

BINKS

DEVILBISS

Ransburg

BGK

Industrial Finishing Equipment



Selecting the Right Equipment

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It's Critical to use the Right Equipment for Each Application



Using the right equipment for each step of any 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 over 300 years of collective leadership in the spray finishing industry, Binks, DeVilbiss, Ransburg, and BGK continue to set the



equipment standards other brands strive to achieve. Regardless of material type, new and varied coating materials, or other special requirements, Binks, DeVilbiss, Ransburg, and BGK are dedicated to supporting you with a team of experts – industrial finishing specialists, equipment design engineers, technicians, trainers, and customer service professionals.

We're here to help you improve every aspect of your finishing operation – higher quality, increased productivity, new cost efficiencies, reduced downtime, environmental compliances... and improved bottom line results.



General Guidelines for Basic Use of Manual Air Atomizing Spray Guns

Spray width adjustment: Turn clockwise for round, counterclockwise for fan.

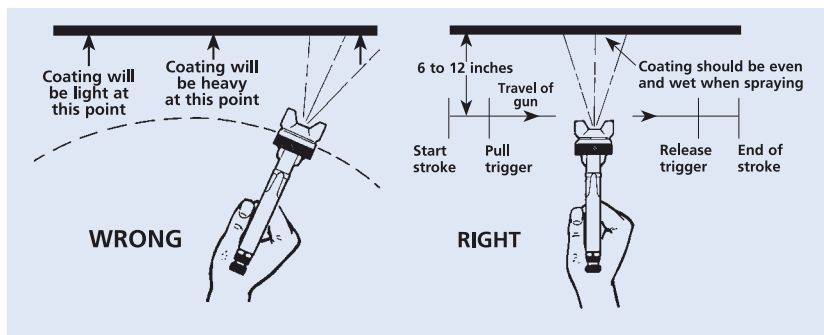
Fluid control screw: Turn clockwise to decrease flow, counterclockwise to increase flow.

As width of spray is increased, more material must be allowed to pass through the gun to obtain the same coverage on the increased area.

Gun Handling

The first requirement for a good resultant finish is the proper handling of the gun. The gun should be held perpendicular to the surface being covered and moved parallel with it. The stroke should be started before the trigger is pulled and the trigger should be released before the stroke is ended. This gives accurate control of the gun and material.

The distance between gun and surface should be 6 to 12 inches depending on material and atomizing pressure. The material deposited should always be even and wet. Lap each stroke over the preceding stroke to obtain a uniform finish.



Siphon Spraying

Set atomization pressure at approximately 50 PSI for lacquer and 60 PSI for enamel. Test spray. If the spray is too fine, reduce the air pressure or open fluid control screw. If the spray is too coarse, close the fluid control screw. Adjust the pattern width and repeat adjustment of spray if necessary.

Pressure Spraying

After selecting correct size fluid orifice, set fluid pressure for desired flow. Open atomization air and test spray. If spray is too fine, reduce air pressure. If spray is too coarse, raise air pressure. Adjust pattern width and repeat adjustment of spray. Keeping fluid control screw in open position will reduce fluid needle wear.

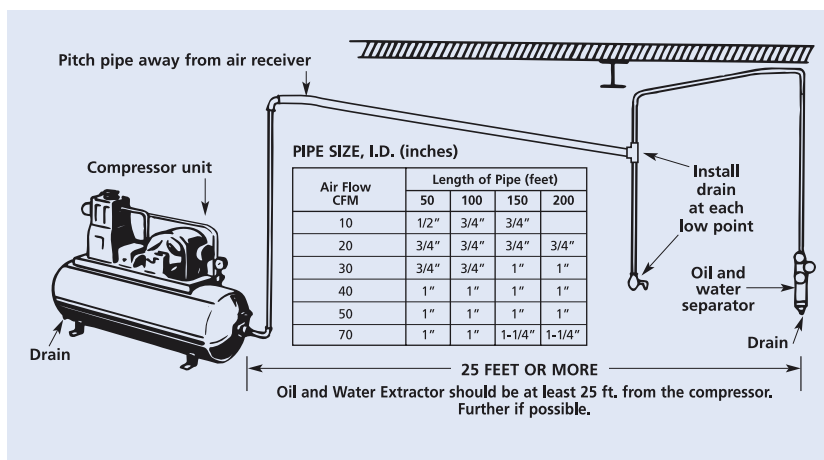
Note: To reduce overspray and obtain maximum efficiency, always spray with the lowest possible atomizing air pressure.

Air Supply

It is extremely poor practice to mount the oil and water extractor on or even near the compressor unit. The temperature of the air is greatly increased as it passes through the compressor and this compressed air must be cooled before the moisture in it will condense. If the air from the compressor is still warm when it passes through the oil and water extractor, moisture will not be effectively removed, but will remain in suspension. Then, when the air cools in the hose beyond the extractor, the moisture will condense into drops of water and cause trouble.

Air lines must be properly drained

Pitch all air lines back towards the compressor so that condensed moisture will flow back into the air receiver where it can be removed by opening a drain. Every low point on an air line acts as a water trap. Such points should be fitted with an easily accessible drain. See diagram.



Air Pressure

Atomizing pressure must be set properly to allow for the drop in air pressure between the regulator and the spray gun.

With 60 psi applied at air supply

Cross section view showing comparison of inside hose diameters (actual size). 60 lbs. regulated pressure

NOT RECOMMENDED

1/4"



Only 34 PSI at gun inlet
25 feet of 1/4" I.D. hose causes a drop of 26 PSI between the air supply and the gun.

RECOMMENDED

5/16"



48 PSI at gun inlet
25 feet of 5/16" I.D. hose causes a drop of 12 PSI between the air supply and the gun. For this reason Binks recommends the use of 5/16" hose.

Understanding Viscosity

Simply stated, the viscosity of a material is an indication of its ability to resist flow. The flow characteristics of liquids relate directly to the degree of internal friction. Therefore, anything that will influence the internal friction such as solvents, thinners, or temperature change, will influence flow. Similarly, it is the flow characteristics that determine how well a material will atomize, how well it will “flow out” on the work, and the type of equipment necessary to move it. Viscosity control, therefore, is essential in obtaining a uniform finish quality from day to day or job to job. Your material supplier will recommend the best viscosity to apply the material chosen for your job – stick with it.

