



## General terms and conditions

### **Our workmanship warranty:**

All equipment manufactured and sold by *Plasma Process Group, Inc.* is warranted to be free of defects and workmanship when shipped. The warranty on all equipment is for one year commencing (a) on final acceptance or (b) 30 days from shipping, whichever occurs first. This warranty covers the cost of parts and labor. Expendable and consumable items, such as grid assemblies, RFN collectors and discharge chambers are excluded from this warranty. This warranty supersedes all other warranties, expressed or implied. *Plasma Process Group, Inc.* assumes no contingent liability for damages or loss of production.

Expendable items, including, but not limited to, grid assemblies, RFN collectors, discharge chambers, filaments, fuses, o-rings and seals are specifically excluded from the foregoing warranties and are not warranted. Seller assumes no liability under the above warranties for equipment or system failures resulting from (1) abuse, misuse, modification or mishandling; (2) damage due to forces external to the equipment including, but not limited to, flooding, power surges, power failures, defective electrical work, transportation, foreign equipment/attachments or Buyer-supplied replacement parts or utilities or services such as process gas; (3) improper operation or maintenance or (4) failure to perform preventative maintenance in accordance with Seller's recommendation (including keeping an accurate log of preventative maintenance). In addition, this warranty does not apply if any equipment or part has been modified without the written permission of Seller.

### **Equipment safety and compliance:**

All equipment manufactured and sold by *Plasma Process Group, Inc.* is manufactured using quality materials and products. Upon request, *Plasma Process Group, Inc.* will provide material safety data sheets of our material goods. All of our manufactured electronic equipment is designed for ROHS compliance. Some IBEAM products are CE certified.

### **Lead time:**

All equipment manufactured and sold by *Plasma Process Group, Inc.* will be fabricated in a timely manner. Estimated shipping dates for purchased equipment are subject to change if there are unexpected interruptions in the supply chain. All customers will be notified by *Plasma Process Group, Inc.* if there will be any delays with the shipment of purchased goods, however, *Plasma Process Group, Inc.* will not be held liable for such delays.

### **Prices:**

Irrespective of any prices quoted by Seller or listed on Buyer's order, an order is accepted only at the prices shown on the written quotation. Installation of utilities required for equipment is not included in specified prices.

### **Shipment:**

Seller shall attempt to comply with, but will not guarantee, shipping date. In the event of a default by Buyer, Seller may decline to make further shipments without waiving any of its rights under such order.

### **Title and Delivery:**

All sales are made F.O.B. factory and Buyer shall pay all freight, duties, cartage and handling. Title and risk of loss or damage shall pass from Seller to Buyer upon Seller's putting the material purchase hereunder in good condition into the possession of a common carrier, such carrier acting as Buyer's agent. All claims for damages must be filed with the carrier.

### **Taxes:**

Quoted prices do not include federal, state or local excise, sales, use or similar taxes. Accordingly, in addition to the price specified on the written quotation, the amount of any applicable excise, sales, use and/or similar taxes will appear as separate items on the invoice and will be paid by Buyer unless prior to shipment Seller receives an appropriate tax exemption certificate from Buyer.

**Payment terms:**

Invoices are payable at the place set forth on the written quotation or the invoice. Any exchange charges, any charges for nonpar clearance of checks or collection charges (including reasonable attorneys fees) will be paid by the Buyer. Any amounts not paid when due will bear interest at a rate of 18% per annum or, if lower, the maximum rate permissible by law.

Terms of payment are subject to change by Seller. The amount of any credit extended by Seller to Buyer may be changed, and Seller may withdraw such credit. With respect to an order on which credit is not extended by Seller or, if extended, is subsequently withdrawn, shipment or delivery shall be made, at Seller's election. If, in the judgment of Seller, the financial condition of Buyer does not justify continuation of production or shipment on the terms of payment originally specified, Seller may require full or partial payment in advance. In the event any proceeding is brought by or against Buyer under any bankruptcy or insolvency laws, Seller shall be entitled, in addition to any other remedies at law or in equity, to (i) stop or divert any shipment in transit, (ii) cancel any order then outstanding and/or (iii) receive reimbursement for its cancellation charges. Each shipment shall be considered a separate independent transaction, and payment therefore shall be made accordingly. If for any reason Buyer is not prepared to accept delivery of goods, Seller may store goods at Buyer's expense and risk in name of Buyer, and such storage shall constitute shipment and delivery to Buyer.

