

Byhaven 2200 - Geodesic dome greenhouse

Table of Contents

General Idea	2
People	4
Materials & cost	4
Timeplan	6
Details of construction	7

General Idea

A movable, lightweight dome built from timber, covered in flexible plastic foil, sitting on top of a round high bed.

The bed has a keyhole style entry, with just enough free space in the middle for one person to stand (approx. 80 cm across) – but not to lie down and sleep :)

The dome will be attached to the bed by means of pegs or screws.

Size of dome: $d = 4 \text{ m}$ ($r = 2 \text{ m}$) $h = 2 \text{ m}$



People

Kenn	kennbirger@mail.dk	50518766
Sarah	sarah.dappolonia2gmail.com	71800543
Juan	cesol@mail.com	
Martin Z	martinzaar@gmail.com	61275725
Lasse		
Sebastian	sebastian@less.dk	60434784

Materials & cost

Main building material is timber (*Hvidt træ Høvlet* 20x95mm) with some reglar (45 x 95 mm) to enforce the structure at the bottom, and maybe around the entry/door.

Material	Quantity	Price per unit	Total price [kr]
Timber 20 x 95	180 m (approx.)	(4 -) 6	1080
Screws	Many :)		
Plastic foil		600?	600
Rice bags		Free?	

Current budget is: 4500 kr

Time plan

When	What	Where	Preparation and materials needed	Who
Feb 15	Input for Application (Ansøgning) Kommune			Martin Juan Sebastian
March 1	Hexagon Workshop – we build one segment of the dome	Workshop in Hans Tavsens Gade (Juan checks)	16 m timber screws	
(The following steps depend on the Kommune's OK to our plan)				
March 21	Build the round high bed	Garden		As many as possible!
March 28	Dome building I	Garden		Dome team + As many as possible!

Details of construction

We follow these:

http://acidome.ru/lab/calc/#5/12_GoodKarma_3V_R2_beams_95x20

or

http://acidome.ru/lab/calc/#1/2_GoodKarma_2V_R2_beams_95x20

We propably decide for frequency 3.

Technical drawings: Juan is working on these!

Joints:

- beams screwed together to form triangles/hexagons
- triangles then joined along with screws

Alternatives for the joints:

- joints made by round patch of rubber or strong fabric (e.g EPDM)
<http://uk.steffca.dk/machine-packings/rubber-sheets/product-1169.htm>) or joghurt pot
- ropes