



**Deliberately Different® Disinfectants.**

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**SAFE. EFFECTIVE. SUSTAINABLE.**

# Leading the Change

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**Every great revolution begins with a disruptor** who dares to challenge the status quo. That's how, and why, Virox™ was founded more than 20 years ago, when I saw the possibilities of a truly innovative disinfectant technology.

For nearly a century, the world had been approaching disinfection in exactly the same way. Pathogens are constantly evolving but disinfectants weren't, and we recognized that new, revolutionary ideas could change the landscape of the infection-prevention-and-control industry forever — and for the better. We set out to be deliberately different: to develop a disinfectant without compromise; one that would be effective, and also safe for users, for surfaces and devices, and for the environment.

In 1998, we introduced Accelerated Hydrogen Peroxide® (AHP®), which would go on to successfully transform disinfection, and our groundbreaking technology is now used across multiple sectors in more than 70 countries around the world. AHP® has become the standard in safe, powerful, eco-friendly disinfectants — gentle enough for everyday use, and strong enough to effectively combat infectious-disease outbreaks.

Now, we're ready to do it again with our newest innovation, Citr-IQ™, the next advancement in disinfection.

After decades without true disinfection innovation, Virox™ disrupted the industry with AHP®. We started a chemical-engineering revolution, and we aren't done yet.

**Randy Pilon**

Founder, President and CEO

We're passionate about developing the safest, most effective and ecologically conscious disinfectant formulations.

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Innovation is at the core of  
who we are, what we do,  
and where we're going

# We Are

## DISRUPTORS

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We are chemical-engineering experts committed to developing ideal disinfectant chemistries that deliver unmatched efficacy along with user, material and environmental safety. Our Deliberately Different® approach is driving the evolution of disinfection.

## INVENTORS

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We are a research-driven company continually innovating to advance the potential of disinfectant technologies. Our patented, scientifically validated innovations have earned international accolades, awards and certifications.

## EDUCATORS

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We share our knowledge to educate the industry and end users about proper disinfection, and how to choose the right disinfectant for their needs. We strive to grow understanding and improve infection-prevention practices across the board.

## MANUFACTURERS

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We manufacture our own house brands and work with partners to develop private-label brands that meet their unique needs — all powered by the revolutionary disinfection technologies we engineered — in our LEED Gold-certified facility.

# Deliberately Different®

Since its inception, Virox™ has been a game-changing chemical-engineering innovator and manufacturer, pioneering patented infection-prevention technologies that are safe, effective and sustainable

## 1998

Virox™ creates the first disinfectant technology safe for hands, surfaces and devices — raising the bar for power, performance and sustainability within the industry

## 70+

Countries around the world use Virox™ innovations across human- and animal-health industries

## 1st

Chemical company manufacturing disinfectant in a LEED Gold-certified facility, as awarded by the U.S. Green Building Council (USGBC)

## 2006

Virox™ receives registration for AHP® in the U.S. as the first hospital-grade surface disinfectant with a one-minute contact time and the safest EPA toxicity rating

## 55

Peer-reviewed scientific studies have validated the benefits, power, efficacy and safety of AHP®

## 2018

Virox™ disinfectant becomes the first accelerated-hydrogen-peroxide surface disinfectant to be used on the International Space Station

## 16

Core patents registered for Virox™-created AHP®

## 2022

**Virox™ announces the creation of its newest patented disinfectant technology, Citr-IQ™**

## Our Driving Force

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Harsh and harmful legacy chemistries — including phenols, alcohols, quats and chlorine — had dominated the disinfectant space for decades, along with the belief that disinfectants had to be toxic in order to be effective. Virox™ recognized it was time for change.

With the development of Accelerated Hydrogen Peroxide® (AHP®) — a synergistic blend of hydrogen peroxide and other inert, commonly used, safe ingredients — we had a solution. AHP® was an innovative, new disinfectant technology with exceptional potency as a germicide, and superior performance as a cleaner. As important: its active ingredient breaks down into water and oxygen, making it eco- and people-friendly.

