

Duct mounted UVC dynamic air disinfection units



JenAct

UV Torpedo® Duct
UV Torpedo® Quad

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JenActUV

Background



JenAct

JenAct is a subsidiary of Jenton International Limited.

JenAct has specialised in UV disinfection of air and surfaces since 1995

Air disinfection for work areas, surgeries etc..

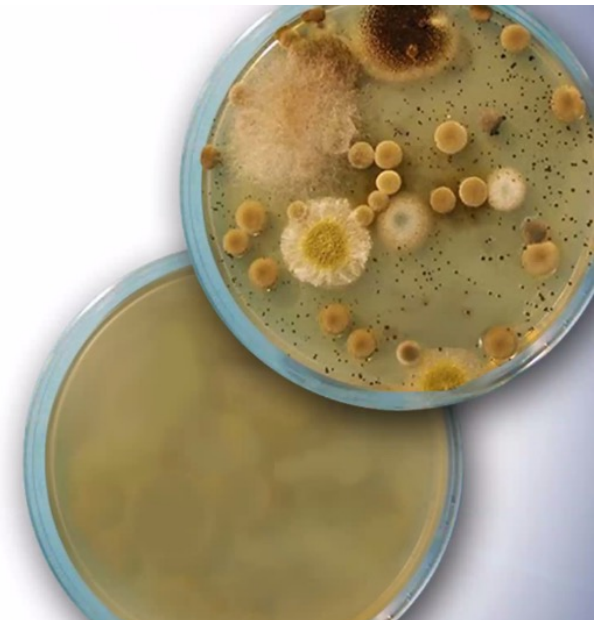
Air disinfection for ducts, HVAC

UV conveyors for food, packages/

Packaging - bottles

Surface disinfection – masks / PPE

JenAct has
11 separate
granted patents,
several
internationally.



**The best thing
since....**

FRESH AIR



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The best way to deal with airborne viruses to minimise cross infection is to flush them out with fresh air.

Open windows, doors or set ventilation systems to avoid recirculated air..

Or...if you can't do that...

You can use *JenAct*UV systems to make your own “Covid-fresh” air.

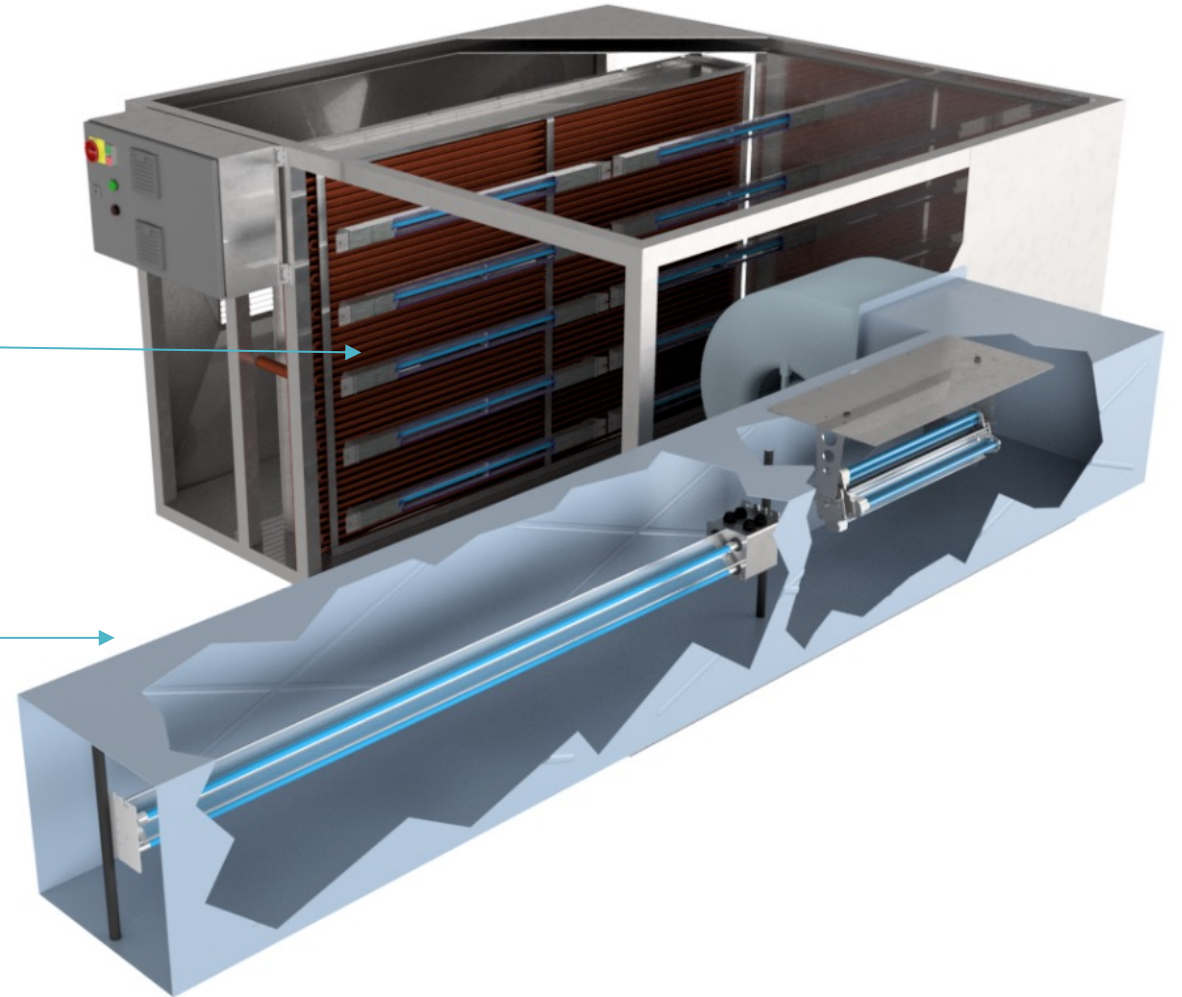
Our UV systems for air treatment (self contained or in ducts) will provide 99.99% disinfection of SARS-CoV-2 in the air going through the system.