**Blanket orders:**

All items for split deliveries must be received within 1 year.

**Cancellation:**

In the event of cancellation by Buyer of any order, Buyer shall pay Seller a cancellation and re-stocking charge based upon the timing of the cancellation notice as follows. Higher cancellation charges, up to the full value of the order, may apply in the case of special, custom or modified equipment

<b>Cancellation Notice Given X Days Before Confirmed Shipment Date of Order</b>	<b>Cancellation Fee Equals the Following Percentage of Purchase Price</b>
More than 90 days	25%
61 - 90 days	50%
31 - 60 days	75%
0 - 30 days	100%

**Patents:**

If a third party claims that the purchased equipment infringes that party's patent Seller will defend Buyer against that claim and will pay all costs, damages and attorney's fees that a court finally awards, provided that Buyer: (a) promptly notifies Seller in writing of the claim and (b) allows Seller to control, and cooperates with the Seller in, the defense and any related settlement negotiations. If such a claim is made or appears likely, Seller, at its option may obtain a license to enable Buyer to continue to use the product, may modify the product or may replace it with one that is functionally equivalent. If Seller determines that none of these alternatives is reasonably available, Buyer agrees to return the product to Seller upon Seller's written request, in which case Seller will credit Buyer with an amount equal to the price paid for such product less a reasonable amount for depreciation. Seller's liability is limited to repair, replacement or adjustment as determined by Seller. Seller shall not be liable for any claim based on (i) anything Buyer provides which is incorporated into a product, (ii) Buyer's modification of a product or use thereof other than in its specified operating environment, or (iii) the combination, operation or use of a product with products provided by other manufacturers or other products not provided by the Seller as a system. In no event will Seller's liability under this paragraph exceed the purchase price of the respective product. This is the exclusive warrant of the Seller with respect to intellectual property matters and is in lieu of all other warranties, express or implied. Sale of products or parts thereof does not confer on Buyer any license relating to (a) the structure of any devices to which the products or parts may be applied or (b) a process or machine in connection with which they may be used.

**International customers:**

As an international supplier of Ion Beam Source products and services, *Plasma Process Group, Inc.* would like to thank you for your inquiry. As a professional supplier of quality products and services to all of our customers, we would like to forward this important and necessary information to you. In the event that you choose to purchase products and/or services from *Plasma Process Group, Inc.*, it is recommended that we notify you in advance that *Plasma Process Group, Inc.*, will be in support of and in compliance with all rules and regulations set forth by the United States Government for exportation and/or importation of our products and services. Your order may require licensing and regulatory forms to be completed and submitted by you the customer prior to shipment of your order. If you the customer refuse compliance of the required documentation needed to complete the sale, *Plasma Process Group, Inc.*, will refuse shipment.

**Force Majeure:**

Seller shall not be liable for failure to perform occasioned by strikes, lockouts, labor difficulties, riots, inability or difficulty in obtaining or procuring supplies, labor or transportation, fires, storms, floods, earthquakes, explosions, accidents, acts of God, interference by civil or military authorities, whether legal or de facto, acts of the public enemy, war, rebellion, insurrection, sabotage, embargoes, orders given priority by any public authority or any other cause beyond the reasonable control of Seller.

**Applicable Law:**

The contract created hereby shall be interpreted and construed under the laws of the State of Colorado. This warrant gives Buyer specific rights, and Buyer may have other rights, which vary from jurisdiction to jurisdiction.

**System orders:**

50% due upon order, 40% due upon delivery, 10% due upon acceptance. See system specification acceptance section.

