



Binks SV100 HVLP Gravity Feed Spray Gun

7042-6931-4

The following instructions provide the necessary information for the proper maintenance of the Binks SV100 gravity feed spray gun. Please read and understand all the information in this document in order to get the maximum performance from your new SV100 gravity spray gun.

The SV100 spray gun is the result of quality engineering and development activity. The result is an ergonomic product with reduced triggering effort and fine atomization. The HVLP air cap has been specifically designed to comply with local regulatory air quality restrictions. The specification table details the operating parameters of the gun to achieve those compliant conditions. In addition, the relatively low air flow rate of the SV100 spray gun will help in containing overspray.

The SV100 spray gun should be operated under the safety directions outlined in this literature. Your safety and the safety of others depend on your thorough understanding of the material contained on the Part Sheet.

If you have any questions or do not understand the content in this literature, call your nearest service representative.



SPECIFICATIONS

Max. Air Pressure:	175psi/12bar
For HVLP Compliance:	26 psi inlet pressure delivers (with SV100-693K cap) 10 psi air cap pressures at 12 cfm air volume
Gun Body:	Cast Aluminum
Fluid Path:	Aluminum
Fluid Nozzle:	Stainless Steel
Fluid Needle:	Stainless Steel
Fluid Inlet Size:	3/8"-19 BSP(F)
Air Inlet Size:	1/4" NPS(M)
Gun Weight:	1.02 lbs. (461 g)

Replaces
Part Sheet
77-2875R-6

Part
Sheet
77-2875R-7

In this part sheet, the words **WARNING**, **CAUTION** and **NOTE** are used to emphasize important safety information as follows:

⚠ WARNING
 Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

⚠ CAUTION
 Hazards or unsafe practices which could result in minor personal injury, product or property damage.

NOTE
 Important installation, operation or maintenance information.

⚠ WARNING

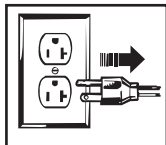
Read the following warnings before using this equipment.



READ THE MANUAL
 Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.



WEAR SAFETY GLASSES
 Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



DE-ENERGIZE, DISCONNECT AND LOCK OUT ALL POWER SOURCES DURING MAINTENANCE
 Failure to De-energize, disconnect and lock out all power supplies before performing equipment maintenance could cause serious injury or death.



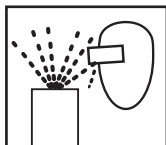
OPERATOR TRAINING
 All personnel must be trained before operating finishing equipment.



EQUIPMENT MISUSE HAZARD
 Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.



KEEP EQUIPMENT GUARDS IN PLACE
 Do not operate the equipment if the safety devices have been removed.



PROJECTILE HAZARD
 You may be injured by venting liquids or gases that are released under pressure, or flying debris.



PINCH POINT HAZARD
 Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.



AUTOMATIC EQUIPMENT
 Automatic equipment may start suddenly without warning.



INSPECT THE EQUIPMENT DAILY
 Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.



NEVER MODIFY THE EQUIPMENT
 Do not modify the equipment unless the manufacturer provides written approval.



KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY



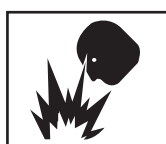
PRESSURE RELIEF PROCEDURE
 Always follow the pressure relief procedure in the equipment instruction manual.



NOISE HAZARD
 You may be injured by loud noise. Hearing protection may be required when using this equipment.



STATIC CHARGE
 Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.



FIRE AND EXPLOSION HAZARD
 Never use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in equipment with aluminum wetted parts. Such use could result in a serious chemical reaction, with the possibility of explosion. Consult your fluid suppliers to ensure that the fluids being used are compatible with aluminum parts.



PROP 65 WARNING
 WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT.

FOR FURTHER SAFETY INFORMATION REGARDING BINKS AND DEVILBISS EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).

OPERATION AND MAINTENANCE INSTRUCTIONS

Your new SV100 Gravity Feed Spray Gun is exceptionally rugged in construction and is built to stand up under hard, continuous use. However, like any other fine precision instrument, its most efficient operation depends on a knowledge of its construction, operation, and maintenance. Properly handled and cared for, it will produce beautiful, uniform finishing results long after other spray guns have worn out.