A chemical disinfectant that could kill pathogens quickly and effectively, while remaining safe for hands, surfaces and devices, was a true disruption.

As such, we had to challenge a number of long-held beliefs and introduce a new way of thinking about disinfection. With this innovative, new technology, and by educating the community about what the ideal disinfectant could and should achieve, Virox™ changed the disinfection game forever.

Since then, Virox™ has become an award-winning disinfection pioneer (p. 28). The safe, effective and sustainable disinfectant formulas we created have been scientifically tested and validated in more than 55 peer-reviewed studies. Those patented innovations have been adopted across multiple sectors (p. 18), and are used in over 70 countries worldwide. We've also established partnerships (p. 25) with market leaders in an array of industries, and we manufacture a variety of house-branded and private-label products (p. 24).

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As a research-driven company, we are committed to innovating, developing and improving sustainable disinfectants that allow our customers to reduce their environmental impact while providing a superior efficacy and safety profile that disrupts the status quo.

Randy Pilon, Founder, President & CEO

## Our Deliberately Different<sup>®</sup> Approach

At Virox™, we're committed to innovation. Our products keep toxic chemicals from entering the environment, allowing our users to reduce their environmental impact while providing a superior efficacy-and-safety profile. We're passionate about the development, optimization, acceptance and adoption of a fundamentally new approach to disinfection, and are intentionally not like the others — we, and our disinfectant technologies, are Deliberately Different<sup>®</sup>.





## Our Research & Development

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As innovators and creators on the cutting edge of disinfectant technology, Virox™ has invested in expansive research-and-development capabilities to address the needs of the infection-prevention-and-control communities. We have established processes with verified third-party testing and regulatory bodies, and our world-class facilities (p. 26) boast an in-house laboratory, as well as comprehensive in-house testing of our products and technologies.



# Formulated for Success

Our award-winning multi-patented antimicrobial technologies possess synergistic key traits

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Virox™ has long prided itself on developing and manufacturing disinfectants that provide a safer and greener alternative for end users, animals and the planet.

Randy Pilon, Founder, President & CEO

## BALANCE

Virox™ technologies power products that are tough on leading pathogens of concern. They are engineered to achieve the perfect balance of efficacy and safety to help create the ideal disinfectant. That balance is distinguished by these essential traits.



### EFFICACY

Short, realistic **contact times** on a broad spectrum of pathogens.



### SAFETY

**Non-toxic** and **non-irritating** to eyes and skin when used as directed.



### SUSTAINABILITY

**Biodegradable**, and environmentally **safe** and **sustainable** ingredients.



### COMPATIBILITY

**Excellent compatibility**, which helps to protect assets and equipment.



### CLEANING

Cleans and disinfects in **one step**, so surfaces are properly disinfected.