Viscosity can be measured several ways. The most common method for measuring the viscosity of paint is the efflux method. This involves measuring the time (in seconds) it takes for a given quantity of material to flow through an orifice in the bottom of a specially designed cup. Typically, viscosity cups are Ford and Zahn type cups. When using a viscosity cup, make sure that the material is at the recommended temperature. Carefully follow the cup manufacturer’s directions to get an accurate viscosity reading.

One may use of a viscosity tester such as a Brookfield type instrument. These instruments employ the use of rotating spindles to measure a material’s ability to resist flow. Viscosity testers of this type may give the viscosity in centipoise, Krebs units or some other unit of measurement.

Air bubble viscometers use the time required for an air bubble to rise through a fluid. The faster the bubble rises, the lower the viscosity.

Types of Fluids

Newtonian: A fluid whose viscosity remains constant at any given temperature, regardless of the rate at which it is stirred or agitated.

Dilatant or shear thickening: A fluid whose viscosity increases as the rate at which it is stirred or agitated is increased.

Shear thinning: A fluid whose viscosity decreases as the rate at which it is stirred or agitated is increased.

Thixotropic: A fluid whose viscosity decreases as it is stirred or agitated at a constant rate.

Most industrial coatings are thixotropic. This characteristic improves the flow of paint as it is applied. This is very helpful when spraying.

Viscosity Properties of Industrial Coatings	
Viscosity	Typical Industrial Coatings
Very Thin 14-16 seconds Zahn #2 Cup	Wash Primers, Dyes, Stains, Inks, Solvents, Water
Thin 16-18 seconds Zahn #2 Cup	Sealers, Lacquers, Primers, Inks, Zinc Chromates, Acrylics
Medium 19-30 seconds Zahn #2 Cup	Lacquers, Enamels, Primers, Epoxies, Urethanes, Ceramics & Abrasives, Adhesives
Heavy (cream-like) Over 28 seconds Ford #4 Cup	Latex, Block Sealers, Vinyls, Acrylics, Epoxies, Ceramics & Abrasives, Adhesives, Zinc Rich
Very Heavy Typically too heavy to measure with a cup	Textured Coatings, Fire Retardants, Underbody Coatings, Mastics, Bitumastics, Zinc Rich

Spray Application Processes

Atomization Technology Options

Conventional, HVLP, LVMP (Trans-Tech), Air Assist Airless, Airless and Electrostatic 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).

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 to 3 bar) while using 9 to 20 cfm (250 to 560 l/min) to carry out its work.

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.

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.

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.

Electrostatic

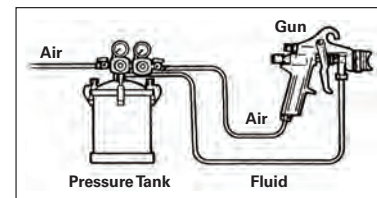
The aim of the electrostatic process is to get as much coating material on the part as possible and eliminate wasteful overspray. This is achieved by negatively charging atomized paint particles so that they are attracted to the grounded workpiece...opposites attract. As a result of electrostatic attraction, spray that would normally be lost ends up on the back and sides of the workpiece to produce a wrap-around effect.

Fluid Delivery Options

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).

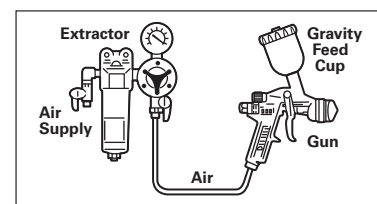
Advantages: This method delivers higher volumes of fluids than other gun set ups, and will spray a wider range of materials. It also enables independent control of fluid pressures.



Gravity-Feed

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

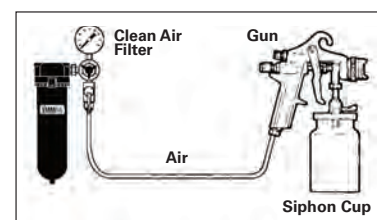
Advantages: This method offers quick color changes and convenience on small jobs or touch-up applications. Gravity guns are able to use all of the coating – reducing waste.



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.



General Guidelines for Equipment Selection – Spray Gun and Fluid Delivery Overview

Job Type	Paint/Material Used	Gun Type	Fluid Delivery	Advantages
Small	Up to 1 gallon/day	Air atomizing hand guns and touch-up guns: <ul style="list-style-type: none"> • Conventional • Trans-Tech • HVLP 	Cups: <ul style="list-style-type: none"> • Siphon • Gravity • Pressure • DeKups® 	<ul style="list-style-type: none"> • Siphon – Simple to use • Gravity – Simple to use, improved fluid control, improved finish quality • Pressure – Simple to use, improved fluid control, improved finish quality • DeKups® – Simple, convenient, easy clean up; can be used upside-down; superior fluid control and finish quality
Medium	1 to 5 gallons/day	Air atomizing hand guns and touch-up guns: <ul style="list-style-type: none"> • Conventional • Trans-Tech • HVLP • Electrostatic 	Pressure Tanks	<ul style="list-style-type: none"> • Convenience – Put paint can directly in the tank • Simplicity – Just add air for consistent, even fluid delivery • Versatility – <ul style="list-style-type: none"> • 2, 5, 10 and 15 gallon capacities • Available in stainless steel or galvanized carbon steel • A complete offering of regulator and agitator configurations are available to accommodate most any situation
Large	More than 5 gallons/day	Air atomizing hand guns and touch-up guns: <ul style="list-style-type: none"> • Conventional • Trans-Tech • HVLP 	Air Operated Diaphragm Pumps	<ul style="list-style-type: none"> • Can be used with 5 gallon pails or 55 gallon drums • Low Pulse and High Flow models are available • ½", 1" and 1½" sizes available
Large	More than 5 gallons/day	Air-Assisted Airless Hand Guns Electrostatic- Air-Assisted Airless	Piston Pumps: <ul style="list-style-type: none"> • MX • BX 	<ul style="list-style-type: none"> • Improved transfer efficiency over air atomized – more parts per gallon • Ideal for larger pieces (bigger than 8" x 8" approx.) e.g. large containers, machinery casings, air conditioner enclosures, etc. • Maintains high quality finish
Large	More than 5 gallons/day	Airless Hand Guns	Piston Pumps: <ul style="list-style-type: none"> • MX • BX 	<ul style="list-style-type: none"> • Improved transfer efficiency over air atomized – more parts per gallon. • Will work with higher viscosities and hard to atomize materials • Extensions are available
Medium to Large	1 gallon and up	Electrostatic Hand Guns: <ul style="list-style-type: none"> • Air Atomizing • Air-Assisted Airless • True Electrostatic 	<ul style="list-style-type: none"> • Pressure Tanks • Diaphragm Pumps • Piston Pumps 	<ul style="list-style-type: none"> • Extremely high transfer efficiencies are possible – more parts per gallon • Improved coverage – paint wraps around part • Reduced overspray • Reduced VOC's • Reduced waste
Large Automated Lines	Large Volumes	Automatic guns: <ul style="list-style-type: none"> • Air Atomizing • Air-Assisted Airless • Airless • Electrostatic Disks • Electrostatic Bells • Electrostatic Automatic Guns 	<ul style="list-style-type: none"> • Diaphragm Pumps • Piston Pumps • Circulation Systems 	<ul style="list-style-type: none"> • Designed for use with a wide variety of automated equipment including reciprocators, flat line and rotary machines, robots, and conveyor systems • Manifold mounted guns are available for easy maintenance • Electrostatic equipment offers benefits of improved transfer efficiency and less waste

