



- *Tributes to Allen Wilson*
- *Exam Success & Model Answers*
- *Seminar Report - Pool Covers*



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NOTICE TO ALL READERS

Articles and advice in the ISPE Magazine are for guidance only. Further professional advice should always be sought before acting upon, or refraining from acting upon, a course of action. Health & Safety is of paramount importance and the correct PPE (personal protective equipment) should always be utilised before undertaking any job.
If in doubt, ASK!

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Front Cover Story

Lincombe Hall Hotel is situated within the heart of the English Riviera in Torquay. The existing owners purchased the Victorian property approximately 10 years ago and have spent considerable money during this time on upgrading the facilities at the hotel. This culminated in the owners obtaining planning permission for a new stand alone £2 million spa complex in 2019.

Signature Pools & Leisure were fortunate enough to be awarded the tender for the project and as such worked alongside the main contractor and other on-site trades to fulfil this project. This began with initial discussions with the client in terms of their aspirations and after liaising with the architect, we settled on a design that would suit the clients' needs in terms of hotel guests and day spa users. The clients settled for a separate spa feature pool and swimming pool that were adjacent to each other, enabling users to exercise in the 15m lap pool and then relax in the 13m spa feature pool.

We arranged to take our clients to Barcelona to visit the Inbeca Wellness factory where they were able to use the spa equipment which enabled them to make an informed decision on which wellness cabins and features to choose for their new spa project.

The main contractor commenced groundworks in early February and the project was completed and open to members by mid-November.

Both pools were completed with Astral commercial stainless steel main drains, skimmers and returns. Stainless Steel LED lights were supplied by Certikin and complemented the overall ambience with subtle lighting within the pools.

The high specification spa feature pool incorporated a combination of Air Loungers, Air Benches and Volcano features that were supplied and installed by Inbeca Wellness to provide a total of 10 separate stations for users to choose from.

Once we had installed the pool fittings and pipework, the pipework was pressure tested to SPATA standards and we then commenced with the installation of the plant room equipment. To ensure that the maximum space was achieved within the spa building, the plant room was designed to be as compact as possible. This led to very close liaison with other trades to ensure that we were all able to position our equipment, at certain delivery times, within the plant room. We did have a slight issue whilst we were commissioning the main pool where we had a rare filter failure! Normally this wouldn't have been an issue but this meant that we had to remove all of the spa pool plant equipment to facilitate the removal and re-installation of the new filter!

Inbeca supplied and installed four bespoke wellness cabins which included a Scandinavian Sauna, Aromatherapy Steam Room, Himalayan Salt Room and Ice Room. In addition to this were cold bucket showers and all finished off to an extremely high standard with an interior design completed by another local contractor.

The plant room equipment was supplied by the Certikin Commercial Department and this was complemented with two Kuntze Neon Automatic Dosing Controllers with Cloud Connect connectivity. This enables both the client and ourselves to monitor the pools remotely and look

back at historical data. To complete the electrical installation, we opted for a bespoke control panel that incorporates touch technology. This was manufactured and supplied by the Technical Team at Golden Coast.

A Calorex Delta 8 was installed within the plant room along with all relevant ductwork for the environmental control within the pool hall.



The plant room

Both our client and ourselves have been taken aback by the huge local positive response the facility has received! The new spa has been nominated for numerous awards across many industries and we are very proud to have been involved from the initial design concept through to the fully completed project.

We would like to thank a combination of our suppliers for the support we received during every stage of this project including Astral, Certikin, Calorex, Kuntze Instruments and Golden Coast.

Keir Balouza, MISPE
Signature Pools & Leisure Ltd.
www.signaturepoolsuk.com

We were all saddened to hear that Allen Wilson died on 3rd May, 2020. If words can in any way express the Institute's gratitude for his enormous contribution to the pool and spa industry and to the Institute in particular, there are plenty of them in this issue, dedicated to Allen. I have been sent a number of very heartfelt tributes to Allen, and some of those are included, too

During these very strange times we find ourselves in at the moment, it is not possible to say what form, if any, the ISPE seminars will take in the Autumn. Watch this space for announcements and check the diary dates of the ISPE website for details as they are released. Our 124th ISPE Seminar was postponed in March and is, in part, re-scheduled (penciled in) for Thursday 22nd October, near Hemel Hempstead, Herts., so let's hope by then we have returned to some degree of normality (whatever that was).

We have already decided to present the next ISPE Hands-on Filtration Workshop in February 2021 (rather than November 2020) and we hope to present the 2021 ISPE Back-to-Basics/Revision Seminar in February, too. Please register your interest for both events now and we'll keep you posted.

There's no space in this issue for the latest situation vacant adverts but do check the ISPE website to see the positions on offer. Situation vacant adverts are free for ISPE members and their companies.

I very much hope that things start to improve in the coming weeks. Keep busy!

Ross Alcock - June 2020

Obituary

Allen Wilson, FISPE

28th April 1944 - 3rd May 2020

The whole pool and spa industry will have been shocked and saddened to hear the news that Allen Wilson, FISPE, suddenly but peacefully passed away on 3rd May, 2020. There was no link to Coronavirus.

Allen joined the ISPE in September 2000 after being introduced to the Institute by John Lamb and Mick Lipscombe. Allen's enormous experience on the commercial side of the trade made him an ideal candidate to give various seminar presentations at ISPE Seminars thereafter, and there were not many ISPE seminars after 2000 that did not feature Allen or have an input from Allen as part of the open discussions.



Allen in 2013 as ISPE President

Allen was also a regular at the annual SPATEX exhibitions and gave numerous presentations as part of the ISPE workshop programmes each year, as well as helping out on the Institute stand. He was always extremely popular around the show and every time he stepped off the ISPE stand, even for a few minutes, somebody would inevitably turn up to come and speak with him, such was his influence.

Allen was a driving force behind the ISPE-Endorsed training programme in the early 2000s and shared John Lamb's vision that the Institute could fill a gap, in that there was very little training for those on the commercial side of the trade looking after smaller facilities, such as school pools and those in hotels and clubs, etc. In time, the 'ISPE-Endorsed Pool Plant Operator Training' scheme catered for those in all commercial pools and spas, including leisure centres and holiday parks, for example. Allen developed his own ISPE-Endorsed PPO course and this became a staple tool of the many different types of training that Allen was able to provide.

The constant supply of training, technical articles and his support for the Institute earned Allen an ISPE Fellowship in March 2006, at the time, one of only 17 out of a membership of over 850.

