

Window Cleaning

Issue 22

magazine

This issue...

Casper Schjorring

The man behind Black Diamond

We profile Spinaclean

Gutter clearing and training

Ionic Systems new pole range

Revealed at the Cleaning Show

Unger making life easier

The HydroPower R0 dissected

Tool-belts, Towel-belts, and woven grips

Designing your own unique

window cleaning arsenal

and much, much more...

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Combined with wear resistant telescopic tubes Ionic's new patented spring assisted pole clamp ensures smooth action whilst minimising wear.



Issue 22

Window Cleaning Magazine

03



Editorial

Hey Readers,

With this year FWC trade show revival in Blackpool and the up and coming new venue, The Window Cleaning Village kicking off in 2019, the future could not be any better for window cleaners in the UK.

While our cousins in America take advantage of the 'good economy', attention in events there have risen with venues such as the HUGE Convention and the IWCA Convention & Trade Show (there are others too) attracting more and more attendees.

Rumour has it that even the ISSA/Interclean event may run with the Window Cleaning Village concept. We wait to see.

The ISSA being truly global with events as far as Japan, this has the beginnings of a world wide movement that is set to raise the profile of the window cleaning, pressure washing and soft washing industries and companies.

In this issue check out the fascinating back story of Casper Schjorring the man behind the Black Diamond squeegee.

If ever you need a true story to motivate you, this is one of them as Casper explains the ups and downs of business and how he battled to survive against all odds in a situation out of his control.

Lee Burbidge

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Product review

- 26 Vertigo**
Ionic Systems new release
- 39 Hydropower RO dissected**
We take a look at Unger's latest
- 43 The new GrippaReel**
Options never before seen

Growing your business

- 18 The law of 21**
How the game of sales is scored
- 30 Device Magic is magic**
A case study
- 37 Whale fishing**
How to get HUGE contracts

Industry updates

- 32 Site assessments and work plans**
Stefan Bright IWCA update

Add on services

- 05 How F9 began**
The Craig Harrison Story

People in the industry

- 08 The man behind Black Diamond**
Casper Schjorring
- 19 Featured reader:**
Paul Ambrose

Events

- 30 75 years of the FWC**
FWC trade show Blackpool 2017

Tips & tricks

- 21 Designing your own gear**
Carrie gets creative with tool belts

Learning content

- 34 Squeegee rubber**
Where does it come from?
- 41 Resin**
Understanding it and how it works

Featured editorial

- 27 Industry spotlight**
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how began

05

the Craig Harrison story



Craig Harrison

Have you ever come across a problem that required you to seek out the right solution for? And has that problem ever pushed you to dig deeper, to immerse yourself into the science and understanding of what might be happening and how you might solve that problem? One man did just that.

I met Craig Harrison for the first time at the IWCA Convention & Trade Show 2017 Arizona earlier this year. We had communicated seldom by Facebook previously and as always when somebody has spoke to me on Facebook, I feel embarrassed and slightly ignorant when I cannot put a face to a name straight away. Craig who clearly knew who I was, held my hand through that process and slowly my online communications with Craig came flooding back.

Craig owns Eco-Friendly Power Washing, Inc., a successful cleaning and restoration company. Craig is also the creator of Front 9 Restoration, Inc., a chemical manufacturing company and has developed several cleaning and restoration agents designed to tackle tough jobs. Two of his leading restoration detergents, F9 BARC, known by many as the "World's Best Rust Remover" and F9 Efflo (Efflorescence and Calcium Remover) are opening new opportunities for contractors in surface cleaning services. Many window cleaners are now adding surface cleaning and restoration to their business, whether it is graffiti removal, pressure washing or soft washing.

Having spent sometime with Craig over several beers listening to his story, I got to thinking of others that could benefit from this add on service to their business.

LB: Craig have you always been in the hard surface cleaning industry? Tell us about your beginning.

CH: No, but since I was a kid I was a serial entrepreneur and perfectionist. My first business I started was at the age of 8,

when I took apart a broken lawnmower, fixed it and had 26 miles of dirt roads to look for work. My dad bought me a three wheeler and we made a trailer for it so I could haul my mower, gas and supplies. That summer is where I had my first lessons in business. Interestingly enough, that summer is when I bought my first small electric pressure washer to keep everything clean. I had more fun with that little pressure washer than I did operating a small landscaping company.

LB: Do you consider yourself a pressure washing contractor?

CH: Yes, but even more so I would consider our cleaning company, Eco-Friendly Power Washing, Inc., a "Health and Safety Cleaning Company." As I have stated before in a few blogs, "We clean concrete to reduce slip and fall risks, we clean buildings to promote better air quality, we clean roofs to save shingles, kill mold and reduce air conditioning costs, and we use F9 Efflo (<http://front9restoration.com/>) to increase traction on outside surfaces with slippery hard water stains (<http://www.front9restoration.com/f9-calcium-efflorescence-remover/>) and F9 BARC (<http://front9restoration.com/>) to rid homeowner's driveways of hazardous substances such as battery acid stains (<http://www.front9restoration.com/products/f9b-a-r-c/>). Of course, a byproduct of this cleaning is that things look better too!" We incorporate the ADA (American Disability Act) and are into keeping the proper COF (Coefficient of Friction) levels on the surfaces we clean.

LB: What is the meaning of 'Coefficient of Friction'?

CH: Basically, concrete and exterior walking surfaces need to have a minimum traction level (non-slip) so people don't slip and fall. Through proper cleaning methods we can increase the traction level (COF) from slippery to non-slippery, thereby saving injury and even lives.

"RUST REMOVAL IS CONSIDERED A 'SPECIALTY STAIN' AND COMMANDS A VERY GOOD RETURN.."

LB: Explain to the readers how rust affects surfaces and the look?

CH: Rust is an oxidation and oxidation affects various surfaces differently. Some forms of oxidation are actually helpful to the substrate, but in the case of iron oxide (rust) it is normally not good. For one, rust on just about any surface looks terrible. On vertical surfaces, rust can form from metals, trimming or pyrite which then may run down the entire side of the building. The rust is not good because it can eat through materials, leading to early deterioration. On flat surfaces, the same types of problems can occur.

LB: Are there different types of rust?

CH: Yes, there are five different types of rust. Red, brown, black, yellow and some that we call "combination rust" which is a combination of rust forms or rust that contains other minerals. F9 BARC works on all these types of rust and on many different types of surfaces.



contractors have given up. Not only will F9 BARC work, but it will work great and without the issues commonly found with others. We teach in our school, F9 University to use this product and the knowledge we supply as a niche service and to use this to your best benefit. What that means is you can literally walk on to many properties that already have concrete service contractors, find spots with rust or battery stains and call the property manager asking for a demo in those areas. If you already have clients, you now have a new market.

Rust removal is considered a "specialty stain" and commands a very good return on your investment for the little time involved.

LB: What is the F9 Authorized Applicator Program?

CH: The F9 Authorized Applicator Program, called the "F9 Team" is a co-op, perpetual marketing system designed to create leads through our website and Google ranking. These leads go directly into the hands of contractors who are "F9 Authorized." This program is FREE and has proven itself to be a remarkable source of lead generator for the applicators, generating close to 1.8 Million dollars in leads for 2016. There are many benefits of joining the F9 Team, including almost immediate 1st page Google ranking for your rust removal web page, instant credibility for rust related services, free business listing and website listings on our Front 9 Website and you can get instant answers to questions through text.

We also send new applicators a lot of info to help them get started.

LB: How safe is the agent?

CH: Our products and processes are user and environmentally friendly. But with any type of restoration chemical, there are certain hazards and proper PPE should be worn. The EPA doesn't endorse anyone's products, but the local EPA office in Southern California has chosen and approved F9 BARC for work on their buildings and concrete.

LB: How is it applied?

CH: Best method is through a pump sprayer or electric/air pump. Our F9 sprayers are around 2.2 gpm.

LB: It all started with Golf Clubs, right?



LB: Why does damage to concrete need not have to happen?

CH: Most concrete rust removers contain products that remove rust by eating a thin micro layer of the surface. Products that contain hydrochloric acid will not only dissolve the rust, but will eat away a thin layer of concrete as well. If the layer that has been dissolved is noticeable, chances are this is permanent damage called "etching." This is not good because you may have solved one problem, but have added another.

LB: So rust is not desirable for property owners and so this can be a lucrative add on service?

CH: Absolutely. Since most rust removal products either don't work, don't work well or cause undesirable side effects, many

CH: You could say that. I started working on a golf course at the age of 15 and worked my way up to the Assistant Superintendent at the age of 21. I have always enjoyed golf and was pretty good at one point and was considering going pro. Ultimately I decided it was too high risk. After moving to California and starting our pressure washing business, one stain that was the most perplexing to me were the red stains created by golf carts.

LB: Explain the story of how you came about creating F9.

CH: In early 2001 we had several good accounts, including Pulte Homes, Lennar, KB, Rilmington and others. One account in particular, Pulte Homes, had us cleaning all their new construction homes and concrete before the close of escrow. In many cases this would amount to 8-10 homes a day. One main issue for them that we were tasked with was cleaning the "rust" from golf carts that their Construction Supervisors used. In the months to follow we tried everything on the market to get these stains off. Nothing worked. We then delved into learning the art of concrete coatings to cover the orange stains up. Being someone who is always looking for opportunity, I used this as a chance to figure out the stains as well as make money covering them up. One process involved in concrete coating application is the preparation of the surface. This was the perfect opportunity for us to use various chemicals without fear of ruining the customer's driveway, because we were going to cover it up with a concrete coating anyway.

Over the course of a several years and literally 1000's of reformulation's, we had a product that we felt could remove the "rust" (actually battery acid burn) well enough to quit the concrete coating application and just focus on the stain removal itself.

LB: What challenges did you have to over come?

CH: The biggest challenge we had was to create a product that could work from the inside out, without damage to the concrete and without affecting other minerals in the concrete. Another challenge we had was to make this work on as many surfaces as possible. Once we had a product that could do this, the next challenge was to make it work faster and safer for our employees and environment.

LB: When did you think you had a winner?

CH: I think back in 2006 was when we had a very good formulation that could work well even in temps of 115 F. This was the year when our final concrete color became the most uniform and we could market the services to golf cart companies and HOA's.

LB: Can you really get it badly wrong with rust removal? Can you give a case study of rust removal gone bad?

CH: Absolutely~ I could give 100's! We have a gallery on our website of many projects gone wrong by other contractors using the wrong products.

<http://www.front9restoration.com/damage-from-other-concrete-rust-removers/>

Where our cleaning company is located in Southern California, we can walk the streets in affluent neighborhoods and see job after job with damage done. Many HOA's will give citations to homeowners for "rust" on concrete. Unfortunately many of them hire the wrong contractor who use the wrong products.

LB: Where did the name F9 come from?

CH: The name F9 stands for "Front 9" as in "Front 9 Restoration." My heart has always been on the golf course. When I changed my career path from becoming a Golf Course Superintendent in S. Cal to going back into pressure washing and restoration, one of the stains that were always on my mind were the orange stains from golf cart batteries. Since the primary use for us is removing the orange created from golf carts, I thought this name was fitting.

LB: What is the F9 University?

CH: F9 University is a one to three day set of classes where we teach both the selling aspects of niche restoration, pressure washing, water recovery and the hands-on how-to's. We introduce students to the new tools we use that can separate them from the pack and make them a lot more money. F9 University is a very in-depth school that can change the way you do business.

LB: Is anyone else doing it like Craig Harrison?

CH: The only one's who do what we are doing are attendees from the F9 University! We take pride in our 20 years of accumulated tips, tricks and techniques.

LB: What is next for F9?

CH: I think we are in a market and time where the pressure washing/restoration market is exploding. My passion with F9 is to create a win-win between our cleaners, our contractors and their customers. The best way to do this is through education and the UAMCC (Association of Mobile Contract Cleaners), so this will be a good part of our focus in the upcoming years. We have some cool things we are working on with a comprehensive stain diagnosis tool that will be integrated into a new website and mobile app. This will give users quick access to stain identification along with instant dilution, application and instruction. We also have a few other products coming to the market soon, including a maintenance concrete cleaner.

Craig Harrison

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the man behind Black Diamond



Rewind a few years back and the chances are you would have never heard of 'Black Diamond' or its owner Casper Schjorring. Back then they made branded rubbers for other people, nowadays, they push their own unique brand.

Squeegie rubber has been the industry black gold for decades. Ask any reputable supply house that has been around for sometime what their best seller was 70 years ago and they would say 'squeegie rubber'. Ask them the same question today and despite the water fed pole sector booming, the answer will still be 'squeegie rubber'.

The story of Casper Schjorring is an amazing, inspirational one. It is full of ups and downs, including business disaster and how he fought all odds to grapple with things out of his control.

WCM: What did you study at University and why?

Casper: I studied Polymer Engineering in Denmark and I think it was a childhood thing of always building stuff, like LEGO, Model planes, etc. This got me into the engineering part. I graduated with a Master of Science in Polymer Engineering.

WCM: You started out working for ICI a major UK company?

Yes I did! Back in 1991 I got a chance to work for ICI in Middlesbrough UK for a year, where I worked in their design

section for advanced polymers (plastic to use a more common word).

It was very interesting working in advanced carbon fiber reinforced materials for injection molding. We developed among other things air plane parts for the Royal Air Force and entire frames for F1 cars. Not a cheap material to work with, but a good learning experience. I still miss a pint of Theakston's Old Peculiar from time to time.

WCM: Why did you decide to go back to plastics and rubber?

