

SPEED DRY

WATERBORNE DRYING SYSTEM

Speed Dry Technical Bulletin:

Infratech has recently introduced their new model "Speed Dry" (part # 15-1000). The "Speed Dry" is designed as an ultra efficient alternative to the popular air consuming venturi systems currently sold for accelerating water based primers and base coats.

How does air flow work?

Virtually all air flow systems can accelerate the dry times for water and solvent based coatings by removing the saturated air at the surface of the panel and circulating unsaturated air to absorb additional solvent or water. Sufficient volume and velocity is necessary to help move the stagnant and saturated air off the surface of the panel.

In very cold or very high humidity areas, air flow alone may not be sufficient to accelerate drying. Heat will also be required to force more moisture and solvent into the saturated ambient air.

Laminar or impinging air flow?

There are many different systems, and air flow patterns currently being marketed as the right solution for waterbornes. Spray booths often incorporate fans in the ceiling creating turbulent or impinging air. Likewise there are permanent and portable venturi nozzles impinging directly on car's surface, or at an angle trying to create laminar air flow.

Both systems work, provided there is sufficient velocity and volume to bring unsaturated air to the surface of the panel. Too much velocity, frequently seen from venturi nozzles, blowing directly at a panel can actually move the paint and disturb the metal flake distribution. This is why venturi manufacturers and paint companies will suggest laminar air flow.

The Speed Dry unit can be used in either direction with roughly 240 CFM of output at 600 lineal feet per minute from each blower. The velocity is low enough to prevent disturbing the finish, yet has sufficient volume to keep a steady stream of unsaturated air circulating across a large surface.

How does the Speed Dry Compare to a Venturi?

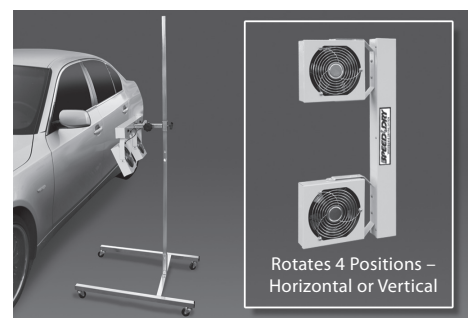
First and foremost, the Speed Dry does not use compressed air. A typical Venturi requires 10 CFM, at a cost of roughly \$.12-.15 per hour (Not including service to the compressor and maintenance of the filtration system to remove all oil and water). Running more than one venturi can tax smaller compressors and overload the system, leaving insufficient volume to operate other spray guns or air tools at the same time.

The Speed Dry uses a total of 64 watts or roughly \$.08 per day, when used continuously. It is 12 times more expensive to operationally run a single compressed air venturi.



MODEL SPEED DRY
Part No. 15-1000

- Fast Dry Times – Covers a Large Area
- Effective with Waterborne or Solvent Coatings
- Energy Efficient – Pennies a Day to Operate
- Compressor Free – No Maintenance
- Adjustable Height Stand up to 6 Feet High



Performance?

Lab testing on a quarter-panel sprayed with fresh water to measure dry times showed the following results:

- Air dry alone, with no ventilation in 70° F shop conditions took 39 minutes.
- Speed Dry took 8 minutes 30 seconds for the entire panel.
- Hand-held venturi took 8 minutes directly blowing on a fixed spot and roughly 10 minutes moving it (requiring operator involvement) to dry the entire panel.
- Heat alone from an INFRATECH SR-6000, Iridium Short Wave unit took 5 minutes.
- INFRATECH's SRU-1615 Medium Wave Portable Heater combined with the Speed Dry (Part No.15-1015) took only 4 minutes. This is a full 20% faster than heat alone and over 50% faster than using a venturi or Speed Dry alone.

Results will vary with the size of area covered and volume of material applied.

Field testing at a prominent PPG shop with 3 locations, has reported Speed Dry times for base coats as fast as 1 minute 30 seconds. We expect all dry times to be comparable with venturi systems, on all but very small spots.

Hazardous Location Use?

The Speed Dry can be used in a spray booth or body shop under the same rules used for all brands of portable infrared fixtures. This also holds true for our Color Matcher, CM 5300, and competing battery operated equipment which are not rated for hazardous locations.

National Electric Code (NEC) Article 516.4 Paragraph (D) Portable Equipment states: "Portable electric lamps or other utilization equipment shall not be used in a spray area during spray operations."

Any units left in the booth, while spraying, should be unplugged and de-energized to prevent the possibility of operation ignition.

Why Purchase Speed Dry?

The Speed Dry fills a need in every body shop, to cost effectively accelerate new waterborne materials or solvent coatings. It is price competitive with other air moving equipment and is flexible enough to meet the shops needs.

When used in conjunction with electric infrared it provides the fastest dry times available.



MODEL SPEED DRY with Heater
Part No. 15-1015

- Combine with Infrared for up to 50% Faster Dry Times than a Typical Venturi System
- Operate Units Together or Independently - Complete Assembly Can Be Plugged into One 15 Amp Outlet



INFRATECH™