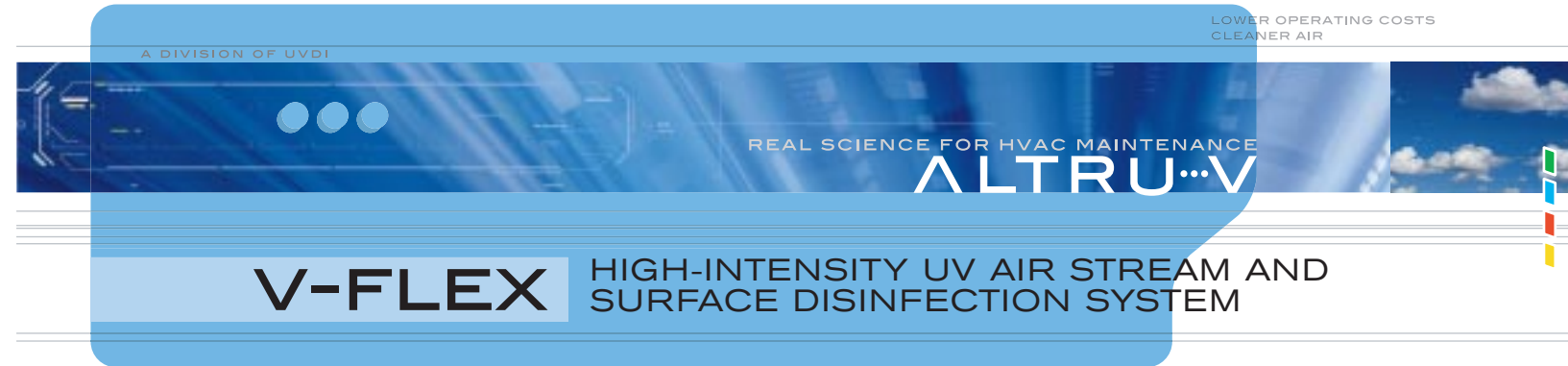


ALTRU...V

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REPRESENTED BY:

SPECIFICATIONS

V-FLEX UVC Fixture and Lamp Assemblies are factory assembled and tested. They consist of a Housing, Power Supply, Lamp Socket, Lamp, Mounting Extrusion, Power Module and Extrusion Mounting Bracket and are to be constructed to withstand HVAC environments. Fixtures are UL/C-UL Listed under ABQK Classifications and provide for unobstructed 360° UVC irradiance from the lamp to surfaces and the airstream.

Housing is constructed of stainless steel in a UL drip-proof design that is equipped with mounting tabs to facilitate housing positioning and fastening anywhere on the Mounting Extrusion's four sides. Power to each fixture is from UL approved "plug and light" power service from the Mounting Extrusion Raceway. The Housing accommodates the Lamp Socket internally to prevent Lamp pin exposure to the airstream. The Housing incorporates all components into one integral assembly to maximize Lamp serviceability and to allow for 360° UVC irradiance from the Lamp to surfaces and the airstream.

Power Supply is a Class 2, rapid start type electronic power supply that includes RF and EMI suppression. Each is supplied with power via a factory supplied Mounting Extrusion Raceway that is equipped with a UL approved and NEC compliant Power Module. The Power Supply maximizes photon production, radiance and reliability and is UL Listed for cold and/or moving airstreams of 55-135° F, and 1000 fpm. Power requirement is to be 120Vac or 240Vac.

Lamp Socket is constructed of UVC resistant, commercial grade HVAC materials designed for long service. They are protected from the airstream, enclosed in the housing. The Lamp Socket accommodates a lamp to provide 360° UVC irradiance to surfaces and the airstream.

Lamp is a very high output, wind chill resistant, 60-Watt, T5 diameter, hot cathode, and twin tube bi-axial type equipped with a four-pin lamp base that is fully encapsulated when inserted into the Lamp Socket. The Lamp produces no less than 80% of its initial UVC output at its end of lamp life, or after 9000 hours of service. Each Lamp contains no more than 5.0 milligrams of mercury, to protect the environment and to provide for future EPA environmental compliance. Each lamp produces its specified output at 500 fpm in temperatures of 55-135° F. The Lamp does not produce ozone, fumes or any other contamination.

