4900 ROTO-CLEAN

The 4900 Roto-Clean combines an advanced circular ioniser with high speed, rotating air jets to create a uniquely effective tool for removing dust and contamination from industrial parts.

Twin air-powered jets rotate at up to 60 times per second, delivering a 360° flow of ionised air onto the product at up to 240 times per second, removing contamination and neutralising the static electricity which attracted it. See video at www.fraser-antistatic.com.

PERFORMANCE

- The high thrust ionised air jets create a pulsed air hammer effect to remove dust and static electricity from simple and complex shapes.

ESSENTIAL QUALITIES

- Powerful, 100 % coverage static neutralisation from the circular ioniser.
- Concentrated air from twin rotating jets 'hits' the product at up to 240 times per second. The angle of the air jets changes as the product passes, to achieve the most thorough cleaning of complicated shapes.
- Efficient use of compressed air for low running cost and fast payback.
- Simple to install on conveyors, robot arms and cleaning stations.
- Available in two sizes and configurable for any size and shape of product or process.

CONNECTIVITY AND CONTROL

- Use with Fraser HP Power Units.

APPLICATIONS

- The 4900 Roto-Clean is used wherever a clean and static-free product is needed: injection mouldings, machined parts, assemblies, trays, panels, medical parts, PCBs, etc.



SPECIFICATION

Construction:
Ioniser: Anodised aluminium, PVC, epoxy resin.
Air parts: Stainless steel, aluminium and brass (air nozzles).

Cable:
Hi-Flex 30 kV screened cable with 70 mm bend diameter. Standard length is 3 m, longer lengths can be specified at time of order. The cable is suitable for most robot applications.

Safety:
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.

Power Unit:
Use with Fraser 5.5 kV and 6 kV Power Units. The Fraser HP50-F Power Unit can supply up to four Roto-Clean devices. It requires 115 V or 230 V 50/60 Hz supply. See Datasheets.

Air Supply:
The air must be clean and dry. The operational pressure is from 1 Bar to 3.5 Bar maximum. Typical working pressure 2 Bar. Air fitting: 8mm push-in type.

Environmental:
Clean, dry and oil-free location. 0 - 50 °C, 70 % rH non-condensing max.
Noise < 80 dBA at 1 m lateral distance, without product.

Certification:
CE.

Options:
Available in 2 versions:
4900-112 – 112 mm diameter
4900-178 – 178 mm diameter
Can be used in series - see Roto-Clean Mounting Kit (Part No. 49002) on Page 2.

FRASER Anti-Static Techniques

Fraser Anti-Static Techniques Ltd | Scotts Business Park, Bampton, Devon, EX16 9DN, UK
T +44 (0) 1398 331 114 E sales@fraser-antistatic.co.uk W www.fraser-antistatic.com ©

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.

COMPRESSED AIR

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

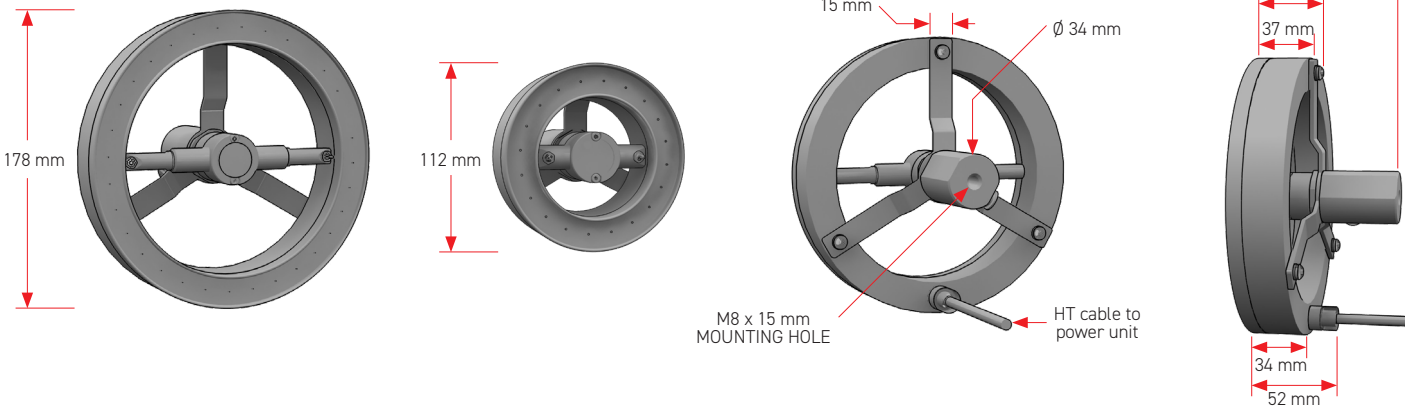
Air must be clean and dry. Typical working pressure 2 Bar, maximum operating pressure 3.5 Bar.

Model	Air Consumption (litres/minute)		
	1 Bar	2 Bar	3.5 Bar
4900-112	140	220	340
4900-178	160	250	400

DIMENSIONS AND CONSTRUCTION

Diameter: 112 mm or 178 mm

They can be used individually or joined together to clean wider objects.



Roto-Cleans Used In Series For Wider Products

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

