



TORONTECH

ELECTRIC PROPULSION GROUND IGNITION SYSTEM - TORONEP™ 3000 G



Electric Propulsion Ground Ignition System - ToronEP™ 3000 G

An Electric Propulsion Performance Test System often needs a dedicated setup for repeatable Hall thruster ignition under controlled vacuum and thermal conditions. Electric Propulsion Ground Ignition System - ToronEP™ 3000 G is designed for Hall thruster ignition tests, supporting integrated or selective subsystem testing with vacuum and thermal cycling evaluations.

The large vacuum chamber and platform space support practical mounting, diagnostic access, and repeatable configuration changes. A cold plate enables controlled temperature conditioning for test articles and supporting hardware. This system helps teams validate ignition behavior and system readiness before longer endurance or performance campaigns.

ToronEP™ 3000 G is a ground-based ignition and verification platform for electric propulsion hardware, centered on a large vacuum chamber, integrated platform, and cold plate conditioning. The system is designed to support Hall thruster ignition testing under controlled low-pressure conditions while allowing thermal conditioning and cycling when required by the program.

It accommodates integrated system tests or selective testing of key subsystems, depending on the test objective. Defined operating pressure under xenon or krypton flow supports stable ignition experiments and repeatable test sequences. ToronEP™ 3000 G fits electric propulsion labs that need a dedicated ignition environment with practical fixturing space and predictable vacuum behavior.

APPLICATIONS

Electric Propulsion Ground Ignition System - ToronEP™ 3000 G

Applications

- Hall thruster ignition testing under controlled vacuum conditions
- Integrated system ignition tests for thruster, cathode, and feed subsystem combinations
- Selective subsystem ignition verification and troubleshooting during development
- Vacuum and thermal cycling evaluations tied to ignition reliability studies
- Pre-endurance screening to confirm stable starts before long-duration runs
- Test development for ignition sequences, control logic, and safety interlocks



FEATURES

Electric Propulsion Ground Ignition System - ToronEP™ 3000 G Key Features

- S30408 stainless steel chamber construction supports corrosion resistance and long service life
- Large chamber and platform support flexible fixturing, instrumentation, and diagnostics access
- Defined operating pressure capability during xenon and krypton flow supports repeatable ignition testing
- Cold plate temperature control supports thermal conditioning for ignition-related studies
- Supports integrated or selective system tests to match different program goals
- Built for vacuum and thermal cycling evaluations tied to ignition stability and readiness

TECHNICAL SPECIFICATIONS

Electric Propulsion Ground Ignition System - ToronEP™ 3000 G Technical Specification

Specification	Details
Chamber Dimensions	Φ 3000 mm × 6000 mm
Platform Dimensions	L 2500 mm × W 2000 mm
Cold Plate Dimensions	L 1000 mm × W 1500 mm
Operating Pressure	6.65 × 10 ⁻³ Pa (100 sccm xenon, 160 sccm krypton)
Ultimate Pressure	5.0 × 10 ⁻⁴ Pa

Specification	Details
Cold Plate Temperature	-40°C to +50°C (500 W)



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 

Phone: +971 488 19252
Email: me@torontech.com

