



Modular Hot Tub Surround

Aim: To design and develop cost effective modular surround for inflatable hot tub.

Inflatable hot tubs have started to become popular purchases for the UK consumer. They are, however, provided 'as is' meaning that there is an opportunity to develop products that surround the hot tub and provide enhanced functionality. This project is to develop a generic and modular surround for these types of hot tubs. The modular nature will allow for the consumer to create a bespoke surround of their own choosing whilst also allow for the surround to be bought a piece at a time for the cost conscious.

What is Modular Hot Tub Surround?

The product is a modular surround system for an inflatable hot tub. It is a collective combination and arrangement of modular parts which can be assembled around the tub to create the bespoke surround for the hot tub. Different modular parts have unique features and functions. These parts can be assembled in relation to each other and can be exchanged in the position around the hot tub. The modular nature allows them to fit and function in a variety of arrangements or individually.

Customizable

Design Targets

Cost Conscious

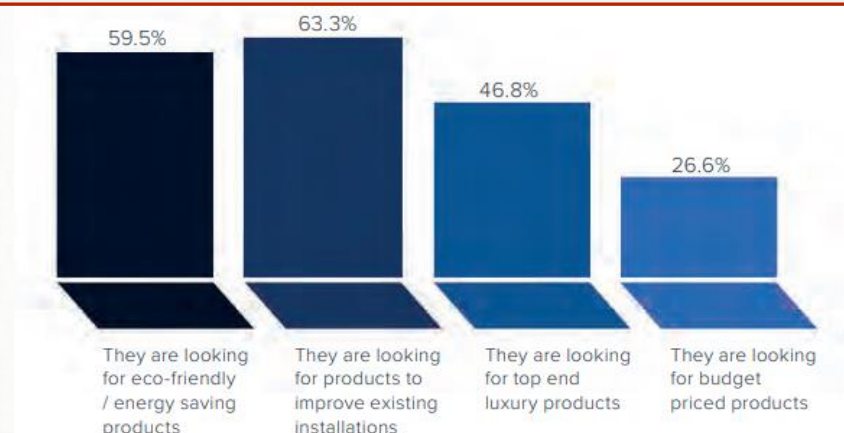
Additional Features

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Market-

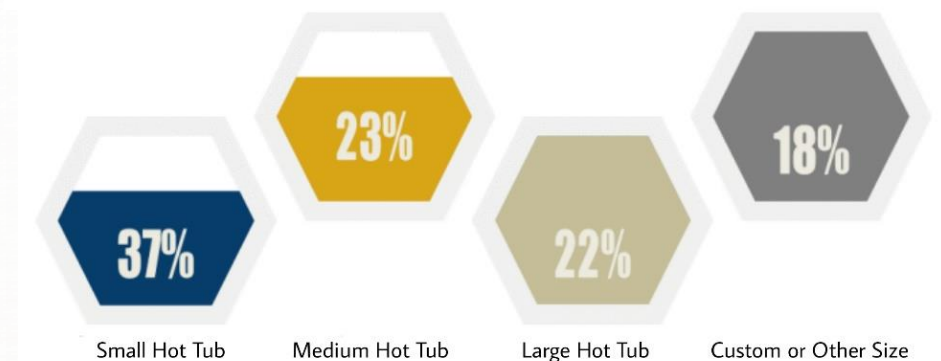
- In the summer of 2021, the number of hot tubs in the UK is estimated at around **100,000** and Britain ranking within the **top ten** in the “world hot tub market” ^[1].
- According to data sources, **227,000** total new hot tubs were sold in the year 2020, marking about **10% increase** from the previous year ^[2].
- According to **2021** survey, **63.3%** of current hot tub owners are seeking for products to enhance their experience of the hot tub ^[3].
- 2021 market is dominated by **small and medium** size inflatable hot tubs.



