RETROFIT

A PARADIGM SHIFT IN INDUSTRIAL OVENS

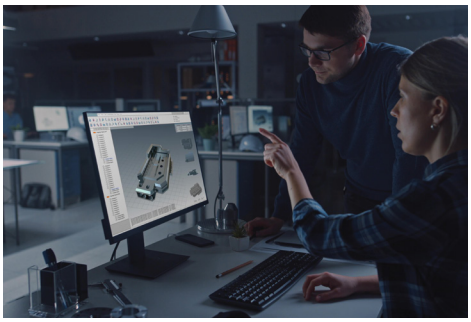
WE RETROFIT ALL BRANDS OF INDUSTRIAL OVENS

OUR SERVICES

PARADIGM SHIFTS force you to see the world in a different way. At RETROFIT, we are leading a paradigm shift in thinking about thermal processing solutions. We encourage you to review our offerings as an alternative to buying a new industrial oven for your manufacturing (non-food) application.

- REBUILDS
- UPGRADES
- RETROFITS
- REPAIRS

WHY RETROFIT?



Iterative Design Improves Performance and Safety

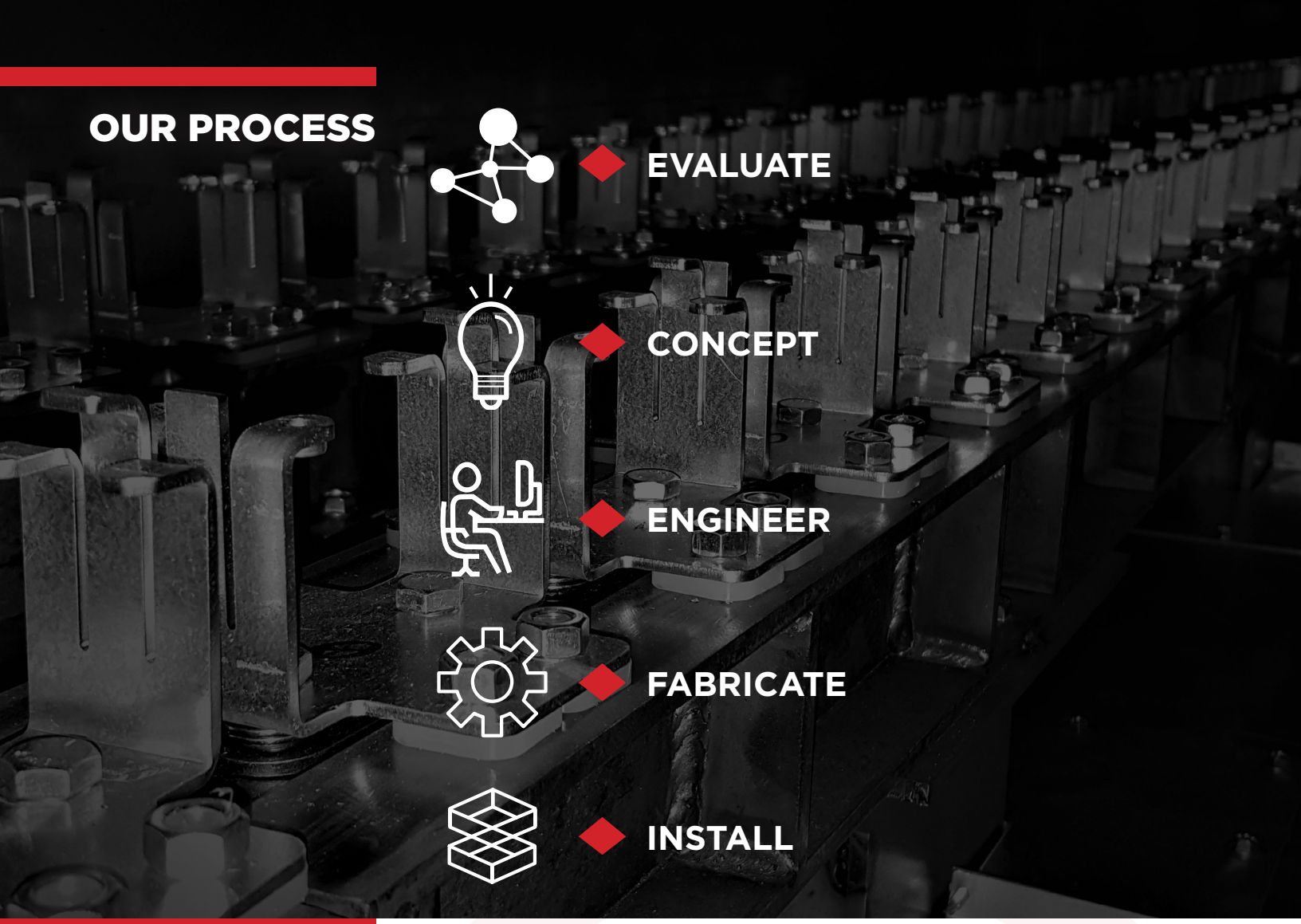
It is a myth that custom equipment is always designed correctly the first time. In a retrofit project, we seek feedback from the customer during the evaluation and concepting stages of our process in order to address performance and safety concerns.

