

# Military Materials Equipment Selection Guide



# Selecting The Right Equipment

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## Find Your Solutions

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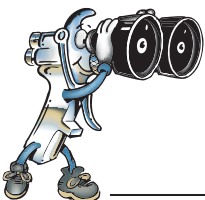
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**MSDS sheets are available on the web**

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## It's Critical to Use the Right Equipment for Each Application



Using the right equipment for each step of any spray finishing process is typically the difference between hitting quality, productivity and

profitability targets – and not hitting them. Additionally, the ever increasing diversity of finishes dictates careful selection and proper use of equipment.

With nearly 220 years of collective leadership in the spray finishing industry, Binks and DeVilbiss continue to set the equipment standards other brands strive to achieve. Regardless of metal type, new and varied coating materials, or other special requirements,

Binks and DeVilbiss are dedicated to supporting you with a team of experts – Metal Finishing Specialists, Equipment Design Engineers, Technicians, Trainers and Customer Service Professionals.

We're here to help you improve every aspect of your spray finishing operation – Higher Quality, Increased Productivity, New Cost-Efficiencies, Reduced Downtime, Environmental Compliances...and Improved Bottom-Line Results.



# Spray Application Processes

## Atomization Technology Options

Conventional, HVLP, LVMP (Trans-Tech), Air Assist Airless and Airless are all types of Atomization technology, each has slightly different operating parameters.

### Conventional Air Atomizing

The most established method of air atomizing, used on spray guns for decades. It uses high velocity air jets to produce a very high atomization power. However; this speed results in low transfer efficiency due to considerable “bounce-back” and overspray. Air pressure exiting the air cap during use is typically 30 to 60 psi (2 to 4 bar) with typical air consumption of 6 to 25 cfm (170 to 700 l/min).

### High Volume Low Pressure (HVLP)

Although not new, this method first became important in the early 1990s when environmental legislation started to be introduced. It uses larger air volumes (11 to 30 cfm or 300 to 840 l/min) at low pressure to atomize the coating. HVLP has a much higher transfer efficiency than conventional air atomizing due to the lower air pressures. The droplet sizes produced tend to be slightly larger, sometimes resulting in a lower quality finish. Officially HVLP is limited by Government Environmental Legislation to a maximum of 10 psi (0.7 bar) atomizing pressure measured at the air cap.



### Trans-Tech (LVMP)

This equipment type was first seen in the mid 1990s and is a mixture of Conventional and HVLP atomization methods. Trans-Tech makes more energy available for the atomization process but gives a higher transfer efficiency of coating material than the Conventional air atomizing method. To qualify as Trans-Tech the air cap must be able to transfer at least 65% of the sprayed material to the sprayed component (BSEN 13966 Determination of Transfer Efficiency of atomizing and spraying equipment for liquid coating materials). Air cap pressure is typically in the region of 20 to 45 psi (1.3 psi to 3 bar) while using 9 to 20 cfm (250 to 560 l/min) to carry out its work.



### Air Assist Airless

To maximize efficiency, the best features of air spray and airless atomization are combined. This process is called Air Assist Airless. The pattern is formed by the spray tip and air is used to eliminate tails and adjust the shape. Air Assist Airless provides fast application of materials, a soft spray that reduces fog, and the ability to penetrate into recesses and cavities. This is especially important in the wood industry where intricate shapes require a fine finish.



### Airless

Fluid is atomized by high pressure usually 500 to 4500 PSI and pushed through an orifice in the spray nozzle. The shape of the fluid orifice determines the fan pattern. The particle size is larger than other spray methods so it is not generally used for fine finishes.

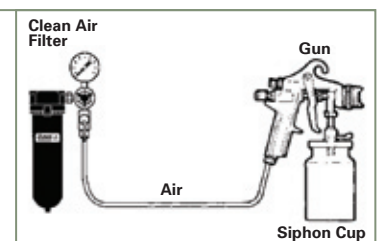
*Advantages:* Airless spray has a high transfer efficiency, allows for high speed production, and provides less overspray.

## Fluid Delivery Options

### Siphon-Feed

Siphon-feed hookups (external atomization) use vacuum created at the nozzle to draw fluid from a cup.