General Guidelines for Equipment Selection – Tank Overview

1 Select size and scope:

SUGGESTED TANK SIZES					
Gallons of Coating per 8 Hour Shift	Suggested Size for Single Component Coating	Plural Component Coating: 1 Hour Pot Life	Plural Component Coating: 2 Hour Pot Life	Plural Component Coating: 4 Hour Pot Life	Plural Component Coating: 8 Hour Pot Life
up to 5	2 gallon	2 gallon	2 gallon	2 gallon	5 gallon
10	10 gallon	2 gallon	2 gallon	5 gallon	10 gallon
20	15 gallon	2 gallon	5 gallon	5 gallon	15 gallon
30	30 gallon	5 gallon	5 gallon	15 gallon	30 gallon
60	60 gallon	5 gallon	15 gallon	30 gallon	60 gallon
more than 60	60 gallon	5 gallon	15 gallon	60 gallon	60 gallon

2 Select pressure tank family:

Tank	2 Gallon	5, 10, 15 Gallon	30, 60 Gallon	Waterborne Compatible	Overall Corrosion Resistance	Maximum Pressure Rating (PSI)	Available with Bottom Outlet	2-Gallon Size Accepts 5 Gallon Pails	5-Gallon Size Accepts 5 Gallon Pails
83C	■			No	Good	80		■	
83Z	■			Yes, with liner	Good+	80		■	
183G	■	■		No	Better	110	■	■	■
183S	■	■		Yes	Best	110	■	■	■
30/60			■	No	Better	110	■		
30/60 w/SS liner			■	Yes	Best	110	■		

3 Select how many regulators you will need:

Regulation	Fluid Regulation 0-100 psi. For viscous or long runs of material	Fluid Regulation 0-30 psi. For short runs of low viscosity material	Air Atomization on Tank (0-160 psi.) Better Control.
1 Regulator	■		
2 Regulators	■		■
1 Regulator with Improved Fluid Pressure Control		■	
2 Regulators with Improved Fluid Pressure Control		■	■

4 Select your agitator:

Agitation	Low Viscosity	Low Speeds (No Foaming)	Higher Viscosity
Direct Drive (2 Gal only)	■		
15:1 Gear Reduced	■	■	■





































General Guidelines for Equipment Selection – Spray Guns and Industrial Applications

Look for the air cap symbols to help guide you in selecting the equipment you need.

 = Good

 = Better

 = Best

Industrial Applications Spray Gun/ Applicator																
	General Metal Finishing	Job Shops	Metal Furniture	Ornamental Iron	Small Metal Parts	Large Metal Panels/Frames (Machinery, Containers, Air Conditioners)	Windows/Doors	Sporting Goods	Musical Instruments	Extrusions	Cookware	Ceramic/Porcelain	Abrasives	Mastics	Undercoatings	Oil Filter Lines
Manual Spray – Air Atomized																
Compact HVLP		■	■	■	■	■	■	■	■	■						
Compact Trans-Tech		■	■	■	■	■	■	■	■	■						
Compact Conventional		■	■	■	■	■	■			■						
Model 2100		■		■	■	■	■			■	■			■	■	
Model 2100 w/VT Needle & Nozzle												■	■			
FLG4		■	■		■											
EXL		■	■	■	■	■	■	■	■	■						
JGHV		■	■	■	■	■	■	■	■	■						
JGA		■	■	■	■	■	■			■	■				■	
SV25		■	■				■									
Touch-Up																
Compact MINI		■	■	■	■	■	■	■	■							
Model 115		■	■	■	■	■	■	■	■							
Manual Spray – Air-Assist Airless																
AA1600M		■	■	■		■	■		■							
AA4400M		■	■	■		■	■		■							
Manual Spray – Airless																
Airless 75		■			■	■									■	
PitBull 3500		■			■	■									■	
Automatic Low Pressure																
Model 21		■		■		■	■			■	■					
Model 21V												■	■			
Compact Automatic I		■						■	■							■
Compact Automatic X		■						■	■							■
Model 603						■										
Model 603V											■	■	■			
Automatic High Pressure																
MAG II AA (Air-Assist Airless)		■						■								
Model 550 (Airless)		■				■										
Model 570 (Airless)		■				■								■		
Electrostatic – Hand Guns																
Vector R70, R90		■	■	■	■	■	■	■	■	■						
Vector Solo 65 & 85 kV		■	■	■	■	■	■	■	■	■						
Vector AA90, Solo AA		■		■		■										
No. 2 Process Gun			■	■	■		■									
Electrostatic – Automatic Guns																
REA 900A		■		■		■	■	■	■	■						■
Evolver SE		■		■		■	■	■	■	■						■
Electrostatic – Rotary Atomizers																
Aerobell		■	■	■		■	■	■		■	■					■
Aerobell 33		■	■	■		■	■	■	■	■	■					■
TurboDisk 2		■	■			■	■	■		■						
Electrostatic – Robot Applicator																
RMA 303 (Robot Mounted)		■	■			■	■			■						
Evolver		■	■			■	■			■						

Industrial Finishing

Binks and DeVilbiss offer the most advanced atomization and fluid delivery equipment in the industry. From our advanced air cap technology to our award winning MX pumps, Binks and DeVilbiss continue to pioneer improvements to give their customers the edge they need to excel in a highly competitive marketplace.

