building Practioners Act 2020, and plumbers who hold a Certificate IV in Operations qualification wishing to commence or gain employment as a

Delivery of this qualification through an online platform was a significant improvement.

Hydraulic Consultant. The wait list to commence the diploma continues to be strong. Individuals interested in gaining information on enrolment for this qualification should email Rodney Ware or Stephen Reardon at education@hcaa.org.au.

Further information is available at https://www.hcaa.org.au/tafe-nsw-study-and-courses.

The industry is still having trouble finding enough qualified teachers who hold a Certificate IV in Plumbing and Services and/or a Diploma in Hydraulic Service Design, as well as a teaching Certificate IV in Training and Assessment (TAE40116 or TAE40122) qualification. This represents a recognised barrier to deliver additional classes to meet growing demand. Any interest from qualified persons in teaching with the TAFE team should be emailed to Rodney Ware or Stephen Reardon at education@hcaa.org.au and would be well received. TMP

Further reading on the Design and Building Practioners Act 2020 is available at https://legislation.nsw. gov.au/view/html/inforce/current/ act-2020-007





Rod Jackson is the Compliance Administrator for MPA Training. A plumber by trade, Rod is very well known to the plumbing industry, having had oversight of the training of generations of plumbing apprentices throughout his lengthy career with TAFE NSW prior to commencing with MPANSW. Email info@masterplumbers.com.au



FEATURE: Sydney Water

Hints and tips – backflowaccredited plumbers working in Sydney

You probably use Sydney Water Tap In® all the time to register backflow devices, lodge backflow test reports and maintain devices. We've identified some common issues faced by backflow-accredited plumbers when they use our database. Try these troubleshooting solutions.



You apply for access to our backflow database, but your application is rejected.

When you register for access to our backflow database, you must use the same name you used to set up your Sydney Water Tap In account. If the name doesn't match what's on your backflow accreditation, you won't be approved to access the database. You can't use a generic business name or the name of non-accredited staff in your business to gain access.

You try to register a replacement backflow prevention containment device, only to be told it's been registered twice or registered incorrectly.

Duplicate devices may be created if you've accidentally registered a replacement device as a new one. As a result, your customer starts receiving letters about the requirement for annual tests. We may even commence

compliance action against them. To avoid this issue, double check the category you choose from the dropdown in the backflow database when you're replacing a device with a new one. Look for the specific option to add a replacement device.

You register a backflow prevention containment device, only be told the device has been installed on the wrong account number.

Always double check that you're installing, replacing, or testing a device on the correct Sydney Water account number. The account number is the 7-digit number located on the top right of your customer's Sydney Water bill.

If you're testing a multi-unit strata property, the containment device should be registered against the account number of the master strata property, not the account number of the individual unit. Remember: backflow prevention containment devices are installed on the main incoming water supply to a property directly after the main water meter.

You carry out an annual test, upload the test report through Sydney Water Tap In, and then send us a test confirmation email as well.

This is paperwork you don't have to do, and reviewing unnecessary test confirmation emails slows us down, too. Our backflow database automatically tracks your uploaded test reports and updates the status of tested devices. Simple.

We hope these tips are helpful in improving the way you interact with our backflow database. **TMP**

CAROMA PLUMBERS' HUB IS NOW LIVE!

EXPLORE TODAY

Developed for the exclusive use of the plumbing community, providing plumbers with tools and support to select, maintain and repair Caroma systems.

CAROMA METHVEN CLARK dorf

Browse & Share Product Info Download Installation Guides

Stock Check

Generate Quotes





FEATURE: Member Profile

Passion drives business success

Matthew Carle, Owner/Director of Constellation Services P-L, says passion is an important prerequisite for any plumber wanting to enjoy a long-term, profitable business. Having just celebrated 20 years of membership with MPANSW, Matthew shares some of the personal secrets behind his success.



One week after finishing high school, I landed an apprenticeship with a local plumber from my local golf club. Within a couple of weeks, I was hooked and have had a passion for the industry ever since.

I started as an apprentice and worked my way up through the business, eventually buying out the owners. Since then, I have rebranded the company and built it from the bottom up. It has been a challenging but rewarding journey.

Were you destined to work in the plumbing industry from an early age?

I guess I was. One day my dad was showing me how to change tap washers at our family home when I was about 12 years old. We ended up having a fight over it as I wanted to be out playing with friends. I told him I don't care about needing to know how to do this.

Moral of the story: listen to your father, as I really did need to know how to change tap washers.

Have you worked in any industries apart from plumbing?

Short answer: no. Long answer: Yes? My first job was the local paper run; then, as a teenaged school kid I worked in retail packing shelves for Franklins and as a layby boy for Mansours. Then, on weekends I mowed lawns for the family.

Have you had many mentors throughout your career?

I recently took on a business coach for Constellation Services. It has been fantastic for both professional and personal growth, as well as driving the business forward to be the best it can be. Prior to that it would be my parents, who are both business-minded, and have always helped and guided me along the way. Which they're still doing today.

Would you describe yourself as a 'people person'?

Yes, absolutely. I have always been up for a chat with whomever, whenever. I think it helps being personable in the plumbing industry as you meet people from all walks of life.



Above: MPANSW President Greg McElroy presents Matthew Carle with his certificate recognising 20 years of membership.
Below: Nicola Branch and Matthew Carle celebrate Constellation Services' MPANSW honour.



What have been the most significant changes in the industry throughout your career?

There have been so many. From the simple Plumbqwik (lifesaver), through to business technology such as job management systems. But the most significant one for me is the copper crimp system; it's been an absolute game changer. Plus, right now, the steel piping crimp system is hitting the market, which is great for the part of the plumbing industry I'm in. Cannot wait to use it.





