



# Air Knife Systems

## Reciprocating Air Nozzle Systems

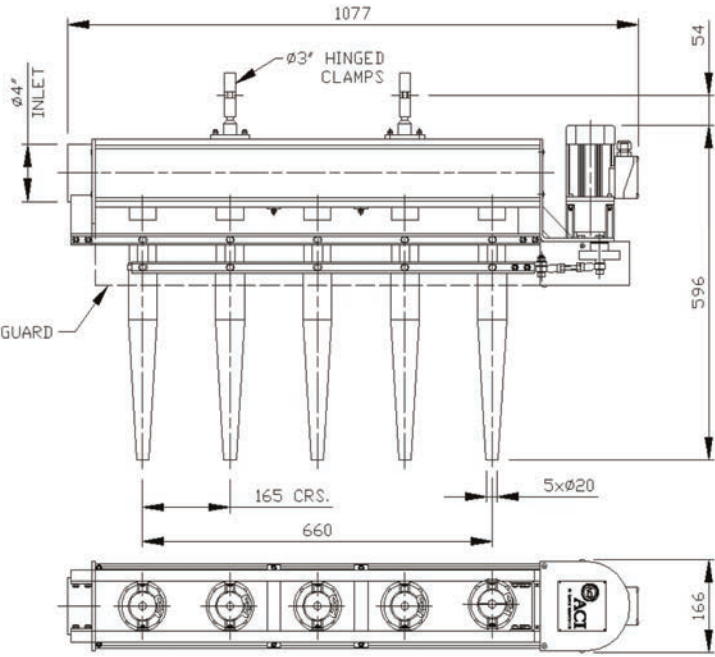
Where products demand a more vigorous air movement action, and particularly when products might be vulnerable to contact or surface damage, ACI's Reciprocating Air Nozzle Systems are ideal for surface drying operations.

Reciprocators employ a bank(s) of flexible nozzles that move back and forth across the product whilst delivering high volumes of air at low pressure. This simple reciprocating action combined with a powerful airflow is capable of dislodging moisture and debris trapped in the most awkward of places - even blind holes.

The nozzles themselves are fabricated from material that is both flexible and hardwearing. They are also simple to fit and adjust. In fact, the flexibility of the material allows the nozzles to be hit or deflected by travelling product without risk of damage to either the product or the reciprocating nozzles. This last feature permits air to be delivered close to the product for further enhancement of drying/cleaning functions.



**Drawing 1 I: Outline Dimensions (Ref: RN5)**



### General Characteristics:

- Nozzles:** Nozzle assemblies are generally made from Polyurethane Encapsulated Woven Nylon. Also available are flexible nozzles made from Dip Moulded PDM:100. Fixed nozzle assemblies used in high temp. applications flexible nozzles made from Kevlar
- Plenum Chamber:** Aluminium as standard, stainless steel options
- Motor:** A wide selection of motors including electric and compressed air types
- Brackets:** Stainless steel 304 as standard
- Nozzles:** Each nozzle orifice = 20mm dia. as standard. Minimum number of 2 nozzles, maximum of 15 nozzles
- Mounting:** ACI design and manufacture a wide variety of mounting assemblies depending on the customer application, including the support frames
- Ducting:** As well as flexible ducting, a modular ducting system has been designed specifically for use with ACI's Drying products. Available in both stainless steel and galvanised mild steel, this system uses a flange system and clamp arrangement for connection of mating sections which allow for ease of installation and readjustment without the need to cut, rivet or seal joints