Fellowships are in the gift of the Institute Council and are awarded for outstanding service to the Industry but to the Institute in particular.

Also that year, Allen was elected to the Institute Council of Management and went on to serve a two year term of office as Institute President between October 2013 and October 2015. Around this time, Allen developed his own electronic news/magazine and always devoted a few pages to the recruitment of new ISPE members. In doing this, single handedly, Allen recruited more new Institute members and students than any other individual member, a quite incredible fact.

Allen, through his company, Studies in Work, continued to deliver ISPE-Endorsed PPO training at a great rate and in many countries of the world including India, the Far East, all parts of Europe and even the Falkland Islands. Allen also picked up a number of ISPE awards along the way, one of which being the 'Peter Horne Memorial Cup' in 2008. In announcing the surprise award at the 92nd ISPE One-Day Seminar in November 2008, John Scott, FISPE, ISPE President at the time, said: *"The Peter Horne Memorial Cup may be awarded for an excellent Chemical examination paper or for a technical paper, Seminar presentation or other presentation in the field of Water Chemistry. The winner this year is known to*

most of you in that he has spoken at many Institute Seminars and at SPATEX, and is a regular contributor to the ISPE Magazine. In addition, he has, as an ISPE-Endorsed Trainer, delivered numerous courses on the subject of pool plant management and health and safety, amongst other subjects, on the Institute's behalf, both in the UK and abroad. Ladies and Gentlemen it gives me great pleasure to present the Peter Horne Memorial Cup for 2008 to Allen Wilson."



John Scott, FISPE presents the Peter Horne Memorial Cup to Allen in 2008

He was also presented with the 'Peter Littlehales Cup' twice, in 2010 for his seminar paper entitled 'Misconception on Disinfection' and in 2016, when ISPE President of the day, John Cheek, FISPE, announced: *"The Peter Littlehales Cup is presented from time to time for an excellent Seminar presentation. This year's winner has given a number of Seminar presentations over many years. The award is being given in acknowledgement of all the*

presentations he has given over the last few years speaking at virtually every ISPE seminar, where he has kept many an audience entertained and informed. He continued to deliver presentations even when he was walking on crutches last year following an injury he sustained in an accident. He will be speaking again later today, too. Ladies and Gentlemen the Winner of the Peter Littlehales Cup for 2016 is Allen Wilson."

Allen's adventures as well as his occasional 'mishaps' during his overseas trips were widely reported in Allen's regular column in the pages of the ISPE Magazine, 'Wilson's Words of Wisdom'.



Addressing an ISPE Seminar - Allen was a regular speaker

Allen had an inimitable style of delivery with his presentations and it was true to say nobody fell asleep whilst Allen was talking! His style was both authoritative and informative and often extremely amusing and there was often much laughter when Allen was talking and sometimes, out and out hysterics. Who will ever

forget his 'Barbie Doll, her boyfriend, Ken and Andy McNab' routine, "What's Andy McNab frightened of? Nothing...", in reference to pH control, or his imaginary reference to a female relaxing in a spa, thinking that she was with whichever film star or celebrity was fashionable at the time, only for the mist to clear and find it was Allen himself next to her!

It's true to say Allen could be outspoken and a little 'un-PC' on occasions, having spent over 60 years in and around numerous rugby clubs over the years, and this did not sometimes sit too well with one or two, but he certainly never intended to unwittingly upset or offend anyone and he was always available for help and advice. He once said that if experts didn't have differences of opinion there would only be one of them in existence!

One of my memories of Allen was during the 2009 SPATEX exhibition, in Brighton, when the whole of the south of England was blanketed in snow on the Sunday evening, after the close of the first day of the exhibition. The next day there was absolute chaos over much of the country with airports closed and travel to and from Brighton impossible. One speaker who was due to arrive on the Monday was unable to get there and we were about to produce a 'cancelled' over-sticker for their ISPE workshop presentation listed on the programme, when Allen

asked me what the presentation was to be about and I told him. He then sat down on the ISPE stand with his lap-top and produced a 20 minute 'PowerPoint' presentation on that topic and was able to deliver the presentation to those who were already in the building.



The show must go on!

I shared many amusing evenings in pubs/restaurants with Allen during SPATEX in Brighton and later in Coventry, and on other evenings prior to various ISPE events and will miss his company very much.

Allen was a huge character, in all senses of the word, with a great knowledge, a keenness to provide help and advice and unswerving support for the Institute. His contribution to the ISPE cannot be underestimated and will never be forgotten.

Ross Alcock - May 2020

We have received a large number of tributes to Allen from ISPE members and feature a selection of them in this issue on pages 26-29.

New Members and Students

We extend a very warm welcome to all those who have recently joined or re-joined the Institute. Please contact ross@ispe.co.uk if you would like details about the ISPE.

- Bishop, C.
- Balchin, T.
- Butland, G.
- Cuthbert, G.
- Devlin, R.
- Evans, K.
- Gooding, N.
- Hambleton-Jones, J.
- Jarvis, L.
- Raggett, J.
- Robins, J.
- Sandnes, M.
- Smith, G.
- Stoodley, M.

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SPATEX 2021 - the beacon on the horizon

After the disturbing events that have to date characterised 2020, the timing of SPATEX 2021 - Tuesday February 2nd to Thursday February 4th at Coventry's Ricoh Arena could not be more perfect. Not only will it help serve to draw a line under a traumatic year for everyone and kick-start a New Year, it will also be an opportunity for the industry to come together and celebrate the Exhibition's 25th anniversary very special edition.

Despite the UK being in lockdown for two months, the SPATEX team is delighted to report that the industry is nonetheless upbeat and in surprisingly good shape. A fact reflected in the amount of exhibition space sold for the 2021 Show, which quite remarkably is not very much different to previous years' sales at this point in the year. It would seem no pandemic will deter loyal followers of SPATEX!

Show Organiser, Michele Bridle says: "These are extraordinarily hard times for everyone, not least the leisure industry, but we are delighted to report that almost 70 per cent of space for the 2021 exhibition has already been sold. It is heartening to see how our loyal exhibitors have kept faith with the Show. It furthermore reveals the fabulous level of optimism in the industry that things will get back to normal shortly.

"SPATEX 2021 will be the first opportunity for the industry to come together as one and draw a line under the trauma of 2020. We intend to make the 2021 Show a bumper event and a celebration for all in the wet leisure industry and beyond and make it as inclusive as possible. To that end, we are planning some extra special events to set this next edition apart from all that has gone before. We hope you will join us in this celebration."

