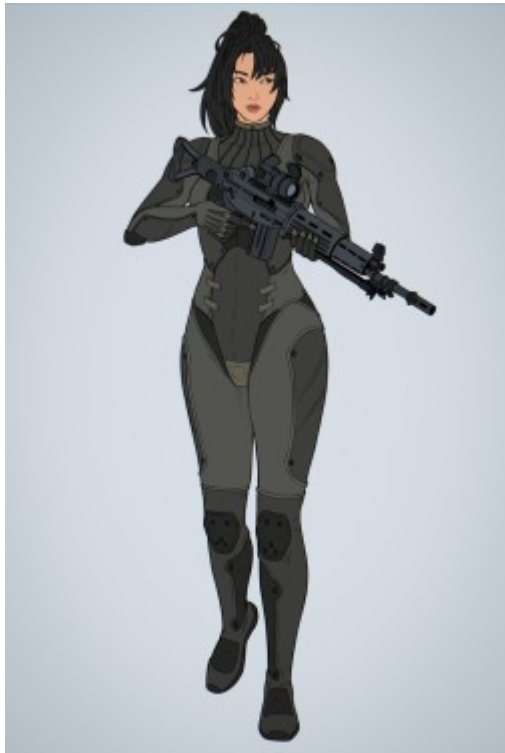


RHI Type 43 "Megumi" Combat Suit

The RHI-G2 Type 43 Combat Suit of the "Megumi" (恵 "grace", derived from a Lianjia concept on Divine Grace) brand was developed by [Ryu Heavy Industries](#) in [YE 43](#) in connection with the [RHI Type 43 "Paradin" Infantry Kit](#). It was released for distribution to [Black Crane Securities](#) and export in [YE 43](#).



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About the RHI Type 43 "Megumi" Combat Suit

RHI Type 43 "Megumi" Combat Suit	
YE Production Began	YE 43
Designers	Ryu Heavy Industries
Manufacturer	Ryu Heavy Industries
Nomenclature	RHI-G2-1A
Used By	Ryu Keiretsu , Independent
Damage Protection Rating	Tier 2 (3 vs Kinetic weaponry)
Availability	Mass Production
Price	500 KS (light)/ 1,500 KS (heavy)

History

With the development of the [RHI Type 43 "Paradin" Infantry Kit](#), [Black Crane Securities](#) realized an additional layer of protection for the [RHI Type 43 "Megumi" Environmental Skinsuit](#) would be needed.

Executing the concept proved to be problematic, as engineers were having a problem developing a thin enough suit that retained decent ballistic protection, while still being fully mobile. So it was repurposed and developed into a “light” variant, with a heavy variant developed from the ground up.

Some of [Advancer Enterprises'](#) cybernetics research was used in the development of the suit's primary defense mechanism. A [Shear Thicking Non-Newtonian Fluid](#) (STNN Fluid) codenamed “Compound X7G1-November”, it was originally designed to be used as a semi-active subdermal armor in an attempt to emulate how Advancer suspected the [NH-33 \(Eihe\)](#) achieves its armor. Unfortunately, the corporation was having issues mitigating the toxicity of the fluid when implanted within organic tissue. As it was not nearly as toxic on outer skin, [Black Crane](#) and [RHI](#) engineers opted to make use of the abandoned project's technology.

Appearance

The “Megumi” Combat Suit comes in two versions: Light and Heavy.

Light Variant: Similar to a jumpsuit, it shares an appearance with the discontinued [Star Army Engineering Protective Jumpsuit, Type 31](#). It does not cling to the user's appearance, instead having a loose appearance typical of coveralls and jumpsuits.

Heavy Variant: Sharing some resemblance to the [Star Army Engineering Protective Jumpsuit, Type 31](#), the Heavy variant has a thicker, more robust appearance. Unlike the Light Variant, Heavy Combat Suits are relatively skintight owing to the integral pressure layer, rather than intended to be worn over one.

The body is typically a dark color. The chest, arms, and legs, on the other hand, are a light color. All black, black and red, olive drab and coyote brown, and [RIKUPAT](#) patterns are the most common. Other colors, and patterns such as [MYPAT](#), are available via programming due to the use of [Omnihue](#).

Heavy Variant

Developed according to feedback from [Black Crane Securities](#) operatives, the Heavy variant is designed to function as an environment suit on its own.

Skin Materials

Designed to be a dedicated combat version of the [Megumi model Environmental Skinsuit](#), the Heavy Combat Suit makes use of different materials to give protection to the user. The inner layer of the Heavy Combat Suit (like the [Skinsuit](#)) is two layers of [Kinugoshi-ko](#) with [Bulletproof Wool](#) based [Dataweave](#) sandwiched in between. Connection points for various neural interfaces are present to connect the user's digital mind with the Heavy Combat Suit.

