

4900 ROTO-CLEAN

A REVOLUTION IN ANTI-STATIC CLEANING

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

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

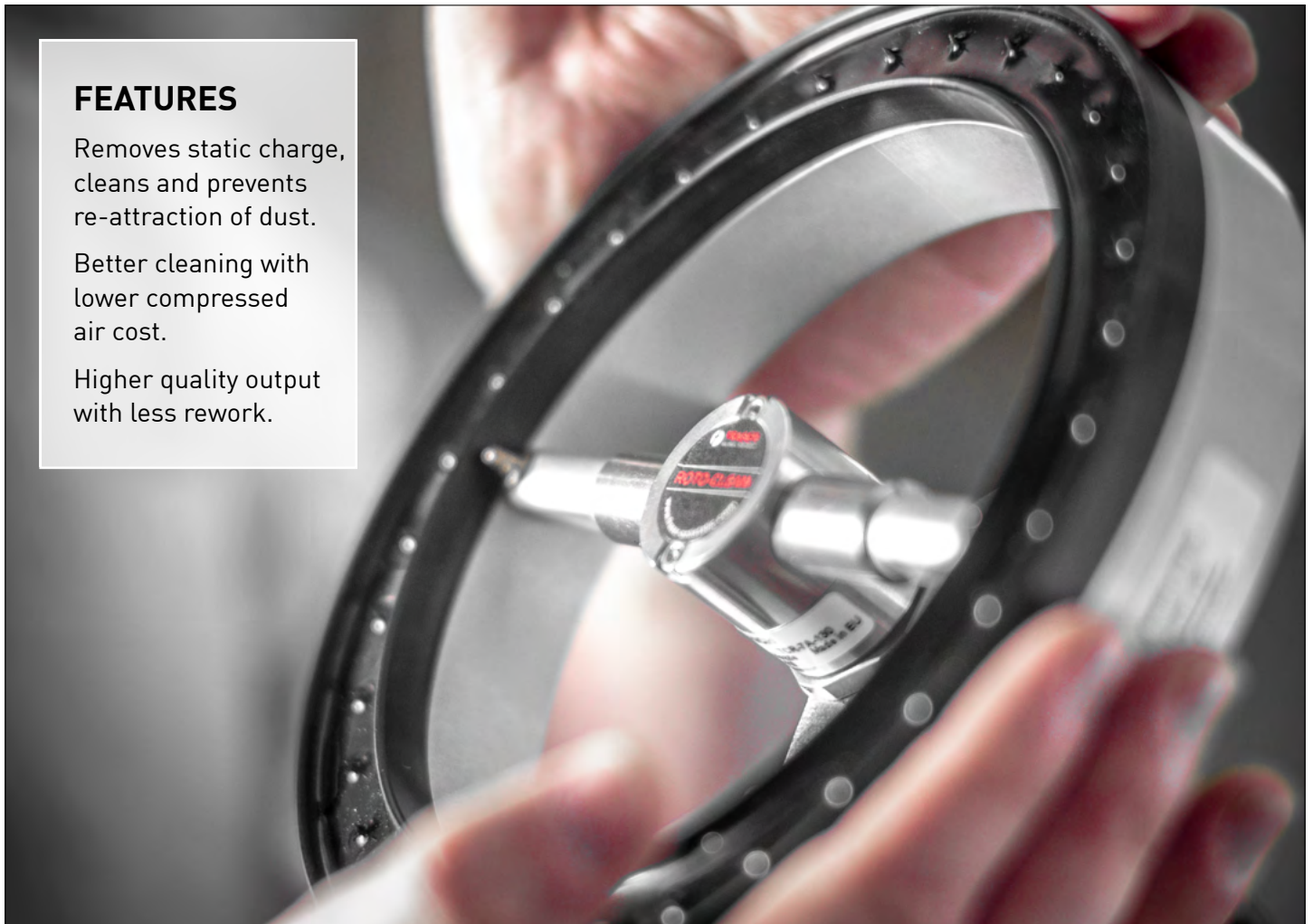
Roto-Clean features unique ionising technology from Fraser to neutralise static and blast away dust and contaminants

