



FOOD+BEVERAGE



PHARMACEUTICALS



ELECTRONICS



MARINE



AQUACULTURE



POOLS+LEISURE



the power in UV technology



PHARMACEUTICALS



COSMETICS+TOILETRIES



MEDICAL+OPHTHALMIC



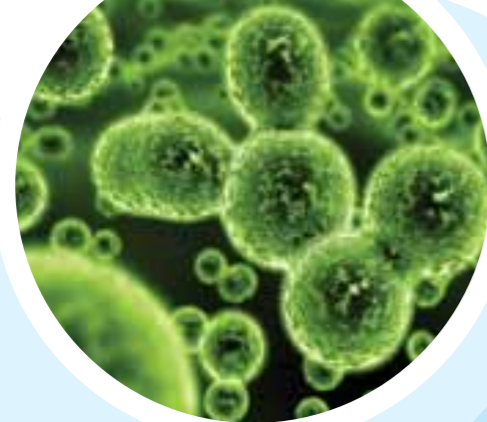
NUTRACEUTICALS

Be sure, make it Hanovia UV
for all your Pharmaceutical needs



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pharmaceuticals

biotechnology



medical
+ophthalmic



nutraceuticals



fine
chemicals



pharmaceuticals,
why they're better with Hanovia UV

Why Hanovia? We're trusted

At Hanovia, we think we're a better partner for pharma businesses.

We have enjoyed more than 85 years as a global leader in applying UV technology for chemical free disinfection in the pharmaceutical, healthcare and cosmetics industries.

Industry leaders trust us because we've built up unrivalled experience, deep customer insight, and a complete range of answers for your water treatment needs - no matter what size company you are. And we always deliver the superior performance that comes with validated UV products and services designed from a solid base of UV science and technology, supported right around the globe.

So, you can rely on Hanovia to take care of every detail, and to do it when you need us most.

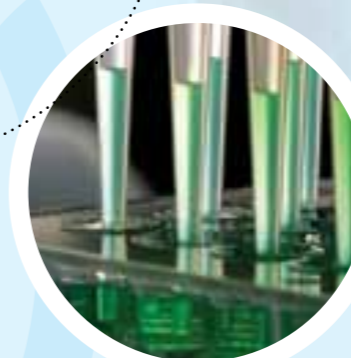
Understanding the Power of UV Technology

The best solutions are good for everyone. So, we don't just offer clever technology. We make a difference. For you, your clients, and consumers. Hanovia UV systems:

- Provide chemical-free disinfection
- Remove chlorine and ozone
- Are clean and safe, with no side effects or residue
- Offer validated performance
- Are compact and easy to install
- Are simple and inexpensive to maintain
- Are backed by Hanovia's global support network



cosmetics
+toiletries



CONTROL SYSTEM

- The Photon II controller is Hanovia's microprocessor-driven control module
- Menu-driven interface
- Real time display of performance parameters
- Dose computation from fixed or variable flow
- Optional power optimisation 'Power Switching' facility
- Automatic on/off timer

ARC TUBE

- Up to 6 Arc Tubes per chamber
- Simple to replace
- Hanovia is the only UV systems manufacturer to manufacture its own medium pressure arc tubes, for ultimate quality and performance
- All Hanovia arc tubes are manufactured and tested to international standards

MONITOR

- Provides continuous output measurement of each UV lamp in the treatment chamber
- Keeps system running at maximum efficiency
- With any change in process conditions, the system can switch to new power level or initiate a local or remote alarm
- Optional individual monitor for each lamp

TREATMENT CHAMBER

- Capacity up to 1,800 m3 per hour (7,930 gpm) for a single chamber
- 316L stainless steel construction (even higher grades for aggressive water conditions)
- Hydrostatically pressure tested to PED requirements
- Tri-clamp or flange connections to suit any pipe size
- Quartz sleeves house arc tubes and permit replacement of arc tubes without interrupting flow
- Automatic wiper maintains operational efficiency, even for poor quality water
- Optimum hydraulic design for uniform treatment
- Drain valve

How is Hanovia UV different from all the others?

We don't believe in giving impurities a fighting chance. In fact, we really hate them. So, we go all out to kill every kind of pathogen, and neutralize nasty contaminants. All without chemicals or by products, and all completely safe for your consumers. Think of it as getting the technology of choice, from the manufacturer of choice.

With over 50,000 installed systems, you'd expect excellence. And that excellence is backed by over 85 years of leading the way in UV technology.

Here's the technical bit

At Hanovia, we offer outstanding systems and features, customizable to your exact need.

