

# Series AD-31 Handguns



**Compact, lightweight handguns offer a wide range of pattern capabilities and durable design for manually operated adhesive and sealant applications.**



Nordson® Series AD-31 Handguns combine efficient design and reliable performance for manually dispensing hot melt adhesives, sealants and other thermoplastic materials. The wide selection of models satisfies a full range of applications, including packaging, assembly and sealing operations.

The series consists of various models for producing solid or foamed extrusion beads, spray patterns and swirl spray. For handling high-viscosity or filled materials, AD-31 LBS Extrusion handguns incorporate a large ball-and-seat and larger flow paths.

Designed with the operator in mind, lightweight AD-31 Extrusion and Swirl handguns weigh less than two pounds.

A distinctive "ever-cool" handle contains no heated components or

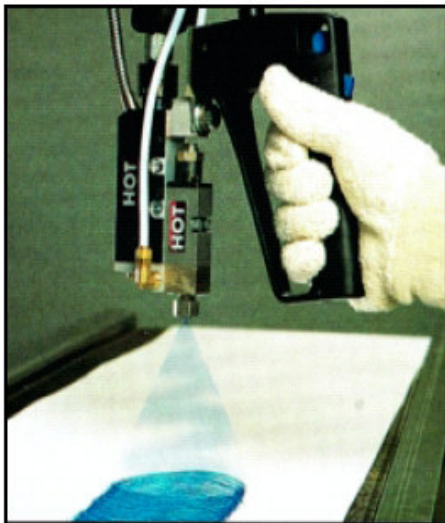
adhesive-flow paths that could cause discomfort to the operator. Heated gun components are totally enclosed within the exterior gun shell, helping to reduce the risk of burns.

Capable of standing up to the most demanding applications, AD-31 handguns feature an impact-resistant molded shell for extended service life. To eliminate hose twisting, AD-31 Extrusion and Swirl models feature a 360-degree swivel connector.

A broad product range allows compatibility with most Nordson applicators and drum melters. Selection depends on the applicator specified, as well as pattern desired,

material viscosity and output rate requirements. Depending on the applicator design, handguns employ either an RTD sensor (resistance temperature detector) or a preset thermostatic temperature sensor. RTD sensing reduces temperature fluctuations that could negatively affect flow and cause adhesive char formation. A wide operating temperature range of 130° to 450°F (55° to 230°C) provides additional application versatility.

# Nordson® Series AD-31 Handguns



The ergonomically designed Series FP-200 Gun helps minimize physical stress and fatigue and provides dependable performance and application flexibility.



Extended nozzles used with AD-31 Extrusion handguns allow easy access and deposition control into tight areas.



The lower heat density of AD-31SW swirl-spray patterns minimizes thermal distortion on heat-sensitive substrates.

## Features and Benefits

- Compact, lightweight design ensures handling ease.
- "Ever-cool" handle provides comfortable operation and helps reduce risk of burns by containing heated components and adhesive-flow paths within the gun body, not the handle.
- AD-31 Extrusion handguns accept a variety of standard and extended nozzles with varying orifice diameters to meet numerous application requirements.
- AD-31SW Swirl handguns, based on Controlled Fiberization™ technology, permit exceptional control of pattern density and thickness. Precise control of pattern width provides the ability to deposit adhesive to within 0.25 inch (6.4 mm) from substrate edges. Pattern widths are available from 0.25 to 6 inches (6 to 152 mm).
- AD-31S Spray handguns generate spray patterns up to eight inches wide. Independent controls for pattern and atomizing air allow quick adjustment of the spray pattern's size, shape and density.
- LBS versions efficiently handle high-viscosity materials. Models used with gear-pump Series 5000 Drum Melters incorporate a microswitch in the gun handle to control the motor clutch and regulate adhesive flow.

## Specifications

### Type of Pattern:

AD-31: extrusion  
AD-31SW: swirl  
AD-31SW-WP: swirl wide pattern  
AD-31S: spray

**Maximum Operating Temperature:**  
450°F (230°C)

**Maximum Hydraulic Pressure:**  
1500 psi (10.34 MPa)

### Extrusion Nozzle Orifice Diameters:<sup>1</sup>

Standard: 0.020 to 0.093 in.  
(0.5 to 2 mm)  
Extended: 0.025 to 0.156 in.  
(0.6 to 4 mm)

### Spray Pattern Width/Nozzle:<sup>1</sup>

AD-31SW: 0.25 to 1.5 in.  
(6 to 38 mm)  
AD-31SW-WP: 1.5 to 6 in.  
(38 to 152 mm)  
AD-31S: 2 to 8 in.  
(51 to 203 mm)

### Spray Air Pressure:<sup>2</sup>

AD-31SW: 0 to 15 psi  
(0 to 0.1 MPa)  
AD-31SW-WP: 5 to 80 psi  
(0.03 to 0.56 MPa)  
AD-31S: 40 to 80 psi  
(0.28 to 0.56 MPa)

### Maximum Air Consumption:<sup>3</sup>

AD-31SW: 1.2 scfm  
AD-31SW-WP: 2.5 scfm  
AD-31S: 4 scfm

### Electrical Requirements:

240 VAC, 50/60 Hz  
120 VAC, 50/60 Hz  
100 VAC, 50/60 Hz

### Weight:

AD-31: 1.75 lb (0.8 kg)  
AD-31SW: 1.75 lb (0.8 kg)  
AD-31SW-WP: 1.75 lb (0.8 kg)  
AD-31S: 3.25 lb (1.5 kg)

### Notes:

1. Nozzles must be ordered separately.
2. Recommended range.
3. Includes operating air and spray air requirements.

## Dimensions

| Handgun                       | Length-in.<br>(mm) | Depth-in.<br>(mm)* | Width-in.<br>(mm) |
|-------------------------------|--------------------|--------------------|-------------------|
| AD-31, AD-31SW,<br>AD-31SW-WP | 7.38 (188)         | 6.31 (160)         | 1.62 (41)         |
| AD-31S                        | 8.40 (213)         | 8.25 (210)         | 2.08 (53)         |

\*Without nozzle



**ISO 9000**

QUALITY SYSTEMS



Nordson Corporation  
11475 Lakefield Drive  
Duluth, Georgia 30097-1511  
Toll Free (800) 683-2314  
www.nordson.com