Customer Requirements-

- Should be a **light investment** or can be bought in parts as per the need.
- Must be **comfortable** and simple to use.
- Should be **easy and uncomplicated to install** the surround system around the inflatable hot tub.
- Must **enhance the functionality** of the hot tub experience or add a feature to inflatable hot tub use.
- Should be **customisable** according to requirements, flexible to place.
- Must be **safe, weatherproof and reliable** to use.

2021 Market Share by Type



Unique Selling Points

- **Aesthetically** blending with the hot tub and spa theme while looking lavish in any environment.
- **Easy to manufacture** because of repetitive standard shapes and parts.
- Shape and design of the surround system **utilises space** around the round hot tub **efficiently** and gives room for other products also.
- Single part is also **effective as a system**- providing absolute function, occupying less space.
- **Easy to set up** around the round inflatable hot tub, simple to assemble without additional tools.
- **Lightweight** parts of the surround system compliment the portability of inflatable hot tubs.

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Shape:

- Each module has an arc-like form.
- It readily fits around round hot tubs.
- They are simple to swap out or replace.
- Effective Space utilization.

Colour:

- Suitable for Spa Theme Aesthetics
- Mute and natural colours like light brown, natural wooden, beige, aqua green, light grey, light blue.

Size:

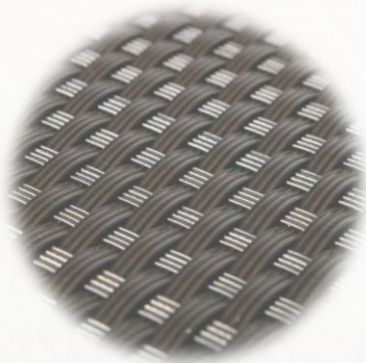
- Every module measures 1000mm broad and 450mm deep.
- 575 mm and 350 mm are the two standard height variations.
- Appropriate for different hot tub sizes.
- Considering human interactions and ergonomics.

Material:

- Aluminium - lightweight, easy to weld and machine, polyester powder coated, good finish, corrosion resistant.
- Polyrattan - PE, high strength, UV resistant, weather friendly, sustainable, natural aesthetics.

Outsourced parts:

- Standard parts are used - easy to replace, low maintenance and saves money.
- Aluminium bars – available size (25x25x2 box section), less machining
- Screws & Rivets – for assembly, widely accessible.
- Leg Inserts – effortless feature addition
- Rattan – recycled part, reused.



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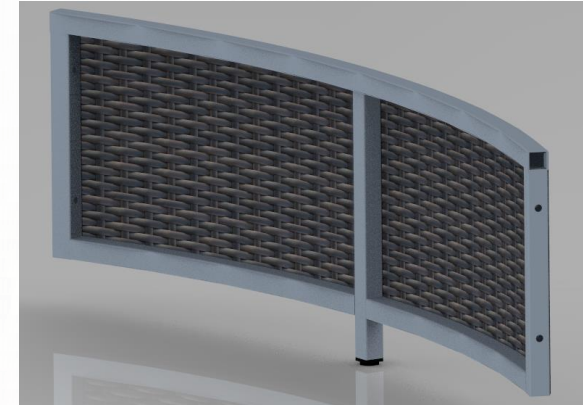
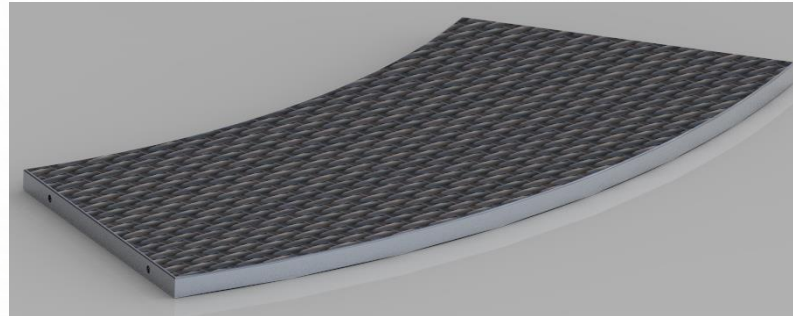
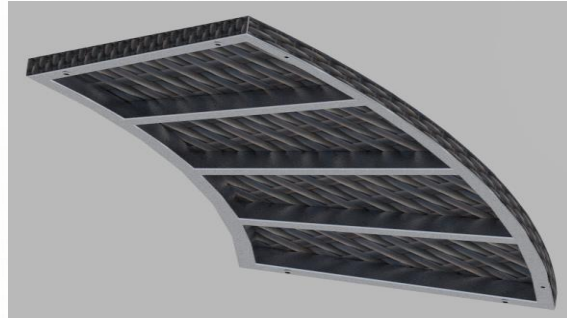
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Assembly:

- Panels are joined to create the appropriate modules, and such various modules create the surrounding system.
- Panels are screwed together using M6 bolt head flanged hex bolts to create modules.
- By connecting modules and securing with the fixing clips, surround can be created.
- Modules can be effortlessly disassembled and relocated.



Panels:

- To make modules, by assembling in order.
- Made by welding different aluminium bars and weaving rattan on it.
- Repeating structures – enhance modularity.
- Also made from repeated parts like aluminium bars and inserts.
- Shipped as flatpack, easy to assemble.



Accessories:

Come in a variety of materials and are not entirely modular. These are mainly integrated with or assembled with specific fundamental modules.

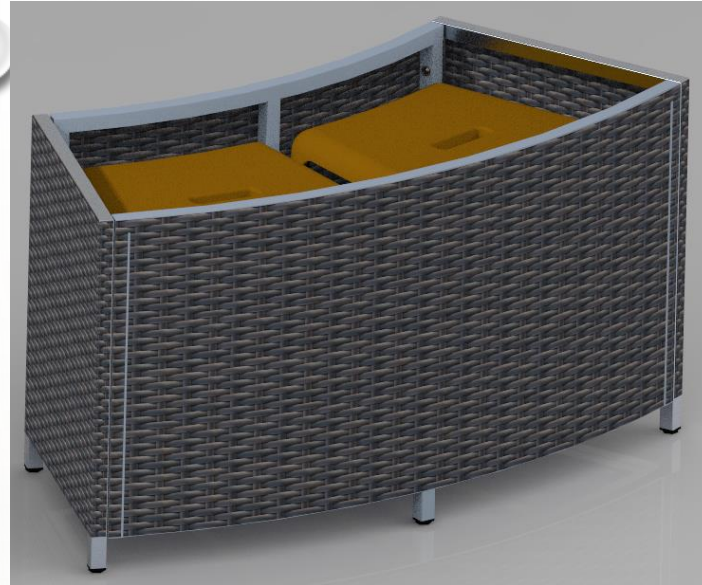
- Splashproof cover – attached to top, easily movable, can see through and protects valuables.
- Chiller stool – can be used to keep ice buckets on, easy to access from tub and can be used to sit