Allen Wilson

The SPATEX team was deeply sorry to learn of the death of Allen Wilson. A stalwart of the industry, he gave many hours of support to the exhibition for which we are very grateful. The ISPE seminars will not be quite the same without his knowledge and humour.



**SPATEX 2021 - Tuesday 2
February to Thursday 4
February at the Ericsson
Exhibition Hall, Ricoh Arena,
Coventry - easy-to-get-to, just
minutes off the M6 and 2,000
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Model Answers

To aid revision for those registered on the ISPE Home Study Course (and as a memory jogger to other interested readers) we present the 'model' answers to the section A questions of the 2020 ISPE exams held back in March. The Construction, Filtration and Chemical answers appear in this issue and we hope to include the Heating answers in the next issue.

CONSTRUCTION

1. At what point does most concrete, including *Shotcrete*, obtain 60% of its strength?

Under proper curing conditions concrete will obtain at least 60% of its strength after a period of 7 days.

2. Give three examples of reinforcement bar diameters and state the height of the walls that they should be used in.

10mm diameter bars for walls up to 1.2m in height.

12mm diameter bars for wall over 1.2m and up to 1.8m in height

15mm diameter bars for walls over 1.8m in height.

3. Explain what a beaded liner is. A beaded liner has a wedged shaped beading welded to the top of the liner wall to allow the top of the liner to be located and secured in an appropriate linerlock fixed to the top of the pool walls.

4. What is the purpose of a Hydrostatic Relief Valve?

A hydrostatic relief valve is a spring-loaded one-way valve installed in the floor of the pool, at the deep end, to allow the internal and external water pressures to be balanced to prevent floatation.

5. What is the normally accepted method of making a newly constructed solid dense concrete block shell watertight?

A solid concrete block shell wall should be made watertight by the installation of a PVC swimming pool liner.

FILTRATION

1. Define the turnover rates recommended for:

a) A spa pool in heavy use.

Private spa = up to 20 mins (ISPE manual) – (15 minutes stated in 2017 PWTAG quality standards book).

Commercial spa = 7 – 10 mins (ISPE manual) – (6 minutes stated in 2017 PWTAG quality standards book).

b) A private open air unheated pool.

8 hours (ISPE manual & SPATA Standards).

2. Define the measurement of turbidity in water and state an acceptable turbidity level for pool water.

Pool water turbidity is measured in: NTU - Nephelometric Turbidity Units. An acceptable level for pool water is 1.0 NTU (ISPE manual) or 0.5NTU as stated in the 2017 PWTAG guide.

3. Describe briefly the term "Filtration rate".

Filtration rate is the speed or velocity of the water passing through the filter medium. For example: Pressure sand filters for commercial applications would require a 'medium rate' of between 11 – 25m³/m²/hr, whilst for domestic this should be 'high rate' between 26 – 50m³/m²/hr.

4. The velocity (or speed) of water flowing through a pipeline may be expressed in ft/sec or m/sec. State the ideal range of velocities for both suction and return pipelines in a filtration system.

Suction pipelines should allow a velocity of 1.2 – 1.5m/sec.

Return pipelines should allow a velocity of 2.4 – 2.7m/sec.

5. Name & describe briefly, two of the various types of media used in water filtration.

Silica Sand – 16/30 grade which is probably the most widely used medium for swimming pool filters. The grade ‘16/30’ refers to the screen sizes used to refine the grain size, with 16 gauge having an aperture size of 1mm and screen gauge 30 having an aperture of 0.51mm. A domestic sand filter is easy to maintain by use of the attached multiport valve which is used to backwash and rinse the filter medium.

Cartridge filters can be used in smaller domestic pools or spas but are strictly not to be used in any commercial applications. Cartridge filters have the benefit of being a compact unit which houses a pleated and reinforced element providing a large surface area for the water to pass. The accepted flow rate through most cartridges is normally around 2.4m³/m²/hr. Whilst a cartridge filter will perform well it is more involved and time consuming to clean and maintain than a sand filter as it is not possible to ‘backwash’ a cartridge element.

CHEMICALS

1. What do the following abbreviations mean?

- a) ppm
 - b) TDS
 - c) mg/l
- a) ppm = parts per million
 b) TDS = total dissolved solids
 c) mg/l = milligrams per litre

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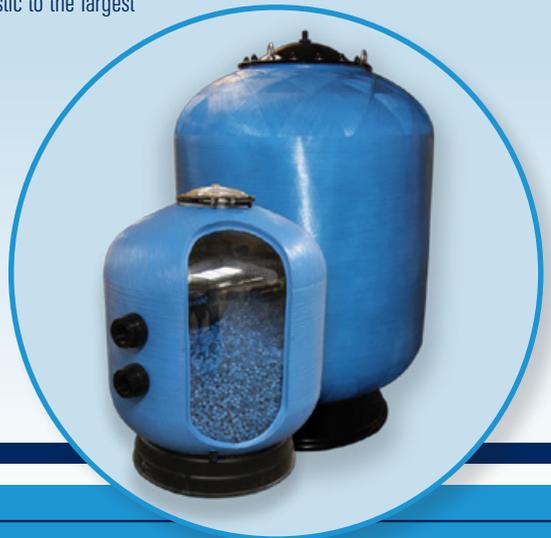
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Certikin

2. What is the purpose of an algicide? Name a typical pool chemical you would use as an algicide. (Do not use trade names.)

An algicide is added to pool water to supplement the main disinfectant and help in the control and prevention of algae. Examples are Quaternary Ammonium Compounds (QAC's), chelated copper based compounds

3. What is a flocculant? Name one chemical or type of chemical used as a flocculant. (Do not use trade names.)

A flocculant is a chemical which when added to the pool water encourages fine particles to coagulate (stick) together making them larger and therefore easier for the filter to remove. An example is Poly Aluminium Chloride (PAC).

4. In a properly operated swimming pool, what range of the following would you expect to find? a) Total Alkalinity

b) Calcium Hardness

a) Total Alkalinity = 100 -150mg/l

b) Calcium Hardness = 100 - 500mg/l

5. What is the purpose of a disinfectant with regards to swimming pool water? Name two typical disinfectants used in swimming pools (do not use trade names).

Primary purpose of adding disinfectant to pool water is to sanitise the water and destroy harmful bacteria thus preventing transmission of these through the water. Examples: sodium hypochlorite solution, calcium hypochlorite granules, chlorine gas etc.

