

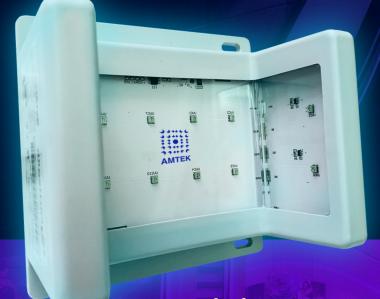
SteriGrasp HANDRAIL DISINFECTION UNITS

Efficiency, quality and longevity make the **AMTEK** family of UV-C light devices an integral component of your optimized sanitation strategy.









Introducing the AMTEK UV-C Series

SteriGrasp Handrail Disinfection Units.

The only safety-certified ultraviolet light (UV-C) disinfection units in North & South America, as well as in Europe. Self-powered and self-contained units that eliminate over 98% of bacteria found on handrails.

"80% of infections are spread the same way: Someone touches a germ-ridden surface."

WebMD

"77% of escalator accidents were caused by slipping or falling."

West EM

Escalator and walkway
handrails can contain
millions of microbes
including harmful bacteria,
germs, viruses and
pathogens which lead
to the spread of
infectious diseases.



One germ can multiply into more than 8 million germs in one day.



Methicilin-Resistant Staphylococcus Aureus (MRSA) can survive on solid surfaces for hours, days, or even weeks.



Bacteria such as E. Coli and MRSA can cause severe illness and are easily transmitted when surfaces aren't cleaned properly and regularly.

Create a safer, cleaner and healthy environment for your customers with the AMTEK UV-C Series SteriGrasp Handrail Disinfection Units.

- The AMTEK **SteriGrasp** units use UV-C light to greatly reduce the risk of bacteria and virus transmission. This increases the confidence of users to safely grasp the handrail and reduces accidents and injuries to your customers.
- Proven testing shows that after the first hour of typical operation of our product, a 98% reduction of pathogens is maintained continuously as the escalator or walkway operates.
- Conventional disinfectants can quickly kill and reduce the number of bacteria on a surface, but only while the solution is wet. The AMTEK UV-C Series SteriGrasp Handrail Disinfection Units operate continuously and do not allow bacteria to regrow.

The UV Advantage: Did You Know...?

- Traditional antimicrobial products work by penetrating living cells and killing them using toxic chemicals which, leach off surfaces. However, once the solution dries, the bacteria regrows and returns to unsafe levels.
- Ultraviolet technology is a non-chemical approach to disinfection which is safe, simple, inexpensive and requires very low maintenance. It has a short wavelength of 100-280 nm and is germicidal.
- When bacteria or another type of microbe is directly exposed to UV-C light, the DNA of the cell is damaged, preventing it from reproducing. If a cell cannot reproduce, then this cell cannot cause infection. UV-C will also neutralize 'super bugs' that have developed a resistance to antibiotics.
- UV-C light does not stain, degrade or damage any surface being treated. Only live bacteria are targeted and eliminated by the UV-C exposure.



The AMTEK UV-C Series *SteriGrasp*Standard Handrail Disinfection Unit

AMTEK's **SteriGrasp Standard Unit** easily attaches to any escalator or walkway handrail and immediately starts to eliminate over 98% of the bacteria and viruses that lead to the spread of infectious diseases.



Increase safety and improve your customers' experience at shopping malls, airports, hospitals, hotels, schools, transit stations, and more!

Our *SteriGrasp* Standard Unit is compact and lightweight, easy to install, operate and maintain. It is designed to be directly mounted on any existing escalator or walkway handrail, in either direction, without any wiring or permanent installation required. As the handrail operates, our unit immediately starts to eliminate bacteria and viruses present on its surface.

SAFEAMTEK's *SteriGrasp* Standard Unit is UL-approved in North America, South America and Europe for electrical risk, impact, UV-C, exposure, and blockage.

UV-C LED light exposure kills 98% of the viruses, germs and bacteria found on handrails. And yet, UV-C light does not stain, degrade or damage the handrail in any way. Only live bacteria are targeted and eliminated by our device during UV-C exposure.

AMTEK's SteriGrasp Standard Unit uses advanced technology that generates its own power from the rotation of the handrail, and poses no interference to the normal operation of the handrail's system. The device's visibility immediately conveys the message that the handrail is actively and safely being disinfected.



