



Do you use conventional paint spray guns?

Would you like to improve this process in the following areas?

- **Meeting environmental compliance regulations** -- Reduce solid and hazardous waste disposal and air emissions. Applicable regulatory areas include RCRA, NESHAP and VOC NAAQS.
- **Improving workers' safety and health** -- Reduce worker exposure to toxic chemicals.
- **Increasing productivity** -- Improve efficiency in painting/coating operations and reduce paint procurement costs.
- **Saving money** -- Decrease operational and paint procurement costs.



High Volume Low Pressure paint spray guns

Conventional paint spray systems operate at high pressures, which results in paint waste due to "bounce back" and "overspray" from the article being painted. Paint that is not applied to the workpiece is captured in the paint spray booth's emission control system and is ultimately disposed of as waste. High Volume Low Pressure (HVLP) paint spray systems are highly efficient alternative technologies for the application of paint to specific workpieces. HVLP systems use higher volume air at low pressures to atomize the paint. Reducing the atomizing air pressure at the air nozzle minimizes bounce back and overspray, resulting in higher paint/coating transfer efficiencies. Significant reductions in hazardous air pollutants and VOC emissions, as well as in the volume of solid and hazardous wastes generated, are achieved due to these higher transfer efficiencies. HVLP paint systems are being used successfully at many Navy installations and are available through GSA and the Navy Pollution Prevention Equipment Program.

How can you achieve these improvements?

Use High Volume Low Pressure Paint Spray Systems.

How does this equipment work?

This technology applies a larger quantity of paint at a low pressure, reducing the amount of overspray and improving transfer efficiencies.

How will this equipment save you money?

HVLP paint spray systems reduce labor required for painting operations, reduce paint procurement costs and waste paint disposal costs. The cost to implement varies from \$1,000 to \$3,500. The equipment typically pays for itself in less than one year.

Typical Process Flow Diagram



How can this technology eliminate or reduce pollution?

This technology can reduce the amount of waste generated during painting operations. Implementation will result in the following pollution reductions:

- Reduction in paint waste requiring disposal
- Lower maintenance for paint spray booth equipment
- Reduction in air emissions related to painting operations

Which shops can benefit most from this technology?

This technology can be used in any process that involves surface coating or painting. Typical shops include:

- Automotive Maintenance and Repair
- Aircraft Operations and Maintenance
- Shipboard Operations and Maintenance
- Facilities Maintenance

Take action: How can you implement this technology?

- **Activity Shop & Work Center Personnel.** If you work at an activity, contact your Pollution Prevention Program Manager. The P2 Program Manager can provide more information and conduct a more detailed analysis, and may be able to provide this equipment at no cost to a Shop or Work Center.

- **Activity Pollution Prevention Manager.** Request funding and installation assistance for this technology through the Navy P2 Equipment Program. Depending on the application, the Environmental Requirements Cookbook may contain project submission information for the annual budget submissions to your major claimant.

- **For Additional Technical Information.** More information about this technology can be found in the Joint Service P2 Opportunity Handbook Datasheet No. 4-03 ([Web: http://p2library.nfesc.navy.mil/P2_Opportunity_Handbook/4_3.html](http://p2library.nfesc.navy.mil/P2_Opportunity_Handbook/4_3.html)).

Achieving Environmental Compliance Through Pollution Prevention

Everyday the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by implementing pollution prevention technologies and methods to reduce compliance requirements. This Fact Sheet is one in a series designed to encourage activities to implement pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

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