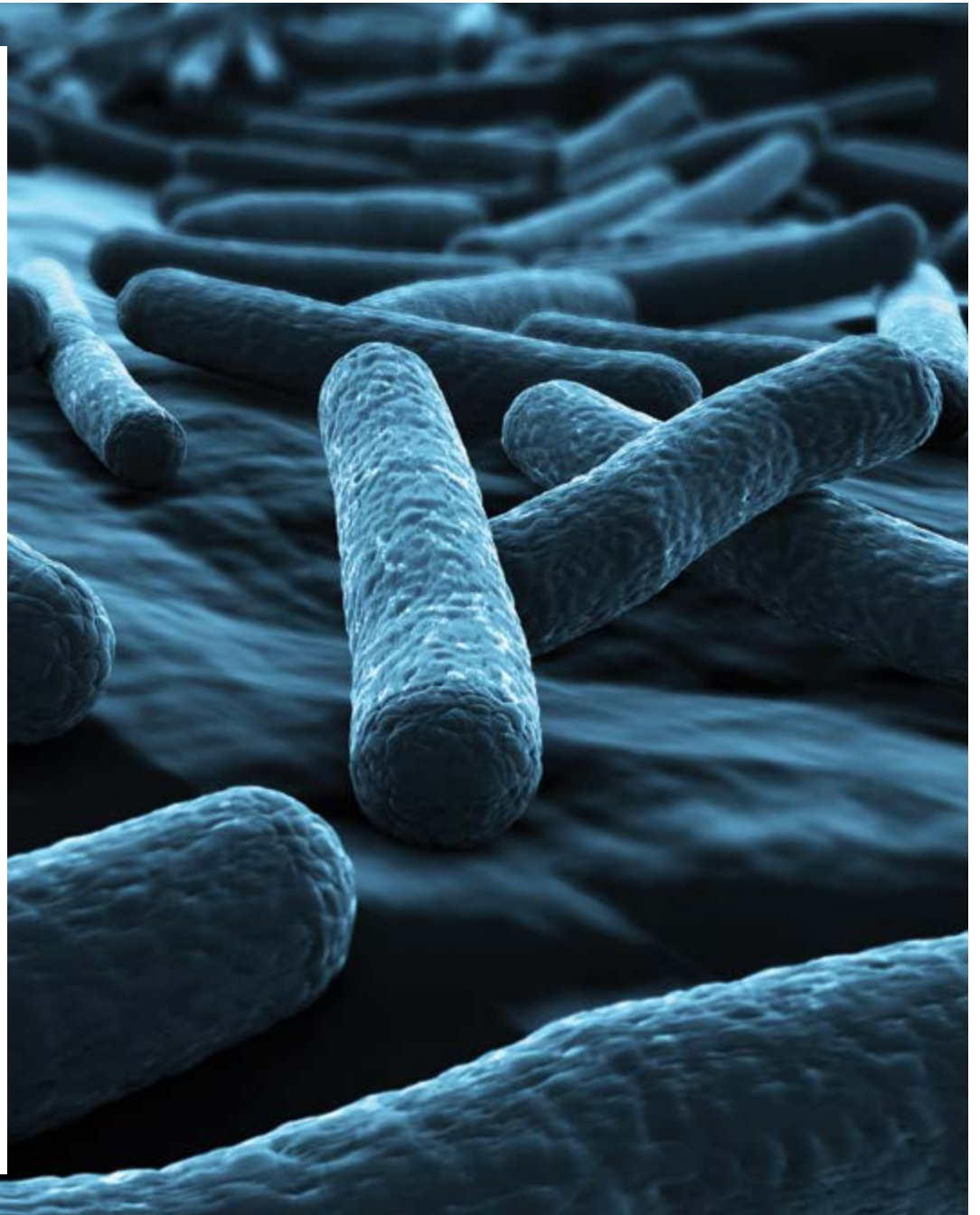
## Our Educational Outreach

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At Virox™, we're specialists in disinfectant chemistries, microbiology, environmental cleaning and disinfection, facility assessments, and protocol development. We're committed to sharing our knowledge and expertise to educate and improve infection prevention across industries, and to continue to dispel myths around effective disinfection.

As such, we provide an end-to-end customer experience to help users fully understand our technologies and products, and how to choose the right disinfectant for their facility to address their priorities and unique needs. This includes understanding the different disinfectant chemistries themselves, as well as the pathogens that facilities need to combat to keep their businesses safe.

We offer education, training, and access to the latest resources related to cleaning and disinfection of environmental surfaces and medical devices, and our experts regularly participate in speaking engagements, webinars, publications and conferences.



## THE EVOLUTION OF MODERN DISINFECTION

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For more than a century, the war on pathogens has been waged with harmful chemicals. Virox™ disrupted the disinfection industry in 1998, and continues to drive its evolution with the safest, most effective and eco-friendly disinfectant technologies.

**1910s** Chlorine bleach is first made commercially available in North America, but faces challenges with stability and cleaning properties.