Casper: I have always been curious and in the 90's both computers and the Internet was in huge development and it really interested me at the time, so I took a year off the plastic and rubber industry. I decided to go back because as I didn't feel that I was making anything real. I missed the feeling of creating something useful and something real which I could hold in my hands – not just bits and bytes.

WCM: You set up the Black Diamond company with a childhood friend in 2001, but at that time it was not just squeegie rubber products you were making?

Casper: No that is true. We started the company Gummifabrikken (meaning rubber factory in Danish) We did a lot of different products such as 18 feet condoms, washing up bowls and even the first collapsible funnel. Besides all this we had a business in manufacturing diving equipment under the brand G-Dive, where we made latex seals for cold water divers, the military and firefighters working in extreme environments.



WCM: In fact non of these products were for your company. You made products for others including rubber squeegee's. What was your major drive at this time?

Casper: To make things never done before. It has always been a key motivator for me to perfect both the product and process. An example is the double molded squeegee rubber. We mold two pieces in one process to protect the sharp edge of the squeegee rubber and to protect the edges from getting dents before use. We also solved the issue of controlling a perfect straight edge by doing the cut from both sides in the molding process.

It took a lot of test and try outs to get there, but I think we got the perfect product this way. I get my motivation when I talk to the end users at the shows and get their feedback from the effort and work we put into the process. That is the reason why I try to be at every show possible.

WCM: Business didn't go to plan at one point and you were left with a mess to clear up on your own.

Casper: Yes, that is true- and sad as well. Back in 2008 when I went to the USA to expand our business there I left the total control of our European activities to my business partner and childhood friend just to come back a year later to find everything gone and closed. That was a huge set back and one of the biggest disappointments in my career. But everything happens for a reason and this was also the best thing ever, because now I had the freedom to take the company to exactly the point where I wanted it to be.

WCM: You grew the business?

Casper: Yes, we did for sure. Our company has truly got on the right track and I am so glad of the way things are going - but also thankful.

We receive so much feedback from our customers, which helps us to do things better, and we are truly driven by customer needs. We have also been blessed with a great team of product testers who can tell us what we can do better.

I am a lousy window cleaner but a pretty decent engineer I believe.

WCM: When was the birth of Black Diamond rubber?

Casper: The birth was in 2014, even though we had been making squeegee rubber since 2001. Until then we had only been doing that for others, meaning manufacturing rubbers for other brands with their name on. But we were constantly asked to lower our cost of manufacturing even though we didn't see our customers lowering their sales price to the window cleaners. I thought - why not make this smarter and cut some of the middle men out. This will save cost and we



can sell direct to a much lower price.

We did it - and hopefully saving the window cleaners money but also taking ownership of our products, distribution and marketing, not relying on others doing the job for us.

WCM: Why was it called Black Diamond?

Casper: Because it sounds good 😊 - Well it's partly the reason, but we wanted to signal something special, sharp edges, high quality, and to be frank it would not have been as exciting as calling it Schjorring Rubber which no one can spell or even pronounce.

WCM: You took your best rubber recipe, improved it some more, now what? What was the plan?

Casper: Really? – I can't tell you that here and you know that, but I will promise you that you will be one of the first to know when we launch our next rubber, which will change the way we have thought of rubber production before.

WCM: Your high quality rubber is generally sold at the same price as lower quality rubber. How did you achieve this?

Casper: I did give you an idea about that earlier, but it is two things!

1) We are a manufacturer which means that we make the rubber ourselves. We don't get them from someone which put our name on it and of course needs to make a profit as well.

2) Working smarter and cutting costs. We have optimized every single step in the process from buying raw rubber to delivering to the customers at the door. No need for country managers, sales reps etc. which are all adding to the cost of the rubber.

WCM: How many countries do Black Diamond sell to now?

Casper: We are in more than 15 countries and expect to add 3-4 more every year for the next five years.

WCM: Where amongst the brands do you see Black Diamond rubber?

Casper: Black Diamond is absolutely a top brand in quality and we have been growing every month since we launched it under our own control. We can always improve it and we are, but from now on the improvements only goes to our own brand and I look forward to introducing the next generation in 2017.

WCM: You sell two pieces of rubber together. Are we getting a bonus?

Casper: It is to protect the edges. This way you prevent damage to the rubber before you use it which will save the window cleaner in the long run.

WCM: What tips do you give to window cleaners when it comes to rubber?

Casper: Look at it as your business, save where you can but don't compromise on quality. I can't tell a cleaner what rubber is best for him because it is all in the hand of the user.

But I can tell you this little funny story. A potential customer, Manuel contacted us because his company wanted to try out our rubber to save some money. We sent him a gross, because he has some 60 cleaners working for him.

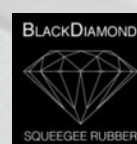
He asked some of his best guys to try it out and they came back complaining about it not performing as well as their old rubber.

Manuel, then told them that they could go back to their old rubber, but after work he replaced all rubbers in their channels back to the Black Diamond again.

Next day everyone was happy and said it worked way better than yesterday. So, I guess you can conclude a lot of it is what you think you prefer. Manuel is a happy guy now saving more than \$5,000 a year on rubber alone.



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WCM: How did you start window cleaning?

PA: I was in a dead end Security Officer job at Marks and Spencer's, the store was the second largest in Europe and had glass and windows everywhere. A national company had two-window cleaners full time on the site. Due to the boredom of Security work I got talking to the window cleaners, asking about the reach and wash system etc.

The window cleaners were getting paid £9.50 an hour which at the time was a lot more than I was getting paid per hour. That's where my interest started with window cleaning. I started watching lots of You Tube videos including WCM TV of course!! I started asking friends and family if they had a window cleaner, several didn't, so I swapped my car for a van and got a 500 RO system from a local window cleaning supplier. I worked shifts at Marks and Spencer so I was window-cleaning part time on my days off. After a few hard months I took the big jump to become a full-fledged window cleaner.

WCM: When did you join the Coastguard?

PA: I have been a member of the team since 2011, I did have a short break to concentrate on the Window Cleaning Business but missed the team and call outs so went back.

WCM: Talk us through the Coastguard Rescue Team you are involved in.

PA: The Wirral Coastguard Rescue Team is based at a Coastguard Rescue Station in Meols on North Wirral coast. There are two 4 x 4 Coastguard Rescue Vehicles (CRVs). The team carries the full range of technical rescue equipment and skills so are capable of water, mud and rope rescue as well as search.

Due to the nature of the Mersey and Dee coastline the teams have the highest number of mud rescues each year in the UK and rescue of people cut off on sandbanks is frequent. The team is regularly tasked to help Police in coastal searches for missing/vulnerable persons.

Some examples of call outs we get:

- Search for missing/vulnerable persons on the coastline & coordination of marine assets
- Rescue of persons from water, mud and cliffs/embankments
- Recovery of evidence and bodies from the shoreline, mud, and cliffs/embankments/steep ground
- Safety cover to police & coordination of marine assets in dealing with suicidal/persons at risk on coast including Runcorn Bridge
- Safety cover/advice for police at crime scene on the coast
- Communication with SAR Helicopters & setting up landing sites



WCM: How do you find the time to fit it all in?

PA: It can be hard work trying to fit in the Business, family life and being a member of the Coastguard. Luckily my Girlfriend supports me a lot.

It's worth the hard work when you get a call out and come away saving someone's life. The coastguard are also very understand regarding your personal life and full time job, which helps massively.

WCM: What Training do you need to become a Coastguard?

PA: To join as a new recruit you don't need any prior training or experience of the coast. You get training from the Coastguard's full time trainers then come to the team. We are training every Tuesday night 19:00-22:00 and build on those skills. We also carry out weekend training when people are available.

WCM: What system/van have you got now?

PA: I have the new 325 litre compact delivery system with PowerUp reel "which is great" from the Window Cleaning Warehouse North in Liverpool. The system is fitted into a Peugeot partner van.

WCM: What are your future plans for your business?

PA: Carry on building up the residential round. I hope by summer next year to have my Girlfriend working with me full time. I feel a female window cleaner will only help the image of the Business. She already helps me on the odd day off and really enjoys it.

70 years of the FWC

12



Left: FWC Chairperson Andrew Lee
Right: FWC Executive Brian Dalby

by Lee Burbidge

What can be achieved in 70 years? The answer is, 'quite a lot'. Our friends from the FWC (Federation of Window Cleaners) celebrated 70 years of representing the window cleaning industry and they did that at the Village Heron's Reach Hotel in Blackpool last May this year.

Representing Window Cleaning Magazine, I went along to document the event and attended the evening Gala Dinner Dance.

Somehow, at first glance, it was the word 'dinner' that popped out at me from my invitation. It was not until after dinner, after the cursory speeches, thanks and recognitions, that the music started. It was at this point I began to say to myself, 'mmmm, there's more than just dinner?'

The FWC Secretary Beryl Murray began tugging onto the arms of both Steve Kennedy (FWC Executive) and I, chiming, '...come on, come and dance'.

Well, I am not going to lie. The colour drained from my face at the realisation that the words 'Gala Dinner Dance' did indeed actually involve some form of dancing.

My dancing days, and rhythm left me about ten years ago and so as Steve Kennedy and I stood to dance, dragged by

our arms, I started to think, how can I avoid my own embarrassment here.

Eventually, I was able to kick off some moves for around about '5 seconds' before cowering back to my table leaving Steve Kennedy to the mercy of his colleagues as he was swallowed up amongst the dancers. I have to say Mr. Kennedy revealed some serious dance moves as I watched from my table. It was some time before he joined us again, so I know he defiantly enjoyed himself.

As part of the 70th Anniversary Celebration, the FWC held a 'micro' trade show, with exhibitors such as GrippaTank, Window Cleaning Warehouse and Spring.

Kiam Products commented afterwards on the show, "We very much enjoyed showing our new Kiam Gutter Poles & Gutter cleaning systems," they said, "Many members showed a great deal of interest in our petrol & diesel pressure washers - ideal for use in patio & driveway cleaning". GrippaTank commented, "We had a successful show with some good quality leads. I would describe it as a micro trade show, based on the low footfall, but it was certainly worth us attending".

One great find for me at the Trade Show was a booth set up by a window cleaner called Kevin Dixon. Kevin was displaying anything historic that was window cleaning from days gone by. They included 100-year-old brass squeegees to vintage journals and other equipment. There was even an old music box, that when opened chimed the song, 'When I'm cleaning windows'. To be honest I'm surprised the 70-year-old music box survived any 70 year old





hammer of the time! George Formby - I have lost count how many people have sang that song to me, mockingly!

When I discovered the name J Racenstein, New York stamped on one of the old squeegees, I was amazed. I told Kevin that my good friend Steve Blyth was President of that company. On learning this he astounded me further by giving me the vintage brass squeegee so that I could return it to J Racenstein!!

Now that is another story altogether but sure enough I took that squeegee back to American. J Racenstein was stoked and very appreciative of Kevin Dixon.

Outdoor product demos brought attendees out into the glorious weather of the day and some took advantage of experiencing the Hotel and its Golf Course and wider Blackpool from the platform of a Bronto Skylift S 70 XDT that had been laid on at the event by exhibitor, Height For Hire.

In fact I filmed Steve Kennedy (FWC Executive) as we both scaled to 230 feet in the air. The view was awesome!

The trade show was interrupted at 11 am for a moving minutes silent, joining the Nation in pausing for those that lost their lives in the Manchester terrorist attack. I remember mid conversation with Oliver Stanton of Grip-paTank, hearing the FWC announcement of the pending silence. We all stopped whatever we were doing. It was almost like the trade show had 'freeze framed' as we re-

flected on the lives lost, the injured and the family and friends left behind.

The Window Cleaning Speed Competition usually hosted by Terry burrows, Guinness Record holder for the fastest window cleaner in the World was at the Trade Show too. Sadly, Terry was unable to attend due to family illness (WCM wishes Terry and his family well). Terry had sent his apologies for not being able to be there.

Eighteen contestants were lined up to compete for the chance of becoming the fastest window cleaner!

Now, I prefer to report or document from behind the camera, but on this occasion Bryan Dolby (FWC Executive) and Andrew Lee (FWC Chairman) were very persuasive. Ask anyone; I don't put my camera down for anything.

And so there I was, 'first timer' actually competing. Part of me really thought, 'I can win this easy', that was until I saw



"UNITY FUN AND EXCITEMENT FOR YOUR BUSINESS IS WHAT THE FWC TRADE SHOW DELIVERED"

the others, oh! And the woman too!

It was hard for me to accept that FWC Member Debbie Morris beat my pants off claiming 1st place at 22.44 with her husband Dave Morris owner of David Morris Window Cleaning coming in at 3rd place with 26.08. Member Lee Clark came in 2nd place with 22.70.

I would love to be a fly on the wall for that journey back home with Mr. and Mrs. Morris. But seriously, Dave and Debbie Morris have always got involved and support the FWC wherever they can. Actually they were both sensitive to my broken ego and treated me to a pint or two afterwards, which helped.... a lot.

Unity, fun and excitement for your business is what the FWC 70th Anniversary and trade show delivered. I will not forget the genuine passion, love and respect we all showed each other and for this industry we call window cleaning.

I decided to catch up with the FWC Chairman, Andrew Lee after the event and find out more about the 'Feds' achievements and goals.

LB: Andrew, the event was a success. Are there more micro trade shows in the pipeline?

