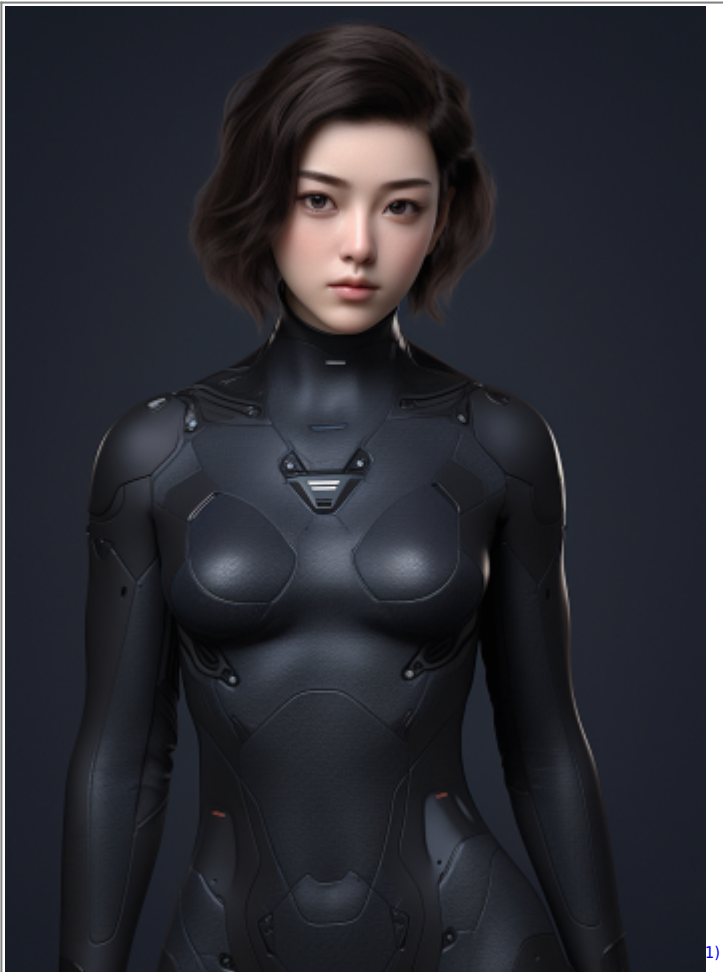


# "Megumi" Diving Suit

An adaptation of the [RHI Type 43 "Megumi" Environmental Skinsuit](#), the Megumi Diving Suit has been adapted for usage underwater. By itself it functions like a [wetsuit](#), but the diving suit can provide greater protection and function with additional modules.



YE Production Began	YE 45
Designers	<a href="#">Ryu Heavy Industries</a>
Manufacturer	<a href="#">Ryu Heavy Industries</a>
Nomenclature	RHI-G6-1A
Used By	<a href="#">Ryu Keiretsu</a> , Independent
Damage Rating	Tier 2
Availability	Mass Production
Price	750 KS

## Key Features

The RHI-G6 Megumi Diving SUit is designed to act like an environmental/pressure suit. It has the following features:

- A tough ([Tier 2](#)) exterior thanks to the use of polymers and [Kinugoshi-ko](#) (Kin-k).
- Enhanced temperature regulation for deep underwater and arctic (potentially) operations.

## History

With the popularity of the Megumi Environmental Skinsuit in [YE 43](#), Ryu Heavy Industries regularly kept in contact with consumers on their use cases for the skinsuit. To no surprise to designers, the [Nepleslian Reds](#) of [Rufusland](#) were buying the skinsuit in large numbers to act as enhanced wetsuits. But what was surprising were the types of complaints as the Reds found new ways to push the limits to what the Environmental Skinsuit was designed to do.

Ryu Heavy Industries' established a R&D Lab and Repair Facility in late [YE 44](#) to both capitalize on the maintenance market and to develop assessories for the Environmental Skinsuit geared for underwater operations. When the [Yugumo Corporation](#) expressed interest in a more underwater optimized environmental skinsuit, RHI was already prepared to handle the request and giving birth to the Megumi Diving Suit in record time.