**Customer Site Acceptance Testing (SAT):**

If Seller's quotation references SAT provisions, then Buyer agrees to accept the purchased equipment in accordance with such SAT provisions. The parties agree to give priority to achieving SAT and Buyer agrees that the purchased equipment shall not be used for material production, for development of new processes or for any purposes other than achieving SAT, prior to successful completion or waiver of the SAT provisions. Any such use of the equipment prior to successful completion of the SAT provisions shall be deemed to constitute SAT. The parties agree that, if SAT procedures have not been commenced within 60 days after shipment (through no fault of Seller), then the equipment shall be deemed to have achieved SAT.

**System Specification and Acceptance testing:**

Standard system specification review and testing is described below. All system specification and acceptance testing is subject to final system requirements and review. Not all tests will be performed as outlined below if the final system configuration does not warrant the test. If a given test fails, the issue(s) will be identified, fixed and the test repeated. If a customer requires specific test, custom test, or test not listed below, it must be mutually agreed upon prior to system fabrication.

- 1) Engineering review – examine system requirements and custom engineering.
  - DRAWINGS – review system drawings for overall footprint and access locations
  - CUSTOM – review any custom requirements. Identify items that may move or change.
  - SIGN OFF – address any layout issues. Identify any custom items that may impact standard system testing.
- 2) Vacuum testing – performed with a clean, dry, empty, standard chamber, prior to running process in the system.
  - BASE – base pressure after 15 hours of pumping is  $<4 \times 10^{-7}$  Torr.
  - LEAKBACK – demonstrate leakback of  $\leq 5 \times 10^{-4}$  Torr in 10 minutes after 15 hours of pumpdown
  - PUMPDOWN – demonstrate pumpdown from atmosphere to  $\leq 5 \times 10^{-6}$  Torr in 30 minutes..
- 3) Basic operation testing – performed with the system running under normal settings.
  - PUMPDOWN – demonstrate operation of pumpdown, vent and standby modes

- PUMPING – perform REGEN (for cryo) or power up (for turbo)  
 THERMAL – operate cooling and heater switches  
 GAS – demonstrate operation of gas flow setting and actuation  
 TARGET – demonstrate operation of target settings and control  
 FIXTURE – operate the fixture, including shutter.  
 HMI – demonstrate operation of HMI, recipe, setup screens and user adjustments
- 4) Source operation – performed with the targets installed and chamber interior protected with aluminum foil.  
 RFN – perform standard RFN checkout.  
 Matching network – perform standard checkout.  
 SOURCE – perform standard source checkout including RF power efficiency and beam envelope tests.  
 IBEAM – demonstrate source control from IBEAM and HMI touch panels.  
 HMI – confirm communications with IBEAM supply and test for fault.  
 Interlock – perform interlock test while source is running.
- 5) Recipe testing – performed with customer targets installed and chamber interior protected with aluminum foil.  
 RUN #1 – perform a 4 hour multilayer run using multiple templates.  
 ALARM – create an alarm during a multilayer run. Verify if alarm is corrected the recipe will resume.  
 BACKUP – view data files for RUN #1 to confirm data is being recorded properly.
- 6) Process testing – performed with customer targets installed and chamber interior protected with aluminum foil.  
 CALIBRATION – perform runs required to adjust masking for uniformity requirements.  
 QCM – verify QCM control with a calibration type of run.  
 PLANETARY – verify standard uniformity of  $\pm 1\%$  over 80 mm radius.  
 HIGH SPEED – verify standard uniformity of  $\pm 1\%$  in a 20 mm radius band.  
 RUN #2 – perform 24 hour multilayer run using multiple templates.
- 7) Safety testing – perform safety demonstrations with the system running under normal settings.  
 PUMPING – demonstrate interlock fault with closing of high vacuum valve.  
 COOLING – demonstrate interlock fault with closing of cooling line.  
 EPO – demonstrate system shut down with operation of EPO switch.
- 8) Definitions – specific definitions are listed below.  
 UNIFORMITY – is calculated using the formula

$$Uniformity = 100 \cdot \left( \frac{t_{MAX} - t_{MIN}}{t_{MAX} + t_{MIN}} \right) [\pm\%]$$

Where  $t_{MAX}$  and  $t_{MIN}$  are the maximum and minimum thickness (or wavelength).