AL: Yes the Federation has got trade shows in the pipeline, no dates fixed just yet. Historically we have always held annual trade shows but for the last three years we didn't as there were other shows we attended that made the Federations presence known. The FWC 70th Anniversary and trade show in Blackpool this May was going to be a one off to celebrate our 70 years but we found that the event was successful and so now our plan is to hold bi annual if not annual trade shows. The event in Blackpool was a success despite the low footfall than expected and that was partly down to with it being on a Saturday and partly the weather but the quality of the footfall was excellent and this was backed up by what exhibitors said on the day that supported the show. They had reported that they were busy all day and that the quality of the enquiries was very high....

LB: How long have you been Chairman for?

AL: I have been Chairman for around three years and Vice Chairman before that for around 12 years and prior to that I was on the committee for quite some time, so roughly if you

add that all up it is around 21 to 22 years on the committee. I started window cleaning back in 1980 and it was quite a lot of years before I found out about the Federations existence. Once I found out I joined fairly sharpish and got involved with them mainly through Beryl Murray (FWC Secretary). I talked to Beryl a lot on the phone about various things and questions I had at the time and she encouraged me to get involved in the committee and working with the Federation, so I think I joined around about 1992.

LB: You are probably one of the most qualified in the area of Health & Safety within the Federation? Tell us why you set about achieving NEBOSH accreditation?

AL: No. There are quite a few of the guys within the Federation that have got general Cert's. I went on to do the NEBOSH Diploma 1 for the General. The reason why I did this was because I had my own questions and issues I wanted to solve within my own window cleaning business and I was already interested in Health and Safety. The then H&S officer on the committee was retiring and so there was a need for a new officer. I thought I could do that, but I couldn't be the H&S officer unless I was qualified.

LB: It's a lot of work the NEBOSH courses, right?

AL: It is a lot of work, running your own business, carrying out your Federation duties and trying to do your General Certificate and Diploma. Yes it is. I can remember days and days of attending seminars and burning the midnight oil studying, revising and working through papers for pre exams, so yes it is quite an undertaking but worth it because I went on from there to get involved with the HSE. I was in the working group that drafted the Working at Heights Regulations in 2005. Because of our working relationship with the HSE we were able to produce things like MISC 613, 614, 615 (safety guidelines written by the FWC in conjunction with the HSE pre Working at Heights Regs) and so on which are now obsolete because of the Working at Heights regulations that came in after those. NEBOSH gave me a lot of knowledge for window cleaning.

LB: What is SAM?

AL: This stands for 'Safety Accredited Member' this is the Federations equivalent if you like to a SafeContractor, CHAS etc.

Increasingly, tenders ask window-cleaning companies to be certified with some sort of H&S accreditation. SAM falls into

“..SAM ACCREDITATION FOR WINDOW CLEANING TENDERS BECOMING A NORMAL REQUIREMENT..”



This area but is more specific to window cleaning than the other accreditations. We can see that having a SAM accreditation for window cleaning tenders becoming a normal requirement for tender consideration because of its focus on the work activity.

The Federation decided to start their own scheme because the work involved to pass SafeContractor or CHAS for example involves a lot of which is not relevant in window cleaning. We are working towards having SAM at the accreditation level of other SSIP accreditations.

LB: How well received has SAM been relative to public sector contracts?

AL: In order to gain safety and procurement status you have to run a scheme for several years and you have to have so many members and you have to have a lot of capital behind you to buy into the SSIP schemes. We are at that point now. We have run the scheme for several years and membership is increasing; we are now getting it into the facilities management world.

For example, 'BACHE' which is the National Federation of Universities have already adopted the SAM accreditation as a requisite for tendering for any of their works. This is rolling out to many other areas of industry and so having SAM will be an important business decision.

It is important to note that SAM is training based too. Where as the likes of SafeContractor and CHAS are all paper based, SAM requires that you have carried out some IOSH training.

LB: It took some time to put together the SAM accreditation?

AL: It did, Bryan Dolby (Committee Executive) wrote the

SAM scheme and with help from myself, but all credit to Bryan as he really pushed for it to begin with. By acquiring SAM you are demonstrating that your business is H&S competent, suitable and sufficient. The H&S with SAM is more in-depth specific for window cleaning than other SSIP accreditations.

LB: A few years ago the FWC had trade shows all the time in Blackpool?

AL: Yes, we did come to a point where we were finding it extremely expensive and time consuming to organize and we had to consider members money.

Members and committee members thrashed around ideas of other 'value for money' options and considered other ways to best spend member's money for that time. And so we shifted for a bit and tried the idea of using other existing trade shows to exhibit in. It made sense to place our time and effort into multiple shows that included the Cleaning Show rather than just one FWC annual show. With the success of the micro show in May we are returning to the idea of a Federation annual event at least. So watch this space.

LB: You are a window cleaning business owner yourself. Can you give us a brief background on how you started? What brought you into window cleaning?

AL: My father was a retired policeman who took on the village pub. We lived in the pub as a family. When I was 13 or 14 years old, I had a little job on Saturday and Sunday mornings bottling up in the pub, cleaning the ashtrays and beer towels and one thing or another. I was earning two pound per week around 1977. I then a got a little job on the



"...THE FWC WOULD BE INTERESTED IN LOOKING AT THE UPDATED IWCA, I-14.."

local farm, going milking mornings and nights and then I was getting a fiver per week. And so I had seven pound per week aged 14, which was really good.

Then one day somebody suggested I should clean windows in the village for additional pocket money. I borrowed a neighbour's ladder, went to the local hardware store with my seven pound a week money and bought the things I needed sponge, leather, and some scrim. I started cleaning windows in the village and I soon was earning then 14 to 15 pound per day on the Saturday and Sunday. I then started biking to the next village with my ladder on my shoulder and my bucket on the handlebars to do more work in the next villages. When I came to 17 years old I had already bought my car, it was sat on the drive ready for me to pass my test which I did two weeks after my 17th birthday. After that there was a roof rack and new ladders and off I went to start my business. My business grew from there to what it is today. 37 years owning my own window cleaning business.

LB: What would you say are the biggest recent changes in our industry?

AL: Well the biggest changes have to be the working at height regulations that ushered in water fed poles. I have seen the attitude towards H&S change for the better over the years. Water fed pole helped a lot with H&S compliance but what people forget is that water fed poles also bring there own range of H&S issues to manage. That's another article all together Lee!

LB: Having attended the IWCA (International Window Cleaning Association) in Arizona earlier this year, it was revealed that their I-14 document on standards got absorbed into new OSHA Regulations quoting and referencing the IWCA's I-14 many times. It kind of proves that if you stick at something you can really make changes.

Do you think that HSE advisory is sufficient in the UK or do we need to go further and adopt a UK adapted I-14? What is your view on that?

AL: We first had an exchange in information probably around ten years ago with the IWCA, at the time the standards proved slightly on a lower par to already established UK standards. I have not seen the current IWCA guidance standards and the FWC would be interested in looking at that.

LB: What is next for the FWC?

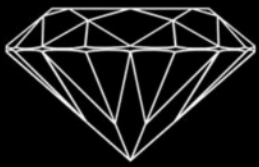
AL: Developing the SAM accreditation further. We feel this will be a major thing for us as it will increase membership and tenders will require the window cleaning business to be accredited to this.

LB: Last question is for fun.... What is the best time you got on the speed contest, ever?

AL: I got between 14.5 and 15 seconds, but that was back in the day, when I was more tall than I was wide lol

the FWC trade show Blackpool 2017





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DJ 'Coach' Carroll

the law of 21 18



You. Your Service. Your Company. Each worth up to ten points on the scoreboard. The rules are simple - it takes 21 to win. That's how the game of sales is really scored. How do your prospects rate you? How did you sell the 3? You. Your Service. Your company. For as long as men have conducted commerce - the Law of 21 has applied. Sell yourself, your company, your service. I have always favored selling myself - in any situation really. Selling myself comes naturally - I just share the truth. It's all about delivery and connection. You have your own story, your own truth to share. A story your prospects want to hear.

Let's face it - we are all underdogs - because we all grow. Any time you come up there is a down you can point to. Share the story about the journey between the two points and watch the connection unfold. Your prospects want to connect with you - isn't that the craziest part? To think a prospect doesn't just want to swipe a credit card and make the problem go away - even in this world of tech - it's like they are still human. Why not treat them that way?

I share my hero's journey with prospects all the time. I have four versions prepared and ready to go so that no matter the situation I am able to get my point across. I format my story in four ways.

1. Long Form - this is the novel edition. I start from the very beginning when I failed kindergarten work through my learning disabilities and the story of when my chemistry teacher told me I would be more successful if I went to college versus chasing my dream to be an entrepreneur. Then ultimately bring my story full circle with being right there in front of them today.
2. Short Stories - Sometimes the prospect doesn't need to hear the entire season of your life story - maybe just an episode or two. Be prepared to share an in depth story that may just be wrapped around one day or one project.
3. Laser Language - Understanding how to laser target the focus of your talk or story is of the utmost importance. You won't always have 20 minutes to share your story so get good a brief synopsis of your journey. I recommend practicing it to yourself in the mirror.

4. Bullet Points. Just like it sounds - straight to the point. These are great for introduction at networking events. Might sound something like this:

"Hi I'm DJ Carroll - originally from Indianapolis where I decided to study kindergarten twice. My parents divorced when I was 15. Although I'm mildly dyslexic I was offered several college football scholarships for chemical engineering but turned them all down to chase my dreams of being an entrepreneur. I have since went on to start, buy or sell over a dozen businesses in the past ten years. I now focus all of my time on growing my Ad Agency - Carroll Media."

Short sweet and to the point. But don't forget we aren't finished yet - that was just to sell myself.

Once they believe in their heart YOU are the one to do business with - you have to back it up. You need ten more points to get to the close. You have to pick between selling your superior service. The "how you get it done" part. Or you can choose to sell your company? ... Which do you chose?

I take the story every time. Have you ever had someone tell you "We already have someone for that?" It burns the first time you hear it. A statement of "you are not good enough." You hold less value. That's when you tell your story & win. I believe my story is better than theirs. That's what selling is. He who tells the better story wins.

So tell the better story. Sell the story of yourself, and the story of your company - while briefly touching on the service that solves the problem and you my friend are on your way to a close. A close I might add that will end with a new client that will never forget you!

Use the Law of 21 on every new prospect you meet. Connections matter.

-DJ

where does squeegee rubber come from?

19



By Casper Schojrring

Natural rubber consists of polymers of the organic compound isoprene, with minor impurities of other organic compounds and water.

Malaysia and Indonesia are two of the leading rubber producers but there are several other countries producing rubber but often in a lower quality.

Forms of poly-isoprene that are used as natural rubbers are classified as elastomers.

Currently, rubber is harvested mainly in the form of latex from the rubber tree.

The latex is a sticky, milky liquid which is harvested by making incisions in the bark and collecting the fluid in vessels in a process called "tapping".

The latex then is refined into rubber ready for commercial processing.

Natural rubber is used extensively in many applications and products, either alone or in combination with other materials. In most of its useful forms, it has a large stretch ratio up to 700% and high resilience.

To make the raw rubber strong and flexible as we know it the rubber will need to be treated. That process is called vulcanization.

Vulcanization or vulcanisation is a chemical process for converting natural rubber or related polymers into more durable materials by the addition of sulphur or other equivalent curatives or accelerators. These additives modify the polymer by forming cross-links (bridges) between individual polymer chains.

Vulcanized materials are less sticky and have superior mechanical properties. The term vulcanized fiber refers to cellulose that has been treated in a zinc chloride solution to cross-link the cellulose fibers.

Although the curing of rubber has been carried out since prehistoric times, the modern process of vulcanization, named after Vulcan, the Roman god of fire, was not developed until the 19th century, mainly by Charles Goodyear (the tire manufacturer).

When the rubber is vulcanized it will be mixed with additives to give it the characteristics wished for. We mix it up to increase durability and to get the hardness right.

In this whole process one of the most important thing is the raw material. We cannot make a good rubber if the raw rubber is not at a high standard.

We only use virgin rubber and not any scrap as you often do with cheaper products and I have seen a lot of squeegee rubber made from that too.

The problem we have with the raw rubber is that it is a natural product, and like wine it is depending on the climate and the conditions at the location where the trees grow.

So we need to blend the latex from several years to obtain a consistent and uniform product.

How do you make a squeegee rubber?

There are three ways you can manufacture a rubber blade

1. Extrusions, where the rubber is extruded through a tool and made in endless lengths and then cut up afterwards like you see on the Sorbo roll. This process will require that the sharp edge of the rubber is cut after the process because it is impossible to make a 90-degree angle in the process.
2. Injection molding, where the rubber is headed up and injected into a cavity inside a mold, which is mostly used with artificial rubber types. This is the same way you manufacture LEGO bricks and other plastic parts.
3. Press molding, which is the method we use where the granulate is distributed in a mold which then when pressed together under extremely high pressure form the squeegee rubbers

Hardness of rubber (or maybe it should be called softness)

There are no standard for hardness in rubber, which means that each manufacturer can call their rubber what they feel like. But there is one standard and that is how you measure the hardness. The hardness is measured in Shore and the normal is to use Shore(A).

"...IT'S ALL ABOUT WHAT WORKS FOR THE WINDOW CLEANER.."

If you look at the majority of brands a soft rubber is from 48-50 in hardness. A hard rubber like Unger is around 58-60. But the last couple of years the Medium rubber is gaining more and more popularity and our medium rubber is 52-54.

So what does all this mean?

