

HIT Wet Scrubber for Oven and Fryer Exhaust Removal



The HIT Wet Scrubber uses a patented Horizontal Impingement Tray design that effectively removes steam, vaporized oils and fat particulates by converting it to clean odor-free air. Most commonly used in food plants on oven and fryer exhaust systems, the HIT can be used in any food-processing environment that requires the removal of harmful contaminants from the air.

This design allows for a low profile and compact arrangement and installation in restricted spaces. Typical sizes range from 2,000 - 25,000 cfm that allow for a custom fit into your system.

HIT Series Features

- 96 - 99% removal efficiency by effectively condensing vapors and scrubbing particulate.
- Heavy gauge SS construction for all wetted parts.
- Fully automatic operation with PLC controls.
- Recirculated flow over impingement trays provides minimal water usage while maintaining high liquid-to-air interaction.
- Suitable for outdoor installation. Optional cold weather protection available.
- Optional inlet quench section for temperature management.
- Multiple service panels permit easy internal access.

HIT Series Benefits

- Elimination of particulate, odors, and condensed vapors means a cleaner roof for your food plant.
- Low water usage and small high-pressure blowers leads to lower utility costs.
- Standard packages for a variety of exhaust requirements .
- MRO components used are standard, off-the-shelf.
- Minimal maintenance - no nozzles, filters or media to plug or replace.
- Self cleaning with programmed injection of non-foaming detergent or biocatalyst.

Why Use The HIT

- Removes steam, oils and particulates
- Creates clean, odor-free air
- Clean work environment
- Low energy consumption

Who Uses The HIT

- Food Processing Plants
- Oven & Fryer Exhaust Systems
- Industrial Kitchens

HIT SERIES - See Immediate Results Highest Removal Efficiency



This fryer system was vented straight to the roof, and enough oil collected on the roof to require weekly cleaning, and cause environmental concerns before they contacted Fluid Flow Products about installing a scrubber

Common Customer Concerns:

- Employee Hazards
- Environmental Waste
- Oil Soaked Roofs
- Void Roof Warranties
- Damage Neighbor Relationships
- Extended Downtime with Maintenance

Fluid Flow Products was contacted by a national pizza topping plant that had complaints of oil soaked work areas (internal and external),employee hazards and exhaust smell that consistently contaminated the surrounding air.

Fluid Flow Products evaluated their needs and installed an HIT 30, which replaced multiple incinerators and is now providing odor-free exhaust in the middle of a residential neighborhood.



Contact Fluid Flow Products today to find out how we can improve your food processing equipment with custom solutions built for the specifications and needs of the food industry

HIT Model Comparison

Model Number	Nominal CFM	Inlet Size (W" x H")	Length L"	Width W"	Height H"
HIT 30	3,000	27 x 7	76	40	36
HIT 50	5,000	30 x 12	108	36	54
HIT 100	10,000	60 x 12	114	72	54
HIT 150	15,000	90 x 12	132	108	54
HIT 200	20,000	90 x 12	140	108	60

HIT Series Options

- Stainless steel construction
- Cold weather features
- 95% DOP and carbon filters
- VFD drive package
- Various alarms

HIT How it Works

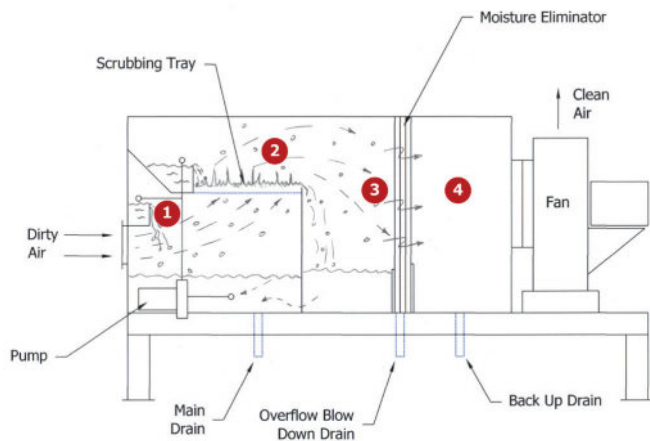
1 A process air stream with pollutants enters the unit below the scrubbing trays where it passes through a pre-scrub water curtain. This initial action eliminates heavy particles and generates a dispersion of water droplets to wet the underside of the scrubbing tray and surrounding internal surfaces. This wetting action minimizes material build-ups on these surfaces.

2 Circulated water from the scrubber sump is supplied to distribution gutters with leveling strips, which provides a uniform flow of water to the scrubbing trays. The process air stream is atomized as it passes through the holes in the scrubbing tray and interacts with the flowing water. Scrubbing trays are sized to maintain specific through velocities of the process air stream to keep the water suspended on the trays and ensure proper scrubbing action. The liquid-to-air interaction is 99+% efficient. This results in very high condensing efficiencies of vaporized substances and

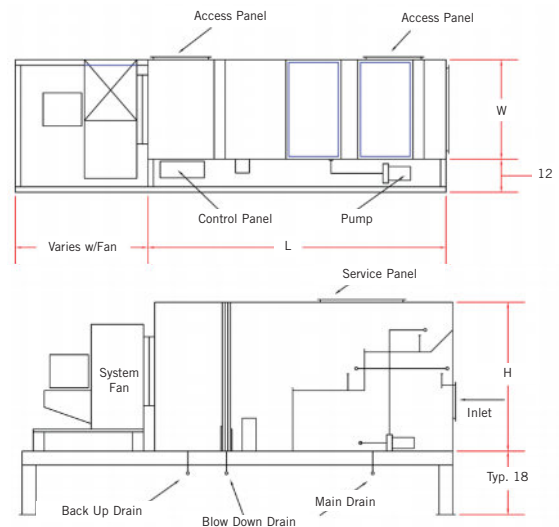
corresponding particulate removal. The water circulated to the trays falls back into the sump. For most applications a chemical feed system provides a measured injection of surfactant into the sump to improve scrubbing efficiencies plus hold condensable in solution or suspension.

3 The scrubbing action generates a constant flow of water droplets, which must be eliminated from the cleaned air stream prior to being exhausted to atmosphere. Three rows of offset chevrons are very effective in the removal of these drops with minimal pressure drop.

4 After leaving the eliminator section the cleaned air stream enters the clean air plenum, which directs it to the system fan inlet. Should higher levels of particulate removal be required than the single stage scrubber can obtain, modular filter sections can be installed in this clean air plenum.



HIT Model Dimensions



HIT Efficiency Chart