SET-UP FOR SPRAYING (Figure 1) CONNECTING GUN TO AIR HOSE

Air should be supplied by a suitable length of 5/16" diameter air hose fitted with a 1/4 NPS(f) connection at base of gun handle. For hose lengths over 50', use 3/8" hose.

CONNECTING GRAVITY FEED CUP TO GUN

Insert gasket and screw the cup into the spray gun fluid inlet. Insert strainer, if used, and fill the cup with filtered paint.

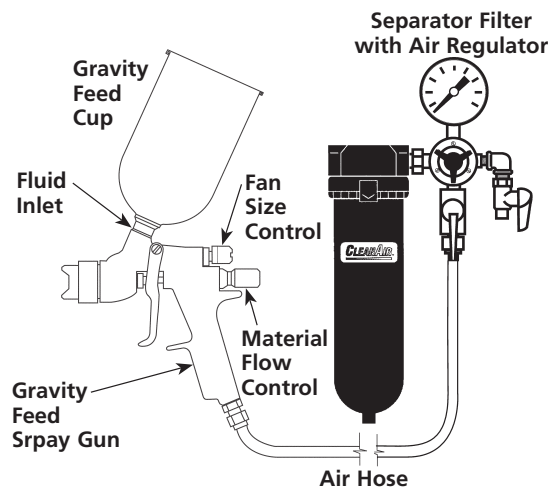


Figure 1

OPERATING THE SV100 GRAVITY FEED SPRAY GUN

CONTROLLING THE MATERIAL FLOW

Correct fluid nozzle size should be selected for proper material flow rate. The material valve control knob can be used to restrict the material needle valve opening and reduce the material flow as necessary.

CONTROLLING THE FAN SPRAY

The fan spray is controlled by means of the spray pattern valve control assembly. Turning this control clockwise until it is closed will give a round spray. Turning it counter-clockwise will widen the spray into a fan shape. The fan spray can be turned anywhere through 360° by positioning the air cap relative to the gun. To affect this, loosen retainer ring, position nozzle, then tighten retainer ring.

TROUBLE SHOOTING

FAULTY SPRAY

A faulty spray is often caused by improper cleaning resulting in dried materials around the material nozzle tip or in the air nozzle. Soak these parts in thinners to soften the dried material and remove with a brush or cloth. If either the air cap or fluid nozzle are damaged, these parts must be replaced before perfect spray can be obtained.

CAUTION

Never use metal instruments to clean the air or material nozzles. These parts are carefully machined and any damage to them will cause faulty spray.

INTERMITTENT SPRAY

Fluttering spray is caused by one of the following:

1. Insufficient material in cup. Refill the cup.
2. Loose fluid nozzle. Tighten snugly.
3. Cup connection loose or dirt in connection. Correct as necessary.
4. Air vent in gravity cup blocked. Clear obstruction.

SPRAY GUN CLEANING INSTRUCTIONS

In certain states, spraying solvents which contain Volatile Organic Compounds (VOC) into the atmosphere when cleaning a spray gun is now prohibited.

In order to comply with these new air quality laws, Binks recommends one of the following two methods to clean your spray finishing equipment.

1. Spray solvent through the gun into a *closed system*. An enclosed unit or spray gun cleaning station condenses solvent vapors back into liquid form which prevents escape of VOCs into the atmosphere.
2. Place spray gun in a washer type cleaner. This system must totally enclose the spray gun, cups, nozzles and

other parts during washing, rinsing and draining cycles. This type of unit must be able to flush solvent through the gun without releasing any VOC vapors into the atmosphere.

CLEANING GUN AND GRAVITY FEED CUP

Remove the cup cover and drain unused material from cup. Carefully rinse cup with solvent. Place clean solvent into the cup and spray this through the gun until it is clean. Remove and clean the cup if necessary. Blow air through the gun to dry it. (Refer to Service Bulletin SBBI-4-043 for cleaning instructions when using cup liners.)

GENERAL SPRAY INSTRUCTIONS

To reduce overspray and obtain maximum efficiency, always spray with the lowest possible fluid/air pressure that produces an acceptable spray pattern.