- Cutting edge low and medium pressure UV lamps
- Astonishingly reliable monitoring, calibration and safety
- Water qualities from <30 to 100% transmittance
- Capacities from <1 to 1,800 m3 / hour
- High solids tolerance
- From pure water to high BRIX syrups
- Chamber types: 'U', 'S' and 'L' shape axial flow, to cross flow
- Meets ISO9001
- Material for wetted parts FDA compliant materials
- Effective against spores, yeasts, molds, algae, protozoa, bacteria and viruses
- Effective against chlorine, ozone and Total Organic Carbon

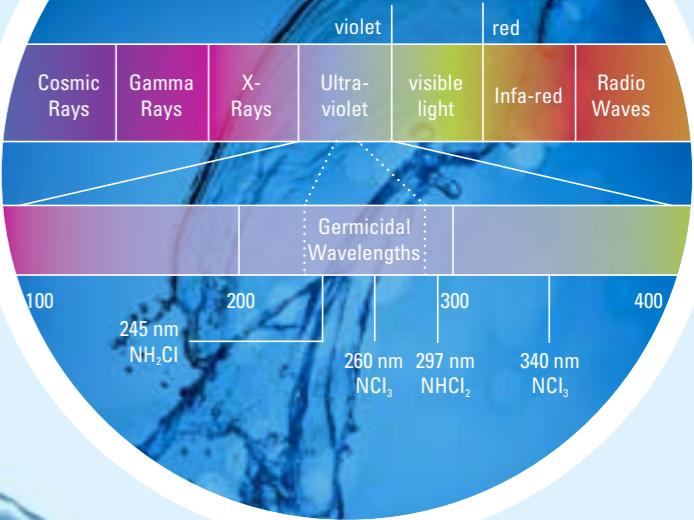
how Hanovia UV works... ...in pharmaceutical manufacturing

UV: safer and more reliable

What makes Hanovia UV inherently safer and better? Whilst pathogens can be resistant to chlorine or other treatments, it's physically impossible for them to adapt to UV light. Get the UV system design right, and no organism is immune. At Hanovia we have been getting the design right since 1924, and today our systems are backed by validated UV science and technology. And it doesn't stop at disinfection. Hanovia UV technology is used to remove chlorine and ozone from process waters too. So Hanovia UV provides a clean sweep of biological and chemical contaminants throughout your process.

And with Hanovia, you enjoy the very best in quality and innovation. From sensitive monitors measuring the UV lamps in real-time, to intelligent UV control systems. It's very hi-tech, but reassuringly simple to use.

How UV works





Hanovia UV+ pharmaceuticals biotechnology fine chemicals

Building absolute quality into your manufacturing

UV doesn't just kill germs. It provides the energy that powers particular chemical reactions. It's a wonderful combination, because it means you remove microorganisms and a wide range of contaminants alike. And because UV is the technology of the future, it's as flexible as it is easy to fit and run.

Even better, our specialists help you design and assist with planning for each Hanovia UV system. Because, when your pharma manufacturing relies on sterile conditions, we want you to be certain you can rely on complete control. It's more than a helping hand - it's the certainty that comes from a world leader.

The solution pharma demands

With this much flexibility, it's no surprise that our UV systems sterilise everything from production lines and packaging facilities to water intakes and header tanks.

- Fully automated with failsafe mechanisms
- Compatible with CIP procedures
- Less capital intensive, with lower running costs than other technologies
- Effective against all known microorganisms
- Continuous monitoring and treatment records
- All systems include disinfection chamber, Arc tube, Control / Power Supply Cabinet, UV Monitor and option for Automatic Wiper

a superior disinfection alternative... ...de-chlorination and de-ozonation too...

Chosen by the best, right around the world

We understand that total quality control is vital. So, we manufacture all our stainless steel chambers, arc tubes, and control systems - to the highest possible standards. And because we're at the leading edge, we're the only UV systems manufacturer that makes Medium Pressure Arc Tubes.

We don't stop there, - every system fully tested before dispatch. And we go out of our way to ensure you can rely on complete monitoring of your UV systems once they're in place. So, when you select Hanovia, you really can be sure of what you're getting.

Responding to your needs

We make no apologies for believing that cosmetics and toiletries deserve the best. And we're proud to have worked with some of the most capable and dynamic firms in the sector, in numerous countries.

They help us to stay at the top of our field - working closely with our engineers, providing data to refine our technology. With their feedback and suggestions, we've created some of the best UV systems in the world for cosmetics and toiletries manufacturing. In our view, the very best.

It's a virtuous circle, and it works. We'd like you to be part of it.



Looking good with Hanovia UV

With Hanovia UV, the benefits are more than skin deep. We give you a competitive edge, for enhanced performance and production.

