

EcoDry® Compound Dryer



Economical, compact, energy-efficient induction-heating systems for drying water-based end compounds for a wide range of can ends.

Features and Benefits

- Open-door interlock switches
- Over- and under- temperature alarms and shut-downs
- Non-product contact laser motion sensor with required redundant start signal
- Front-panel start-up diagnostics
- System over-temperature protection
- Integral exhaust blower purges moist air from induction tube
- Easy installation, all electronics housed in common enclosure
- Small footprint dimensions
- Low wattage
- Hinge open lid for tooling access — fast and easy tooling changeover
- Mounting holes for integration of rod cage work

The Nordson EcoDry® Compound Dryer is specifically designed for smaller production lines with a wide range of can ends. Nordson dryers are designed specially for water-based end compounds using Nordson patented induction-heating technology. These dryers require only a fraction of the floor space of conventional dryers and are economical to operate.



All Nordson dryers use reliable, solid-state components to provide controllable, even heating without water-cooling.

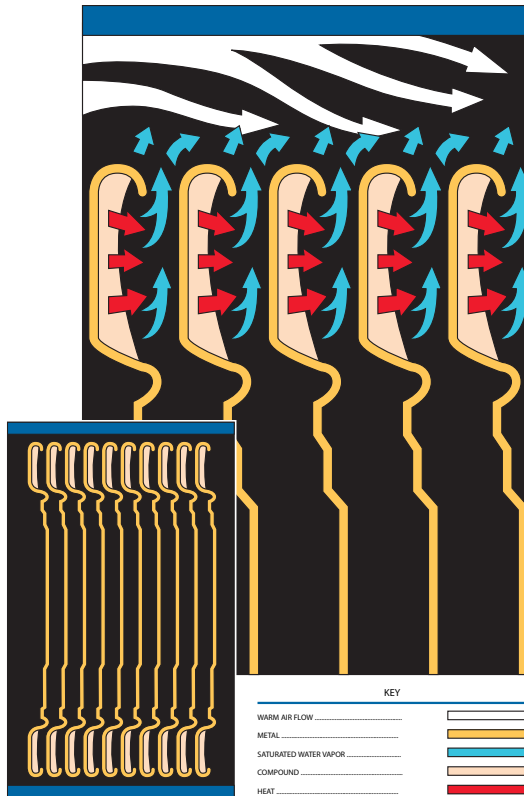
Nordson Advanced Induction

Nordson induction-drying technology heats only the can end, not the air around them. Conventional hot air heating systems heat the air surrounding the compound so the top surfaces dry first causing blistering as the trapped water inside the compound escapes. Induction heating allows compounds to dry from the metal out making the drying process faster and more complete.



Nordson dryers are ideal for both aluminum and steel ends. All Nordson induction dryers use reliable, solid-state components to provide controllable, even heating without water-cooling. A simple blower cools all electrical components.





Compound drying using induction heat

Economical, Compact Size, Straight-Through Design

The EcoDry compound dryer runs more efficiently, at a lower wattage than our regular ICD-model dryers, and its compact size allows for easy retrofit to existing end lines without major modifications.

The straight-through tube virtually eliminates the problem of line stoppages due to ends jamming in the dryer. Ends are heated in stick, which protects the compound from damage during drying. With many conventional dryers, the ends follow a snake-shaped path inside the dryer, which can lead to line jams and damaged curls.

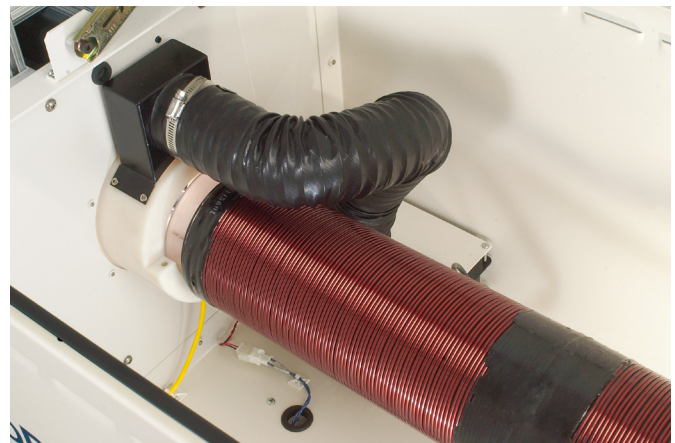
Warm air is blown through the EcoDry's heating tube while the ends are heated inductively. The heated air, although not needed to heat the ends, aids in the removal of water vapor as it evaporates from the compound. Even without visible separation, water evaporates and escapes from the slight gap between ends. The flow of warm air in the tube continuously removes water vapor and condensation, allowing the drying process to continue rapidly.

Energy Efficiency and Savings

The EcoDry compound dryer runs on a lower wattage than standard dryers while 85 to 90 percent of the power consumed is used directly to heat the ends, making it the economical choice in smaller production environments. The system can cure up to 475 can ends per minute (per lane).

