



Window Cleaning

BUSINESS OWNER - MAGAZINE

Window Cleaning
magazine

MAGAZINE
MASHUP

Window Cleaning
BUSINESS OWNER - MAGAZINE

Contents

- 04** 2013 Marketing Plan
All County Window Cleaning
- 06** Marketing a Window Cleaning Business
- 09** An Expert Setup
- 10** Embrace the Revolution
- 12** U.S.A. Window Cleaning Industry News
- 20** Thinking of Changing from Traditional Window Cleaning to a Water Fed Pole
- 23** MythBusting with Perry
- 31** Pure Water Generation
- 35** Testing Surfaces with our Senses
- 41** All About Rubber

Plus!



WC Trucks - Page 17

w/ Darren Smith from Purple Rhino Window Cleaning



An Inside Look at IPC - Page 37



Window Cleaning Magazine

Editor: Lee Burbidge

Editor: Chris Lambrinides

Graphic Designer: Stephanie Keegan

The Window Cleaning Magazine does not necessarily agree with the views and opinions expressed by contributors. WCM reserves the right to edit or reduce any article for publication at the editors discretion. Please accept our apologies if an article or letter does not appear in this issue. We do not accept liability for any product featured or advertised in this magazine.

All right are reserved- No part of this publication (The Window Cleaning Magazine) may be reproduced or transmitted in any form without the written permission of the publisher. This magazine is sponsored and therefore owned by High Shine Ltd and its Managing Directors.

All correspondence to: "Window Cleaning Magazine" c/o High Shine Ltd, 72 Boston Road, Gorse Hill Ind Est, Leicester, LE4 1HB

Tel: 0870 750 1970 Fax: 0870 750 1971

Email: admin@windowcleaningmagazine.co.uk Web: www.windowcleaningmagazine.co.uk

Copyright © The Window Cleaning Magazine All rights reserved www.windowcleaningmagazine.co.uk

Editorial

Hi, I am Lee Burbidge the editor of the Window Cleaning Magazine, welcome to this very special issue of your magazine. WCM has such a great relationship with WCBO (Window Cleaning Business Owner Magazine), we thought it would be kind of fun to create a magazine mash up of our two publications.

Anglo-American relations between our two great countries have formed great friendships and firm Allies.

The United States is bound to the United Kingdom by shared history, a common language, and legal system, culture, which can be traced back hundreds of years, including kindred and ancestral lines.

WCBO and WCM, although two different magazines, see the benefits of sharing ideas to greater serve the window cleaning industry.

Both magazines will continue to bring you the latest in their very unique ways. I remember back to why I started a magazine in the first place and it was because I could not find one that I wanted to read. The choice was not great.

I subscribed to American Window Cleaning Magazine for a while (which cost me about 80 bucks a year – posted to me in the UK) and I would read from cover to cover the Federation of Window Cleaners members magazine Window Talk.

Whereas both of these publications served a purpose, they sadly were missing something for me. I researched the idea of my setting up an online digital magazine and by the time I was ready to launch it in October 2012, I had discovered WCBO had also just started and were a few issues ahead. I immediately reached out to Chris and Alex at WCBO and we have been friends ever since. I have tried to reach out to the other publications mentioned here but sadly they ignored me. The thing I like most about the WCBO and WCM Anglo-American relationship is the youth, motivation, and forward thinking of new ideas that we bring to the market and what we both plan to bring to the market for the future. Both magazines working together for the industry, sharing ideas, rather than stuck on our own publication islands like other publications. Both magazines endeavor to bring you the very best. Thank you for supporting us.

Regards,

Lee Burbidge

Editor of WCM



Follow Lee on Twitter and join the Window Cleaning Magazine Facebook group (click icons to join)

Visit our website and blog at www.windowcleaningmagazine.co.uk

ALL COUNTY WINDOW CLEANING

2013

MARKETING PLAN

When I started my window cleaning business 13 years ago, I used the basic methods to market my company. I passed out fliers, put some lettering on my truck, ran a tiny ad in the back of our local newspaper, and asked for referrals.

I think a lot of window cleaners in the U.S. start out with these methods and stick with them year after year. I always knew I wanted a larger, more automated company so I constantly worked at expanding our marketing program.

As our marketing evolved, our company evolved. We eventually grew past handing out fliers and moved to a heavy mass direct mail program. This year we still do direct mail, but we do a lot less of it. I have put more thought into it this year than ever before, and the time spent has paid off. Lots of thought has been put into

every detail so it never comes off as mass marketing; we want to appear to be a smaller local company whenever possible.

Here is a summary of our 2013 marketing plan:

- Small 4x6 post cards - Mailed to our database of 25,000 clients every other month.
- Large 8.5x11 post cards - Mailed EDDM style, every Tuesday from March-December. (Not sure what EDDM is? Scan this code to download our free mail manual)
- Back cover ad, two different local newspapers - Once a month March-December
- Front cover ad local news paper - Once a month March-December
- Our regular website, well SEOd - Loaded

up with ResponsiBid premium version and live chat.

- 10 different WindowCleaning.com web sites
- Angie's List advertising in all the zip codes of our coverage area. We highly encourage our customers to leave reviews.
- Monthly back cover of local clipper magazine.
- BBB membership, total scam but customers seem to love the logo.
- Phone book display ad running in our best service area.
- Up-sell fliers stapled to all invoices for other services not performed at that time.
- Yard signs up at all jobs while we are working.
- Prospect cards mailed to all people who call for an estimate but don't book an appointment.
- Thank you card with magnet survey and referral program mailed right after work is performed.
- Custom business cards for all supervisors to leave behind with the invoice.

That's a basic run-down of the programs we are using this year. It may come across as fairly basic, but we have taken great care to personalize it and tie it all together. For example, all of our mailers may look the same at first, but upon careful inspection you will see that the town each is being sent to is named on the card. Each month we print up ten slightly different versions of the same card.



We also incorporate the corresponding WindowCleaning.com logo into the card. So a card being mailed to Sparta, NJ actually says the name "Sparta" on it several times as well as having the SpartaWindowCleaning.com logo, custom URL and phone #.

We use the same system of blending the different marketing methods and town customization with our newspaper and magazine ads. In addition, we also use the BBB rated A+ logo on all print materials.

I would consider this year's marketing campaign to be a success, as we are consistently booked out about two weeks and there are no signs of it slowing down any time soon.

By Chris Lambrinides

06 Marketing

To contribute to this special "Mashup" edition of the window cleaning magazine, Lee has asked me to represent the UK side of the article on "Marketing a Window Cleaning Business." Seeing as it's a USA and UK Mashup, I thought it best to lay out a summary of the methods of marketing used by window cleaning contractors in the UK and see if the Americans can take any inspiration from them. Plus, if any of the UK readers aren't doing most of these then maybe this will give you an insight into what your competitors are doing to beat you!

The success of any method will always be disputed.... but the bottom line is "If YOU don't promote YOUR business, who will?"

There are, of course, some methods which are only suitable for domestic or commercial marketing, but here I covered the overall most popular methods used in the UK.



SIGNWRITING / UNIFORM / BUSINESS CARDS

This is a basic form of marketing used in the UK, vans and uniforms branded with a company name, web site, phone number, etc.. 99% of contractors use panel vans with plenty of space for pictures of jobs in progress and details about services provided. Lee has featured some nice van wraps in the magazine in the past and over the years I have seen some really creative stuff used, like waterproof business cards and leaflet holders on the back of a van (complete with rain cover!).

WEBSITES AND GOOGLE

Websites and Google seem to be big DIY area these days, providing a place for people to make and host their own websites for online companies. It is so easy, it has really opened up the net for the small business. You can literally host websites for a quid per month and build a site with Joomla, Wordpress, or other web site hosting companies in a matter of hours. Still, there some pretty competitive companies still building real nice flash sites but the domestic market seems to be taking the bull by the horns and doing it themselves.

PPC and Google Adwords are other web tools that everyone is having a go at, and SEO specialists are easily found advertising online. There are huge amount of discussions on forums and social media groups full of window cleaners giving it a go themselves.... and getting good results!

THE WORLD OF SOCIAL MEDIA

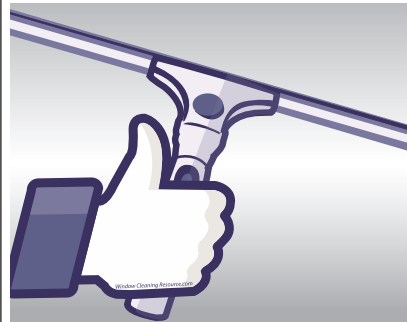
The window cleaning industry has entered the social media age! Twitter accounts, Facebook pages, and LinkedIn profiles are popping up left, right and centre and being used by everyone, from the smallest domestic window cleaners to the largest national contractors. They are not only a great way to keep in touch with your customer base easily but also a great way to use your customers to help you market your business. There definitely seems to be a number of domestic cleaners telling me they have found great success on Facebook pages in particular.

Social media is something which has a very low costs involved (if any) and can be set up in your spare time, I think the best thing about social media (apart from being free) is that the “sharing” of your page or posts is done by your friends, family and customers. It’s the best (and easiest) method for referrals!

The general pattern here seems to be domestic companies using Facebook pages and commercial companies using LinkedIn and a mix of both giving it a go on Twitter...

CANVASSING

In the UK, most window cleaning business canvass, and whether it’s commercial canvassing by sales staff or domestic canvassing with leaflets or door knocking, it’s pretty much a standard when it comes to gaining work. Some simply leaflet drop at houses but others physically “knock on” and talk with people directly. This seems to be one of the most effective ways of gaining work.





Deals!
Deals!
Deals!

These days there seems to be a fair number of canvassing companies around offering their services to domestic window cleaners. These guys all charge in different ways but the idea is they go out and get work for the guys who don't have time (or don't want to!). Sometimes they have a team of people who hit a certain area.

One of the good things I notice in the UK is that most window cleaners seem to be happy to share their leaflets designs and canvassing tactics to others in order to help.... Nice.

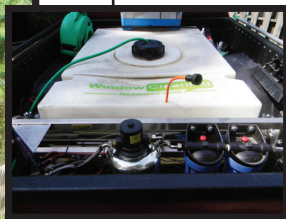
DAILY DEALS

This is probably the most controversial method being used by a few in the UK right now. Group-on and similar businesses have been popping up with special offer window cleans and gutter cleans in a few areas and usually cause some debate on web forums in social media. It certainly seems as though it has created some busy fools! That being said, you always seem to hear the negative stories, the successful ones usually don't tell many their secrets!

As domestic window cleaning in the UK is very regular compared to the USA, the daily deal idea is that you retain as many customers from the one off's and you make your money in the long run.

That pretty much rounds up the mainstream marketing used here in the UK by the vast majority of domestic and commercial window cleaners. It will be interesting to compare the US style particularly taking into the account the frequency of work difference. Hopefully for the US readers it has been a short and sweet insight into the UK style!

By Mike Howard



AN EXPERT SET UP

John Lee of John Lee Window Cleaning out of Tennessee and resident water fed expert at WCR shows us his truck set up. John has shared his knowledge of the simple pure water set up with hundreds of window cleaners and has become extremely well known for helping customers outfit their vehicles with a basic and efficient pure water set up.

John is a huge advocate for transporting water to the job site and not relying on water quality, pressure and availability in the field. When most think of bringing their own water to the job site they envision themselves having a huge truck or van or even towing a trailer but in reality that's usually overkill. John proves time and time again that you can work with a small tank in a normal size and rated vehicle. Not only does John promote traveling with water but he also preaches water conservation, reminding customers that average users waste too much water while cleaning with a water fed pole.

Looking into John Lee's Toyota Tacoma, you'll see he works with a 100 gallon tank and travels with an on-demand pure water system to refill if necessary. John starts every day with a full tank but has the ability to create pure water and refill the tank anywhere he has water access. John creates the pure water with his Apollo Star-Lite four stage system, and this couldn't be a better system

to mount in a van, truck or trailer. The system consists of four stages, sediment, carbon, RO and DI and comes standard with a 12 volt pump. John pulls the pure water from his 100 gallon tank with the use of a 12 volt ShurFlo pump which allows him to clean up to six stories.

John has a nice arsenal of water fed poles to choose from on a daily basis. On a regular basis, John switches between the Apollo 36' carbon fiber, a 22' nLite Carbon Master pole, a Reach-IT Mini and the Reach-IT PRO. Being a water fed expert, John has these high end poles to not only work with but test for manufacturers, give honest feedback to customers and help troubleshoot others in the field.

Call or email John Lee if you need help setting up your truck, van or trailer.

John Lee- Water Fed Expert
865-310-0728
john@windowcleaningresource.com



WC TRUCKS

Darren Smith from Purple Rhino Window Cleaning

After living and working abroad I decided to move back to the UK in 2010 to setup Purple Rhino Window Cleaning.

Starting off with one very large Peugeot Boxer van complete with a water fed pole system plus a full range of water fed poles, ladders, squeegees, etc.. and one employee we began looking for commercial window cleaning contracts.

Having a website designed before we started the business helped a great deal as it wasn't too long before we were contacted by a large property management company who gave us £25,000 worth of work in our first year and we still carry out window cleaning for them today.

My idea was to never really clean anything myself unless we were ever short staffed. I started the business as "if" I already had a large cleaning company – which I did but without any customers!

I have carefully selected employees and fully trained them all myself, first teaching them how to clean a dirty window with a squeegee and how



to use a scrim, and once I can see that they understand how to clean a window, I let them have a go at water fed pole window cleaning.

Training has been important. CSCS, IPAF, PASMA, Asbestos Awareness and NVQ level 2 working at height courses have all played their part in making us a hugely successful cleaning team!

By constantly marketing and trying out new ideas we quickly became reasonably well known throughout the UK and often rank highly on page one of Google for search phrases such as "Commercial Window Cleaners" – "Cladding Cleaners" – "Solar Panel Cleaners"

Quickly adding other "one off" types of services such as ceiling cleaning, pressure washing, construction site cleaning, and many others soon built up the business to three vans and two support vehicles.

We have invested heavily in waterfed pole equipment, gutter vacuums, generators, scrubber dryers, carpet cleaning machines, pressure washers and many other useful pieces of kit,

which enables us to react to new and existing customer's needs quickly.

In development at the moment is our new software package that will enable us to survey any building and create a quote, prepare a job sheet, risk assessments, method statements, satisfaction sheets and invoicing which should save lots of time.

Purple Rhino Window Cleaners will soon be renamed as Purple Rhino Contract Cleaners as we move forward into 2013

We still promise to be on time, every time, always!

WCM is on the hunt for the best looking or even damn right interesting or unusual window cleaning trucks. Send in pictures of your window cleaning trucks to lee@windowcleaningmagazine.co.uk

Embrace the Revolution.



**"WE ARE THE CHANGE WE
HAVE BEEN WAITING FOR"**

-Barack Obama

I have a pair of Spiderman y-fronts I have owned since I was 7. Occasionally, for really special goings on, I will wear them... The blues and reds have faded somewhat, true, but in a really strange way they are the most comfortable, if not the tightest pants I own; I know them and they know me. Many times over the years as my wifey goes about her special (and rather brutal) 'sorting days' I have had to rescue them from the bin. I don't have a Spiderman fetish either, it's just because I don't like

change and they are familiar. In fact, I would rather have sharp items poked forcefully and repeatedly into my eyeballs rather than accept any kind of change. Change can be frustrating, scary and in the case of underwear, bitterly uncomfortable but then again, there is always an exception to every rule, like my beloved window cleaning industry. Over the last ten or so years, it has changed and continues to change dramatically, thank the good Lord. The good news for you? Those changes are

set to revolutionise your business.

The days of old...

In the US, and now at some schools in the UK, they have strange social gatherings called 'high school reunions,' odd events at which old classmates get the chance to hire a Porsche and a tux and show off how far they have come since leaving school. My school has never had one, I think it's because all my classmates are too busy sleeping under railway bridges or are in prison, but it's a good job, because I would have had to rock up and tell everyone I was a window cleaner... don't get me wrong, I would have said it fast and with a big smile on my face, and I may have even used the old 'exterior glazing technician' approach but I would have still blushed, looked at my shoes and shuffled about uneasily in my Spiderman panties.

The thing is, some 20 years ago when I first started window cleaning, there was precious little to separate my window cleaning business from that of the next dude. One of us may have had different emblems on our beer towels (an early form of scrim cloths to you younger folk) and our ladders may have been made from different types of wood, but window cleaners were all pretty much viewed exactly the same by the public at large; window cleaning was a job you did just to get by, or because you breathed through your mouth and dribbled a lot and couldn't actually do anything else. I was once astonished when a customer said to me after I had thanked her for her business, "no problem my lovely, I'm happy to help keep you off the streets"... she

even had the cheek to keep a straight face as she said it, charming...

Seriously though, this view really upsets me because I have always viewed window cleaning very differently. Window cleaning, particularly residential window cleaning, is a great business model. It takes a relatively small amount of money from a large group of people making it very stable. It has repeat business as an inherent part of it, Mrs Jones gets terribly upset if you don't call next month and so you don't have to spend all your hard earned cash marketing for new customers constantly like you have to in other businesses and you provide a service that people know they need and appreciate. What's more, the money is fab too! Get a shuffle on, work up a sweat, which was easy with wooden ladders, and you could earn a full days wage in a few hours of graft. What's not to like?

My customer's views upset me mostly because she was right. Window cleaning was so easy, so good and so enjoyable, that it attracted all sorts; villains, rouges and dole bums included, and we were all just tarred with the same brush; that's why window cleaning needed a change. Those of us who loved window cleaning and took it seriously needed to separate ourselves and our businesses from those who just used it, abused it and left us to clean up after them.

**"WE ARE THE CHANGE
WE HAVE BEEN
WAITING FOR"**

- Barack Obama

Normally when politics are mentioned, I have sudden urges to bang my head on the pavement, but I can't help but smile at the truth of President Obama's words. Truth be told, I smile a lot lately and that's because our industry is in a full scale revolution, the great water fed pole revolution.

Being first at anything is hard. Can you imagine the scale of the lunacy required to be the first to eat frog legs, or caviar? Yet someone did, and now both are delicacies... when van mounted water fed pole systems were first introduced in the UK it kind of met the same 'that's disgusting!' response... why, oh why would you currently spend less than £100 per year on window cleaning equipment and then wilfully decide to spend 10k or so on a van and a further 10k on some magic water thingy to do the same job... no thanks matey, I think I'll pass...

But hold on a second... there was far more to water fed pole systems than just the method you use to get someone's windows clean, a fact missed by most window cleaners early on. Window cleaning using a pure water system addresses some fundamentally important issues with window cleaning. This may well go a long way in explaining their current popularity, look here:

Firstly, the boring stuff:

Mrs Jones gets her frames cleaned. Not the biggest advantage I'll grant you, but nice for her. Finally she can stop popping out after the window cleaner calls and wiping the dirty old fairy

liquid off her sills...

Then the often underrated and misunderstood health and safety benefits. To be honest, if you're running up and down ladders for a living, health and safety are not really that high on your list of priorities, are they? That said, some of the things I used to clean from ladders now make me cringe. Fortunately for me, I only had scares and near misses, but Dave, our finance manager, has had 5 falls from his ladders over the years and now has a permanently misaligned hip, which I'm guessing seriously affects his sex life... ouchie.

Now for the good stuff...