You can't make an exact guideline to which rubber to use, because it is all about what works for the window cleaner. One general rule is that the colder it gets the softer rubber you should use. But it is also about wear of the rubber because a soft rubber gets closer to the glass it also wears off faster. In the US, the majority rubber sold is soft and in Northern Europe the medium is the most used rubber. All that can be explained in many ways. One main reason is the way window cleaners run their business. Many American cleaners work on large windows with aluminum frames and they change their rubber every day and don't get the same wear and tear. For them speed is the priority. European cleaners working on small windows with wood frames will see more wear and tear on their rubbers and prefer a harder rubber which lasts longer.

What determines the price of the squeegee rubber?

There are many factors to influence on the end price of the squeegee blade.

Let me try to explain it in a simple way.

Distribution:

The more hands handling the product the more it costs.

Let us say the raw rubber cost a \$1.

Then we need to process it using energy and man power.

That would normally double the price so now it cost \$2.

Then we will ship it, pay taxes and sell it to the brand owner, now costing \$2.25.

The brand owner then will distribute it to their warehouses around the world making a profit and paying for transportation and the rubber now cost \$4.50.



Then the regional office will sell it to a reseller, which would like to make a 40-50% profit to cover warehousing, sales cost, marketing etc. and the rubber is up at \$9.

So how can this be made cheaper in a competitive market. If we stick to the factor 9 from raw material to end-user we can do two things.

Cut the cost of the raw material. Let us pretend we fill the rubber with cheaper fillers and save 20% on the cost so now it is \$0.8. With the multiplier added in the end-user price is down to \$7.2 and if we make the rubber quality even worse and cut the cost to \$0.5 we end up with an end-user price of \$4.5.

There is also another way and that is the way we do it at Black Diamond. By simply cutting out the middle man and manufacturing a top-quality product and selling it with as few steps as possible. By doing so we make it possible to sell a high-end product to 40% off the price of an equivalent quality product.



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designing your unique window cleaning arsenal

by
Carrie Guenther



Dig if you will, this picture: I am sitting on the grey and white linoleum floor in an aisle at my local Home Depot in North Minneapolis, Minnesota (that's where the late rock star Prince was born and raised, if you didn't pick up on my *When Doves Cry* reference), rifling through shelves of gear. Each item is more fascinating than the next. I did not previously know that these things even existed. I am "ooh"-ing and "ahh"-ing all over the place in my anticipation, and occasionally giggling. My partner has wandered off to geek out on power-tools, and I have no idea how much time has passed. Then he appears at my side. "It's so exciting!" he stage-whispers, and I jump, my reverie interrupted, and laugh at myself, before my eyes finally lock down on what I want. He has been a union electrician for years now, and he loves witnessing this.

I am buying my first tool-belt.

Yes, I admit it. I am a total noob'. But window cleaner newbies who work by themselves eventually learn – perhaps a bit more slowly than most – that tool-belts are amazing, and very much needed to be efficient and comfortable. Maybe you discovered or created your own, years ago. Maybe it has transformed and evolved to fit your

needs as the years have passed. Do you remember how excited you were when you noticed the advantages of having an efficient system you could carry on your body?

Or maybe you are like I was for the first seven years of my career in traditional window cleaning, and you just snap your plastic squeegee holster onto a regular ol' leather belt, stick a small razor in the holster, a big razor in your back pocket, your phone in your other back pocket, pull a towel through each of your belt loops, and go about your day.

Seven years. I can never get that time back. It kills me.

Can we all agree that taking the time to do this for your self is a good idea? It's the franchise-mentality. The McDonald's fast-food-way of cleaning windows. If you have a system, and you do it the same way every time, you get faster. It can't *not* happen that way; that would go against nature. Think of how much time workers spend running to the truck for a tool they didn't know they would need for the job. Then phones are looked at, Facebook is checked,



*Pics 1 & 2

texts are typed, cigarettes smoked, and beverages sipped. So much time is wasted.

Also, I don't know about you but I don't wear the same pants (*ahem, "trousers,"* for you Brits) every day. Sometimes my belt-loops are different and I don't have a back pocket to put my razor or phone in. With parachute-pants, sometimes my pockets are at knee level. The point is, when you're in The Zone and you're on a roll, or on autopilot, going a million miles an hour, you don't want to be running around in circles or patting all your pockets down like a stoner or an Alzheimer's patient every time you need something. Organize, dammit.

And how about just good ol' basic, logical, OSHA-treasured *safety*? Put good grips on your on your handles, work on weight balance and technique, and save your wrists so when you're sixty you can still pick up a grand kid or a bag of groceries without wincing in pain. Keep your razor in the same place where the cover doesn't catch and come off so you slice yourself like an Easter ham. Take care of your body. It is fragile and temporary.

And so I saw the light, found the path, and I've moved up in my little sparkling glass world. It all started last summer in the magical realm of England; on the green island of the United Kingdom; where I met some window cleaners from Lake Tahoe, California, when we all did some filming for a project pioneered by Lee Burbidge. Corey A Corbin was the most introverted of the bunch. He never said very much, but ironically, seemed to be the most comfortable – out of all of us – on camera. I had brought my holster, squeegee and scrubber, of course, but the Lake Tahoe window cleaners had each packed a serious, big-ass tool-belt into their luggage. I eyed them a bit enviously.

I learned to clean windows from the friends who sold me their business. They were mom-and-pop, small-time, bare bones, and, I would soon discover, were charging way too little for their skills. I had never considered that there might be an advantage in designing a tool-belt, or getting grips on my tools, or having a better system for carrying towels. I never knew I would learn, as the owner of this business, what a difference this can make in time, comfort and efficiency.

At some point during my time in the U.K. I noticed that the handles on the other American window cleaners' tools looked different, and I asked Corey if I could take a look. (*Pics 1 and 2) They were hand-wrapped with some kind of black cord. All-told, the cord probably added about a half centimeter, maybe more, to the girth of the handles, making it surprisingly more comfortable to hold than a hard plastic or metal handle. For people who do traditional window cleaning, this makes a huge difference in the quality of our

workdays, and in the tendons in our wrists. Besides this, it just *looked* cool. I asked Corey who did it for him. He said, "I did it."

Corey is a window cleaner but he's also a pro BMX biker. (He and his friend actually dismantled packed their bikes up and brought them to England.) He is also into knives, and has a lot of them. Folks that have knives and axes have been wrapping their tools in unique ways forever, he says, and that's where he got the idea of wrapping his tool handles.

The material he uses is paracord, short for parachute cord. According to Wikipedia, "Parachute cord ... is a lightweight nylon kern mantle rope originally used in the suspension lines of parachutes. This cord is useful for many other tasks and is now used as a general-purpose utility cord by both military personnel and civilians ... The braided sheath has a high number of interwoven strands for its size, giving it a relatively smooth texture. The all-nylon construction makes paracord fairly elastic."

When pressed for more details about his window-cleaning arsenal, Corey said that he'd also invented a nifty sounding adjustable towel-belt using paracord and metal bullrings, or "o"-rings. I made a mental note to get his contact information.



Pic 3



Pic 4

Almost a year later, we connected via Skype. I had my notebook in hand.

"Okay," I said, "tell me everything."

Over the course of the next forty-five minutes, he showed me his whole setup: Tool-belt, pouch, towel-belt, D-rings, and all his tools. Within minutes, I was imagining what I would design for myself, and the story I'd write about the process, and then I was asking Corey if I could send him my tools to wrap.

"Sure," he said, "I can make you a towel-belt, too. There are four rings on it. What colors do you want?"

Mind. Blown. *"I get to choose colors?"*

That's the other fun part about investing in something like this, you can choose the colors that match your business logo. For me, the Window Ninja, that was shades of red and gray. (*See pics 3 and 4, page 22) Or, if you work with others for a bigger company, wrapping your tools uniquely means you'll never have to worry about getting your tools mixed up with other peoples' tools again. Your gear is individualized.

Corey's tool-belt was a padded clip-on belt with a large leather pouch made by AWP that he bought at Lowe's. It had loops and pockets that held the following things:

- Bottle of soapy water (or "local juice")
- Separate holder for large scrapers (because, safety)
- Pocket for shoe-covers (or, as I like to call them, "booties")
- Small "spot blade" scraper
- Replacement blades for both scrapers
- Phillips-head screwdriver, for removing grids
- Flathead screwdriver, for digging dirt out of tracks
- Toothbrush, track detailer, square paintbrush, also for cleaning tracks
- Steel wool, (which I never use, but I hear is amazing)
- Large drop-cloth, to put on the floor
- Ladder clips
- Handmade screen-holder (made from paracord, a carabiner, and a clamp, which can be hung from a ladder when screens come off from the outside)
- Phone, ear buds, Bluetooth system, etc.

Now lets talk about towels. I was told recently after working with another local window cleaner that I use an abnormally large amount of drying towels. He had a lot of WFP systems going, yes, but for every two towels his squeegee-wielding-guy used, I would use eight or more. I did wonder why. "If my guys used that many towels, I'd never stop doing laundry," he said.



Maybe it's just the way I do windows. What can I say? I'm a woman and I like it wet. I walk around with a bottle of "local juice," too, rather than running back and forth to the bucket. But the fact is, I only end up using one half-bucket-full of soapy water to clean the insides and outsides of one 4000 square foot home. And a lot of that gets dumped in the garden when I'm through. Not a huge orange Home Depot bucket, but a smaller 5-gallon red plastic bucket.

I could make a bunch of unladylike on-the-rag jokes here, but I won't. The fact is, rags of all varieties and for all purposes are universally a *huge pain in the ass*, trust me: Getting more as you use them, getting rid of the dirty ones, dropping them accidentally, getting musty smelling in a hot van, washing and drying them ... I swear I could have woven a hundred sweaters by now out of the lint that comes out of my dryer trap after drying loads of terrycloth towels over the last four years. Unfortunately, when you do a lot of residential interiors with squeegees and ladders, detailing and wiping up drips is unavoidable. And, like the Lake Tahoe cleaners, that's a lot of what I do.

The towel-belt Corey made me was red and gray to match the handles, and held 4 metal rings just the right size for one towel each. As you can see, (*Pic 5 page) the placement of the rings can be adjusted slightly along the belt, and it's got a clip on one end and a Chinese-style woven ball and loop at the other end, so it's adjustable according to your size. Corey wears it so the towels hang in the front (*see pic 6 page 24), and I wear mine around the back. (*See pic 7 page 24.) He uses blue cotton "huck" towels (or surgical



Pic 5



Pic 6



Pic 7

towels, which are hard to find here) and I use white terrycloth towels.

I sent Corey my vintage Ettore squeegee handle, minus track and blade, and my 6-inch scraper, minus the razor and cover. A few weeks later I got a package in the mail containing my beautiful newly wrapped red and gray handles and my matching towel-belt. It felt like Christmas in June.

Next I headed to Home Depot to complete the assembly of my tool-belt.

You can go all-out buying a really nice, padded tool-belt, or you can do it cheap. I did it cheap. I thought about what I use daily, what my needs are, the fact that in my type of window cleaning I have to be able to squeeze into small spaces, and the fact that I have a small budget. The Lake Tahoe people had snap-on thick, padded belts, clanking with carabiners, and added pouches and features to customize them.

I chose a large pouch that my existing leather belt can loop through. (*See pic 8.) It's made by Husky. The durability remains to be seen; it's a brown fake suede material that looks like it may not last long. But that's what you can get for about twenty bucks, and along with the other things I hang from my belt, that's all that would fit, honestly.

The pouch is divided into four pockets, and there is a smooth bent metal loop on one side (*see pic 9) that I thought was one thing but I ended up using for another purpose.

You know how you can kind of rest a ladder horizontally on the edge of your belt and carry it on your hip? I was imagining I could do it on that bent loop.

You can't. The placement is too low. Instead, I use the bent loop to stuff my dirty and wet towels into until I get around to the front of the house and dump them in my laundry basket. Also red, because ... you know: color-co-ordination.

Do I need to invest in a padded belt with gadgets that all stay in one place, that I can simply snap on and snap off and leave in my van so I don't have to assemble all my sh*t every workday morning? Absolutely. But not today.

For right now, this setup works for me (*see pics 10 and 11 page 25):

- An old brown leather belt
- A green, plastic Unger "bucket-on-a-belt" that holds squeegee and scrubber
- A 14 inch Ettore squeegee
- A full or half-sized (depending how strong my left wrist feels) scrubber.
- Towel-belt
- Four small white terrycloth drying towels
- Bottle holder that hangs off my belt, containing...
- A small, red waterproof JBL Bluetooth speaker
- Husky multi-pocketed belt-pouch, containing...
- Spot-razor



Pic 8

Pic 9

- 6-inch razor
- Small flat-head and Phillips-head screwdriver, for unscrewing grids from windows, prying stuff, and when used with a rag, digging dirt out of tracks
- Bottle of “local juice” made with water and Mrs. Meyer’s Clean Day dish soap
- One pair of booties in my pocket
- Phone and ear buds

A collection of tools and materials for leather repair, including a green heat gun, a red thread spool, a blue cloth, a white glue bottle, a metal ruler, a screwdriver, a leather strap, and a brush.

A woman with short blonde hair and bangs is standing outdoors in front of a weathered wooden fence. She is wearing a black t-shirt with a yellow and black graphic of Frida Kahlo's face. She has a brown leather tool belt around her waist, which holds a white spray bottle, a yellow-handled tool, and a green container. She is also holding a long-handled tool with a red and black handle. She is wearing camouflage shorts and has a tattoo on her left forearm.

Cheers, from the Minneapolis Window Ninja.





the new vertigo pole from ionic

Ionic Systems released their latest range, The Vertigo water fed pole at the Cleaning Show 2017 earlier this year together with an exciting new pole up grade called the Protector that helps in protecting window cleaners from overhead power lines. The new Vertigo pole has some great features with no less than five new patents pending.

