ISSF NEW APPLICATIONS AWARDS 2020 - 26



Anemometric tower

ISSF Member	Aperam
Manufacturer	IS Industria
Field	green energy
Location	Maranhão/Brazil
Environment	coastal
Grade and surface	304L
Competing materials	galvanized carbon steel; aluminium; weathering steel

Advantage points of using stainless steel

- Significant life-time increase (at least 4 times)
- Significant reduction of maintenance cost aprox 50%
- Faster manufacturing due to:
 - No galvanizing
 - Simplified painting scheme
 - No sand blasting requirement
 - More lean operations due to reduced logistics
 - Reduced risk of death of staff
- Improved safety of operations
- Improved wind velocity measurement due to tower stability and reliability
- Lower risk of fines due to operational failure

Product description

An anemometric tower is used in wind power parks for measuring wind speed in order to guarantee energy generation efficiency. The measurement devices are attached to these towers and used in data collection both for operational and governmental control. Small failures can result in huge fines therefore the companies are looking for a reliable and economical solution.

Most of the wind parks in Brazil are located in the Northeast coastal regions with severe weather conditions. Currently, galvanized and weathering steel options



Picture courtesy of Aperam

have had a very short-lifetime even after applying expensive and complicated painting schemes. The maintenance is very expensive and dangerous with low effectiveness. There are several cases where the towers fail in less than 3 years much before expected lifetime.

Stainless steel anemometric towers has many advantages for the manufacturer and also end-user including: