

Solaronics

Gas INFRA-RED Heaters

**Energy Efficient Infra-Red Heaters
Conquer Frigid Rocky Mountain Temperatures
at Colorado Department of Transportation
Maintenance Facilities**



CDOT maintenance crews repair a plow blade while working comfortably under energy saving Solaronics heaters. Tools, equipment, floors, and work surfaces are always warm to the touch. When trucks roll out through the large bay doors, heat is quickly restored.

2-STAGE Low Intensity Gas Infra-red Heaters

New!
TRUE DUAL®

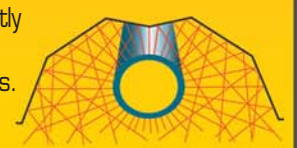
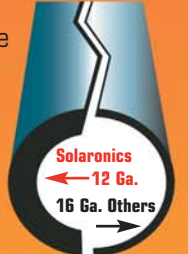


Bring High Comfort Levels, Lower Heating Costs To Your Maintenance Facility With Rugged, Dependable Solaronics Infra-Red Heaters.



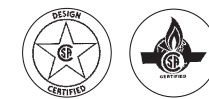
FEATURES

- Patented 2-STAGE design provides precise matching of air/gas flows at both high and low fire stages
- Optimum combustion 100% of the time
- Heavy Duty 12 gauge heat exchanger
- Factory installed wave turbulator
- CSA International Design Certified to ANSI/CGA Standards
- Burner fully assembled and tested — ready to hang
- Burner controls fully enclosed and isolated from combustion air
- Safe, reliable operation:
 - Direct spark electronic ignition control
 - 100% safety shut-off
 - Pre/Post purge cycles
 - System validation light
- Brite aluminum reflectors (98% reflectivity) rotate from 0° to 30° to direct the heat where you want it. Superior reflectional efficiency of 91.7% (shape) directs 33 of 36 infra-red rays directly to floor/work areas.
- **Options:** Stainless Steel Models



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Colorado's Plows Work at -28 Below...

Maintaining a 9,156 mile highway system traveled by over 26.1 billion vehicle miles a year is a formidable task for the Colorado Department of Transportation. In the state's six transportation regions, the familiar bright orange (CDOT) maintenance vehicles blade surfaces and shoulders, repair slopes, fences, road damage and potholes, and clean drainage structures, all part of regular year-round highway maintenance. Their use in snow and ice control involves plowing, sanding, de-icing and controlling avalanches.

In a career spanning over ten years at CDOT, Richard Marquez is responsible for managing all structures and buildings in the Alamosa section, an area of Colorado 182 miles by 100 miles where winter temperatures of -28 degrees below zero are commonplace. Of the 50 buildings under his command, two are heavy maintenance facilities that provide year round service for the trucks, plows, road graders and sweepers. The others are minor maintenance shops and vehicle storage buildings strategically located throughout the region.

Not surprising, it's winter that puts everyone to the test – greater wear and tear on vehicles and equipment and occasional

While CDOT Maintenance Crews Work in Summer-Like Comfort To Keep Them PLOWING... PLOWING... PLOWING

breakdowns, with mobile mechanics having to go out and make repairs on-site. "Equipment is out 24 hours a day," says Marquez. "If we have a bad storm come in it takes 24 hours to keep the highways open."

Standing inside CDOT's heavy maintenance shop in Alamosa, it's hard to realize old man winter is doing a number way below zero on the other side of the huge bay doors. Mechanics John Kilven and Johnnie Payne are repairing a plow blade, working in summer-like comfort under Solaronics infra-red heaters.

Marquez explains that CDOT continually looks for ways to improve the atmosphere for its employees, adding that forty of the buildings in the Alamosa section alone now have infra-red heaters. "It's specified wherever it's needed for good value, reliability and efficiency. We want our employees to feel good about where they

work and take pride in their environment and equipment," he says proudly.

But he and his mechanics admit it wasn't always this comfortable in Alamosa.

Not unexpected, unit heaters were original equipment in many of the buildings. "It's almost a losing battle," Marquez continues. "In the morning when the three or four large doors open and the equipment rolls out, it doesn't take long to lose all the heat out of the shop. The heater is always running continuously and it never really heats the building. It would be warm right under the heaters but in such a large shop it would be cold elsewhere, especially laying

“CDOT continually looks for ways to improve the atmosphere for its employees... forty of the buildings in the Alamosa section alone now have infra-red heaters.”

down and crawling around on a cold concrete floor when the plows come in and a blade needs changing.”

With Solaronics heaters, recovery is quick when the large

Solaronics CASE HISTORY

doors close. "We can warm the shop back up to where the crews can work comfortably," he says.

"One aspect about our heating that is different," Marquez explains, "is that the trucks get packed with ice and it accumulates on the bottom. Plows return for de-icing and go back out again."

Anthony Garcia, project manager for Vendola Plumbing & Heating of Alamosa, a long-standing CDOT vendor, describes how the low intensity Solaronics heaters are ideally suited to heat these buildings and help de-ice vehicles: "Positioned near roof level and out of the way

directed, so people are comfortable and tools, equipment and floors are warm to the touch."

Energy efficient Solaronics heaters are CSA International Design Certified to ANSI/CGA Standards and are fueled economically by Natural Gas or widely available Propane Gas (LP). Customarily specified for new construction and retrofits to existing commercial and industrial buildings, they achieve savings of up to 75% of fuel costs compared to conventional warm air units, according to Tom Lester, the company's vice president of sales and marketing.

“Solaronics heaters are ideally suited to heat these buildings and help de-ice vehicles.”

precisely angled to direct the heat where needed.

CDOT's maintenance and vehicle storage facilities require especially long runs of heater tube, but that's not a problem for the Solaronics heaters, claims Brian McLane of Air Purification company, Solaronics' Colorado and Wyoming representative. "Lengths up to 70' can be utilized, with inputs up to 200,000 BTUH."

Marquez recently ordered Solaronics' new True Dual 2-Stage heaters for the Wolf Creek West facility near Wolf Creek Pass after Garcia explained the benefits of the patented energy saving technology. Says Garcia: "Unlike other systems claiming 2-stage operation, both air and gas flows of the Solaronics system provide precise air-to-gas ratios at both the high- and low-heat stages for optimum efficiency."

"It only made sense that it would be more efficient," says Marquez. "Why run a heater full blast all the time when you only need half the heat?"

Continually exploring and implementing new technologies has enabled

Solaronics, the leader in gas infra-red technology and products, to develop important new energy saving heating solutions for commercial, industrial, recreational and agricultural buildings for which the company has received U. S. patents.



Solaronics heaters provide a safe, comfortable environment for CDOT maintenance employees as they work to return the trucks and plows to road duty. The heater's Brite aluminum reflectors are easily rotated to direct the heat where needed.

of CDOT's vehicles, they quietly beam infrared energy that is converted into warm, radiant heat as it reaches work surfaces, machinery, tools, concrete floors and people below. Just like how we are warmed by the sun, the heat is retained where it's

Compact, silent fans are the only moving parts. The heaters utilize a patented reflector design for optimum infra-red dispersion and have a reflectional efficiency exceeding 90%. Each reflector section is constructed of Brite finish aluminum and can be