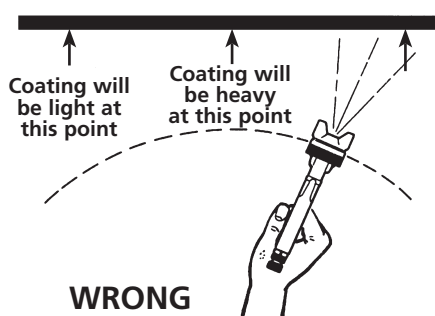
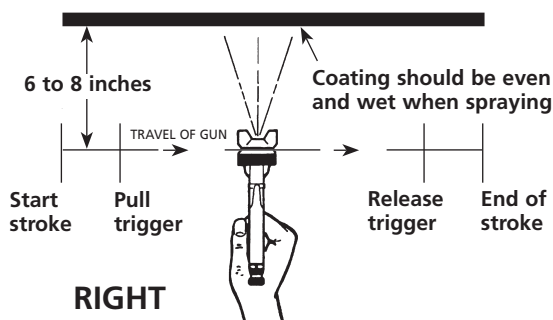
Excessive atomizing air pressure can increase overspray, reduce transfer efficiency and with some materials, result in poor finish quality from dry spray.

Generally use up to 20 psi air at gun inlet. Unusually heavy, difficult to atomize materials may require up to 26 psi at gun inlet. See *Specifications* on page 1.

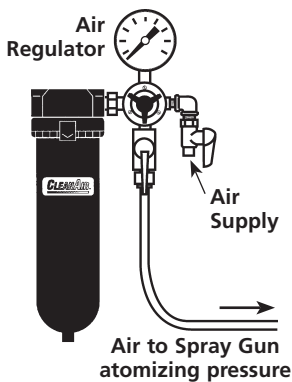
SPRAY TECHNIQUE

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 8 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. Use 50% overlap.



SEPARATOR FILTER



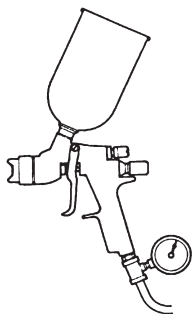
Achieving a fine spray finish without the use of a good separator filter is virtually impossible.

A regulator/separator filter serves a double purpose. It eliminates blistering and spotting by keeping air free of oil and water and it gives precise air pressure control at the gun.

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

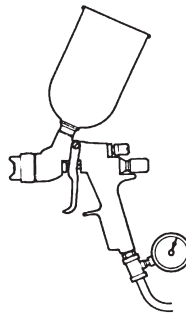
Binks recommends Model HFRL-508 Separator/Filter Regulator.

HOSE SIZE RECOMMENDATIONS WITH 60 PSI APPLIED AT AIR SUPPLY



Only 43 psi at gun inlet

25 feet of 1/4" I.D. hose causes a drop of 17 psi between the air supply and the gun.



54 psi at gun inlet

25 feet of 5/16" I.D. causes a drop of 6 psi between the air supply and the gun. For this reason we recommend the use of 5/16" hose.

