The Nordson iControl® 2 integrated control system builds on Nordson’s extensive controls knowledge and technology to integrate all powder control functions into an easy-to-operate, single system. It features closed-loop digital flow modules for consistent coating quality, a built-in dual 128MB flash card unit for operating system and program storage/expandability, single board computer, and 12” LCD full-color touch screen graphic interface display with icon-based graphics in a single, dust-tight enclosure.

The iControl 2 system can accept input from part identification sensors for gun triggering, and in/out positioning, and can accommodate up to 255 presets allowing operators to adjust various gun control parameters such as flow rate, atomizing, KV and current for various part styles. Included are five advanced coating modes – Standard, Reccoat, Deep Recess, Special for dry blend metallic and mica based powders, and a User-Programmable mode that can be customized for specific part configurations or application parameters.

The system also features a “Percent Adjust” function for global adjustment to preset airflow settings to compensate for changes in the coating environment.

User-programmable presets for in/out positioning of gun movers and reciprocator control

For in/out positioning of guns, features include user-programmable presets for launching, contouring, and positioning based on part depth, shape and width. Automatic gun-mover control provides additional application flexibility and greater film-build control.

For reciprocator control, features include user-programmable presets for variable-stroke speed and variable-stroke length. Reciprocator control provides additional flexibility and greater control for varying part heights and part speeds.
Advanced central controller design for ease of operation

With the iControl 2 system, all gun and system parameters are easily accessible through a single 12” LCD color touch screen icon-based graphic controller. Adjustments to various gun parameters such as atomizing, flow rate and KV can be made using the onscreen touch slide controls. The single control panel includes dual flash card unit. Each card slot accepts a 128MB commercially available flash card that can be used to back up system operating parameters, as well as store additional application parameter presets for a virtually infinite number of part styles. Also included on the main control panel are a conveyor interlock/bypass key switch, and a single switch for on/off adjustment of automatic spray mode.

Icon-based graphics make set-up and operation easy in any language

Color touch screen icon-based graphics of the iControl 2 system are easy to understand, making system set-up and operation intuitive, unlike conventional control systems that require translation into various languages. System and application set-up is made simple with easily identifiable and configurable graphics for part identification sensors, encoder or proximity sensor pulse and scaling, and lead/lag pickup points for gun triggering.

Gun control is easy in either manual or automatic mode allowing control of flow rate, atomizing, KV and current for individual guns, or all guns through use of the “copy all” function. Similarly for gun status, individual guns or all guns at one time can be viewed to display gun parameters and presets for various part styles.

Closed-loop digital flow technology ensures optimum gun and system performance

Closed-loop digital flow control continuously compensates for variations in air supply pressure to the console, ensuring stable air input to the pump. Closed-loop control ensures that airflow to the pump always matches operator settings for flow rate and atomizing. Constant and consistent airflow to the pump results in more stable and consistent powder flow to the gun. This translates into optimum usage of powder material and improved system efficiency.

The iControl system is also available in a pedestal-mount version, allowing it to be placed in a location that offers easy operator access.

Technical specifications

<table>
<thead>
<tr>
<th>Dimensions: Height/Width/Depth</th>
<th>64.13 in (163 cm) 24.0 in (61 cm) 23.0 in (58.4 cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input air pressure: Min/Max</td>
<td>90 PSI (6.2 bar) 110 PSI (7.6 bar)</td>
</tr>
<tr>
<td>Air consumption (typical)</td>
<td>6 scfm (.17 meter³/min.) per gun**</td>
</tr>
<tr>
<td>Filtration</td>
<td>Air must be clean and dry. Maximum oil vapor in compressed air 0.1 ppm. Maximum water vapor in compressed air 0.48 grains/ft³</td>
</tr>
<tr>
<td>Electrical</td>
<td>Input voltage 100 to 230 VAC, 1 phase, 50–60 Hz, 10 A. Output voltage 6 to 21 VDC</td>
</tr>
</tbody>
</table>

* This covers normal continuous gun operation as well as intermittent gun purge.