



# Binks Cub SLG GRAVITY-FEED HVLP GUN 7012-XXXX\_X

Binks Cub SLG gravity-feed HVLP gun is the finest touch-up and specialty coatings gun available today. This gun has been ergonomically designed to give operators superb control and comfort over a range of uses. You feel its excellent balance and heft as soon as you pick it up. The gun body is made of the finest forged aluminum and machined to exacting tolerances. Overall quality is reflected in the gun's lustrous and durable anodized finish.

The Cub SLG is a very efficient spray gun, transferring 65 percent or more of fluid to the subject. It fully meets operating pressures and material transfer requirements of California's South Coast Air Quality Management District regulations as a high volume, low pressure spray gun. High pressure, low volume air flow is converted to high volume, low pressure flows within the gun body. Special air and fluid nozzles enable the gun to atomize fluid at low velocities, creating a soft spray effect for superior transfer efficiencies.

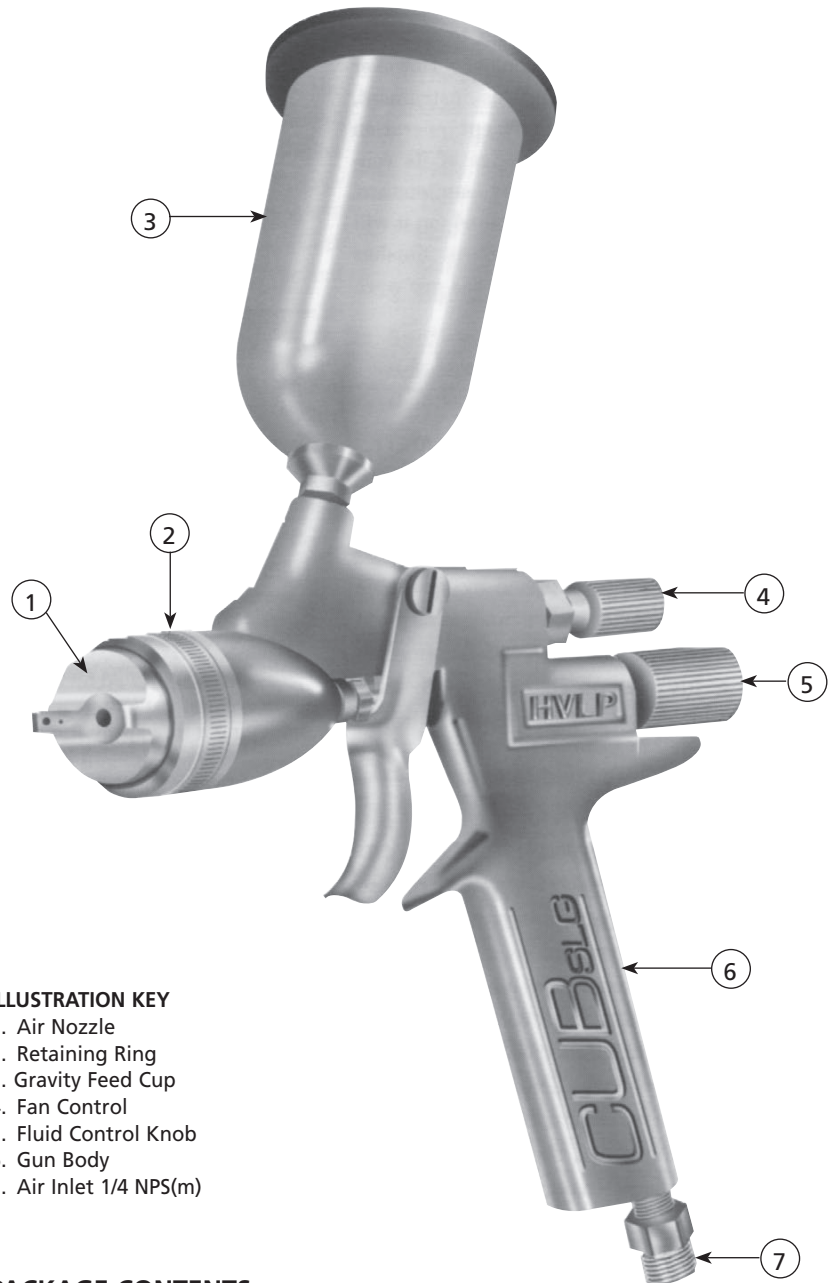
The Cub SLG gun is especially favored in the automotive touch-up and detailing industries and is well-suited to other specialty finishing and small area applications. Several options in cup size and fluid nozzle sizes make the gun adaptable to a variety of uses. See the Parts List on page 3 and Fluid Nozzle Table on page 6 for these options.

This Part Sheet contains an exploded drawing and detailed parts list to enable a complete understanding of the gun's construction. A basic overview of gun operation, cleaning, care and maintenance, and troubleshooting of common problems is also provided.