A rather thick layer of hybrid polymer nano-composite is found in the middle of the suit. Functioning

similarly to the same layer in the [Environmental Skinsuit](#), the thicker layer of the Heavy variant also acts as the thermal and airtight seal needed for it to provide the same benefit. With the computer system configured to do so, the layer can provide additional lifting strength to the user. However, this function is disabled by default to conserve power and typically used only when needed.

The outer layer consists of the [Shear Thickening Non-Newtonian Fluid](#) (STNN Fluid) called [Xirang Gel](#) that is sandwiched between [Omnihue](#) dyed [Kinugoshi-ko](#) (external) and a [Bulletproof Wool](#) (internal) layer. Upon impact, the fluid hardens to have a tensile strength nearly that of [Durandium Alloy](#). Nanites embedded within the fluid are powered by the kinetic force and vibrate to accelerate the fluid hardening.

With the outer [Kinugoshi-ko](#) layer intact, this is enough to prevent most of the common heavy personnel rounds from penetration. But once that outer layer is damaged, the suit relies on the fluid to slow rounds and distribute force, relying on the lower fabric layers to protect the user. The nanites then use their remaining power to speed the [STNN Fluid's](#) return to its liquid state.

Areas that require constant movement (joints and the waist) and much of the forward torso make use of [Osmiridium](#) chain mesh to provide basic ballistic protection.

Electronics and Computer System

Thanks to the [Dataweave](#) serving as a circuit board, the suit's main computer is located in the lower back of the suit. The [KAIMON Aperture](#) monitors the suit's basic internal and external sensors to ensure proper operation. The internal sensors monitor the vital signs of the wearer and internal temperature while the external sensors monitor the outside environment for hazards, temperatures, and g-forces.

The suit's [Omnihue](#) dye can be used to intercept EM signatures.

Data is accessible to the user via the user's digital mind (wired/wireless), wirelessly to a compatible wearable display (such as glasses), and to the user's Helmet HUD. The suit has connection points on the shoulders and chest for additional electronics such as communication systems, with additional connection points located around the skinsuit to connect to an outer suit and compatible attachments.

A revision in [YE 44](#) (1A1) saw connection points for a head harness based [Lazarus MICAS portable headset](#). This allows users without direct neural interfaces to make use of the suit.

Power Systems

Power for the Megumi Combat Suits are provided via three sources: bioelectric, [photovoltaic](#), and battery power. The first, bioelectric generators, work by converting the wearer's body heat and movement into usable electricity. This source of power is primarily used to trickle charge a reserve battery used for life support functions only located in the lower back of the suit. Exposed sections of the [Omnihue](#) dye are also used to provide power from intercepted EM energy.

For more power consuming applications such as connected shield and sensor systems, a [Galactic Horizon Micro Core](#), located above the reserve battery, provides main power.

Life Support

The suit's environmental systems depends largely on the helmet mated to the Megumi. With most helmets out on the market, such as the [Star Army Helmet, Type 30](#), the wearer has filtered air and a rebreather that can last for 48 hours. Recycled water from nanomachine purification is located in the back of the suit and is pumped to an attached helmet or induction port (straw) if the helmet has it.

The hybrid polymer coating of the Megumi provides protection from common types of radiation and integrated gloves and socks ensure the system is airtight. The internal pressure layer provides high-G protection and works to keep the internal temperature at a comfortable level.

Light Variant

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The Light Combat Suit (formally known as the Protective Jumpsuit) is designed to be used with the [RHI Type 43 "Megumi" Environmental Skinsuit](#). As such, it is stripped of most systems found in the heavy variant. It relies on the skinsuit's computer to operate its [Omnihue](#) features.

Skin Materials

Like the Heavy Combat Suit, the ballistic protection layer of nanite enhanced non-Newtonian fluid remains present. However, every layer related to life support functions are removed, leaving the remaining layers being [Dataweave](#) made of [Bulletproof Wool](#) sandwiched between [Kinugoshi-ko](#). Connections to the Environmental Skinsuit can be found on the inside of the Light Variant. They must be covered with the provided covers when not worn with an Environmental Skinsuit.

Replacement Parts

The following section details replacement parts and their prices.

- Bottle of Outer Coating Polymer: 100 KS
- Bottle of Nanomachines in a medium of Gel: 50 KS
- Replacement Suit CPU Module: 100 KS
- Replacement filter: 10 KS
- [BR-28 Series Battery Magazine](#) or [Interchangeable High-Volume Capacitor](#) adapter: 10 KS

OOO Notes

[Demibear](#) created this article on 2021/11/07 03:05.

□ This article is a work-in-progress. Is it not currently approved.

Products & Items Database	
Product Categories	clothing
Product Name	RHI Type 43 "Megumi" Combat Suit
Nomenclature	RHI-G2
Manufacturer	Ryu Heavy Industries
Year Released	YE 43
Price (KS)	1,500.00 KS
Mass (kg)	6 kg

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Artwork by <https://ych.commishes.com/user/gmghost>

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Nepleslian Red Heavy Infantryman wearing Light Megumi Combat Suit

³⁾

character generated with midjourney by [Demibear](#)

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