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ISPE Exam Success

The ISPE Exams were held on Monday 16th March and we would like to congratulate all those listed below who have passed in all four subjects and become ISPE Certified Technicians. All those listed may now place the letters TnISPE(Cert.) after their names on business or personal stationery (although the ISPE logo may not be used under any circumstances).

David Bedwell
David Brown
Arron Bullock
Andrew Dawson
Rachel Nightingale
Ashley Head
Fraser McCallough
Ben Mitchell
Andrew Morgan
Jack Morton
Paul Potter
Shyam Raojee
Gareth Rigby
Ashley Spencer
Henry Thorns
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Balance Tank Calculations

The ISPE office has received a couple of questions recently on how to calculate the sizing of a balance tank for a deck level pool. The ISPE Technical Paper 'Deck Level Pools' is currently being updated but in the meantime, hopefully, these two contributions from Ian Betts, FISPE and Chris Carr, FISPE, will assist.

The information provided in this document is for guidance only and further advice should be sought from suitably qualified professionals for specific applications.

The sizing of the balance tank will depend on several, often conflicting, criteria. The tank is provided to hold a volume of water, in addition to the pool volume, to compensate for the displacement of water when bathers enter the pool. It must, therefore, be large enough to take the total displacement of the maximum design load entering the water at one time.

Design of the balance tank should take into account:

- Bathing load
- Use of the pool
- Backwashing requirements
- Health and Safety requirements (2 manhole access points for commercial installations)
- Tank cleaning requirements

Tanks should include:

- A safety overflow with outlet to a suitable place (preference would be to site where any overflow would be noticed).
- A flow switch to provide for automatic water top up.

- A level indicator and a float-operated control suction valve.
- Consideration should be given to a balance line with a ball valve or a bypass fill line.

The following levels should be considered:

- Maximum water level in the tank.
- Normal operating level when the pool is not being utilised (no bathers).
- The minimum level should take into account the volume of water required for backwashing the filter/s and to ensure the circulation pumps can operate without drawing air. (Consider providing a pumping sump in the base of the tank to allow for lower minimum water level.)
- Vent zone above the maximum water level (normally around 150 to 200mm including for a safety overflow if drainage is available).

Volume allowances:

- Bather surge based on a minimum of 50% instantaneous bather load for commercial pools and in domestic pools preferably 100% of the design bather load and allowing for 80 litres per bather.
- Filter/s backwashing based on a minimum backwash rate of 30m³/m²/hour (commercial) and a maximum of 50m³/m²/h (domestic) for a period of 5 to 7 minutes.
- Some additional volume for recovery can be included for operational safety based on a rise of water level in the pool of 15mm (area of the pool in m² x 0.015m).

Ian Betts, FISPE

How to calculate the correct size of balance tank - By Chris Carr, FISPE

Here is a suggestion of what minimum criteria should be considered when designing the size of the balance tank:

Points to be taken into consideration:-

1. Maximum bather load for the application (it is suggested to allow 50 litres per bather – static load).
2. Surge capacity (A displacement volume calculated by vigorous activity creating a wave action by the bathers – possibly around 80 litres per bather).
3. Residual capacity (a minimum volume of water to ensure continuous running of the pump without drawing in air).
4. Freeboard (a capacity to allow for maximum activity without loss via an overflow to waste but must allow adequate ventilation).

5. The loss of water from the pool following a backwash (this must be especially considered against point 3 above).

In addition to the above, in the latest PWTAG ‘Swimming Pool Water’ (2017) on page 59 there is a balance tank volume calculation guide (rule of thumb) which suggests the following:

Minimum volume of balance tanks as a percentage of water circulated in 1 hour:-

- 20%** Spa pools, Teaching pools
Splash pools,
Hydrotherapy pools
Smaller Children’s pools
- 15%** School pools, Lower-volume
25m competition pools
(much shallow water).
- 10%** Larger-volume 25m
competition pools
50m pools
Diving pools.

Chris Carr, FISPE



John Lamb & CPC - The history as remembered by Jimmy Lamb

Following in the footsteps of my Dad John Lamb, I entered the Pool industry in late 1999. Some might say that I was born into the industry.

On leaving school, Dad completed a 5 year apprenticeship with an engineering company called Brown Brothers, Edinburgh followed by a stint as an engineer in the Merchant Navy.

During this time, my eldest sister Susan was born, prompting Dad to come ashore and home to Edinburgh where he spent a short period once again working for Brown Brothers.



John Lamb

A second daughter arrived, my sister Isobel, and a change in career, swimming baths management at Portobello Baths, Edinburgh. This was followed by a move south in late 1969 to become Baths Manager at Whiston Road Baths in deepest East End London. Upping roots and moving the whole family including his heavily pregnant wife Maggie, from Edinburgh

to London was a big deal in those days.

Back then, this type of role came with accommodation. A couple of months into 1970, I was born in the adjoining flat of Whiston Road Baths, latterly known as Haggerston Baths. This is why I often explain to people that I was born in a swimming pool!

We were only in London for a short period before an exciting new opportunity came up at a brand new leisure centre in Cheltenham. Opened by the Queen Mother in May 1971, Dad secured the position of Deputy Manager at Pittville Recreation Centre. It was here that he first met Peter Horne. Peter was the owner of a company supplying pool chemicals called Complete Pool Chemicals (CPC).



Peter Horne

Peter started this business as an off shoot from a pool company based in Gloucestershire called Complete Gardener's. Back then CPC pioneered private label supply of pool chemicals. Peter quickly struck up a great friendship with Dad, as his preferred chemical supplier. Dad went on to work in management at two other leisure centres; Stroud in the mid 1970's before another move to Stratford-Upon-Avon in 1979.

Not long after we had arrived in Stratford-Upon-Avon, Dad commissioned the building of more sports facilities at the leisure centre including Squash Courts. Peter invited Dad to join him back in Gloucestershire at CPC to develop the commercial market. Off we went back to Cheltenham in the summer of 1982 and a great partnership was formed between Peter and Dad. Out of two different trading units in Morelands Trading Estate in Gloucester, CPC grew quickly in the commercial pool market not just on chemicals but, with automatic dosing systems. Some brands that some of you 'old timers' might remember included Chemodata and Sunspot. CPC partnered with Olin as they were known back then and became one of the first to offer Fi-Clor and HTH brands. You can see some of these products in the photos of what

must have been the early days of a UK pool exhibition which ultimately became Spatex. Looks like it was as much fun then as it still is today.