Not Recommended

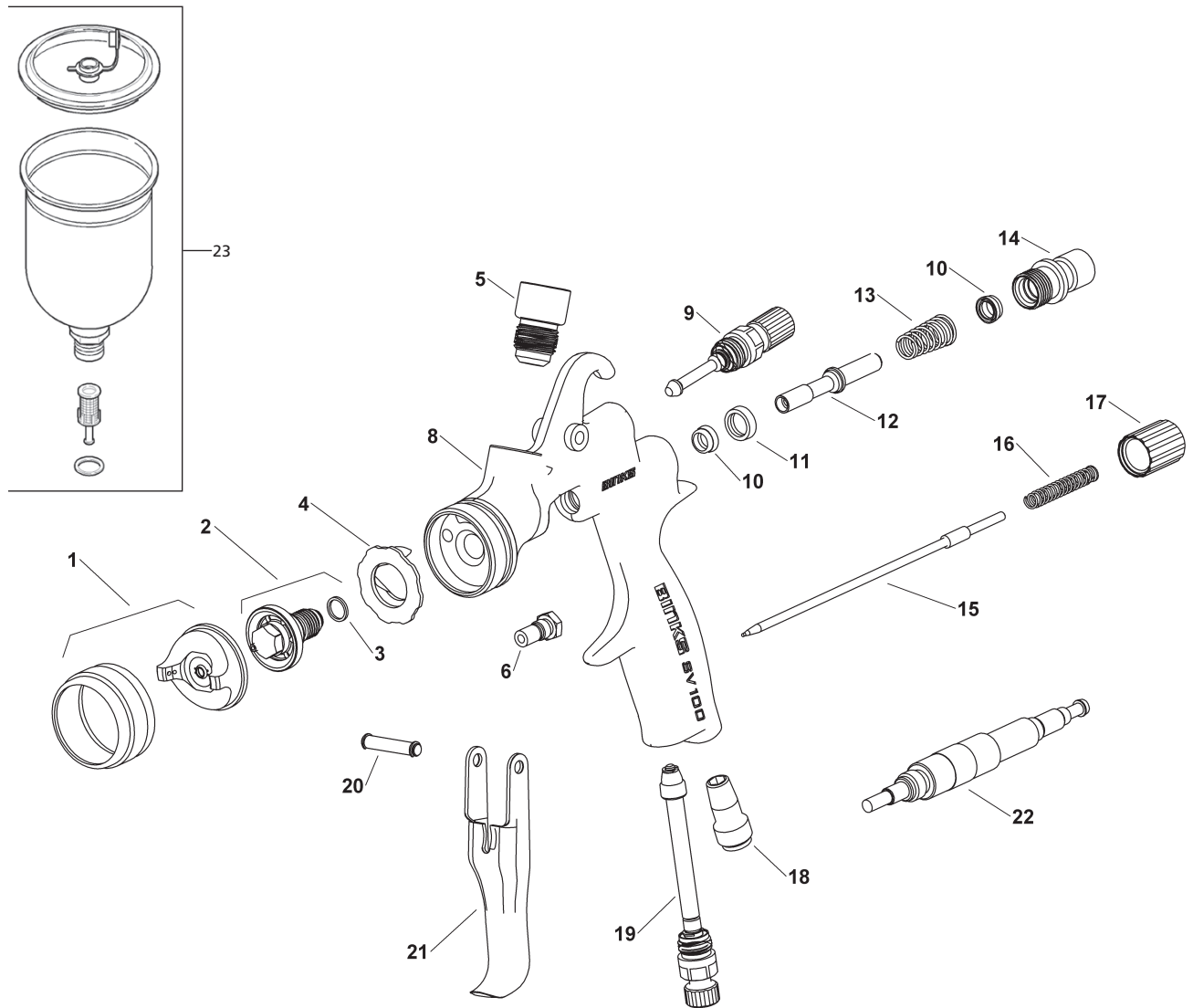


Cross section view showing comparison of inside diameter of air hose (actual size). 60 lbs. regulated pressure.



Recommended

BINKS SV100 HVLP GRAVITY FEED SPRAY GUN



PARTS LIST

(When ordering, please specify Part No.)

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	SV100-693K	AIR CAP	1	15★	—	FLUID NEEDLE 1.4 mm	1
2★	—	FLUID TIP 1.4 mm w/GASKET	1	15a★•	—	FLUID NEEDLE 2.0 mm	1
2a★•	—	FLUID TIP 2.0 mm w/GASKET	1	16★•	—	FLUID NEEDLE SPRING	1
3■	—	GASKET	1	17	—	FLUID ADJUSTMENT KNOB	1
4★▲	—	BAFFLE	1	18	—	NIPPLE	1
5	—	FLUID NIPPLE	1	19	SGK-457	AIR ADJUSTING VALVE ASSEMBLY	1
6★■▲	—	PACKING w/NUT	1	20	—	TRIGGER PIN ASSEMBLY	1
8	—	GUN BODY	1	21	—	TRIGGER	1
9	SGK-455	SPRAY PATTERN VALVE	1	22■	—	ASSEMBLY TOOL	1
10■	—	U-CUP SEAL	2	23	54-4720	1L GRAVITY CUP (ALUMINUM)	1
11■	—	AIR VALVE SEAT	1				
12	—	AIR VALVE STEM	1				
13■	—	AIR VALVE SPRING	1				
14	—	AIR VALVE BUSHING	1				

★ K-5053 Gravity Gun Fluid Tip and Needle Replacement Kit (includes 1.4 and 2.0 mm tips)

■ K-5057 Soft Parts Kit

• K-5053-20 Gravity Gun Fluid Tip and Needle Replacement Kit (includes 2.0 mm tip)

▲ SGK-537-K Baffle and 5 ea. Packings

AIR NOZZLE, FLUID NOZZLE, FLUID NEEDLE**NOTE**

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

1. All nozzles and needles are precision made. They should be handled with care.
2. Do not make any alterations in the gun. To do so could cause finishing difficulties.
3. To clean nozzles, soak them in solvent to dissolve any dried material, then blow them clean with air.
4. Do not probe any of the holes in the nozzles with metal instruments. If probing is necessary, use only a tool that is softer than brass.


