



The Ton

The fundamental unit of volume for cargos and freight and for ship construction is the **ton**: a measure of volume in the same way that a displacement ton measures volume on ocean-going ships.

The Ton

The ton is a standard unit of volume commonly used throughout the Imperium. It has applications in starship design, in cargo and freight measurement, and in size designations.

In classic shipbuilding, a ton is the volume of 1000 kilograms of water. A ship with a displacement of 1 ton afloat in water displaces one ton of water.

THE BASIS OF THE TON

A ton is the volume of 1000 kilograms of liquid hydrogen, and is approximately equal to 13.5 cubic meters. While a cube of this volume is approximately 2.4 meters on a side, the ton is more typically shown as a rectangular volume 3 meters high, 3 meters long, and 1.5 meters wide.

Subunits of the Ton. There are instances when volumes less than a ton are more conveniently used (when discussing objects, vehicles, or small craft, for example, and expressing volume in decimal tons is inartful).

SUBUNITS OF THE TON

Unit	Tons	Comment
Ton	1.00	Standard Ton
Ton*	1.037	Regency Ton
Square	0.5	half-ton
Cube	0.25	quarter-ton
Roup	0.10	tenth-ton
Lan	0.01	hundredth ton
Emthree*	0.075	cubic meters
Cyard*	0.05	cubic yard
Cuft*	0.002	cubic foot
Liter	0.00007	
Kiloliter	0.075	

*Archaic or little used.

For example, the smallest available G-Drive is 0.25 tons. It is commonly labeled as a 1-cube drive. A quarter-ton Cube is typically 1.5 meters on a side.

The fusion plant for a grav tank is 0.4 tons. It is commonly labeled a 4-Roup fusion plant, or more rarely a 40-Lan fusion plant. A tenth-ton Roup is a cube slightly more than a meter (1.1 meters) on a side.

A person (a human) probably has a volume of a half-Lan. A hundredth-ton Lan is typically a cube about a half meter (0.502 meters) on a side.

Or, a ton is about 13,500 liters, a Lan is 135 liters. A half-Lan person has a volume $(135 / 2) = 68$ liters. Since a person is mostly water, the weight of a person and 68 liters should be roughly equivalent. A liter of water is 1 kilogram. A half-Lan person should be about 68 kilos = 150 pounds. QED.

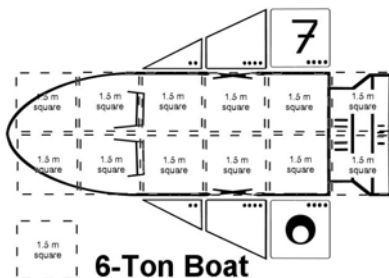


CARGO POD

A three-ton cargo pod measuring 3 meters wide by 3 meters high by 4.5 meters long.

For scale comparison, a half-Lan person (actually closer to a Lan with the vacc suit).

Tightly packed, that cargo container could hold 300 vacc suits or 600 human bodies.



A six-ton small craft showing 1.5 meter deck squares.

TON EQUIVALENTS

Units	Per Ton
Cubic Feet	500
Cubic Yards	18
Kiloliters	13.5
Cubic Meters	13.5

TON DENSITIES

Tons	Material	kg
1	Liquid Hydrogen	1,000
1	Wood	6,750
1	Plastic	12,000
1	Water	13,500
1	Magnesium	25,000
1	Aluminum	35,000
1	Titanium	60,000
1	Steel	100,000

Cubic Meters	13.5
Std Grid Squares	2
Short Grid Squares	4
Tall Grid Squares	1

THE REGENCY TON

The values used for the ton in **Traveller: The New Era** varied slightly from traditional values. Historians call this value the Regency Ton.

One Ton= 14 cubic meters.

Deck Square= 2 meters by 2 meters

Deck Height= 3.5 meters.

Dimensions= 2m x 2m x 3.5 m