During this period, as an active member of the Institute of Swimming Pool Engineers, Dad joined the ISPE Council and is the author of the ISPE technical paper 'Water Treatment for Pool Operators'. He also acted as




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the chemicals tutor/examiner for the ISPE Student Home Study Course. He was presented with a Fellowship of ISPE in 1989 and was inaugurated as President in 1990, some two years before he was due to take up the position due to a resignation.



2003 ISPE President, Chris Carr, presenting Dad with the 'Selwyn Mindel Award for Performance and Achievement'

In 1990 and after years of solid market growth and establishing Complete Pool Chemicals as the market leader, Peter sold the company and the name changed to CPC Hydrochem. A move to brand new premises in Andoverford, Cheltenham ensued where Dad continued development of the commercial business with dosing and control equipment partnering with WDT, the German manufacturer of Granudos calcium hypochlorite feeders.

His experience and expertise in pool water treatment led Dad into becoming one of the leading providers of Pool Plant Operator courses on behalf of the ISRM (Institute of Sport & Recreation Management) and ISPE. Not only was he already a Fellow of ISPE but, he was also presented with a fellowship of ISRM, today now known as CIMSPA.

It was 5 years before CPC

Hydrochem was acquired by the European market leader of pool care products, Munich based Bayrol in 1995. The company name changed this time to CPC Bayrol.

A whole new concept of pool care was introduced in the form of Active Oxygen. As the pioneers of Active Oxygen, Bayrol had some exciting products then known as Bayroklar and Bayroplus. Over time this product developed into Duo Tabs and now exists in the form of Soft & Easy. A liquid version of Active Oxygen was also introduced in the form of Bayrosoft and dosed by a machine called Bayrosoft-Dos. Bayrol dosing systems remain available today in the Analyt, Pool Manager and Pool Relax.

In 1998, a year before I joined the company, Canadian based pool water treatment giant BioLab Inc. took over things from their German partners and BioLab UK was born. Many of the niche Bayrol products, such as the Active Oxygen range, along with dosing systems, were maintained in the product assortment. The international range of BioGuard and SpaGuard products were introduced into the UK market and changed the habits of pool owners across the country by encouraging them to visit pool retailers with a sample of their pool water for analysis. The personalised computer analysis of their pool water produced a 'prescription' of the required remedial treatment steps required to bring their pool water into balance. As a result, pool retailers benefitted by selling treatment products that they had never sold before and chemical sales went through the roof.

BioGuard/SpaGuard quickly became the number 1 brand in the UK as pool dealers' profits soared and pool owners enjoyed problem-free pool water.

It was during this period that Dad reduced his working hours as he approached retirement age, concentrating most of his time conducting Pool Plant Operator courses.

In the early autumn of 2006 a catastrophic fire in the packing factory at BioLab UK saw some big changes. Bayrol in Munich, Germany, assumed control of the company trying to maintain crucial supplies of the BioGuard/SpaGuard brand via their existing manufacturing network in Europe.

This was a mammoth task considering that BioGuard/SpaGuard was an unknown brand in Europe compared to Bayrol. The time taken to replicate formulas, recipes and manufacturing technics meant long delays in supplies to the dealer UK network and these customers were forced to source goods from elsewhere.

By the time Bayrol were up and running, too much business was lost. The low volume for production had made the business non-viable and the decision was made to drop the two brands and instead introduce Bayrol and a full range.

Fast forward to 2012 at the Piscine pool show in Lyon, it was announced the Pollet Pool Group UK had been appointed official distributor of brand Bayrol for the UK and Ireland. Exiting members of the Bayrol UK team, Peter Turnbull, Lesley Hipkiss and I were invited to join the Pollet team to help ensure a fluid transition of the business. The Bayrol brand remains a very important assortment of products to Pollet Pool Group and Bayrol are now working with Pollet Group sister companies throughout Europe.

Dad now resides in a dementia care home in Cheltenham and recently celebrated his 82nd birthday.



Jimmy and John celebrating

***With thanks to
Jimmy Lamb, TnISPE(Cert.)***

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The following summary was based on a presentation entitled 'Swimming Pool Covers - How to maximise Savings' at the Institute's 118th One-Day Seminar in March 2018 by Will Dando, FISPE from Plastica Ltd.

Floating Pool Covers

Choosing the right cover is vital, so it is important to understand what the cover is needed for as well as the options that are available.

It is important to identify if there will be any benefit from solar gain to make an informed decision. Pool owners may choose a solar (or bubble) cover and then keep the cover off the water all day when it is sunny and hence not fully benefit from this type of cover.

Another key factor is how will this cover get on and off the pool smoothly? The correct installation, sizing and positioning, will encourage their regular usage and save the pool owner more money if it is then used appropriately. The use of reel systems should always be considered to ensure easy and safe operation.

Why get a cover?

When thinking of justifying the cost of pool covers, energy / water conservation and safety considerations are often the most important reasons and in commercial settings, energy conservation may be considered the most relevant reason. Pool covers have been advised time and time again to be the most cost effective way of saving heat energy used to run a swimming pool, following a Carbon Trust or similar energy efficiency audit. End users need to understand the

benefits of investing more at the start, to then save money throughout the lifetime of the pool.

Types of covers

Heat retention covers

If access to the pool area is restricted and therefore safety to the pool area is already addressed, other options may be open to you for pool covers. Any pool will benefit enormously from a good quality floating heat retention cover. Heat retention covers should not be confused with 'solar blankets' which are mentioned below. They are designed for pools which would not normally benefit directly from solar energy, due to the fact that they are indoors, or located in shady positions and regularly heated.

Any type of floating heat retention cover, be it in the form of a foam-backed bubble laminate or PVC slatted system, will do a very similar job. The foam and bubble types are usually made from non-translucent fabrics, which reduce light penetration and helps reduce algae growth.

Heat retention covers are designed to reduce the amount of heat lost while the cover is on the pool. This type of cover is there to thermally insulate the pool and they are usually made of a flexible "foam" type material. It is therefore important to make sure that the cover is easily operated to take advantage of any time when the pool is not being used.

Solar Covers

This is probably the most popular type of pool cover sold in the UK today, especially in the domestic market. They are sometimes referred

to as bubble covers. The 'solar blanket' is designed for use on outdoor pools to maximise the benefits of free solar energy and more importantly, to minimise evaporation losses. This type of cover can be very cost effective and can also be used on indoor pools, especially where there is a lot of glass. The cover will work by transmitting the sun's rays through specially sealed air cells that float on the surface. It will retain most of the absorbed heat, increasing the pool temperature by up to 14°C in the summer season. These covers are widely available and are offered with a range of edge finishes. Some blankets include a specially designed leading edge flotation system. This is particularly useful if the blanket is to be handled by one person, as it will keep the front edge of the blanket totally buoyant and will generally add to the life expectancy of the product.