Please be sure to also read the notes regarding air pressure and volatile materials safety on page 2.

**NOTE**

**IMPORTANT REGULATORY NOTE** regarding the use of this product appears on page 8.



**ILLUSTRATION KEY**

- 1. Air Nozzle
- 2. Retaining Ring
- 3. Gravity Feed Cup
- 4. Fan Control
- 5. Fluid Control Knob
- 6. Gun Body
- 7. Air Inlet 1/4 NPS(m)

**PACKAGE CONTENTS**

Please note your Binks Cub SLG gravity-feed gun package was shipped with the following contents. If anything in the following list is missing, call 1-800-992-4657 for a prompt shipment to you of the missing item(s).

DESCRIPTION	PART NO.	QTY.
Cub SLG Gravity-Feed Spray Gun		1
4 oz. Cup Assembly .....	54-4458	1
Gun Box .....	4-1727	1
Cub SLG Part Sheet .....	2735	1
4 oz. Cup Assembly Part Sheet.....	2719	1
Gunners Mate.....	54-3871	1
Small GunBrush .....	54-4133	1
Gun Brush .....	82-221	1



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

Replaces  
Part Sheet  
77-2735R-4

Part  
Sheet  
77-2735R-5

## HOW TO SET UP and OPERATE YOUR Binks CUB SLG GRAVITY-FEED HVLP SPRAY GUN

Your Cub SLG Gravity-Feed HVLP gun is exceptionally rugged in construction and is built to stand up under hard, continuous use. However, like any other precision instrument, your gun's most efficient operation depends on a knowledge of its construction, operation and maintenance. Properly handled and cared for, it will produce beautiful, uniform finishes long after other spray guns are worn out.

### CONNECTING TO AIR HOSE

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

#### **⚠ WARNING**

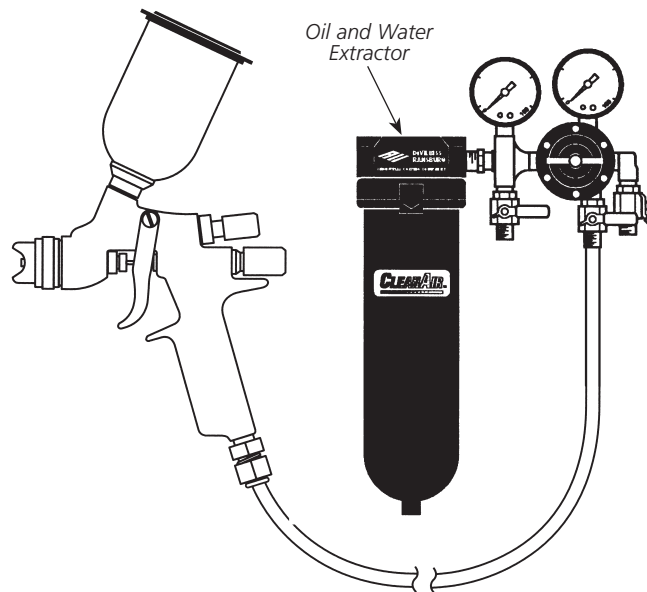
**REGARDING AIR PRESSURE SAFETY**  
Shut off air pressure before connecting or disconnecting air hose or removing any components from the gun. Servicing the gun while pressurized could result in damage to components or bodily injury.

### CONTROLLING FLUID FLOW

Fluid flows from the cup into the fluid inlet by gravity with assistance from siphon action. Air pressure for atomization is regulated at the extractor (see illustration). The flow of fluid is adjusted by the fluid control knob on the gun, paint viscosity, air pressure, and nozzle size. Nozzles with larger apertures give higher flow rates. You can adjust fluid flow by turning the fluid control knob. Turn clockwise to restrict the needle opening, counterclockwise to enlarge it.

#### **⚠ WARNING**

**REGARDING PAINTS, SOLVENTS AND OTHER COATINGS SAFETY**  
Do not use open containers for storage or disposal of paint, other coatings, cloth, or paper used in preparation and application. Many paints and coatings contain volatile chemicals that are a cause of pollution and are a health and fire hazard. Always wear appropriate clothing, including gloves, eye protection, and a respirator when using the gun.



### BINKS OIL AND WATER EXTRACTOR

Achieving a fine spray finish without the use of a good oil and water extractor is almost impossible. A Binks regulator/extractor serves a double purpose. It eliminates blistering and spotting by keeping air free of oil and water, and it gives precise air pressure control.

We recommend the DeVilbiss HFRL-509 Oil and Water Extractor/Regulator for use with the Cub SLG gun.

### CONTROLLING FAN SPRAY

Fan spray is controlled by the fan control knob. Turning this knob clockwise until it is closed produces a small, circular spray pattern. Opening it counterclockwise widens the pattern to a fan shape. You can adjust the fan pattern to any angle by changing the position of the air nozzle by loosening the retaining ring, rotating the air nozzle to the desired position, and re-tightening the retaining ring.