So why so many pole changes?

Ionic Systems last 'new pole' was some time ago and since then Ionic have focused on the water treatment side of its business with machines such as the Zero, Task etc as well as a general streamlining of their range.

In the mean time Ionic must have saved up their pole improvement ideas for the right time. It has been 20 years since Ionic started the whole water fed pole industry off and with the Vertigo improvements and innovations have once again showed themselves to be true innovators at the top of their game.

Some of the ideas on the Vertigo have been around for a while and have been improved on but some are completely new all together with some exciting fresh thinking.

Why call it 'The Vertigo'?

Well, pressed on this Ionic Systems R&D were searching for a memorable name. With the great Hitchcock film and U2 song by the same name as inspiration along with the reality that window cleaners who would enjoy using this pole also

ionic
SYSTEMS



26

prefer not to work at heights, 'Vertigo' seemed a pretty cool name.

Let us drill down into the mechanics of the Vertigo first and find out what is new?

We start with the lower end of the pole. There is nothing new about end defenders with indentation outlets allowing pole hose to run freely from the bottom end cap but here on the Vertigo, Ionic have created a simple and yet effective way to stem water flow without the use of inline taps. A groove designed to trap the hose within the end cap allows the window cleaner to pull gently the inner tubing up into the slot provided and snag the inner hose, cutting off the water supply. Great for reducing unnecessary water usage, whenever needed.

Staying with the 'butt' end of the pole a further feature of the Vertigo is something Ionic calls the pole connector. 'Plug and go' poles or 'tubeless poles' were first brought to the market by Exceed Innovations. No longer selling poles but selling the kits Ionic has filled the gap for pole and connector togetherness.

What is the 'pole connector'?

Most water fed poles are tethered with there internal hosing, however, with the Vertigo, the inline hose has a quick push connector that clicks into place at the bottom, just inside the end cap. As the pole is extended, the pole connector travels up the pole with the inline tubing. A very novel way to keep your Vertigo pole neatly stored in the van with the hose also neatly reeled away separately. Those with OCD will be very pleased.

Moving along, Ionic decided to re-engineer the pole clamps and have introduced spring-controlled transverse clamps. The idea of the spring is to allow for the clamp to open wide enough for easy gliding of the pole sections. The spring allows for a low friction action when raising and lowering – freedom of movement equals longer lasting pole sections. The real interesting thing about the spring is that it also allows for increased adjustment too.

This can only mean a 'vice held' grip that helps in limiting the 'spin effect' when a pole wares. With the generous adjustment and the spring assisted opening of the clamps, it goes without saying that these features were designed to prolong specifically the life of the pole, something all window cleaners can relate to.

So how much longer is the life of the Vertigo pole? In general Ionic expect 20-50% longer pole life with the new clamp design.



Pole Connector

Looking at how other designs catered for pole tube wear by adding a spring to the outside of the clamp so that the clamp continues to close on an ever decreasing tube diameter, Ionic Systems aim was to avoid pole tube wear in the first place.

Craig Mawlam, Chairman of Ionic Systems tells Window Cleaning Magazine, "We've always gone for tube sections with hard wearing properties. However by adding a spring between the clamp lobes to assist opening rather than closing we have reduced friction for easier raising and lowering as well as reducing the sand paper affect when dirt gets into the pole sections. Ultimately though the service life of any pole comes down to cleaning and maintenance and those who care for their poles will always spend less on poles".

In the past clamps would have a little bit of memory which did on occasions make things difficult when it came to extending out the pole. The new clamps from Ionic help to eliminate that.

Now lets move on to the more exciting developments of this pole, the Head Rotation, QR Angle Crank, Hydro Flow and some new 2mm Flexi Jets. This all sounds very new and exciting - *and it is*.

More and more pole manufactures are tackling interchanging brushes and some are providing both interchangeable and head rotation options.

So why would you need to change out a brush head or have the need to rotate it?

Swapping out the brush head to suit the job in the past has always equalled time lost. The Vertigo pole offers the speed of snapping off and snapping on the appropriate brush in an instant. Having more flexibility in changing out different brush heads will allow the window cleaner to make better decisions on choosing the right brush for the right job. With differing types of brushes that tackle different job issues, sometimes 'one brush does all' just don't cut it. The Vertigo offers an instant solution to flexibility in this instance. The quick-change brush head also allows for multiple positioning. No more 'half cleaned' jobs as you struggle to clean patio doors behind Juliet balcony railings.

Imagine a building full of Juliet Balconies. Some how it feels like cheating, or not doing the job properly if you are unable to get the glass behind those railings. Irritating to say the least.

Digging deeper into the inner workings of the brush head and we discover the 'water flow phase'. A hollow chamber with an improved water flow design.

Deep with in the bristles sits protruding 2 mm jets never before seen in the UK and unique to Ionic Systems.

These jets are soft, gentle and flexible anti scratch hose jets ensuring that 100% of the water reaches the glass and is not lost through the bristle ends. Remember the brush head that just streams water from the stock? Well these special jets are designed to improve that ensuring all the water hits the glass.

We asked Craig Mawlam of Ionic Systems again to explain more about the use of these unique jets, "With poles and brushes of all kinds we noticed that on the downward stroke water falls from the brush stock (backing) to the ground whereas on the upstroke all the water ends up on the glass exactly where we want it! Since it's the pure water that is doing the work and not least because there is a cost to producing that pure water we certainly don't want to be wasting it by having it run back down the bristles on the downwards stroke and falling to the ground.



QR Angle Crank

“..WHERE IONIC GET REALLY UNIQUE .. IS IN THE HYDRO FLOW..”

That's an expensive way to water the garden right! By bringing the jet forward and closer to the glass we can ensure that pretty much all of the pure water reaches the surface. With more water on the glass, less time and effort is required for the cleaning and rinsing”.

We asked if fanjet's were available in this style, was there even that option? Craig again, “Pencil jets are best suited to deliver water through the brush where the bristles diffuse the water to reduce the chance of spotting. Fan spray nozzles are best suited to delivering water above the brush and are useful when water needs to be conserved such as when cleaning cladding or large areas of roof glazing”.

Where Ionic gets really unique with the Vertigo is in the Hydro Flow that runs through the new QR angle crank. This is a 100% new innovation as Ionic sets about tackling the problem of snagging and leaks by running the water flow directly through the angle crank and directly into the new quick release brush connector.

Pure water now passes inside a newly designed QR angle crank made of a stiff polycarbonate ABS plastic. This is pretty clever on many levels. Inside the spring assisted technology keeps parts separate for smooth adjustment. The pure water runs through the angle crank, directly into the brush allowing rotational freedom.

So what if the hidden features fail inside the brush head or the QR angle crank?

When it comes to the brush head, two screws will allow the user to pull the brush head apart for easy access to the parts inside, however, the QR angle crank is a sealed unit and because Ionic have used quality JG fittings there would never be a need to open one up.

No design changes of the actual brush head? We asked Craig Mawlam about the iconic brush design and why it has maintained its look despite other manufactures drastically changing theirs over the years.

Craig, “If it ain't broke don't fix it! One of the very best features of any Ionic pole is the brush. Its funny how sometimes things go full circle, though its important to keep things as light as possible, there comes a point when light can be too light and we've seen that with both brushes and the poles themselves.

Its interesting that a few years back anorexic tickling sticks were all the rage, these days in relation to brushes, bristle density and the number of points of contact are phrases that are becoming more commonly used as skinny brushes are becoming a thing of the past.

Suddenly there is a realisation that the brush provides the





elbow grease and a more densely packed brush requires less pushing and pulling to achieve the same goal and therefore requires less effort. Now heavy is the new light. Of course we always knew that and because we are not producing sporting goods for athletes we didn't join the race for the lightest advertised pole by removing the bristles that actually do the cleaning! At Ionic it's always been about the cleaning and the knowledge gained from experience that time is money. Some of us will remember lugging double 18's all day. 20 years ago any water fed pole felt light, today poles are less than half the weight but a little weight in the right place is actually a good thing. Having said that we did reduce the weight of the brush stock by 40% by moving to foam filled material, thus reducing overall brush weight without sacrificing bristle density".

The Vertigo is sold in all lengths from 17ft all the way up to a colossus 80ft where we wonder if the new 'foam backed' brush heads we spied on display at the Cleaning Show would properly prove useful here?

A short piece on the new Protector pole upgrade:

Ionic is famous for putting safety first. One thing you can be sure about with Ionic is that when they claim something is 'safe', you can bet your bottom dollar they can back it up. Ionic lead the way in crash tested van mounted systems becoming the first to put their products through crash tests at the Thatcham Testing Centre, UK. So, when Ionic reveal a new pole upgrade called The Protector that is designed to take electric shocks of up to 1000 continuous volts and up to 10,000 surge volts it is reassuring to hear that many handle sections were subject to a hellish time in the testing chamber.

It would make interesting viewing to be a fly on the wall and witness the Ionic board meeting discussing who would be first to test the pole upgrade for real. To the relief of Ionic staff thou, the Protector went through harsh BS tests.

The Protector is essentially a 'pole handle' upgrade focused on safety and can be added to any water fed pole. It conforms to internationally respected British Standard BS:8020.



Click or scan to watch video



Due to the nature of its safety aspect, the handle has an extra special protective inner lining and users must be prepared for an increase weight of around 10% to your existing water fed pole. As with all lengthy use, there should be regular breaks and switching of staff in order to reduce fatigue.

We asked Craig Mawlam why The Protector handle upgrade?

Craig, "In 35 years having and known personally a number of window cleaners who were killed or injured in avoidable window cleaning accidents, at Ionic, window cleaner safety is difficult to ignore.

I guess its those years of hands on window cleaning experience that makes us that bit more connected than some in the supply chain. Sadly news of window cleaners that have died or have been seriously burned when the water fed pole they were using hit an overhead power line are too common these days.

When we introduced the 'Reach & Wash' system 20 years ago it was to make window cleaning safer! All a manufacturer need do is apply a label warning of the risk of electrocution and they are in the clear. When some even fit aluminium handle sections to their carbon fiber water fed poles its clear that your safety isn't really their priority. Now the safety conscious window cleaner can make an informed choice about the type of water fed pole he uses, lightning conductor or 'Protector'. Subconsciously it's a one sided decision a window cleaner who uses water fed poles makes every day. Honestly every window cleaner should carry a 'Protector' pole in their van so that they have a real choice".



device
magic
is
magic

"The need for keeping track of data has been there all along", Shelly says, "I had to hire help just to scan and print out documents for hours each day. At one time I had boxes stacked almost to the ceiling filled with documents. I'd count down the days till I could burn or shred them once the 3-year period for storage was complete. Tony had daily route sheets that had to be printed out every morning and distributed to the drivers and monthly billing was a family affair with everyone working overnight to stuff envelopes."

By the time they opened Sonitx in 2003 the Shelton's were no strangers to trying the latest forms of keeping track of documents, services or items. During the prior five years Shelly had made some progress by moving from making copies of every document to scanning them into a database and printing them out as needed. Tony had spent weeks writing a custom POS system based on QuickBooks inventory that allowed employees to input over a thousand of articles of clothing each night with ease. They had even experimented with keeping track of clothing with RFID tags. They had come a long way from printing out a sheet that listed every possible clothing descriptor and checking off boxes.

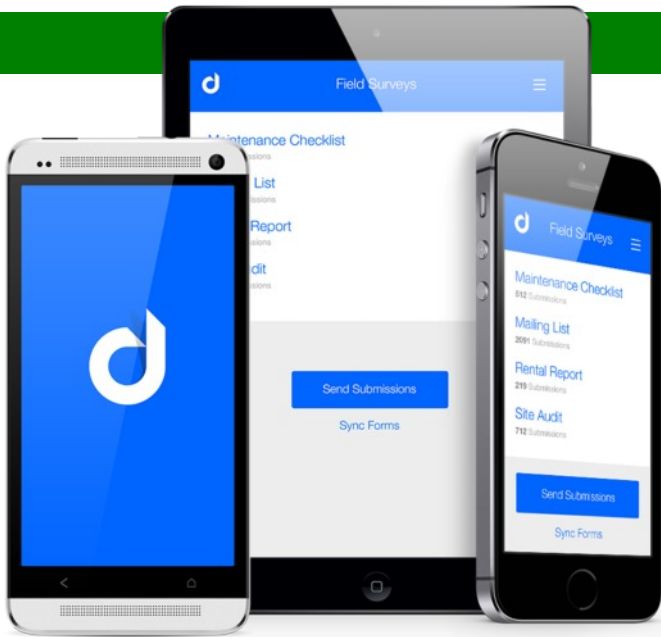
Sonitx is an air filter business based on eliminating the waste of throwaway air filters. It was a given that eventually it would move towards paperless scheduling, routing, and reporting.

The company started right off the bat with a homemade database reporting system. While other companies were spending thousands on fragile bar code scanners or other forms of "proof of service", Tony thought a picture and a time and date stamp would keep customers more at ease. He had an idea of what his customers needed, but it would take another ten years before affordable technology would come to a meeting point with those needs.

Tony discovered Device Magic while looking for a way to add GPS stamping to the custom emailed reports he had used for nearly a decade. It was exactly what every service customer needs, verified proof of service with solid, visual documentation.

The software differed with other offerings in that it did not rely on long waits on phone lines or costly coding just to change or add a field or deal with a problem. For the first time convenience and speed met with reliability and instant customization.





"We went into it full blast", Tony says with a smile. "We already had the email reporting template laid out that our customers were familiar with. It was just a matter of making a quick sketch listing all the fields we wanted and dragging those fields into a custom form. It literally took less than an hour to turn our manual reporting system into an electronic form."

