**Openwinds**

**General concept**

Open wind is the urban-scale sculptural proposal that seeks to express the poetic and energetic potential of the wind as a natural resource. The intervention aims to transmit the beauty of the wind through movement.

The installation reacts according to the climatic conditions and more specifically to the speed and frequency of the wind. Despite the variability of the wind, a module was designed that is repeated throughout the installation that aims to absorb the force of the wind in any direction, transforming it into movement.

Openwinds is located at the corner of St Kilda Triangle that faces the city, emerging as two large arms that seeks to be the portico of access to the community, raises the Jacka boulevard and slopes, following the guidelines of the Masterplan, recognizing the slopes , including the way they define the topography of The Esplanade and form a landscaped edge on Jacka Boulevard. Intensifying relationships with the beach. Its orientation was carefully chosen to serve as a gateway to the set of heritage buildings and parks proposed by Masterplan, taking into consideration the fact that most visitors would cross it for entry into the group.

Openwinds is composed of two structures, or arms, that are joined at a vertex, each one is composed of 16 modules that reach an average height of 24 meters. each module has cubic form, of 2.00m for each side, in its interior, in the diagonal, contains a helix that allows to catch the energy of the wind. This work has as a direct reference the work of the Venezuelan artist Alejandro Otero (1921-1990), a forerunner of the integration of the arts with the forces of nature in harmony with the universe of man.

The modules that form the installation are made structurally in stainless steel and the rotating propellers made of fabric. The material chosen is the ripstop nylon, which is a lightweight material as well as being very strong and resistant to the weather. Finally, the overall stability of the installation is provided by a steel superstructure.Technology used and amount of energy generated

The wind drives a series of blades attached to a pivot that are placed in the modules that build the installation, therefore, these blades can rotate and generate energy constantly. In fact, the angle at which the blades are placed in the modules can rotate continuously by wind action. The speed of rotation of the blades are the result of the constant change that responds to the environmental conditions that surround it, making it a changing and dynamic installation, revealing the climate.

The rotating movements of the blades produce electrical energy by a generator. The electricity generated is transformed and transmitted to the grid for consumption by the community. The Abrevientos facility aims to generate enough energy for all the surroundings of the St Kilda Triangle, we believe that the power of the assembly produced through the wind by the generator is between 15,000 to 20,000 kWh per year, that is, twice the power generated by a wind turbine.

**Environmental impact**

The intervention is designed to improve the context in which it is based. Abrevientos intends to be part of the icons and heritage buildings of the St Kilda Triangle and Port Phillip, offering something unique and distinctive for all who visit. The efforts to integrate to the place, to be the door of the place, are directed to a sustainable development that attracts people. This is exactly the intention of Abreviento to unite people and inspire them to develop a more sustainable lifestyle. The structure would generate energy from a renewable source and then feed this energy to the grid. Clean energy will be consumed by immediate context.

We are clear that the environmental contributions would not begin immediately as there are carbon emissions involved during the manufacturing process of the various components of the facility. More precisely, the facility will become negative carbon when the carbon savings from clean energy generation will reach the same amount of carbon emissions involved during the manufacturing process. The financial benefits would begin after the construction of Abrevientos, when the electricity reaches the community.

Abrevientos allows the contemplation of nature as a source of beauty. The wind comes alive and expresses its vigorous elegance through the use of art and technology.