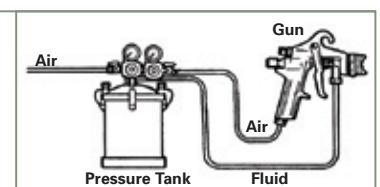
*Advantages:* This fluid cup system offers quick material / color changes.



### Pressure-Feed

This option uses an external pressure source (pressure tank, piston pump, or diaphragm pump) to force air and fluid to the spray gun nozzle. Air and fluid are then mixed outside the nozzle (external mix air caps).

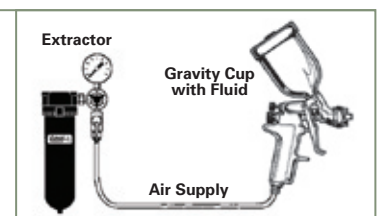
*Advantages:* This method delivers higher volumes of fluids than other gun set ups, and will spray a wider range of materials. It also enables independent control of fluid pressures.



### Gravity-Feed

On Gravity-feed guns the cup is located above the gun. The force of gravity pushes the fluid into the gun.

*Advantages:* This method offers quick color changes and convenience on small jobs or touch-up applications. Gravity guns are able to use all of the coating – reducing waste.



# Primer / Epoxy

## Conventional: Pressure-Feed



DeVilbiss  
MBC-510 Gun  
Part # MBC-510-64 HDD



DeVilbiss  
JGA Gun  
Part # JGA-510-64HDD



Binks  
95 Gun 67SS - 67PB  
Part # 6121-4809-5



**Green WORKS**  
Binks  
Mach 1 Gun 905 - 905P  
Part # 6202-2001-9

## Airless



Binks  
PitBull 3500 PSI Gun  
2-Finger (shown):  
Part # 1108-3500-2

4-Finger  
(not shown):  
Part # 1108-3500-4



Binks  
PitBull 7500 PSI Gun  
2-Finger  
(not shown):  
Part # 1108-7500-2

4-Finger (shown):  
Part # 1108-7500-4

Reference Sales Bulletin # 77-5621 for Tips & Other Optional Items



**Green WORKS**  
DeVilbiss  
EXL Gun  
EXL-520-P-18

## Pumps



Binks  
Gemini 1/2" Diaphragm Pump  
Stainless Steel 1:1 Ratio  
Part # 818830



**Green WORKS**  
Binks  
Exel 4.5:1 Stainless Steel  
Standard Duty Pump  
Part # 41-38045

## Fluid Delivery Options

### Pressure Tanks



Binks  
2.8-gal. Zinc-Plated Tank  
w/ Agitator (2 Regulators)  
Part # 83C-221



Binks  
5-gal. Galvanized Tank  
w/ Agitator (2 Regulators)  
Part # 83G-523

# Top-Coats

## Conventional: Pressure-Feed



DeVilbiss  
MBC-510 Gun  
**2 Options:**  
Part # MBC-510-704E  
Part # MBC-510-704FF



DeVilbiss  
JGA-510 Gun  
**2 Options:**  
Part # JGA-510-704E  
Part # JGA-510-704FF

## Airless



Binks  
PitBull 3500 PSI Gun  
**2-Finger (shown):**  
Part # 1108-3500-2  
**4-Finger**  
(not shown):  
Part # 1108-3500-4



Binks  
PitBull 7500 PSI Gun  
**2-Finger**  
(not shown):  
Part # 1108-7500-2  
**4-Finger (shown):**  
Part # 1108-7500-4


Reference Sales Bulletin # 77-5621 for Tips & Other Optional Items

## Air Assist Airless



 Binks  
AA-1600M Gun (less tip)  
Part # 0909-1600-000000  
Reference Sales Bulletin A54-108  
for Additional Tips & Accessories




 Binks  
AA-4400M Gun (less tip)  
Part # 0909-4400-000000  
Reference Sales Bulletin A54-108  
for Additional Tips & Accessories

## HVLP



 Binks  
Mach 1 Gun 94 - 94P  
Part # 6202-1204-4  
Mach 1 Gun 97 - 97P  
Part # 6202-1301-7



 DeVilbiss  
EXL Gun  
**2 Options:**  
Part # EXL-520P-14  
Part # EXL-520P-18

## Automatic



 Binks MAG HVLP Gun w/  
Manifold, Delrin Needle, & 94 Fluid  
Nozzle, Order Air Cap Separately  
Part # 4006-1200-0



