

— CASE STUDY —

AEROSEAL SAVES RETROFIT PROJECT FOR BAY AREA HOSPITAL STRUGGLING TO PASS BUILDING CODE

**With Only Days Left To Get New Ventilation System Up And Running Properly,
Aeroseal Duct Sealing Fixes The “Unfixable” At Sutter Solano Medical Center**

It was late on a Friday afternoon when Mark Avila, president of Air Seal Solutions, got a call from a distraught mechanical contractor. The engineer's team had been working for weeks on a new ventilation system that Sutter Solano Medical Center had installed to exhaust air from the hospital's new autoclave sterilization room. No matter how many times they went at it, they couldn't get the ducts sealed tight enough to draw sufficient air through the system – or to pass local OSHPD code. And now, with walls hiding the ductwork and limited space between the newly installed duct and the ceiling, several subsequent efforts at re-sealing proved increasingly futile. Worst of all, final inspection was scheduled for the following Monday so the contractor had to have the system up and running properly by the end of the weekend.

In Brief

Building: Sutter Solano Medical Center

Location: Vallejo, California

Mechanical: Superior Mechanical Services Inc.

Test & Balance: Rymac Inc.

Aeroseal Contractors: Air Seal Solutions Corp.

Goal: OSHPD compliance via reducing duct leakage

Before Aeroseal: 653.3 CFM leakage

After Aeroseal: 0 CFM leakage

Results: OSHPD compliant. \$1,438/year cost savings



With no time to waste, Avila explained the Aeroseal process to the contractor and arrangements were made for the Air Seal Solutions team to begin work the following day. They arrived at 8:00 am Saturday morning and went to work. First they temporarily blocked the effected registers and the ductwork just short of the autoclave machine. They then removed the system's rooftop fan and connected the Aeroseal equipment to the top of the exhaust duct. With a flip of a switch on their computerized duct sealing system, they were able to measure the leakage rate; a substantial 650 CFM – about 50% of the total system output. With another flip of the switch, Avila's team began the sealing process – blowing microscopic particles of sealant into the interior of the ductwork where they automatically sought out and sealed the tiny holes that riddled the system. By 3:00 pm that afternoon, the ductwork was completely sealed. Readings showed that there was now less than 1% of leakage.

"The technology is really quite amazing. Because of how the existing duct was sandwiched into the ceiling, along with pipes and electric conduits, there was simply no room to manually seal. But the hospital didn't want to hear that there was a problem – they wanted results; results we couldn't achieve. Then with the aeroseal technology, the problem simply went away. It really saved our backside. Aeroseal was able to do in a single afternoon what we couldn't accomplish in weeks of manual sealing and resealing.

Ron Lynch
Project Manager
Superior Mechanical Services

"I fight leakage every work day of my life. It's the worst enemy I have and I find it in virtually every commercial building I test. I was amazed at how fast and effective the aeroseal technology was at getting the ductwork tight. After the ducts were aerosealed I measured the airflow at the top floor and then the bottom and, for the first time in my professional career, I got virtually the same number. That has never happened before. Never. I simply don't understand why every sheet metal shop isn't using aeroseal."

Sean MacBride
Owner
Rymac Inc.



Aeroseal – The Technology

- Developed at Lawrence Berkeley National Laboratory in 1994.
- Research for aeroseal technology was partially funded by the U.S. Department of Energy.
- Aeroseal is the only duct sealant technology that is applied from the inside of the duct system. It is delivered as a non-toxic aerosol mist that seeks out and plugs leaks.
- Aeroseal has proven to be 95% effective at sealing air duct leaks.

For more information on this sealing project or about Aeroseal in general, contact Aeroseal at (937) 428-9300. You can also visit the Aeroseal website at www.aeroseal.com.