AMTEK GLS device for glass balustrades



AMTEK SUS device for stainless steel balustrades



"Latest Gadget Sterilizes Escalator Handrails As They Move. It kills 99.99% of germs by continuously disinfecting the handrail with UV LEDs"



"Escalators of tomorrow will have self-sterilizing handrails."

The AMTEK UV-C Series SteriGrasp Standard Handrail Disinfection Unit PRODUCT FEATURES



Ultraviolet Disinfection

Self-Powered

direction.

users.

• The self-generation system

produces power from the

moving handrail in either

electricity produced by the rotational motion of the

handrail then activates the

UV-C LED disinfection

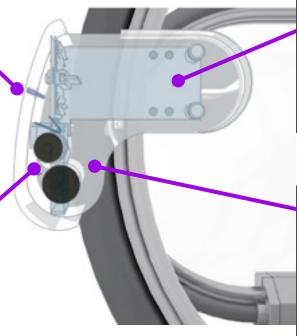
light as well as a blue operation light visible to

The low voltage DC

- The most effective disinfection process for handrails.
- Low power, long life LED UV-C light eliminates over 98% of bacteria, including viruses such as E. Coli and Influenza.











Simple Installation

- Easily and safely mounts to the handrail balustrades (glass or stainless steel).
- The attachment is non-permanent and requires no drilling or modification to the existing escalator or walkway structure.

Security Features

- Rollers are on torsion springs to easily disengage from any external objects inserted into the unit.
- The UV Light will not function if the unit is removed from the handrail, or the handrail has stopped moving.

"Handrail sterilizer claims to wipe out germs on escalators. 99.99 % killed by ultraviolet irradiation."

THE VERGE

"The unlikely hand sanitizer we need."



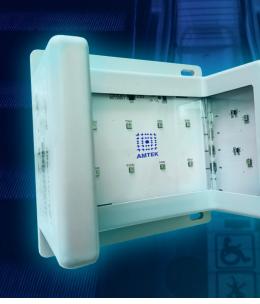
"UV LED's sanitize escalator and powered walkway handrails"

LEDSMAGAZINE



The AMTEK UV-C Series SteriGrasp Hidden Handrail Disinfection Unit

AMTEK's **SteriGrasp Hidden Unit** is easily installed on the inside of the base of most mechanical handrails and immediately starts to eliminate up to 98% of the bacteria and viruses commonly found on handrails that leads to the spread of infectious diseases.



AMTEK's **SteriGrasp Hidden Unit** leverages patented technology to intelligently reflect UV-C light efficiently and effectively around the handrail, disinfecting the complete surface area that a user will come into direct contact with. Naturally, it is CE Compliant.

PRODUCT FEATURES

All-Around Disinfection

 The unit uses a quartz glass lens to deliver almost 100% of the UV-C light efficiently to the surface of the handrail.

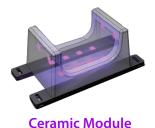
Strong UV-C Irradiance

 12 UV-C LEDs operating at 20 mW deliver 240 mW of UV-C Disinfection power. (24 VDC @ 100 mA). The UV-C LED modules are enclosed in a ceramic housing with a maintenance cycle of 10,000 hours.

User Visibility

 An eye-catching illuminated operation light is easily installed on the exterior of the inner deck board. This indicator provides the user with confidence that the handrail is safe, and also allows a quick verification for maintenance.









Operation Indication Light



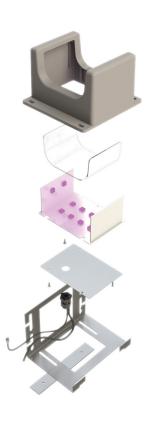
"In our testing we have found food, E. coli, urine, mucus, feces, and blood on escalator handrails. And where there is mucus, you may also find cold and flu viruses" Health.com



The AMTEK UV-C Series SteriGrasp Hidden Handrail Disinfection Unit PRODUCT OVERVIEW



COMPONENTS



U-shaped ceramic housing

270° transmission of almost 100% of the UV-C light emitted

UV-C LED Module 12*10mW LED light

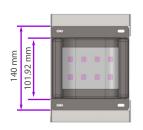
Base Cover Plate

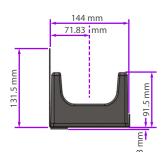
Mounting Bracket with Wire Harness

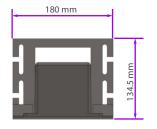


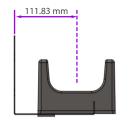
LED Indication Lamp

DIMENSIONS



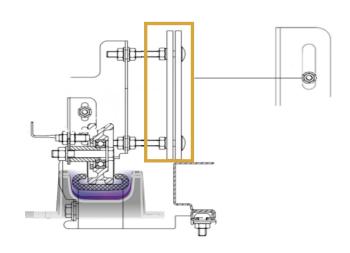






INSTALLATION BRACKET

- "U" groove holes adapt to easily mount the module to the handrail.
- The mounting bracket can be adjusted forward and backwards, or up and down by adjusting the bolt position.
- Suitable for all types of escalators and moving walkways.