Static and Dynamic options

Static UVC (also available from *JenAct*) disinfects surfaces, such as coils.

®

UV Torpedo Duct and *Quad* disinfection systems are **dynamic** systems designed to treat moving air.



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UV Torpedo®

***JenAct UV Torpedo®* systems are designed to fit longitudinally into existing HVAC and air ducts.**

JenAct has designed optimised aluminium extrusion to ensure maximum UV harvest from the UVC lamps in the torpedo unit.

Lamps, ballasts and sizing all selected to suit each customer requirement based on airflow, temperature and identified problem pathogens.

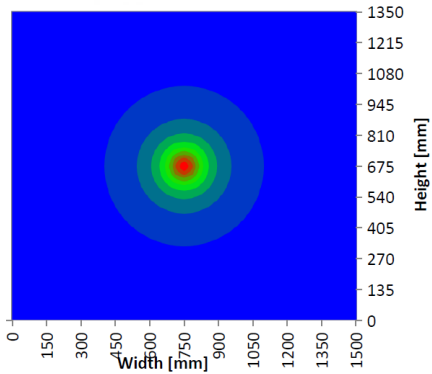
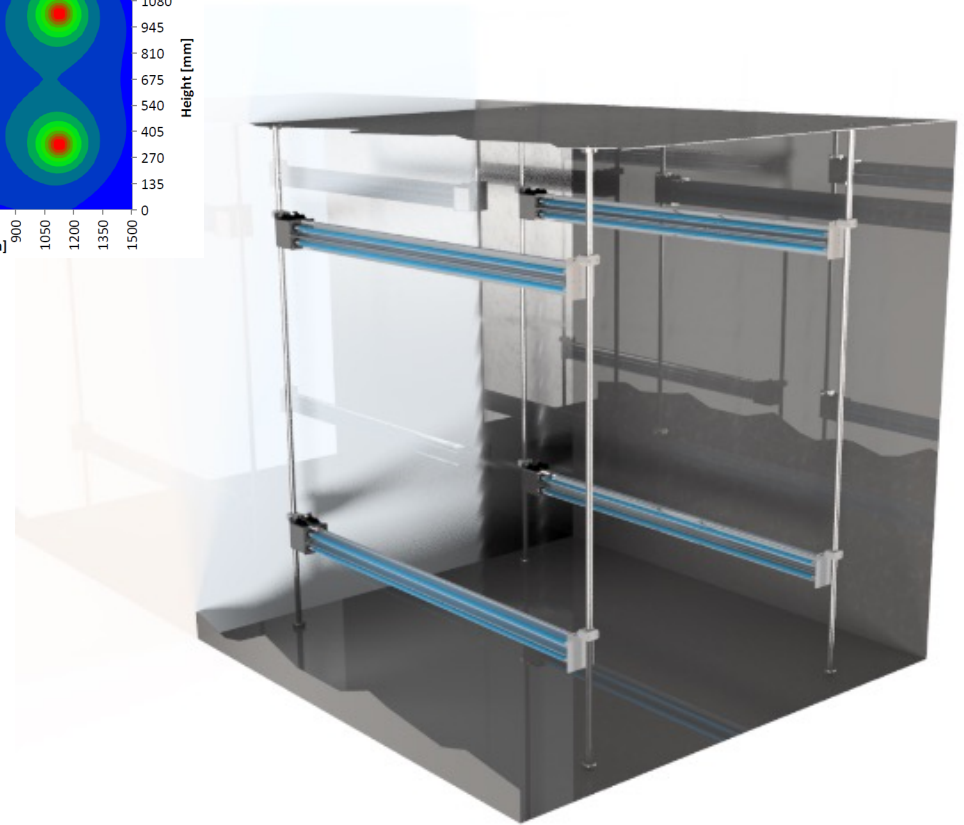
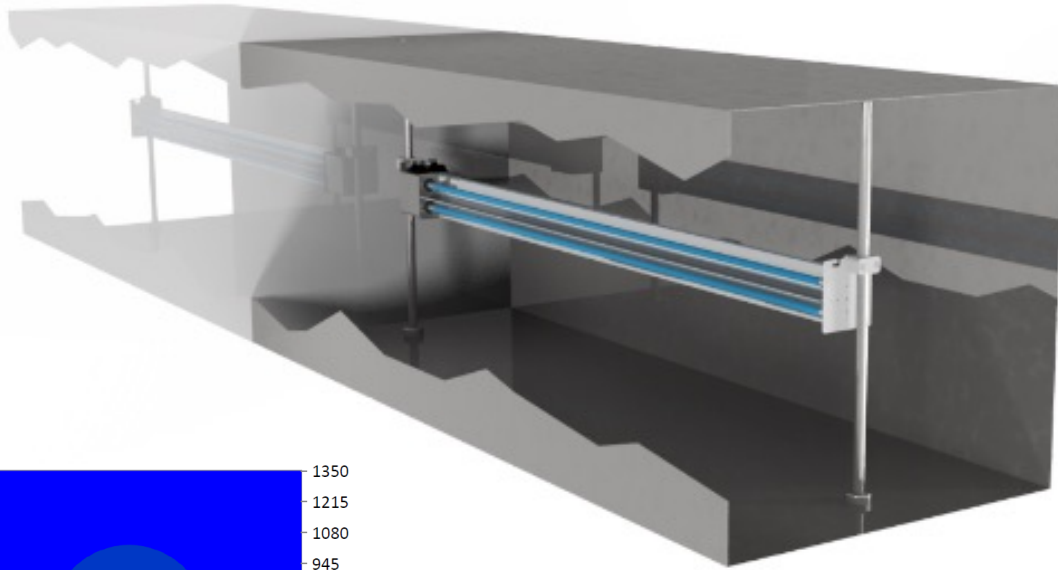
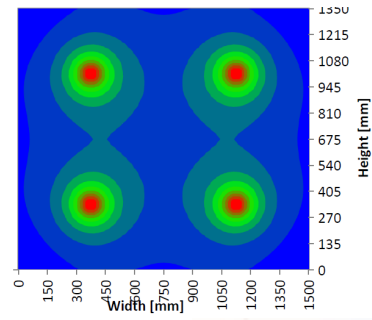
Custom control systems allow local control operation and/or Building Control Systems (BMS).

Current public recommendations are not to use recirculating HVAC in a possible COVID-19 situation without disinfection. These systems prevent transfer of virus from one room/area to another.



