Universal Storage II

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# Bulk

# Control

## ACDLarge

Universal Storage ACD (2.5m)

* Cost = 550
* Mass = 0.16
* category = Coupling
* TechRequired = generalConstruction
* entryCost = 2200

## ACDMedium

Universal Storage ACD (1.875m)

* Cost = 475
* Mass = 0.09
* category = Coupling
* TechRequired = generalConstruction
* entryCost = 1900

## ACDSmall

Universal Storage ACD (1.25m)

* Cost = 400
* Mass = 0.04
* category = Coupling
* TechRequired = engineering101
* entryCost = 1600

## ACDTiny

Universal Storage ACD (0.625m)

* Cost = 300
* Mass = 0.01
* category = Coupling
* TechRequired = precisionEngineering
* entryCost = 1200

# Electrical

## USBatteryWedge

### Universal Storage Battery Bank

* cost = 352
* mass = 0.02
* category = Electrical
* TechRequired =AdvancedElectrics
* entryCost = 3800
* Electric Charge 400

20% capacity of two stacked **Z-1K** batteries with all values scaled to match.

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

## USFuelCellSmall

### Universal Storage PEM Fuel Cell

* Cost = 750
* Mass = 0.45
* category = Electrical
* TechRequired =Hi-PowerElectrics
* entryCost = 3200
* INPUT: Oxygen 2.396800
* INPUT: Hydrogen 4.793600
* OUTPUT: Electric Charge 2.25
* OUTPUT: Water 0.003856 (Dump excess)

150% of Stock **Fuel Cell** including power generation (resource usage for generation calculated from *KSP Resources research*.

## USFuelCellMedium

### Universal Storage Alkaline Fuel Cell

* Cost = 1500
* Mass = 0.9
* category = Electrical
* TechRequired =Specialized Electrics
* entryCost = 10000
* INPUT: Oxygen 4.793600
* INPUT: Hydrogen 9.587200
* OUTPUT: Electric Charge 4.5
* OUTPUT: Water 0.007712 (Dump excess)

200% of **USFuelCellSmall**

### USGuidanceComputer

Universal Storage Guidance Computer

* cost =
* mass =
* category =
* TechRequired =
* entryCost =

# Fuels

## USAerozineWedge

### Universal Storage Liquid Fuel Tank

* cost = 30
* mass = 0.013
* category = Fuel Tank
* TechRequired =FuelSystems
* entryCost = 2200
* Liquid Fuel 9
* Oxidizer 11

20% capacity of **FL-T100 Fuel Tank** with all values scaled to match (Everything is 20% of the T100).

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

## USHydrazineWedge

### Universal Storage Monopropellant Tank

* Cost = 66
* Mass = 0.01
* category = Fuel Tank
* TechRequired =FuelSystems
* entryCost = 2800
* Monopropellant 24

20% capacity of **FL-R25 RCS Fuel Tank** with all values scaled to match.

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

## USHydrogenWedge

### Universal Storage Hydrogen Tank

* Cost = 66
* Mass = 0.01
* category = Utility
* TechRequired =Hi-Power Electrics
* entryCost = 2800
* Hydrogen 70000

Based on **USHydrazineWedge** with capacity values calculated with *KSP Resources research* spreadsheet and rounded down to a round number (to account for insulation and ease of use).

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

### Universal Storage Hydrogen (TACLS)

* Cost = 121
* Mass = 0.08
* category = Utility
* TechRequired =Hi-Power Electrics
* entryCost = 2800
* Hydrogen 21229

TAC LS parts are not close to real world values for storage, so the parts have to be rebalanced for that mod to avoid being over powered.

20% capacity of two stacked **Life Support Oxygen Contain 1.25m** (TACLS) with all values scaled to match.

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

## USOxygenWedge

### Universal Storage Oxygen Tank

* Cost = 66
* Mass = 0.01
* category = Utility
* TechRequired =Hi-Power Electrics
* entryCost = 2800
* Oxygen 70000

Based on **USHydrazineWedge** with capacity values matching Universal Storage Hydrogen Tank (close to real world value and easy to calculate ratios for craft design)

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

### Universal Storage Oxygen Tank (TACLS)

* Cost = 121
* Mass = 0.08
* category = Utility
* TechRequired =SpaceExploration
* entryCost = 2800
* Oxygen 21229

TAC LS parts are not close to real world values for storage, so the parts must be rebalanced for that mod to avoid being over powered.

20% capacity of two stacked **Life Support Oxygen Contain 1.25m** (TACLS) with all values scaled to match.

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

# Life Support

## USFoodWedge

### Universal Storage: Life support supply bag (USI Life Support)

* Cost = 240
* Mass = 0.125
* category = Utility
* TechRequired =SpaceExploration
* entryCost = 2800
* Supplies 125

Based on **USHydrazineWedge** with capacity values calculated with *KSP Resources research* spreadsheet and rounded down to a round number (to account for insulation and ease of use).