Van mounted pure water systems transform window cleaning businesses by removing the skill factor and replacing it with a capital expense. Put another way, and in English, it means cleaning windows requires real skill, at least it does if you wish to do it fast enough to make money and accurately enough to keep your clients. Pure water systems remove that skill, (fast, accurate ladder positioning and fast, accurate use of a squeegee and expert use of your cloth) and instead use a more simple method to clean windows with as good, and usually better, results. Pure water systems replace this required skill with a capital expense, which means that Bob, your helper, won't likely rush off and start his own business as soon as you have finished spending many moons training him up, getting him 'just so'. Good old Bob, while he used to be able to buy a set of ladders and knock on some doors, will now have to find some dough to

invest in equipment of his own, simply because he doesn't know how to clean windows any other way. In short, you can now employ people to 'wash' windows rather than 'clean' them. All this without the long training times and without worrying about 'losing' Bob the next time you refuse to give him a day off to catch up on his missed episodes of Jerry Springer. Genius, no?

"LIFE WAS SO MUCH EASIER WHEN WE ONLY HAD THE MUPPETS."

But there's more. Just a few months ago, I was asked to book a children's entertainer for my nephew's second birthday. Fortunately I knew of a great one. I wandered to his shop and suddenly I realized this wasn't going to be so easy. Do I go for postman pat? Or is he too 'yesterday'? What about the Teletubbies? No, they creep me out... that leaves Bob the builder then. Life was so much easier when we only had the Muppets. One costume I saw in his shop, which I knew wouldn't work for this gig, was a full blown Marylyn Manson suit. I'm pretty confident that never mind how highly recommended he came, or how good the guy's routine was, parents and children alike would have been truly horrified if Marylyn had popped out of little Joshua's birthday cake. Appearance really does make a massive difference to how people view your performance and how comfortable they are with you, which are

two things you will definitely need in a successful business. A nice new shiny van, professional, sexy looking kit and a smart uniform and you look like the doggies dangly bits. You make your clients relax, and you make them proud by showing them you know your stuff. You have invested in your business and so will they and they will love you for it! It matters to them! Have a sneak peek at this e-mail one of my clients sent me...

"I would like to admit that I actually felt smug when your van with its lovely written sign pulled up outside my house as I felt like was having a posh window cleaning service! Unlike my neighbors who I shall now refer to as the riff-raff." -Mrs Clair Davies

You can bet your booties 'Bobs Window Cleaning, Inc' is a little short on e-mails like that huh?

I have saved the best till last...

This shiny new van, professional quality equipment and snazzy new uniform will also provide you with something else: pride in your business. Think about the last thing you were really proud of, your car? Home? Whatever, how did you treat it? If you're anything like me, with all the man-love you could muster! The same is true with your business. The more pride you have in your business the more you will look after it, and the more you look after it, the better and more efficiently it will run for you and the less and less stress it will cause you. Of course I know this from experience, I have been through the stages of one man and a bucket to multivehicle operations, but

I have also seen it in the owner's faces of the Concept20 systems we manufacture, and that's just priceless. Never, ever underestimate the true value that genuine pride can have on your business.

With all the above points taken as a whole, is it any wonder that pure water systems are finally becoming common place on the shores of 'good old blighty?' Some guestimate at a third to a half of all window cleaners in the UK at present run a pure water system of some kind. Good for you, boys.

Other goodies

Since the first introduction, many other pure water goodies have been added to the mix. We now have trolley systems which can either carry pure water in a container or water purification equipment you can hook up to a tap, great for those hard to reach areas or courtyards where you can't run hose.

Then there's the cute backpack units for the odd hard to reach glazing, some of which carry up to 25 litres of pure water. Just don't lean back...

And if you have a large static contract, a trailer is a fantastic tool you can just unhitch and clean all day. We manufacture a trailer system with some 1200 litres of hot steamy, pure water which can be refilled on site. It's a bad boy.

All of the above are excellent additions to your van mount system.

Our beloved industry is finally coming of age. What used to be a free for all is now taking shape. Professional window cleaners are now being acknowledged as such, especially by

the general public. This has lead to more stable, larger and more profitable business for window cleaners and a much better, more consistent service for the clients. As time goes on, better poles, brush heads, filtration units and more will make what has become an easy job even easier. Our clients will continue to change their opinions and loyalty from them will continue to increase. The revolution is indeed in full swing. I have a tear in my eye and I'm pretty sure my tight Spidey panties have nothing to do with it...

By Carl Phillips



**USA WINDOW CLEANING
INDUSTRY NEWS**

GARY MAUER FROM THE WINDOW CLEANING NETWORK GOES TO FINLAND!

At GPD in Finland June 12 -14, I will propose that fabricators use window cleaning scrapers to test their own tempered glass for fabricating defects that cause scratching. It's my 3rd GPD presentation.

The scraper test and inspection with a microscope is a way to get factory workers involved in quality control. It could be a management tool or the topic of a QA meeting. The key is to get them talking, and keep reminding fabricators that quality makes sense for them, too.

Part of my mission is to show we understand that defects on the roller side are causing a tempered glass scratch crisis, not scrapers.

Also, window cleaners are discovering something the glass industry has known since 1993: time-delayed tempered glass scratch growth where scratches get more visible when you wait a few hours. I first learned about it at GPD. We have new doubts about guidelines warning cleaners to inspect for visible scratch, without warning about visible growth.

Why GPD Finland? That's where you need to go, to tell the glass industry what it needs to hear. They are listening. For more information visit www.scratched-glass.net

Ericsson releases new windows

that boost cell phone reception

LAS VEGAS --

Windows that only let in sunlight and provide a view to the outside world? That's so yesterday's news. Ericsson believes it can do more with windows, and it had on display a few windows enhanced with different modifications. One had a transparent cellular antenna embedded in the glass, potentially improving smartphone reception. Another was outfitted with infrared sensors around the frame, allowing it to detect swipes and taps.

GARDINER DUMPS DISTRIBUTORS IN USA!

Gardiner Water Fed Poles recently announced it would no longer be selling its brand of water fed poles through the distributors that helped build this brand in the United States over the past four years. This news sent shockwaves through the online window cleaning communities as rabid fans began to pick sides. Now with its much smaller and very limited single distribution source in the United States, the brand risks falling into obscurity. It remains to be seen what pole will become the new king of the hill. The strong contenders looking to take its place are the ever popular Unger Nlite range, the Reach-IT Pro and

Mini, as well as the new affordable line from Brodex.

WCR DUMPS RHG!

Window Cleaning Resource (WCR) in the United States recently announce it has dumped the product line up from RHG products. Both WCR and Reach Higher Ground (RHG) launched in 2007, and quickly partnered up. WCR was the very first company to carry and heavily promote the product line up from RHG. However this spring, RHG launched a new business model of direct selling and completely undermined the relationships it had with the other window cleaning supply houses in the United States. RHG set its self up as a direct competitor to all the supply houses that originally helped it grow. Because of this move, WCR was forced to drop the entire product line up from its inventory.

PWRA CONVENTION

You're going to wake up on Tuesday, September 3rd this year and say, "I should have gone to the Pressure Washing Convention and Trade Show in Nashville!" You're going to think about all the money you won't be making this fall, next spring, and for who knows how long. You're going to flinch every time one of your customers or prospects asks, "Do you SoftWash?"

"Can you seal my driveway, patio, and pool deck?" "Can you clean the black streaks and lichen off my roof?"

When you think about your employees' lackadaisical attitudes, you will grimace and tell yourself, "I wish I had been at the Gaylord Opryland Resort to hear Curt Kemp-ton's keynote address 'Why Money Is Not the Motivator' and learned how he built such a rock solid team." You'll think about the Track Three business building classes and wonder what was taught in "Commercial Sales Secrets" or the "Head and Shoulders Above the Competition" class. You're going to wonder what the other 18 speakers taught and why all your friends who went are so pumped up for their businesses.

Later you will tell your honey, "I wish I had gone to the Pressure Washing Convention." And then it will really start. "Yeah, no kidding. I would have had a tax deductible vacation at a world class resort. I looked it up online. That place is amazing! It has shops, restaurants, and bars under nine acres of glass atrium and an island in the middle of a river! And golf! And a spa! For \$139! Aaaagh!" Stomp! Slam!

Don't end up hating life on September 3, 2013. Make plans right now to be at the Pressure Washing Convention and Trade Show August 23-24. There will be a lot less stomping and door slamming.

THINKING OF CHANGING FROM TRADITIONAL WINDOW CLEANING TO A WFP?!

For some it's going to be a hard decision to make, "how to get from traditional window cleaning to a water fed pole (WFP)?" Sometimes we have to make decisions that we don't like and possibly, this is one of them.

There are so many questions to ask: "how will the customers take to it?" "Should I get a "van mount" or a trolley system?" "How much will it all cost?" It can be daunting when confronted with a big change like this, especially when you may have been cleaning windows for many years. You are probably well established and don't want to upset your customers or your routine. Right?

That's exactly how I felt when I changed over. I had been on ladders for over 20 years. I never fell off but there were some very "close shaves." I took a lot of chances

but somehow got away with it. The final straw came when the ladders slipped one day but then stopped. It gave me the usual fright but this time I decided that enough was enough and I was going to quit while I was ahead.

Safety had become an issue with me and besides, I was getting old (even older now), so to imagine life without ladders seemed to be the way to go but rather than tell you what to do, I'm going to tell you my story and it will give you some idea of what to do in your own case.