What has been your most challenging assignment or project?

There has been so many. From The Gas Meter for the Sydney Olympic Flame in 2000, to the aircon plant upgrade at Dubbo Regional Council, to the plant room upgrade and alterations at the Sydney Tower Eye to make way for the Skywalk tour.

But by far the most challenging has been learning to run a business. This is a whole different skillset to being a plumber, and will always be an ongoing project and challenge for me, as I am still learning and juggling things daily.

What has been your greatest achievement?

There a been a few along the way. But it would have to be the journey to having a successful business that has contributed to many parts of society throughout NSW for over 20 years. I am proud that my business has provided for my family and for many employees.

How important is ongoing professional training and development?

Extremely important, in my opinion. If I weren't continually looking at becoming better, my business would have been left behind in the 'pen and paper' days. Without all the professional training and development we have invested in, I doubt our business would be here today. It's always about improving people, systems and

I recently took on a business coach for Constellation Services.

customer service. How can we refine what we are doing to increase productivity, upskill our staff, and, most importantly, improve our customer service?

How important has your family been to your career?

Extremely important. Constellation Services thrives on the backing from my family. Without their support I would not be where I am today.

From my parents having always been a huge encouragement and guidance for me, to my wife who understands the lifestyle which comes with being a business owner.

As well as my sister Nicola, who has been by my side at Constellation for over 10 years. She has a background in business and account management; she is my right hand, across all parts of the business.

Will technology ever fix all plumbing problems?

In my opinion: no. But every little tech improvement does help make our job easier and more productive. Technology has been a big part of helping Constellation grow into the business that it is today, but it will never entirely replace it.

Left: Matthew (pictured here in the early days of his career) remains as passionate about plumbing today as he was over two decades ago.
Right: Sam Geldard, Matt Carle, and Matt Tag on site at Macquarie University.

Have you noticed any changes to the way society regards plumbers?

For me: no. For as long as I remember the plumbing trade has been regarded as a great career choice and a necessity. As my grandfather used to say... "Plumbing never stops, so you'll always have a job."

Is plumbing the best career in the world?

That is a big question! Would I say it's the best, maybe not. But do I love it? I sure do! I would not have been doing this for over 27 years if I didn't love it. It certainly is a tremendous career choice which can take you anywhere you want if you put your heart and soul into it.

What will you be doing in five years' time? And then?

Continuing growing a healthy and stable business that provides for my family and staff members. I'm hopeful that in time, with growth and improvement, it will allow me to have more time to step back a little and find a healthier work/life balance. I'd like to be able to take myself and my family on more regular holidays! TMP



BUSINESS BANTER

We hear a lot about the importance of 'business growth' – but what is it? Are we talking about sales numbers? Scale? Profitability? Our business expert **CHRIS VAN BRUGGE** provides some valuable explanations and insights.

What is business growth?

he only growth that matters is trading profitability; it is the reason to own a business and the reason that we devote so much time and effort in the office rather than at home or fishing. Growing profitability is a balancing act between: (1) capacity, (2) demand, (3) efficiency, and (4) price. Every decision we make about strategic direction should be judged for its impact on these four profitability drivers.

THE REALITY

The reality is that businesses tend to grow or shrink all the time; it's rare for businesses to operate at a stable and profitable plateau. Growing profitability is more about continually optimising each of the four drivers outlined above. Purposeful growth concentrates efforts on continual improvement, while the alternative tends to ultimately lead to a natural decline in profitability that becomes harder and harder to reverse.

The other positive outcome of sustained growth is the positive impact that it has on the realisable value of your business. As covered in an earlier article, when buyers are calculating the value of a business, they are willing to pay according to potential future value, and demonstrated growth almost guarantees a positive outcome.

So why is growth based on keeping all four drivers in balance?

It's surprising how often an initiative or opportunity seems to dramatically increase sales volume, while having a minimal or negative

impact on profitability. The reason for this is normally identified when considering the impact on the unconsidered drivers.

Below are two examples of businesses that *increased* their sales, but *negatively* impacted profitability:

- A company spent \$100,000 on advertising and generated an additional \$500,000 in sales at a 15% gross profit. Because they didn't have the capacity to service it correctly, they didn't generate repeat customers and the advertising cost was greater than the gross profit.
- A company won a \$1m contract with a 20% gross profit.
 Unfortunately, they did not have the capacity to satisfy their existing business, which generates a 35% gross profit.
 They increased their reliance on a single customer and diverted their resources from growing the more profitable part of their business.

If we look at each of the drivers in more detail, we can get a better understanding of how they relate to each other.

Capacity

Capacity in a plumbing business is not limited to the number of available plumbers. You also need to assess your management's ability to support the plumbers, motor vehicles, equipment, call centre and dispatch.

You may think that capacity and demand are the most closely dependent elements, but price and efficiency are critical to assess how to deploy that capacity. If you are less efficient than your competitors, then you may need to specialise or concentrate on higher-margin business. Your capacity may be used to deliver services with very different prices. If you're restrained by capacity and not demand, then how do you maximise the revenue generated by available capacity?

Demand

Demand in a plumbing business is the number of bookings you receive. Not all demand is the same, though, and you need to proactively shape demand to maximise the price you achieve for your available capacity.

A shortage or surplus of demand will help drive the priority between capacity, price, and efficiency. If there is a low demand, then to increase profitability it may be more beneficial to reduce capacity and increase efficiency, and if there is high demand then it may be better to focus on increasing capacity and price.

Efficiency

Efficiency is possibly the only initiative that can be improved in isolation to the other drivers. With all things being equal it is possible to substantially increase profitability by simply doing the same things better.