 Binks MAG UV Gun w/  
Manifold & AA-4 Air Cap (less tip)  
Part # 4003-0000-4



 Binks MAG AA Gun w/  
Manifold & AA-4 Air Cap (less tip)  
Part # 4001-0000-4

# Top-Coats

## Fluid Delivery Options

### Tank / Outfits



Binks  
80 PSI ASME  
2.8-gal. Zinc-Plated Tank  
w/ Agitator (2 Regulators)  
**Part # 83C-221**



Binks  
110 PSI ASME  
2.8-gal. Galvanized Tank  
w/ Agitator (2 Regulators)  
**Part # 83G-221**



Binks  
110 PSI ASME  
5-gal. Galvanized Tank  
w/ Agitator (2 Regulators)  
**Part # 83G-523**

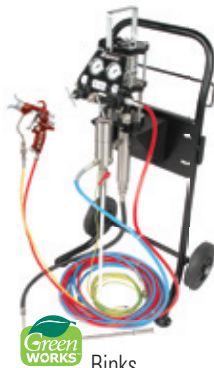


Binks  
SG2 Plus 2-qt.  
Rotary Agitator Pressure Cup  
(1 Regulator)  
**Part # 80-651**

### Pumps



Binks  
High Volume 23:1 2-Ball CARC Pump  
**Part # 41-15956**  
Reference Sales Bulletin # A41-88  
for Other Accessories



Green Works Binks  
MX4-12 5-gal. Cart-Mount 12:1 Pump  
Outfit (Includes AA-1600M Gun)  
**Part # MX412UC-FDC1S25**



Green Works Binks  
MX4-12 5-gal. Wall-Mount 12:1 Pump  
Outfit (Includes AA-1600M Gun)  
**Part # MX412UC-FDW1S25**



Binks  
Infinity Pump (2-Ball) 23:1  
Cart-Mount (Low Vol CARC Pump)  
**Part # 812225**  
Reference Infinity Pump Catalog  
INFG-1 for Pump Accessories

# Military Materials Accessories

### Fluid & Air Hoses



DeVilbiss  
Air & Fluid  
Hose Assembly  
5/16" I.D. x 6'  
**Part # KB-4006**



Binks  
3/8" I.D. x  
25' Fluid Hose  
**Part # 71-3303**



Binks  
3/8" I.D. x 25'  
ErgoFlex™  
Air Hose Assy.  
**Part # 71-31101**

### Solvent Saver



Green Works DeVilbiss  
2-qt. Hose/Gun  
Cleaner Aluminum  
& Brass Construction  
**Part # HD-503**



Green Works Binks  
2-gal. Solvent Saver  
Galvanized Steel,  
Aluminum, &  
Brass Construction  
**Part # 83GZ-5200**

# Spray Booth Performance & Safety Products

## Hand Cleaner Towels



### Binks Hand Cleaner Towels in a convenient bucket

Scrubs are pre-moistened with a patented, citrus based formula to remove paints, adhesives, inks, oil, soil, etc.

**Part # 29-3100-K6** Case of (6) Buckets, (72) towels per bucket.  
See Sales Bulletin # 77-5239.

## Tank Liners & Strainers



### Binks Tank Liners

PART #	DESCRIPTION
PT-78-K10	2.8-gal. Tank Liners (10 Pk)
PT-78-K60	2.8-gal. Tank Liners (60 Pk)
PL-5GAL-K40	5-gal. Pail Liner (11.25" ID, 13" OD) 40 per case



### Binks Prospector™ Material Strainers

PART #	MICRON / WIRE MESH	CASE QTY
PTS-2 GAL-K20-200	200 micron (approx. 65 wire mesh)	20 per case
PTS-2 GAL-K20-400	400 micron (approx. 37 wire mesh)	20 per case
PTS-2 GAL-K20-600	600 micron (approx. 28 wire mesh)	20 per case

