COILOTRON
PERFECT SYSTEM FOR MOLD FREE COOLING COIL AND DRAIN PAN

- Near Total Elimination of Mold, Fungi, and Microbes on Cooling Coil and Drain Pan
- Clean and new looking Cooling Coil
- Near 100% elimination of Endotoxin and Pathogens on coil
- Reduces allergy symptoms, SBS, and indoor air related sickness
- Improves Heat Transfer Efficiency up to 20%
- Results in reduced energy
- Earns LEED and GBC Merit Points
- Environmentally Friendly
- Suitable for new or retrofit installations
- Easy to Install
- Quick Return on Investment
Unique Features of Ruks CoiloTron

- High Energy Output 425 mA lamps emitting at 253.7 nM
- Two lamps per fixture – Increased energy and spread
- High reflective mirror surface 86% specular reflectivity. Two fold increase in energy intensity
- High uniform UVC dose on cooling coil
- Penetrates deep down the rows for effective kill of bacteria
- Highest lamp life in industry
- Each lamp and holder protected with Quartz Sleeve equivalent to GE 214
  - Allows high transmission of UVC rays at 253.7 nM
  - Prevents moisture impregnation from cooling coil on lamp surface
  - Sustains uniform lamp temperature – Ensures optimum lamp performance
  - Protects lamp and holder from moisture damage. Protects from electrical damage, enhances lamp life
  - Contains and holds mercury spill in the event of lamp breakage
  - Prevents mercury spill into AHU and duct. Environmental safety
- Quartz Sleeve design facilitates installation on discharge side of cooling coil. Ensures bacteria elimination prior to discharge to duct
- Robust UL listed electronic ballast
- Flexible installation and design allows easy movement of CoiloTron fixtures in horizontal and vertical axis. Easy to assure coverage of all areas of cooling coil and drain pan
- Only one power input is required. Power input to all fixtures daisy looped
- Suits cooling coil of any size
- Telescopic vertical channels for supporting CoiloTron fixtures, top and bottom support caps; factory provided
- Vertical support channels are telescopic. Adapts to any coil height
- Telescopic vertical channels, top and bottom hats, screws and hardware, and all installation materials are factory provided. No field provided material required
- Installation Cost is very low
- Labor time to install – very low
- Vastly increased heat transfer – Reduced Energy
- Quick Return on Investment
- Ballast individually UL listed
- Ruks CoiloTron Listed to UL 1995
- Tested and Certified by UL for Compliance to Fire and Smoke Safety to UL 2043
- CE Certified

The health aspects associated with the use of this product and its ability to aid in disinfection of environment air have not been investigated by UL.
Cooling Coil before and after Treatment with Ruks CoiloTron
1. UVGI system shall provide effective destruction and prevention of growth of bacteria, virus, mold, fungi and microbiological species on the cooling coil. Intensity of UVC rays shall envelope the entire surface area of the cooling coil within the high kill rate zone of the UV glow. Where specified by the Engineering Consultant, an additional UVGI Fixture or set of Fixtures along the width of the Cooling Coil shall be provided, and this shall be mounted near the base of Cooling Coil directed to destroy bacteria and mold in the drain pan.

2. The UVGI frame shall be installed in close proximity to cooling coil so as to provide effective bactericidal ability on the entire surface area of the cooling coil and large part of the drain pan.

3. Sufficient number of UVGI units shall be provided to cover the entire surface area of the Cooling Coil.

4. Each UVGI unit or fixture shall contain at least 2 lamps, to ensure UVC rays penetrate deep into the rows of the Cooling Coil to enable bacteria destruction in the inner rows of the Coil. Units or Fixtures with single lamp is not acceptable due to its limited ability to penetrate into the depth of the Cooling Coil.

5. The system shall comprise one or more number of individual units or fixtures, all mounted on factory provided metallic frame complete with vertical support channels. The vertical channels shall be telescopic to cover cooling coil of any height. All necessary materials for frame, top and bottom mounting cups, pre drilled vertical telescopic channels, screws, and hardware shall be factory provided.

6. Each UVGI unit or fixture shall comprise at least two lamps, installed over a properly profiled aluminum reflector. The reflector shall be mirror surface specular reflectivity 86%. The enclosure shall be not less than 0.04 Inch (1 mm) thick Aluminum. Inter connecting cable between the ballast and lamps shall be covered in UL Listed water proof and fire resistant sleeve to prevent exposure to moisture from Cooling Coil. The interconnect cable and protective sleeve shall be UL Listed. Cables and ballasts shall be fully enclosed in metallic case. No cable shall be exposed.

7. The lamps shall be high output type 425 mA each. Energy output of the lamp measured 3’’ (1M) from the Lamp shall not be less than 144 µw/cm². The lamps shall be rated for useful lamp life not less than 9,000 hours.

8. The lamps shall not operate at wave length 180 nM or lower, to ensure no uncontrolled ozone is put out by the lamps.

9. All electrical connections within the fixture shall be factory ready, ending on terminals. All fixtures within an AHU shall be daisy looped at site. All electrical cables shall be UL Listed. It shall be possible to connect all the UV fixtures within an AHU easily and quickly with minimum labor time, opening the terminal box alone, and without opening the fixtures.

10. The Ballast shall be electronic type, fully encapsulated, and confirm to the following;
   • UL Listed (Class P, Type 1, Outdoor)
   • Tested and certified to comply to fire and smoke safety to UL 2043
   • Sound Rated A
   • Compliance to FCC Part 18 (Class A) for EMI and RFI (non consumer limits)
   • ANSI Standard C62.41

11. Each lamp shall be housed individually in a quartz sleeve equivalent to GE 214 to ensure high rate of transmission of UV intensity. The quartz sleeve shall cover the entire length of the lamp and lamp holders, with annular air gap of 1/8” (3 mm). The quartz sleeve is essential to ensure multiple beneficial features;
   a. Prevent carry over moisture from Cooling Coil from contacting lamp surface.
   b. Prevent dust particles settling on lamp surface.
   c. Ensure lamp surface is maintained at constant temperature and to prevent cooling of lamp surface due to passage of air and moisture over it.
   d. Contain and hold mercury from spilling into the AHU section and ducts, in the event of breakage of lamp. This is required to ensure compliance to environmental codes.
   e. Facilitate environmentally safe disposal of broken lamp.

12. Installation of vertical telescopic support structure in AHU, and mounting of CoiloTron Fixtures to the frame shall be easy and quick using minimum labor hours. All installation materials shall be factory supplied. No material shall be field supplied, except one power input cable for each AHU and inter connect cable between fixtures.

13. Installation of UV fixtures on vertical telescopic support structures shall allow easy movement of lamp fixtures as needed to cover the entire surface area of Cooling Coil and drain pan with UV radiation.

14. Final finished UV Fixture shall be Listed to UL 1995.

15. Final finished UV Fixture shall be tested and certified by UL to comply to Fire and Smoke Safety to UL 2043.

16. Final finished UV Fixture shall be CE Certified.

17. The equipment shall be of Make Ruks Canada Ltd, Canada. Country of Manufacture shall be Canada.