MAXSTREAM 1200

MID-FLOW CHAMBER CLEAN REMOTE PLASMA SOURCE

The MAXstream™ 1200 is a reliable and cost-effective remote plasma source (RPS) solution for mid-flow (up to 12 SLPM) NF_3 chamber clean applications. The MAXstream has smaller footprint than the Xstream RPS unit to save valuable tool space. Power control for improved process repeatability along with AE's proprietary aluminum (Al) substrate with Type 3 hard anodization combine to make it one of the most consistent and reliable RPS products on the market.

PRODUCT HIGHLIGHTS

- Higher power and flow for maximum chamber cleaning efficiency and less production downtime for cleaning
- Advanced power control for consistent, repeatable performance
- Proprietary high-purity Al substrate with Type 3 anodization for longer chamber life
- Unique dual ignition core design ensures extremely reliable ignition
- Seamless field upgrades to a reliable, repeatable, and low cost-of-ownership solution

TYPICAL APPLICATIONS

- Chamber cleaning, reactive etch, and deposition processes

PROCESS AND ELECTRICAL SPECIFICATIONS

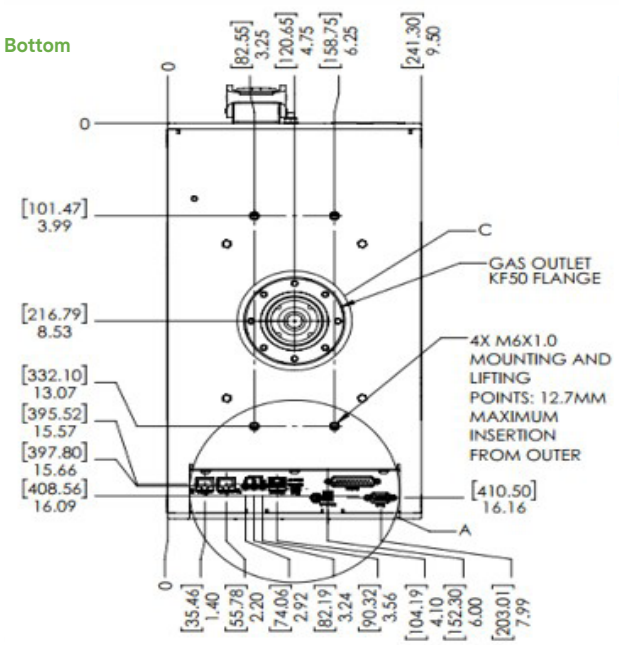
Model	MAXstream 1200
General Operating Parameters	
Plasma Power Range	2000 to 12,000 W
Process Applications	Remote delivery of activated gases for downstream processing (i.e. chamber cleaning, reactive etching processes, and reactive deposition processes)
Ignition	Argon; contact AE for ignition window chart
Power Accuracy	±5% of setpoint
Chemical Compatibility	This unit is intended for use with selected gases such as Ar, O_2, N_2, F_2, H_2O, NF_3 , Cl or O_2: CxFy
NF_3 Operating Specifications	
Flow Range	Up to 12 SLPM at 15 Torr, contact AE for full process window
Dissociation Efficiency	> 98% NF3
Operating Specifications	
Duty Cycle	Continuous operation within specified operating range
Cooling Flow Rate	Min. 2.1 GPM at 30°C input water temperature
Ambient Air	+5°C to +40°C, non-condensing humidity < 85%
AC Electrical Requirements	
Input Voltage	200 to 208 VAC ±10% (180 to 229 VAC), no neutral, 3 phase with PE ground (phase insensitive)
Line Frequency	50 to 60 Hz nominal; 47 to 63 Hz range
Input Current	45 A with 50 A breaker

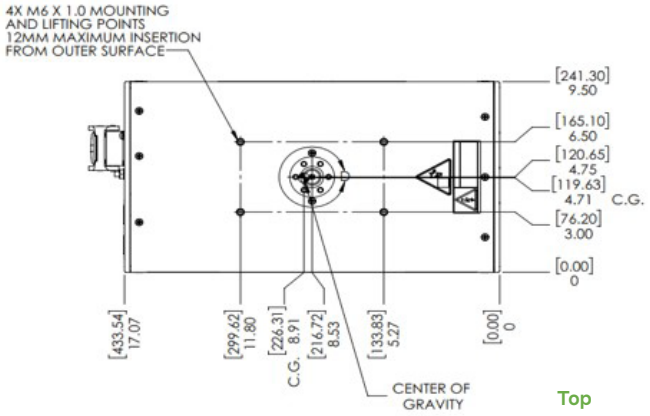
MECHANICAL SPECIFICATIONS

Mechanical and Physical Specifications	
Dimensions	26.3 cm (H) x 24.1 cm (W) x 43.4 cm (D)
	10.3" (H) x 9.5" (W) x 17.1" (D)
Weight	25 kg (66.1 lb)
Vacuum	Input: KF16 flange on top side of the unit
	Output: KF50 interface on bottom of unit
Ground Connection	Chassis ground stud 1/4”-20 x 3/4” near AC input connector
Ethercat Connection	RJ45 female
Water Connections	Stainless steel Female SAE 9/16” – 18 straight-thread

MECHANICAL DRAWINGS

Bottom





Top

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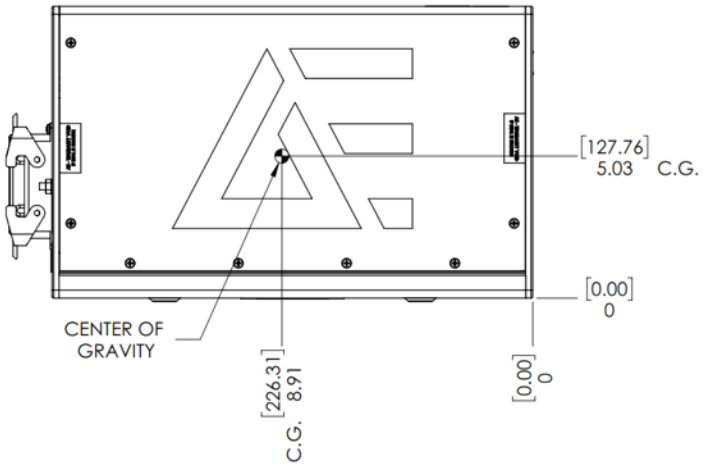

Dimensions in inches

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than four decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

AE's power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

PRECISION | POWER | PERFORMANCE | TRUST

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