Solar blankets are made from polyethylene, or polypropylene, and are usually blue in colour, although some manufacturers offer black, clear or other colours, as an alternative. The latest technology includes a metallic heat shield on the underside of the cover, designed to retain more heat in the pool, and special bubble designs to ensure an evenly thick bubble wall to extend the cover's life expectancy. Most blankets are available in varying thicknesses and weights depending on your requirements.

Solar covers are primarily there to prevent evaporation (and therefore cooling) and are acknowledged as a very cost effective means of reducing running costs. They are also effective at increasing the heat transfer into the pool to warm the water, but they rely

on direct sunlight passing through the cover into the water below.

Solid PVC slatted covers

These covers are fully automated. Most versions are available as a retrofit unit, or as an integral part of the pool, usually being installed in a hidden pit or trough that is specially designed at the planning stage. The slats are available in a choice of colours, solar or translucent which, like flexible floating covers, can be made to prioritise heat retention or solar gain, but at a much greater price. It is not normally considered to be a safety cover, but as an optional extra, it can be supplied with a special handrail which would offer a degree of safety, should a child or household pet fall on it. Another alternative, at the planning stage of your pool, would be to include a built in ledge to support the slats.

Suspended pool covers

Suspended covers are attached either on top of, or just below the coping stones. Winter debris covers are installed tight (like a trampoline) not touching the water surface. Tarpaulin style covers can rest on the water surface for support. The still layer of trapped air between the cover and the pool water surface is a good insulator.

Other types

Other types of pool "covering" systems are available, such as liquid floating covers and floating discs, etc. The liquid floating covers do not require anyone to put them on or off, as there is automatic dosing, but they are only effective while the water surface is undisturbed.

Reel Systems

If the choice of pool cover is to be of the manual variety, then you will almost certainly require a pool

cover reel to make the operation smooth and efficient. Most cover manufacturers make a range of reels and these can be operated either by a simple winding mechanism, such as a crank handle or with a steering wheel, or for a greater investment, by the push of a button on a remote control hand set.

Safe and efficient operation

The first thing to consider is your list of priorities. Safety will be more of a concern if small children and family pets can access the pool area. Safety covers are available in a choice of styles and designs. These range from a simple safety net, which is tensioned over the pool when not in use, to a fully automated system which will completely cover the pool in a matter of minutes, by simply pressing a remote control switch.

Whichever cover is chosen, the ease of operation for getting the cover on and off the pool is of

paramount importance and a motorised cover is better than a totally manual version, as users will be aided in this task.

The users need to be suitably trained to know how to do this safely for them and to minimise the chances of causing any damage to the cover. Supervision when taking off, or putting on the cover is important and an emergency stop on the remote control or on the wall is vital in case there is a need to halt the procedure.

In commercial situations, getting the cover off quickly and easily every morning before the first session means there is no delay to the session. Recovering the pool efficiently at night also means the staff can finish this work that bit sooner.

See www.plasticapools.net for more details or for a copy of Will's original PowerPoint presentation, contact the ISPE office.

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Tributes to Allen Wilson, FISPE

In early May we were all shocked to hear of the sudden passing of Allen Wilson, one of the most respected and colourful characters in the pool industry. I am sure you will all agree with me that Allen is going to be missed by all that knew him, members of the pool community and especially the Institute. He had been involved with the Institute for many years, was a past President and actively involved in encouraging people to become members.

Allen was ever present at the Institute stand at SPATEX and was always first to come forward to volunteer to give lectures at the ISPE Workshops and Seminars. Those of us who had the privilege to attend one of Allen's talks will remember his unique way of presenting and getting the information across in an easy and enjoyable fashion. Many will also remember the jokes; there are not many talks where you could expect Barbie's Ken to get a mention at some point.

On a personal note, it was Allen who got me more involved in ISPE, inviting me to join the Council during his reign as President. He was always encouraging, always willing to help and was a good friend to Lovibond.

Although Allen will be greatly missed, his knowledge will live on through the many hundreds of people he has trained through the years who I am sure will always remember him. An amazing character and individual who will be impossible to replace.

Colin Day, FISPE

President ISPE
Lovibond Tintometer

What a devastating loss, not only for his family, who we think of at this sad time, but to our whole industry.

His larger than life contribution to the swimming pool industry and the ISPE was

inestimable. His lectures held everyone's attention, with his dry sense of humour and dramatic style. No chance of getting bored even if you were not into the subject of water quality. I have often thought he could have had a career in stand up! He was an absolute fount of wisdom in his speciality and he imparted it so freely to all via his lively magazine. He is utterly irreplaceable.

His intro' message in the April magazine is very apt and worth repeating; 'Look after one another.'

Only 4 days ago I sent my best wishes to him after hearing of his illness and he responded in his usual way with "Cheers Michael!", so I say "Cheers Allen and a big *Thank you* for everything".

Michael Cormacey MISPE. S.A.C. Dip.
(Eco-Bldg Design)

Director, Aqua-blue Ltd.
T/A Aqua Blue Designs

He was a giant in our industry and will be sadly missed.

John Mannion, MISPE

Flowman Leisure

Nature abhors a vacuum and I reckon it will have difficulty filling this one. Allen was a stalwart in the industry – and by all accounts, his family and social circle – and I was always drawn towards his knowledgeable and no-nonsense approach that was delivered with humour and an approachable friendliness. As my late uncle was wont to say "People like him don't come often".

David Lowe, MISPE

Flowman Leisure

As Bear Grylls once said:

'Those who are positive, resourceful, courageous, and determined will emerge'.

This quote seems very poignant when writing about our very good friend

Allen Wilson who sadly passed away on the 3rd May 2020.

I have known Allen for forty years as a plant engineer at Gloucester Leisure Centre and subsequently in his capacity providing an invaluable service to the Aquatic Industry as a whole.

Many of us in the provision of training and consultancy within the UK and abroad acknowledged Allen as the most experienced and knowledgeable person giving his advice and inspiration to pool plant operators freely and without favour. He was not afraid to tackle difficult subjects and was forthright in his opinions and in his quest for the truth.