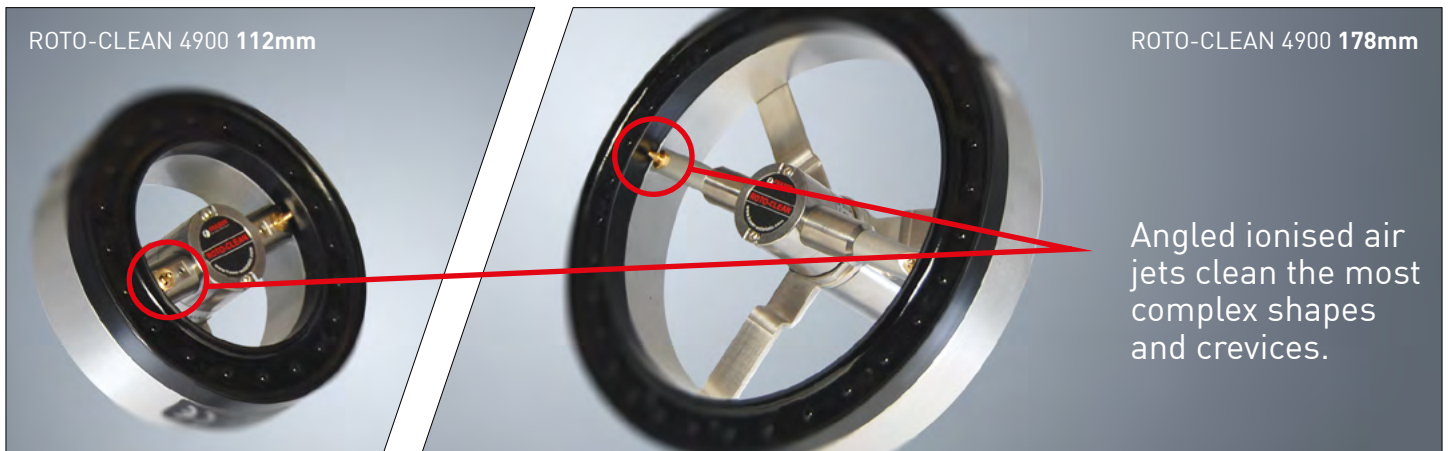
FEATURES

Removes static charge, cleans and prevents re-attraction of dust.

Better cleaning with lower compressed air cost.

Higher quality output with less rework.





HOW ROTO-CLEAN WORKS

Roto-Clean consists of a rotating dual nozzle integrated into a unique ring ioniser.

A patented centrifugal control rotates the nozzles at high speed to give 360° of high thrust, pulsating cleaning and static neutralisation.

The air powered nozzles rotate at up to 60 rps producing a pulsed flow of ionised air that hits the product at up to 240 times per second, blasting away contamination from various angles to clean complex shapes and crevices.

See video at
www.fraser-antistatic.com/4900-ROTO-CLEAN

BENEFITS AT A GLANCE

- Thorough cleaning and static neutralisation reduce rejects and reworking.
- Multi-direction airflows clean the most complex shapes and crevices.
- High performance at a lower running cost.
- Simple to retrofit to conveyors, robot arms and cleaning stations.
- Suitable for any size of product through scalability.

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
- Kitted & bare PCBs
- Doors
- Machined plastics

MAXIMISING EFFICIENCY AND RESULTS

- Best cleaning performance with the lowest air consumption.
- The angled airjets penetrate into crevices and contours on the most complex products.
- Better results than traditional airknives and nozzles.
- The ionised air eliminates the static charge in the product to prevent re-attraction of dust.
- The optimised cleaning and static neutralisation provide fast payback in reduced rejects and reworking.
- Flexibility of installation make it suitable for hundreds of industrial applications.

