

# ProBlue Liberty™ ATS

Integrated Tankless Melter and Fill System with Adhesive Process Control

Combines tankless technology with an adhesive tracking system (ATS) to optimize adhesive consumption and production efficiency



A consolidated tankless melter and fill system maintains consistent adhesive levels, increasing uptime while delivering energy and maintenance savings that result in increased operating efficiency and lower per-package costs.

A sensor in the reservoir monitors molten adhesive levels in the hopper and alerts the system when adhesive is needed. The closed system helps maintain adhesive bond strength by minimizing degradation that comes from prolonged thermal exposure, temperature variation and exposure to contaminants.

An integrated precision gear flow meter directly measures adhesive volume and alerts the system when the amount of adhesive is out of a pre-determined band. The output signal can be used to stop the line, eject product or signal a light tower. By tracking the precise amount of adhesive dispensed onto a package, users can minimize adhesive waste and prevent pop-opens.



## Features

- Track total adhesive consumption, per package add-on weight and total number of products
- Download historical data via USB for process analysis
- Hopper lid allows for easy access and sealed design maintains adhesive purity by protecting from plant debris
- Automatic pressure discharge valve relieves pressure into melter in seconds
- Service, maintenance and daily operation can be performed from one side of the melter
- Real-time monitoring and control via optional Ethernet IP & Fieldbus
- User adjustable adhesive volume upper and lower tolerance band limits to identify out of tolerance product

## Benefits

- Improves product quality and bond strength by maintaining consistent adhesive temperature, purity, bead volume and confirming adhesive add-on weight
- Increases plant operating efficiency by lengthening maintenance cycle and parts life while reducing machine jamming from pop-opens
- Reduces costs by identifying adhesive and product waste



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## Specifications

<b>Maximum melter set point</b>	204°C (400°F)
<b>Adhesive Forms</b>	Pellets Pastilles: up to 12 mm (0.472 in. diameter) Mini-slats: up to 12 mm x 12 mm (0.472 x 0.472 in.)
<b>Adhesive Storage Container</b>	See Adhesive Storage Container Data Sheet
<b>Type of System</b>	Non-circulating grid/hopper (15:1 SP-style piston pump)
<b>Maximum Pump Rate</b>	32.7 kg/hr (72 lb/hr)
<b>Maximum Working Hydraulic Pressure</b>	10.3 MPa (1500 psi)
<b>Temperature Range</b>	40°C to 204°C (100°F to 400°F)
<b>Ambient Temperature Range</b>	0 to 40°C (32°F to 100°F)
<b>Temp. Control Stability</b>	±0.5°C (1°F)
<b>Input/Output Capability</b>	4 inputs & 3 outputs - come as standard; 10 inputs and 7 outputs - with optional expansion board; Ethernet IP & Fieldbus optional

## Flow Meter:

<b>Flow Range</b>	0.5 cc to 500 cc/min (0.03–29.9 kg/hr or 0.07–65.9 lb/hr) (assuming SG = 1.0)
<b>Displacement</b>	1.0 cc/rev = 1 g/rev = 0.001 kg/rev = 0.0022 lb/rev (assuming SG = 1.0)
<b>Resolution</b>	25mCC (25 mg or .055 lb, assuming sg = 1.0)
<b>Viscosity Range</b>	600 to 10,000 cps
<b>Output Signals</b>	2: enable and alarm, 24VDC sourcing (PNP), 25 mA each

	<b>Liberty 7</b>	<b>Liberty 14</b>
<b>Hose Ports</b>	5	9
<b>Electrical Service Standard</b>	200 to 240 VAC 1 or 3 phase 50/60 Hz 400/230 VAC 1 or 3 phase N/PE 50/60 Hz	200 to 240 VAC 1 or 3 phase 50/60 Hz 400/230 VAC 1 or 3 phase N/PE 50/60 Hz
<b>w/Optional Transformer</b>	400 or 480 VAC Delta 3 phase 50/60 Hz	400 or 480 VAC Delta 3 phase 50/60 Hz
<b>Holding Capacity</b>	1.7 kg (3.7 lb)	1.7 kg (3.7 lb)
<b>Melt Rate (per hour)</b>	7 kg (15 lb)	14 kg (30 lb)
<b>Throughput (per hour)</b>	7 kg (15 lb)	14 kg (30 lb)
<b>Max. Hose/Applicator Power Capacity</b>		
<b>2 hoses/applicators</b>	2000 watts	2000 watts
<b>4 hoses/applicators</b>	4000 watts	4000 watts
<b>6 hoses/applicators</b>	N/A	6000 watts
<i>*2000 W per 2 hose &amp; 2 applicator pair; 1200 W per hose &amp; applicator pair and 1000 W per channel</i>		
<b>Unit Dimensions (WxHxD)</b>	539.1 x 485.9 x 371.9 mm (21.22 x 19.13 x 14.64 in)	606.7 x 571.5 x 390.6 mm (23.89 x 22.50 x 15.38 in)

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

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