ProBlue Flex Melter with BBconn Controls

Transformational Technology from Nordson

The ProBlue Flex melter from Nordson is advanced technology that adapts to any operation with ease and simplicity. Depending on your unique requirements, you can choose from factory options direct from Nordson, or smart and simple field upgrades, supported by Nordson's seasoned technical support representatives.

The ProBlue Flex incorporates intelligent technology that enables ultra-precise dispensing accuracy. It is complemented by Nordson's new BBconn control system, which allows for full remote operation, advanced diagnostics, real-time oversight, and the data and analytics needed for continuous improvement.



ProBlue Flex Features

- Drop in replacement for ProBlue melters
- Flexible design allows for the perfect configuration for the application
- Seamless, easy upgrades allow for advanced features to be added when needed
- Fast system start-up through reduced warm-up time
- Energy efficient design saves money
- Enhanced safety with touch safe enclosure, manifold guard and optional lid lock
- Precision regulation and auto-tune PID temperature control minimizes bead variation allowing a smaller bead that saves money
- Full parent-machine integration via autofill, remote electronic pressure set and PLC communications

General Specifications

Type of system:

Filter type:

Viscosity range:

Range with reduced performance:

Non-circulating tank
Inside-out disposable
800 to 10,000 cP
10,000 to 30,000 cP

Temperature range:

Melt section: $40 \text{ to } 204^{\circ}\text{C} (100 \text{ to } 400^{\circ}\text{F})$ Hose and applicators: $40 \text{ to } 230^{\circ}\text{C} (100 \text{ to } 450^{\circ}\text{F})$ Ambient temperature range: $-5 \text{ to } 50^{\circ}\text{C} (23 \text{ to } 122^{\circ}\text{F})$

Temperature control stability: ± 0.5 °C (1°F)

Hose ports:

Hose and applicator power module:

Number of H/A pairs per power module: 2

Number of H/A pairs: 2, 4 or 6

Maximum power per power module: 2000 W

Maximum power per pair: 1200 W

Maximum power per channel: 1000 W

Ingress Protection: IP54

Noise: 64 dB (A) at maximum pump speed



BBconn Controls

- Multiple user interface and connectivity options
- Integrated four-line multi-language text based OLED user interface
- \blacksquare OEM-user interface includes integrate Ethernet IP & Profinet protocol license
- Other PLC communications supported through option cards
- Remote I/0
 - One remote input and one remote output standard programmable for function
 - Legacy I/O accessory: Four additional remote input and three remote output programmable for function
- BBconn cloud Store recipes, data and troubleshoot remotely



- Standard capacitive level sensor indicates continuous level in tank
- Great for melting all adhesive shapes and sizes from pellets to bricks
- Autofill optional accessory



Tank Specifications

	Tank Size - 4 KG	Tank Size - 7 KG	Tank Size - 10 KG	
Melt Rate	5 kg/hr (11 lb/hr)	7 kg/hr (15.4 lb/hr)	11 kg/hr (24 lb/hr)	
Throughput	5 kg/hr (11 lb/hr)	7 kg/hr (15.4 lb/hr)	11 kg/hr (24 lb/hr)	
Melter Empty Weight	49.8 kg (109.8 lb)	50.9 kg (112.2 lb)	53.7 kg (118.4 lb)	
Holding Capacity	4.5 kg (9.9 lb)	6.7 kg (14.8 lb)	9.7 kg (21.4 lb)	
Overall Dimensions	570 mm x 517 mm x 367 mm (22.5 in x 20.5 in x 14.5 in)	634 mm x 517 mm x 367 mm (25 in x 20.5 in x 14.5 in)	634 mm x 517 mm x 367 mm (25 in x 20.5 in x 14.5 in)	
Mounting Dimensions	381 mm x 249 mm (15 in x 9.8 in)	436 mm x 249 mm (17.1 in x 9.8 in)	436 mm x 249 mm (17.1 in x 9.8 in)	
Service Dimensions	748 mm x 635 mm x 672 mm (29.5 in x 25 in x 26.5 in)	812 mm x 635 mm x 672 mm (32 in x 25 in x 26.5 in)	812 mm x 635 mm x 672mm (32 in x 25 in x 26.5 in)	
Optional 3 KVA Transformer Dimensions	570 mm x 593 mm x 367 mm (22.5 in x 23.5 in x 14.5 in)	634 mm x 593 mm x 367 mm (25 in x 23.5 in x 14.5 in)	634 mm x 593 mm x 367 mm (25 in x 23.5 in x 14.5 in)	