I started window cleaning in 1986. It was December and it was raining. The guy I had bought the round off picked me up and off we went. I still remember doing the first window. After a while he said "have a go at some ladder work". I was really nervous and almost "froze" at the

top, unable to let go. I very nearly gave up there and then. After a while it all became second nature and my round began to build up. After 20 years I had a respectable round and had worn out several sets of ladders, the first sets being wooden ones that would wear to a point at the top. To complicate things a bit, I did not change over to WFP completely since I had been dabbling with cleaning with Wagtail on a pole. At first this seemed impossible but gradually, I began to master it and as many will know, I still do a lot of work like this even up to this day. The problem was, some windows were still inaccessible but not just that, there are houses with leaded lights and also Georgian to contend with and for a while I gave up those types of house.

Next I had to make the decision as to what type of system to buy. For me it was never going to be a van system. This was mainly due to financial constraints, and at first this may be the major factor that will sway your decision as well. It may be too big a step to make this kind of financial commitment at first until you are sure that the type of work that you have will warrant this kind of expenditure.

For me, I was able to make my mind up about what kind of system I was going to buy almost immediately. I didn't have much commercial work, but I did have loads of domestic work, so a trolley system seemed to be the best option in my case and anyway, at the time, a van system seemed prohibitively expensive.

I looked at several makes of trolley system before settling on a "Freedom" with a 30' glass fibre pole and a reverse osmosis (RO) unit. Altogether it was around £1,200. When it all arrived, I didn't have a clue about how to use it or how to set up the RO. Eventually I managed to get it

all sorted so I could practice on my own house.

My intention was to change over my customers gradually and not rush in like a bull in a china shop. I'm glad I took this approach now since I made a lot of mistakes. The first customers I would unleash this new technology on would be all those with leaded lights. This proved to be a good idea since I could "practice" on these without worrying about losing them since I was not going to do them traditionally anymore anyway.

The first thing I noticed is that the pole was too heavy. I'd got a 30' one to do my office block which I lost the contract on anyway (and not because my cleaning wasn't any good). I needed a much lighter pole. This is where my DIY began to take off. I set up the good old Harris decorator's pole and found a vast improvement but with a heavy brush on the end it was still hard going.

The next discovery I made was that I did not need a RO system to purify the water since I live in a soft water area. So after my RO froze one night and damaged it, I bought a DI (deioniser). The immediate advantage of this was that I could fill my barrels at speed when I needed pure water.

I then found out that extremely light brushes were available so I got one and fitted it. The difference to my work has to be experienced to be appreciated. I had leaks galore on my system and no tap to control the amount of water I was using, so I fitted a tap that I ordered from the internet. This made another big difference and I was using a lot less water.

22

The customers meanwhile did not seem to mind at all and I did not get any complaints. What was really bugging me was lifting the trolley in and out of the vehicle. It got so bad that I was at a loss as to what to do. The trolley actually had a car battery (leisure battery) inside it. At this point I discovered what is called a back pack and decided with the work I had, it would be sufficient. By now I had converted a few more houses over and would do the ground floor windows traditionally to save water.

Once the back pack arrived I sold the Freedom Trolley. I had ideas of actually wearing the back pack on my back. I tried it on empty and immediately realised that it was going to end my life. Now I was fully committed to DIY and you can follow my progress on my videos.

Now all I needed was a shopping trolley. I butchered the one that lived in the shed and it all worked out well. The whole system was light and portable, and I could even lift the whole system with one hand, even with it full. The next thing I changed was the hose which was micro bore to 8mm pole hose. This was much lighter and easier to handle. For a while things were great and I could "hustle" my little system around quickly and easily.

To convert my customers, I printed out several explanatory notes on what I was about to unleash on them but after a while I would just get on with it and just do it. I only got a few customers wondering why I had left the windows wet. A quick explanation was usually all that would be required and after a while the results would "speak for themselves." I only lost one customer on my whole round and

that was one with leaded lights, so it was no skin off my nose in the end.

The next big step came when I decided to make my own system from scratch. Again, if you are into DIY, you can follow my detailed tutorial from start to finish. This is the system I use all the time now but with the addition of a hose reel with 20 meters of pole hose which has made so much difference I can't believe I didn't fit one before.

I have to admit that it has taken me longer to convert to water fed than most but I'm glad I did it and persevered with all the glitches like getting myself tied in knots with the hose.

If you think you are competent enough with DIY and believe me, it's not that difficult, then have a go using my video tutorials. You can find them at this link: <http://goo.gl/mfM5s>

You can construct a working system for less than you think but if you lack confidence in this area, then some of the trolley systems for sale are now extremely good and the cost is about half what I spent originally.



By Wagga

MYTH BUSTING

with Perry

PRESSURE, FLOW and Water Fed Pole Work

"I need a 100PSI Pump"

Really?

Why is that?

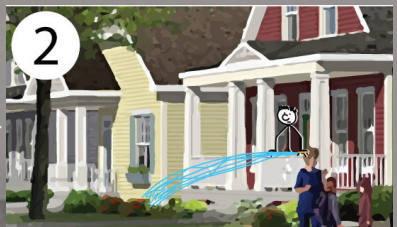
PSI is a measure of pressure - so let's talk about what pressure is.

Let's use a simple example from a typical home setting:

If you wanted to water the plants in your garden, you do not need much pressure - you could just hold your open-ended hose over each plant and let the water flow onto the plants. You have a flow of water, at a slow velocity (velocity means the speed of the water out of the end of the hose).

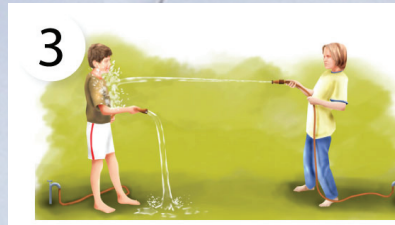


If you wanted to water your garden from your rocking chair on your balcony, 10m (30ft) from the garden, you would need to squeeze the end of the hose or close a nozzle to create resistance. This resistance will increase the water pressure behind the nozzle which, to get past the nozzle, will increase its velocity, and that is why it will squirt further.



Check out the picture of two boys - the boy on the left has no resistance at the end of his hose = no back pressure = no velocity = no squirt.

The boy on the right has partly closed the nozzle, created some resistance = increased back pressure = increased velocity = increased squirt.



Here is another example: If you wanted to water the high leaves of your fruit trees behind the garden from your rocking chair, you would need to close the nozzle on the hose even further to increase the resistance, which will increase the 'back' pressure, which will increase the velocity of the water as it leaves the nozzle, meaning it can squirt further and higher.

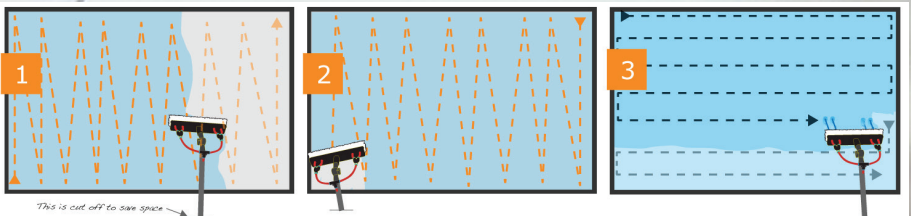


The more you increase the resistance, the higher the pressure in the system, the higher the velocity of the water as it comes past the nozzle and the further it will squirt.

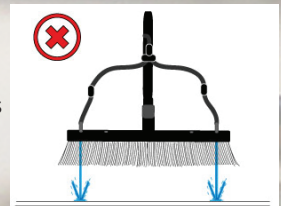
Applied to Water Fed Pole Work

When we are cleaning with a water fed pole, there is no advantage to having a high velocity of water - in fact, this is one of the very things we DO NOT want!

The methodology of water fed window cleaning is for the bristles of the brush to AGITATE the dirt off the glass into the water, and then to RINSE this dirty water off the glass, leaving only purified water on the glass, that when it dries, is spot-free.



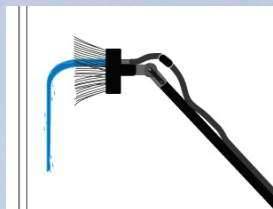
If the velocity of the water is too high during the rinse cycle, there is a high risk of splashing the 'dirty' water back over the area that you have just rinsed, meaning the splashed dirty water will mix with your pure rinse water and when this water beads and dries, you will experience 'spots'.



What we want when we are cleaning with a Water Fed Pole is the highest practical flow with the lowest practical velocity.

Let me explain why:

The flow will give you a 'volume of water' to cascade down the glass and rinse off the dirty water. The more the flow, the faster the rinse function, the more efficient the operator.



We still need some velocity - otherwise the water will dribble directly from the jets of the brush and not make it from the brush to the glass.

The velocity we need will vary between different cleaning methods and worksites.

If you are a 'brush on' rinser, like is prevalent in the UK, you will not need as much velocity because you are really only seeking to get the water past the bristles, onto the glass.

If you are a 'brush off' rinser, you will want more velocity so the jets 'squirt' the distance between where you are holding the brush away from the glass and where your rinse line is on the glass. If this squirt is too weak, you will need to hold your brush too close to the glass. Alternatively, there will not be enough flow for you to get an effective rinse.

So .. the target for a water fed pole operator is the right flow, and the right velocity of that flow. We can control these factors by adjusting the pressure in the hose and pure water system. We can adjust the pressure in the system either at the source (by adjusting the tap/spigot) or at the brush by changing the ID (internal diameter/orifice) of the jets, which in turn changes the resistance, which in turn changes the back pressure. In other words, changing the number of jets and/or the ID of the jets, changes the resistance, which changes the back pressure, which changes the velocity of the water coming out of the jets to change the flow and length of of squirt from the jets.

The reason we use a water fed pole is to reach higher - so we are likely to be cleaning 3 stories, 4 stories and even 5, 6 and 7 stories.

Most window cleaners believe they need the 100PSI pump to clean at heights with pure water.

So, what are the factors that affect water pressure and flow when we want to clean higher and higher?