Mounting Extrusion is UL Listed and constructed of Bright Anodized, 6463-T5 aluminum extrusion to withstand HVAC environments and to accommodate the fixture on any of its four sides. It is designed with covered Power Raceways to provide A/C power to each

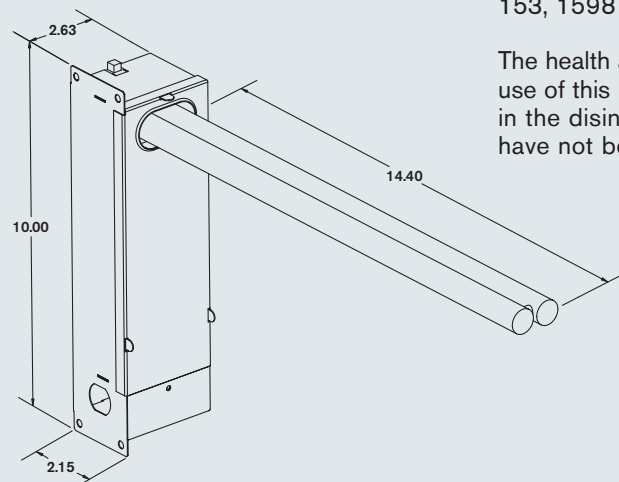
Power Supply connected to any of its four sides. The Mounting Extrusion and Power Raceway Covers are able to be field cut-to-length to accommodate any plenum height.

Power Module is UL Listed and constructed of stainless steel. It is equipped with mounting tabs to facilitate fastening to any of the Mounting Extrusion's four sides. The Power Module distributes power to each Mounting Extrusion Raceway in accordance with electrical codes.

Mounting Bracket is constructed of stainless steel and designed to accommodate, hold and fasten the Mounting Extrusion to the plenum or duct base.

Independent Testing: The V-Flex UVC system has been tested to verify specified performance and conformity to UL/C-UL as to Category Code ABQK (Accessories, Air Duct Mounted) and UL Standards: 153, 1598 & 1995 respectively.

The health aspects associated with the use of this product and its ability to aid in the disinfection of environmental air have not been investigated by UL.



Safety Switch: Door close trips light on after exit.

Model No.	Description	Nom. Dim.	Electrical	Weight	Part Number
VF-60	V-Flex™ UV Module		120Vac/240Vac, 50-60Hz, .6A/.3A	2 Lbs.	19-1000
VF-RJM	V-Flex™ Power Junction Module		-	1 Lbs.	19-1020
VF-ME	V-Flex™ Main Extrusion Kit (Includes Wire Raceway covers)	32.5"	-	10 Lbs.	19-1040
VF-DMB	V-Flex™ Duct Mount Brackets (2)	28.5"	-	1 Lbs.	19-1030
VM-60	V-Flex™ Replacement Lamp	15"	-	1 Lbs.	19-4000
GVP	Glass Viewport Assembly		-	3 Lbs.	17-4013
SS	Safety Switch for Accesses - 120Vac		-	1 Lbs.	18-6001

A DIVISION OF UVDI

REAL SCIENCE FOR HVAC MAINTENANCE

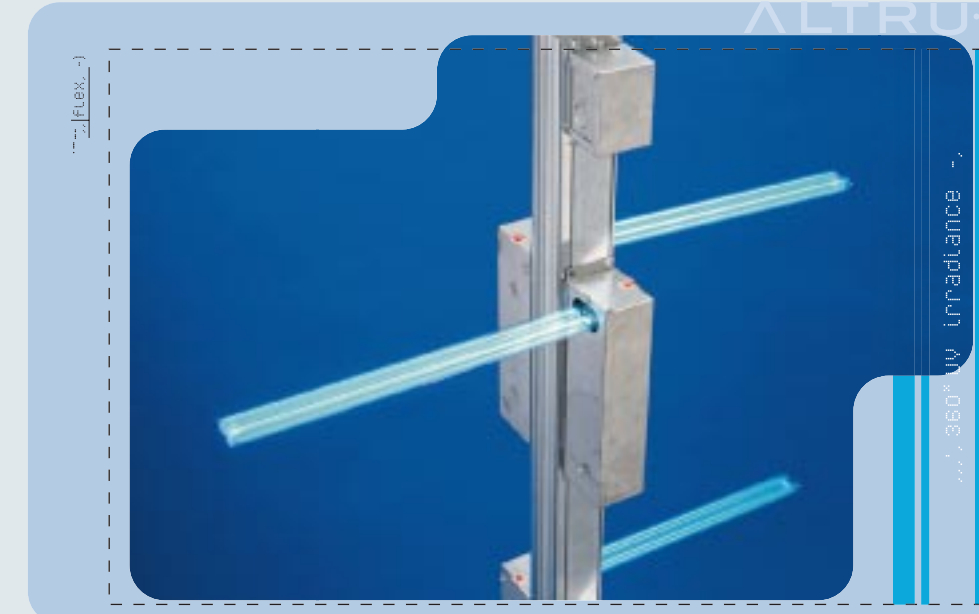
ALTRU...V

V-FLEX HIGH-INTENSITY UV AIR STREAM AND SURFACE DISINFECTION SYSTEM

V-Flex Series Provides Unparalleled Flexibility and UV Intensity for HVAC Applications—Delivers Cleaner Air, Greater Safety and Significant Operating Efficiencies