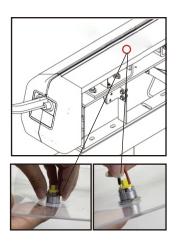


The AMTEK UV-C Series SteriGrasp Hidden Handrail Disinfection Unit INSTALLATION OVERVIEW

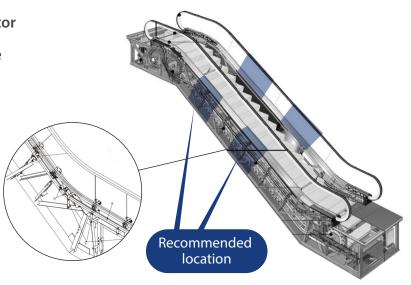


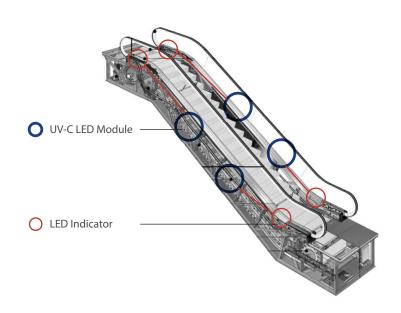
The AMTEK UV-C Series Hidden Handrail Disinfection Unit is easily installed in an escalator or walkway. Installation time can take approximately 20-30 minutes per unit once the placement location is accessed.

- It is recommended to install the AMTEK UV-C Series Hidden Unit as measured from the upper or lower comb plate to the second skirt cover panel, approximately 6 or 9 steps from the comb plate.
- Use one pair of units per 4.5 m. of vertical travel and double for longer escalators or walkways.
- The AMTEK unit uses the 24 VDC power source from the escalator. Simply connect the provided cable to the 24 VDC source, which will power the UV-C LED disinfection module and the LED indication light, which is installed near the embarking/disembarking point of the escalator or moving walkway.









The AMTEK UV-C Series SteriGrasp Hidden Handrail Disinfection Unit PRODUCT PORTFOLIO



		<i>SteriGrasp</i> Hidden Unit Base Model	SteriGrasp Hidden Unit Upgrade Model ²
Verified UV-C LED	Tested and verified UV-C LED chip technology & a known manufacturer	\	\
Bacterial Testing	Tested by accredited laboratories for disinfection effectiveness against E-Coli & Staph bacteria's and with available published reports	\	\
CE Compliance	CE EU & UKCA Declaration on file with UK & European Agency	\	\
Independent Assessment Reports	CE Risk Assessment & CE EU & UKCA Declaration by an independent UK verification agency	\	\
EN115 Compliance	Independently verified for EN115 & ASME compliance	\	\
Full Handrail Disinfection (3-Sides)	Direct UV-C exposure to all contact surfaces of handrail (3 sides)	\	\
COVID-19 Effectiveness Testing ¹	Independent and accredited UKAS laboratory testing of UV-C effectiveness on COVID-19	\	✓
Tested on Actual Handrail ¹	Viral inoculation and testing on actual handrail material	\	✓
Performance Monitoring Features ²	Internal sensors to monitor UV-C LED lifetime, operation and thermal conditions, and to provide visible notifications		\

NOTES

- 1. COVID-19 surrogate virus testing on actual handrail material
- 2. Coming Soon! Q2'21

The AMTEK UV-C Series SteriGrasp Hidden Handrail Disinfection Unit SIGNAGE



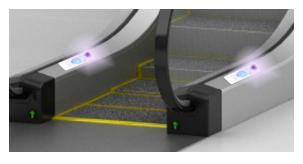
AMTEK's **SteriGrasp Hidden Unit** should be accompanied by eye-catching signage to alert your clients that you have taken active and strong measures to mitigate the risk of pathogenic transmission on your handrails.





