

StarCycler Specifications

Core	
Length	150 ft
Diameter	30 ft

Spoked Enclosure	
Width	75 ft
Radius	75 ft
Diameter	150 ft
Circumference	471 ft
Surface Area Cylinder	35343 sq ft
Surface Area Ends (2)	35,343 sq ft
Volume	1,325,359 cu ft
Rotation	5.2 rpm
Rim Speed	28 mph
AG (4th FL)	0.7 AG

										<i>(Comparison)</i>
	CORE	Spoke Mount	Side Spokes	Center Spokes	Cross Spokes	Perimeter Truss	Perimeter	End Skin		<i>Torus 1G@2 rpm</i>
Quantity	<i>1</i>	<i>3</i>	<i>32 2x16</i>	<i>16 1 lot</i>	<i>64 4x16</i>	<i>48 3x16</i>	<i>35,343 sq ft</i>	<i>35,343 sq ft</i>		<i>405,641 SA sq ft</i>
Radius	15 ft	8 ft (R)	1.75 inch	1.75 inch	1.75 inch	-	-	-	-	685 ft (R)
Thickness	0.25 in	8 in	3.5 inch	3.5 inch	3.5 inch	0.5 in	-	-	-	0.5 in
Width	30 ft	4.50 in (r)	-	-	-	8 in	-	-	-	15 ft (r)
inner Diameter	14.98 ft	-	-	-	-	-	-	-	-	-
Length	150 ft	-	60 ft	75 ft	48 ft	29 ft	-	-	-	-
Volume Each	508585 cu in	38,373 cu in	6927 cu in	8659 cu in	5505 cu in	1414 cu in	-	-	-	29,206,133 cu in
Unit Weight	793,392 oz	59,862 oz	10,806 oz	13,508 oz	8,588 oz	2,205 oz	2 lbs	2 lbs		58,412,267 oz
Total weight	793,392 oz	179,586 oz	345,806 oz	216,129 oz	549,640 oz	105,859 oz	70,686 lbs	70,686 lbs		58,412,267 oz
Total lbs	49,587 lbs	11,224 lbs	21,613 lbs	13,508 lbs	34,352 lbs	6,616 lbs	70,686 lbs	70,686 lbs		3,650,767 lbs
Total Payload lbs	278,272 lbs									3,650,767 lbs

momoX Bogies	
Battery & Electronics	50 lb
Motor and Gears	50 lb
Frame, Carriage,	100 lb
Unit Total	200 lb
Weight Plates	300 lb
Total	500 lb

Spokes Scaling	
Bicycle Spoke	0.07 in 12 in
Scaled	0.35 in 60 ft

Max Occupancy Est.	
Typical Cruise Line	200 sq ft
4 th floor surface are	35343 sq ft
Rooms - 4 th FL	177 rooms
Double Occupancy	353 occupants

Length Calculator			
	Circum	Spokes	Length
Perimeter Truss Length	5655 inch	16 set	353 inch
Cross Spokes Length			572 inch

Base Materials		per
6061	1.56 oz	cu in
Inflatable	2 lb	sq ft