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Duct mounting examples



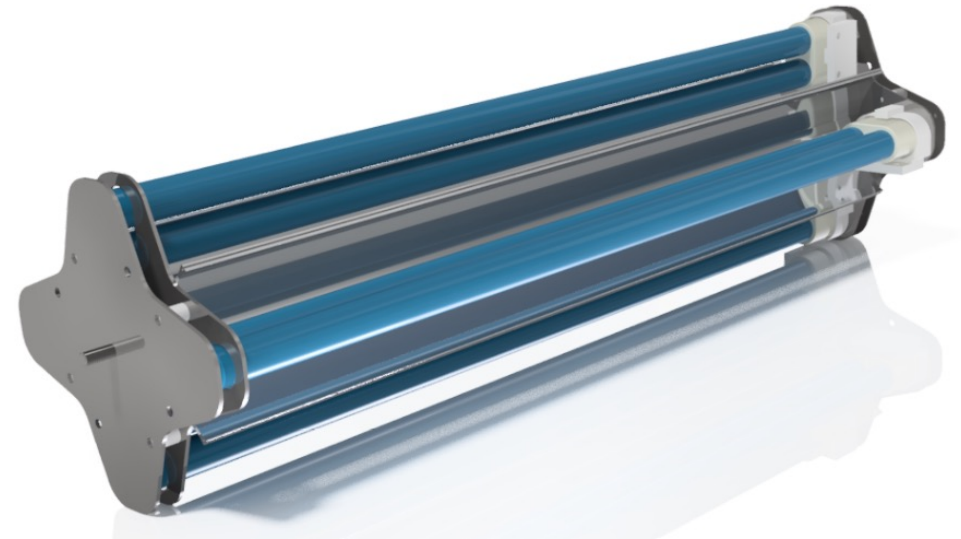
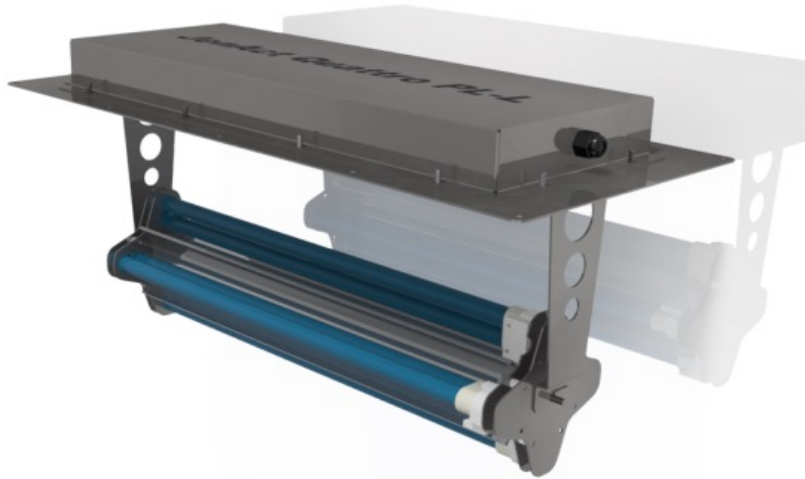
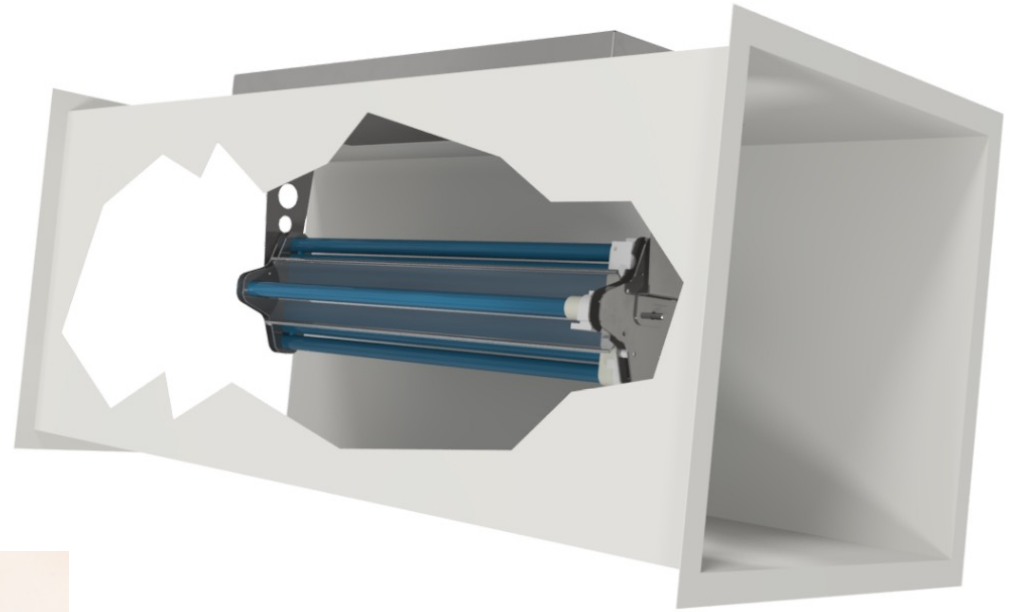
Lamp modules are clamped to easily mounted rods across duct in calculated position for best results using our modelling software.

