

A REVOLUTION IN ANTI-STATIC CLEANING

Roto-Clean employs a unique ionising technology from Fraser to neutralise static electricity and blast away dust and contaminants in injection moulding applications.

Roto-Clean revolutionises the cleaning of mouldings and components where careful control of contaminants is necessary to maintain production efficiency and reduce the cost of rejects and rework.

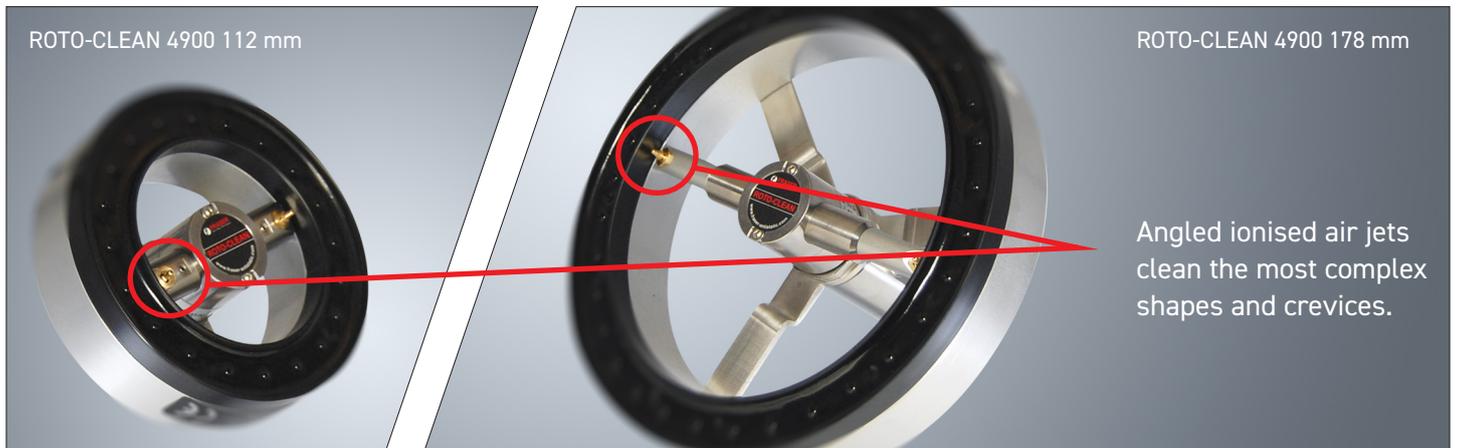
By combining an advanced ioniser with the power of high-thrust, rotating air jets, Roto-Clean enables accurate and powerful cleaning of all shapes and sizes of product.



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FRASER ANTI-STATIC – THE EXPERTS IN CONTROLLING STATIC ELECTRICITY

How can we help you? Contact us on +44 (0) 1398 331114 or sales@fraser-antistatic.co.uk



HOW ROTO-CLEAN WORKS

The versatile Roto-Clean consists of a dual rotary nozzle driven by a centrifugal control integrated into a circular static eliminator.

Twin air-powered nozzles, housed in Fraser's unique ring ioniser, rotate at up to 60 revolutions per second, delivering a 360° pulsed flow of ionised air onto the product surface at up to 240 times per second, blasting away contamination and cleaning complex shapes and crevices with ease.

Available in diameters of 112 or 178 mm, the compact Roto-Clean can be mounted onto a robotic arm or fixed array over a conveyor to assure a dust-free product that will not re-attract contaminants.