It is a good idea for all businesses to have a dashboard that compares the most critical ratios in their business to help identify the areas with the greatest possible efficiency gains. This could identify which technologies will give the greatest savings and help identify a payback period, and then provide clear



The only growth that matters is trading profitability; it is the reason to own a business.

evidence of the outcomes achieved after implementation.

Your efficiency is critical in markets with low demand, and it may also have a bearing on the type of work you can profitably target. Efficiency also relates to the cost of parts and services that you consume when serving your customers.

Price

Price is the most difficult to get right. It's imperative that you have a complete understanding of the profitability of each job. Imagine if 20% of your jobs were losses, 40% were break-even or a small profit, 20% were profitable, and 20% were super-profitable.

The biggest change you could make to your profitability would be to raise your price on the bottom 60% of your business and focus on creating demand for the top 40%. If you spent money advertising to attract easy customers in the bottom 20%, you would win every opportunity because you are potentially the cheapest, significantly growing your turnover while destroying your profitability!

Understanding the cost of every job is the only way of truly understanding how to utilise your capacity, how to price compared to competitors, and how efficiency might make loss-making business profitable.

The other benefit of growth is the effect on scale. If you have an efficient organisation that has the capacity to support many more plumbers without adding overhead, then you can significantly increase profitability by scaling up your sales.

IN SUMMARY

Growth is not advertising for more customers and growing raw sales; rather, it is a mindset that focuses on capacity, demand, efficiency, and price to continually grow underlying profits. This ensures that you create the most robust and valuable business, provides insights to understand if dangerous trends are emerging, and offers the knowledge to deal with external threats with the required clarity.

Remember that the only growth that matters is profit – and not all revenue is the same. **TMP**



Chris van Brugge has vast business experience as a fintech entrepreneur in ATM and EFTPOS markets. He has also negotiated a global joint venture with an international currency exchange business.

Chris is now launching a new business in the online marketing space. He also does short-term consulting to businesses and can help owners prepare for an exit, acquisition or sale.

Email Cvb-777@hotmail.com



DIRECTIONS

MPANSW President **GREG McELROY** offers some valuable insights into the power of professional business development, based on superior training and marketing, combined with highly tuned customer relations.

Aiming high: are you a 'tradesperson' or a 'businessperson'?

ou must give credit
where credit is due.
The Americans know
how it turn any type of
business into a large
profitable business.

The entrepreneurial skills to make a hamburger bar into an international mega-business was always there for someone to action. I am, of course, referring to McDonalds, where staff as young as 20 years of age can manage a store due to the simplistic systems that all employees must follow. The McDonalds success story even became a movie a few years back called *The Founder*, which is well worth the watch.

It is not just hamburger bars that the Americans morphed from simple businesses into big successful profitable operations. Some other examples, which are now household names, include Starbucks, Pizza Hut, and Dominoes, just to name a few.

The reason I mention these mega-businesses is because the same methodology has been applied to numerous plumbing, electrical, air conditioning and roller door business throughout America. As an example – Google "Al roller doors America", owned by Tommy Mello. Tommy turned his local garage door service business from \$50,000 in debt to a \$30 million business in seven years. Many savvy

Australian plumbing and electrical business owners are watching and learning from examples just like Tommy.

These 'businesspeople' (not really 'plumbers' once they've started a 'business') actually want to be in business. They want the rewards for the risk and uncertainty that plagues business owners. These plumbers/business owners want to know how to break the shackles of making just a little more than being on wages, whilst sacrificing life choices of working way beyond the 220 days of eight hours a day that they enjoyed as an employee.

BUSINESS TRAINING

The typical mindset of a plumber in business is that they possess the necessary skills to run a business. However, this is often not the case unless they have undergone some form of business training. Unfortunately, only a small number of business owners bother to pursue such training. Interestingly, those who do acquire business training and have the discipline to implement effective procedures and policies are often highly profitable and the envy of their competitors. Therefore, I strongly advise every small plumbing business owner to learn the art of running a business. It is widely acknowledged that the Business Principles covered in Cert IV are

not comprehensive enough and fail to challenge the intelligence of most individuals.

To begin with, it would be wise to research successful businesses in the home service industry by browsing through online resources. Most entrepreneurs in this field love to share their success stories, so it's worthwhile watching and listening to them. However, their stories typically don't revolve around being the best or the cheapest plumber, as that's not the key to success. Rather, it's all about providing exceptional service, effective marketing, and exceeding customer expectations.

Learning how to run a modern business should be a top priority. Instead of competing with other businesses, focus on competing with yourself to continuously improve your service and exceed your customers' expectations. Make sure to take the time to explain the issue to the customer and how you resolved it. This not only helps them understand the problem better, but also justifies their decision to hire a professional instead of attempting to fix it themselves.

As an experienced tradesperson, it may appear obvious that your main responsibility is to resolve the issue. However, it is equally crucial to offer a positive customer experience. If you successfully address the problem but fail to provide a satisfying experience, the customer may feel like you haven't fulfilled your duty.

Maya Angelou's quote, "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel," holds true, especially in delivering exceptional customer service.

The paragraphs above emphasise the significance of



"As a business owner, it's crucial to be open to change..."

training, not only for business owners, but also for their employees. Many business owners may hesitate to invest time and money into training their staff due to the fear of employees leaving with newly acquired skills. However, it is essential to consider the cost of keeping untrained employees. As the saying goes, "it's disheartening when a trained employee resigns, but the consequences of an untrained employee staying are much worse."

Studies suggest that plumbing and drain cleaning companies miss out on 15% to 20% of their annual opportunities due to various inefficiencies such as unreturned calls and emails, failure to provide timely estimates, poor communication, long wait times, and internal system flaws. Unfortunately, these inefficiencies are often viewed as inevitable rather than as preventable losses. Business owners tend to focus on the cost of losing a job to a competitor instead of recognising the more significant opportunity losses they create for themselves.

