

AFM • Abrasive Flow Machining

SPECTRUM

Wide Range of Capabilities

The SPECTRUM Series abrasive flow machine offers a broad range of process capabilities with a selection of media cylinder diameters ranging from full pressure 12" (300mm) models, to lower pressure 24" (600mm) versions.

The SPECTRUM Series machines are available in designs that can be built to meet any production requirements. Many options are available, such as Internal Media Refeed Systems, Rotary Tables, Automatic Process Control and Programming, Media Cooling Units, Workpiece Handling Systems, Customized Work Platforms, and many others.

Standard configurations are available as shown on the specification table, without the lead time or expense, of custom built equipment.



Features and Benefits

- AUTOFLOW™ advanced control option**
 For maximum process control. State-of-the-art control system stores and monitors all major process data.
- Media temperature management options**
 Controlling the temperature of the abrasive media gives a more consistent machining rate.
- Individually configurable AFM system**
 Various options create a tailor-made system.
- Fast setup and change of media**
 Generously dimensioned work envelope for large workpieces and rapid tool change.
- All process data at a glance**
 Touch screen interface for easy operation and setup.

Technical Information • SPECTRUM Series

Standard Power Unit

Reservoir	80 gal (300 l)
Pump capacity	15 GPM (56,8 L/min)
Pressure	350–2000 psi (24–138 bar)

Clamp Cylinders

Bore diameter	8–12" (200–300mm)
Stroke	28–40" (700–1.000mm)

Electrical

Voltage	230/460 VAC 60 Hz 400 VAC 50 Hz
Motor	20–40 hp (14,9–29,8 kW)
Peak amperage	25–100 amps

Controls

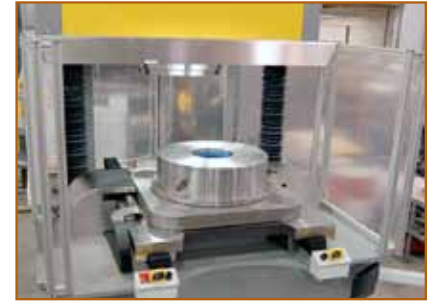
Standard controller	Allen Bradley (US) Siemens (EU)
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Approximate Weight

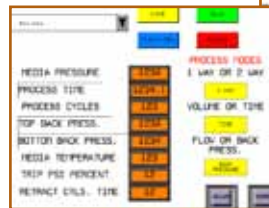
12/8/8	12.000 lbs (5.500 kg)
16/8/10	20,000 lbs (9.000 kg)
16/12/12	
24/12/12	



The Swing Arms on this SPECTRUM Series Machine accommodate easy loading and unloading of large workpieces.



Workflow and ergonomics are improved using an Automatic Tooling Cart. This option allows large workpieces and complex tooling to be handled outside the process area of the SPECTRUM Series.



All SPECTRUM Series machines include a 10.4" touch screen HMI with the capability to save multiple processing parameters as required for ease of use and quick recall in the manufacture of multiple customer parts.

Options

The SPECTRUM Series is designed to be built to meet any production requirements, with options such as:

- Workstands
- Media Coolers
- Rotary Tables
- Custom Part Handling Systems
- Media Refeed Systems
- Tooling Carts
- Custom Bezels
- Custom Controls & Programming
- Swing Arms

Standard Configurations

	media cylinder diameter	hydraulic cylinder diameter	standard media stroke length	media capacity	hydraulic flow rate	media flow rate	min/max media pressure	standard power unit	optional extended lower media cylinder	additional media volume with extended cylinder
SPECTRUM 12/8/8*	12" (305mm)	8" (200mm)	12.5" (320mm)	1413 cu. in. (23,3 l)	15 GPM (57 L/min)	34 GPM (129 L/min)	155/800 psi (11/55 bar)	20 hp** (15 kW)	yes	680 cu. in. (11,1 l)
SPECTRUM 16/8/10	16" (405mm)	8" (200mm)	15" (380mm)	3016 cu. in. (49,5 l)	15 GPM (57 L/min)	151 GPM (571 L/min)	100/450 psi (7/31 bar)	20 hp** (15 kW)	Standard	1200 cu. in. (19,7 l)
SPECTRUM 16/12/12	16" (405mm)	12" (305mm)	15" (380mm)	3016 cu. in. (49,5 l)	30 GPM (113,5 L/min)	58.5 GPM (221 L/min)	222/1000 psi (14/69 bar)	40 hp (30 kW)	Standard	2200 cu. in. (36 l)
SPECTRUM 24/12/12	24" (610mm)	12" (305mm)	15" (380mm)	6780 cu. in. (111,1 l)	30 GPM (113,5 L/min)	120 GPM (454 L/min)	100/500 psi (7/35 bar)	40 hp (30 kW)	Standard	4070 cu. in. (66,7 l)

* Also available in 18" media cylinder stroke as an option. An 18" media stroke provides more media to pre-fill tooling fixture.

** An optional 40 hp (30 kW) power unit also available.

NOTE: Specifications and availability are subject to change without notice.

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