See video at www.fraser-antistatic.com

BENEFITS AT A GLANCE

- Superior cleaning and static neutralisation with lower compressed air cost
- Multi-direction airflows clean the most complex shapes and crevices
- Higher quality output and production efficiency with less rework and rejects
- Delivers better results than traditional airknives and nozzles
- Simple to install or retrofit to conveyors, robot arms and cleaning stations
- Easily and economically scalable for any product or process
- Shockless and suitable for tough industrial processes

MAXIMISING EFFICIENCY AND RESULTS

- Ionised air neutralises static charge, cleans and prevents re-attraction of dust
- Static elimination and optimised cleaning ensure fast payback through fewer rejects
- Assures a dust-free surface for substrates moving onto secondary processes
- Flexibility of installation make it suitable for hundreds of industrial applications
- Ideal for use in highly automated workflows or for bulky products

MARKETS AND APPLICATIONS

Roto-Clean is used wherever a clean and static-free product is needed.

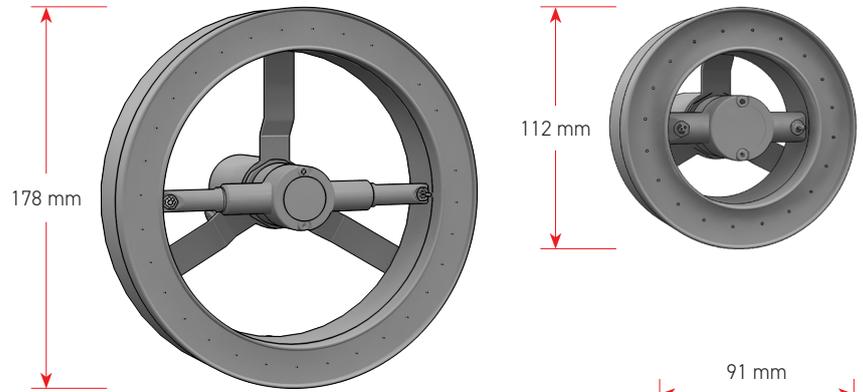
- Mouldings
- Electrical assemblies
- Trays and panels
- Photo-voltaic parts
- Medical parts
- Cleanroom components
- Kitted and bare PCBs
- Doors
- Machined plastics

SPECIFICATION

There are two sizes of Roto-Clean, with diameters of 112 mm and 178 mm, which can be used individually or joined together to clean wider objects.

DIMENSIONS

Diameter: 112 mm or 178 mm



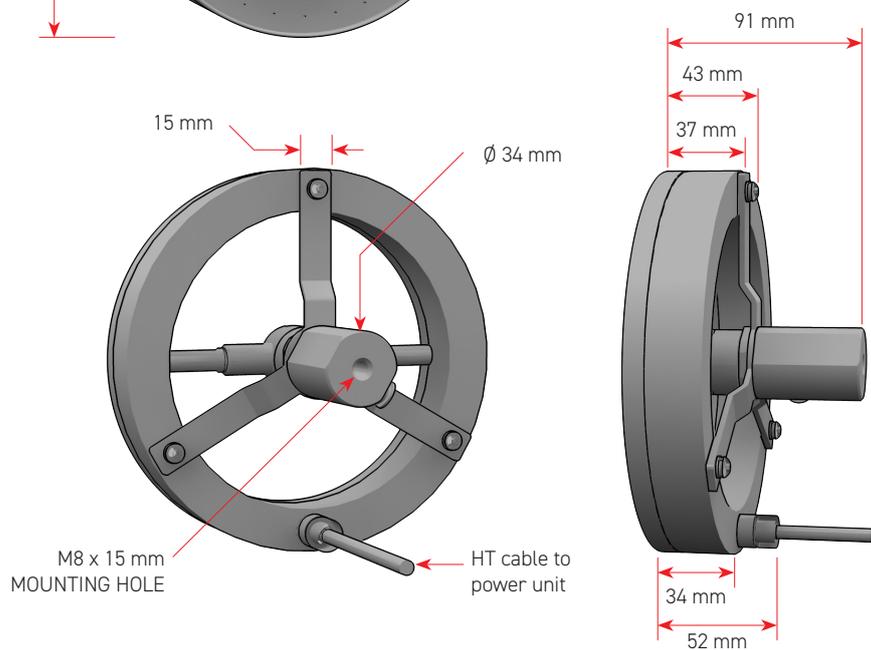
COMPRESSED AIR

The air must be clean and dry. The operational pressure is from 1 Bar to 3.5 Bar maximum pressure. Typical working pressure 2 Bar.