HEAD OF PRESSURE

A diagram showing a yellow fire truck with its aerial ladder extended upwards. The ladder is angled towards a vertical brick wall. A vertical double-headed arrow indicates a height of 10 m from the ground to the nozzle at the top of the ladder. A small flame is shown at the nozzle, indicating it is spraying water upwards.

The firetruck has to pump water up 10m against a 15PSI Head Pressure while the Fireman closes the nozzle by 50% to increase the resistance, which increases the velocity of the flow, and squirts over the building to reach the fire.

Gravity :

Like the example of watering the high leaves of our fruit tree from our rocking chair, we now have to fight gravity to get the water to climb up the tube in our water fed pole to exit the brush with the desired flow and velocity.

What we are dealing with is the weight of water being pulled back down by gravity - it is called the 'head pressure'

Head Pressure is approximately 5 PSI per story, so to offset this, you need an extra 20 PSI if you are cleaning to 4 stories, or you need an extra 30 PSI if you are cleaning to 6 stories, etc..

The challenges you will face with cleaning at heights is that the pressure and flow will change as you change the height of the brush. The higher you are cleaning, the lower the flow rate. As you come down the building, there is less head pressure, so you will get a higher flow rate. The best way to offset this issue is actually to add a pump controller to your system, but this is another topic for another issue of WCM.

Other factors in your system that will reduce your pressure:

Hose Length:

By running 1 gpm through a 1/2" diameter hose, you will lose approximately 2psi over every 30m (100ft). The smaller the hose ID, the higher the pressure loss is over that same distance. This seems small, but actually using a small ID tube has a HUGE impact on your available pressure and flow.

It is much better to run water long distances with a large ID hose, and then restrict it with a smaller ID hose closer to the work zone, thus increasing the pressure and the velocity when you need it.

The reason is called wall friction - it is the effect of the sides off the tube on the flow in the tube. The closer the walls are, the greater the effect of the walls on the flow.

The following chart gives you the actual loss of flow with different ID hoses - it is a measure of the cross-section area of your hose. The effect of wall friction is greater when the wall are closer together, in other words, in smaller tubes:

Tube OD mm	Tube OD	Area	% flow vs. 12mm
8.0mm	5/16"	19.6	31%
9.5mm	3/8"	33.2	53%
12.0mm	1/2"	63.2	100%

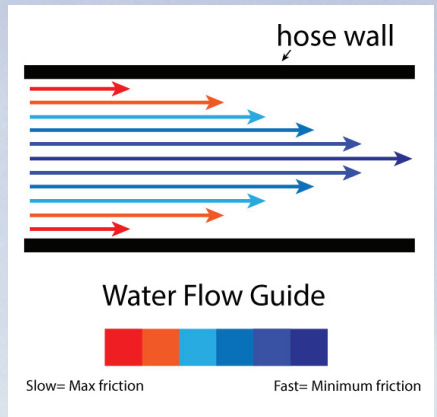
Let's consider an example we can all relate to:

Imagine sucking a bottle of water through different straws - one is a thick straw with a large ID and the other a thin straw with a small ID. The thin straw requires more 'suck power', right? Why is there so much difference? Sure there is less volume through the thin straw, but also it is harder to suck.

Now take the thin straw and make it 2 and 3 times longer. The longer the straw is, the more difficult it is to get the water up to your mouth. The reason is the cumulative effect of 'wall friction'.

This pressure loss from wall friction cannot be recovered. In other words, on your pure water setup, if you run your water through 30m (100ft) of 8mm OD (5/16") tube and then back to 30m of 12mm (1/2") hose, the pressure losses from the smaller hose cannot be recovered.

Remember this applies to hoses before and after your pure water system.



What else can reduce your available pressure and flow?

Hose Bends and T's

Each time the water has to change course in your system, it will experience friction. Imagine the water wanting to take the path of least resistance which is in a straight line. Every time the water has to turn a right angle, it hits a wall, and then has to turn the corner. The effect of this is the same as adding another foot of tube and every time the water has to merge through a T piece, it is like adding 1.6 ft of tube length.

So - each and every right angle bend, T piece, and Y piece creates more friction and all this friction is cumulative (you add it together), cannot be recovered, and reduces your available pressure and flow at the brush.

Carbon Filter

A carbon filter has a sediment pre-filter that is designed to catch all particles bigger than five microns. As the filter catches materials, it will clog. The process of clogging increases the resistance and reduces the pressure available to your

water fed pole. This is the main reason why you can benefit from easy-to-replace, low-cost sediment filters - as soon as you experience the pressure drop, you replace the filter.

A sediment filter will reduce your pressure by 2 -10 PSI (10 PSI for a sediment filter that needs to be replaced).

Reverse Osmosis Membrane

Your reverse osmosis (RO) membrane works only by having a pressure differential across the membrane (that is a higher pressure on the source water side, and a lower pressure on the pure water side going to the water fed pole). With a modern low energy membrane you will lose only 15 PSI, but cheaper membranes can lose as much as 50 PSI of your available pressure.

Assuming you are not cheap, your RO membrane will reduce your pressure by 15 PSI.

Note: the minimum pressure required for operation of an RO is 30 PSI, leaving you 15 PSI to get the water to the glass. Even this lowest pressure may be fine for ground floor and 2nd story window cleaning, depending on all the other factors.

DI Tank

The effect of a DI resin tank on the pressure of the system is small, due to the water being in flow in a large ID vessel. A DI TANK will only use a small part of your available pressure.

Allow 5 PSI pressure loss for a small DI tank.

Valves, Gauges and Meters

Remember, your pure water system is simply a bunch of components that increase the friction of the water flowing from the pump/tap/spigot, through your pure water system, up your pole, to your brush on the glass. The better designed your system, the less the pressure loss, the less you will need to revert to pump or, with modern systems, the less often you will need to change to the DI ONLY mode.

This is less relevant in tank systems as are prevalent in the UK, because there are actually two water circuits - 1) Tap to Tank, and 2) Tank to Glass. All the same, the speed of filling your tank is directly affected by how much pressure loss there is in your system. So a good design will save time!

Each gauge, each valve and each meter requires energy to activate it. Where does

that energy come from? It comes from the pressure. Each device added to your pure water system uses your pressure, so you want to make sure that each device is adding value, not pointlessly reducing your efficiency.

The most costly device is a flow meter - ALL of your water is going through a tiny turbine to create a digital readout, or a mechanical counter readout. This is a waste if you are not using the data profitably.

Jets control velocity and flow.

There is a lot to be said about jets. Jets are the unspoken heroes of a professional window cleaner's water fed set-up. Jets give you the ability to change the flow and velocity (and therefore the 'squirt') at the glass.

The first rule is that all jets share equally the available water flow rate and the available pressure.

So let's take an example brush set-up:

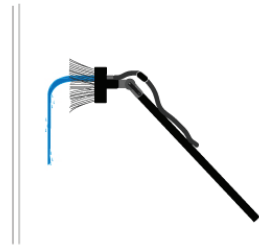
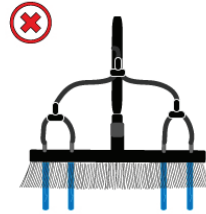
Start with 4 x large ID jets. You will have low resistance, less velocity, and less squirt.

To get more squirt, you need more pressure. You can get more pressure by increasing resistance, and you increase resistance by reducing the size of your jets. Think about using the Reach-IT BETA 2.0 Brush Pack to get 6 different jet sizes and experience this for yourself (I think we are the only guys who make an affordable kit with this in mind).

You can also change the resistance by reverting to two jets instead of four. Using two jets of the same ID instead of four, and you will double the resistance. The two jets share the flow and pressure in the water fed tube evenly, so you will get two bigger and longer squirts.

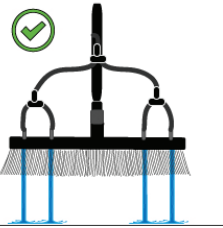
Problem:

4 BIG JETS with low flow



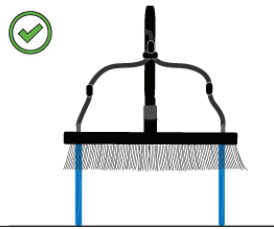
Solution:

Change BIG JETS to SMALL JETS



or

Use only 2 BIG JETS



With this knowledge, your operators can change the configuration of your jets (the ID of your jets and the number of jets) to get the best flow and the best squirt.

Allow 5 PSI for jets.

To understand more about what you are looking for on the glass including the 'rinse depth', go to www.futureofcleaning.com/water-fed-brushes.html

CONCLUSION

Many window cleaners talk about needing a 100 PSI pump at the front of their system to clean high windows with a water fed pole. This is often a bandaid (plaster) to a poorly designed system, giving more pressure than you need. On top of this, these systems are usually littered with gauges and valves that all play their part in reducing the effectiveness of your overall system.

WHAT TO DO?

The proper solution is to get well-designed equipment - designed by engineers, not salespeople. A well designed system has the following features:

- Minimum length of hose
- Minimum number of meters, valves and gauges
- Small replaceable sediment/carbon filters
- If RO-DI, a moderate sized DI tank
- The largest practical ID hose from the source to your pure water system
- The largest practical ID hose from your pure water system to your pole tube
- The shortest practical length of small ID tube
- Interchangeable brushes with different pre-set jet configurations

What you are looking for when cleaning with a water fed pole is the highest flow with the lowest velocity practical so that your method of rinsing is most effective. This will give you the biggest 'rinse depth'. The rinse depth is defined as "the size and shape of the water flow when it reaches the glass to rinse it".

The bigger the rinse depth, the less horizontal rinse lines you will need, and the faster you will rinse to a spot free finish.

Pure Water Generation

Tank, On-Demand (or both)



Definitions :

TANK means: a pure water system that has a tank of purified water fixed in a vehicle or trailer, with a delivery pump to the pole. Tanks are usually filled at 'home-base' and the water transported to the job site. Most systems have on-board filtration mounted to the tank to make it a 'system'.