SPECIFICATION

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

DIMENSIONS

Diameter: 112mm or 178mm

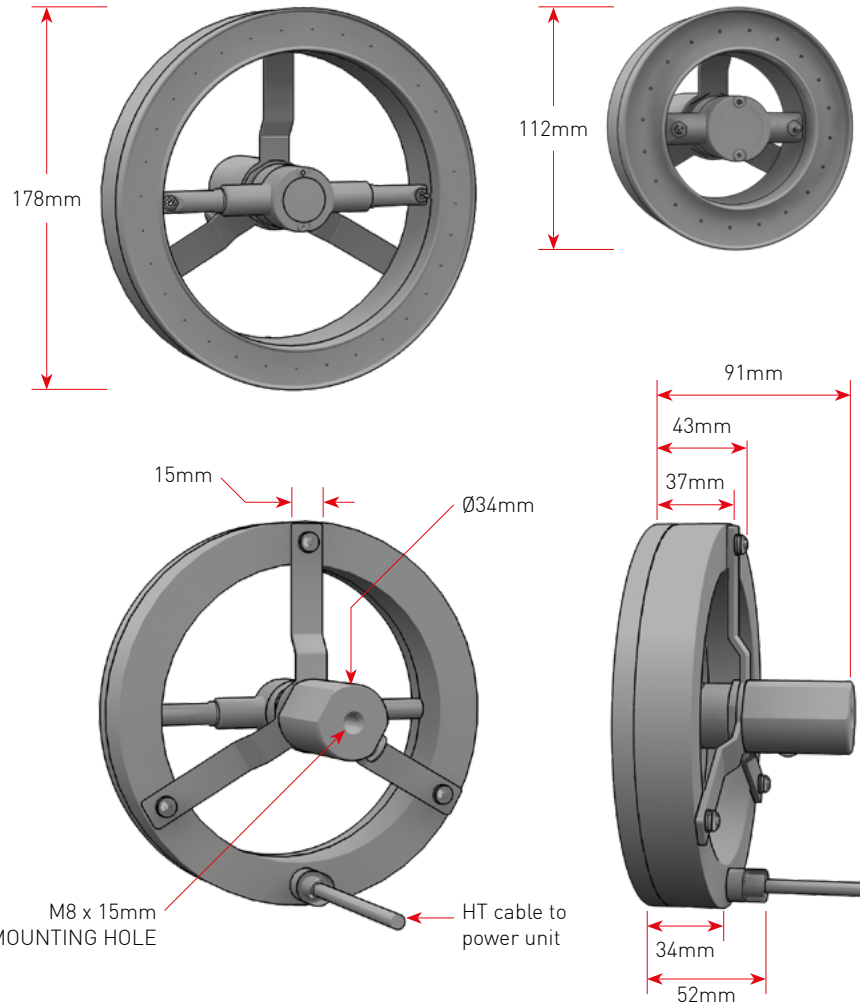
COMPRESSED AIR

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 112mm	78	80	82
Roto-Clean 178mm	87	91	97

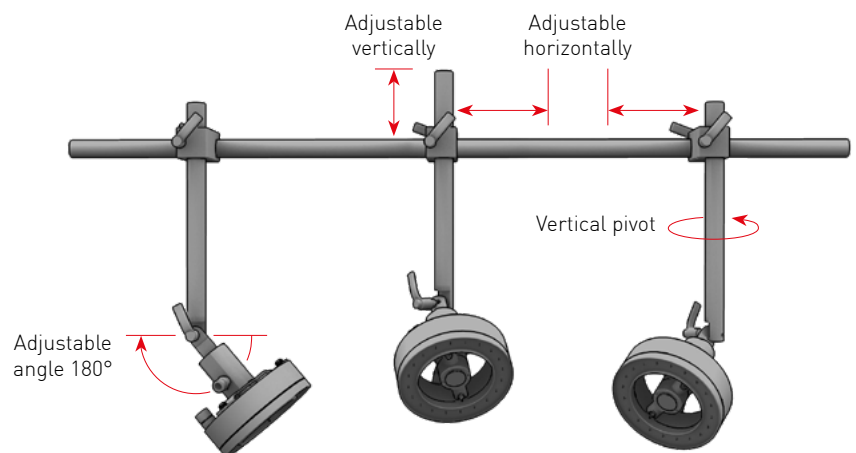
A sensor is recommended to control the airflow so that it operates only when the material to be cleaned is present.

Air fitting: 8mm push-in type.



ROTO-CLEANS USED IN SERIES FOR WIDER PRODUCTS

For mounting Roto-Clean onto a 25mm Mounting Kit P/n 49002



OPERATION

The rotating nozzles are air powered by a patented centrifugal control and are designed to run freely – 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 115V or 230V 50/60 Hz supply.



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

CABLE

3m 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

Nozzles: Stainless steel with brass inserts.

Static eliminator: FR acetal, epoxy resin, anodised aluminium, FR ABS, hardened steel.

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