An Oven Retrofit is Less Expensive and has a Shorter Lead Time than Purchasing a New Oven

Why replace 100% of your industrial oven when only 20% needs to be repaired or redesigned? In a retrofit project, we use components from your existing oven whenever feasible. This allows you to save money and time by using less new material. This dynamic is at the core of our value proposition.

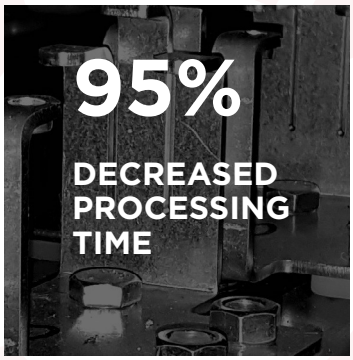
An Oven Retrofit is Often the Best Solution When Your Product or Manufacturing Process Changes

The world is not static, and neither is your business or manufacturing process. Winning new business that requires a change in your product or manufacturing process does not necessitate the purchase of new equipment. Consider retrofitting your existing oven to save money and improve performance.



OUTCOME

PROFILE OF A RETROFIT PROJECT



PROJECT 1

RETROFIT PROJECT FOR ALUMINUM AGING CONVEYOR OVENS USED BY BIG THREE AUTO MANUFACTURER

We redesigned and retrofitted three 25-foot wide, 20-foot tall, 50-foot long aluminum aging conveyor ovens. All three ovens experienced fan and flame tube failures caused by the original design, manufacturing, and installation. The ovens were 3/4/6 years old at the time of our retrofit. The retrofit included a redesign of the structural supports for the ovens' combustion chambers and the supporting structures for the bearing mounts of aforementioned fans and air-kits. In addition to these repairs, we implemented a faster acting exhaust damper actuator and additional fresh air capacity. These repairs corrected uniformity issues and eliminated issues tied to excessive smoke emissions from the oven during normal operations.

PROJECT 2

RETROFIT RESULTS IN COST SAVINGS

We retrofitted and repaired two ovens where cost savings drove the customer's decision. The retrofit project cost the customer $70,000; new ovens would have cost $450,000. One of the ovens required a roof and combustion chamber replacement. The second oven was a retrofit of an oven that had been decommissioned for many years. We upgraded the burner and gas trains on the second oven. Although we have in-house controls engineers, we worked with the customer's team who built their own controls to operate the ovens and robot automation at the inlets and outlets of the oven.

PROJECT 3

IMPROVE THROUGHPUT FOR A CONVEYOR OVEN

We retrofitted a 35 year old conveyor oven with a new combustion chamber and control cabinet. We redesigned the combustion chamber to include new fans and a new burner and gas train assembly. Prior to the restrofit, it took three hours to ramp up to temperature during startup. After our work, the ramp up time was 15 minutes. As a result, the customer has 2-3/4 more production hours per day.

PROJECT 4

IMPROVED ROOF PANEL DESIGN

We retrofitted a conveyor oven that was 40 feet wide, 120 feet long, and elevated 17 feet in the air. The original roof was poorly designed and manufactured and it caved in before the end of its expected useful life. We redesigned the roof panels to include structural steel supports and we spot welded on all seams every six inches. The allowable point load rating of our roof panel design is 4X more than the original roof panels.

