

Questions and Answers
RFQ NNL08259EBGQ
August 13, 2008

1. The spec states 80kV minimum accelerating voltage - please explain basis for this. Can a lower voltage gun producing equivalent beam geometry or performance be accepted.

Answer 1: Higher accelerating voltages are sought to minimize a tight beam focus and maximize the beam path length through the 5 torr atmosphere. The requirement has been revised to 60kV via Amendment 1. This is the minimum requirement.

2. Is the requirement for one hour at 10kW without auxiliary cooling at 10torr?

Answer 2: The intention is to operate the gun at 10kW for 1 hour at 10 torr with minimal auxiliary systems where practical. Cooling in the form of air circulation is acceptable.

3. Do you have experience of using mechanical pumps (particularly turbo pumps) in the microgravity research aircraft under high G conditions

Answer 3: Yes, we have successfully used several different turbomolecular pumps with ceramic bearings from Varian for >800 0-g to 1.8-g cycles on NASA's C-9 reduced gravity aircraft.