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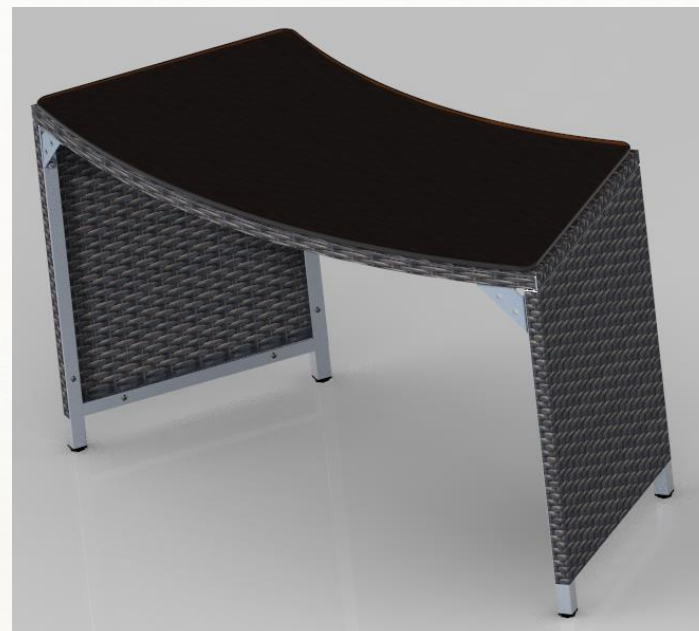
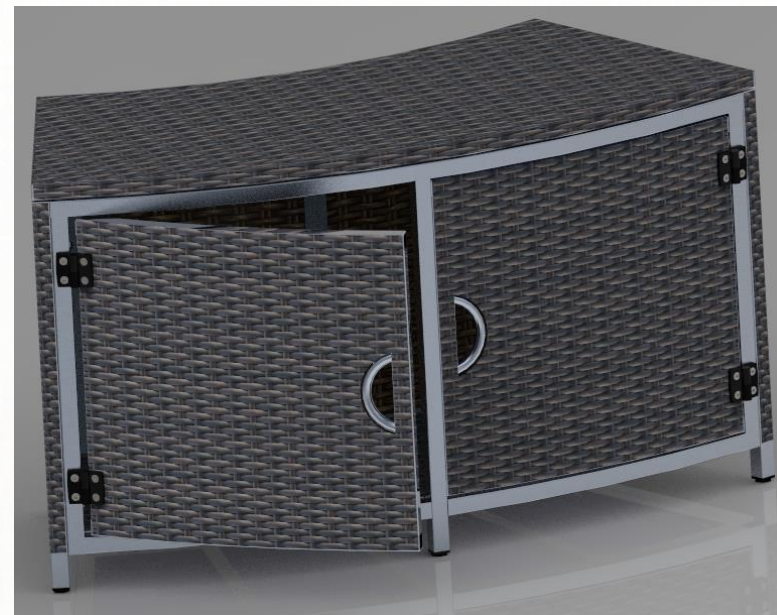
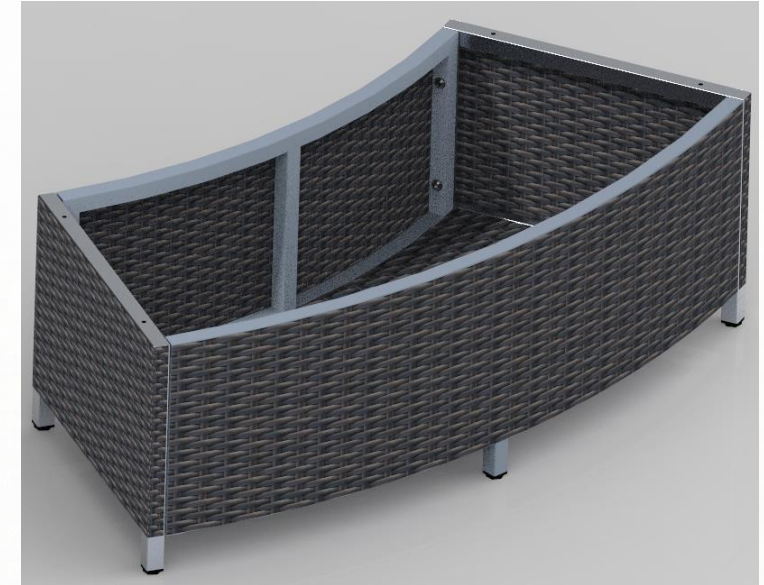
Variety of parts are available to make the surround system, providing multiple functions to enhance the hot tub experience.



Suggested modules



Identical parts can be used in the surround system, enabling the **customisation** of the surround system to the maximum level



Modules can be purchased **individually, rearranged or interchanged**, providing freedom to the customer.

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Different Style for
different settings