PROJECT 5

INNOVATIVE DOOR SOLUTION

We retrofitted an existing set of curing oven automatic doors with our new space saving roll-up door option. The new doors take up zero floor space when open, open/close very precisely, and maintain an outer skin temperature of below 100 Fahrenheit. The original oven doors took up 16 foot sections of floorspace when open, functioned poorly, and did not seal properly. The implementation of this retrofit was a dramatic improvement on uniformity of the oven and temperatures in front of the oven doors for operators.

PROJECT 6

INDUSTRIAL OVEN RETROFITTED FOR COMPOSITE MATERIALS USED IN SPACE TRAVEL

We redesigned and retrofitted a 40 foot wide, 40 foot deep, 12 foot tall composite oven for an aerospace company on the leading edge of space travel. Their original poor design of the oven caused issues with the combustion chamber. Temperature uniformity was +/-45 within the work area of the oven. This oven had 12 indirect fired burners with flame tubes. Due to the poor air flow design, the tubes melted. After the retrofit, issues tied to the burner tubes were resolved and temperature uniformity improved to +/- 3 degrees from setpoint of the controller. The customer uses this industrial oven to cure composite material components for their spacecraft.

PROJECT 7

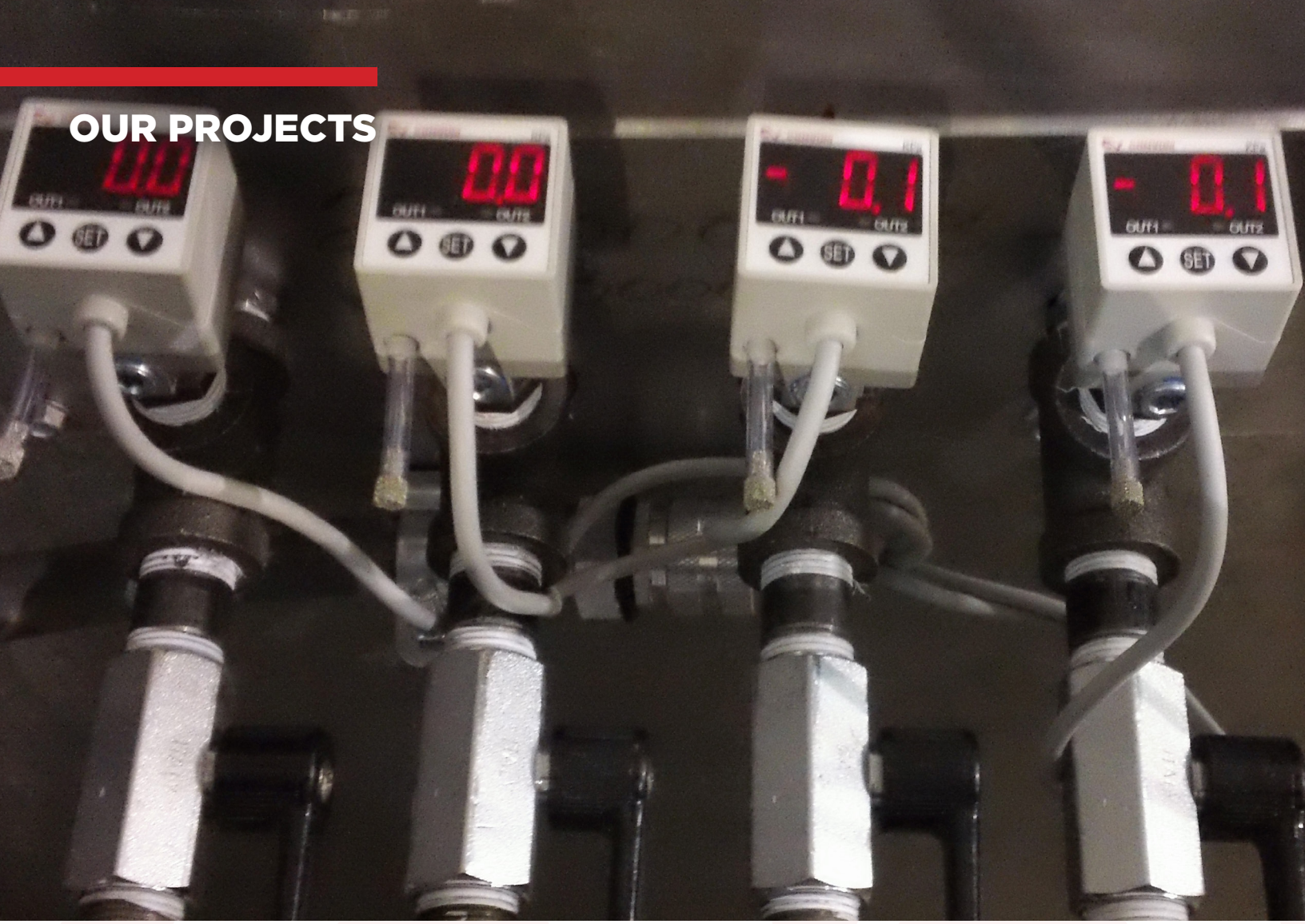
RETROFIT PROJECT THAT IMPROVED PERFORMANCE AND PRODUCT QUALITY FOR SIX INDUSTRIAL OVENS