ON-DEMAND means: An RO or DI or RO-DI system that can generate enough flow and pressure to clean windows using the water on-site. The system may, or may not, have a booster pump in front of the filters. It does not use a delivery pump.

Common sense applied:

Firstly, lets make some quick statements of common sense :

If you cannot access on-site water - use a TANK

If you can access on-site water, and you are cleaning large 1-3 story residential homes - use ON-DEMAND

If you are cleaning small footprint route-work - use a TANK

If you are wanting to leave a worker on one site, and take your vehicle to another - use ON-DEMAND

If you want to regularly use RO filtered water over 4 stories - use a TANK with a

Constant Flow Controller.

If you are in the UK, and have a typical route - build your system around a TANK

If you are in the USA, Australia, NZ and have a typical route - build your system around an ON DEMAND unit.

TANKS : the Benefits and the Limitations

BENEFITS:

Assuming you have filled your TANK overnight, or you have a fast transfer from a reservoir of pre-purified water, the benefit of a tank is that you are ready to clean windows as quickly as it takes to pull a hose from your vehicle.

Tank Systems always have delivery pumps, so, especially with a Constant Flow Controller, you can run very long hose and clean to whatever height you want, without facing any pressure related issues.

LIMITATIONS:

In the purest form, you are limited to the amount of water you are carrying. The hybrid solution is to carry onboard filtration and 'top-up' on demand as required, when water is available on-site.

Sometimes you cannot get your vehicle near the site .. and then you are looking to transport water in a trolley to and fro the worksite.

You cannot leave a guy working all day with a TANK system - well, not without leaving him a vehicle as well.

ON-DEMAND - the benefits and the limitations

BENEFITS

On-Demand is super-light (well, some are) and completely portable. This means they can be flexible - they can remain in the vehicle and emulate the set-up and pack down of a Tank system, or they can be removed and taken closer to the source water.

Modern On-Demand systems (including both Low Energy RO's and DI Systems) can produce spot-free water for cleaning most buildings with 'regular' water pressure.

There is minimal moving parts and minimal maintenance with On-Demand systems.

LIMITATIONS

There are times you cannot get to a water source.

If your system includes RO Filtration, there are times you cannot get the water pressure you need.

On small jobs, the time of set-up and pack-down are not good value for the size of the job.

So - Is there logic in having On-Demand and TANKS

Of course - this is the ideal solution - use the On-Demand System for your filtration, and a Tank and Delivery Pump to the Pole.

With this in mind;

TANKS

Tanks can be any size, and you can have more than one tank. They do not need to be made for the window-cleaning industry - they just need to be safe for transport.

If you think laterally about tanks, you decide what tank you need for the stage of your business today, and watch out for the tank system salesman try and get you the biggest system today so you can "grow into it")

PUMPS

There are options to have no pumps at all using RO 'under 4 storeys', or when using DI Filtration.

If you want to buy a pump(s), consider them in this order of importance:

Pump #1 : TANK : should be dedicated with a Constant Flow Controller to the flow and pressure of your Water Fed pole, not the RO unit.

Pump #2 : TANK : should be dedicated to running a second pole from the tank, with an independent Constant Flow Controller.

Pump # 3 : PRE-FILTER : if you see the benefit, you can fit a booster pump in front of your RO filter on either a TANK or an On Demand system for maximum flow and pressure.

BATTERIES

Once you know your preferred flow-rate, your tank volume, and the power ratings on your pump, you can determine the DEEP CYCLE battery that you need.

Remember - the rating on a pump is it's MAXIMUM LOAD - so if you use a Pump Controller then this will rarely be drawn)

To give you an example:

Flow-rate :	1.5 lpm (1/3 gpm)
Tank Volume :	650 litre (170 gallons)
Pump :	7 Amp

$650 \text{ litres} \div 1.5 \text{ lpm} = 433 \text{ minutes (7 hours 12 minutes)}$

$7.2 \text{ Hours} \times 7 \text{ Amps} = 50 \text{ Amp Hours}$

One Full Tank needs at least a 50 Amp Hr Battery ...

Be Careful to not get a pump with a Flow Rating significantly higher than your requirements. The more the pump experiences resistance, the more power it draws.(eg. you have a 10 litre per minute pump and you use 1.5 lpm from the brush), Think about your requirements before you buy a pump.

CONSTANT FLOW CONTROLLERS

Constant Flow Controllers are really valuable to control your delivery pumps. They ensure a constant flow and pressure at the glass, no matter what height or other conditions you set it to! With a pump, you can also get a remote key-fob for quick On-Off.



Testing surfaces with our senses

Our senses alone can tell us much about the glass surfaces we work with each day. Such information can be a valuable help to both us and the homeowner. It can save us from making expensive mistakes. It can also help the homeowner get compensation for defective windows. This is specialized knowledge that home inspectors cannot provide. They don't clean windows.

FEELING THE SURFACE

I have been cleaning windows for 33 years. Some of you have been at it longer. Yet this has been enough time to write from experience about what we can learn about the surface of glass using nothing but our senses. The first thing I began doing when I started cleaning glass was run my fingers all over the wet window. In a second I could tell whether I needed to scrape or not. This is certainly not fool

proof but it did introduce me to the different glass surfaces we encounter each day. Then I started lightly running my dry fingers across dry perfectly clean glass. This showed me very fast that although glass is chemically identical window surfaces are not. Some are very rough. Sometimes only in spots. Also really old glass (not float) can be really smooth. Then so as not to leave out my other senses I began applying pure water to these surfaces once clean. The old glass that was really smooth would naturally bead water as if it had been treated with a hydrophobic sealant. The rough surfaces would do the opposite. Years later I learned how to change the roughness/smoothness of glass surfaces (coefficient of friction) using superabrasives and chemicals.

SEEING THE SURFACE

Another very interesting feature of glass

surfaces is the way they reflect light. Enter the eyes. I learned that we can actually see the curvature of "flat" glass surfaces better at a distance than close up. Take for example old argon filled windows that have been pushed in on both sides because the argon has leaked out over the years. You can easily tell this by running a six inch razor up and down the window. If the plates of the unit have been pushed in your razor will leave soapy water in the middle. If you run the razor left to right it will squeegee off all the water. Once the window is clean stand back about fifty feet in the bright sun and look at the glass. You will then be able to see the bend in the glass! Also, if the glass is tempered you will be able to see how flat it is. Tempered glass can be badly distorted. Such distortion makes it look like a carnival mirror from a hundred feet away. If the warranty still applies the owner can have the windows replaced. If the little bug in the corner isn't there some polarized sunglasses will tell you if the glass is tempered. With them you will be able to see the compression pattern in bright sunlight. Pick up a pair for ten bucks and check out the back window in some cars in a parking lot on a sunny day. Windshields are not tempered.

It is also possible to see stage two dynamic etching of a surface by looking straight out a window from close up. Focus on the outline of distant objects. Then move your head slowly from side to side. You will be able to see slight movements of trees, cars, and houses if the surface has been "clear etched". This effect can also be seen by looking straight down the etched surface with your eyeball one inch away from the glass.

It is possible to see newton rings, and various inclusions in glass without any help. Although you can see low e coatings

much easier with polarized sunglasses. Even different colors. Fingerprints will show up on the inside of low e windows. The reflection of a flash light from a low e surface will be of a different hue than the other three reflections on a low e IG window. This will tell you and the home owner if they really do have low e windows. It will also tell you which side that coating is on.

HEARING THE SURFACE

This is one of the most fascinating of all. When a razor blade moves over a soapy/wet window it will make a sound. Every time. If I am in wonderment as to whether the surface should not be scraped I will do this. I will soap the window and scrape a six by six inch area. Listening close. Then I will squeegee the plate dry. Rewet the wand and soap up the window again. Then scrape the same area again. At this point all loose dirt should have been removed. If I can still hear a sound like that of sandpaper, or even anything slightly gritty, I will back off. Now sometimes a window has paint on it that will make a similar sound. So I will do this test after removing the paint from a small six by six inch area only. After removing the paint if I get the slightest gritty sound I will back off. The best sound is no sound at all!

By Henry Grover Jr.

I am sure that you all can add to what I have written here. Please contribute on my sub-forum SURFACES and check out my blog at www.glass-smart.blogspot.com To receive Blog posts in your inbox just put your email in the box "Follow by Email".

Be sure to check out Henry's blog at:

www.glass-smart.blogspot.com



AN INSIDE LOOK AT IPC

Kevin G. Mullins is the Business Development Manager for IPC Eagle, a worldwide manufacturer of commercial cleaning equipment. Kevin is responsible for managing sales for UltraPure Products in North, Central and South American and Worldwide for the IPC Eagle High Rise Automated Window Cleaning System.

What are the latest – newest technologies available for window cleaners?

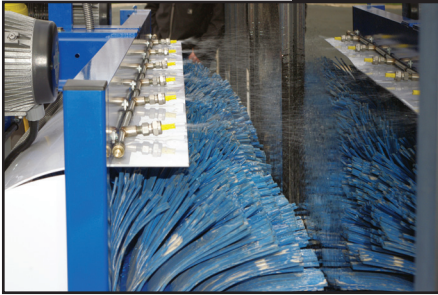
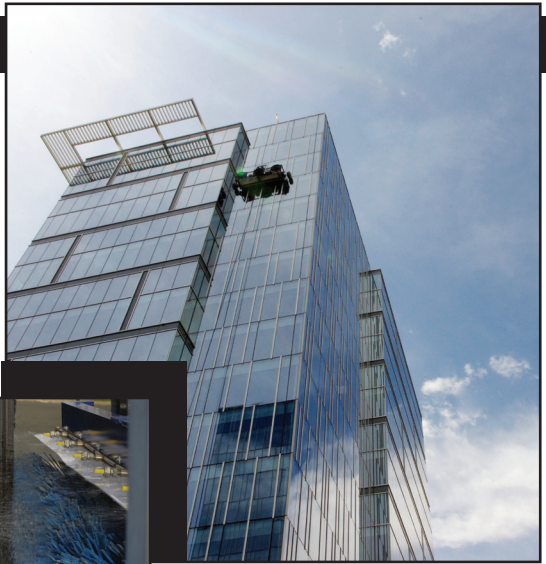
We here at IPC Eagle continue to invest in research and development for new products both in the US and globally. Trailer and/or truck mounts pure water system as well as indoor microfiber pure water window cleaning systems are just two of the newest technologies and innovations available.