PRACTICAL STRATEGIES

As marketers, we have previously lamented the missed opportunities that arise from not reminding customers of the full range of services that we can offer. However, this problem can be easily addressed by adding a simple line at the bottom of emails or invoices, recording messages for hold music, or training customer

service reps to inquire if customers are interested in additional services during their appointment. This tactic is typically low-cost but can generate significant additional revenue annually, sometimes in the hundreds of thousands of dollars.

Consider how avoiding timeconsuming office processes or manual customer communication tasks can lead to wasted time. This wasted time can result in lost productivity, increased labour costs, staff burnout, and a poor customer experience, which can cost thousands of dollars. To combat wasted time, look for opportunities to automate routine tasks, particularly customer communications. If automation can result in more consistent communication of equal or better quality, and most people would not notice or care if it was automated, then automate it. Systems like Customer-Matic can seamlessly integrate with your existing field service software.

As a business owner, it's crucial to be open to change and avoid being resistant to new ideas, systems, and customer expectations. Even though it may be tempting to stick to what has worked in the past, refusing to adapt can be a costly mistake. In today's world, companies that are slow to change can quickly fall behind, and not changing can seem like a non-option that results in

missed opportunities. By embracing change, you can stay ahead of the curve and position your business for long-term success.

An investigation of elite athletes found that those with a mindset of dominating and defeating their competitors performed consistently worse than those who focused on personal growth and improvement. These athletes realised that focusing on their own game and striving to do progressively better in each match was the key to success, rather than placing their outcomes in the hands of their competitors. By focusing on personal improvement and enjoying the growth process, you can consistently play to win and build the business of your dreams. TMP



Greg McElroy is a Small Business Culture & Accountability Trainer. He has been a member of the Master Plumbers Association NSW for some 40 years. He was active on the Executive Committee from early 2000 until 2009, serving as President for several of those years. He is now serving on the Executive Committee again in 2023, with a special focus on business training and knowledge.



Apprentice **TOMI PROTUDER**, who has been trained by MPA Training and hosted by Galtee Plumbing, shares his experiences about the value of a diverse work-training routine.

Taking pride in your work

What level have you reached with your apprenticeship?

It all started after finishing high school in 2018 and completing a two-week pre-apprenticeship through Master Plumbers, who then found me a job with Southern Waters Hydraulics. It was almost three years later I moved to my current company Galtee Plumbing to gain experience in other areas of plumbing such as residential and strata maintenance, as I was mostly on construction sites before then. At the time of writing, I'm in the last month of my fourth year.

Did you feel prepared for the first day of your apprenticeship?

I did feel somewhat prepared as I had an idea of what the trade was all about through the preapprenticeship. I was also lucky to have my dad who has been a carpenter for over 20 years and seems to be the jack of all trades. We never appreciated this at the time, but my brother and I have learnt a lot through helping him in some areas of building our home and other projects around the house such as building decks, putting up fences and laying pavers.

Has it been hard to balance training and work obligations?

I found it pretty easy and manageable, as I was actually finding the training interesting and relevant to my job, which motivated me to stay on top of it all. Having a full day every week to get the training done definitely makes it easier to balance as well.



Tomi Protuder says all-round experience is vital at the start of a plumbing career.

Have travel requirements during your apprenticeship posed any issues?

I travel a fair bit for work, sometimes going from strata blocks around the Sutherland area back to real estate jobs in the eastern suburbs or the odd renovation for builders anywhere in Sydney. I enjoy the variety in my job; however, the main issue would be the cost of travel including tolls, petrol, and depreciation on my car, which is a big portion of an apprentice wage. Having a manual license definitely helps as well if you're ever required to take the work ute for a spin.

I feel like I'll always be learning...

Have you learned everything you expected to during your apprenticeship? Or has it been more of an introduction to real 'on the job' instruction later?

I've been lucky to learn everything I've expected so far as I've been taught the right way of doing things and to take pride in my work – even in a high-pressure environment where things need to be done quickly and efficiently with no margin for error. I feel like I'll always be learning and there's still aspects of the trade I'd like to further my knowledge in, but it's been good to experience different areas of the trade.

You must have had some great training mentors along the way — what makes a 'good instructor'?

To me, a good instructor will take the time to make sure you're understanding and taking in everything that they're showing you. They'll encourage you to challenge yourself and motivate you to improve every day without wasting any opportunities to learn something new. This is evident through my current boss Paul, an Irish plumber with years of invaluable experience who motivates me to live up to his high standard and quality of work while also encouraging me to ask any questions or for help with anything.

What advice would you give to a new apprentice about to start day one?

I would say the main thing to focus on when you're starting out is gaining experience. When someone takes the time to teach you something, even when they're wanting to get the job done quickly, make sure you're open-minded and willing to learn. If they see you're doing that and taking their advice on board, there'll be a lot more you'll learn from them, and this is one of the best opportunities to improve as a plumber. Taking photos and notes down can make this process easier, and you can look back on work you've done if you ever forget how to do something. There'll be



There is always time for fishing! Tomi shows off his catch of the day.

long days and early starts. Definitely easier said than done, but I believe a good routine with enough sleep and looking after yourself is also important in helping you learn and stay motivated.

Looking back, what have been the main highlights?

Some of the main highlights include jobs where I've had to problem solve and carry out investigation works, for example locating and repairing leaks in apartment buildings. It's the most rewarding kind of work when you know you've been able to fix the issue, prevent further water damage, and help people out.

Where are you working now? Main fields of expertise?