Drying full Jaguar car bodies

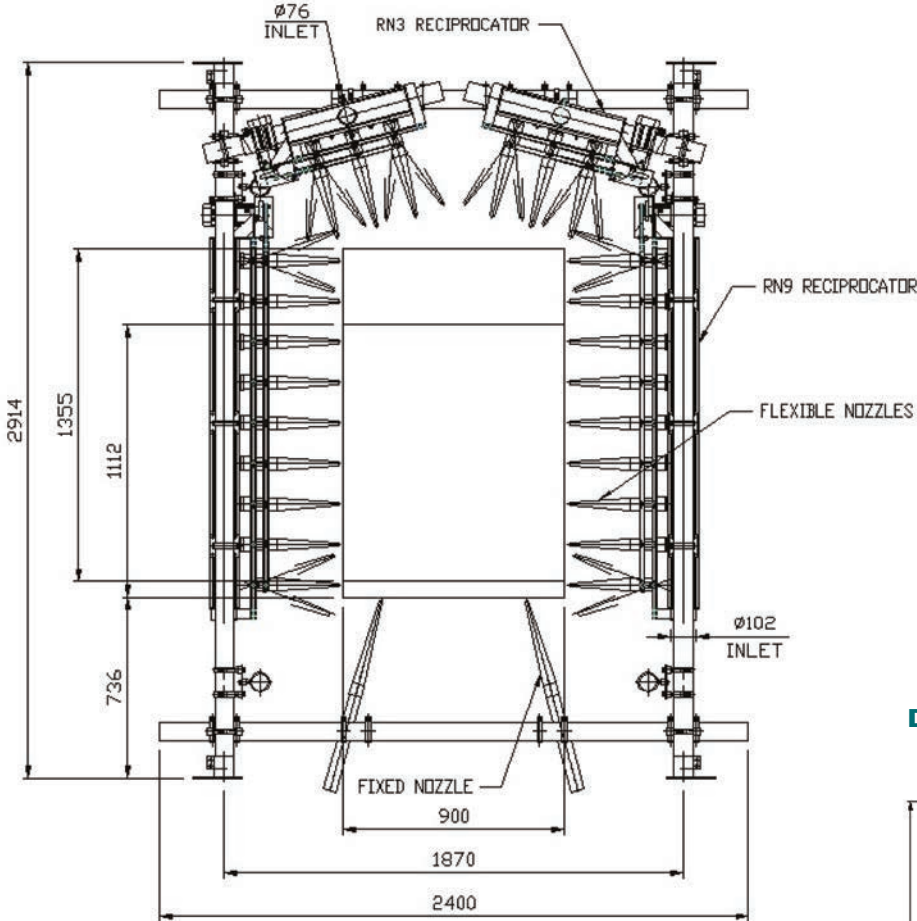
### Typical Drying Applications:

- Totes, crates and baskets
- Automotive bumpers, full bodies and components such as engine sub-assemblies, drive-shafts and interior trim
- Large and/or intricate components such as filing cabinet carcasses, and aerospace parts

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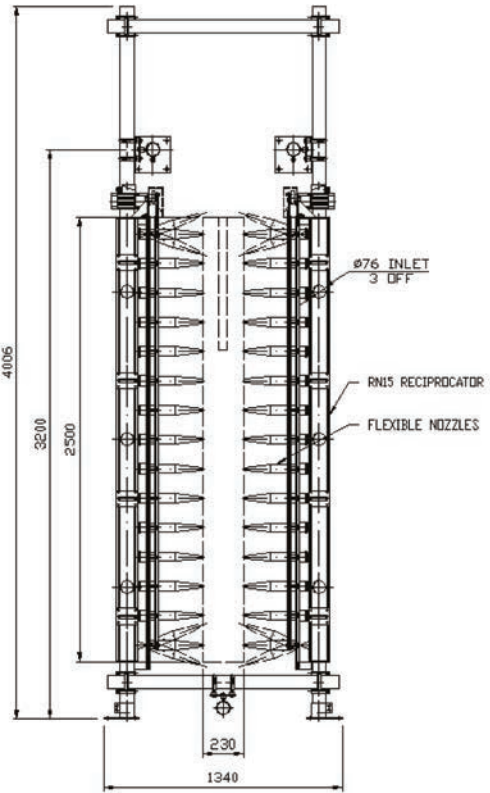
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Drawing I2: Example Reciprocating Nozzle System Outline



Drying truck cabs

Drawing I2: Example Reciprocating Nozzle System Outline



Drying automotive drive shafts

Please note (1) - all drawings measurements are in millimeters (mm)  
Please note (2) - above technical specifications are subject to change