Zero-Point Siphon (ZeP Siphon)

The Compression Space Zero Point Siphon, more commonly referred to as a Zero Point Siphon or ZeP Siphon, is a power generation suite that derives power from vacuum fluctuations (virtual particles, such as those in quantum foam) present in vacuum energy through the exploitation and manipulation of entropy and zero-point energy. It is the first reactionless overunity power system developed by the Iromakuanhe, capable of sustaining long-term hyperspace travel and military-grade ship and craft subsystems more effective than the aging Cold Fusion Reactor design.

The core of the siphon is a series of concentric rings of Veyrinite, which are floated using passive suspension fields that occur when the material has been tuned and purified in a specific manner. Around this, are siphon panels which extract the virtual particles and store them in null-entropic capacitors (small-scale stasis chambers) which slow the reaction to a degree where the energy released can be harnessed into workable forms such as electrical and electromagnetic. As the rings gyrate around the center of the array, compressed space is generated until the centerpoint inverts in fourth dimensional space on all lines, causing it to form a pocket dimension. Several magnitudes greater inside of this dimension than the realspace area that encircles it, the field inside is tuned to have a ground state that is lower than the zero point of all the space surrounding it, causing virtual particles to be created inside of the field in large numbers as non-Euclidean space attempts to normalize it. They are subsequently extracted by the siphons to perpetuate the reaction, and continue the 'emergent flow' or creation of new particles, and the system is able to perpetuate itself in this manner as long as the components are still functional.

Interestingly, entropy on realspace is prevented as the pocket dimension does not physically exist in a manner that allows conventional exchanges or energy. Because of this, the siphon requires heavy usage of still-experimental transphasic particle technologies to function. As a means of preventing a failure of the assembly from affecting or damaging normal space, the unit is insulated by a large null-entropy¹⁾ unit that will lock down all real and virtual events inside of the chamber long enough for it to deactivate safely. If compromised by weapons assault and unable to shut down safely, the resulting detonation is comparable to a very small Aether burst warhead going off in a prismatic-white conflagration.

The efficiency of the system can be stated as being somewhere around four magnitudes greater that of the initial charge required to activate, but not much more than that because neither the siphon array nor conversion system have perfect efficiency. As a consequence, it only has 65-75% of the performance of a comparably sized Aether or quantum foam 'reactor'.

The zero-point siphon is most notable for projecting distortion fields which can be 'tuned' by specialized modules, which allow it advanced ECM/ECCM functions that are superior to those of charged particle or interference-based systems.

General Information

Name: Zero Point Siphon Type: Advanced Powerplant Government: Government of the Astral

Commonwealth Designer: Solan Starworks Manufacturer: Solan Starworks

1)

Stasis chamber.

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