Typical Industrial Applications

- General Metal Finishing
- Metallic Furniture
- Architectural/Aluminum Extrusions
- Oil Filter Lines
- Cookware
- Ceramic and Porcelain
- Windows and Doors
- Undercarriage
- Heating and Cooling
- Machinery / Large Metal Panels
- Sporting Goods
- Musical Instruments
- Job Shops

Air Atomizing Spray Guns

DeVILBISS Compact Performance Series **KKK**

The DeVilbiss Compact Guns are mid-sized high production guns. The guns are available in pressure, gravity, and siphon feed models, and are offered in three atomization technologies: HVLP, Trans-Tech, and conventional air spray.

Features and Benefits:

- Superior finish with extremely high transfer rates
- Plated brass air caps
- Wide selection of stainless steel fluid tips and needles from .020" (.50mm) to .086" (2.2mm)

Viscosity range: low to medium

Typical industrial coatings: solvents, inks, dyes, lacquers, primers, epoxies, urethanes, bases, top coats and clears.



BINKS Model 2100 Conventional Spray Gun **KK**

The Binks Model 2100 is a full-sized high production gun. Designed and built with the professional finisher in mind, the 2100 Gun will handle virtually all industrial coatings.

Features and Benefits:

- Maximum delivery air caps
- Wide selection of stainless steel fluid nozzles and needles from .0225" (.60mm) to .110" (2.8mm), including carbide tipped needles and nozzles.
- Proven Binks 60-Series stainless steel fluid nozzles and needles
- All stainless steel fluid passages for complete material compatibility

Viscosity range: low to high

Typical industrial coatings: Solvents, inks, dyes, lacquers, primers, epoxies, urethanes, enamels, adhesives, abrasives, textured coatings, Non-stick coatings, hammers, wrinkle enamels, high solids, and zinc rich materials.



Air Atomizing Spray Guns



FINISHLINE **FLG4** Manual Spray Guns By Devilbiss

Pressure, gravity and siphon spray guns featuring the DeKups® disposable cup system.

Features and Benefits:

- HVLP or Conventional models
- Standard 1.5mm and 2.2mm stainless steel fluid nozzles and needles
- Brass air caps

Viscosity range: low to medium

Typical industrial coatings: primers, base coats, enamels and other general industrial coatings.



DEVILBISS EXL HVLP Spray Guns

The Devilbiss EXL family of HVLP spray guns offers advanced technology for the professional painter. This highly engineered, yet rugged gun can easily hold up to the demands of high production industrial finishing environments.

Features and Benefits:

- Precision engineered patented #2000 air cap was developed in conjunction with top American and European paint companies and produces an extremely fine finish with all materials
- Large spray pattern for fast coverage
- Stainless steel fluid tip, needle, and fluid inlet adapter

Viscosity range: low to high

Typical industrial coatings: the 2000 air cap makes the EXL the gun of choice for applying top coats. Also: enamels, epoxies, urethanes, base coats, clears and high-solids coatings.

Air Atomizing Spray Guns

DEVILBISS JGHV HVLP Spray Gun

The DeVilbiss JGHV HVLP is a high production gun that features DeVilbiss Maximum Performer (MP) technology for fine consistent atomization, improved transfer efficiency, and less overspray and bounce-back.

Features and Benefits:

- Brass Maximum Performer air caps
- Stainless steel fluid nozzles and needles
- Stainless steel fluid passages for complete material compatibility

Viscosity range: low to high

Typical industrial coatings: solvent and water based primers, lacquers, enamels, epoxies, urethanes, adhesives, high solids, and most other general industrial coatings.



DEVILBISS JGA Conventional Spray Gun

The JGA standard-size manual spray gun is extremely versatile and rugged. The JGA sets the industry standard for high production performance.

Features and Benefits:

- Brass air caps
- Stainless steel fluid nozzles and needles
- Stainless steel fluid passages for complete material compatibility

Viscosity range: low to high

Typical industrial coatings: solvent and water based, inks, dyes lacquers, primers, epoxies, urethanes, enamels, adhesives, abrasives, textured coatings, non-stick coatings, hammers, wrinkle enamels, high solids and zinc rich materials.



BINKS SV25 Spray Gun with Pressure Cup

The SV25 is designed for spraying a variety of materials and is ideal for working with small compressors in workshops and various industrial settings.

Features and Benefits:

- Conventional internal mix gun for low air consumption/low overspray
- Pressure feed – 40 psi maximum
- Cup included – 1 quart cup capacity

Viscosity range: low to high

Typical industrial coatings: primers, lacquers, engine paints, liquid masking materials, enamels, adhesives, multi-color touch-up, chassis coatings and maintenance coatings.



Touch-Up Spray Guns

Typical Touch-Up Applications

- Fine Shading
- Retouching
- Stenciling
- Spot Repair
- Rework



DeVILBISS Compact MINI Touch-Up

The Compact MINI Touch-Up gun provides precise control for any type of delicate spray finishing operation.

Features and Benefits:

- HVLP or Trans-Tech
- Brass air caps
- Stainless steel fluid nozzles and needles

The Compact MINI is suitable for use with solvent and water based paints, stains and varnishes, inks and dyes, and lacquers.



BINKS® Model 115 Touch-Up Gun

The Model 115 is a conventional spray gun for touch-up, shading, and spotting jobs.

Features and Benefits:

- Brass air caps
- Stainless steel fluid nozzles and needles
- Rugged forged aluminum body with butterfly trigger

The Model 115 is suitable for use with solvent and water based paints, stains and varnishes, inks and dyes, and lacquers.