Wires exit to PSU. Access hatch required.



UV Torpedo® Quad

UV Torpedo Quad has advantage of max. UV per linear cm of all torpedo variants. Also in <600 mm lengths applicable to short spaces and easy to modify existing ducts for mounting.



Expectations

Everyone's HVAC systems are different and most organisations have contractors they use for maintenance / installation etc. We would expect customer or contractor to install and we would support with advice.

What installers will have to do is to find an existing hatch or cut a new access hatch in the duct. This will be used for installation and also for cleaning maintenance and must be suitable for that. The plate / door should be light tight and be fitted with safety switches (we can advise on type etc.) and our power supply has connections for them. UVC can be dangerous if exposed and it should be impossible to turn on any lamps if the hatch is open. Where selected, our power supplies monitor current and will give control systems an appropriate signal if required to signal bulb fault and can also present via LEDs on the power supply cover.

Customer/contractor will be supplied with brackets to use to fit the UV Torpedo® in the required position and a through duct cable connection / sealed hole will be required to run cables (not required for Quad variants). The power supply should be securely mounted close by and will require 240v, single phase, 5A.

What we need to know:

JenAct can assist with sizing and modelling performance so we can recommend specific modules to achieve what is required.

For more precise information, things we need to know :

- a) What are the duct cross sectional dimensions?
- b) What length of duct is available?
- c) What is the airflow in the duct?
- d) What is the air temperature in the duct? (and range?)
- e) What pathogens are you concerned about? (Is it for food spoilage prevention or Covid-19 mitigation for example?)
- f) What's the temperature of the installation site? Indoors or outdoors?

We can then tell you what modules you require and how much they will cost.

Specifications

Product		Torpedo length	UV active length	Lamp power	UVC output	UVC w/m
Prices assume Signify (Philips) bulbs.						
UVTorpedo® Duct		1661	1500	4 x 155w	4 x 56w (224w)	149
UV Torpedo® Quad		585	500	4 x 90w	4 x 27w (108w)	216
UV Torpedo® Quad Duo		1250 approx.	1000	8 x 90w	8 x 27w (216w)	216

UV Torpedo® Duct Versions & OEM / Installer Pricing

The UV Torpedo® Duct unit includes four high-output UVC lamps mounted on a custom-designed extruded aluminium reflector section, positioned parallel to the air stream on cross duct brackets (included) . Each UV Torpedo Duct unit requires about 1800 mm straight section of duct with suitable access hatch.

