

BLUE LAGOON – Geothermal SPA - Iceland



SCOPE OF WORK

- Project planning, conceptual and detail design, preparation of tender documents, material procurement and supervision of construction
 - Ventilation and piping systems: heating, snow-melting, domestic and waste water
 - Electrical installations
 - Lighting design (indoor and outdoor)
 - Structure
 - Hot water main from the Svartsengi Power Plant
 - Mixing and distribution centers in the Lagoon

DESCRIPTION

The Blue Lagoon geothermal SPA was initially a part of the 3500 m² lagoon formed by the Svartsengi geothermal power plant by the refuse water from the power plant. In 1999, a 800 meter long pipeline was laid underground to carry the 160°C geothermal brine from the Power Plant to the new Blue Lagoon. Geothermal sea water in The Blue Lagoon is kept at constant temperature thanks to mixing and distribution centers forming some sort of islands here and there in the Lagoon.

Extension to the Blue Lagoon facilities was added in 2003-2004, with among other things new massage rooms and a warm water waterfall. During this period, a new lagoon and associated facilities, the Blue Lagoon Psoriasis Clinic, were also developed demonstrating the various possibilities of geothermal utilization. The Blue Lagoon now includes integral facilities for its guests, including restaurant, meeting and conference rooms, shops and reception facilities. Part of the Blue Lagoon activities includes the production of health and beauty products from the geothermal sea water in a production facility located close to the lagoon. A special pipe has been laid from the power plant for this specific purpose. The visitor center is partly served by a natural ventilation system together with mechanical ventilation in closed areas or in areas with specific requirements. Most of the buildings are heated up with floor-heating supplemented with the mechanical ventilation system in critical areas. The whole building was equipped with sprinkler with the latest extension.

Lighting design at the Blue Lagoon has been acclaimed by many lighting design specialists and, last but not the least, the Verkís Lighting Designers have been granted the 2006 "Nordic Lighting Prize" for bringing out the building architecture and creating a comfortable environment.

GENERAL INFORMATION

Geothermal sea water in the Blue Lagoon is well known for its positive influence on skin diseases such as psoriasis. The Lagoon was formed initially by the Svartsengi geothermal power plant in 1976. A new lagoon was created in 1998, further away from the power plant where the now worldwide renowned Blue Lagoon is located. The facilities have almost doubled since then to match the growing public interest for the lagoon. The Blue Lagoon has been planned, designed and contracted with specific care concerning its integration in this unique environment.

MAIN DATA

Service facilities

- Area 5600 m²
 - Changing rooms
 - Shops and restaurant
 - Conference and meeting
 - Office area

The Lagoon

- Size 5.000 m²
- Temperature 30-38°C

Blue Lagoon operations

- Guests: 350-400.000/year
- Staff: 150

Heating of the Lagoon

- Geothermal sea water from the Svartsengi power plant
- Flow: 40 l/s
- Temperature: 160°C
- Mixing and distribution centers: 10

Architect:

VA Arkitektar