DeKUPS® Disposable Paint Cup System

DeKups® is a complete line of disposable cups. The full line of available adapters allows use with virtually any gravity or siphon feed spray gun.

Features and Benefits:

- Vastly reduce or eliminate mess
- Spray at any angle – even upside down!
- Three sizes: 9 oz, 24 oz and 34 oz

SPRAY GUNS SUPPLIED STANDARD WITH DEKUPS®				
Gun Model	Part No.	Atomization	Fluid Delivery	Tip Size
Compact	COM-G507B-14DPC	HVLP	Gravity	1.4 mm
Compact MINI	COMM-HS1-10DPC	HVLP	Gravity	1.0 mm
FLG4	FLG-HVG-315	HVLP	Gravity	1.5 mm
FLG4	FLG-HVS-322	HVLP	Siphon	2.2 mm
FLG4	FLG-CNG-115	Conventional	Gravity	1.5 mm
FLG4	FLG-CNS-115	Conventional	Siphon	1.5 mm

DeVilbiss DeKups Disposable Cup System
U.S. Patent Nos. 7,353,964; 7,344,040, 7,086,549
owned by
U.S. Patent Nos. 6,820,824 and 7,374,111 owned by
3M Innovative Properties Co.

Air Atomizing Outfits

BINKS® and **DEVILBISS®** Economical Spray Outfits

Economical outfits are available for the industrial finisher.



98-2650 1 Quart Aluminum Siphon Cup with 2100 Gun

Features and Benefits:

- 66SS x 66SD fluid nozzle and air cap set-up for siphon spray
- Easy to use
- Fill cup, attach lid, and spray
- Ideal for small jobs



2 Quart Aluminum Pressure Cup Outfits

Outfit	Gun	Set-up	Atomization
98-1067	2100	63BSS x 63PB	Conventional
98-3155	Compact	1.4 mm x 522	Trans-Tech
98-3153	Compact	1.4 mm x 507	HVLP

- Improved control over siphon feed
- Set on floor or hang from belt
- Spray a wide variety of coatings



2 Quart SG2 Plus Pressure Cup Outfits

Outfit	Gun	Set-up	Atomization
98-3143	Compact	1.4 mm x 522	Trans-Tech
98-3141	Compact	1.4 mm x 507	HVLP

- SG2 cup style
- Set on floor or hang from belt
- Spray a wide variety of coatings
- Cup liners available



2 Gallon PT Pressure Tank Outfits

Outfit	Tank	Gun	Set-up	Atomization
98C-357	83C-220	2100	63BSS x 63PB	Conventional
98Z-358	83Z-220	2100	68SS x 68PB	Conventional
98-3146	83C-220	Compact	1.4 mm x 522	Trans-Tech
98-3144	83C-220	Compact	1.4 mm x 507	HVLP

- 83C-220 Tank has zinc plated carbon steel shell and lid; carbon steel and brass wetted parts
- 83Z-220 Tank has zinc plated carbon steel shell and stainless steel lid; stainless steel wetted parts
- Holds a 1 gallon paint can
- Tank liners are available

Air Assist Airless Spray Guns



BINKS® AA1600M and AA4400M

AA1600M Features:

- 1600 PSI MWP
- UHMW seat
- Flat, fine finish, and twist tips available
- Adjustable spray pattern for access to hard to reach areas

AA1600M Applications:

- General metal finishing
- Windows & doors
- Metal furniture
- Job shops, etc. ...

AA4400M Features:

- 4400 PSI MWP
- Tungsten carbide seat
- Flat, fine finish, and twist tips available
- Adjustable spray pattern for access to hard to reach areas

AA4400M Applications

- High viscosity industrial coatings
- Highly filled materials

Airless Spray Guns



BINKS® AIRLESS 75 Gun

Features and Benefits:

- 7500 PSI MWP
- Tungsten carbide seat
- Wide selection of twist tips
- Stainless steel gun head and fluid passage
- Fluid tube insulator for protection from hot fluids
- Available with or without fluid tube

The Airless 75 is a heavy duty professional spray gun for applying laquers, enamels, water-based emulsions, sound deadeners, highly filled materials, and other industrial finishes.



BINKS® PIT BULL 3500

Maximum working pressure: 3500 PSI

The PitBull 3500 PSI Airless spray gun has a revolutionary design that eliminates the needle and spring valve and is replaced by a single piece spray valve. Wear parts in the spray valve are made of Tungsten Carbide. Spray valve design reduces spitting, trigger pull, and fatigue while lasting up to twice as long as guns with needles.

Features and Benefits:

- Forged anodized aluminum handle
- Stainless steel fluid head
- Aluminum, stainless steel and tungsten carbide wetted parts
- 1/4" NPT(m) fluid inlet
- Available with 2-finger or 4-finger trigger, with flat tip or twist tip

Automatic Spray Guns

BINKS® Model 21 Conventional Automatic Gun **KK**

Rugged, Reliable, Proven Performance

Features and Benefits:

- Drop forged brass body is nickel plated
- Capable of spraying a wide range of materials/viscosities
- Adhesives set-up available
- Recommended for rotary, reciprocating and spindle machines
- Tungsten carbide tipped fluid needles and nozzles (Model 21V)

Applications / Coatings:

- Low to high viscosity fluids
- Adhesives
- Epoxies, urethanes, lacquers
- Primers, bases, top-coats
- Ceramics/vitreous materials
- General industrial finishes



DEVILBISS® Compact Automatic Guns **KKK**

Compact Automatic I

Compact Automatic X – Manifold Mounted.