He provided advice and support to generations of pool operators in many countries throughout the Commonwealth and the World including Nigeria, Gambia, New Zealand, Cyprus, Pakistan, India, Abu Dhabi, Qatar and Malta, often free of charge.

His vast knowledge of the safe use of purified water allowed him to advise the government and hundreds of pool operators and providers of clean water in facilitating their expertise for tens of thousands of users to enjoy. He was a very generous man.

He wrote countless 'papers' on the subject and provided commentary nationally and internationally which made him a world authority on the subject, writing over 200 articles on relevant subjects. His book, Wilson's Essential Pool & Spa Plant Handbook is one of the most popular reference books within the industry being translated into Russian and Urdu. He wrote training courses for safe pool and spa plant operation and this has led to an overall better safety record within the industry.

He also devised and implemented several programmes of study in water technology which have benefited the younger generation and helped make the industry the success it is today.

He was an inspiration to both

experienced pool operators and the younger generation.

As the President of the UK's only organisation devoted to swimming pools and spas, the Institute of Swimming Pool Engineers (ISPE), he worked tirelessly to improve safety for both the public and the pool operating staff within this industry.

Through training sessions and through his books, articles, radio and television appearances he has been instrumental in setting a standard of safety the public deserve. He is therefore recognised throughout the UK industry as an authority in pool and spa safety who was always willing to dispense advice. He has raised perceptions of training and safety within the Pool & Spa industry.

He was never scared to face a challenge.

Goodbye Allen, we will miss you.

Yanek Kowal, MISPE.

(Yanek has worked in the Leisure Industry for 48 years sharing Allen's longevity in the business as a good friend and colleague).



I have known Allen for many years through our time delivering training courses with ISRM, then STA and over more recent years with ISPE.

His style of delivery was certainly engaging, and those not engaged he often dealt with through a selection of amusing remarks.

Allen's humour at times may have been off-message, but there will not be too many people, having listened to one of Allen's presentations over the years, not able to understand what made chlorine

effective and ineffective with his analogy of celebrities such as Andy McNab and Julian Clary or his dreams about Myleene Klass and Ann Widdecombe!

His humour was not only restricted to his oratory abilities; his regular articles in publications such as this ISPE magazine and his own newsletter have become essential reading for many.

For a failed plumber (self-described) those in the pool industry have certainly benefited from his knowledge, preparedness to research his subject and challenge what he believed to be incorrect.

Being prepared to put his head above the parapet over the years and question guidance naturally irks some of those being challenged, but often his point was eventually listened to, examples being his campaign for changing the depth water tests are taken, to the protection of the small independent trainers in the most recent PWTAG publication, and his current campaign in relation to pool outlets. Even in Allen's last post he was still challenging those in office, this time questioning the social distancing guidelines in relation to COVID-19 droplet spread.

Allen and ISPE were the ideal match and he was certainly proud to be President. His contribution to ISPE has been vast from the numerous seminars and workshops he spoke at over the years to being the leading ISPE-Endorsed training provider. It was Allen, prior to him becoming President, who proactively encouraged me and others to stand for the ISPE Council in his drive to encourage younger members to contribute.

Allen will undoubtedly be missed by many in the pool industry as we will all sadly realise next month when his stories about his travels and his campaigns will no longer be dropping into our email boxes or appearing in future ISPE magazines.

Colin Jenkinson, MISPE

Leisure Safety Training/Test All Water Ltd.

Allen Wilson - A loving family man with a heart of pure gold, a wonderful friend, rugby buddy and highly respected industry colleague.

I always felt honoured to be a good friend of Allen's over the last twenty years.

We shared many industry adventures from attending the British Embassy enclave in Islamabad a few weeks after a certain Mr Bin Laden was dealt with, to the water parks in Egypt, Turkey and across Europe where he was always patted in factor 50, being fair skinned and a self-confessed 'Ginge' - and yes he often went down all those kamikaze slides with a smile - in the spirit of safety first, of course. That was Allen's way.

Allen always lived life to the full, he even went down the 40mph aerial zip slide at the National Dive Centre in his 70s. I always smiled, imagining him riding that lost property bicycle off the ten metre diving board at Gloucester Leisure Centre before it was closed to be rebuilt.

I was privileged to travel the world on some of his grand tours - work hard & professional and then play harder. Once, we had lunch in the plant room in Islamabad, sat on the floor in a circle, enjoying curries and breads with the local engineers. One of the best meals we ever shared.

A core part of his working life was his love for teaching and promoting safety in the pool and leisure water industry across the world from the Falklands to Mumbai in India and The Gambia. He loved all of his students, keeping in regular contact with all via his popular monthly magazine. He has left a vast legacy of students across the globe and, I have no doubt, made swimming pools so much safer as a result.

Few people could quote the number of people Allen has also helped to prevent injury. When unfortunate incidents did take place he fought diligently as a leading expert witness to ensure people were represented and compensated correctly for their issues and poor operators held to account.

Recently we were working together for the Diya family who tragically lost their lives in a tourist pool in Spain. Allen was always affected more when children lost their lives in pools and in this case he generously donated his time and travel expenses as he wanted to help Mrs Diya and for this case to be his life work's legacy - that was the measure of this man. Chris Choi, Consumer Editor for ITN, spoke very highly of Allen's professionalism equalled only with his kindness when they went to investigate the resort, and Mrs Diya was so grateful of Allen's compassionate support for her case. Both have sent their sincere condolences to the family.

This is one of so many cases we worked on, often helping each other. In one case we acted against each other, which proved challenging at the time as I often called by to see him and his beloved wife Sandra, having a chat over a cuppa at his breakfast bar and could not discuss the case; Mexican stand-off, Allen's style.

I will always remember Allen for his family love and pride of his eight grandchildren and four great-grandchildren - he recently said his latest highlight was collecting his great-granddaughter Polly from school. He was immensely proud of his grandson George Porter who represented England U18, Worcester Warriors and Cinderford as a prop and was somehow mistaken for petite lady Jorgie Porter from "I'm a Celebrity Get Me Out of Here". Allen laughed a few times over that one.

On a personal level, I remember Allen for the helping hand he reached

out to me when I was struggling to cope with the loss of my parents 18 years ago - he helped me get back on my feet. That was Allen, always wanting to help other people.

I will miss him so much as a dear friend, rugby watching mate and colleague who I loved and respected so dearly - rest well my friend.

