

## DOs

- Ensure that the laboratory is air-conditioned with temperature maintained within the prescribed range of 18°-28°C (64°-82°F) at all times
- Ensure the lab is clean and dust-free; a double-door system is recommended
- Maintain maximum Relative Humidity (RH) of 65% non-condensing at all times
- Maintain a free and open space of ~150 mm all around the OES
- Maintain a separate and dedicated earth pit for the OES; ensure that E-N is  $\leq 1.5$  V AC and Earth resistance is  $< 1.0 \Omega$
- Ensure power supply of 100 - 230V  $\pm 10\%$  at all times @ 50/60Hz
- Always use an online Uninterrupted Power Supply (UPS) of minimum 3KVA (2.4KW) output capacity
- Maintain electrode gap using the gap-setting tool
- Re-standardize the OES each time there is a change of Argon Cylinder and / or there is a change of the base metal. For applications with tight tolerances, it is highly advisable to perform re-standardization once every shift / day
- To achieve high accuracy and precision, use Argon Grade 5 (99.999% purity) or higher. For analysis of H, O and/or low N, it is essential to use an external Argon Purifier such as Sircal\*
- Cover the spark hole with a sample or a metal piece even when it is not in use
- Keep Certified Reference Materials (CRM) and Setting-up Samples (SUS) easily accessible
- Ensure CRM certificates or copies thereof are easily accessible at all times
- Ensure all samples are stored in appropriate desiccators when not in use
- Ensure you backup your database regularly and always have the most recent backup of your database at hand
- Always ensure a fully flat sample surface
- Grind ferrous / hard samples using appropriate grit papers on a grinding machine
- Prepare non-ferrous / soft samples using a turning machine / lathe
- For high-purity Copper samples, turn the samples and then finish them with grinding using MPA dual-grit paper for Pure Cu
- Clean the entrance windows of the OES and replace them as and when indicated

\* Non-adherence to these requirements may result in degraded performance and degradation / damage of internal purifiers (for models equipped with these). MPA will not be responsible for such instances and / or any costs arising from such incidents

## Connect with ease to our Central Helpdesk!

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## Operating hours:

Monday to Friday,  
09:00 am to 06:00 pm IST



Scan to website

## DON'Ts

- Avoid any kind of forceful impact on the unit or its internal parts, especially the Optics, as this could damage the unit or affect its performance
- Do not spill or splash water or any other liquid on the OES
- Never spark without Argon with recommended purity flowing
- Never try to analyse non-conducting solids or any materials other than those specified in your order
- Never lift the filled exhaust water bottle above the unit's level
- When replacing the plate of the Spark Chamber, do not over-tighten the screws for relevant models
- Do not allow any person – whether user or third-party – other than an authorized MPA Service Engineer to open the unit's cover or undertake any activity other than routine maintenance and operation tasks as defined in the manual
- Do not purchase or use any spares or consumables other than those supplied or recommended by Metal Power
- Do not use the last 5% of the Argon cylinder as indicated by the balance pressure from the regulator
- Do not use Purifier cartridges beyond specified burn count; replace cartridges well in time
- Do not use any samples other than CRM for validation of OES performance / analytical results
- Do not connect the connected PC to a LAN unless unavoidable
- Do not attempt to analyze a sample if:
  - a. Sample surface is corroded
  - b. Sample surface is not fully flat (Spark is visible from below the sample from any side)
  - c. Spark hole is not fully covered by the sample
  - d. Plate of the Spark Chamber is not clean or dust / burr free