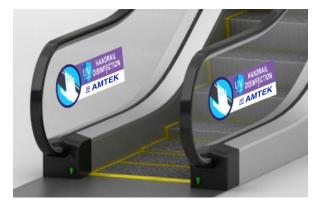
The AMTEK UV-C Series signage can be selected to be adhesive or static-based to allow for easy application, maintenance, and removal.

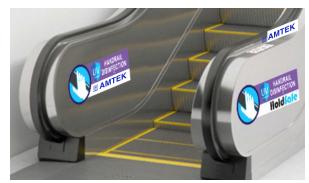
Illuminated Label for Skirting





Large Format Label for Balustrades





The AMTEK series of UV-C light products delivers smart and innovative disinfection technologies to market. We focus on solutions that eliminate harsh or toxic chemicals and provide our customers with safer and healthier environments. Our team has over 35 years of experience in the design, development, marketing & distribution of products that are created and optimized with our clients' needs in mind.

AMTEK is a Canadian-owned company, proudly serving the global market with great products, exceptional quality, relentless service, and a belief that we can always do better to meet your needs.

"Self-powered UV blaster kills handrail germs on escalators"



"Handrail sterilizer promises to keep escalators germ free."

NEW ATLAS

Extensive medical, laboratory and field tests have validated the results of UV-C disinfection, and the effectiveness of the AMTEK UV-C Series Handrail Disinfection Unit in moving handrail installations:

- UV-C disinfection significantly reduced the number of bacteria on surfaces directly or indirectly exposed to UV-C
- Up to 99.999% reduction of pathogenic bacteria and viruses

TEST SOURCE	METHODOLOGY	RESULTS	
Korea Testing and Research Institute	Test strain chosen: Staphylococcus Aureus ATCC 6538. Simulated "handrail" environment test resulting in a 98% reduction of Staphylococcus Aureus. Results would be similar for most other common bacteria.	98% reduction of Staphylococcus	
SGS Labs	Test strains chosen: Staphylococcus Aureus ATCC 6538 & Escherichia Coli ATCC 8739. Closed test with 5 second exposures, 2 cm from UV-C unit. Resulted in over 99% clearance effectiveness.	99% reduction of Staphylococcus & E. Coli	
Field Test: Handrails	Test conducted on 4 handrails in the field. Goal was to check for Colon Bacillus , Streptococcus , Bacillus Pyocyaneus , Salmonella . Before installation only Colon Bacillus was found on Handrail. After one day using unit it was no longer found.	99% Elimination of Colon Bacillus	
Field Test: Handrails	ATP (3M Test unit) Hand-held test kit: This test device does not determine the type of individual bacteria. It registers all bacteria on an aggregate level. Handrail was scanned before the unit was installed, then 24 hours later to see results. Observed a general reduction in all bacteria by 70% to 90%. Although this is a very general field test in uncontrolled conditions, the results validate that the majority of live bacteria (microorganisms) were destroyed.	90% reduction of General Handrail Bacteria	

"New Device Sanitizes Escalator Handrails While They're in Use."

MENTAL FLOSS



The AMTEK UV-C Series SteriGrasp Handrail Disinfection Units APPLICATIONS

- Major public locations such as airports, malls, and public transit have become the focus of international health organizations as the source of COVID-19 transmission. Our technology is easily attached to existing escalators and walkways and starts working immediately.
- Locations do not have to be evacuated to apply the UV-C technology. Our UV-C unit is self-contained, and UL
 safety certified, therefore completely safe to be used continuously in public environments without any risk of
 UV-C exposure.
- The AMTEK SteriGrasp Handrail Disinfection Units are a visible reminder that your location has an active appliance in place to enhance public safety. The units provide an easy-to-understand prompt that the handrail is being UV-C disinfected in real-time.
- Two models are available for glass or balustrade systems. Custom hybrid units are also available for systems with both glass and stainless steel balustrades.
- The *AMTEK SteriGrasp Handrail Disinfection Units* are currently in operation in 100's of locations worldwide. Now, they are finally available in North and South America, as well as in Europe.
- Ideally suited for malls, airports, hospitals, schools, offices, cruise ships, hotels, conference centers, entertainment venues, and public transportation infrastructure. Anywhere an escalator or moving walkway exists.

Airports



Commercial Spaces



Venues



Shopping Malls



Healthcare Facilities



Transit Stations

