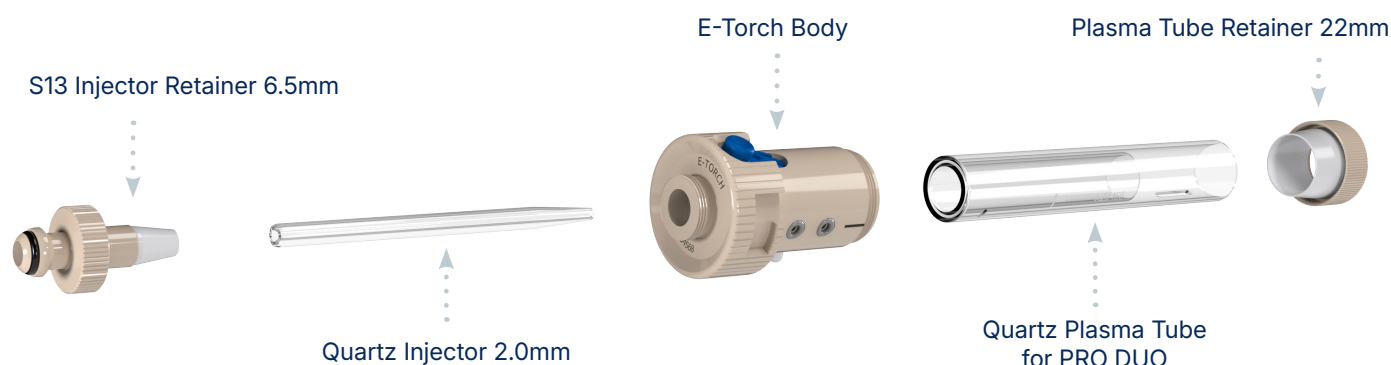


NEW E-Torch™

For Thermo Scientific® PRO Series ICP-OES

For over 30 years, Glass Expansion has led the ICP industry in demountable torch design and pioneered ceramic torches to deliver robust plasma performance and simplified maintenance. The E-Torch™ extends that legacy to Thermo® PRO DUO and Radial ICP-OES, engineered with precision annular spacing and advanced materials to deliver stability and versatility across the widest range of sample types.

E-Torch for Thermo Scientific® PRO DUO



Key Features & Benefits

- **30+ Years of Demountable Torch Innovation:** Proven demountable torch technology, built on over three decades of innovation, it delivers ease of use, robustness, flexibility, and reliability that have made Glass Expansion's demountable torches the preferred choice for routine and challenging sample matrices.
- **Hotter Plasma. Longer Life:** The all-ceramic plasma tube generates a hotter, more robust plasma, reducing matrix effects while delivering measurable improvements in sensitivity. In aggressive sample matrices, ceramic plasma tubes can provide years of service, compared with the shorter time frames often achieved by conventional quartz torches.
- **Maximum Plasma Stability:** Precision-controlled annular spacing improves analytical stability while extending torch life.
- **Higher Aerosol Transport Efficiency:** Advanced tapered injector geometry promotes laminar gas flow around the tip, improving transport efficiency, short-term precision, sensitivity, and overall analytical performance.
- **Simplified Maintenance:** User-friendly retainers ensure precise alignment between the injector and plasma tube and enable quick, repeatable assembly, reducing service time.
- **One Torch for Every Application:** Fully interchangeable Quartz, Alumina, and Sapphire injectors, available in multiple internal diameters, provide exceptional flexibility for aqueous, organic, high-TDS, fusion, and wear-metal analyses.



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Ceramic Plasma Tube

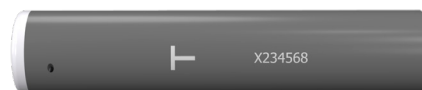
As the pioneer of ceramic torches, Glass Expansion introduces the next-generation ceramic plasma tube. Ceramic torches produce a hotter, more robust plasma that reduces matrix effects and improves detection limits. Lifetime matters just as much: compared with quartz, the ceramic plasma tube lasts dramatically longer, cutting maintenance, cleaning, and downtime from torch failure. In some matrices, quartz tubes degrade within hours, in comparison ceramic tubes may last years under the same conditions. The Plasma Tube (ceramic or quartz) can also be placed in a drying oven or muffle furnace to speed up drying after cleaning or easily bake-off carbon buildup.

The Ceramic Plasma Tube is ideal for:

- High-TDS samples that quickly devitrify quartz tubes.
- Analyses at the detection limit, as the hotter plasma condition increases sensitivity.
- Monitoring wear metals in engine oils, where quartz tubes crack under thermal shock.
- Fusion sample analysis, where lithium salts rapidly attack quartz.



Ceramic Plasma Tube for PRO DUO - P/N 31-808-4502



Ceramic Plasma Tube for PRO Radial - P/N 31-808-5165

Below is a comparison of Quartz Plasma Tube to Ceramic Plasma Tube:

Element	% Increase in Sensitivity	%RSD
Zn (213) λ	17%	0.36
Ni (231) λ	19%	0.57
Mn (257) λ	14%	0.52

Tapered Injector

Glass Expansion's advanced tapered injector geometry promotes laminar gas flow around the tip, improving aerosol transport efficiency, short-term analytical precision, and sensitivity compared with traditional designs.



Tapered Bore Injectors

More efficient aerosol transport and improved sensitivity.



Capillary Bore Injectors

Straight bore ID, typically 0.5–2.5 mm.

Injector Selection Guide

Glass Expansion uses raw materials of the highest purity, helping improve detection limits by keeping background contamination as low as possible. The Thermo PRO DUO and Radial E-Torch are supplied with a 2.0mm ID Quartz injector. Optional injectors in various IDs are available in quartz, alumina, and sapphire, which can be ordered separately.



Quartz



Alumina



Sapphire



Visit our Thermo Scientific PRO E-Torch landing page by scanning the QR Code for a detailed Injector Selection Guide in addition to all ordering information.

Not sure which E-Torch configuration you need, have a question about consumables and replacements, or seeking guidance on installation and maintenance?

Contact your regional Glass Expansion office:

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