I'm currently working all over Sydney; main fields of expertise would include general maintenance, new builds, investigation works, drainage, rough ins, some areas of roofing and renovations. **TMP**

PLUMBERS CO-OP CELEBRATING 68 YEARS OF TRADE

A LOT HAS CHANGED SINCE 1955, BUT ONE THING REMAINS THE SAME ... YOUR CO-OP IS OWNED BY THE PLUMBER, FOR THE PLUMBER.

Unique in the industry, only the Co-op returns PROFITS to its Member Shareholders.

The expanding branch network of 31 branches throughout New South Wales, Victoria and Queensland, competitive buying power and commitment to superior service standards sets the stage for a positive, prosperous future for your Co-op.



400 TOP SELLING BRANDS



OVER 120 UTES AND TRUCKS



250 TEAM MEMBERS





Ballina plumber **PETER RICHARDSON** knows variety is the spice of life in the regions – no two days are the same. In this issue, Peter invites a local colleague to outline some of his current concerns and observations.

Quality brings satisfaction

always like to chat with other regional plumbers about their day-to-day work. Below are some comments from a local colleague who prefers to remain unnamed:

I am a plumber, 'the keeper of public health and safety'. Another plumber, a person who has my respect, recently asked me to provide some content for a trade magazine! Well, here are my thoughts...

A wry smile crosses my face as I think of our first meeting. I had not long started working for a regional Plumbing Authority. I was at a local car dealership to pick up a new work vehicle. My work mobile rang, the caller didn't waste time with unnecessary pleasantries, and instead identified himself and then proceeded to undertake what I considered to be an interrogation. It went something like this in my recollection, thankfully a recollection that is better than a politician's memory who is under the heat of the public scrutiny spotlight. The caller got straight to the point: "I believe you are the new plumbing inspector in town," he said, to which I answered, Yes." This was followed with, "So, what are you doing now?" I responded, "I'm waiting in the sitting room at the car dealership!"

The caller proceeded to advise that I should stay put and that he would be there in 10–15 minutes. I hadn't fully processed what had just happened, when through the dealership door walks Peter Richardson. He looks around, spots me, proceeds to eyeball me, and states, "Well, you look like you could

It is this long-term contact with industry members that I value today...

Below: An example of a SS top, PVC bottom shower grate that is now 22 years old. Even with this installation, I had asked the water-proofer to finish his applied products where they could not be seen. And still today it is the textured 'greencoat' that provides the best adhesion for shower 'crud'.



be a bloody plumber." And that's how our working relationship started.

That was twenty years ago. By this time, I had been living in the Northern Rivers region for several years, having moved up from Sydney. I was 36, my wife and I had a young family, and our hands were full.

The wife and I had a tree/sea change when that term had just begun in circulation. Having grown up in Sydney's St George area, I came from a household that valued and respected the idea of the three sons all embarking on trade apprenticeships. We all started our apprenticeships in the early 80s, which seems like a long time ago now. We all completed our four-year apprenticeships. Understanding that to do something right takes time and patience.

Over time, not only did the parents become the beneficiaries of a qualified and Licenced Electrician, Carpenter and Plumber, but so did each brother. Family homes were built, and families raised all in the Northern Rivers with a wider appreciation for the skills, knowledge and attitude required to complete these tasks.

As time moved on, so did I and around the early 2000s, an opportunity to present plumbing trade course content for a New South Wales Registered Training Organisation (RTO) presented itself, a role that I continued until 2015. It was this role that focused my attention and motivated me to have a thorough understanding of my trade. To consider what it was: that we as plumbers would do day-to-day work 'on the tools', and adhere to what the plumbing standards, codes or ordinances prescribed that we 'shall' do.







A number of the plumbers that I see now in my regular day-to-day are the fellas that used to give me cheek in trade classes, or the apprentices who became registered plumbers who would attend their RTO of an evening to undertake their Plumbing Licencing course with the intention of becoming a licensed plumbing contractor.

Some students would drive on country roads for over an hour, one way, twice a week to complete their Plumbing Technology, Certificate IV Course (Journeyman Plumbing Licensing Course in my day). Locally, it would take six years to achieve the goal of obtaining your Plumbers Contractors licence.

My memory is clear of the hours set aside on weekends for marking Certificate IV assessment tasks in the subjects of Water, Waste and Gas during those years.

There was satisfaction when the reviewed work reflected that the tradesperson had also considered it worthy to invest their time.

It is this long-term contact with industry members that I value today. I'm now fortunate enough to see some of these tradespeople, now licensed contractors, running family businesses or having established their own business, making their own way in our industry and providing for their family's future.

In my family we discuss the concept of two pathways of building and construction work. For one pathway we have coined the term 'The Installer'. The installer takes pride in how fast they can complete an installation. The other pathway is what we like to call 'The Tradesperson'. The tradesperson takes pride in the quality of the installation.

The tradesperson understands that, at times, to do the job correctly and as intended, requires consideration of the individual site and build conditions, compliance with the accepted Australian Standards, Building Codes and Local Authority Conditions. And it may take additional time.

When an organisation such as the Committee for Economic Development of Australia (CEDA) provides a media release outlining its considerations for skills recognition and reform, I find it frustrating to consider that a solution to a tradespeople shortage is not to invest time and energy in quality education, but to actually suggest shortening timeframes, so that we have more 'supposedly' qualified tradespeople to undertake building and construction work.

TRADE PRACTICES

And now a couple of trade practices that I'd like to highlight.

I imagine this problem I've identified started not long after the introduction of the tile insert floor waste grate.

All plumbers should know that the riser of the floor waste shall not be offset, yet on a regular basis I identify a trade practice by wall and floor tilers, resulting in restricted access to the floor waste The tradesperson understands that, at times, to do the job correctly and as intended, requires consideration of the individual site and build conditions.

by offsetting the floor waste grate to suit the tile pattern/lines. At times, this offset restricting access to the floor waste is up to half of the 100mm diameter floor waste riser.

