

## SynJet® Thermal Management for Museum Lighting



St. Sebastian at Cà D'oro



Artwork at Palazzo Sciarra

### Project Statistics:

End User: Cà D'oro and Palazzo Sciarra

Application: Museum lighting

Products: 328 compact track spotlights

Partner: Zetacube



### Situation:

Italy is home to some of the most exquisite artwork in the world. From Da Vinci to Donatello to the Sistine Chapel, art lovers of all ages and tastes can find a piece to fall in love with. There is so much that goes into displaying a piece of art – the frame, the color of the wall it is hung on, and most importantly, the light that illuminates the piece. The right lighting can bring a painting to life by enhancing color, texture and depth.

Old met new recently when Italian LED designer, Zetacube used LED luminaires to light up the powerful painting St. Sebastian (1490) by Andrea Mantegna in the Cà D'oro palazzo in Venice, and the equally stunning collection of artwork in the Palazzo Sciarra museum in Rome.

Lighting artwork is no simple task. Paint and canvases are incredibly sensitive to heat and light – even a slight deviation from the ideal range can cause paint to crack or fade and canvases to warp. This is why Zetacube turned to the Nuventix SynJet as its thermal management technology of choice for the LED lights used in the Cà D'oro and Palazzo Sciarro.

*“The SynJet’s flexibility is unparalleled, allowing lighting designers to fit more lumens into less space. The SynJet also provides virtually silent acoustics. The last thing visitors want to hear is the whirring of fans as they admire Mantegna’s magnificent painting.”*

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about Nuventix and  
SynJet® Technology visit  
[www.nuventix.com](http://www.nuventix.com)**

**Solution:**

**Palazzo Sciarro:** Zetacube used 325 compact track spotlights to light the art collection in Palazzo Sciarro. SynJets were used to cool these spotlights for a number of reasons. First, the lighting fixture had to be invisible so as not to distract from the paintings. This made large, cumbersome lighting with heavy heat sinks an impossibility and lights with active cooling a necessity. Second, the active cooling had to withstand the large amounts of dust that hundreds of visitors track in and kick up daily. Unlike fans, which are easily clogged, the SynJet is unaffected by dust. The airflow caused by the SynJet’s oscillating diaphragm actually pushes dust away, allowing for a thermal management solution that can withstand the roughest conditions. Finally, the fixture had to be reliable. The SynJet promises more than 100,000 hours of run-time, ensuring it will outlast the LED light engine it cools.

**Cà D’oro:** Since its construction in 1430, the Cà D’oro ceiling has been illuminated only by candlelight and sunlight. So when Zetacube installed three ALFA 20 LEDs in the chapel to light Mantegna’s famous St. Sebastian, it was critical the lights be unobtrusive and silent. The SynJet is the only active thermal management technology that allows for both of these conditions to be met. The SynJet’s flexibility is unparalleled, allowing lighting designers to fit more lumens into less space. Additionally, the SynJet’s design provides virtually silent acoustics. The last thing Cà D’oro visitors want to hear is the whirring of fans as they admire Mantegna’s magnificent painting.

For LED thermal management, the Nuventix SynJet is the only thermal management solution that is reliable, quiet, flexible and lasts longer than the LEDs it cools. These characteristics make it the perfect LED thermal management technology for museum lighting.

