Airstar Lighting Balloons Solve the Ulm Church Equation

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Germany – Airstar was recently involved in a lighting project from notorious artist Rafael Lozano Hemmer to celebrate the 125th anniversary of the Ulm church tower spire in Germany. A gigantic balloon measuring six metres in length and animated by eight Panasonic projectors was hung for three months in the middle of the Lutheran church nave. The projected images provided a faithful representation of the activity in the sun’s surface. The Hannover office of Airstar European Network (AEN) provided and installed the balloon.

For this artistic performance, Airstar proposed a custom made air-filled Pendulair 600 balloon. Because of the historical dimension of the church and the need to keep it intact, the artist was looking for a structure which he could project onto that wouldn’t be too heavy. Once filled with 113m3 of air, the six metre wide balloon weighted only 25kg.

As the local branch manager Christian Schramm recalls, although the artist has used Airstar on many occasions in the past, it was the first time that such an installation was made indoors and the balloon was hung instead of being inflated with helium. “The position of the balloon in the nave made it impossible to use helium, a gas that is also expensive, so we resorted to regular air and hung the balloon.” Although it only took the AEN team half a day to install the balloon the preparations took a couple of months. “The balloon had to be hung in such a way that it was possible to tilt it on the side in case we needed to evacuate someone, as it was right below the evacuation passage. The Ulm church is very popular and many people attempt to climb to the top of the spire, and the only way to get people down quickly when they are in trouble is to winch them down from the middle of the church.” Indeed, with 768 steps leading to a 150m high panorama, it is one of the most popular structures visited in Germany.

Local event company, Mauer Veranstaltungstechnik, was responsible for the audio and video equipment for this event. They are the ones who came up with the idea of being able to move the balloon away. Senior project manager Benedikt Partl looked after the whole project and was in regular contact with the artist and his team. “It was such an interesting and challenging project,” he recalls. “It was definitely not the kind of project you come across every day. On top of the rescue plan, we had to make sure the conser-
vation of the monument was the utmost priority, and on practical terms, we had to prevent outside light from interfering with the sun in order to have a striking impact inside.”

Mauer Veranstaltungstechnik deployed molton stage curtains in both aisles as well as the entrance hall. On the projection front, Partl and his team built four towers, each hosting a double stack of Panasonic PT-DX-100EK 10,000 lumens XGA projectors with an additional one hanged above the balloon in order to project on the upper part. All projectors were connected via CAT7 cables and automatically calibrated colours. A MacBook acted as the server to feed the content to the projectors. Each tower was fitted with a PC, a Kinect sensor to capture the public whereabouts and a speaker for the live content.

Although this model of the sun was two million times smaller than the real version, Rafael Lozano Hemmer wanted to make it look as real as possible: “We worked with NASA scientists to understand the dynamics of the sun in order to generate a faithful atmosphere of its activity. We didn’t want to project a loop but content that was constantly changing. So we installed cameras which observed the public, resulting in changes in the sun behaviour and activity.”

This artistic performance is the latest in a series presented by Rafael Lozano Hemmer, who has been using Airstar balloons since 2010 when the artist was first commissioned by the Light in Winter festival in Melbourne. At the time, the event featured the world’s largest spherical balloon, already custom-made by Airstar.

photos: Stadt Ulm
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