

Star Army Standard Life Support Systems

These standard life support systems are found on most ships in the [Star Army of Yamatai](#). They were most recently updated in [YE 41](#). A second refit was made to the standard system in [YE 43](#) to include support for the [Nodal Liquid Conduit System](#) that was released in [YE 43](#).

Star Army Standard Life Support Systems	
Faction	Yamatai Star Empire
Designer	Ketsurui Fleet Yards
Nomenclature	Type 43
Manufacturer	Ketsurui Fleet Yards . Yugumo Corporation
Fielded by	Star Army of Yamatai
Type of Product	KFY Starship Systems and Parts
Production	Mass Production

Upgrades from previous designs for existing starships can be done at any [Iori-Class Star Fortress](#), [Zodiac-Class Star Fortress](#) or other [Star Army Bases](#) with shipyard facilities (Including [Yugumo Corporation](#) operated [Ketsurui Fleet Yards](#) facilities in the [Yugumo Cluster](#)). They will be implemented on all future [Star Army Starship Classes](#).

About and History of Star Army Standard Life Support Systems

Since the dawn of space exploration, the challenge of producing effective systems to maintain habitat onboard ships has presented itself. Over the years the [Star Army of Yamatai](#) and the [Corporations](#) that supply it has produced gradual improvements to these fundamental systems.

In [YE 41](#), engineers at the [Yugumo Corporation](#) ran [Ketsurui Fleet Yards](#) facility at [Gemini Star Fortress](#) furthered these processes with the development of aetheric vapor capture technology and improvements to the overall life support system on [Star Army of Yamatai](#) ships and bases. The use of [Scalable Graviton Beam Projector Array](#) to capture asteroids composed of water ice were also implemented.

In [YE 42](#) the [Nodal Liquid Conduit System](#) refit was applied to the older [Hemosynthetic Conduit System](#), so in [YE 43](#) while most main line ships received updates to the new system, their Standard Life Support Systems were included in that update. Dr.[Shinichiro Tomoko](#) a [hemosynthologist](#) was brought into the design process to make these minor updates.

YE 43 Refit Changelog

These minor changes were made in [YE 43](#).

- Filtration and Recycling through the [Hemosynthetic Conduit System](#) HSCS-3 was taken over by

applications in the [Nodal Liquid Conduit System](#).

- Waste products forwarded to fabrication systems.

Water System

[Water](#) is one of the most basic yet important resources needed for life to function normally on [Star Army Ships](#).

Water Sources

[Star Army Starship Classes](#) replenish their [Water](#) supply by various collection methods:

Aetheric Vapor Capture System

The equation for the production of water from mixing oxygen and hydrogen creates and requires a large amount of energy. [Turbo Aether Plasma Drive](#) utilized for propulsion on [Star Army Starship Classes](#) functions by way of accelerating aetheric plasma through a subspace acceleration tunnel. It was noticed that inner stages of the engine, where atmosphere had been vented, the design developed condensation on the inside of fittings that vaporized due to the intense heat of the plasma. Engineers discovered that this vapor could be captured and treated (reverse osmosis to remove radioactivity) through the ship's filtration and purification system to produce potable water.

The system was further expanded in [YE 41](#) when engineers building [Star Army Starship Classes](#) for the [Re-establishment of the First Expeditionary Fleet](#) tested the introduction of hydrogen and oxygen from the ship's [Matter Collection System](#) into the upper chamber of the engine design on purpose, the controlled subspace tunnel environment made the micro-explosions controllable so that more vapor could be collected from the system without any negative impacts on the [Turbo Aether Plasma Drive](#) engines. The system is also deployable in the [Multi-Stage Aether Drive](#).

Asteroids

Vessels equipped with [Scalable Graviton Beam Projector Array](#) are able to capture and break up asteroids rich in water ice. The fragments are able to be brought onboard to be melted and passed through the filtration and purification systems.

Planetary Sources


Planets with liquid or frozen [Water](#) can be harvested to replenish the onboard water supply. Common practices involve landing in water or using tankers to haul water from planetary surfaces back to the

ship.

Reclamation

[Water](#) is also collected and purified from the Atmospheric System and other waste treatment systems onboard.

Filtration and Purification

[Water](#) collected from all sources is intensely filtered and purified by using hemosynthetic filters (part of the [Hemosynthetic Conduit System](#)) in multiple stages and finalized through  [reverse osmosis](#).

In [YE 43](#), the hemosynthetic filters were modified as part of the [Nodal Liquid Conduit System](#) which enhanced the use of femtomachinery in [hemosynth](#) to remove impurities from the water. Femtomechanical filtration removes impurities and uses that collected molecular waste in other parts of the [Nodal Liquid Conduit System](#) like the [Universal Hemosynthetic Fabrication System Type 43](#).

Atmospheric System

The breathable atmosphere on [Star Army Starship Classes](#) is produced through electrolysis of [Water](#) as well as any molecular oxygen collected by the ship's [Matter Collection System](#). It is maintained and purified by carbon dioxide scrubbers and hemosynthetic filters that are located in each compartment or section of the ship as part of the [Hemosynthetic Conduit System](#). After [YE 43](#) this application was then taken over by the [Nodal Liquid Conduit System](#).

Emergency Life Support

The life support on [Star Army Starship Classes](#) is built in double redundancy; meaning for each section there are life support systems there is a second present that serves as an independent backup. Life support systems are generally found in [Star Army Standard Life Support Room](#). Capacitor systems have been installed to provide limited life support during low power and no power situations.

On ships equipped with [Star Army Fabrication Chambers](#), they can be utilized in a pinch to create limited amounts of [Water](#) and atmosphere. They can also process waste for recycling.

To preserve life during catastrophic failures of this system, [Star Army Starship Classes](#) have been provided with [Star Army Environmental Suit, Type 28 \(AMES\)](#).

OOOC Notes

[Andrew](#) created this article on 2019/05/08 02:41.

The article was approved on [2019/05/18](#) by [Wes](#). Update was made by [Andrew](#) and approved by [Wes](#) in this [thread](#).

Star Army Logistics	
Supply Classification	Class E - PARTS AND COMPONENTS
First Used	YE 43
Products & Items Database	
Product Categories	subsystems, survival
Product Name	Star Army Standard Life Support Systems
Nomenclature	Type 43
Manufacturer	Ketsurui Fleet Yards
Year Released	YE 43

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