Features and Benefits:

- Conventional, Trans-Tech and HVLP
- Removable stainless steel spray head
- Stainless steel fluid passages for waterborne and solvent based compatibility
- Independent fan, atomizing, and triggering air – vital for robotic and automatic spray machine applications

Applications / Coatings

- Low to medium viscosity fluids
- Epoxies, urethanes, lacquers, primers, bases, top-coats, clears...
- Non-abrasive materials



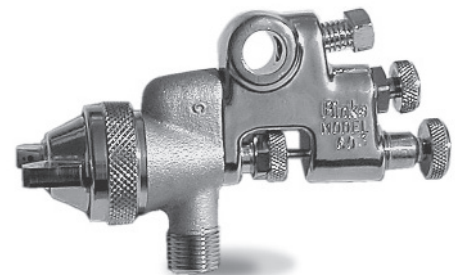
BINKS® Model 603 Conventional Automatic Gun **KK**

Features and Benefits:

- Fluid needle valve is always open
- Stainless steel head, fluid needle, and fluid nozzle
- Drop forged aluminum body
- Tungsten carbide fluid nozzle insert (Model 603V)

Applications / Coatings:

- Continuous spraying operations
- Applying liquid grease and non-stick coatings to baking pans and cookie sheets
- Ceramic tile lines applying frit glazes (Model 603V)
- Other abrasive applications (Model 603V)



Automatic Spray Guns



BINKS® Mag II HVLP Automatic Air Assist Airless Spray Gun **KKK**

Features:

- Maximum fluid pressure: 4000 PSI
- Manifold mounted, modular design
- Flat tip or twist tip air caps
- High transfer efficiency – more parts/gallon

Applications:

- Multi-gun finishing applications
- High production environments
- Metal furniture
- Fabricated metal manufacturing
- Recreational products
- Leather tanning
- General metal finishing

BINKS® Model 550 and 570 Automatic Airless Spray Guns **KK**

Maximum operating pressure 3000 psi

Model 550 Features:

- Forged aluminum body
- Stainless steel head and fluid passage
- Carbide spray tips and needles
- 1/4 NPT(m) fluid inlet

Applications / Coatings:

- Lacquers
- Enamels
- Water based emulsions
- Mold release agents
- Sound deadeners



Model 570 Features:

- Stainless steel head and fluid passage – larger fluid passages than 550 gun
- Carbide spray tips and needles
- 1/2 NPT(f) fluid inlet

Applications / Coatings:

- Heavy industrial coatings
- Mastics
- Undercoatings



Low Pressure Fluid Delivery

BINKS® ASME Pressure Tanks

Binks Pressure Tanks offer the industrial finisher smooth flow and mechanical simplicity. See chart on page 5 to learn how to select the proper tank.

Features:

- Designed, manufactured, and tested to the ASME pressure vessel code. Meets all requirements of NFPA 33
- Ideal for "hot-potting plural component coatings
- Stainless steel tanks offer increased chemical compatibility and are compatible with either solvent borne or waterborne coatings
- Galvanized tanks are compatible with solvent borne materials and offer an economical alternative to stainless steel
- Typically choose from 2, 5 10, 15 gallon tanks depending on your daily coating consumption and coating container size. 30 and 60 gallon tanks are also available
- Binks 2- gallon pressure tanks will hold a 1-gallon paint can. Binks 5-gallon and larger tanks will hold a 5-gallon pail



BINKS® Gemini Diaphragm Pumps

Binks Diaphragm Pumps offer the industrial finisher several options for low pressure fluid delivery.

Features:

- Choose ½" Low Pulse models for applications that require smooth flow. Choose ½" Max Flow models for applications that feed up to 2 guns. Choose 1" or 1 ½" pumps for circulation or bulk transfer
- Choose acetal pumps for most solvent borne coatings. Choose stainless steel pumps for abrasive or waterborne coatings. Aluminum pumps are also available
- Binks diaphragm pumps offer industry leading valve design resulting virtually stall free operation

Wall and pail mount packages are available.



High Pressure Pumps



BINKS® MX Series Pumps **KKK**

Our award winning low pulse design enables lower shaping air pressures for better transfer efficiency.

MX 4 Features:

- 0.4 GPM at 60 cycles per minute
- Ideally suited for supplying material to a single gun
- Available in 12:1 and 32:1 ratios
- Superior low pulse design
- Cart, Tripod, and Wall Mount Outfits

MX 12 Features:

- 1.2 GPM at 60 cycles per minute
- Capable of supplying material to 1-2 guns
- Available in 12:1 and 31:1 ratios.
- Superior low pulse design
- Cart and Wall Mount Outfits

MX 4 and MX 12 Applications / Coatings:

- Thin to medium viscosity materials
- Waterborne and solvent based
- Primers • Base coats
- Top coats



MX 4 Cart Mount
with AA1600M Gun



BINKS® BX Series Pumps **KKK**

36:1 and 57:1 ratios

Features:

- Spring loaded detent design on air motor gives stall free operation
- Stepped rod design gives long life
- Stainless steel fluid section is compatible with waterborne and solvent based materials
- Reversible ball seats reduce maintenance costs

Applications / Coatings:

- Airless application of industrial coatings
- Epoxies
- Urethanes
- Zinc rich primers
- High viscosity materials

High Volume & Circulating Pumps

BINKS® Maple 30 Horizontal Pump **KKK**

3:1 Ratio, 12 GPM @ 60 cycles/min

Features

- Patented low ice air motor using quick exhaust technology
- Patented pneumatic spool and sleeve valves incorporating magnetic detent to eliminate stall condition
- Stainless steel fluid sections – ideal for waterborne and solvent based industrial materials
- Sanitary inlet and outlet connections guarantee a smooth internal pipe connection without paint entrapment

Applications / Coatings

- For low to high viscosity materials
- High solids coatings
- Moisture sensitive coatings
- Shear sensitive coatings
- CARC



BINKS® Comet Hi-Vol Pumps **KK**

2.5:1 Ratio, 2.4 GPM @ 60 cycles/min

Features:

- Wall and drum mount versions
- Hardened stainless steel rod and cylinder
- Tungsten carbide seat

Applications / Coatings:

- For low to medium viscosity fluids
- Transfer pump
- Multi-gun recirculating systems



Wall Mount



55 Gallon
Drum Mount

Accessories



Solvent Saver hose/gun cleaner

2-gallon and 2-quart models. The solvent saver system provides a means of cleaning the inside of material hose, fluid passageways of spray guns and other paint equipment. Solvent and compressed air mix to flush paint lines and passages quickly and thoroughly, eliminating color contamination and saving time. The result is clean and dry paint passageways using less than 25% of cleaning solvents required in wet flush systems.



Pressure and siphon cups

Available in 1- and 2-quart capacities. Ideal for small jobs and/or detail work. 2-quart cups can be set on the floor or hooked to a belt. 1-quart cups attach directly to a spray gun. Aluminum and stainless steel models.