Then, to compound this problem, it is common practice to put aside any manufacturer's 'link' piece (a smooth section of plastic material, adjustable in height, designed to be installed between pipe riser and floor grate). Instead, the wall and floor tilers opt for a section of rough tile bedding (screed), tile adhesive, or a combination of both surrounding the riser between 100mm PVC pipe and underside of tile insert grate or patterned grate. What better way to catch hair, soap and the natural build-up of drain 'crud' than to provide a rough surface with cavities.

On my last job where I specifically identified this practice with a customer, I made sure that I left on the job a number of 100mm PVC

'risers' of varying height to bridge the gap from puddle/leak control flange to grate, only to find them in the bag in the garage after the tiler had finished... because, you guessed it, he knew better. **TMP**



Peter Richardson, from Sidney & Richardson in Ballina, NSW, is a lifelong plumbing professional with an intimate knowledge of regional affairs. Contact Peter at admin@sidneyrichardson.com.au



YOUR MEMBERSHIP CORE BENEFITS

Master Plumbers Association of NSW is one of the strongest specialist contracting organisations in the building and construction industry and is a highly active and vocal body in trade related matters.

MPA NSW membership is designed to offer you practical benefits and maximum value services.

Join today and become part of an Association that offers leadership, information and advice to support your business.















QANTAS CORPORATE CLUB MEMBERSHIP

ADVERTISING/SPONSORSHIP COMMUNICATE TO OUR MEMBERS

YOUR MEMBERSHIP ALSO INCLUDES













Falls from heights are the number one cause of traumatic fatalities in the NSW building and construction industry, making up 30% of notifiable construction fatalities.

Do work safety right at any height

ince April 2022, 22% of current SafeWork NSW investigations are falls incidents in construction. These statistics are echoed throughout the world and continue to be a wicked problem on construction worksites.

"During our Scaff Safe compliance blitz last year, one of the key issues we observed as Inspectors was finishing trades removing components, making the scaffold unsafe," said Jeff Adams, Senior Inspector SafeWork NSW. "It is really important that this does not happen on-site, and that only authorised trained scaffolders make any changes to the scaffold. What

happens is when you get up there, you don't know if it's safe or unsafe to use, so you are putting yourself at risk."

On 2 February 2023, a plumbing and roofing company was fined \$300,000 after a 25-year-old worker was seriously injured as a result of falling through an inadequately supported area of a roof under construction whilst fitting guttering. The man fell about 6.8m to the concrete slab below and suffered serious injuries, including a right foot fracture and dislocation, dislocation of his left shoulder and a compression fracture to a vertebra.

According to SafeWork NSW State Inspector Johnny Auditore, "This

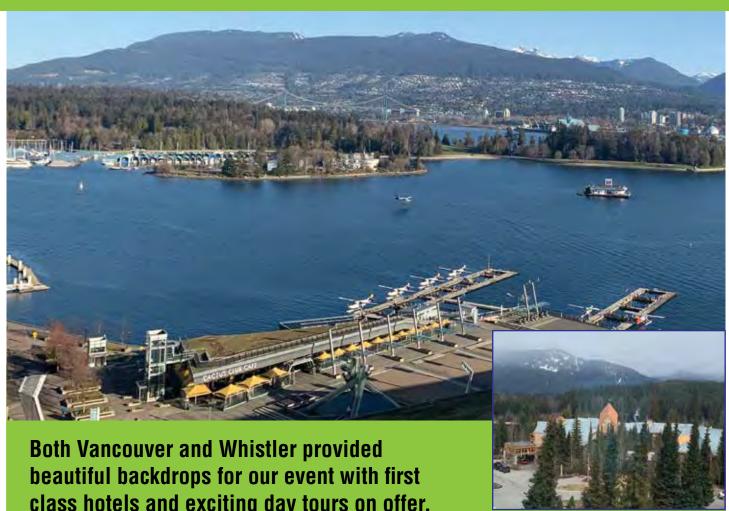
case highlights the importance of conducting a risk assessment in identifying hazards and implementing controls at a worksite. Prior to the incident, a new method of work was introduced for the installation of a box guttering system. The new method of work saved time, but it required workers to work in proximity to an open roof penetration, exposing workers to falls from height risk. If a risk assessment had been conducted at the time of the introduction of the new method of work, the fall risks would have been identified, allowing the business to determine the most effective control measure to eliminate or mitigate the risk of falls."





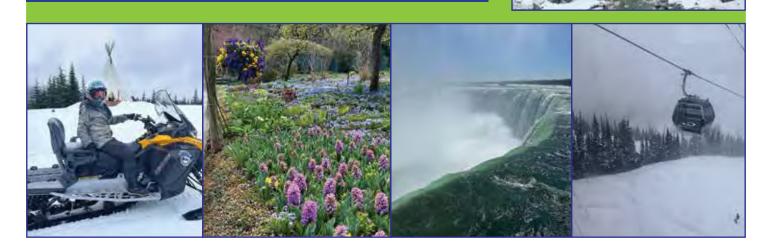
MEMBERS CONFERENCE 2023

Beautiful destination with a wonderful group of people



Both Vancouver and Whistler provided beautiful backdrops for our event with first class hotels and exciting day tours on offer. We are sure our Members took away some fond memories and made some great friends in the process.

KEEP AN EYE OUT FOR THE NEXT EXCITING CO-OP CONFERENCE DESTINATION.



PLUMBING CODE OF AUSTRALIA ADOPTION

The Plumbing Code of Australia (PCA) 2022 came into effect on 1 May 2023. It is the culmination of many years of work by the industry and introduced some important changes that practitioners need to be aware of.