We retrofitted six ovens to improve performance and product quality. The original design for the ovens required the product to remain in the oven for seven consecutive days. The failure rate of the product testing after those seven days was more than 70%. After the retrofit, the processing time dropped to three days with a failure rate of 3%. As a result of this work, other processes in the facility could not keep up with the throughput of the oven. As a result, the customer only needs to use three of the six ovens on a daily basis. This reduces operating costs, and the customer has the other three ovens to accommodate surge capacity.

PROJECT 8

RETROFIT OF A 100-FOOT WEB CONVEYOR OVEN

We retrofitted a 100 foot long conveyor web oven. Based on feedback from the customer during the evaluation and concept stages of our process, we learned that the cure time was slower than industry average and there was a high risk of fire and explosion. To address these issues, we redesigned the oven ductwork and replaced three poorly designed combustion chambers with five new redesigned combustion chambers. We then requalified the product processed through the oven because of the improved throughput.



PROJECT 9

RETROFIT OF A HIGH TEMPERATURE INDUSTRIAL OVEN USED TO PROCESS TEFLON

We rebuilt and moved two high temperature Teflon ovens. They were both 20 feet wide, 14 feet tall, and 60-75 feet long. We rebuilt the exteriors of the ovens and redesigned the ductwork for both ovens after relocating the ovens to a different facility. This work improved temperature uniformity. The customer was accustomed to cold spots that were 150 degrees different. The oven currently operates at 850 degrees with a full area workspace uniformity of +/-10 degrees of actual setpoint on the controller.

ABOUT US

RETROFIT is a brand of Westran Thermal, a company based in South Beloit, Illinois, USA, focused on designing, engineering, and manufacturing thermal processing solutions. The founders of Westran Thermal retooled two established manufacturers of industrial ovens, namely Precision Quincy and Infratrol, and have been rebuilding and retrofitting industrial ovens from other manufacturers. To date, more than 90 percent of ovens retrofitted by us have been for brands other than Precision Quincy and Infratrol.

Key members of our team have a military background. And military values permeate our culture and organizational structure. We recruit employees who want to prove themselves and be among the best. Training is key to our success. Because of our culture, people, and training, **WE WALK THROUGH WALLS** for our customers.

BRANDS WE RETROFIT

DAVRON TECHNOLOGIES, INC.

GRIEVE

ITS INTERNATIONAL THERMAL SYSTEMS

PRECISION QUINCY

Despatch INDUSTRIES

Gruenberg

JPW INDUSTRIAL OVENS & FURNACES

WISCONSIN OVEN

EPCON INDUSTRIAL SYSTEMS, LP

INFRATROL

LEWCO Industrial Ovens

Note. We reference these brands because we have been engaged by customers to rebuild, retrofit, upgrade or repair industrial ovens originally manufactured by these companies. Reference to these brands is not intended to suggest that we are a preferred vendor or have a contractual arrangement with these companies.

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