Ball valves

Smooth acting, rugged, and reliable. Use with air or solvent or water based materials.

Low pressure to 250 psi
High pressure to 4000 psi



Siphon kits

Siphon kits are available for 5 and 55 gallon containers and pick-up tube ID's range from 3/8" to 1".



Scrubs hand cleaner towels

Packaged in a convenient bucket for industrial finishing applications. Binks Scrubs are the pre-moistened, heavy duty hand cleaner towels that go where you go! Scrubs powerful, safe, patented citrus-based formula works together with an absorbent, non-scratching abrasive hand cleaner towel for proven performance.

Accessories

Gun Extensions

Nozzle extensions are designed to reach out of the way places. There are models for general use and for specific applications. Extensions are available for air atomizing and airless spray guns.



Agitators

Agitators are available for tanks, 5-gallon pails, and 55-gallon drums, including hand-held models. Direct drive and gear-reduced models to meet any paint agitation need. Stainless steel shafts. Stainless steel or nylon paddles. Robust, reliable drive units.



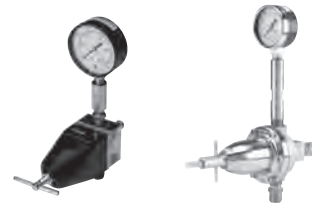
Air Preparation

“Class-A” finishes start with clean air. Binks and DeVilbiss air preparation equipment has been proven in the harshest environments. Easy to install and worry-free. High flow modules will keep your production high while keeping defects to an absolute minimum.



Air and Fluid Regulators

Binks and DeVilbiss air and fluid regulators are rugged and dependable. Precision control of air and fluid at your finger tips. Several models are available for any finishing application, including ceramic/abrasive materials.



Tank Liners and Strainers

Reduce maintenance and easily stage colors with Binks Tank Liners. Polyethylene liners do not allow static build-up.

Binks Prospector paint strainers are a convenient and sanitary way to ensure that your coatings are strained and ready to spray.



Hose

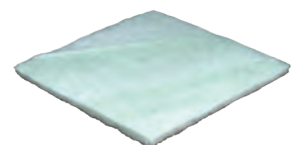
Binks offers a full line of air and fluid hose for all industrial finishing applications. Choose from high and low pressure plus a wide range of hose diameters and lengths.



Spray Booth Products

Binks booth filter products include paper “AF” filters and the NEW Receptor, an eco-friendly filter made with recycled soda bottles. Superior paint holding capacity rivals the efficiency of higher priced filters.

Other booth products include Flame-a-Guard II Floor Paper and Booth Coat Strippable Coating.



Ransburg is the global leader in the design, manufacture, and marketing of manual and automatic electrostatic finishing equipment. Ransburg continues to refine the most efficient electrostatic spray painting technology, delivering “Class A” finishes with excellent transfer efficiency and atomization.



Ransburg guns introduce a high voltage charge into the spray pattern which in turn adds the electrostatic charge into the atomized paint particles. The work-piece is grounded and the attraction between the atomized particles and the work-piece is strong enough to attract the paint/material onto the component with excellent wrap characteristics that results in superior paint deposition – including around the back and sides of the part.



Industrial Applications

- Intricate metal components and wire frames
- Agricultural machines and machinery
- Architectural/Aluminum extrusions
- Oil filter lines
- Ornamental Iron/Fencing



Compatible Material/Coating Types

- Solvent and water based paints and materials
- High solids coatings
- 2 Component materials such as 2K polyurethanes
- Metallic paint
- Lacquers
- Acrylic paints and primers
- Enamels



Apply Any Color Under The Sun

RANSBURG MAKES THEM ALL GREEN



Electrostatics

Ransburg Vector Electrostatic Spray Guns

R70 and R90 Classic and Cascade Models for solvent and water-based materials

R70 and R90 – Low Pressure Air Spray 

Vector Guns set new standards for quality with high transfer efficiency, excellent atomization and durability. Front to back and top to bottom, Vector Guns are tougher and more streamlined, with better weight distribution for improved balance and ergonomics. A substantial weight reduction improves operator comfort and reduces fatigue, which adds up to improved production and job satisfaction.

- Vector Guns utilize less parts, which greatly reduces the likelihood of failure and lowers repair costs.
- Vector control unit offers triple-set point voltage controls and it's microprocessor allows for data collection.

65 and 85 kV models for solvent and water-based materials

Solo 65 and 85 – Low Pressure Air Spray 

Keeping with the Ransburg tradition, the Vector Solo Gun delivers superior technology in a user-friendly, cordless portable unit. Requiring less force for trigger pull and minimizing handle vibration allows the Solo Gun to deliver better control and uniform applications. Ergonomic handle contouring and reduced weight provides operator comfort and reduced fatigue.

- Minimal air consumption - power source requires only an additional 4 scfm air consumption over a corded applicator.
- Cascades are easily replaceable at a lower cost and easy to maintain.

Vector AA90 and Vector Solo AA90 – High Pressure Air-Assisted Airless 

The Vector AA90, available in classic or cascade technology, and the Vector Solo AA90 combine superior air-assisted airless technology with powerful electrostatic features. The result is a comfortable lightweight gun with superior spray pattern characteristics, unmatched pattern adjustability and extraordinary transfer efficiency.

- Available with an extensive selection of air cap and fluid tip combinations for a wide variety of pattern lengths and optimal flexibility.
- Capable of applying a full spectrum of coating materials.

No. 2 Process Gun – True Electrostatic Rotary Atomization 

The Ransburg No. 2 Gun is the most efficient applicator for on-site finishing. The gun's high transfer efficiency provides improved productivity, reduced operator fatigue and higher quality finishes. Reduced labor and material costs, as well as reduced clean-up are just a few of the money saving benefits at a cost effective price.

Applications include:

- Security doors
- Wire and screen goods
- Decorative/ornamental metal
- Wrought iron fences
- Parks/recreation



No. 2 Process Gun Deuce Package

The portable Deuce Unit goes where you need to go. The lightweight design allows user-friendly mobility and transportability. Typical uses include metal furniture, fences, railings, tubing, and file cabinets.



