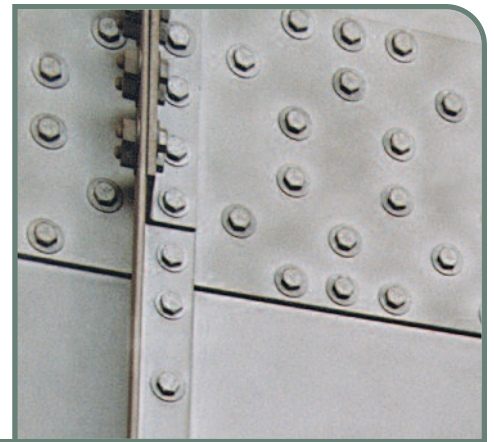




**SURFACE PREPARATION  
AND COATING**

# Case Study: Water Storage Tank La Mesa, California



**Property Damage  
Restoration**



**Temporary  
Humidity Control**



**Property Performance  
Services**

**A four million gallon water storage tank owned by the Helix Water District in La Mesa, CA, was scheduled to have an old coating of lead-based paint removed from its roof and roof support structure. The water district had required that the tank be returned to service by the coming dry summer months – the time when California communities can experience severe water shortages, and extreme fire damage.**

The advent of summer also threatened to cause dangerously high temperatures inside the tank. This created concerns about worker safety and productivity. The contractor had been given a tight schedule to complete the job, while

observing complicated lead abatement decontamination mode operating procedures.

## The Problem

Under this tight deadline, the contractor could not afford to proceed without dehumidification protection. Laborious and time-consuming methods required when blasting away a lead-contaminated paint can create severe “slowdowns” in daily operations. With pressure to have the tank in service by summer, a continuous process of uninterrupted blasting, followed by a single clean up period, and finally a monolithic coat, was desired. All risk of re-blasting mid-job to correct newly formed moisture related corrosion had to be eliminated.

## The Solution

The contracting company had originally planned to use its own dehumidification equipment. However, the plan to use its own dehumidifiers – which were to be regenerated by electrical heat – was causing two serious problems. First, excessive set up cost – the one-time charge for the temporary power line was more than \$10,000! Secondly, the alternative, to supply the 436 amp electrical requirement using diesel-powered electrical generators, would create unacceptable noise levels in the nearby residential area.

Looking for a better solution, the contractor reviewed its situation with Polygon. It quickly became clear that Polygon could offer a new, innovative propane gas regenerated dehumidification technology that would:

- **Provide substantial cost reductions**
- **Keep the project ahead of schedule**
- **Meet unique concerns created by the working environment.**

By renting four Polygon 4500 propane regenerated dehumidifiers, the contractor reduced its operating expenses by \$4,000 per week, as compared to the projected cost of using its own equipment!

The savings were realized in four ways:  
1) Eliminating the need to rent large generators,  
2) Greatly reduced consumption of electrical power,  
3) Eliminating the cost of a temporary power supply,  
4) Reduced generator fuel consumption.



Polygon desiccant dehumidifiers held-the-blast and saved more than \$4,000 per week in a Southern California water tank coating job. A four million gallon municipal storage tank was blasted and re-coated, while a white metal blast was held for over three weeks.



SURFACE PREPARATION  
AND COATING

# Environmental Control With Noise Reduction and Lower Costs



## The Benefits

### Faster Coating

With dry air protection, you can blast and coat around-the-clock, during any weather, and hold the blast as long as necessary. Polygon controls the dewpoint temperature to meet NACE guidelines, eliminating any chance of corrosion.

### Improved Coating

You can achieve improved coating life through a monolithic application and use high performance coatings, knowing that dry air protection will allow you to begin the second coat within 24-hours.

### Agreeable Working Conditions

Polygon can combine chillers and desiccant dehumidification to provide cool, dry air to the tank. You meet OSHA temperature standards and achieve higher worker productivity.

### Quiet Operation

Polygon propane regenerated dehumidification systems run silently. No large diesel generators are required.

### Remote Operation

In most situations, Polygon propane regenerated systems are configured to draw lower amperage, requiring no supplementary power at the coating site.

### Contaminant Free

Polygon dehumidifiers introduce no foreign matter into the coating environment. You get dried air of the same quality as the air found outside the tank.

### Lower Coating Costs

With Polygon, your labor costs are reduced by up to 35% since delays from weather changes or daily start-up and clean-up are eliminated.

### Lower Equipment Costs

Polygon lets you reduce or eliminate generator rental and fuel costs.

### Lower Energy Costs

A Polygon dehumidification system lowers power costs in two ways: 1) We can combine refrigeration with desiccants for more efficient electrical consumption, 2) We provide propane gas regenerated desiccant dehumidifiers, reducing electrical costs by 80% or more!

## The Polygon Advantage

Polygon has the engineering knowledge to build an integrated climate control system to meet all of the customer's needs. From humidity and temperature control to dust collection or lead abatement, Polygon will build an efficient and dependable system sized appropriately for your job site.

- Substantial cost reductions
- Ensured coating performance
- Compliance with regulations
- Noise reduction
- 24-hour service and support
- Engineering knowledge
- Expert advice and experience
- Equipment to meet every need.



Polygon desiccant dehumidifiers and gas fired heaters offer fast set-up at job sites. Designed for industrial projects, they are rugged, easily moved and provide quiet, efficient operation.

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