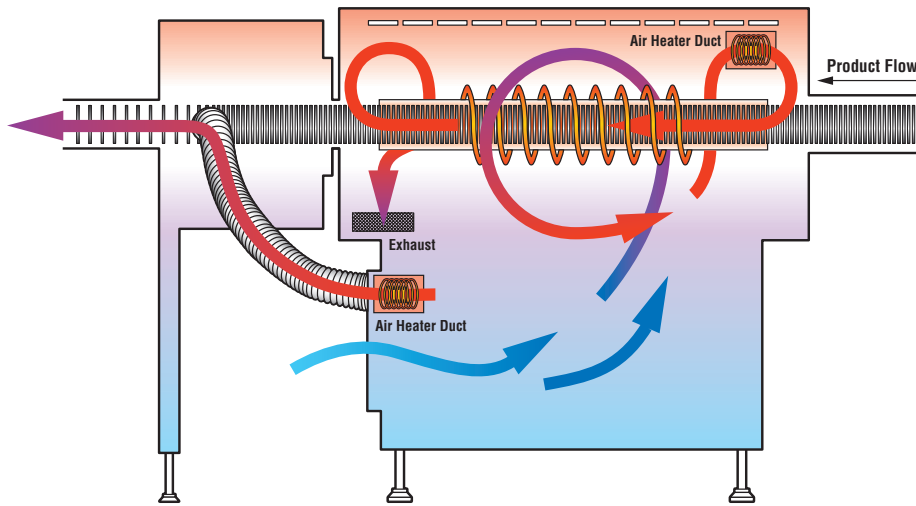
Instant-on/instant-off heating not only gives consistent drying for a quality product, but also contributes to energy savings by substantially reducing energy waste by shutting off during line stoppages. The EcoDry compound dryer starts instantly when the line restarts and requires no preheating time, so energy is used only when ends are in the unit.

Since the ends are not heating when the line stops, they do not lose buckle strength, which is common with convection ovens. Buckle strength drops when aluminum ends are held at high temperatures for an extended period of time. The lighter weight metals in use today are particularly sensitive to overheating.



Ends are heated in stick, to protect the compound from damage during the drying process.

System Airflow



- 1 Air is taken into the base area for pressurizing
- 2 Pressurized air cools the coils
- 3 Warm air is ducted through the make-up heater
- 4 Heated air is ducted over the ends to remove moisture
- 5 Moisture-laden air is removed from induction tube with exhaust blower
- 6 Optional magnetic separator uses heated air to absorb residual moisture as ends are separated



Simple, Automatic Operation

The EcoDry compound dryer is controlled by a PID closed-loop temperature controller, which automatically controls the correct heating of the ends with minimal operator intervention.



This provides consistent drying without the seasonal variations typical of convection ovens. During start-up, a PLC performs an extensive self-diagnostic check for proper operation of the unit.

The unit monitors the heating and safety components on a continuous basis for safe, reliable operation. In the event of an electronic malfunction, fault indicators on the control panel are provided to identify the source of the malfunction for fast troubleshooting with minimal downtime.

Operating Parameters

Dimensions: Length	45 in. (1143 mm) without separator
Width	24 in. (610 mm)
Height	46 in.* (1170 mm) * varies with line height
Voltage	380-480 VAC 50 or 60 Hz
Wattage	up to 12 kW
Single-lane can size range	2 in. (52 mm) to 6.8 in. (175 mm)
Dual-lane can size range	2 in. (52 mm) to 4.3 in. (109 mm)

Optional Features

S-1 magnetic separator for steel ends only

EcoDry Model Numbers

ECD-SS-S0	EcoDry, single lane, small tool set, no separator
ECD-SS-S1	EcoDry, single lane, small tool set, with separator
ECD-SL-S0	EcoDry, single lane, large tool set, no separator
ECD-SL-S1	EcoDry, single lane, large tool set, with separator
ECD-DS-S0	EcoDry, dual lane, small tool set, no separator
ECD-DS-S1	EcoDry, dual lane, small tool set, with separator

Safe, Consistent Operation

The patented induction-heating method operates at frequencies well below 20 KHz. The lower frequency of the EcoDry dryer provides safe, controllable heating deep within the ends, providing fast, thorough drying.

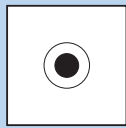
Magnetic Separator for Steel Ends

An optional magnetic separator located at the dryer exit accelerates the drying of steel ends. Carefully calibrated, permanent magnetic arrays separate the ends while warm air is blown between them. Ends are heated safely in stick then separated. The warm air dries compounds quickly at the point where the moisture is most easily removed. The magnetic separator has no moving parts for simple, reliable operation.

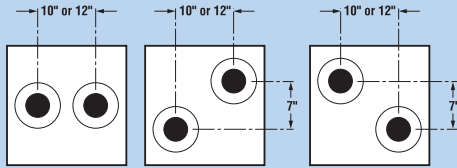


The EcoDry dryer for induction end-compound is available as single - or dual-lane units and accommodates a variety of lane configurations.

Single Lane



Dual Lane Configurations



Certifications

ANAB ISO 9001, TUV/CE, TUV/US

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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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Find your local Nordson office:
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Performance by design

The Nordson logo, featuring a blue swoosh above the word 'Nordson' in a bold, blue, sans-serif font.