Employees used to spend up to 15 minutes at each job typing in addresses and punching in notes, or even worse, jotting them down on a yellow notepad, adding more hours to the work. Shelly and Tony had to do each night trying to transcribe them and get the reports off in a timely manner.

Now that task is completed on each rooftop in less than 15 seconds complete with pictures, drawings, GPS coordinates, time stamps and technician signatures. Those reports go straight to the customer's inbox. Tony sends customers two forms in one. They get an email that is text based that informs them the work is complete, while simultaneously sending them a backup form in PDF format that they can print out and place in a file if they want a backup copy.

A copy of all of that goes into Sonitx company inbox where prior services can be found within seconds via a simple email search by typing in the name of the customer. This all sounds complicated, but in reality, the Shelton's have been able to go months without even opening Device Magic. It all happens in the background. Set it - and forget it.

Customers frequently call and ask, "When was my last service?". Tony and Shelly can locate that information in seconds on their phone and customers are amazed at the speed their questions are answered.

Further backups are automatic. For example, if you tell it to, Device Magic will continually add each service to an ever-expanding spreadsheet, complete with pictures. Tony has theirs set to build three spreadsheets, one in excel, that is backed up onto a 4 TB external drive every hour, one to a Google spreadsheet in the cloud, and one to Device Magic's own server.

The nice thing about the Device Magic server is, it will plot all your services on a map and you can drill down into it and click on each individual service.

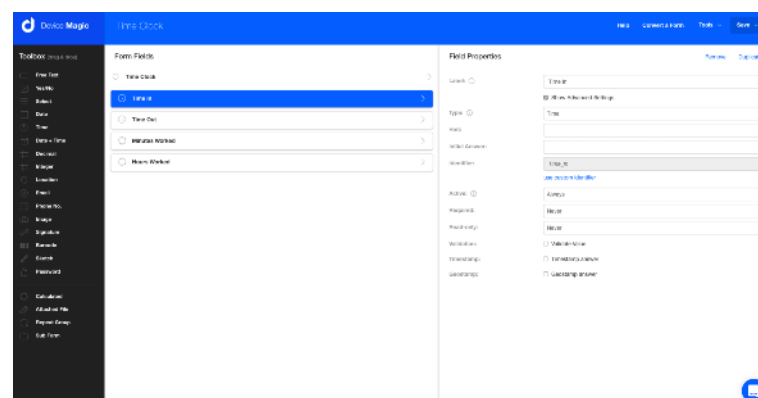
The simplicity starts from the minute the App is downloaded. The forms can be changed on the fly from anywhere. The Shelton's spend a lot of time on the road and have been able to build new modules from the comfort of hotel lobbies or sitting on the sofa at home.

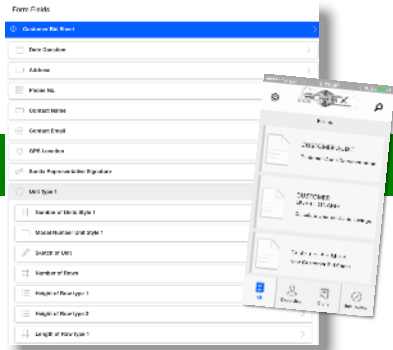
Once an account is established the first thing a business owner needs to do is determine exactly WHAT needs to be documented. An easy place to start is to build a simple time clock for employees. It will quickly become apparent just how easy it is to replace dozens of other apps with just one.

From the toolbox on the left of the forms screen just drag over the "date" field and the "time" field. You can customize those fields with a click of the box that opens "Advanced Settings". It is intuitive from there and within a short period of time you will find you've built your first App. For many the first consists of nothing more than four fields, Time In, Time Out, Minutes Worked and Hours Worked.

Once the basics are learned the mind starts racing, thinking of just how many ways Device Magic can replace repetitive actions we do every day with written notes and forms.

Sonitx has around 30 forms they use on a regular basis. Those forms include everything from regular field reporting to full blown customized field bid sheets. The comprehensive bid sheet they have built has over 75 individual fields and will allow for a combination of more than 150 pictures and sketches. This particular form allows Tony to go on a rooftop with more than 50 different kinds of HVAC units, walk around snapping pictures of the units, the ID plate of each unit, the current condition of each filter and coil, etc. With a click of a button that information is converted to a PDF bid that Tony has built in Microsoft Word. Before he even leaves the roof the complex bid complete with pricing breakdowns, terms, and disclaimers, is on its way to the potential customer. A customer signature is all that's needed.





32

Other uses for Device Magic have been much simpler. There are employee App's for emergency reports to the office, emergency reports to customers for when they come across a safety hazard or an impending problem, scans of receipts, business expenses, vehicle service and fuel reports, Field Sales and prospecting reports, and even instant sign up sheets for customers who are sold on the spot, etc.

All of these are quickly built and customized and there is the continual ability to change them at any time. The App is simple for the employee, transparent for the business owner and appreciated by the customer. It will work on any employee phone, IOS or Android, and comes with an easy interface. Employees rarely have to do anything more than punch buttons: Everything on Device Magic is customizable and configurable.

Tony and Shelly haven't even scratched the surface on its capability.

This year they plan to take advantage of the dispatch features to replace Google Calendar and to delve into connections directly to QuickBooks.

Current cost is \$8.00 per active phone per month with a UAMCC discount the org negotiated in 2013. The app is only needed on the phones of lead technicians so the cost is minimal.

All phone support is free and the staff is easy to work with and they are continuously adding new features and listening to customers for new ideas.

"If you own a service business and do not use Device Magic, you are missing out on technology that can make your life much easier".

site assessments and work plans



By Stefan Bright
Safety Director IWCA

There has been a lot of chatter regarding the new OSHA regulations as they seem to be very specific to the window cleaning industry. The new Walking and Working Surfaces Subpart D Regulations pertain to fall hazards, portable ladders (and fixed) falling object hazards and training. Every professional window cleaner in the USA is exposed to some type of all 4 of these topics on a daily basis.

While these regulations were just finally revised and published in January of 2016, there is reference within them to a universally more important regulation which was published in 1994 and goes unnoticed until an accident, injury or OSHA investigation occurs.

The newly revised WWS Subpart D often refers to the "plan" of service and actually references the I-14 Standard (IWCA-2001 version), when it comes to window cleaning. However, OSHA has been enforcing the importance of having a work plan for nearly 23 years. Those regulations are found in the same Code of Federal Regulations (CFR) Section 1910 but further back in 1910.132. Following is an excerpt from the beginning of that section.

1910.132(d)

Hazard assessment and equipment selection.

1910.132(d)(1)

The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

1910.132(d)(1)(i)

Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

1910.132(d)(1)(ii)

Communicate selection decisions to each affected employee; and,

1910.132(d)(1)(iii)

Select PPE that properly fits each affected employee.

1910.132(d)(2)

The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

Remember that PPE (Personal Protective Equipment) is not limited to gloves, glasses, respirators and boots.

Because of the newly revised regulations, any reference to PPE includes safety nets, guardrails, fall restraint and fall arrest systems; which also include anchors, ropes, cables, lanyards and harnesses.





Workplace hazard assessments are accomplished by visiting each location where you or your crews will work to identify what hazards they may encounter and how to avoid them. If you can, use your slow season to your advantage, and visit all of your contracted worksites. The number of hazards that a professional window cleaner encounters at a typical site is less than a dozen, but each has a level of concern that must be properly addressed. Once identified, these hazards need to be written into a work plan which includes what methods your workers will employ to avoid exposure to the hazard. That would include specifying any PPE which may be needed.

The following list includes most of the hazards any professional window cleaner may encounter at any site, no matter what type of work they are performing:

- * Falling
- * Environment (weather)
- * Equipment condition
- * Ground obstacles
- * Overhead obstacles
- * Suspension rigging and anchor points
- * Electric supply lines
- * General public.

Performing a site assessment and developing a written work plan to address any hazards is a requirement of OSHA and also known as a Job Hazard Assessment (or JHA for short). The written work plan is a great offense and can help provide a means of site supervision during the busy season when you can't be at every job, and of course, it's an obvious example of Prevention through Design which is the new

direction safety and health plans are taking.

Coming up with a plan for equipment maintenance, training, and conducting site assessments has a proven track record for the industry. During the last two decades, contractors have performed better and more thorough site assessments and it has made a difference. Fatalities and accidents in the window cleaning industry have been reduced by over 30 percent.

One of the most important safety issues to be addressed during a window cleaning operation is the use of tools and equipment on or around areas where people not involved in the operation may congregate. The safety and well-being of the window cleaner is important and equally so, is the safety and well-being of those who may come near the window cleaning operation. In addition, the use of access equipment must also consider the protection of private and public property.

Current OSHA Regulations now repeats the mandate that a work plan be provided by the window cleaning contractor when windows to be cleaned are located in areas where workers may utilize suspended equipment which may have falling object concerns when the public may be exposed to overhead equipment operations or where workers are exposed to falls and other known hazards. The newly revised OSHA regulations address procedures for "falling object protection" which includes warnings such as barricades and danger signs.

Industry Spotlight:



spinaclean ltd
home of **skyVac™**



Some may or may not have heard of Spinaclean Ltd, however you are more likely to have heard of the SkyVac?

Spinaclean started in 2004 by Andy Whiting and the company originally set out providing paving cleaning services for the Northampton area. Andy quickly realised a gap in the market for a 'one stop shop' for anyone wanting to start his or her own paving cleaning business along with advice and help.

Meanwhile, coincidentally around the same time, Paul Crosbie had started an external paving cleaning business. His idea was to prove that you could build a profitable paving cleaning business and then sell the concept to others. It was not until Andy and Paul met at a training day in London that they both realised they shared the same vision and synergy. This inevitably led to teaming both companies up on larger projects.

Since the amalgamation, Spinaclean has gone from a standing start to distributing to over 35 countries and helping thousands of individuals start their own businesses.

We pick the rest of the story up with Andy and Paul...

WCM: So, guys. At first your intentions were to help each other on larger cleaning contracts. What were the first projects you remember working on?

Paul: We carried out a huge job in Milton Keynes at the Hub. The Hub is a collection of apartment blocks with a huge range of restaurants at base level. We were contracted by the developer to clean the entire area prior to the Queens visit to officially open the venue.

WCM: I guess the more you worked together the more you tumble ideas over. When was the 'eureka' moment?

Andy: We soon gained the experience necessary to clean paving at speed. Technique and more importantly the right kit was essential for speed and profitability. Paul is a great salesman and I am the entrepreneur. How could we possibly scale up this paving cleaning business model? The obvious was to offer our services in neighbouring counties and beyond. This would have meant lots of travelling that would have been partly counterproductive. That perhaps produced the moment....why don't we sell a business opportunity that includes our expertise with great kit and training with the final crucial element; genuine back up and support.

WCM: Andy, why did you design the SkyVac brand?

Andy: We initially needed something to fill the winter months and to complement our paving cleaning service. Damp inside properties is still an ongoing major problem due to gutters not being cleaned at the right time of year. However, climbing up ladders to clean is far too dangerous. Given my engineering background and through vigorous research I came up with the concept SkyVac. The system utilises a very powerful wet and dry vacuum unit and combines lightweight super strong carbon fibre suction poles. Of course if you are on the ground you cannot see into the gutters that is why



It has an on-board inspection camera. What we thought would be just a few months of a gutter cleaning service has turned into a phenomenal success. The SkyVac family has now grown into a range of indoor and outdoor systems.

WCM: What makes the SkyVac so unique?

Andy: *Unlike other machines on the market the SkyVac is not an 'off the shelf vacuum'. The foremost requirement for speed and affectability for gutter cleaning at heights of 40ft is power and lots of it. SkyVac Industrial has 50% more suction lift power than its nearest rival. We also have exclusivity of the PowerMix technology on this model.*

WCM: How long was it before the brand was being shipped abroad?

Paul: *Gutter cleaning is a Worldwide problem. The beauty of the internet is that it has made the world into a 'corner shop'. As popularity grew we soon picked up enquiries from overseas. SkyVac is now distributed throughout Europe, North America, Canada, Australia and New Zealand to name but a few.*

WCM: Tell me more about the desire to help others build their own business.

Paul: *Given our combined years of experience in business and knowing how much we have enjoyed our working life, it was a natural progression to help others who are perhaps understandably nervous about starting out on their own to achieve their dreams.*

WCM: Why a company amalgamation?

Paul: *The desire and vision to offer our business opportunities throughout the UK and to distribute SkyVac Worldwide could not be achieved as a single company. But combine the two companies and pool all of our skill sets together then we could achieve something really special.*

WCM: What is the Spinaclean business concept?

Andy: *It is recognised that businesses cannot thrive in a*

degraded environment and volatile society. As a developing and newly established organisation within our industry we appreciate the role and social responsibility we have by identifying our goals and processes to confirm we have a positive, supportive and safe impact on all our stakeholders. We aim to achieve this through consistency and transparency through the ethos pursued and determined by our management team that include respect, integrity and honesty.

WCM: How many products do you sell now?

Andy: *We now have 481 Spinaclean products in total and have created 13 SkyVac versions to suit numerous applications and budgets. Our most recent and most challenging design which took two years of research and development has been the high level internal cleaning SkyVac ATEX system. This certified system can be used safely within potential explosive and combustible environments.*

WCM: What is Streamaclean?