Ransburg Automatic Electrostatic Guns

REA 900A and Evolver SE – Low Pressure Air Spray **KK**

REA 900A and Evolver SE Automatic Guns deliver transfer efficiencies 30% higher than non-electrostatic guns. The guns are compact and lightweight, yet durable and reliable in even the toughest production environments. Ransburg's proven air cap technology delivers uniform spray patterns, consistent film build and quality finishes.

- Evolver SE is ideally suited for fixed gun, reciprocator or robot applications.
- REA 900A features a cascade module located on the gun itself, with flexible low voltage cable.



Ransburg Rotary Atomizers

AeroBell 33 Rotary Atomizer **KK**

The AeroBell 33 is a high speed rotary atomizer which provides excellent transfer efficiency with superior atomization.

- The AeroBell 33 meets Factory Mutual (FM) standards for non-incendive operation.
- The applicator's air bearing turbine provides long life and reliability.
- The AeroBell 33 handles all of today's paints, including waterborne and even 100% solids (solvent free) materials.

TurboDisk2 Rotary Atomizer **KKK**

The TurboDisk2 is a high speed applicator with superior atomization capabilities to handle even the most difficult coatings.

- Superior atomization is achieved through TurboDisk2's proprietary serrated disk edge and high rotational speed capabilities.
- Easy maintenance features mean less downtime.
- Can be used with the widest range of coating materials including waterbornes and high solids.



EZMATION Automation Packages

Entry-Level Single AeroBell 33 Package **KK**

This package gives the customer an opportunity to improve their finishing process with an entry level rotary atomizer package at an affordable price.

The package was designed to better support a variety of industrial applications, including:

- | | | |
|------------------|------------------|------------------------|
| • Sporting goods | • Cosmetic caps | • Cell phones/Handsets |
| • Brass hardware | • Cookware | • Stove grills |
| • Pens | • Circuit boards | • Oil Filters |

Electrostatics

Ransburg RansFlow Low Cost Dynamic Fluid Metering

RansFlow fluid metering system:

- Offers performance and simplicity in a low cost package
- Meters and mixes multi-component materials (2 or 3k)
- Designed for ease of installation and interface
- Offers closed loop metering and flow control
- Multi-language feature

Working with your current paint application system, the RansFlow precisely meters and mixes multi-component materials. This electronic metering system provides accuracy and repeatability for consistent finish quality. The RansFlow not only provides critical control but also lowers costs by reducing reworks and frequency of paint system maintenance.

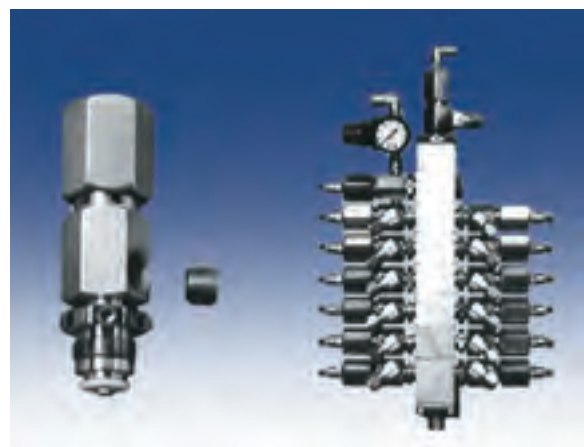


Ransburg CCV Color Stack

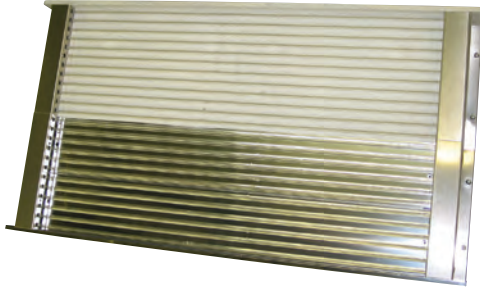
CCV Series Color Stack Assemblies:

- Field proven modular design
- Standard configurations available for 1 – 32 colors
- Metric or standard fittings available

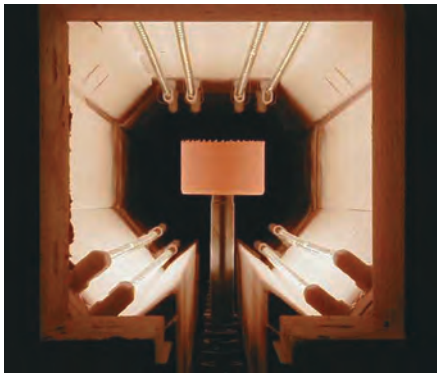
The Modular Color Change System incorporates a practical and flexible valving assembly suitable for a wide variety of applications ranging from small industrial shops to major automotive lines. The valving assembly consists of pneumatically-operated fluid valves and manifold blocks designed for all types of coatings.



IR Ovens and BKG



Infrared (IR) Module



BGK designs and manufactures electric infrared curing solutions. These solutions work with all conveyor types and are available in boosters, ovens or combination systems. We use infrared solutions to cure powder and liquid paints, and several other types of finishes and adhesives.

Features:

- Full range infrared
- Instant on/off
- Wide variety of sizes
- Flashing, drying and curing
- All coating types
- Infinitely adjustable power

Oil Filter Systems



Spindle Boss Shown



BGK Finishing Systems offers the industry leading technology in oil filter curing systems. Utilizing flexible, efficient, high-intensity electric infrared curing technology, BGK modular designs meet individual production specifications.

Typical system components include: chain-on-edge conveyor, coating booth, cool down, infrared oven, rotators, air knife and automatic load and unload stations.

BGK offers four standard Chain-on-Edge systems designed for various part sizes including:

- Spindle Master II
- Spindle Pro
- Spindle Boss
- Spindle King

Standard systems can be customized to meet specific customer requirements.

Reciprocators

BGK Finishing Systems offers horizontal or vertical models, multiple stroke lengths and a variety of standard options. Create a reciprocator to fit your process needs.

Standard Features:

- Horizontal and vertical Models
- Multiple stroke lengths
- Manual or PLC controls
- Adjustable cam spray control
- Moveable base (on vertical model)
- Variable speed (from 10-300 FPM)
- Continuous running or reversing stroke

Optional Features:

- PLC skip spray
- Pneumatic gun trigger
- Gun tilt





**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

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