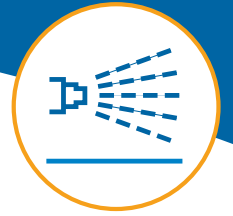


RA-20R Rotary Atomizer



Non-incendive rotary atomizer provides close-in painting for robotic applications.

The patented Nordson RA-20R rotary atomizer introduces the next generation of painting performance and safety. Unlike conventional painting bells, the RA-20R has no minimum sparking distance. As a result, it can be positioned close to parts for optimal coverage and minimal overspray.

The fine atomization and soft spray apply thin, controllable film builds with minimal paint bounceback. The RA-20R can help you achieve a superior finish on your end product, while helping you run a safer, more productive and cost-efficient painting operation.

The RA-20R rotary atomizer's superior performance and reliability are due to a combination of advanced features. These include vector air for superior pattern shaping, long-life air-bearing turbine design, innovative electrostatic charging system, and a patented composite cup. All to help you achieve maximum transfer efficiency with minimal paint waste.



Efficient internal power supply.

A uniquely designed internal power supply steps up the voltage inside the RA-20R instead of at the power source. The internal power supply provides improved safety through better voltage control by replacing traditional cables with flexible, low-voltage cables. These lighter weight cables experience less wear and provide longer life in robotic applications.

Close-in painting for superior performance.

The close-in painting capability of the RA-20R delivers unmatched finish quality and paint savings. You get superior penetration into part contours and recesses. Electrostatic attraction is stronger, for more complete part coverage and reduced touch-up requirements. Overspray is reduced substantially for significant paint savings.

One key to the RA-20R's superior performance is its patented atomizing cup. The composite construction contributes to the non-sparking design, and is actually more durable than conventional metal cups. The atomizing cup will not chip, crack or lose its shape under normal use. In combination with Nordson's proprietary electrostatic charging method, you are assured safe, reliable operation.

Excellent spray-pattern control.

The RA-20R rotary atomizer uses vector air (patent applied for) to control pattern shaping. Since there are no shaping-air holes that can plug with paint, you can reduce rejects and speed maintenance and cleaning. In addition, different cup sizes can be easily changed to meet spray pattern requirements. Spray patterns can be adjusted from as little as eight inches all the way up to 42 inches wide, depending on the coating material used. You can apply the precise amount of paint you need with minimal overspray. This results in reduced paint waste and lower clean-up costs.

A focus on safety.

The RA-20R meets stringent Factory Mutual requirements for "non-incendive" operation. It is also FM approved for use with electrostatic waterborne coating systems when used with the Nordson IsoFlo® HD voltage block. What's more, the RA-20R meets the safety requirements of NFPA-33, CE, CSA and FM.

Since the RA-20R cannot generate a fire-producing spark, there is no minimum spraying distance and no need for expensive high-voltage de-energizing devices.



Eight versions available depending on robot type, spray material and bracket angle.



Vector air

Spray a variety of coating materials.

The versatile RA-20R applies exceptionally fine finishes with a wide variety of coatings. Even if you spray different coatings on the same line, the RA-20R controls can automatically adjust to the correct spray parameters.

Coatings that can be sprayed with the RA-20R are:

- solvent-based
- waterbornes
- waterborne emulsions
- high-solids
- two-component materials
- metallics
- 100-percent solids liquid coatings.

The RA-20R can accommodate varying coating viscosities and formulations. If the coating you spray is not on the list above, give us a call. We will spray your coating in our customer test laboratory to assure satisfactory performance.



0° Bracket



90° Bracket

The Nordson RA-20R: Engineered for maximum paint-line performance and productivity.

- **Close-in painting** for high transfer efficiency and superior penetration into part recesses.
- **Outstanding atomization** delivers fine finishes and precise film-build control.
- **Excellent pattern control** reduces overspray significantly for reduced paint waste.
- **Applies a variety of coatings** including solvent-based, high-solids, waterbornes, waterborne emulsions, two-component materials, metallics and 100-percent-solids coatings.
- **Wide pattern adjustability** – from 8 to 42 inches.
- **Compact size** for easier positioning within spray booth and more freedom of movement in robotic applications.
- **Long-life, air-bearing turbine.**
- **Durable composite cup.**
- **Safe, non-sparking operation.**
- Choice of manual or automatic controllers.
- **Special design** helps prevent backflow into turbine at high flow rates and during flushing operation.
- **The first robotic painting bell to be FM listed as non-incendive for enhanced operating safety.**
- **Enhanced distributor design** speeds cleaning and maintenance.
- **Integral power supply** eliminates the need for bulky electrostatic cables.