- Unlike other technologies, kills all known microorganisms
- Effective against chlorine, ozone and Total Organic Carbon
- Use throughout your process from incoming water right through to point-of-use
- Disinfected RO feed water ensures reduced CIP and longer membrane life
- Products have longer shelf lives
- Scalable, flexible and adaptable
- No residues, no taints, and completely safe for consumers
- Adaptable to a wide variety of production lines



purified to the highest standards...
...Hanovia UV's looking more attractive by the minute

Why cosmetics and toiletries producers are simply made up with Hanovia UV




You can get the most from our years of co-operation with world leaders like L'Oréal, GSK and Johnson & Johnson. They understand the millions of hours Hanovia's experts have devoted to making our product line what it is today: the smartest and most effective way to produce taint-free, safe, high-quality toiletries and cosmetics.

With wide applications, user-friendly controls and robust reliability, we help you to get more from your investment. No other UV firm has Hanovia's unique insight into the best ways to manufacture cleanly, simply and efficiently.



Hanovia UV+
cosmetics
+toiletries





Hanovia UV+ medical +ophthalmic

Don't give microorganisms a chance... kill them all, every time

When patients' health depends on you, you can depend on Hanovia UV. We've spent over eight decades working closely with medical device suppliers, ophthalmic manufacturers, hospitals and research centers. Meeting, and exceeding, their disinfection needs.

We integrate seamlessly and easily into your existing production lines. We disinfect the water you use everywhere in your process. And, unlike some technologies, we produce no nasty wastes. It's a simple indication of how useful, and effective, our UV systems actually are.

Sterile, safe, simple

If you'd like to provide sterility for your products, and purity for your process water, Hanovia UV is the right choice. No other technologies purify everything from raw materials through production lines to packaging - and that do it so very well.

- Ideal for instruments, devices, implants, aids, hollowware and more
- No residues, no taints, and completely safe for patients
- Unlike other technologies, kills all known microorganisms
- Has no negative impact on coatings, containers or packaging solutions
- Adaptable to a wide variety of production lines



spores, yeasts, moulds, algae...
...and protozoa, Hanovia UV gives them all a clean sweep

Why the best choose Hanovia - power with control

There are few water treatments that can both disinfect and decontaminate. And even fewer that are completely safe, and completely clean. Our UV technology does.

Our systems range from small scale to major industrial capacities. With a wide range of process connections, from flange to tri-clamp

Hanovia's UV systems are compatible with all process plant. And they're simple to install and easy to maintain. That's more reasons why the best companies choose Hanovia.



UV means better performance

With nutraceuticals, taste and quality are everything. Our systems have none of the drawbacks of other treatments, and they give you real advantages in the marketplace.

Unlike Chlorine residue, we leave no taint. We remove all spores, unlike filters. We're much more cost-effective than pasteurization. And we're even environmentally friendly, with no nasty by-products, and the option to recycle treated water. It's as beneficial for your brand as your quality control.

All in all, it's impressive technology. As it's from Hanovia, that's what you'd expect.

There's a Hanovia solution for every need

There's a technology that meets your needs at every stage of nutraceutical manufacture. And because it's from Hanovia, it's as reliable as it is safe.

- No taint, odour, taste or residue
- Suitable for a wide variety of food and drink
- Treat containers and bottle rinse water
- Treat storage tanks, water inflow and preparation areas
- Use throughout your process from incoming water to point-of-use
- Disinfected and decontaminated water means longer life from RO and other membranes
- Cost effective and safe
- Compatible with hot detergent
- Not affected by cleaning fluid
- Scalable, flexible and adaptable

no odours, colours or taints...
..the benefits of UV just keep on growing

Why does Hanovia UV lead the field?

UV was made for nutraceuticals. It's something we understand intimately, with years of research and development. It's an investment in the leading technology and people, and it makes a difference.

That's why we're an integral part of nutraceutical manufacturing systems for firms that demand the best. They understand that our insight and expertise contribute to their own success. More importantly, they know they can trust us to be a committed partner.



Trusted by industry leaders around the World...

UV is at the heart of modern pharmaceutical and healthcare manufacturing processes. Hanovia is at the heart of UV. We make a difference to the world's leading brands because, simply put, we offer products and service that others only wish they could.

So, it's the smart decision to join the people who turn to Hanovia. Like GSK, L'Oréal, Astra Zeneca, Eli Lilly, Johnson & Johnson, Pfizer, Merck Sharpe & Dohme, Novartis, Colgate, and so many more the list is too long to print.

They're certain we give them the best, in every way. Whatever size firm you are, you can be, too.

...because we deliver satisfied customers

Better systems get the results you really need. And, it's good to know that better consumer experiences are at the heart of Hanovia UV.

- UV is totally safe chemical-free disinfection
- Purer products make clients happier
- Finer quality output lets you add real value
- Improved production leads to innovative new products
- With our low costs, you can open new price points
- Complete inactivation of microorganisms and impurities adds shelf life
- Dechlorination and de-ozone mean longer life from you RO and other membranes

be sure with Hanovia UV...

...visit www.hanovia.com TODAY....

efficient,
superior,
simple, quality
with Hanovia UV