Fair Trading NSW has published a range of technical notes to help you understand the new changes.

From 1 May, our plumbing inspectors are focusing on new requirements of the PCA 2022, with the main ones summarised below.

SUMMARY OF KEY PCA CHANGES

A summary of key PCA changes includes:

- The new PCA primarily references the Deemed-to-Satisfy (DtS) reference document, AS/NZS3500:2021 Plumbing and Drainage, specifically Parts 1, 2 and 4.
- There are new DtS requirements for DN 100 junctions at grade.
 These are to be elevated at an incline not less than 15° above the horizontal in sanitary drainage and sanitary plumbing installations.
- There are new requirements for cross-connection and backflow control hazard ratings for scenarios involving individual and zone protection, as well as modified backflow device hazard ratings prescribed in AS/NZS3500.1:2021.
- There is new DtS guidance on the installation of flexible joints to reduce the risk of soil or ground movement.

Bushfire-prone areas are required to meet the DtS standards AS3959 Construction of buildings in bushfire-prone areas.

- There are changes to provisions for the alignment of minimum WELS ratings for cisterns and tapware.
- Performance-based designs and installation are required to meet Australian Building Codes Board (ABCB) guidelines.

These changes are informed by substantial research into plumbing systems and products, committee discussions of proposals to benefit consumers, and engaging industry through seminars, webinars, newsletters, and training. Work is in progress on the 2025 version of the PCA and relevant Australian Standards. Some things to look out for in the future include lead-free plumbing products in May 2026 and improved provisions for the installation of rainwater systems.

For more information on PCA 2022 changes, visit www.fairtrading.nsw.gov.au and search for 'plumbing technical notes'.



WORKING AT HEIGHTS: NON-NEGOTIABLE

Falls from heights are entirely preventable. As one of the key risks on site, it should be a regular topic of discussion included in daily startups, toolbox talks and managed by supervisors and workers daily. No-one should walk past it – the standard you walk past is the standard you accept. Everyone should feel confident to speak up regarding safety issues, without fear or risk of consequence or isolation. Each individual taking ownership of managing the risk of falls at every level is the only way safety will be embedded in daily work practice and ultimately in the workplace

Preventing falls begins by being proactive and implementing a safe system of work in consultation with your workforce:

- Use fall-prevention devices such as guardrails and restraint systems
- Hold weekly toolbox talks and ensure supervisors do daily checks to ensure safety systems are being applied by all workers



- Foster a positive workplace culture towards safety
- Think about the project-specific risks and how you will manage them by preparing a safe work method statement (SWMS) for work where a person could fall more than 2 metres. See safework.nsw.gov.au/__data/ assets/pdf_file/0003/107886/ SW08268-0818-427125.pdf.
- Stand up to speak up! If you see something unsafe in your workplace, we want you to speak up and tell your boss or employer. If you are worried about raising a health and safety concern, then the SafeWork NSW 'Speak Up Save Lives' app lets you report an unsafe work situation, while giving you the choice to remain anonymous.

Head to the website to get more information on working safely at heights at safework.nsw.gov.au/your-industry/construction/work-safely-at-heights-in-construction or about our 'Speak Up' app safework.nsw.gov.au/advice-andresources/speak-up-app. TMP

MORE THAN PHYSICAL SAFETY LOOKING AFTER MENTAL HEALTH

Every month, nearly one in six workers experience mental ill health while doing their job, meaning there's a high chance it's happening in your workplace. In NSW, PCBUs (persons conducting a business or undertaking) have a legal obligation under work health and safety laws to provide a workplace that protects workers from risks to their mental health.

Mentally healthy workplaces also make good business sense. Workplaces that are mentally healthy give employees a greater sense of purpose, achievement, and pride in their work. It also allows businesses to attract and keep good staff, increases productivity, reduces time taken off work, and can increase profits.

To help you create and maintain your mentally healthy workplace, as well as support compliance with the Code of Practice, SafeWork NSW offers free training and coaching, led by qualified experts.

Business leaders who've taken part in these programs have achieved great results.

Western Earthmoving's Executive Chairman, Graham Ragg, said he recognised the 'machoism' culture in his industry as a common challenge to good workplace mental health.

By participating in the training, Western Earthmoving found ways to remove Saturday work for their staff, build greater connections within teams, and enhance two-way communication between all levels of the business.

Antoinette Howe, People and Culture Manager, said that the training gave them "great resources, tools information and ideas" to help them on their journey.

"Focusing on those areas has helped us create a more mentally healthy workplace where people feel like they belong," Antoinette said. "They feel like they're connected to a team – [that] they're growing, and they're satisfied in their work. We've found the productivity of the workforce is so much higher. [They're] motivated and want to achieve the best outcomes for the business."

The Muscular Dystrophy Association in Sydney also signed up for free workplace mental health coaching. With confidential support from their coach, they identified and addressed key psychosocial risks amongst their workers. After tackling burnout and role overload, creating opportunities for psychological recovery, establishing boundaries between work and life, and strengthening social connections within the team, the organisation also implemented a mental health and wellbeing policy in consultation with their workers.

To learn more or to get these resources for your workplace, visit mentalhealthatwork.nsw.gov.au and click 'Free training and coaching'.

NEW PRODUCTS

Life Member **BILL ARMSTRONG** has been busy scanning the plumbing industry for exciting new product releases – the following items caught his attention for their high quality and functionality...



REHAU EDGE

Rehau has launched a new product in Australia for the first time in 30 years. The Rehau Edge is said to be the fastest compression piping system that's been specifically designed for the local market.

