

AIR BARRIER // HEAT SEAL

Covered by Patent # 4,298,341 & # 5,868,565

Part of the NOWOCOR family of process technologies, is the ITM™ Air Seal.

Developed, patented and perfected in over more than 30 years of successful applications at major industries throughout North America, it is the cornerstone of the capability to transition from batch to cost effective continuous process.

From paint curing and food process through biomass conversion, this methodology provides a fully controllable process environment at temperatures to 1000°F, while eliminating the fugitive migration of heat, odor and particulate.

- Short installations times.
- Self-balancing Air Seal, in which eliminates day to day Air Seal adjustments.
- Minimal PM.
- Increased Time and Temperature in oven by increasing heat containment up to 90%.
- Improved coating cure time.
- Better containment of heat and smoke.
- Provide a better working environment in adjacent area for your employees.

Below is a chart, which shows typical heat losses from an oven without the **Air Barrier** Heat System.

VL (FROM CHART) X Opening (sq.ft.)

Correction factor = SCFM X 1.1 X Temp. Rise = BTU/hr X NO. of openings = Total BTU/hr

Work Opening Height	Vel. FPM	250°	300°	350°	400°	450°	500°	550°
3' - 0"	VL	89	98	113	132	167	216	280
4' - 0"	VL	90	100	115	135	170	220	285
5' - 0"	VL	92	102	118	138	174	224	291
6' - 0"	VL	94	105	120	141	176	230	298
7' - 0"	VL	96	107	123	144	182	236	305
8' - 0"	VL	99	110	126	148	187	243	312
10' - 0"	VL	105	117	134	158	198	257	330
12' - 0"	VL	111	125	144	170	212	275	354

Correction Factor to convert to SCFM 1.34 1.43 1.53 1.62 1.72 1.81 1.90

Genuine
The ITM™ Air Seal

**It's all about
 containment!**

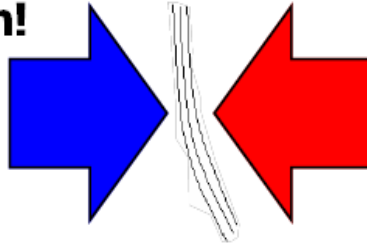
Thermal Containment Systems

- o Applications Scope Development
- o Retrofits and New Systems
- o Prototyping & Modeling
- o Front End & Detail Engineering
- o System Integration
- o Project Management
- o Fabrication, Installation and Commissioning

Cont'd

AIR BARRIER II HEAT SEAL SYSTEM

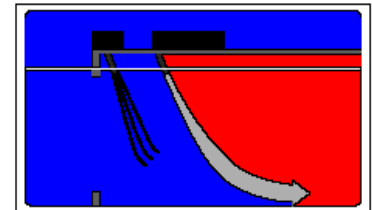
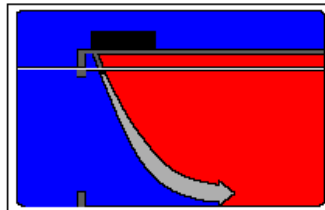
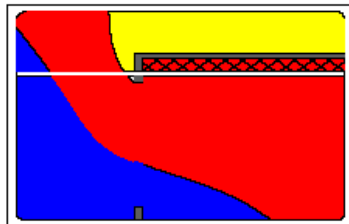
Keeps Heat where it belongs
In Your Oven!



* The New "Air Barrier II" Heat Seal System is designed to reduce the "time to temperature", yielding better cure times while containing heat and smoke. Dramatic results have been achieved converting Ovens with perimeter and passive type air seals. The **Air Barrier II** Heat Seal System works so well it rivals some infrared installations but with lower acquisition and operating costs. It also works to contain special environments such as humidified or de-humidified air streams. On powder cure ovens the high temperature assures a quick gelling of the powder.

* Typical oven temperature conditioning without a Heat Seal Barrier shows short duration of high heat condition due to excessive heat loss at both ends of the oven. Heat travels up and out oven openings, wasting oven heat and creating excessive heat conditons within adjacent

* Typical oven temperature conditioning with "Air Barrier Heat Seal" in operation. Air Barrier traps heat within oven, maintaining peak oven temperatures throughout most of part travel through oven. Keeps heat loss at minimum, increasing oven efficiency and reducing ambient temperature within adjacent plant area.



Temperature Curve on Average Without Air Barrier Heat Seal

Temperature Curve on Average With Air Barrier Heat Seal

Temperature Curve on Average With Air Barrier II Heat Seal System

Often imitated ... never duplicated!

The GENUINE

ITM™ Air Seal

Applications Represented Worldwide
 by NOWOCOR ... www.nowocor.com

For more information
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