

Starshield Multipurpose Plasma Tool

Starshield Multipurpose Plasma Tool was developed by the [Yugumo Corporation](#) in [YE 45](#).



Year of Creation	YE 45
Designer	Yugumo Fleetworks
Nomenclature	YU-U5-1A
Manufacturer	Yugumo Corporation, Yugumo Fleetworks
Fielded by	Yugumo Corporation
Availability	Mass Production
Price	Starting at 1500KS

History and Background

The Starshield Multipurpose Plasma Tool was created by [Yugumo Fleetworks](#) to be included in [Yugumo Standard Damage Control Alcoves](#) and for retail sale in [YE 45](#). They sought an ergonomic design that could be worn for long periods, while it would deliver plasma welding and cutting solutions on demand.



Function and Design

The Starshield Multipurpose Plasma Tool provides heavy-duty plasma welding and cutting solutions in a portable system that combines advanced plasma technology with ergonomic design, making it an essential tool for engineers, technicians, and fabricators on the go.

Plasma Welding and Cutting Nozzle


The heart of the system is the plasma welding and cutting nozzle. This nozzle emits a high-temperature plasma arc, which is used for both welding and cutting. It achieves extreme precision and efficiency, thanks to its easy-to-control, handheld design. The nozzle has a [volumetric](#) control interface which connects to the [KAIMON-Aperture](#) machinery and control systems.

Hose and Nozzle Extension





A flexible and heat-resistant [polymer](#) hose extends from the backpack to the welding and cutting nozzle. This hose securely attaches to the nozzle and provides a controlled pathway for the plasma arc, gases, and electrical connections. It's designed to withstand extreme temperatures and mechanical stress, ensuring safe and reliable operation in various environments.

Backpack

The [OrchidGear Custom Toolbag Backpack](#) serves as the central hub for the system, housing all essential

components. Made from lightweight  [Nanofabrics](#), the backpack is designed for comfort and portability. It features padded shoulder straps and a waist belt to ensure the user's comfort during extended use.

Gas Canisters

The backpack contains gas canisters, which provide the necessary gases for the plasma process. These canisters are carefully designed to be compact, lightweight ¹⁾, and are easy to replace. They hold gases like  [argon](#),  [hydrogen](#), and  [nitrogen](#), which are crucial for creating the  [plasma arc](#) and shielding the workpiece.

Machinery and Control Systems

Inside the backpack, sophisticated [KAIMON-Aperture](#) machinery and control systems manage the plasma generation process. A miniaturized power supply unit converts electrical energy from a portable high-capacity capacitor system, into the high-frequency electrical energy required for plasma generation. Advanced control algorithms adjust the parameters for welding or cutting, ensuring precise and efficient operation. During long-term and larger projects, the system can also be hooked into the ship's power supply or a portable generator.

Usage

Starshield Multipurpose Plasma Tool offers mobility, precision, and efficiency in a compact and ergonomic package.

Setup

How to use the Starshield Multipurpose Plasma Tool according to its design specifications.

- Initial Setup - The user straps on the backpack, securing it comfortably using the shoulder straps and waist belt.
- Gas canisters inside the backpack are connected to the nozzle through a network of hoses and valves. The specific gas mixture is selected based on the welding or cutting task.
- Power On - The user activates the system by powering it on through a user-friendly [volumetric](#) control interface on the nozzle assembly.
- Plasma Generation - When the system is operational, the power supply unit converts electrical energy into a high-frequency current. This current is then channeled through the nozzle, creating a superheated plasma arc.
- Welding or Cutting - The user guides the nozzle over the workpiece, either for welding or cutting purposes. The intense heat of the plasma arc melts or vaporizes the material, creating precise and clean welds or cuts.
- Control and Monitoring - The user can fine-tune settings, such as plasma intensity and gas flow, through the control interface on the nozzle assembly. Advanced sensors and feedback systems

controlled by the [KAIMON-Aperture](#) chip constantly monitor and adjust the process for optimal results.

Pricing and Parts

Pricing of the unit and its parts:

- Full package - 1500KS ²⁾
- Replacement High-Capacity Capacitor System - 300KS
- Gas Canisters - 50KS
- Replacement Nozzle Assembly- 500KS

OOC Notes

[Andrew](#) created this article on 2023/09/16 07:52. Written with the assistance of ChatGPT.

This was approved by [Wes](#) on 2023/10/02. ³⁾

Art is done in Midjourney by [Andrew](#).

Products & Items Database	
Product Categories	tools
Product Name	Starshield Multipurpose Plasma Tool
Nomenclature	YU-U5-1A
Manufacturer	Yugumo Fleetworks , Yugumo Corporation
Year Released	YE 45
Price (KS)	1,500.00 KS

¹⁾ made with a non-reactive [polymer](#) coating and [durandium alloy](#)

²⁾ The full package comes standard with a 5-year fully comprehensive warranty.

³⁾ <https://stararmy.com/roleplay-forum/threads/more-damage-control-tools-and-gear-for-yugumo.70881/#post-440983>

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