I have had a demo of the Rehau Edge pipe and tools and am seriously impressed. There is no expanding the pipe any more – it is just 'put together and crimp'.

Rehau Edge compresses 40% faster than traditional compression systems. Its revolutionary new technology works without expansion, removing a whole step from the installation process.

Edge requires less tooling, and its speed means you'll complete high-quality work in less time.

Rehau Edge is stocked exclusively by Reece nationally.

For more information visit reece.com.au/rehau-edge





The Rothenberger compact press tool is designed for great portability. (Pictured is the Rothenberger Compact TT Auspex Tool Kit 16-15mm.)

I love this tool for the compact design and ease of use.

This tool is extremely light – just 2.5kg approximately – and it is designed to be very fast, taking just three seconds per press cycle.

It is also small, at just 34cm in length. This tool uses a Li-ion battery 18V/2Ah or 18V/4Ah.

Users will notice the ergonomic rubberised grip immediately and good balance in the hand.

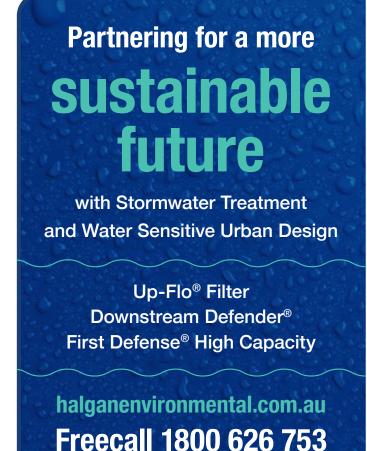
The quality is backed up with a three-year warranty.

The Rothenberger press tool is available from Reece nationally. For more information visit reece.com.au/search/tools-c108/rothenberger-b181000/



Bill Armstrong has been a member of the Association for over 25 years. He has served on the Executive Committee for the last 21 years. He is a Past President (2003–2005), Guardian (2007–Present) and Life Member (since 2015). Bill has always assisted new and current members. Bill has owned B&J Armstrong Plumbing since 1993. Email admin@armstrongplumbing.net.au or

Email admin@armstrongplumbing.net.au o visit www.armstrongplumbing.net.au







DIRECTORY

MPANSW EXECUTIVE COMMITTEE 2023 – CONTACT INFORMATION

Greg McElroy

President

Killara and Rose Bay Plumbing greg@killaraplumbing.com.au

Nathan Broughton

Vice-President

Chiswick Plumbing Group Pty Ltd nathan@chiswickplumbing.com.au

Ashley Lowther

Treasurer

Panania Plumbing Pty Ltd ashley@pananiaplumbingptyltd.com.au

Craig Scott

Guardian

Scott & Sons Plumbers, Drainers & Gasfitters Services craig@scottandsons.com.au

Andrew Murphy

Guardian

Murphy Plumbing Projects Pty Ltd andrewm@murphyplumbing.com.au

Bill Armstrong

Guardian

B&J Armstrong Plumbing billarmstrong452@gmail.com

Peter Honey

Executive Committee Member

Priority Plus Plumbing Pty Ltd peter@priorityplusplumbing.com.au

David Dighton

Executive Committee Member

Thornleigh Plumbing Services david@thornleighplumbing.com.au

Peter Richardson

Executive Committee Member

Sidney & Richardson admin@sidneyrichardson.com.au

Gary Cook

Executive Committee Member

gary.cook14@gmail.com

Matthew Braid

Executive Committee Member

Network Plumbing Professionals Pty Ltd mattb@homeservicesgroup.au

ADVERTISE IN

THE MASTER PLUMBER

BOOKINGS NOW OPEN for the next issue: **Spring 2023**

(Advertising booking deadline: July 2023)

TT'S YOUR MAGAZINE Special discounts for repeat bookings

CONTACT

Nicola Crumlin, Marketing Manager, Master Plumbers Association NSW today!

(02) 8789 7000

nicola@masterplumbers.com.au

PRIME O PUMPS

SYDNEY'S MOST TRUSTED NAME IN FIRE PROTECTION **PUMPSETS AND RELATED SERVICES FOR OVER 30 YEARS**

Prime Pumps offers its clients peace of mind through our expert and unsurpassed fire pumpset and fire system knowledge.



With a team of licensed mobile service tradespeople within close proximity to your site, you can rest assured that when you need help Prime Pumps is ready.















OUR EXPERTISE = COMPLIANCE

AS2419.1-2021 • AS2941-2013 • AS1851-2012



PRIME



"Let Prime test your hydrant system to ensure compliance with Australian Standards"

All your testing requirements:

- AS2419 + AS1851
- Fully calibrated test gear
- 3000 kPA pressure

Hydrant booster tests supervised by Accredited Practitioner & Licensed Sprinkle Fitter. Fully equipped to perform all types of tests including AS2419.1-2021 Appendix S and Appendix T.

With our multiple fire trucks, we are capable of testing buildings with flow requirements up to around 6,000 litres per minute.

CALL US NOW

1300 44 33 35

www.primepumps.com.au















Caroma Easy-Switch for flexibility

Caroma Easy-Switch lets you interchange the trim kit, colour finish and design pre- or post-installation, so you can eliminate costly holds-ups, maximise installation flexibility, and make quick design, colour and style updates without expensive rectification work.



How Caroma Easy-Switch works

Caroma's universal in-wall body system fits a range of Caroma tapware, including Urbane II, Liano II and Opal ranges, with trim kits available in multiple colour finishes and 2 wall flange options: rectangular and round.

Step 1

Select your universal in-wall body



Select your trim kit and colour finish









Watch Easy-Switch demo video

SPECIFY.CAROMA.COM.AU



*20 years replacement products or parts, 10 years Tapware Engine™. Refer to caroma.com.au for full warranty details