Impulse Powered Armor

The Impulse Powered armor is a Powered Armor first Produced in the year YE 31 by Origin Industries. It is a completely civilian designed and produced armor, available on the open market for anyone willing to pay.

History and Background

Origin Industries is always searching for markets to exploit, and found a rather glaringly open one, which was the lack of compact, space-capable Powered Armor for nonmilitary organizations. While military issue armors are available on the black market, their numbers are low, especially of more modern armors and Yamataian armors in general. It was decided that Origin should create an armor capable of going toe-to-toe with military armors, but using simpler techniques to keep costs down and to reduce the hassle of maintaining the armor. This armor had to have some space-capability as well as ground capability, and had to be able to utilize any weapons system a military PA could handle, as well as any personal weapons it may be required to use. This armor also had to be very durable, and capable of taking a number of hits before going down, with special attention paid to the effects of kinetics on a pilot. Thus, the Impulse was born, and the idea got up and ran to become something produced by Origin.

About the Impulse

The Impulse is a low-frills, fairly unsophisticated design compared to Yamataian and even newer Nepleslian armor. In exchange, it is also a bit tougher and more survivable than Zen Armaments' Demon series of powered armor, barring the Crooked Demon series. It was made to not only bolster independent and mercenary forces, but also to be marketed to military forces as a lower cost alternative when resources run short. With efforts made on economy and pilot survivability, it is a rugged armor whose durability lies in its relative simplicity and ease of maintenance.

Statistical Information

Government: N/A Organization: N/A Type: Powered Armor Class: OI-M2-1A Designer: OAW PA Design Team Manufacturer: Origin Industries Production: Mass Production Crew: One Humanoid Maximum Capacity: One Humanoid **Price:**

- Base: 4,250 KS
- Standard: 14,110 KS
- And up…

Width: Adds 6 inches to pilot width Height: adds 4 inches to pilot height **Mass:** 320 Lbs (with Backpack)

Operational Statistics

Speeds: *See:* Backpack Modules Or Backplate Modules Range: *See:* Backpack Modules Or Backplate Modules Lifespan: 5 years

Damage Capacity

See Damage Rating (Version 3) for an explanation of the damage system.

Standard:

- Body: 8 SP (Armor Scale)
- Shields: *See:* Backpack Modules Or Backplate Modules

Modular:

- Body: *See:* Impulse Components
- Shields: *See:* Backpack Modules Or Backplate Modules

Weapons Systems

The Origin Impulse Power armor can be outfitted with weapons as follows:

Main Weapons

- **None:** The Origin Impulse Powered Armor does not come with any hard mounted or fully integrated weapons. It is a stand alone powered armor system, and may utilize any firearms that can be held by the pilot wearing the suit. Additional weapons may be mounted on the adjustable hardpoint mounting devices.

Hard points

The Impulse Power Armor System holds several hardpoint mounting systems, composed of the hardpoint itself, and an adjustable mounting rail which can be rotated. There are a total of six hardpoint mounting systems located throughout the Impulse. A pair is located on the shoulder; here, additional weapons systems and accessories may be mounted, such as launchers, secondary/tertiary shield generators or even utility tools. There is also a hardpoint mounting system on each forearm. Most common attachments include forearm mounted guns, launchers, retractable melee weapons and various tools. The final two hardpoint mounting systems reside on the calves, one on each, primarily serving as mounting points for missile racks.

With the proper Origin made adapters, nearly any weapon system can be mounted to the Impulse Power Armor. The mounting points themselves, though sturdy, may eject a mounted device if hit with sufficient force or weapons fire to help prevent additional damage to the device. In the event of hardpoint mounting system or Origin made adapter failure, damage or destruction, please contact your nearest Origin Industries representative for product warranty reimbursements and repairs.

Systems Descriptions

The Impulse comprises the following systems:

Modular Components

The Impulse has been created nearly entirely from Modular components. These components, in effect, can create from a single system, entirely different armors. This page details the 'standard' build of an Impulse, however, differences can be achieved through the usage of different components.