	Air Consumption litres/minute		
	1 Bar	2 Bar	3.5 Bar
Roto-Clean 112 mm	78	82	86
Roto-Clean 178 mm	87	91	97

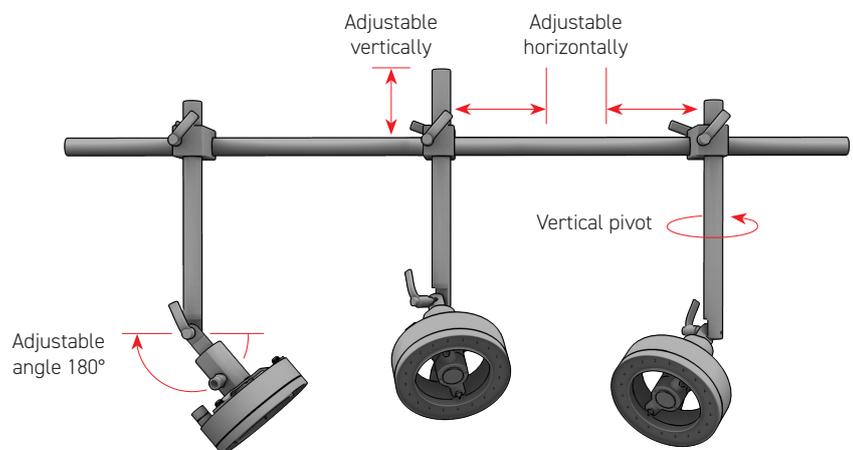
A sensor is recommended to control the airflow so that it operates only when the material to be cleaned is present.

Air fitting: 8 mm push-in type.



ROTO-CLEANS USED IN SERIES FOR WIDER PRODUCTS

For mounting Roto-Clean onto a 25 mm rod, use Mounting Kit (Part No. 49002).



OPERATION

The rotating nozzles are air powered by a patented centrifugal control and are designed to run freely as contact with other objects could damage them.

The constructive alignment and a corresponding compressed air supply routing provide effective protection from lubricant leakage from inside the bearing or penetration of contamination.

The bearings of the rotating nozzles are spaced apart from the active compressed air by internal seals.

Further sealing measures of the bearing chamber prevent loss of lubricant due to leakage.

Operating above the maximum pressure of 3.5 Bar could cause overpressure damage.

POWER UNIT

The Fraser HP Power Unit can supply up to four Roto-Clean devices. It requires a 115 V or 230 V 50/60 Hz supply.



Please see Power Unit datasheets to see the choice available, which includes remote monitoring and alarm systems.

CABLE

3 m of screened hi-Flex HT cable are supplied. Longer lengths can be specified at time of order. The cable is suitable for most robot applications.

MATERIALS

Static eliminator: Anodised aluminium, PVC, epoxy resin.

Air parts: Stainless steel, aluminium and brass (air nozzles).

ENVIRONMENTAL

Operating conditions: 0 – 50 °C; max humidity 70 % rH. The rotating nozzles should not come into contact with damp or aggressive media.

Noise: < 80 dBA at 1 m lateral distance, without product.

SAFETY

Electrical: The static eliminator ring is shockless and safe to use in normal industrial applications. Emitter pin current is <100 µA. The HP Power Unit output is current limited to 5 mA.

For ATEX applications please contact Fraser.

Mechanical: The rotating energy of the rotating nozzle is low. While contact with the moving nozzles could be painful, no danger of injury exists.

STANDARDS

2014/30/EU EMC Directive
2014/35/EU Low Voltage Directive
2011/65/EU RoHS 2



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All of our datasheets and specifications are published on our website.

