



# Freedom<sup>®</sup> Adhesive Dispensing Systems

## System and Component Specifications

# Freedom® Adhesive Dispensing Systems

Packaging Equipment that Pays You Back



### Freedom Series Melter

- Tankless, virtually eliminates char
- Saves energy
- Fast system start up
- Flexible mounting and integration



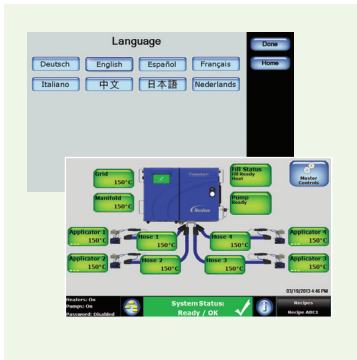
### Integrated Adhesive Filling

- Level monitoring window
- Quick change exhaust filter
- Quick-disconnect pump
- Removable cyclone top

Type of System	Tankless, automatically filled, non-circulating, 15:1 dual acting piston pump
Maximum Pump Rate	33 kg/hr (72 lb/hr) at 90 strokes/min
Filter Type	Inside/out
Maximum Working Hydraulic Pressure	10.3 MPa (1500 psi)
Temperature Range	40 to 204°C (100 to 400°F)
Ambient Temp. Range	0 to 40°C (32 to 104°F)
Temp. Control Stability	± 0.5°C (±1°F)
Input/Output Capability	4 inputs & 3 outputs
Hose Ports	Up to four
Electrical Service	200 to 240 VAC, 1 or 3 phase, 50/60 Hz 1 phase N/PE 50/60 Hz 400/230 VAC
<b>Transformer Option</b>	400/480 VAC 3 phase 50/60 Hz, 15 kVA
Melt Rate (per hour)	9 to 12 kg/hr (20 to 27 lbs/hr)
Maximum Hose/Applicator Power Capacity	
2 hoses/applicators	2000 W*
4 hoses/applicators	4000 W*
	<i>*2000 W per 2 hose/2 applicator pair: 1200 W per hose/applicator pair and 1000 W per single channel</i>
Melter Enclosure Rating	IP 54
Melter Weight (empty)	45.4 kg (100 lb)
Dimensions W x H x D	838mm x 533mm x 279mm 33" x 21" x 11"
Installation mm (in)	Service Envelope (WxHxD) 889mm x 787mm x 406mm 35" x 31" x 16"

Adhesive Forms	Pellets
Maximum Size	7.0 mm (0.275 in) spherical
Adhesive Transfer Maximum Rate	275 kg/hr (600 lbs/hr) (dependent on adhesive type)
Operating Air (Dynamic)	Minimum Pressure 2.75 bar (0.275 Mpa or 40 psi) Maximum Pressure 5.5 bar (0.55 Mpa or 80 psi)
Operating Air (Static)	Maximum Pressure 6.9 bar (0.69 Mpa or 100 psi)
Total Air Consumption	17 CFM at 3.4 bar (50 psi) to transfer 105.3 kg/hr (232.2 lb/hr) with a 4-m hose at a 4-m rise 22 CFM at 4.1 bar (60 psi) to transfer 112.5 kg (248 lb/hr) with a 9-m hose at a 4-m rise 30 CFM at 6.2 bar (90 psi) to transfer 90.7 kg/hr (200 lb/hr) with an 18-m hose at a 4-m rise
Conditioning	Dry, non lubricated
Air Inlet Connection	3/8" NPT
Transfer Pump Type	Venturi
Filter Mesh Size	6 MERV
Adhesive Storage Container Capacity	40Kg (88 lb) usable with grate 64 Kg (141 lb) usable without grate
Enclosure Rating	IP54





### Optix Controls

- Text-based fault and diagnostic messaging
- Component identification functionality
- Choice of languages
- Touch screen GUI

Program Storage	50 with customer-defined name
Service Intervals	1 customer settable (with customer-defined name)
Password Protection	3 levels, numerical
Touch Screen	7-inch color, (800 x 480 WVGA)

### EcoBead™ Intermittent Bead Capability

Adhesive Savings	30-40-50-60%
Pre-programmed Patterns	10 per glue savings selection (total of 40)
Beads per Product	1 to 8

### System Inventory

Automatically Identified Components	Hoses, applicators, melter
Displayed Information	Part number, serial number, installation date

### Electronic Nameplate Information

Watts, amps, voltage

### Input/Output Interface

Inputs	4, customer assignable functions
Input Voltage	10 to 30 VDC, polarity insensitive
Outputs	3, customer assignable functions
Output Type	N.O. potential free contact. All open when melter is off
Contact Rating	240VAC @ 2A and 30VDC @ 2A

### Temperature Control

Stability	± 0.5°C (±1°F)
Temperature Range	40 to 204°C (100 to 400°F)
PID Control Values	Optimized by component I.D.



### Freedom Series Hoses

- Energy saving
- Easy routing with mounts
- Component I.D. enabled

Maximum Operating Temperature	204°C (400°F)
Maximum Hydraulic Pressure	10.34 MPa (1500 psi) diameter
Input Voltage	240 VAC



### Freedom Series Applicators

- Single body for multiple module types
- Industry best service life
- Self-cleaning modules

Operating Temperature	204°C (400°F) maximum
Operating Air Pressure <sup>1</sup>	3.4 to 5.5 bar (50 to 80 psi)
Working Hydraulic Pressure	103 bar (1500 psi) maximum
Nozzles	MiniBlue® II: Saturn®, standard MiniBlue II SureBead®: .008, .012, .016, .020, .032, .040
Saturn® Solenoid Valves	Single module: SP, 4-way, 24 VDC Multi module: SP multi-module, 4-way, 24 VDC
Electrical Service	240 VAC, 50/60 Hz initial 200 VAC, 50/60 Hz optional
Maximum Cycle Rate	8000/min
Minimum Bead Deposition	2ms (adhesive dependent)
Adhesive Viscosity	500 to 1500 cps optimal 500 to >5000 cps capability
Hydraulic Seal	Elastomer bellow (long service life)

## Start Saving Now

The typical Freedom system pays for itself in 12 months or less and continues to save you money throughout the life of the system.

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For more information, talk with your Nordson representative or contact your Nordson regional office.

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**Nordson Corporation**

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