Model	Controller	BMS	UVC Monitoring	Price
UV Torpedo ® Duct Premium	Wall mounted IP54 stainless steel enclosure, with full colour touch screen control (HMI). HMI displays levels and alarms for run hours/lamp current/status. Can be mounted up to 5m from duct with included cables. Inputs for 1 & 2 channel safety circuit. Local power isolation.	24VDC input for remote start/stop. Dry contacts for UV OK output. Ethernet output for Modbus TCP/IP remote operation and logging of all key parameters	Optional	Premium Controller + 1off UVC duct unit Premium Controller + 2off UVC duct units Premium Controller + 3off UVC duct units Premium Controller + 4off UVC duct units
UV Torpedo ® Duct Standard	Wall mounted IP54 stainless steel enclosure, with START/STOP buttons & UV status LEDs. Can be mounted up to 5m from duct with included cables. Inputs for 1 & 2 channel safety circuit. Local power isolation.	24VDC input for remote start/stop. Dry contacts for UV OK output.	No	Standard Controller + 1off UVC duct unit Standard Controller + 2off UVC duct units Standard Controller + 3off UVC duct units Standard Controller + 4off UVC duct units
UV Torpedo® Duct OEM	Wall mounted IP65 stainless steel enclosure. UV status LEDs. Can be mounted up to 5m from duct with included cables. Applying power turns on UVC	Dry contacts for UV OK output. All safety system to be provided by contractor	No	
Options	Real-time monitoring of UVC output displayed both on HMI and broadcast over Modbus TCP/IP (UV Torpedo Premium only) Upgrade to IP65 environmental protection of enclosure Shatterproof (food-safe) UVC lamp /duct unit Increase in length of standard cables to 10m/duct unit Increase in length of standard cables to 15m/duct unit			1off UVC sensor 2off hose-proof hood 4off FEP coating

UV Torpedo®Quad Versions & OEM / Installer Pricing

The UV Torpedo® Quad unit includes four high-output UVC lamps mounted on a custom-designed extruded aluminium reflector section, positioned parallel to the air stream integral with duct access hatch. Each UV Torpedo Quad unit requires about 650mm straight section of duct and comes with all required fittings.

Model	Controller	BMS	UVC monitor	Price
UV Torpedo® Quad Premium	<p>Wall mounted IP54 stainless steel enclosure, with full colour touch screen control (HMI). HMI displays levels and alarms for run hours/lamp current/status. Can be mounted up to 5m from duct with included cables. Inputs for 1 & 2 channel safety circuit. Local power isolation.</p> <p>The Quad Premium is available in MONO & DUO versions. The controller is the same but the MONO has one Quad duct unit and the DUO has two duct units</p>	24VDC input for remote start/stop. Dry contacts for UV OK output. Ethernet output for Modbus TCP/IP remote operation and logging of all key parameters	Optional	<p>Premium Controller MONO</p> <p>Premium Controller DUO</p>
UV Torpedo® Quad Standard	<p>Wall mounted IP54 stainless steel enclosure, with START/STOP buttons & UV status LEDs. Can be mounted up to 5m from duct with included cables. Inputs for 1 & 2 channel safety circuit. Local power isolation.</p> <p>The Quad Standard is available in MONO & DUO versions. The controller is the same but the MONO has one QUAD duct unit and the DUO has two duct units</p>	24VDC input for remote start/stop. Dry contacts for UV OK output.	No	<p>Standard Controller MONO</p> <p>Standard Controller DUO</p>
UV Torpedo® Quad OEM	Duct mounted system with the QUAD UVC lamps and Controller mounted on either side of a metal plate. The bulbs are inside the duct and the controller is mounted on the outside of the duct and is protected to IP54. Once power is applied the UVC will turn on whenever there is airflow within the duct. The controller has 3 LEDs to indicate: Power On / Airflow / UVC On. The unit is supplied with a removable mains connector for quick installation. It is the installers responsibility to ensure that the unit cannot be removed from the duct with the power applied.		No	
Options: Premium & Standard Only	<p>Real-time monitoring of UVC output displayed both on HMI and broadcast over Modbus TCP/IP (Premium only)</p> <p>Upgrade to IP65 environmental protection of enclosure</p> <p>Shatterproof (food-safe) UVC lamp /duct unit</p> <p>Increase in length of standard cables to 10m/duct unit</p> <p>Increase in length of standard cables to 15m/duct unit</p>			<p>1off UVC sensor</p> <p>2off hose-proof hood</p> <p>4off FEP coating</p>

Checking it's right

Jenton have been supplying process control including EIT radiometers in the UK since 1990.

EIT manufacture NIST calibrated integrating UV radiometers and filtered UV lamp monitoring systems.

EIT UVC radiometers are filtered to measure 250-260nm and display power (mW/cm²) and energy [dose] (mJ/cm²)