VALUABLE BENEFITS FROM THE LEADER IN THE APPLICATION OF UV

- Provides unmatched installation flexibility and "kill rates" in HVAC systems of virtually any size, large or small
- Patent-pending design with multiple lamp capability per Extrusion. Lamps can be mounted to any of the four support faces. Extrusion can be cut to accommodate any height system
- Multiple high-power, single-ended biaxial lamps mounted to a single extrusion as close as 10 inch centers on each face
- Extrusions are typically installed 32" apart to cover any width system
- Allows for nesting and overlapping to accommodate any width or provide unprecedented UV intensity
- The only commercial, industrial or institutional UV device to offer 360° UV irradiance
- Installs easily and requires only one electrical service hook-up per Extrusion
- ALTRU-V Lamps have the lowest output loss in the industry (over their operating life)
- Fixtures are UL/C-UL Listed under Category Code ABQK (Accessories, Air Duct Mounted), UL Standards: 153, 1598 & 1995 respectively
- Optimize any application through our V-Smart proprietary application software



UNLEASH THE POWER OF THE V

ALTRU-V products from UVDI are transforming the application of UV in HVAC maintenance and improvement of IAQ. The V-Flex™ revolutionary design offers unmatched installation flexibility and "kill rates" in HVAC systems of virtually any size, large or small. The results are lower operating costs, safer environments for maintenance staff and occupants, and cleaner air. The V-Flex patent-pending nestable design can be mounted vertically or horizontally, and allows multiple lamps to be mounted to a single Extrusion.



GENERAL APPLICATIONS INFORMATION

The V-Flex design is highly versatile and can fit into an air handling unit or duct of any width. The support column (extrusion) allows mounting of UV modules on all four sides and up and down its height, allowing for 360° irradiation that delivers the most UVC energy per unit area. The design also permits lamp centers as close as 10 inches, allowing the system to fit into an air handling unit or duct of virtually any height. The V-Flex system utilizes a modular design for ease of installation. The wiring of each support runs through a designed-in wire chase to a Power Junction Module that is UL Listed and NEC compliant, for easy, fast, safe and error-free installation. Only four screws for each 6V module, two brackets and one electrical service connection are required to install each support. Once installed, each lamp is easily replaced on an annual basis in only 15 seconds.

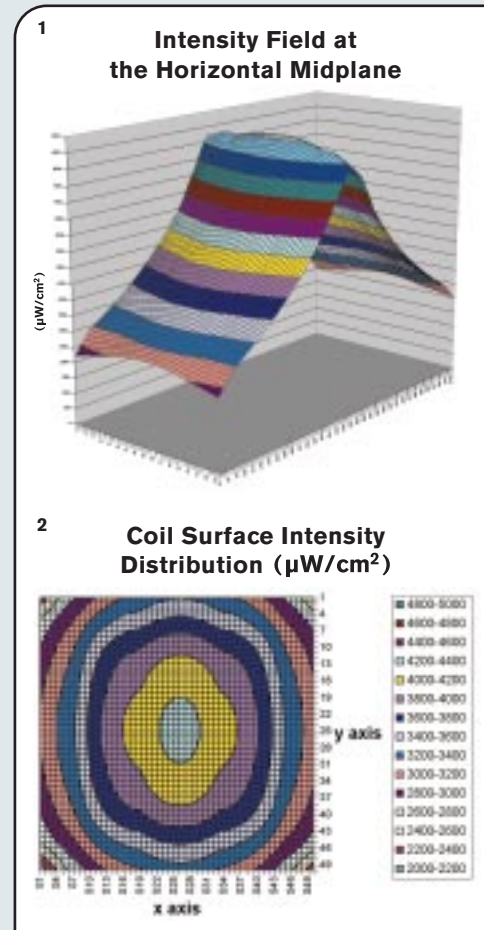
SURFACE IRRADIATION BENEFITS

- Offers the ultimate UV intensity distribution on target surfaces when required
- Provides much higher UV intensity level than the standard V-Mod product
- Maintains AHU capacity to optimal operating condition, with near original equipment capacities
- Lowers energy costs for most systems
- Reduces costly maintenance and cleaning programs
- Improves indoor air quality by destroying surface microbes, including mold, bacteria, their spores and products
- Perfect for bioterror or medical air applications requiring high-dose UV for disinfection of filter surfaces

In applications where very high doses of UV are needed, such as severely fouled coils and drainpans, filter sections, return and supply ducts, mixed air plenums and exhaust systems where microbial build-up can be found, the V-Flex system can be installed to deliver an unprecedented level of UV energy. The V-Flex design is highly versatile and can fit into an air handling unit or duct of any width, while emitting energy in every direction (360°).