## Design

### Appearance

The Megumi Diving Suit has an appearance similar to a form-fitting [dry suit](#) that comes in a variety of colors. Compared to the Environmental Skinsuit, the Diving Suit has few external connection points on the front and upper limbs of the suit.

The Megumi Diving Suit comes with either a half-mask rebreather for dives less than 60 meters in depth or a deep dive helmet with an integrated rebreather. Both integrate [Omnihue](#) in their outer layer to allow any manner of coloration for livery, camouflage, insignia, signature reduction, and more to be changed on the fly by the onboard computer if the programming is available.

### Donning/Doffing

While not active, the Megumi Diving Suit looks like a somewhat baggy jumpsuit that also covers the feet and hands. Due to zipper of the diving suit being on the back, a second individual is required when donning and doffing.

An individual first steps into the legs and arms of the suit. After this, slide your head through the neck of the diving suit (should be pre-lubricated). Lastly the inner and outer zippers of the suit are fastened by another individual and sealed with the outer flap of the suit, disguising their presence.

Once the zippers are secured, the pressure layer is activated by mental command or a button on the left

wrist to create the form-fitting shape. Another command returns the suit to its loose fit in order to take it off. Sensors monitor the external environment and ignore commands to turn off the suit if still within hostile conditions.

## Available Sizes

The suits are made in a variety of sizes to cover most body types. Megumi Diving Suits can be customized to fit rarer body types and non-humans as well. Regardless of their size, the suit adds a few cm to a person's height from the integrated socks.

## Skin Materials

The material of the Megumi Diving Suit is identical to the [Environmental Skinsuit](#). The only difference is the artificial muscle layer above the inner layer. Capillaries have been introduced to the nanocomposite material to allow thermal regulation fluid to help maintain a constant temp set by the user.

### Nanocomposite Self-Sealing Layer

A layer of nanocomposite material is embedded within the suit's outer layer. In the event of a minor breach, these nanocomposites would react to the change in pressure and immediately expand to seal the breach. This would be particularly useful for punctures or small tears, providing a temporary fix until the user can reach a safe environment for proper repair.

## Power Systems

Because of the need to maintain the user's body temp, the Megumi Diving Suit uses batteries as the exclusive power source. Two replaceable batteries (like the [BR-28 Series Battery Magazine](#) with adapter) are located in the thighs of the diving suit.

Other compatible power options:

- [Galactic Horizon Micro Core](#)
- [Interchangeable High-Volume Capacitor](#)
- [BR-E2a](#)

The Diving Suit is capable of functioning for 24 hours, longer if only essential systems like the pressure layer and life support are used.

## Environmental Systems and Life Support

Unlike the Environmental Skinsuit, the Megumi Diving Suit comes with a deep dive helmet to protect the

user from water pressure and the hazards that come with it. Up to the depth of 300 meters, the user experiences a maximum of 1.5 atm on their body and the atmosphere they breathe with a standard breathing atmosphere of 78% Nitrogen and 21% Oxygen.

For depths below 300 meters, non-standard breathing mixtures are required as pressure exerted on the body begins to exceed 1.5 atm. Due to the thermal and heating elements of the diving suit, mixtures replacing Nitrogen with Helium are recommended to limit the effects of 🧠 [nitrogen narcosis](#) and 🧠 [oxygen toxicity](#) on the diver.

The bulk of the diving suit's oxygen is provided by what ever underwater module that is connected to the diving suit with similar bolts and connection points found on the [Megumi Mobility Skin](#). Without the underwater module, the Diving Suit used like a 🧠 [wetsuit](#) with the half-mask rebreather connected to the life support system. All reserve oxygen is either located within the upper arms of the diving suit within thin flat canisters. The combined amount of oxygen allow 15 minutes to rapidly ascend to the surface. Auto-injectors within the diving suit inner layer supply drugs meant to treat symptoms of 🧠 [decompression sickness](#).

The hybrid polymer coating of the Megumi provides protection from common types of radiation and integrated gloves and socks ensure the system is airtight, pressure sealed (along with the inner pressure layer), and provides thermal protection from the water (along with the inner thermal layer).