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**1930s** Quats are discovered, and are commercially introduced for disinfection in the 1940s.

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**1950s** Alcohol- and phenol-based disinfectant use is common, and there is little change to those formulations over the next 50 years.

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**1960s** Antibiotic-resistant pathogens, including MRSA (methicillin-resistant *Staphylococcus aureus*), begin to appear. Disinfection of medical devices is done with aldehydes. Triclosan is introduced in antibacterial hand-washing products.

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**1970s** Studies reveal that quats have a number of environmental and broad-spectrum-disinfection challenges.

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**1980s** Restrictions on the use of phenolics are introduced due to their health risks.

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**1990s** New strains of antibiotic-resistant pathogens continue to emerge. Special handling requirements for glutaraldehyde are implemented after studies reveal its toxicity.

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**1998** Virox™ introduces Accelerated Hydrogen Peroxide® (AHP®), ushering in a revolutionary, safer era of disinfection.

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**2000s** The FDA bans Triclosan in consumer antibacterial products and healthcare antiseptics. Virox™ and AHP® continue to disrupt the disinfection industry by powering a growing line of strong, safe and effective patented technologies.

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**2021** Virox™ patents Citr-IQ™, a powerful disinfectant technology with enhanced material-compatibility and environmental-safety profiles.



# Proven Power & Performance

From winning awards and achieving industry firsts to earning expert endorsements and certifications, Virox™ has upended and revolutionized the disinfectant space. Here's a look at some key milestones.

**1998**

Virox™ receives registration in Canada for the first hydrogen-peroxide-based hospital-grade disinfectant with a five-minute contact time.

**2006**

Virox™ creates the first hospital-grade surface disinfectant with a one-minute contact time and the safest EPA toxicity rating to be registered in the U.S.

**2008**

Virox™ receives FDA registration for the first hydrogen-peroxide-based high-level disinfectant (not containing peracetic acid) for flexible endoscopes.

**2003**

During the SARS crisis, Virox™ disinfectants are mandated for use by paramedics and EMAs in emergency vehicles by the Ontario Ministry of Health and Long-Term Care, and become the surface disinfectants of choice for healthcare providers across Canada.

**2007**

Virox™ earns ECOLOGO® approval for its technology in Canada — the first disinfectant technology to do so. Virox™ also registers a sporicidal surface disinfectant effective against *C. difficile*.

**2011**

Virox™ introduces Canada's first five-minute, concentrated, intermediate-level, hospital-grade disinfectant with ECOLOGO® certification.

**2012**

Virox™ introduces the world's first hydrogen-peroxide-based antimicrobial hand wash in Europe.

**2016**

Virox™-created AHP® becomes the first broad-spectrum hydrogen-peroxide-based disinfectant to receive the EPA's Safer Choice Award.

**2018**

Virox™-patented technology reaches stratospheric new heights when selected to be used on the International Space Station.

**2020**

Virox™ is the first manufacturer to receive an Ontario Together Fund government grant for a new wipes-production line to provide essential supplies in the fight against COVID-19.

**2021**

Virox™ is granted patents for its new disinfectant technology, Citr-IQ™, ushering in a new chapter in safe, effective and sustainable disinfectants.

**2014**

Virox™ receives DfE (Design for the Environment) certification with the first EPA-registered hydrogen-peroxide disinfectant.

**2017**

AHP® becomes the first hydrogen-peroxide-based surface disinfectant to receive a foot-and-mouth disease efficacy distinction in North America.

**2020**

Virox™ products are proven to kill the Sars-CoV-2 virus within 30 seconds, receiving approval from Health Canada and the EPA for use against COVID-19.



## Disinfection Redefined

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Hydrogen peroxide was long known to kill pathogens without being harmful to users, but wasn't considered stable enough to act as the foundation for a system of commercial disinfectant cleaners. Virox™ scientists changed all that by developing Accelerated Hydrogen Peroxide® (AHP®) — a stable disinfecting solution with enhanced germicidal activity, that's safe for users and the planet.