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

## USWaterWedge

### Universal Storage Water Tank

* Cost = 66
* Mass = 0.01
* category = Utility
* TechRequired =Electronics
* entryCost = 2800
* Water 75

Based on **USHydrazineWedge** with capacity values calculated with *KSP Resources research* spreadsheet and rounded down to a round number (to account for insulation and ease of use).

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

### Universal Storage Water Tank (TACLS)

* Cost = 120
* mass = 0.08
* category = Utility
* TechRequired =SpaceExploration
* entryCost = 2000
* Water 96

TAC LS parts are not close to real world values for storage, so the parts have to be rebalanced for that mod to avoid being over powered.

20% capacity of two stacked **Life Support Oxygen Contain 1.25m** (TACLS) with all values scaled to match.

Scales flatly with part size, so a double height tank is twice the cost, mass and capacity.

# Processors

## USElektron

### Universal Storage Elektron

* Cost = 1500
* Mass = 0.9
* category = Utility
* TechRequired = Electronics
* entryCost = 6000
* INPUT: Water 0.003856
* INPUT: Electric Charge 9
* OUTPUT: Oxygen 2.396800
* OUTPUT: Hydrogen 4.793600

Based on **USFuelCellMedium** with cost, mass matching. Hard to balance rates as it must be less efficient than the fuel cell or you have a perpetual motion machine. The electrolysis process is very energy efficient, the power cost comes from compressing the outputs to store (not a problem in the ISS, I believe the O2 is recycled at STP and the H2 vented).

In the end I doubled the power requirement and halved the resource throughput, so it takes 4 times the energy to revere the fuel cell process. Assuming this will be used with solar panels then that shouldn't be an issue. Might need more tweaking with a Life support mod.

## USSabatier

## USWaterPurifier

# Shrouds

## USAdaptorShroud0625

### Universal Storage Shroud Capsule Cap

* cost = 300
* mass = 0.075
* category = Payload
* TechRequired =GeneralConstruction
* entryCost = 2000

A direct copy of the SM-6A Service Module.

## USAdaptorShroud1875

### Universal Storage Shroud Capsule Cap

* cost = 300
* mass = 0.15
* category = Payload
* TechRequired =AdvancedConstruction
* entryCost = 3600

 Balanced against SM-18 Service Module.

## USCylindricalShroud0625

### Universal Storage Cylindrical Shroud (0.625m)

* Cost = 200
* Mass = 0.038
* category = Payload
* TechRequired =GeneralConstruction
* entryCost = 2600

Balanced against Service Bay (1.25m) as a proportion of volume (38% of the stock part).

## USCylindricalShroud125

### Universal Storage Cylindrical Shroud (1.25m)

* cost = 100
* mass = 0.019
* category = Payload
* TechRequired =GeneralConstruction
* entryCost = 1800

Balanced against .25% the mass of the T-12 Structural Tubestock part (the other 75% is reserved for the shroud).

The above scales flatly with part size, so a double height core is twice the cost and mass.

## USCylindricalShroud250

### Universal Storage Cylindrical Shroud (2.5m)

* cost = 200
* mass = 0.038
* category = Payload
* TechRequired =AdvancedConstruction
* entryCost = 3000

Balanced against 200% of the Universal Storage Cylindrical Shroud (1.25m) (Based on it having 200% the number of wedges).

The above scales flatly with part size, so a double height core is twice the cost and mass.

# Structural

## US\_Quad

### Universal Storage Quadcore

* Cost = 200
* Mass = 0.056
* category = Payload
* TechRequired =GeneralConstruction
* entryCost = 2000

Balanced against .75% the mass of the T-12 Structural Tubestock part (the other 25% is reserved for the shroud).

The above scales flatly with part size, so a double height core is twice the cost and mass.

## USHexcore

### Universal Storage Hexcore

* cost = 300
* mass = 0.084
* category = Payload
* TechRequired =AdvancedConstruction
* entryCost =3000

#### Fuel tank configuration

* + Cost 70
* + Mass 0.025
* Liquid Fuel 18
* Oxidizer 22

Balanced against 150% of the Universal Storage Quadcore (Based on it having 150% the number of wedges).

The above scales flatly with part size, so a double height core is twice the cost and mass.

## USOctocore

### Universal Storage Octocore

* Cost = 400
* Mass = 0.113
* category = Payload
* TechRequired =AdvancedConstruction
* entryCost = 3800

#### Fuel tank configuration

* + Cost 104
* + Mass 0.113
* Liquid Fuel 45
* Oxidizer 55

Balanced against 200% of the Universal Storage Quadcore (Based on it having 200% the number of wedges).

The above scales flatly with part size, so a double height core is twice the cost and mass.

# Utility

USEVAX

### Universal Storage EVA-X

* Cost =
* Mass =
* category = EVAItems
* TechRequired =
* entryCost =

## USKASRadial

### Universal Storage Radial KAS Container

* Cost =
* Mass =
* category = EVAItems
* TechRequired =
* entryCost =

## USKASWedge

### Universal Storage KAS Container

* Cost =
* Mass =
* category = EVAItems
* TechRequired =
* entryCost =

# Waste

## USCarbonDioxideWedge