Your spray booth is a considerable investment. The return on your investment is a cleaner painting environment for superior quality finishes, increased productivity, and improved working conditions.

Water Wash Booths
Dynaprecipitor and EnviroTect®

- Efficient Airborne Particulate Removal
- High Volume Capture Efficiency
- Water Wash Scrubber with Enhanced Impingement Technology
- Time-Tested Design for Over Fifty Years
Dynaprecipitor Water Wash Spray Booths

Global Finishing Solutions’ (GFS) Dynaprecipitor Water Wash Spray Booth handles a larger variety of paints in a wider range of viscosities and drying speeds, at higher production rates than any of the conventional spray booths.

This booth employs two well-known engineering principles to remove paint particles from exhaust air in painting operations. First, by drawing air through a continuous curtain of moving water, suspended paint particles are scrubbed out. Second, when air carrying paint particles makes a sudden change in direction of flow, centrifugal force slings the solid particles out of the air stream (called impingement). Entrained paint particles are thrown against adjacent walls and curtains. Water then flushes the particulate into the collecting pan. Through these two actions the air reaching the exhaust stack is virtually free of airborne particles keeping the stack area cleaner longer.

Construction Features

These booths are constructed of 18-gauge galvanized panels for field assembly:

- An upper and lower wash chamber
- Large capacity collecting pan
- Slotted water intake pipe to insure sediment free water
- Circulating water to maintain a constantly flushed system
- Removable manifold for easy maintenance
- Hinged water curtain to allow easy access to the rear of the collecting pan
- Access door located just below the fan for easy maintenance
- External float box with level control

The booth saves floor space. Its short-depth wash unit gives water-wash-spray-booth advantages while occupying conventional booth space.

An automatic water level control supplies make-up water to compensate for evaporation losses.

Upper Centrifugal Wash Chamber:
Here, most of the paint particles are separated from the exhaust air. This separation is accomplished by centrifugal force on the paint particles as the air abruptly changes direction of flow while simultaneously being forced to pass through powerful water sprays.

Lower Wash Chamber:
In the lower wash chamber, the exhaust air must pass through an unbroken curtain of water. Again, water scrubbing and centrifugal force combine to remove the remaining paint particles before the air passes to the exhaust chamber.

Recessed Drain:
The recessed drain supplied insures complete removal of water from the collecting pan. This feature simplifies the cleaning operation.

Correctly engineered water wash spray booths provide an extremely efficient means for removing paint particles from the exhausted air. In addition, they are the most acceptable type of spray booth for all health, fire, and building codes.

The wash water should be treated (compounded). This causes the paint particles to coagulate and allows convenient skimming when cleaning out the collection pan. **GFS recommends that the end user enlist the support of an experienced chemical supplier that will provide the paint testing required to support the chemical treatment for controlling the pH, foaming and detactifier agent to enhance the performance of the water wash equipment.**

Dynaprecipitor® is a registered trademark of GFS.
# Floor Type Models

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Working Dimensions</th>
<th>Overall Dimensions</th>
<th>Air Flow SCFM @ 1.3&quot; SP</th>
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</table>

Note: Contact GFS for Conveyor Type Models

* Medium Pressure Axial

## Front Elevation

![Front Elevation Diagram](image)

- Standard Pump Location (Right-hand Side)
- 3'2" Float Box Clearance

## Side Elevation

![Side Elevation Diagram](image)

- Overall Clear Height
- Working Height
- 5'-2" Overall Tank Depth
- Working Depth
- Overall Depth
No Pump Water Wash Spray Booths

NO PUMP Spray Booths

Without benefit of pump or water-spraying manifold, GFS’ NO PUMP SPRAY BOOTH uses the highly effective scrubbing action of a water wash to separate paint particles from exhaust air. By ingenious channeling of the paint-laden exhaust air through a “water tunnel” the NO PUMP system eliminates pumps, piping, filters, manifolds, and nozzles.

How It Works

Paint-laden air is drawn into the washing chamber at high velocity through an opening between the entrainment plate and water surface. The controlled dimension of this opening and the specially designed profile of the entrainment plate force the high velocity air to become severely turbulent, splash up water, and become thoroughly mixed with the overspray.

Next, this rapidly moving mixture of air, paint particles, and water droplets strikes the distribution plate. The mixture is forced to change direction abruptly and to flow upward through a series of baffles. The “mixture” flow changes direction 11 times during its passage through the baffle section. At each change centrifugal force separates air from paint particles and from water droplets. The resulting rain of water, particularly from the lower baffles, serves as an additional water curtain for scrubbing the incoming spray laden air. All of the paint spray that is separated from the air falls back into the water tank.

Water Treatment

The water in the tank should be treated with the proper compound to suit the material being sprayed in order that the paint particles be made non-tacky and settle to the bottom of the tank where they agglomerate as a soft, foamy residue. Residue buildup may approach to within 2 inches of the water surface without adversely affecting the “NO PUMP” action in the water tunnel. Residue removal is very infrequent, even in high production painting. Optional automatic centrifugal separators are available.