“ON-THE-FLY” BENEFITS

- Flexible mounting allows for application of unmatched UV intensity needed in medical, food preparation and bioterror applications
- Provides the extreme high dosages required to disinfect a fast moving airstream
- Versatile design allows for application of high-intensity UV to help reduce infectious disease microbes, including colds, flu and other viruses
- UV has proven effectiveness on Mycobacterium tuberculosis (TB), Legionella pneumophila (Legionnaire's Disease), and other airborne infectious bacteria
- Produces no ozone, gases or other noxious fumes – will not harm building occupants, equipment or furnishings



1. V-Smart™ software shown modeling the distribution of UV energy within the moving airstream of a typical large HVAC system. UV applications can be optimized. The software calculates the performance of the system in destroying common airborne pathogens.

2. V-Smart software shows the UV intensity distribution over a typical HVAC surface such as a filter bank or an A/C coil. The software provides an outstanding tool for selecting and locating UV fixtures to maximize energy distribution.

THE VIRTUES OF CLEANER AIR

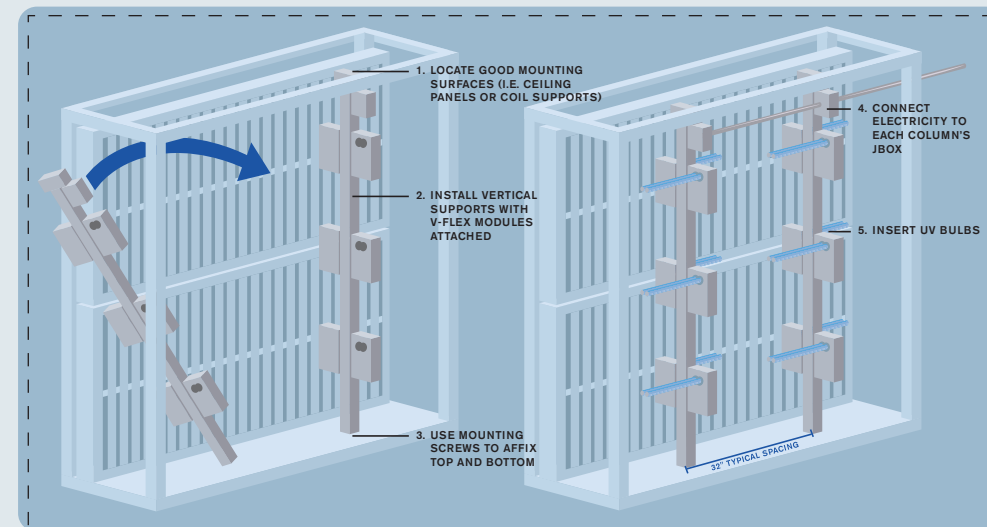
Damp, dark HVAC systems are the perfect breeding ground for mold and bacteria. Each time the HVAC system runs, these contaminants and airborne viruses are circulated throughout the building. Research has shown that building occupants exposed to such contaminants can develop health issues, including sinus congestion and headaches, allergy asthma, upper respiratory ailments, along with colds and flu, and according to Mayo Clinic researchers, chronic sinus infections caused by mold. The V-Flex design allows for high UV intensity to be applied to protect the health of building occupants and technicians.

ALTRU-V applies real science and the relentless cleaning power of ultraviolet light for optimal HVAC maintenance solutions.

THE V ALSO STANDS FOR SAFETY AND RELIABILITY

ALTRU-V products were specifically designed for optimal performance in HVAC conditions. Every ALTRU-V product is UL-CUL Listed for specific use within an HVAC system and each is produced in an ISO 9001 certified plant for unmatched quality.

Unlike other cleaning programs that can expose maintenance workers and building occupants to dangerous chemicals or toxic fumes, the V-Flex system offers a passive, non-chemical approach to continuous HVAC system maintenance.



Straightforward Installation The V-Flex offers unmatched installation flexibility. It can be installed vertically (shown) or horizontally, with multiple UV modules easily attached to a support column. One electrical hook-up via a Power Junction Module is all that is needed at one end of each support column.

REAL SCIENCE FROM THE FAMILY BEHIND UV

The Veloz family has a distinguished history as a pioneer in UV technology, with a legacy of over 70 years of cutting-edge innovation. The story begins in the 1930's when Luis Veloz, an engineer in Westinghouse's Lighting Division, led the first use of UV technology in air purification, and later in water purification. In 1949, he founded Aquafine Corporation and was joined later by his son, Tom Veloz. Tom Veloz continues the family tradition as the President of UVDI, which he formed in 1992.

Today, we continue to drive innovations in UV technology for the treatment of air and water. UVDI has built one of the world's most comprehensive research, development and engineering teams dedicated to the application and UV technology. We have assembled a board of advisers that includes PhD's, professional engineers and scientists with more than 70 years of combined experience. We fund PhD-level research of UV germicidal irradiation.