Where do ideas for your new products

come from?

Although we have an extensive background with developing all types of cleaning products, our best ideas usually come from the field. We are fortunate that we have terrific relationships with some of the best window cleaners here in the US who let us know they want and what does and does not work.

Do your high-rise units carry pure water? What's the weight of those beasts



when they are hanging off buildings?

The IPC Eagle High Rise System is fed with Pure Water utilizing the IPC Eagle HydroCart Pure Water System and modular pump system (usually electric) as well as using an additional Boost Pump Cart. We manufacture 4 models of the IPC Eagle High Rise system; 2m, 3m, 4m, 5m: weight can range anywhere from approx.. 470 pounds up to over 700 depending on the model.

Could the units fall? What safety systems do they have in place?

When we sell a High Rise System, we provide comprehensive training which includes inspecting the wire rope and support before and after use. Doing this will help prevent any mishaps or accidents. If there are any issues, it would usually come from the wire rope and improper inspection. We have built in both an electric and manual emergency descent

systems. Where a traditional Pro Window Cleaner could/ would be hanging off the side of building, the operators of the IPC Eagle High Rise system are standing safely on the ground or safely on the roof-top.

Do they ever run out of pure water halfway down? Are they top fed? Does that mean you have filtration systems on the roof?

IPC Eagle High Rise is usually fed Pure Water on-demand from the IPC Eagle HydroCart-E on the ground and under normal circumstance the only way Pure Water will ever stop feeding to the IPC Eagle High Rise is if the water source is turned off or electric is turned off to the pump systems.

Do you ever envision them putting high-rise window cleaners out of work for good?

No. As the High Rise system does offer the ability to cover large areas on glass curtain wall buildings and other flat surface buildings, there will be always be the need for

Pro Window Cleaners for detail work as well as those buildings where using the IPC Eagle High Rise is not feasible.

I hear these units can run at 35 feet per minute and will clean up to 30,000 sq./ft. per hour – do they ever get stuck?

There are and have been circumstance either due to operator error or electric issues where the High Rise has been on the side of a building. However, we have built in two emergency descent systems for just such occasions.

Which countries are showing a huge interest in the high-rise units?

Interest at this time is very high all around the globe as glass curtain wall buildings are becoming more popular with architects and builders.

Are there any limitations with your high-rise units?

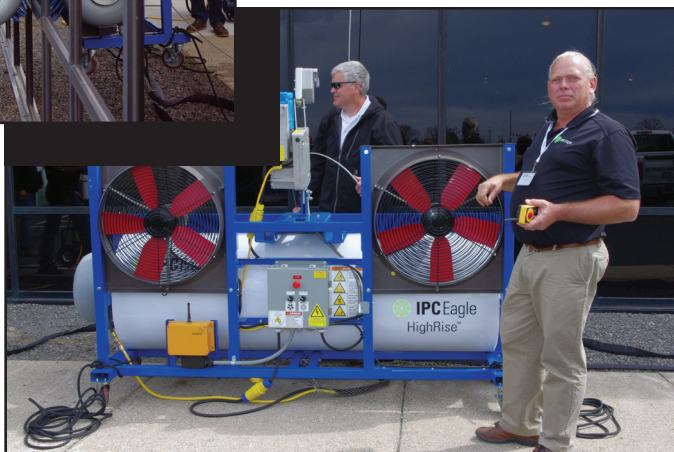
As with any piece of equipment, the High Rise system does have limitations and is determined by the type of building being cleaned.

What's the difference between your "Hydro cart" & "Hydro Tube" & "Ready Pure" systems?

The IPC Eagle HydroCart is built for the Pro Window Cleaner working everyday-all day. We designed the HydroTube as an entry level UltraPure Water System as well as for those companies who only perform intermittent cleaning. Finally the IPC Eagle Ready Pure system is designed to produce pure water on demand for our indoor system, the HydroClean/Cleano. Using the 'Ready Pure' allows the customers to simply connect to an indoor faucet to produce on demand pure water whenever it is needed.

Did I also hear you have a new backpack system with a remote control – when will these be available to buy?

No comment.



The Hydro Bottle Kit is an easy way to get pure water on the fly – great idea – who thought of that one?

Dallas Simonette our project engineer thought of the idea when we first introduced the HydroClean/Cleano indoor waterfed pole system. Dallas wanted to develop an inexpensive, quick way to produce Pure Water.

Do you have much contact with the Italian base?

Yes, we work together on new product development, upcoming specials and promotions, etc.

I suppose you fly all over in your work – where's your favorite stop-over?

Yes I fly quite often. I find many interesting people and places no matter what city or state I am visiting. However, my favorite place is where ever I happen to sell!

What does a business development manager do with his free time?

Free Time?! I spend a lot of time with my wife of 29 years when I come home as well as play music in a band and work out to relieve stress.

Where do you call home?

Columbus, Ohio...Go Bucks!

Best part of your job?



Working in the field with customers.

What do you see as the future for window cleaning?

More efficient automated Pure Water Systems.

Article courtesy of Karl Robinson, creator of the world's best window cleaning blog:

robinson-solutions.blogspot.com/



All About Rubber

The problem of cleaning wide glass surfaces fast and economically that we are facing frequently in modern architecture applications can only be solved by using professional window cleaning equipment.

Some of the main types of professional equipment that are used in window cleaning are the window cleaning apparatus, telescopic poles, microfiber washers, and holders. The success of this equipment in providing fast and effective cleaning undoubtedly depends on the squeegee rubber. Whatever you try to do, if you do not have the appropriate squeegee rubber you leave a trace behind. Then you must clean the same spot repeatedly, which means a loss of time, labor and money.

DISTINCTIVE SPECIFICATIONS OF SQUEEGEE RUBBERS THAT OFFER THE RIGHT SOLUTION

The most significant specifications of the squeegee rubbers that offer the right solution are the regularity of the surface that contacts the glass, abrasion rupture resistance, and rigidity.

A requirement for getting a squeegee rubber that offers the right solution to window cleaning problems is to use primarily high quality rubber as raw material. Any concession in this matters leads to failure to get quality squeegee rubbers. In the production of refill rubber squeegee rubbers, first class Malaysia rubber is used and maximum attention is paid to use only first class chemicals in the rubber paste.

RAW MATERIAL – NATURAL RUBBER USED IN POLYMER INDUSTRY APPLICATIONS

Natural rubber is a natural product that is obtained from the trees that grow in hot and rainy tropic regions. Rubber is

obtained by drying latex (sap that looks like milk in the plants) that exists mostly in the plants of the family Euphorbiaceae, and also in the plants of the families Compositae, Apocynaceae and Asclepiadaceae. The name of the rubber comes from the language of Amazon region aborigines in which *caa-o-cu* = crying tree. Since it is a natural product, the quality of the product is seriously affected by the environment and climate conditions. For this reason, raw material selection is very important when using natural rubber. The modern rubber production industry started hardening rubber with sulfur in 1839, a process called vulcanization. The development of the rubber industry led to using rubber in many areas after being processed.

Rubber is a polymer that is not truly cross-linked but yet has the characteristics of cross-linking i.e., it is vulcanized. Under high temperature and impact of deforming forces it shows concentrated, fluidic flow features. Therefore, it can be efformed under appropriate conditions. The cross linking feature can be explained by vulcanization, which is the process of changing the chemical structure of the rubber using sulphur in a cross linking reaction, after which the rubber then has an irreversible plastic feature. High plastic features before vulcanization become high elastic features after vulcanization.

MANUFACTURING METHOD OF REFILL RUBBERS

In order to get the correct product, rubber paste should be mixed in high tech machines and then filtered, after which it should become homogeneous without aggregation. There should be no aggregation and air pockets on the surface of a quality squeegee rubber. This feature

is easily visible to the naked eye and it is a guiding feature for using to obtain a squeegee rubber that will clean glass well.

Using high grade raw material is the first step in the process that produces squeegee rubber that provides right solution the window cleaning problems. However, the production process has a significant impact on the product and rubber paste should be burned in hot molds under high pressure so that the molecular structure of the rubber can reach the required resistance and rubber molecules (macromolecules) can form long chains.

THE HOT MOLD METHOD IS THE ONLY WAY TO PRODUCE SQUEEGEE RUBBERS THAT LEAD TO THE CORRECT SOLUTION.

It is not possible to obtain high grade products by other methods like extrusion.

On the squeegee rubber that is produced by the hot mold method, a trade mark is written in embossed letters and this is a distinguishing feature. Please check this feature when you are buying squeegee rubber.

It is not possible to produce high grade products that could offer the correct solutions with the extrusion method, which is also used in types of rubber production. There are no embossed letters on the products that are produced by this method and this is a distinguishing feature.

The production process should be realized by paying careful attention to every step of production following the total quality management concept.

CUTTING OF THE EDGE OF THE SQUEEGEE RUBBER THAT CONTACTS WITH GLASS

The most important factor in obtaining

a squeegee rubber that offers the right solution is to cut the edge that will be in contact with glass perfectly.

IF THE EDGE OF THE SQUEEGEE RUBBER IS NOT CUT PROPERLY IT WILL LEAVE A TRACE BEHIND NO MATTER HOW HIGH GRADE IT IS.