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AHP® is among those very rare disinfectant technologies that make every effort to minimize worker and patient exposures to harmful chemicals.

Dr. Syed Sattar, University  
of Ottawa



## International Approval

AHP® is approved by Health Canada, the U.S. EPA (Environmental Protection Agency), the U.S. FDA (Food and Drug Administration), the EU, New Zealand, Australia and 40 other countries. As well, Health Canada and the EPA approved AHP® for use against emerging pathogens, such as SARS-CoV-2.

## Proven Technology

Backed by extensive third-party testing validating its efficacy and sustainability,\* AHP® has become the standard in disinfection.

AHP®-powered Virox™ products have been called upon for use in many human- and animal-health outbreaks, including SARS, influenza, MERS, ASV, E. coli, MRSA, Norovirus, Salmonella and the recent SARS-CoV-2 pandemic.

## Diverse Applications

Industry leaders across multiple sectors around the world use Virox™-formulated AHP®, reinforcing its importance in the marketplace, and demonstrating its dominance as a powerful and effective disinfectant technology.

## Stronger & Safer

AHP® optimizes the germicidal and cleaning power of hydrogen peroxide in a patented formula that's strong, effective, and the world's first disinfectant technology safe for hands, surfaces and devices. Its proprietary blend of ingredients is ecologically conscious, non-toxic and non-irritating.

**\*For more on the 55 peer-reviewed scientific studies, visit [virox.com](https://virox.com)**

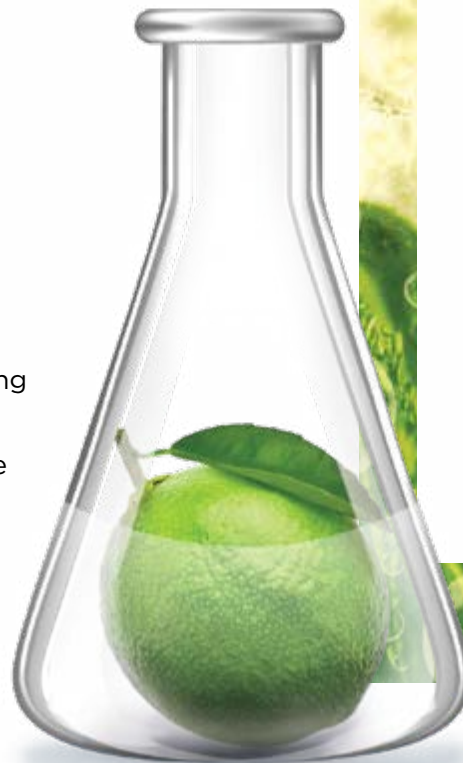


# Intelligent Disinfection

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Harnessing the natural antimicrobial power of citric acid, Citr-IQ™ ushers in a new wave of disinfectant technology and represents the next chapter in Virox™ innovation.

Citr-IQ™ is a synergistic blend of ingredients that effectively kills pathogens using one of nature's primary antimicrobials — citric acid — while remaining gentle on users, materials and the environment. Our new patented technology maintains the balance of efficacy and safety that Virox™ technologies are known for, while advancing performance in sustainability and material compatibility.



## COMPATIBLE

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- High degree of compatibility, including with plastics and soft metals
- Superior compatibility vs. other commonly used disinfectants

## EFFECTIVE

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- Virucidal, bactericidal, fungicidal and tuberculocidal with a contact time of  $\leq$  one minute
- Proven against ESBLs, Norovirus and *Candida auris*

## SAFER

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- Non-toxic formula

## SUSTAINABLE

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- Natural and biodegradable ingredients

## Superior Compatibility

Citr-IQ™'s advanced compatibility performance surpasses other commonly used disinfectants, making it safe for a vast array of materials, including plastics and soft metals. The superior compatibility of Citr-IQ™ helps users protect equipment from damage that can harbor pathogens — or even require costly replacements. It also means eco-friendlier material-and-packaging options are possible.

