

Tabelle1

The Sphere Spacecraft (The Space Ball)

For Interstellar Travel, Interplanetary Travel, Space Life, Science, Manufacturing, Exploration

Deck Gravity and Geometries

Deck	a in m/s ²	r in m	v in m/s	Circum- ference in m	Length in m	Area in m ²	Volume in m ³	Eff. Volume in m ³
0,00	2,58	10,00	5,08	62,83	124,40	7816,44	78164,44	70348,00
1,00	3,49	13,50	6,86	84,82	123,07	10439,43	36538,02	31318,30
2,00	4,39	17,00	8,64	106,81	121,33	12959,33	45357,67	38878,00
3,00	5,29	20,50	10,42	128,81	119,14	15346,22	53711,77	46038,66
4,00	6,20	24,00	12,19	150,80	116,50	17567,62	61486,69	52702,87
5,00	7,10	27,50	13,97	172,79	113,36	19587,59	68556,57	58762,77
6,00	8,00	31,00	15,75	194,78	109,69	21365,37	74778,80	64096,12
7,00	8,91	34,50	17,53	216,77	105,43	22853,55	79987,43	68560,65
8,00	9,81	38,00	19,31	238,76	100,50	23995,19	83983,16	71985,56
9,00	10,71	41,50	21,09	260,75	94,80	24719,25	86517,38	74157,76
10,00	11,62	45,00	22,86	282,74	88,18	24932,77	87264,69	74798,31
11,00	12,52	48,50	24,64	304,73	80,42	24506,03	85771,12	73518,10
12,00	13,42	52,00	26,42	326,73	71,13	23241,20	81344,19	69723,59
13,00	14,33	55,50	28,20	348,72	59,62	20791,83	72771,39	62375,48
14,00	15,23	59,00	29,98	370,71	44,18	16378,41	57324,44	49135,24
15,00	16,13	62,50	31,76	392,70	15,84	6221,52	21775,33	18664,57
TOTAL						292721,77	1075333,09	925063,98

Deck with Earth Gravity 9,81 m/s ²					Angular Velocity in m/s
8,00	9,81	38,00	19,31	238,76	0,51

Sphere Geometry and Data

Diameter in m	127,00
Eff. Inner Diameter in m	126,00
Eff. Volume for Passenger in m ³	80348,00 Drive, Landing Area, Fuel Tanks
Eff. Volume per Passenger in m ³	844715,99
Amount of Passengers	7500,00 Acreage, Life Support, Living Space, Re
Area of the Shell in m ²	112,63
Thickness of the Shell in m	50670,75
Volume of the shell in m ³	0,50
Mass of the shell per Cubicmeter Volume in t	25335,37
Mass of the shell in t	2,50
Mass of a Deck per Cubicmeter Volume in t	63338,43
Mass of all Decks in t	0,75 Floor, Walls, Pipes, Vessels, Equipment
Total Mass of Sphere in t	806499,82
	869838,25

Economic Data

Rocket Starts 100 t	8698,38
Transport Costs in M€ (1 M€ per Flight)	8698,38