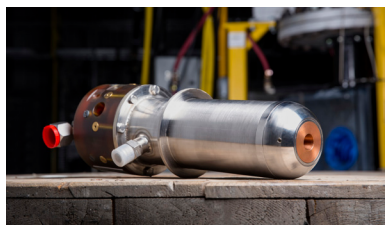


PLASMA TORCHES

LIGHTWEIGHT • COMPACT • RELIABLE • EASY TO HANDLE

PyroGenesis offers 4 types of torches, which can be used alone or integrated into a customized system for various applications.



Air Plasma Torch (APT)

APT can be used with a variety of gases such as argon, oxygen, and nitrogen.
Applications:

- Waste to energy
- Process heating
- Gasification
- Vitrification



Reverse Polarity Torch (RPT)

RPT provides the energy required for high-enthalpy systems.

Applications:

- High-purity materials
- Metal production
- Nanomaterial production



Steam Plasma Torch (SPT)

SPT is used in our SPARC system to destroy refrigerants with a removal efficiency of 99.9999%.

Applications:

- Destruction of hazardous substances, such as refrigerants



MINIGUN Plasma Torch

MINIGUN is the smallest, most compact plasma torch.

Applications:

- Thermal spray: spray coating, etc.
- R&D projects



LOW OPERATIONAL COST

LOW CAPITAL COST

LOW GREENHOUSE GAS EMISSIONS

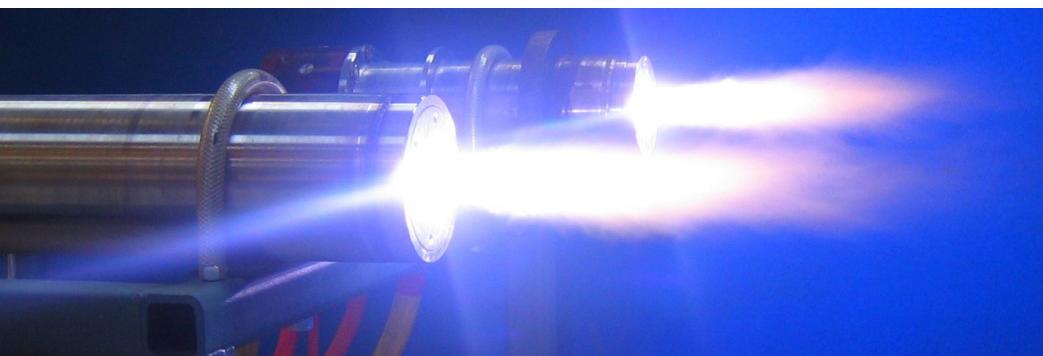
SMALL FOOTPRINT

RAPID START-UP & SHUTDOWN

HIGH ENERGY DENSITY

Main Applications:

- Process Heating
- Waste Treatment
- Production of High-Purity Metals
- Nanomaterials



For more information, please contact:

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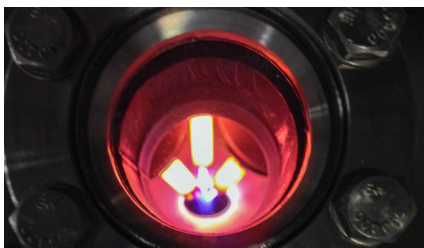


Success Stories



THE NAVY'S CHALLENGE

The U.S. Navy was looking for a solution to destroy waste onboard its aircraft carriers. Traditional technologies available in the marketplace presented challenges of heavy weight, large footprint, risk of steam explosion and complex operation. PyroGenesis developed the **Plasma Arc Waste Destruction System (PAWDS)**, using the **Plasma Torch APT**, to address these problems, while respecting the high standards dictated by the U.S. Navy. PAWDS is now the most compact, lightweight, easy-to-operate, fully automatic, and safe waste treatment system. PyroGenesis has delivered two systems to date for the CVN 78 USS Gerald R. Ford and CVN 79 USS John F. Kennedy aircraft carriers. PAWDS also has MED Type Approval for the processing of solid waste and sludge oil, from Lloyds Register.



HIGHLY SPHERICAL, FULLY DENSE, METALLIC POWDERS

Drawing on its extensive plasma expertise, PyroGenesis developed the **Plasma Atomization system** using its RPT torch, which produces spherical, fully dense, metallic powders. Plasma Atomization is a highly efficient method for producing metal powders.

These powders are used in the Biomedical, Aerospace, Additive Manufacturing, Metal Injection Molding, and Thermal Spray industries. PyroGenesis has produced powders for Additive Manufacturing industry since 2017.

PyroGenesis Canada Inc. is a world-renowned high-tech company specializing in high-temperature processing of materials and waste and counts the US Navy and the US Air Force amongst its extensive client base.



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