## Ecologically Conscious

At Virox™, we innovate new disinfectant technologies that help ensure we're leaving a safer planet for future generations. The ingredients in Citr-IQ™ are biodegradable and non-toxic, gentle on users, and do not negatively impact the environment.

**Several new Citr-IQ™ solutions are undergoing regulatory approval by the U.S. EPA and Health Canada. Expect their arrival in late 2023!**

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Citric acid's characteristics met our stringent criteria of delivering unmatched safety and microbial potency.

Faraz Alderson, Chief Science Officer, Virox™

## Enhanced Performance & Safety

Like all Virox™ innovations, Citr-IQ™ balances efficacy and safety. Our engineers focused on strengthening the ideal-disinfectant attributes that set our innovations apart, and enhanced the safe and natural disinfecting properties of citric acid to create a technology that — with its short contact times and eco-friendly formulation — outperforms other medical-grade disinfectants on the market.

Citr-IQ™ is proven effective against pathogens of concerns, such as ESBLs, Norovirus and *Candida auris*, as well as SARS-CoV-2, and is also the first citric-acid-based tuberculocidal disinfectant with a contact time of  $\leq$  one minute.



# Driving Innovative Industry Solutions

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The disinfectant technologies created by Virox™ power our unique brands across diverse sectors

Whether designed for human or animal health, a wide array of targeted disinfectant formulations — that are as safe and sustainable as they are strong and effective — are powered by the patented technologies created by Virox™. Multiple industries have adopted these revolutionary disinfectant solutions, recognizing the benefits they possess and choosing powerful, proven and ecologically conscious products of the future over the harsh, harmful legacy chemistries of the past.

## OUR BRANDS

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REScue®

INTERvention®

PREvail®

REJUVenate®

PREempt®

PREvention®

SHIELD™

PEROXigard®

RESTORox™

## FARM ANIMAL

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## COMPANION ANIMAL

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PREempt<sup>®</sup> REJUVenate<sup>®</sup>  
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## BEAUTY & WELLNESS

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## MEDICAL-DEVICE REPROCESSING

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PREempt<sup>®</sup> CS20 PREempt<sup>®</sup> HLD5  
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## MOLD REMEDiation

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PREempt  
🇨🇦 🇺🇸

## CLEANROOMS & CRITICAL ENVIRONMENTS

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RESTOROX  
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## COMPARATIVE MEDICINE

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## CANNABIS FACILITIES

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## INDUSTRIES



## AVIATION & SPACE

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 **COLTENE**  
SciCan



## Powering Products

We work with industry-leading companies to formulate, create and manufacture private-label products — powered by our technology — tailored to their specific needs.

## DENTISTRY

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## ENVIRONMENTAL HYGIENE, INDUSTRIAL & INSTITUTIONAL

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### Working Together

Virox™ forges mutually beneficial strategic alliances with companies around the world in order to identify new opportunities, and bring our technologies and expertise to new markets and industries.



# Production Aligned

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**Our ISO- and LEED-certified facilities are as innovative and eco-conscious as what we produce**

As a full-service manufacturer focused exclusively on sustainable disinfectant products, Virox™ ensures our core values are evident across our company — which includes our manufacturing and operations.



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It seemed only fitting that if we develop and manufacture certified-green products, we should do so in a certified-green building.

Randy Pilon, President & CEO



## Quality Controlled

Virox™ believes in scrupulous vendor selection; testing of incoming raw materials; ongoing employee-training programs; constant assessment and adjustment of plant procedures to optimize workflow and efficiency; and rigorous testing of our finished products.



Our 65,958-square-foot facility features superior manufacturing and environmental systems. We're also the first chemical manufacturer to earn the prestigious LEED Gold certification for manufacturing chemicals in a healthy, efficient and cost-effective "green" building.