⚠ CAUTION

Never use metal instruments to clean the air or fluid nozzles.
These parts are carefully machined and any damage to them will cause faulty spray.

ACCESSORIES


**GFC-501 (Acetal) 20 Oz. Cup
54-4720 (Aluminum) 1-Liter Cup
Gravity Feed Cups**

These gravity feed cups are designed to be used with EXL, FLG, Compact, SV100, 95G and M1-G gravity feed spray guns.

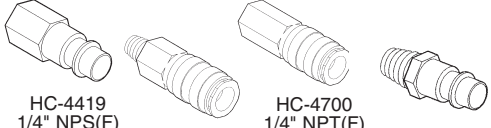


**Spray Gun Lube
SSL-10-K12 (2 oz. bottle)**

Compatible with all paint materials; contains no silicone or petroleum distillates to contaminate paint. MSDS Sheet available upon request.



**Industrial Quick Connects
for HVLG Guns (Air)**



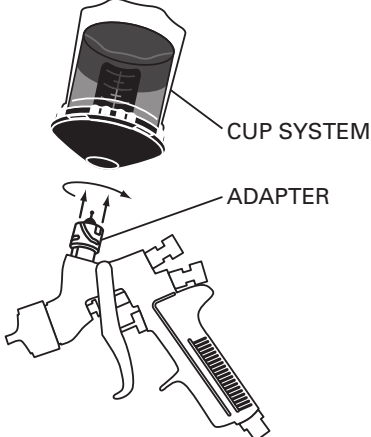
HC-4419 1/4" NPS(F) HC-4699 1/4" NPT(M) HC-4700 1/4" NPT(F) HC-1166 1/4" NPT(M)

DeKups Cup System & Adapter

DPC-607 Reusable Cup 9 oz – Kit of 2
DPC-606 Reusable Cup 24oz – Kit of 2
DPC-608 Reusable Cup 34 oz – Kit of 2

DPC-602 Disposable Cup 9 oz – Kit of 32
DPC-601 Disposable Cup 24 oz – Kit of 32
DPC-600 Disposable Cup 34 oz – Kit of 32

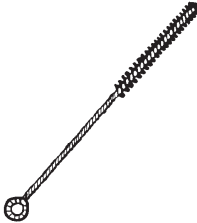
DPC-31 Adapter



CUP SYSTEM


ADAPTER

**Cleaning Brushes
42884-214-K5 (3/8")
42884-215-K10 (5/8")**



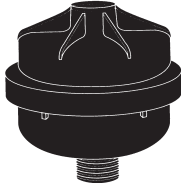
These brushes are helpful in cleaning threads and recesses of gun body.

**29-3100-K6 Scrubs®
Hand Cleaner Towels**




Scrubs® are a pre-moistened hand cleaner towel for painters, body men and mechanics that go where you go and no water is needed.

**HAF-507
Whirlwind™
In-Line Air Filter**



Removes water, oil, and debris from the air line.

**KGP-5-K5
Paint Filter Kit (Gravity)**



Gravity cup strainers, 50 mesh, package of 5.

**OMX-70-K48
Paint Cup Liner Kit**

Allows quick & easy clean-up.


Consists of :
1 - Piercing Tool
48 - Disposable Liners
48 - Drain Bushings

Paint Spray Respirators

**40-141 (Sm)
40-128 (Med)
40-143 (Lg)**

NIOSH-Certified for respiratory protection in atmospheres not immediately dangerous to life.

**GFC-404-K2
Disposable Lid Kit**



Kit of 2.

**KGP-13-K5
Gasket**

Seals gravity cup to gun.
Kit of 5.

WARRANTY

This product is covered by Binks' 1 Year Limited Warranty.

Binks Sales and Service: www.binks.com

BINKS

U.S.A./Canada Customer Service
195 Internationale Blvd.
Glendale Heights, IL 60139
630-237-5000

Toll Free Customer Service
and Technical Support
800-992-4657
Toll Free Fax
888-246-5732

77-2875R-7 Revisions: (P7) Revised patent
footnote.