See: Impulse Components

External Systems

Modular Outer Armor: The modular plating of the outer armor consists of both Durandium Alloy and Nerimium alloyed together in varying ratios, depending on the plates. Thicker and more vital components such as the chest plate have a higher ratio of Nerimium to Durandium to improve protective qualities. Overall, stock outer armor plates are thick and generally provide more protection than some contemporary military designs such as the Ke-M2-2D "Mindy II" Power Armor, and Demon M1 Infantry Power Armor while matching the Daisy M6 Infantry Power Armor. At points where motion is required, such as joints, plates are thinner and smaller, overlapping with one another to both maintain protection and range of motion equivalent to that of an unarmored person. For the same reason, the weakest points on the Impulse are the joints and hands.

The modular nature of the armor plate allows for quick and easy removal and repair on the field while still remaining very durable and tightly fastened during use. Simple tools such as a small wrench and screwdriver used in conjunction with a pry bar or even power armored fingers can be used to quickly unfasten and then remove damaged plates for rapid replacement. With Origin's proprietary interlocking system, plates stay on even under impact while still being easy to replace. Custom plates consisting of different materials such as rolled homogeneous Nerimium, female styled chest plates, explosive ordinance disposal protective plates and more are all available for purchase or custom order from Origin Industries.

Backpack Modules: The backpack modules are important accessories of the Impulse Power Armor System. They hold many important components, ranging from power sources, to shield generators and propulsion.

Backplate Modules: Alternatively to the Backpack modules, Backplate modules can also be affixed,

allowing the armor even more flexibility while integrating more of the systems into the armor itself.

Internal Systems

Inner Armor: Underlying the main outer armor is the inner armor layer. It is composed of a combination of several polymers, as well as a cheap yet durable bi-weave of synthetic filament. The inner armor serves to protect from radiation and EMP. It is airtight, and serves to isolate and insulate the inner space of the Impulse. The polymer provides protection from small arms with its composition, while the synthetic bi-weave ingrained into the material further protects from small arms and gives an amount of protection from bladed weapons. The layer is never exposed, and lies just before the interior insert.

Synthetic Interior Insert: The interior of the Impulse is very similar to the inner armor, consisting of the same materials, yet thinner to accommodate additional components. Besides the polymer and filament bi-weave, the interior insert contains a synthetic fabric mesh and padding system. It serves to comfortably house the pilot and provide significant protection from kinetic forces. The interior is very comfortable, and is often compared to floating on clouds due to the proprietary padding material which both cushions and breaths. The fabric mesh covering the padding wicks away sweat, which is then evaporated by the padding's underlying air currents resulting from the life support system, keeping the pilot dry. The mesh itself is also soft, and will not be abrasive to bare skin. The padding itself resembles a type of aerogel covered in a soft cloth exterior; it gradually decompresses as the pilot is violently pushed against it within microseconds, and as a result, decelerates the pilot. The padding further buffers incoming energy by evenly redirecting it through it's matrix.

In the case of a pilot voiding inside the Impulse upon fear, death, or both, the synthetic interior insert can be easily removed and replaced with a fresh one. It is washing machine and dryer safe. In addition, it may be sun dried or left to air on its own.

Life Support: The Impulse contains a fairly basic life support system. The air filtration recycles air inside the suit, keeping the gas mix ratio at acceptable levels; it will function even if power is cut to the suit and filters out unpleasant smells. However, the powered circulation will deactivate when power is lost. In addition, the life support system houses a rudimentary heating and cooling system that uses nominal levels of power; it too will not function without power.

Power Supply: The Impulse carries two sources of power. The primary source of power resides inside the backpack unit. Total run time depends on the generator/power source in the backpack itself. The secondary backup source of power is a slot in the small of the back which allows a IHVC to be inserted. A single capacitor contains enough power for the suit to function for a week, provided that only the servos are functional, and the user only walks. Usage of more advanced features such as enhanced strength will drain the capacitor, easily halving run time. Usage of the suit AI would reduce run time to 2 hours of constant usage.