- Tankless with Smart Melt technology virtually eliminates char
- Enables product standardization 7 kg/hr and 14 kg/hr melt rate built on same chassis as 4 kg tank

Melt-On-Demand Specifications

	Tank Size - 7 KG	Tank Size - 14 KG		
Melt Rate	7 kg/hr (15.4 lb/hr)	14 kg/hr (30.8 lb/hr)		
Throughput	7 kg/hr (15.4 lb/hr)	14 kg/hr (30.8 lb/hr)		
Melter Empty Weight	50 kg (110.3 lb)	50 kg (110.3 lb)		
Holding Capacity	1 kg (2.2 lb)	1 kg (2.2 lb)		
Overall Dimensions	570 mm x 517 mm x 367 mm (22.5 in x 20.5 in x 14.5 in)	570 mm x 517 mm x 367 mm (22.5 in x 20.5 in x 14.5 in)		
Mounting Dimensions	381 mm x 249 mm (15 in x 9.8 in)	381 x 249 (15 in x 9.8 in)		
Service Dimensions	748 mm x 635 mm x 672 mm (29.5 in x 25 in x 26.5 in)	748 mm x 635 mm x 672 mm (29.5 in x 25 in x 26.5 in)		
Optional 3 KVATransfomer	570 mm x 593 mm x 367 mm (22.5 in x 23.5 in x 14.5 in)	570 mm x 593 mm x 367 mm (22.5 in x 23.5 in x 14.5 in)		

Pump Specifications

Pressure ratio: 15:1

 Viscosity Range:
 800-10,000 cP

 Test Viscosity:
 1100 cP

Maximum Pump Rate: .54 kg/min (1.2 lb/min)

Displacement: 7.20 cc/stroke (0.44 cu in/stroke) **Air consumption:** 56 l/min at 4.1 bar .54 kg/min output

2.0 SCFM at 60 psi and 1.2 lb/min output

Pressure Management Options

- Mechanical Adjust with Gauge
- Mechanical Adjust with Digital Readout
- Electronic Pressure Setting with Digital Readout

Pressure Management Specifications

Air pressure range: 103 to 689 KPa (15 to 100 psi)

Maximum hydraulic pressure: Up to 11 Mpa (1600 psi) depending on pump

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Fill System Features

- Level-monitoring window
- Quick-change exhaust filter
- Quick-disconnect air pump
- Removable inlet-tube

Fill System Specifications

Adhesive Forms 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)

Adhesive Transfer Maximum Rate: 275 kg (600 lb)/hour (dependent on adhesive type)

Transfer Hose Length: 4 m (13 ft.), 9 m (29.5 ft), or 18 m (59 ft)

Total Air Consumption (each feed): 17 CFM @ 3.4 bar to transfer 105.3 kg/hr (223.2 lb/hr) - swith 4 m hose @ 4 m rise

22 CFM @ 4.1 bar to transfer 112.5 kg (248 lb/hr) - with 9 m hose @ 4 m rise 30 CFM @ 6.2 bar to transfer 90.7 kg/hr (200 lb/hr) - with 18 m hose @ 4 m rise

Air Conditioning

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)

Inlet Air Connection: \(\frac{1}{4}\)-in. NPT female

1/4-in. BSPP female

G ¼ female

Dimensions (W x D x H)

Single-feed Adhesive Container Clearance: 480 x 554 x 917 mm (19 x 22 x 36 in)

Adhesive Container Capacity: 40 kg (88 lb) usable with grate; 64 kg (141 lb) usable without grate

Enclosure Rating: IP54
Noise Emission: 76 dBa



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Electrical Specifications

Electrical Service 200 to 240 VAC 1Ø or 3Ø 50/60 Hz

200 to 240 VAC 1Ø N/PE 50/60 Hz 400/230 VAC 3Ø N/PE 50/60 Hz

With optional transformer $400 \text{ to } 480 \text{ VAC } 3\emptyset 50/60 \text{ Hz}$

Tolerance +10% -15%

Maximum Amperage

			Tank			Melt-On-Demand	
			4 KG	7 KG	10 KG	7 KG	10 KG
Legacy Warm-Up	Δ	200-240, 1-phase	37	38	38	36	38
		400/230, 1-phase	24	25	25	23	25
	Y	200-240, 3-phase	36	37	37	34	37
		400/230, 3-phase	14	14	14	14	14
Fast Warm-Up	Δ	200-240, 1-phase	N/A	N/A	N/A	N/A	N/A
		400/230, 1-phase	30	31	31	29	31
	Y	200-240, 3-phase	N/A	N/A	N/A	N/A	N/A
		400/230, 3-phase	20	20	20	20	20

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

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