Paul: *The Streamaclean brand is a stand-alone high access reach and wash telescopic carbon fibre system with an inline detergent/chemical feed for cleaning conservatories, facias, soffit boards and solar panels. Windows can also be cleaned with the addition of one of the Streamaclean Pro range water purifying systems.*

WCM: Can you purchase the detergent and in-line chemical mixer as a stand-alone item?

Paul: *Yes. The Detergent and the inline mixer can be purchased as stand-alone items and are frequently done so via our online shop or orders taken over the phone.*

WCM: Explain why you put the Spinaclean business opportunities package together?

Paul: *We have 50 years worth of shared expertise built up by Spinaclean staff. This is particularly concentrated in the gutter and high level cleaning business using the SkyVac system and in the paving cleaning industry utilising its own Slipstream Pressure Washer range. All of this expertise and experience is passed on to all of our customers. Since 2010 Spinaclean has provided Business Opportunity training days in order to introduce individuals from all walks of life to the Spinaclean business model and to provide cleaning equipment for them so that they can consider opportunities to create their own external cleaning business. The training days are now hosted at Spinaclean's brand new HQ in Northampton where attendees are provided with marketing and other sales techniques and tips together with a hands on introduction to the equipment that they could be using to build up their own company.*

WCM: I think the training side makes Spinaclean stand out. Talk us through who the day is aimed at?



Paul: Our training days have greatly assisted thousands of people to launch their very own business with gutter and paving cleaning systems that requires very little training, but offer a unique cost effective service. Due to its simplicity, the training day business opportunity has attracted many trades including ex-service people, window cleaners, policemen as well as many people that have been made redundant. On April's training day, we had an airline pilot and a deep-sea diver that attended!

WCM: How much? Where to book?

Paul: Due to popularity, the training days are now held at least once a month for usually up to 15 persons. It is commonly booked on line but it is just as easy to call. Anyone can attend, no previous experience is required. All that is needed is motivation, dedication with a desire to learn. Our course runs from 10am-4pm, this includes lunch where sandwiches and a range of cakes will be provided. To book on our next day in September 29th, or any upcoming days simply call us on: 01604 968700 or click here to book online and for full info on the day: <https://spinaclean.com/professional-cleaning-business-opportunities-training-day.asp>

WCM: Do you travel to provide the course as well?

Paul: The great thing about being based in Northampton is that it is pretty central and close to the M1, so attendees are happy to travel, we do however offer demonstrations on our products anywhere in the UK.

WCM: How have you found the external cleaning industry over the years. Is it still evolving?

Andy: With the introduction of new technologies, the external cleaning industry continues to thrive, with even more competition than ever before. Innovation and customer feedback is key to any cleaning business and this is something Spinaclean practices on a daily basis. Our new products are

a result of customer feedback; this year will see the launch of four new products for external environments, including our brand new 'Elite' poles, which clamp together and have the lightest weight to size ratio on the gutter cleaning market.

WCM: What are the craziest projects or unusual jobs your equipment has been involved in? Like high level dusting of a Diplodocus in the Natural History Museum for example?

Andy: We've cleaned at a range of unusual places including the British Museum, royal households and we have even sold a vacuum to James Dyson (founder of Dyson Vacuums).

WCM: Lets talk hardware; you sell Honda and Yammer in your Paving cleaning packages. For somebody starting up what should they go for?

Paul: For somebody starting a Patio driveway cleaning business, we recommend the Slipstream Pro 20 with a 13HP Honda engine powering a 20inch surface cleaner. The Pro 20 can clean up to 350sqm of block paving a day and can also be used for larger commercial work such as carparks if required.

WCM: When on a job is it impractical to use a source tap and what is the solution?

Paul: It is very unusual not to have access to a tap, however on the occasions it has been impractical to use a tap normally on larger commercial jobs we have accessed Fire Hydrants with the permission of the local Water authority and for a nominal fee. On other occasions and again on larger commercial jobs we have used vehicle mounted or towed water bowsers.

WCM: What is the best way to quote a paving job?

Paul: The cost can very much depend on the area and the part of the country you are operating in. As a general guideline quote £2.50 per sqm for block paving and £2 per sqm for paving slabs and concrete. Always use a pedometer to measure an area. It is worth also considering having a minimum payment for a job.

WCM: What is Seal-a-block?

Paul: Seal-a-Block is a coating agent for paving which enhances and protects paving. The major benefit is that it inhibits growth of weeds and makes it easier to clean and maintain.

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WHALE FISHING

how to get HUGE contracts

37



By Josh Latimer

When I started in the window cleaning business I had never dreamed that I would one day land a series of jobs worth over \$250,000 with one of the “Big Three” automakers. Heck, I couldn’t even imagine landing a deal worth \$15,000 like the one we have with a local college. I can promise you from first hand experience that these things are very real and completely possible given you pursue them in the correct way. Here are a few things to keep in mind as you pursue these “big boy contracts”.

SERVICE ABILITY

First, you have to be able to service these jobs. If you’re a one-man show you can’t walk into a \$100,000 cleaning contract very easily. I get that. Although, you should feel a general sense of panic and fear when pushing the limits to what you can service. Stop what you’re doing right now and think of the absolute biggest single size job you can technically do. Even if you worked 15 hours a day and seven days a week....what is that number? That is the size deal you should start with.

LONG GAME

You have to learn how to play the long game with accounts like this. It is very rare (although possible) to fall into something huge like this overnight. These deals are almost always the result of long-term relationships and gigantic amounts of follow up, sometimes for many years. Don’t be short sighted with your business. The long game is boring in the beginning and wicked cool at the end. Reaching out and scouring your area for high level contacts and relationships and continuously following up is your secret weapon

TAKE INTELLIGENT RISKS

When you start getting outside your comfort zone it is easy to panic and overprice things. Make sure you are willing to put yourself out there to have the chance to learn. Our company’s best lessons came from big scary jobs that initially intimidated us. Sometimes we priced it wrong and it hurt, but we came away with a dangerous amount of inside understanding going into the next deal. Also be willing to “invest” in key relationships. Don’t be a cheapskate and don’t be afraid to sometimes give away small things to enhance the relationship. I had one account that produced over \$50,000 and all I did was clean his personal home windows a handful of times for free as a courtesy.

THE WOW FACTOR

Don’t think you can walk into these types of bids with a silly one-page price bid. These guys need to see a little more than that. Learn how to make videos, or custom booklets, or brochures specific to these jobs. Build out an action plan with serious details when presenting. It goes a long way with high level buyers to see that you are competent and have a great plan. They can never know its your first rodeo! The way that you present your pricing and services is critical to standing out from the pack. You don’t have to be a computer genius to pull this stuff off either.

Use designcrowd.com or fiverr.com if you need help putting together a nice presentation.

PERSISTENCE

This is listed as the last point here but it probably should be the first. Good old fashioned follow up coupled with an over the top positive attitude goes a long way in today’s world. Almost no one follows up like they should. If you are targeting a large group of high-level buyers in a recurring and automated way, I’m telling you that it is literally almost impossible for you to not hook a whale. Most people get discouraged waaaaay too early. Keep your chin up and play the long game.

HydroPower RO dissected



UNGER

The HydroPower family product line from Unger has just grown by one with the new introduction of the HydroPowerRO.

With the HydroPower DI and its proven field performance together with the achievement of The Cleaning Show 2015 Innovation Award, it was only natural that Unger would turn its attention to RO. Unger R&D have looked into how they could simplify the management of an RO system.

The main important element to the HydroPower range has always been about value for money, saving time with flexibility.

A lot of window cleaners can relate to the messy and difficult, lengthy time it takes to scoop out old resin from a DI tank, clean out and refill ready for work. HydroPower DI helped to eliminate that making the changing and filling of DI resin so simple and clean with revolutionary QuickChange resin bags.

The real beauty in the way that Unger goes about product innovation is that it has always been centred on making tasks as easy as possible for the operator/user or the business owner and their staff. 'Plug and go' systems have always proven popular and appeal to a wide market. No longer do you need to have a PhD in water purification in order for pure water RO/DI to be understood. Those with limited or next to no knowledge can hit the ground running.





There are many issues that can surround the use of an RO/DI system such as maintenance, water quality and supply and if your business relies on employees to tap into some of that, how do you know they are going to look after the system as well as you?

We all know that flushing the RO membrane regularly improves the life of the RO filter. Advice on regularity changes from window cleaner to window cleaner. We would actually recommend a 10 to 15 minute flush before each fill!

But when this activity is the responsibility of a staff member, it is easy at the end of a night to skip maintenance steps. One night skipped can turn into most nights skipped. Before you know it this then becomes the norm. The employer may find that changing out a very expensive RO filter is happening more often than he would like.

No one will ever own up to not carrying out the proper maintenance. "It must be a problem somewhere else, maybe it's a bad batch?"... You might hear.

Even owner operators can get lazy. Before you know it, your system is not performing to the best it can and your customers start complaining about the spots and streaks you are leaving on their windows. It's a problem. Flushing an RO system is such an important aspect of maintenance that is grossly overlooked.

Unger's new HydroPower RO takes care of all that and more. There are so many features and some great computer programming bringing this unit together that we will try to cover as much as we can in this article.

The HydroPower RO took a long time to come together; its main focus was to provide smart assistance with easy maintenance. This compact but powerful unit kicks out 400 litres of pure water per hour and up to three window cleaners can use the system simultaneously out in the field working at heights up to 65 feet. It has three stages of purification, Carbon -Pre-Filter that removes sediment and chlorine from the incoming tap water. The water is then forced through two RO membrane filters that will remove 98% of dissolved minerals and contaminants. Wastewater is ejected as the low TDS water goes through a final resin 'polishing' stage for 100% pure water.

Changing the filters could not be any easier with a Fastlock opening system. Simply twist the lid to unlock and draw out the filter. Filters can be changed in minutes and the filters are made of a premium quality thermoplastic, protecting them from accidental damage. The unit itself is protected by a robust design utilising a heavy-duty stainless steel frame.

Now here's the clever nerdy stuff. The HydroPower RO uses intelligent assistant technology that helps to eliminate

guesswork from the filter performance and maintenance. And no, it is not called Number "Johnny" 5 (*Movie ref: Short Circuit*); it is actually called RO SMARTGUARD. Number 5 was taken.

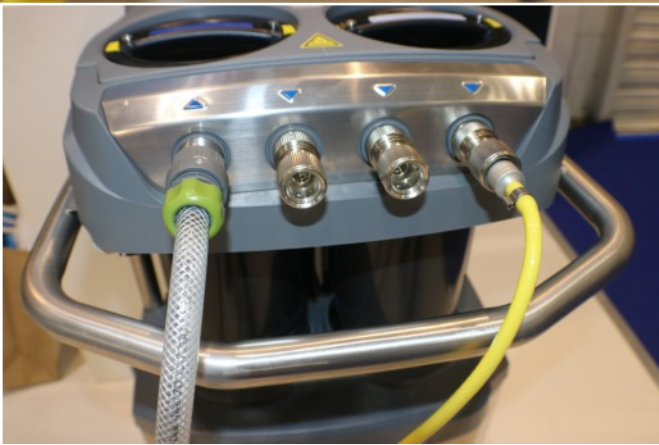
RO SMARTGUARD is the on board monitoring system that includes self-maintenance technology. Remember when we talked about employee's failing to carry out the RO flushing maintenance earlier? Well this tech sorts that problem out with automatic flush functions before and after use! This unit is particularly employee proof.

It even tells you if employees bypass flushing stages. The proof is in the data read out.

On starting up the system the concentrated water surrounding the filters are diverted to the waste outlet for one minute automatically avoiding the resin filter that would help to extend its life. Automated notifications to order or replace parts allows for uninterrupted workflow with easy to understand graphics on the colour LCD display. There is also a built in protection against a system malfunction from insufficient water flow or pressure.

When you turn on the system there is an initialising phase that takes around two minutes. At this stage the LED display is reminding the user to connect all hoses and water supply.





Using the buttons on the panel you can switch the LED display between filters where information such as litres per minute, TDS readings for in and out are displayed.

RO SMARTGUARD continually tracks the performance of all the filters and alerts the user to any change in the optimal performance. How many times have you discovered that the TDS level (Total Dissolved Solids) of your pure water has increased to an unacceptable level? And how many times was it the customer complaint of 'spotting' left on the glass is the thing that brought your attention to a higher TDS reading? With the RO SMARTGUARD technology inside the HydroPower RO, an alarm sounds to alert the user that the water quality is rising from 0ppm. *Neat hey?*

The system instructions are in six different languages and there are six USB ports for software updates. With bright colour coding, and simple to follow instruction and graphics along with the RO SMARTGUARD tech we see this system used both in the field and used as a 'plug and go' attachment for a static system.

The cost isn't cheap as you would expect coming in at around the £4,500 mark, however, if you are the type of person that like a quick set up, plug in and go, employee proof, quick filter change system, then this is the system for you. Unger make quality products that are trusted worldwide. Some distributors are offering finance packages



to soften the blow.

Unger have really pushed the boat out on this product making performance and simplicity of use centre stage. Over engineered? We defiantly do not think so.

Built to automate optimum performance? We defiantly think so?

Looking cool? Way off the scale!

Resin

41

Understanding it, and getting the most out of it

By Henry Grover Jr.

Hard water spots come from hard water drops. Water drops are said to be hard because they are literally loaded with microscopic pieces of “rock” or minerals.

When you use a Water Fed Pole any drops that are left behind will leave spots when the drops evaporate. Unless enough of the minerals are removed from the water using deionization (DI) resin.

It is called deionization resin because it removes the ions/minerals (or small pieces of rock) from the water. To do this resin chemically reacts with or sticks to the minerals. Resin beads are small and porous to maximize the surface area intended to react with the minerals in water. The outer and inner surfaces of these beads can be either negative or positively charged to attract different minerals.

