

TECHNICAL FEASIBILITY STUDIES

Airship	ETERNAUS	Model	70-490 / 1000 Titan (Hydrogen)
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DATASHEET

BASIC DIMENSIONS			
Total Length	C =	490 m	
Maximum Diameter	Ø =	70 m	
Maximum Cross Section	St =	3.848 m ²	
Outer Surface	Sext. =	86.130 m ²	
Displaced Volume	Vd. =	1.308.700 m ³	
Maximum Thrust	E =	1.700.000 Kg	
CONSTRUCTIVE INFORMATION			
Material		ALLOY 2090-T83 SHEET	
Plate Thickness	e=	1,2 mm	
Specific Density	& =	3,2 Kg/m ²	
& rupture (traction)	&t =	70 Kg/mm ²	
& admissible	&adm.=	21 Kg/mm ²	
Transverse Prestressing	Fpt =	10 Kg/mm ²	
Longitudinal Prestressing	Fpl =	5 Kg/mm ²	
Operating Pressure	Po =	350 mmca	
Maximum Allowable Pressure	Pmáx. =	490 mmca	
External Resistance Compression	Rcp =	350 kg/m ²	
Operating Speed Limit	Vlo=	210 Km/h	
Weight of the Superstructure	Ps =	280.000 kg	
Accessories Weight	Pa =	112.000 kg	
Gas Weight	Pg =	130.000 kg	
Fuel Weight	Pc =	140.000 kg	
Load Capacity	Cc =	1.040.000 kg	
Operating Total Weight	Po =	662.000 kg	
Displacement Factor	Fd =	0,1582 x vel. ³ CV	
For a speed of 50 Km/h, power = 420 Hp	Autonomy=	240.000 km	
For a speed of 70 Km/h, power= 1100 Hp	Autonomy=	115.000 km	
For a speed of 100 km/h, power=3.400 Hp	Autonomy=	60.000 km	
For a speed of 140 km/h, power= 9500 Hp	Autonomy=	30.000 km	
For a speed of 180 km/h, pow.= 20.000 hp	Autonomy=	18.000 km	

MAIN USES:

- Global transatlantic flying ships to visit any location on the planet by land, air and sea (3.500 guests/passengers will be able to enjoy the most memorable ecofriendly cruise ever conceived at 100 km/h they can make an all over the world roundtrip without the need of refueling.
 - Mixed transport of more than 5,000 passengers in first class cabins, suites and armchairs/beds With leisure areas, theaters, cinemas, restaurants and transport goods in the holds with a large volume for more than 500 tons of cargo (**New York- London** in 28 hours at 180 km/h spending **only 40.000 kg of hydrogen**) (8 kg of hydrogen per person for the 4.900 km)
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- ☒ Transport and special lifting works of super/hyper weights up to 1000 tons.
 - ☒ Exploration of special ores (gold, silver, copper, nickel, etc.)
 - ☒ Exploration of wood choosing the best trees on the forest without producing clearings and protecting the integrity of the forest.
 - ☒ Positioning and implementation of oil wells with special and simpler platforms.
 - ☒ Control of leaks, extinguishing fires; **Fire Exterminator**
 - ☒ Advertising on a giant traveling display (400x 50 m);
 - ☒ Transport of agricultural surplus to the north and south poles /Alps/Andes/ Rockies/Himalayas and/or grains to desertified and dry areas, creating an important reserve for humanity;
 - ☒ Lifting of factories, buildings, super machines, yachts submarines and small ships, properies, among others.
 - ☒ Construction and assembly of viaducts, elevated highways and railways (**including the hyperloop**) reducing costs, deadlines and environmental impacts.
 - ☒ Production of hydroelectric energy at strategic points, condensing water from clouds.
 - ☒ Production of an aircraft carrier with a capacity to carry up to 20 super or hypersonic jet planes
 - ☒ Transport and mounting of entire wind turbines even on the top of hills, where the wind is stronger, without requiring access roads