Richard Bishop, MISPE

Aqua Thermae - Caring for Wellness & Spa

It has been suggested that the Institute could organise a tribute to Allen as part of the ISPE Workshop programme at SPATEX 2021 and more details will be published in due course. In addition, there are plans to commemorate Allen's contribution to the Institute in some way and discussions on the best way to mark this will take place in the coming weeks.

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Project Profile

Freedom Under Lockdown

Freedom Leisure is a not-for-profit leisure trust which manages leisure and cultural facilities on behalf of partners across the UK to deliver high quality, locally-focused services. The trust manages seven leisure centres on behalf of the local Council including Penlan Community Leisure Centre, where the eight lane 25m pool underwent a major refurbishment. Although, like all public swimming pools, Penlan is currently closed, once the lockdown is over the team will be back to business offering relaxing swimming, training sessions and lessons for all ages and abilities and even aqua aerobics classes.



The refurbishment included an upgrade of the water treatment system, and this aspect of the works was entrusted to Sterling Hydrotech. Established in 1988, Sterling specialises in commercial pools, spas and hydrotherapy pools with customers like local authorities, schools, main contractors, facilities management companies, the NHS and military facilities. The company designs, supplies, installs and services pool water treatment systems throughout the UK in compliance with PWTAG recommendations, guidelines and Code of Practice. Like many swimming pool water treatment contractors, Sterling

has a long-standing relationship with equipment supplier Evoqua.

As part of the refurbishment, Freedom Leisure was looking to reduce water, energy and chemical usage on site and consider greener alternatives to the traditional method of sand filtration. There was also an access problem to the existing plant room. After discussions with Evoqua and considering the available options, they selected Evoqua's Defender® filter as being best suited to overcome the issues with access, as only one vessel was required.



The Defender® filter offered not only a space saving solution but also superior filtration. It uses capillary-shaped filter surfaces precoated with Perlite, a harmless volcanic magma. When the filter requires cleaning, this is carried out by a unique "bumping" process which mechanically shakes off the separated particles and Perlite and suspends it in the filter tank. The Perlite is then reattached to the filter elements during the regeneration cycle and the filter is ready to return to service. The process is fully automatic, initiated by a timer which means there is no

requirement for a manual procedure outside normal opening hours. The cleaning process takes about ten minutes and generates significantly less wastewater than a conventional sand filter backwash. Consequently, a backwash water tank is not required for the filter, so the balance tank can be much smaller. The low wastewater volume also means that less heated water is wasted, improving the overall energy efficiency. An additional benefit is the elimination of flocculant dosing as the Defender filter captures particles as small as one micron

Disinfection is provided by an Evoqua chemical-free Wafer™ UV system. This is the most compact UV disinfection system available – about one third of the size of comparative units – making it easy to install and retrofit in the most restricted of plant rooms. The UV uses the latest in medium pressure lamp technology with UV intensity monitoring, over temperature control and automatic cleaning. Together with the Defender® filter, this provides a double barrier to Cryptosporidium outbreaks.



A new automatic blowdown system monitors the pool TDS levels and automatically dumps water from the pool and adds fresh make-up water to keep within recommended levels. Sterling also replaced the old circulation pumps with new, energy efficient variable speed pumps which further reduced energy consumption and increased savings.

Sterling was under pressure to install the new plant in a ten-day

window between 16th and 26th August 2019 to minimise pool downtime. This was a logistical challenge in which they had to knock down a wall to install the new system, and achieved it with circulation treatment and heating being available two days ahead of schedule.

Since its installation in the summer of 2019, “The plant room is a much better place to operate in and reliability of the plant has improved massively”, says Dave Lanham, Area Technical Manager at Freedom. “Our online energy metering system has shown a drop in energy usage by installing smaller pumps and inverter drives and the new Defender® filter and TDS controlled dump system has saved on water bills.” And, of course Dave is looking forward to the end of lockdown and getting back to normal.

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About Evoqua Water Technologies

Evoqua Water Technologies is a leading provider of mission-critical water and wastewater treatment solutions, offering a broad portfolio of products, services and expertise to support industrial, municipal and recreational customers who value water. Evoqua has worked to protect water, the environment and its employees for more than 100 years, earning a reputation for quality, safety and reliability around the world. Headquartered in Pittsburgh, Pennsylvania, the company operates in more than 160 locations across nine countries. Serving more than 200,000 installations worldwide, our employees are united by a common purpose: Transforming Water. Enriching Life.®

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It Should Be Noted...

ISPE Annual Subscriptions

Annual subscriptions have not been increased for any ISPE membership categories for 2020/21 (for the period 1st July 2020 to 30th June 2021).

Email Addresses

We still do not have email addresses for around 250 ISPE members! As we would occasionally like to send important information to you quickly, and particularly in the current climate, we might like to keep you informed with developments, it would be very useful to have all our members' email addresses. If you have not received an email from us in the last six months please email ross@ispe.co.uk.

Apology to Lee Campbell, MISPE

In the last issue, within the front cover picture description, we incorrectly stated that Lee Campbell is an ISPE

Technician - TnISPE(Cert.). This should have stated that he is a Member of ISPE (MISPE), sorry Lee.

ISPE Logo

We must make it clear that the ISPE logo may not be used by ISPE members in any form whatsoever. This includes on business cards, headed paper, in adverts, websites, emails, on vehicles or anywhere else. Please remove the ISPE logo if you are using it.

ISPE Seminar Postponement

Due to Government advice regarding limiting the spread of the Coronavirus (Covid-19) via social distancing, the Institute took the decision to postpone the ISPE Seminar that was due to take place on Thursday 25th March. We apologise for any inconvenience this may have caused. It is hoped to be able to present at least part of this planned seminar on Thursday 22nd October, and this seminar, if it goes ahead, will include the ISPE 2020 awards and presentation of certificates to newly qualified ISPE Technicians, but further announcements will be made nearer the time.

ISPE Re-sit Exams

It is hoped to hold a re-sit day some time in the Autumn and those students who had booked their place but due to the Government advice, or concerns related to this, were unable to be present at the main exams in March, will be invited to sit their exams at that point. More details will follow in due course.

Next ISPE Magazine

The next issue will be out in late-September and we invite members to send in news, events, project or company profiles, or anything else you would like to share, by 31st August, please.

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VARI SPEED - ALL MODELS

Full speed at start of season for fast heating. Then Slower speeds once pool water is near to set temperature. Resulting in slower speed operation and reduced running costs for rest of the season!



7 years warranty on compressor

2 years parts warranty



Operates at air -7°C below zero

Maximise your pool season with heating capabilities at Air Temp down to -7°C



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