Anion resins and cation resins are the two most common resins used. Anion resins are positive and so attract negative minerals. On the other hand cation resins are negative and so attract positive ions. When anion and cation resins are put together in what are called “mixed beds” the DI tank is much more effective at removing most of the minerals.

The resin can be simply tossed when it is full of minerals, or it can be turned in to be regenerated. This happens when acids are passed through the resin beads or membranes to react with and clear out the minerals.

Most guys use the TDS meter to tell them when the resin needs to be changed out or regenerated.

But if you are filling your own tanks you should also look at the resin in the tank before you regenerate or change out. With a transparent tank you will be able to see if the resin is all used up. The resin that has been used up will change color.

If the water does not flow through the tank/resin evenly the resin will not be completely used and the TDS meter will not show this.

What most window cleaners that specialize in “Pure Water” don’t understand is that they are working with a very exact but complicated science here. There are therefore other industries, which are very heavily into the science of “Pure Water” than us. Industries such as electronics, scientific experiments like those the Glass Committee have been working with Penn State on, superconductors, the nuclear industry, and even the fish tank people.

To accomplice this they use ion exchange processes or combinations of membrane and ion exchange methods.

Cations are replaced with hydrogen ions using cation-exchange resins; anions are replaced with anion-exchange resins. The hydrogen ions recombine producing water molecules. Thus, no ions remain in the produced water. Which is typically the case for ion-exchange chemistry. Or since we are going high tech here have you guys ever heard of any of the processes that employ continuous regeneration of the resin? This is really the future of “Pure Water” technology.

Although I really hate to use that term! Electrodeionization(EDI) is a treatment that uses electricity,



ion exchange membranes, and resin to and separate dissolved/minerals from water. It is done 'without' the use of chemical treatments. EDI units are often referred to as electrodeionization (CEDI) since the electric current regenerates the resin continuously.

Regarding these high tech DI processes I am talking guidelines not of parts per million (PPMs), but parts per billion (PPBs), and even parts per trillion (PPTs).

However, at this point I absolutely need to contradict the direction of this line of thought.

Many of you have brought it to my attention several times that we can get spot free results with sometimes well above 0 TDS. This simply depends on how the water acts when it makes contact with the glass. Simply put, no drops no spots. Jack Sedore has been pioneering what I call "experimental alternative water purification/conditioning technologies" for quite some time. There are also others who are true leaders in this field such as Jeff Brimble, Kevin Coggan, Maurice Richardson, Marc Tanner, Travis McGhee, and many others. Most of them are on the Glass Smart Products Facebook Group. I am also leading discussions on the Face Book Group Water Fed Pole Talk. Also the FB Group Water-Fed-Poles. These are the people that will help to lead our industry as we continue to advance this technology.

An accurate understanding of the chemistry/science of deionization resins and membranes will definitely help too. But it is the wisdom gained by experience and explained by these people that will carry us all to the next level. We all need to listen to what they have to contribute.

Another interesting difficulty involves change.

Aaron Tonya Deines, "Henry... Back in the day we talked a lot about this. Where I live now.. the water is roughly 30 TDS here but changes often with the water tables and the types of minerals that are in your rivers and lakes. Going to be really hard to know a limit cause of the minerals as they are different in every region we live. "

I totally agree. It probably happens to so many people. Just when you have a system together that works well the water becomes much harder or changes its profile. One answer here might be to carry tanks of purified.

Another problem involves removing silica.

Jack Sedore, "Anion resin is the best for most silica. Mixed beds simply do not have enough anion so there is lots of slippage. You can try a smaller tank or filter with just anion after the DI tanks.



I use dual bed so really don't notice slippage and a small polisher; 40 cation 60 anion is the good stuff. Many use the 50/50 because its a bit cheaper.

Reactive silica has a negative charge. This results in an affinity for anion resin. Now, colloidal silica contaminates the cation resin in a mixed bed. RO membranes can get about 80%+ reactive and roughly 99.8% colloidal.

The only option besides that is something not feasible for what we do and that is a pretreatment using a softener and raises the pH of the feed water to like 9.5 ph.

Silicate will not show up well on a TDS meter unless the pH is high enough to form silicate ($\text{Si}(\text{OH})_3^-$; pH above about 9). Otherwise, it will mostly be in the form of silica acid, $\text{Si}(\text{OH})_4$, which is not conductive.

If you know for a fact silica levels are high in the tap, you will need to measure silica levels before tanks and after.

First with new resin to get a base. If making decent pure water the pH should be nearly neutral or high 7s.

Cation produces high ph and is exchanged in the anion. As the anion depletes the pH rises, an indication of exhaustion. So higher ph in anion the likelihood of silica forming.

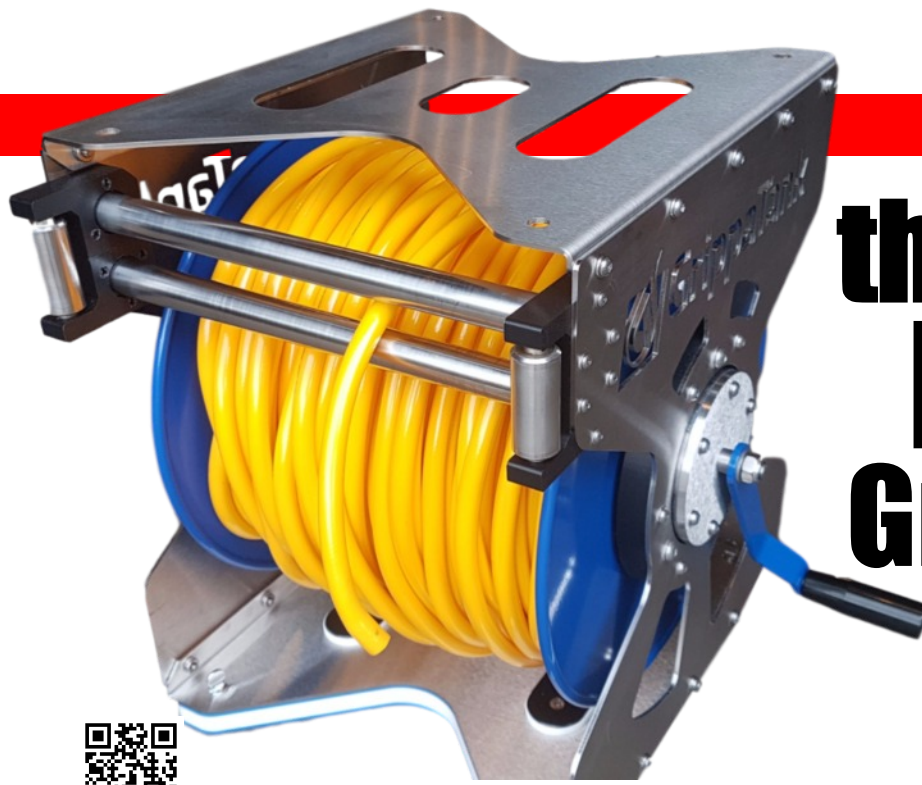
Remember, you can get spotting with low TDS water. The glass surface itself is leaching contaminates like silica. Unless sealed it will do so. Normally what you see is glass /frame contamination and cal slippage off cation.

Since newly formed spots they can easily wipe off. You just need to adjust you're cleaning method to include a light detailing vice splash and dash.

If there are already stains present that are not removed by strong acids like HCL, organics like vinegar, CLR, phosphoric, etc...then you have silica which really isn't phased by strong acids so you need HF which is a weak acid."

Personally I would never touch glass with HF. But you get the point here very quickly from these comments that our Water King has made in the FB Group Water Fed Pole Talk - that removing silica is quite possible however it is not a simple problem to address.

I am nothing less than excited to be working with people like Jack who are completely absorbed in our industry. Also thank you Lee for making these articles possible!



Automatic reels are fast becoming the rage with GrippaTank becoming the latest to release an electric reel. Revealed for the first this month, we asked Oliver Stanton of GrippaTank why they have taken this direction?

Oliver, "Based on research, an extensive customer wish list and a wealth of experience, the GrippaReel has been specifically designed to be used in conjunction with the GrippaMax cleaning system. Available as both portable and static versions, the reels are packed with features".

This is probably the first time an automatic reel has been sold as also having a 'portable' use. A smart move opening GrippaTank to a wider market of buyers.

GrippaReel Hose Reel – Portable:

The GrippaReel is actually a fixed floor mounted reel. The exciting thing is the option of easily removing the reel without tools within seconds.

It comes as stackable as standard so there are no additional brackets or racking parts required. GrippaTank are calling it StakaReel, a revolutionary technology that will be sold as standard and allows reels to slot simply into place, giving you much needed space on demand.

The GrippaReel is made up of high-quality steel and polyethylene making it not only super strong and durable but lightweight and easy to handle too. This tidy looking reel will be available in either hand cranked, geared hand crank allowing you to reel in hose like Superman or electric versions. The GH-VS1 range can be used for low pressure (up to 300 psi) with ½" 50 metre hose and 100 metres 8 mm or 6 mm.

This reel has a chainless motor that has been specifically concealed as part of its core product design making the reel safer, more effective and efficient to use. With the option of a remote control or wired control system with easily

the new GrippaReel 43



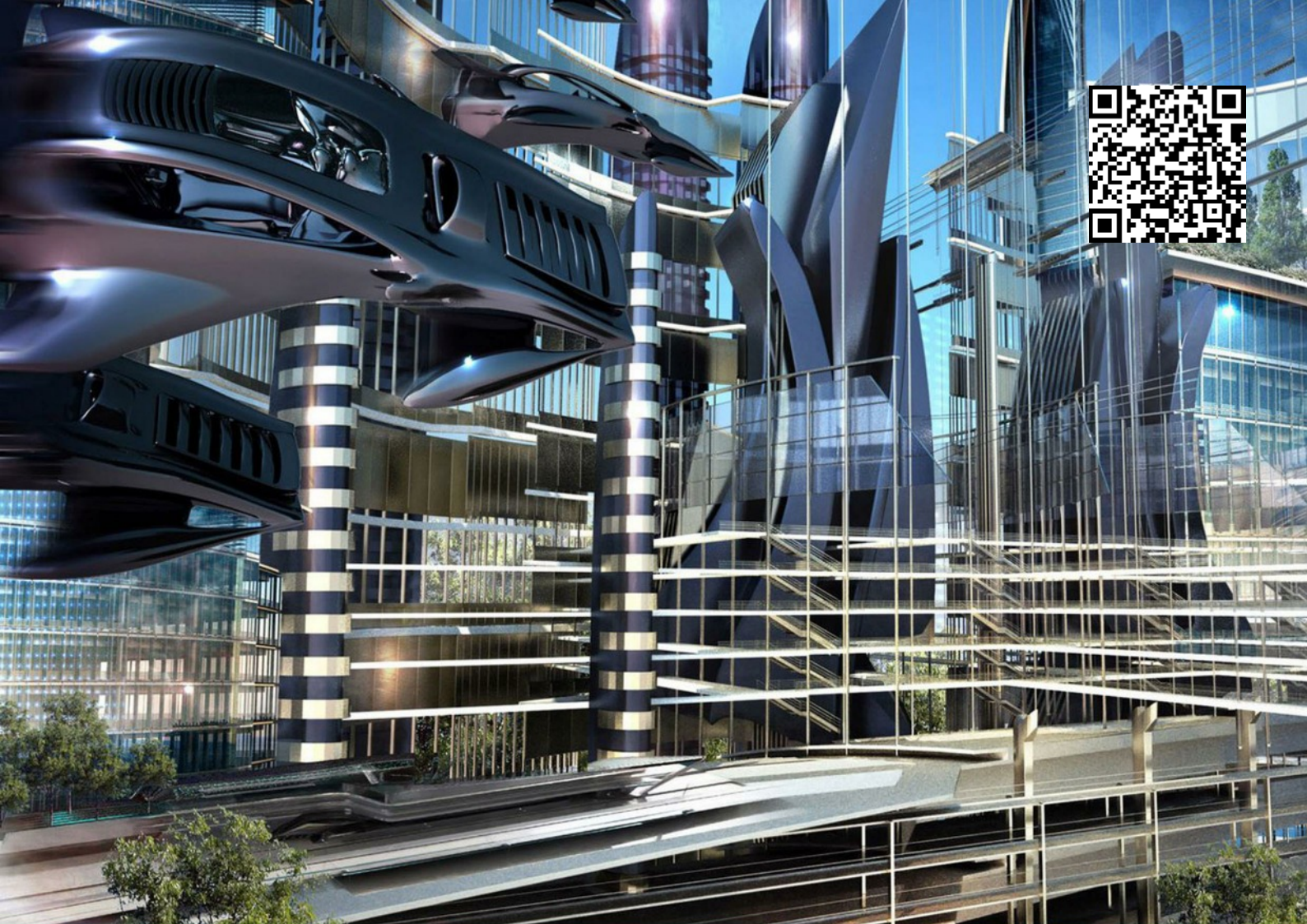
serviceable parts the GrippaReel can be upgraded to include roller guides.

Just want a hand reel to begin with? No problem, the reel can be upgraded to electric later.

For those of you hungry for stats with a tape measure in hand already poised at the rear of your work vehicle the Hand and Gear Hand Cranked is 562 mm (w) x 430 mm (h). The electric is 360 mm (w) x 430 mm (d) x 450 mm (h).

Hose Reel structure, gearing and motors come with two years warranty. For more information click on the GrippaTank logo on this page or scan the QR Code.





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