See: Backpack Modules Or Backplate Modules

Propulsion: The most basic form of propulsion comes from the servo units assisting the pilot in moving the limbs of the Impulse. The servo units themselves greatly enhance the user's physical abilities, ranging from strength, to speed, and endurance, all easily matching or rivaling other methods used by

competing designs. The major servo units on the Impulse are located on the shoulders, elbows, hips, knees and ankles. These units in particular are all interchangeable, and easy to repair. Smaller servo units are located throughout the entire suit, varying in size; some of these units are interchangeable, so long as size matches, making maintenance easier.

When out of power, the servos of the Impulse are unlocked, allowing the user to move freely, albeit hindered by the weight of the armor and various systems.

More advanced forms of propulsion are available with proper back modules. Back Modules make use of small thruster nozzles placed around the armor for fine control in space; without a Back module these thrusters are unused.

See: Backpack Modules Or Backplate Modules

Backup Capacitor System: The Impulse has a backup capacitor system, consisting of a network of many small micro capacitors located throughout the entire power armor system. Working in conjunction, the backup capacitor system has enough power to have the Impulse function for one hour at full capacity. Each individual capacitor that makes up the system provides power for the components nearby, reducing energy loss by having power being sent across the suit to reach more distant components.

Electronic Systems: The Impulse Power Armor System is provided with a Destiny AI System 'Pawn' suit that has been made specifically for Powered Armors. The AI assists the user in suit control by monitoring neural signals sent to muscles, brain waves, and eye movements to interpret and predict the user's intent. The Pawn AI further assists the pilot by displaying critical information such as armor status to the HUD integrated into the helmet. The heads up display itself is customizable, allowing the user to select what information is shown where, determine how large the displays are, and add on a myriad of skins to the display. Sakura Blossom and Blue Steel are are two most popular heads up display skins, both being very simple, easy to use and pleasing to the eye. The Impulse also comes equipped with a net browser where a sub section of the Pawn acts as antivirus and hacking prevention suite.

In the event of external access or hacking attempts, the Impulse may have it's system quickly restored to default with a push of a button.

Miscellaneous systems

The Impulse also has the following:

Wearing The Impulse

To open the suit, the user must press a hidden button on the back of the helmet and twist it like a knob. A second button hidden in the collar allows the suit to open up clamshell style, splitting down the sides. The back section hinges at the lumbar region and leans back, while the front, including the arms, leans forward at the waist to counterbalance. Users step into the legs which may split down to the knees to accommodate boots; clothing may be worn while operating the Impulse. After stepping into the Impulse, the arms are slid into the suit's, much like sleeves until firmly inside the gloves. Upon standing up with the front section attached to the pilot, the leg and back plates come up automatically and seal. The

helmet may be worn by slipping it over the head and twisting it into locking position; it uses a heavy-duty locking ring capable of the same range of motion as the human neck may move without injury.

Interchangeable Knuckles

Charged Knuckle Spikes: The Charged Knuckle Spikes are standard equipment for the armor. They are one inch long and have monomolecular tips which allow the spikes to penetrate armor, giving them a greater surface area to electrocute, as well as being simply devastating against unarmored opponents. The spikes are also capable of being fired off to electrocute distant opponents, much like am electrical stun probe gun; they are connected by thin wires to the knuckle guard, which allows them to remain charged. The range is only 30 meters, but they can be rapidly retracted and fired again. Damage against an armor is only local to the impact points, but can be lethal to unarmored opponents. Damage: Tier 3, Heavy Anti-Personnel + Electrical Charge

Bagh Nakh: Bagh Nakh, or Knuckle Claws, are a useful melee weapon that gives the armor the ability to rip and tear its way through unarmored and lightly armored opponents. Hardened and monomolecular-edged, these Nerimium blades add a level of offense many other armors simply do not have. These claws protrude a full half meter beyond the armor's fist, and are limited to melee range only. Damage: Tier 4, Light Anti-Armor

Accessories and Components

See: Backpack Modules

See: Impulse Powered Armor Accessories

OOC discussion and ideas

Created by Kai. Approval Thread

I'm looking for people who can design aftermarket parts for the Impulse, on top of the modular parts/parts sets which I plan to develop. Ideas should be edited into the page link below:

impulse_accessories