The secondary atmosphere filters of the Environmental Suit have been replaced with heating systems for the diving suit.

## Sensors, Communications, and Computer System

Thanks to the [Dataweave](#) serving as a circuit board, the suit's main computer is located in the upper back of the suit (in between the shoulder blades). Unlike the Environmental Skinsuit, the Diving Suit makes use of an Integrated [Aperture](#) Chipset.

The chipset 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's temperature and water pressure. Data is either displayed directly to the user's digital mind interface/SQUID created interface or can be projected form volumetric displays located in the forearms of the diving suit.

The suit's chipset augmented with an [Savtech JANE](#) via a water sealed slot within the Deep Dive Helmet. The helmet also has both passive (sides of the helmet) and active sonar (front of the helmet) integrated. Raw data can be displayed to the user if they wish to analyze sonar contacts or leave it to an installed SAVTECH JANE (or something equal to it) to handle the sonar analysis. The lower sides of the helmet also contact bright LED lights that can be detached and become handheld.

Due to the weak proformance of EM based communications, the diving suit makes use of a quantum entanglement communication system located on the chest of the suit. Due to the ability to use “programmable” quantum particles, the range of the system is incredibly short to within 200km, but the system works perfectly underwater. the pair particle not on the suit is often made into a module that

converts the data to an electronic format which is then transmitted in more traditional formats such as radio and laser. This module is either left above water or attached to communication equipment on the suit when above water.

## Usage and Safety Mechanisms

The Megumi Diving Suit is designed to provide life support and survivability to individuals working deep underwater. It's outer surface is more refined due to its usage as the primary uniform. The Megumi Diving Suit is designed to be machine washable, though the outer coating needs to be re-applied monthly. Nanomachines also have to be replaced quarterly by applying new gel to the inside.

### Oxygen Reserve and Auto-Injectors

A small reserve of emergency oxygen is automatically released if a breach or rapid depressurization is detected. This provides the user with an additional 15 minutes to ascend or reach a safe environment. Auto-injectors filled with medications to treat symptoms of decompression sickness are integrated, administering treatment automatically or upon command.

### Emergency Pressure Equalization System (EPES)

For rapid depressurization scenarios, an Emergency Pressure Equalization System is integrated. This system would consist of a series of micro-valves that would open to equalize the internal and external pressure almost instantaneously. This would prevent the dangerous effects of rapid decompression on the human body, such as decompression sickness.

### Acoustic Distress Signal

In case of an emergency, the suit can be configured to emit an acoustic distress signal that can be picked up by nearby submersibles or surface vessels. This would be particularly useful if the primary communication systems are compromised.

## Accessories

The following section details accessories and gear designed to expand the abilities of the Megumi Diving Suit:

- ["Megumi" Abyssal Underwater Operations Module](#): 500 KS
- Emergency Repair Kit: 75 KS

(A compact kit containing essential tools and materials for field repairs, including nanocomposite

patches, sealant, and a small hand-operated pump for re-pressurizing the suit.)

## 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
- Emergency Oxygen Reserve Canister: 50 KS
- Auto-Injector Medication Refills: 25 KS
- Replacement Suit CPU Module: 100 KS
- Battery Adapters (each): 10KS
  - [GH Micro Core](#)
  - [IHVC](#)
  - [BR-E2a](#)

## In Roleplay Mentions of the Megumi Diving Suit

None as of this time.

## OOO Notes

[Demibear](#) created this article on 2023/09/24 23:34.

This was approved by [Andrew](#) on 2023/09/29.<sup>2)</sup>

Products & Items Database	
Product Categories	clothing
Product Name	"Megumi" Diving Suit
Nomenclature	RHI-G6-1A
Manufacturer	<a href="#">Ryu Heavy Industries</a>
Year Released	<a href="#">YE 45</a>
Price (KS)	750.00 KS
Mass (kg)	7 kg

1)

Artwork generated on [midjourney.com](#) by demibear

2)

<https://stararmy.com/roleplay-forum/threads/megumi-diving-suit.70932/#post-440841>

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