In addition to ISO 9001, 14001 and 13485 standards, Virox Technologies Inc.™ is also licensed by Health Canada, the U.S. EPA and U.S. FDA. Our facilities operate per GMP (Good Manufacturing Practices) standard of Health Canada and quality system regulations (21 CFR Part 820).



# Renowned & Respected

Virox™ has consistently earned recognition for its powerful disinfectant innovations, eco-friendly practices and industry expertise

## AWARDS

- **EPA Safer Choice Partner of the Year Award**  
The U.S. Safer Choice Design for the Environment Award for Innovation
- **EPA Safer Detergents Stewardship Award**  
Virox™ earns Champion status with AHP®
- **Canadian American Business Council Award**  
For developing a safe and environmentally sustainable hydrogen-peroxide-based disinfectant
- **Ontario Business Achievement Award**  
Global Innovator Award
- **National Hog Farmer Award**  
Virox™ earns Most Promising New Product for AHP®
- **American Spa Magazine Professional's Choice Award**  
Favorite Sanitation Product/PPE
- **DERMASCOPE Magazine Aestheticians' Choice Award**  
Favorite Sanitation Product
- **NAILS Magazine Readers' Choice Award**  
Virox™'s AHP®-powered disinfectants named Best New Product
- **Skin Inc. Readers' Choice Award**  
Best Spa Supply for Rejuvenate RTU Spray
- **WellSpa 360's Readers' Choice Awards**  
Finalist in the Best Spa Supply category





## CERTIFICATIONS & REGISTRATIONS

- **ECOLOGO® Certified** Accelerated Hydrogen Peroxide® is the first disinfectant technology to receive ECOLOGO® approval in Canada
- **GREENGUARD Certified** AHP® is certified as a low-emission product and material
- **Green Seal Certified** Global non-profit Green Seal certifies that AHP® meets “the highest standards of clean”
- **ISO Registered** Our Environmental Management System complies with ISO requirements (ISO 9001/14001/13485)
- **LEED Gold Certified** The U.S. Green Building Council (USGBC) recognizes Virox™ as the first chemical company manufacturing disinfectants in a LEED-certified facility
- **MDSAP Registered** Our Medical Device Quality Management System complies with ISO requirements (ISO 13485)

## PARTNERSHIPS & MEMBERSHIPS

- **American Spa Magazine** Partner of the industry-standard magazine for spa professionals and owners
- **APIC** Member of the Association for Professionals in Infection Control (USA)
- **CBC** Member of the Center for Biocides Chemistries (USA)
- **CCSPA** Member of the Canadian Consumer Specialty Products Association
- **Fear Free®** Partner of the Fear Free® initiative, designed to reduce fear, anxiety and stress in animals before and during a veterinary visit
- **HCPA** Member of the Household & Commercial Product Association (USA)
- **IPAC** Infection Prevention and Control Canada Platinum Sponsor
- **MASSAGE Magazine** Partner of the award-winning magazine for massage-therapy professionals
- **NAI/LS Magazine** Partner of the leading magazine for professional nail technicians and salon owners
- **NAVTA** Partner and Member of the National Association of Veterinary Technicians in America
- **RVTTC** Partner and Member of the Registered Veterinary Technologists and Technicians of Canada