## Spray Booth Floor Paper

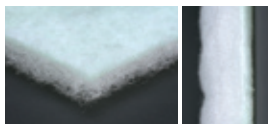


### Binks Flame Retardant Paper

PART #	DESCRIPTION
29-843	36" x 500' roll
29-844	72" x 500' roll

80 LB. Heavier Traffic		100 LB. Fork Lift Traffic	
PART #	DESCRIPTION	PART #	DESCRIPTION
29-863	36" x 300' roll	29-872	36" x 300' roll
29-864	42" x 300' roll	29-875	42" x 300' roll
29-865	60" x 300' roll	29-873	60" x 300' roll
29-866	72" x 300' roll	29-874	72" x 300' roll

## Spray Booth Exhaust Filters



### Binks Exhaust Filters

PART #	DESCRIPTION	SIZE
29-3111	Receptor Filter Pad - 25/Case	20" x 20" x 2"
29-3112	Receptor Filter Pad - 25/Case	20" x 25" x 2"
29-3105	Receptor Filter Blanket	24" x 50' x 2"
29-3106	Receptor Filter Blanket	30" x 50' x 2"
29-3107	Receptor Filter Blanket	36" x 50' x 2"
29-3108	Receptor Filter Blanket	40" x 50' x 2"
29-3109	Receptor Filter Blanket	45" x 50' x 2"
29-3110	Receptor Filter Blanket	48" x 50' x 2"

## Peelable Spray Booth Coating



### Binks BoothCoat™ Peelable Spray Booth Coating

PART #	DESCRIPTION
29-248	1-gal. Can - Dries Clear - (Glass)
29-249	5-gal. Pail - Dries White - (Walls)

## Air Adjusting Valves



DeVilbiss **Part # HAV-501** Gun-Mounted Air Adjusting Valve for accurate air pressure adjustment at the spray gun.

DeVilbiss **Part # HAV-500** (same valve without gauge)

## Quick Disconnects



### DeVilbiss High Flow Air Quick Disconnects\*



PART #	DESCRIPTION	THREAD
HC-1166	Hi-Flow QD Stem	1/4" NPT (m)
HC-4419	Hi-Flow QD Stem	1/4" NPT (f)
HC-4699	Hi-Flow QD Body	1/4" NPT (m)
HC-4700	Hi-Flow QD Body	1/4" NPT (f)

\*Ideal for HVLP applications. For other models, see Accessories Catalog A28-100.

## CleanAir™ Filter-Regulators



DeVilbiss CleanAir™ Centrifugal Filter-Regulator Unit **Part # HFRL-508**  
Excellent for eliminating moisture and dirt from an air supply.

DeVilbiss CleanAir™ Coalescer Filter-Regulator Unit **Part # HFRL-512**  
CleanAir™ coalescer filters remove water, dirt and oil from the system down to .01 micron.

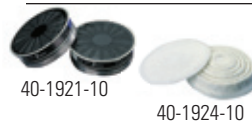
DeVilbiss All-In-One **Part # FRC-650**  
Combines a filter, regulator and coalescer into one unit.

## Premium Paint Spray Respirator



### Binks Millennium 3000 Premium Paint Spray Respirator

PART #	SIZE
40-141	Small
40-128	Medium
40-143	Large



### Binks Millennium 3000 Accessories

PART #	DESCRIPTION
40-1921-10	Cartridges - Box of 20
40-1924-10	Pre-Filters - Box of 100

## Low Pressure In-Line Fluid Filter (Y-Strainer)



### Binks In-Line Fluid Filters

Ideally suited for use on pressure tank or diaphragm pump outlet. Nickel plated body and stainless steel element screen for solvent or waterborne materials.

PART #	DESCRIPTION	S.S. ELEMENT SCREEN
	30 mesh, 590 microns	83-2705
83-2922	50 mesh, 297 microns	83-2089
83-2923	80 mesh, 177 microns	83-2596
83-2924	100 mesh, 149 microns	83-1256
83-2925	150 mesh, 96 microns	83-2405
83-2926	200 mesh, 74 microns	83-2706



Ask Us  
About



Whether or not you are required to follow strict regulatory mandates for your geographic area and specific applications, you can conserve resources with our GreenWorks program.

We can help you:

- Implement eco-tips that provide measurable cost savings
- Identify the Binks and DeVilbiss products with an immediate green payback for you
- Determine if your operation could benefit from the Binks and DeVilbiss Finishing TuneUp program

**LOOK FOR THE GREEN LEAF SYMBOL TO IDENTIFY PRODUCTS THAT CONSERVE RESOURCES**



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