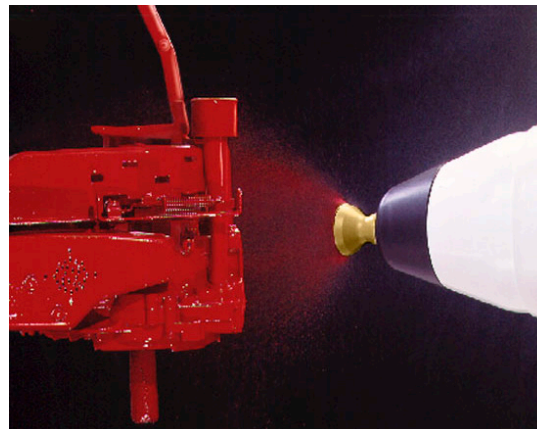
Bracket Angle	Waterborne Versions				Solvent-Based Versions			
	0°	45°	60°	90°	0°	45°	60°	90°
Length, mm (in.)	327 (12.88)	497 (19.56)	459 (18.05)	432 (17.0)	381 (15.00)	532 (20.96)	497 (19.55)	470 (18.50)
Width, mm (in.)	237 (9.34)	216 (8.49)	209 (8.24)	191 (7.52)	237 (9.34)	216 (8.49)	209 (8.24)	191 (7.52)
Diameter, mm (in.)	164 (6.44)	164 (6.44)	164 (6.44)	164 (6.44)	164 (6.44)	164 (6.44)	164 (6.44)	164 (6.44)
Weight, kg (lb) (with 2-inch cup)	4.2 (9.16)	4.6 (10.15)	4.6 (10.07)	4.6 (10.22)	5.3 (11.61)	6.0 (13.21)	6.0 (13.13)	6.0 (13.28)
Center of Gravity L _t , mm (in.)	88 (3.45)	241 (9.48)	183 (7.21)	171 (6.74)	93 (3.67)	245 (9.66)	186 (7.32)	179 (7.04)
L _v , mm (in.)	111 (4.38)	112 (4.41)	135 (5.33)	108 (4.24)	112 (4.40)	118 (4.65)	143 (5.61)	106 (4.19)

RA-20R Rotary Atomizer

System Specifications

Fluid Pressure and Flow	
Fluid pressure	5 – 100 psi (0.34 – 7 bar)
Flow rate, maximum	50 oz/min at 100 psi (1500 cc/min at 7 bar)
Flow rates	270 – 600 cc/min* 130 centipoise material at 100 psi (7 bar), 0.080 orifice: 750 cc/mm
*Dependent on coating material and other operating parameters.	
Turbine Speed	
2" Cup	45,000 RPM max (continuous operation)
2-1/2" Cup	40,000 RPM max (continuous operation)
Air Pressure	
Bearing air pressure	Minimum: 70 psi (4.8 bar) Recommended: 80 – 100 psi (5.5 – 7 bar)
Brake air pressure	Plant supply pressure
Air Consumption	
Bearing air	2.5 scfm at 80 psi (70 l/min at 5.5 bar)
Turbine air (unloaded)	10 scfm (283 l/min) at 40,000 rpm
Vector air	9 scfm at 40 psi (254 l/min at 2.7 bar) 18 scfm at 80 psi (510 l/min at 5.5 bar)
Air Quality	
Clean and dry, with 99% of 0.1 micron contaminants removed.	
Spray Pattern Size	
8 to 42 in. (203 to 1067 mm)*	

*Pattern size is dependent on fluid pressure, turbine speed, material viscosity, and many other variables.



Optional Speed Readout
Magnetic pickup, fiber-optic transmission
Electrostatic Voltage
Internal power supply: 100 kV max

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Why choose Nordson

In highly competitive manufacturing markets, productivity is vital and performance is essential. That's why we apply both to everything we do, whether it's our products, expertise or outstanding customer service. We'll always be there to help maintain the new standards you've set, with expert service and support delivered through our teams working across the globe.

This unique Nordson approach helps you reach new levels of production, while working more accurately, efficiently and competitively than ever. Precisely why manufacturers who demand quality, can rely on Nordson.

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