By the patented LASER CUTTING and packaging system that our R&D engineers have developed, we have the capacity to cut and pack the edge of approximately 4.000.000 (4 million) pieces of 35 cm squeegee rubber perfectly, and completely hands free.

When you handle a squeegee rubber that provides the right solution and examine the cut edge, you should see a perfect surface. Even a minor trace on the surface would leave a trace on the glass for sure. If you want a squeegee rubber that provides the right solution, the first thing you should check is the perfect cut of the surface that will come in contact with the glass.

QUALITY SHOULD NOT BE EXPENSIVE :

Today the production, cut and packaging of the squeegee rubbers are realized through labor extensive work and this is reflected in the price of the squeegee rubber. The squeegee rubbers of our company are completely machine made and packed. For this reason, our squeegee rubber prices are 50% lower than the average world price. The equipment and materials that are used for glass cleaning squeegee rubber make it a very significant product due to the production technique, softness, durability and elasticity features.

HOW TO USE SQUEEGEE RUBBER

It is recommended that you use high

grade detergent and soft water with minimum lime during glass cleaning.

Since our product is produced from a natural rubber and active carbon mixture, it dissolves in naphtha, carbon disulphide, carbon tetrachloride, turpentine, ether, kerosene, petroleum and similar dissolvent liquids. Therefore, do not let the product get in contact with these kinds of chemicals.

Squeegee rubber preserves its specification between -30 and +60 degree centigrade temperatures and can be used in that temperature range.

While using squeegee rubber, it is very important to choose a high grade and ergonomic apparatus. Squeegee rubbers are compatible with all of the apparatus that are produced at world standards.

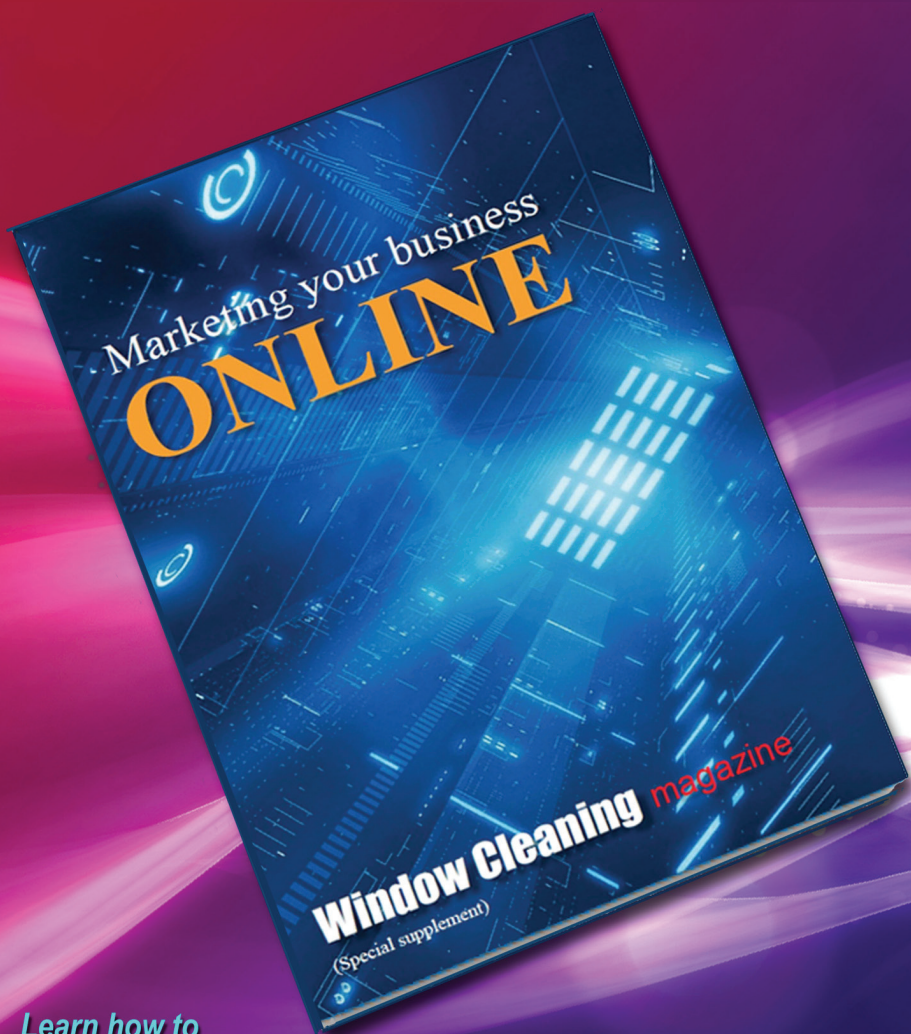
Personal Profile of Mr. Veyse KUBILAY

Mr. Kubilay has been working as an Export & Import Manager in Z Lastik Makine Export & Import Co., Ltd., since 2007. He is a married man and has a 10 year old boy.

I would love to work in international markets like the UK.

My first degree was in public finance at the University of Uludag in Turkey. After that, I went to London where I studied Business English and earned my MBA. After that, I worked in Marks & Spencers as a Team Leader for 2 years.

I returned to Turkey in August, 2005. I have been working in a trade company, which is a dealer of Michelin tires as well. I would love to enter the UK market where I will be able to use all my skills and gain invaluable experiences.



Learn how to

Promote your business online
Build a successful website
Attract new customers
Use social media

FREE
DOWNLOAD

available in members
area at WCM

www.windowcleaningmagazine.co.uk

ProtectaKote



Anti-Slip
Paint

- Tough textured Polyurethane protective coating
- Contains rubber granules giving a tough non-slip finish
- Non-abrasive, impact resistant and long lasting
- Ready to use, easy to apply and quick drying
- Totally flexible and will not chip, flake or peel
- Available in 1 litre and 4 litre tins
- Available in 16 colours

For Orders/Information/Stockists
Tel: 0845 430 4030 or go to
www.protectakote.co.uk

Trade Enquiries Welcome



Supplied by



Window Cleaning Websites

professional and affordable

Budget websites from just £35

Custom websites - £40 per page

- * CMS websites
- * Mobile websites
- * SEO optimisation
- * Custom designs
- * Budget websites
- * Free templates
- * Reliable web hosting



Call: 01429 421143 or 07789 021420

www.studioarts-dtv.co.uk

spring pro Water fed pole pump controller



A tried and tested design from pole-fed specialists, the eco flow has been developed by window cleaners in the field who know what they want from a window-cleaning product.

The use of a pump controller significantly reduces wear on the pump, especially when compared to a flow restrictor. Reducing pump speed reduces power used and mechanical wear.

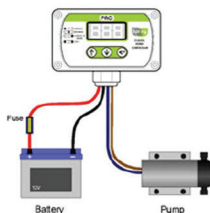
Dead end detection detects when water flow is restricted (i.e. when the pole has been disconnected from the hose) and safely shuts down the pump, further reducing power and wear. Simply reconnect the pole and the pump will start up again.

Fine control of the flow rates means water use is kept to a minimum, allowing you to complete more jobs on the same tank, as well as being eco friendly. Less water uses less resin, which extends the life of your resin cartridges.

The three button interface is simple and intuitive to use.

The battery voltage is available at the touch of a button. Advanced features will shut down the unit when the battery is too low, preventing irreversible battery damage.

- Copes easily with demanding daily use
- Extends the life of resin cartridges
- Controls water flow accurately and dependably
- Dead-end detection saves battery power and extends life of pump
- Displays battery voltage
- Unit is sealed to IP64, stopping water ingress
- Easy to use and simple to install



Electrical Specification	Value	Mechanical Specification	Value
Supply Voltage	7-18V	Enclosure material	ABS
Maximum drive current	10A	Water resistance	IP64
Typical drive current	2-3A	Dimensions (mm)	115x65x40
Working temperature	-5 to 40°C	Voltmeter accuracy	±1.00mV

Window Cleaning magazine

Join us on facebook

We would like to invite all our readers to get more involved with the topics and issues featured in the Window Cleaning Magazine.

Have your say on whether you think traditional or water fed pole window cleaning is the best method to use, and why.

Tell us about the equipment you use, what you use it for and why you chose it.

Discuss relevant issues such as expanding your business, where to get good deals, trade events, your opinions on the state of the industry and any other subject that you would like to discuss with like minded individuals in our window cleaning community.



Window Cleaning magazine

"Where window cleaners around the World come together"

www.windowcleaningmagazine.co.uk

- Equipment reviews
 - Informative articles
 - Educational videos
- and much, much more...





Limited time offer!

Only \$199!

	WCRA LITE	WCRA STANDARD	WCRA MONTHLY
	\$199 for 1 year- \$199 renewal	\$349 for 1 year- \$199 renewal Most Popular	\$39 monthly
Marketing Benefit Downloads	✓ 3 Total/Month	✓ Unlimited	✓ 3 Total/Month *Unlimited after month 6
Business Downloads	✓ 3 Total/Month	✓ Unlimited	✓ 3 Total/Month *Unlimited after month 6
Manuals and E-Books	✗	✓	Available after month 6
Business Planning Tools	✗	✓	Available after month 6
Past Members Only Webinars	✗	✓	Available after month 6
Members Only Private Forum	✗	✓	Available after month 6
50% Off all WCRA Events	✗	✓	Available after month 6
Live Members Only Chat	✗	✓	Available after month 6
10% Off WindowCleaning.com	✗	✓	Available after month 6
\$120 Off Customer Factor	✗	✓	Available after month 6

Just \$199!

Regularly \$349

From the U.K.? Join the WCRA in the month of July for only \$199. Join today and start using the benefits tomorrow!

Offer expires July 31, 2013

Check out all of the amazing benefits now!!
TheWCRA.com/uk