Precise Water Level Control

The gap between the water surface and entrainment plate is kept with + 1% of its optimum dimension. This is accomplished with a GFS Float Box with Water Level Control Unit. This unit is located outside the booth proper - isolated from contaminating water and spray.

Yet it is directly connected hydraulically to the water tank and senses water level changes immediately and accurately. Its external location gives it maximum accessibility for inspection and calibration.

Easy Assembly

NO PUMP washer is shipped in 3 major all-welded sections for ease of field assembly: Pan, Wash Chamber, and Booth Adapter (Closure Panels).
## Floor Type Models

<table>
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<tr>
<th>Model No.</th>
<th>Working Dimensions</th>
<th>Overall Dimensions</th>
<th>Air Flow SCFM @ 4.2&quot; SP</th>
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Note: Contact GFS for Conveyor Type Models

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### Front Elevation

![Front Elevation Diagram](image1.png)

### Side Elevation

![Side Elevation Diagram](image2.png)
**Dynaprecipitor Standard Features**

**Stacks and Fan:**
Paint particles practically never reach this zone. The stack area stays cleaner longer.

**Exhaust Air Washed 4 Times:**
Paint particles are scrubbed out and trapped in collecting pan.

**Access Door:**
Allows for easy inspection, repair, or replacement of the fan parts.

**Unbroken Water Curtain:**
Manifold-deflector plate assembly disperses water evenly and can be easily removed without special tools.

**Circulating System:**
Circulating water forms a continuous, constantly flushed system that has no sediment-accululating dead ends. Rate of water flow is quickly adjustable. No new water need be added except to compensate for slight daily evaporation.

**Booth Stays Cleaner:**
Every paint-collecting surface is water-scrubbed.

**Clog-Free Water Circulating System:**
Intake pipe is above the pan floor to assure a sediment-free supply of water. System is self-flushing.

**Easy Maintenance:**
Hinged front water curtain permits easy skimming of coagulated paint particles from collecting pan. Optional automatic centrifugal separators are available.

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**Ordering Notes (Applies to all Models):**

1. Wash chamber works equally well in both “Crossdraft” and “Downdraft” booth configurations.
2. Right side water level control valve and drain outlet are standard. Left side and Rear available are on special order, contact GFS for pricing.
3. Top exhaust is standard. Consult GFS if more than 25 feet of exhaust duct is required.
4. Outside mounting of exhaust blower on heavy gauge steel stack available on special order, contact GFS.
5. TEFC motors are standard. Motor starters and explosion-proof motors are available, contact GFS for pricing.
6. Chemically treated water will remove the paint from the water to a collection unit for removal (optional.) Not supplied by GFS, contact local compounds supplier.

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*Conveyorized Water Wash Spray Booth*

*Custom Enclosed Dynaprecipitor Water Wash Booth*
**EnviroTect® (Optional feature)**

**Unique Patented Technology**

- EnviroTect® meets the highest production needs
- Proven track record for over three decades

EnviroTect® washer section employs a built-in trough which provides an initial wetting action on the particulates. This enables the EnviroTect® booth to perform efficiently with even the most difficult coating materials.

Straight line, non-turbulent air flow through this spray curtain improves paint particulate capture and cleaning action while reducing energy consumption.

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Air/liquid nozzles are spaced as necessary depending on production and air volume requirements. Interior surfaces are wetted to eliminate paint overspray build-up which reduces booth cleaning and captures the paint within the eliminator for removal.

Floor grating was removed in this down-flow booth for illustration purposes.
Extraordinary Leadership and Vision

GFS is an organization dedicated to advancing finishing technologies to help make our customers more efficient and more profitable. By working closely with major paint companies and utilizing our extensive engineering knowledge base, GFS is able to design equipment using the best technology from different industries to improve performance and minimize costs.

Represented by our extensive North American Distribution Network, GFS is proud to offer a level of service that is unequaled. Your local GFS distributor is just a phone call away, and can handle any Sales-Service-Installation issue.

We are committed to helping our customers grow their businesses by providing quality products designed to minimize operating costs, and maximize productivity. Whether light industrial, woodworking, powder coating, or vehicle refinishing, GFS has the right equipment to fit your operation, guaranteed.

GFS manufactures the entire spectrum of paint booths for finishing applications - from open face touch-up booths to heavy-duty and high-volume industrial applications.

- Open Face Booths
- Bench Booths
- Downdraft Booths
- Semi-Downdraft Booths
- Crossdraft Booths
- Paint Mix Rooms
- Air Replacement Units
- Flash-Off Tunnels
- Industrial Ovens
- Clean Rooms
- Water-Wash Systems
- Powder Booths
- Truck Booths
- Automotive Finishing Booths
- Special Application Booths
- Parts and Filters

All designs, specifications and components are subject to change at the manufacturer’s sole discretion at any time without notice. Data published herein is informational in nature and shall not be construed to warrant suitability of the unit for any particular purpose as performance may vary with the conditions encountered.