



Military Materials Equipment Selection Guide



Selecting The Right Equipment

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Ask Us About



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 I/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.



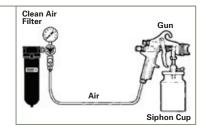
Fluid is atomized by high pressure usually 500 to 4500 PSI and pushed through an orifice in the spray nozzle. The shape of the fluid orifice determines the fan pattern. The particle size is larger than other spray methods so it is not generally used for fine finishes. *Advantages:* Airless spray has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

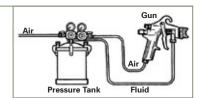
Advantages: This fluid cup system offers quick material / color changes.



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).

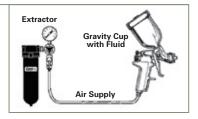
Advantages: This method delivers higher volumes of fluids than other gun set ups, and will spray a wider range of materials. It also enables independent control of fluid pressures.



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**

HVLP



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



Airless



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

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**

Pumps



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



Binks
Exel 4.5:1 Stainless Steel
Standard Duty Pump







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



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



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

HVLP



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



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



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



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



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



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 70 LB. Foot Traffic		
PART #	DESCRIPTION	
29-843	36" x 500' roll	
29-844	72" x 500' roll	

80 LB. Heavie	er 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





PAKI#	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

Quick Disconnects

without gauge)

DeVilbiss High Flow Air Quick Disconnects*

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HC-1166	HC-4419	HC-4699	HC-4700
PART #	DESCRIP	PTION	THREAD
HC-1166	Hi-Flow C	D Stem	1/4" NPT (m)
HC-4419	Hi-Flow C	D Stem	1/4" NPT (f)
HC-4699	Hi-Flow C	lD Body	1/4" NPT (m)
HC-4700	Hi-Flow C	1D Body	1/4" NPT (f)

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

CleanAir™ Filter-Regulators



CleanAir™ Centrifugal Filter-Regulator Unit

Part # HFRL-508

Excellent for eliminating moisture and dirt from an air supply.

CleanAir™ Coalescer Filter-Regulator Unit Part # HFRL-512

CleanAir™ coalescer filters remove water, dirt and oil from the system down to .01 micron.

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









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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