amazon

Offering Colossal Solutions for Industrial Spaces

CHALLENGE -

When you control the processing and shipping of more than 1 billion packages a year through more than 150 fulfillment and sortation centers, those vast working spaces need to be consistently clean and comfortable despite dozens of wide openings for plenty of people and equipment. One Amazon center is so large it's the size of 28 football fields... combined. These facilities are known to have realized internal temps over 90°F which is a common challenge of large, cavernous industrial spaces. In fact, HVAC experts affirm that large spaces with colossal doors and high ceilings would seemingly move air in and out rather well – they are instead known for their inherent air management challenges. And, while goods move in and out as quickly, employees are long-time guests who deal with the air quality and temperature constraints for hours each work day, year after year. Industrial facility managers need consistent durable solutions that are customized for their unique climate and constraints.

THE SOLUTION

Amazon's industrial facility managers called in the titan of tough when it became clear that air management, climate control, employee safety and energy savings solutions could be realized with the right solution. Across the U.S., the Mars air curtain now stands guard at Amazon fulfillment and sortation facilities and manages their many large dock doors. They now safeguard against air transfer and pollutant infiltration while keeping passages free and clear from obstructions that lead to accidents. Interior spaces can be climatically segregated when forklifts and engine-led equipment and its resultant exhaust is best separated. Staff and customer entrances, known to be a source of dust, cold or hot air and flying pests are also under the protection of the Mars air management solution. Now entrances of every type rest secure and Amazon facility managers can turn their focus on their mission of ensuring speed and accuracy of the thousands of boxes that pass through.



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WHEN YOU'RE ONE OF THE LARGEST SHIPPERS... YOU USE THE BEST AIR CURTAIN



MANAGING WIDE OPEN SPACES

Large cavernous manufacturing centers grapple with complexities - voluminous staff, high traffic, inconsistent climate control, and ongoing pressure to create productive working environments so output goals are hit month after month. In the Campbell Soup Company's sprawling, 2.4 million-sq.-ft. facility, a collection of exterior doors continually introduce outside air to the workspace. Facility managers were using propeller-based fans in an ill-working attempt to barricade the unwanted airflow they blamed for drafts and shrinking productivity. The fans were doubly ineffective because they relied on excessively high horsepower to produce a wide projection of diffused air. The fans were spreading an unfocused blast of air using an excessive amount of energy. The Mars Air Systems air curtain solution was able to produce a precision air barrier with a concentrated blast of air that used only 3 HP versus the fan's excessive 15 hp. Better still, the Mars solution consumes the energy equivalency of one standard metal parking light with a 1500-watt metal halide bulb turned on for one hour and completely eliminated the view obstruction of the fans.



KEEPING IT FRESH ENOUGH FOR A BABY'S BOTTOM

As P&Gs third largest diaper plant in the world, responsible for exporting 60 percent of its production to Europe, Asia and the Mid-East, this Cairo-based plant often leads as one of Egypt's top American business success stories. Set in an area known for legendary dust storms that transfer accumulated debris from the far reaches of the Saharan Desert, on any typical day air quality measurements routinely record dangerously high levels of suspended particulate matter. Mars Air Systems to the rescue. With the installation of over 100 Mars air curtain units in a plant hosting over 1200 workers, the result was an effective embargo on bad air and dust from blowing in doorways and entryways. Deploying the Mars comprehensive facilities-wide approach to controlling both loading dock entries and doorways with a directed stream of air, facility managers were assured that unpredictable climatic conditions would be forced to surrender to the power of the Mars air curtain and their invisible shield of protection.



ONLY EXCEPTIONAL PERFORMERS INVITED

When you bring in the world's top entertainment venue designers to build an iconic sports facility valued at \$1.1B, filling the 1.75M sq ft structure with premium equipment that performs with the latest technology is the name of the game. U.S. Bank Stadium, home to the Minnesota Vikings football franchise, is big, bold and best-in-breed. With entry doors that serve as the daily gateway for tens of thousands, they needed the most technologically advanced way to thwart flying pests and keep climatized air inside and harsh winds outside. Now with 25 sizable Mars air curtains, fans experience a halo of heated air during Minnesota winters and an invisible protective barrier from dust and pests year 'round. Down below, the dock doors that service a facility with over 430 food points of sale, have their own protection with a cluster of Mars industrial air curtains designed for environments that need heavy-duty brawn.



PLASTIC STRIP CURTAINS OUR NUMBER ONE HAZARD

In a 62,000 sq. ft. facility, Empire Packaging and Displays produces \$50M annually in corrugated boxes and displays, many of which give food producers the means to package & ship products in hygienic envelopes. The Empire team realized "plastic strips were the number one hazard in the factory - even more than the equipment we used," said co-owner Hal Mottet, "because they were constantly dirty, had turned cloudy after a month of use, and were often pushed aside by staff who found them cumbersome and intrusive to their work." The Empire team discovered that for a few dollars in electricity per month they could achieve a safe and effective barrier to keep dust, debris and flying insects out of the plant with the bonus of a more productive climatic conditions for workers. With the installation of three Mars air curtains riding shotgun over their 14-foot dock doors, "The plant is definitely more comfortable and visibility around the dock doors is at all-time highs which eliminates our worries about worker safety.