# Ready for the Next Wave

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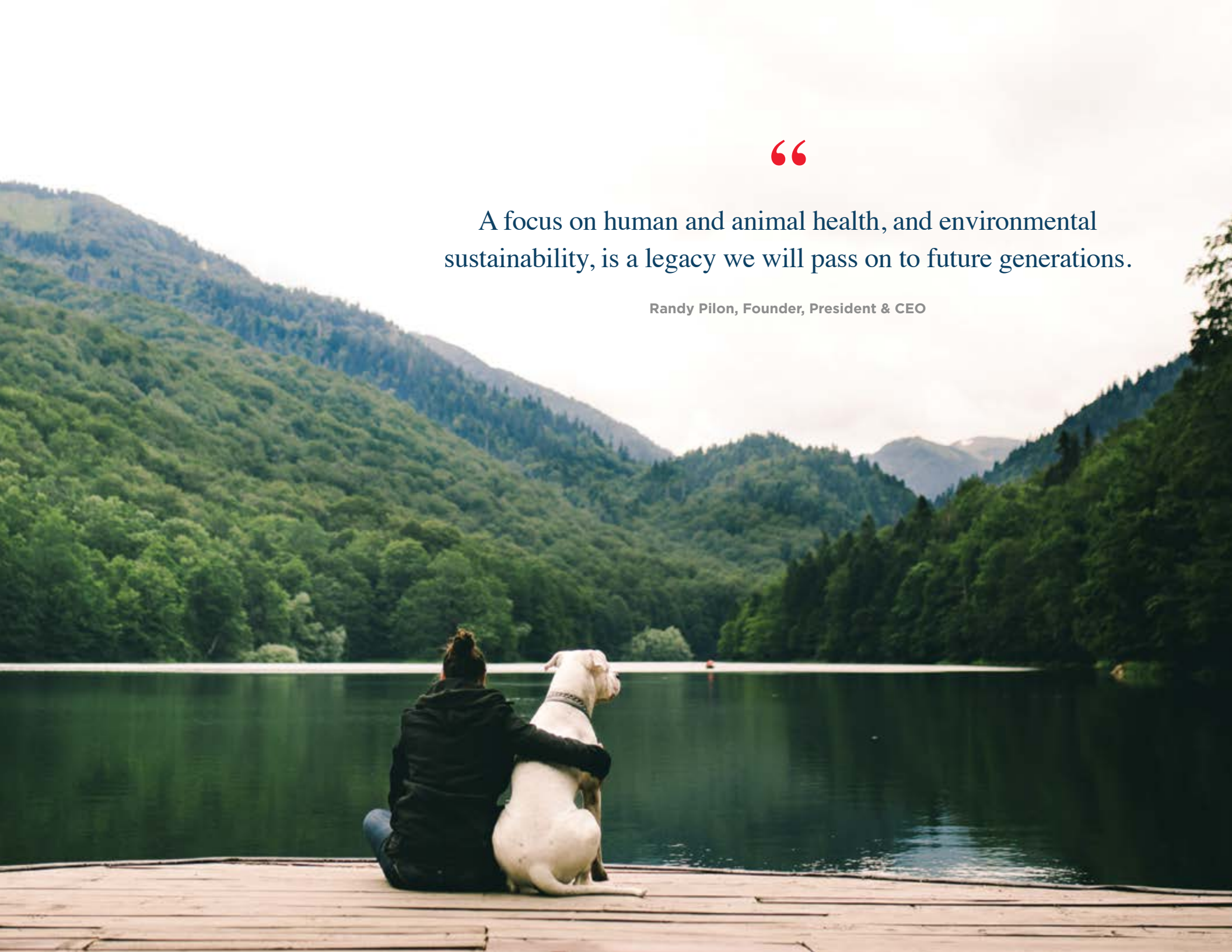
At Virox™, innovation and disruption are in our DNA. It's what drives us to keep pushing the limits. Exploring new horizons. Researching new ideas. Developing new technologies. And addressing the ongoing challenges and needs of the infection-prevention-and-control community by advancing the safety, efficacy and sustainability of disinfectants. We changed the game once before, and that was just the beginning. We will always pursue opportunities to further transform the disinfectant space. We will meet new infection-control challenges as they emerge. And, as pathogens continue to evolve, so will we.



“

A focus on human and animal health, and environmental sustainability, is a legacy we will pass on to future generations.

Randy Pilon, Founder, President & CEO



# Disinfection redefined.



Deliberately Different® Disinfectants.  
Safe. Effective. Sustainable.



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