### CLEANING YOUR GUN AND GRAVITY FEED CUP

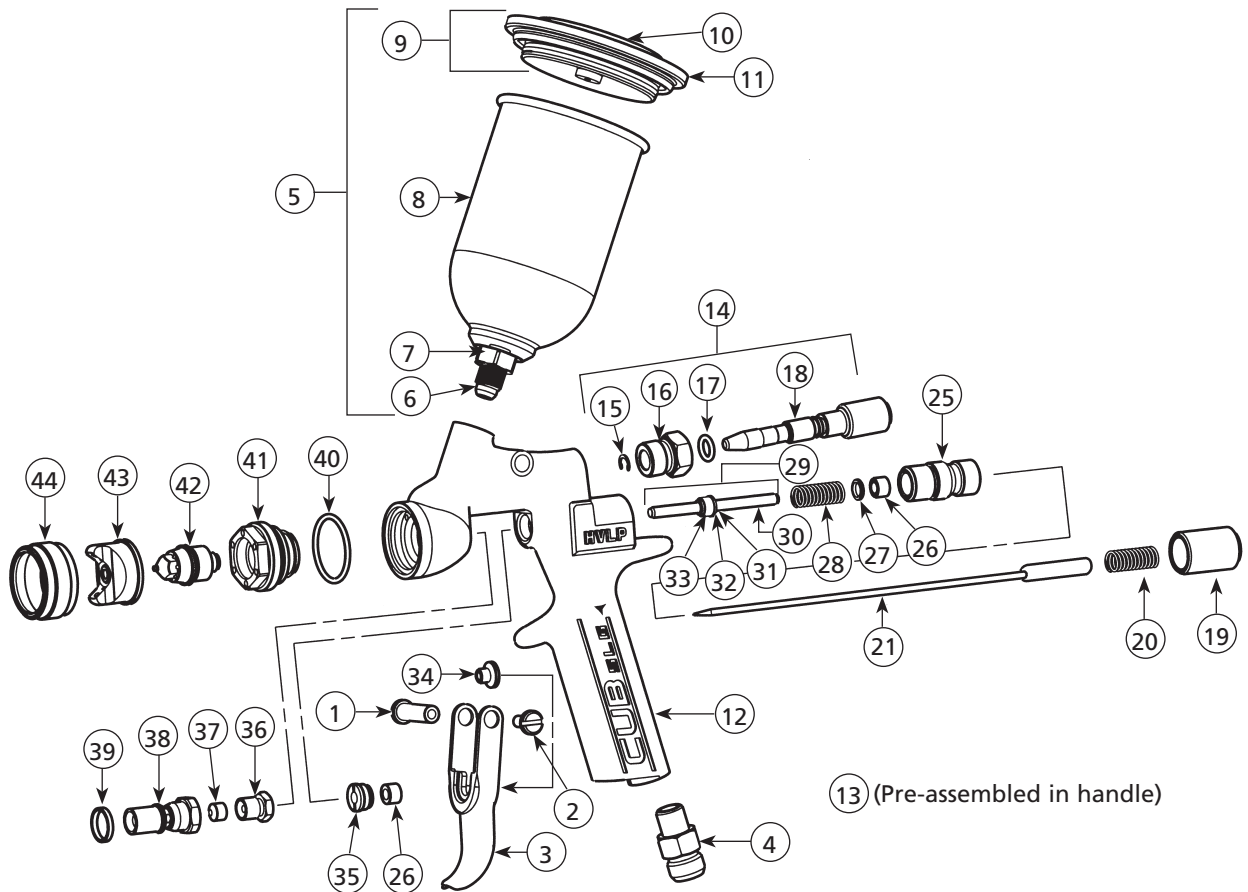
(See **WARNING Regarding Solvent Safety, Column 1.**)

1. Shut off the air supply.
2. Trigger the gun to relieve pressure.
3. Pour solvent into the cup.
4. Trigger the gun to allow solvent to flow through. Note that this is done with air pressure off so solvent will not vaporize.

#### **⚠ CAUTION**

Never use anything metal to clean the air nozzle or fluid nozzle. These parts are precisely machined and any damage to them will cause faulty spray patterns.

5. Clean inside the fluid inlet and fluid nozzle using the small gun brush.
6. Clean the outside of the gun using the gun brush.
7. Repeat any step above until the gun is clean.
8. Blow air through the gun until it is dry.
9. Option: Disconnect the gun from the air hose and remove the air and fluid nozzles if they need separate cleaning. Remove the fluid needle and wipe clean. Unscrew the cup and rinse with solvent.



## PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	54-4482	TRIGGER STUD .....	1	23	82-221	GUN BRUSH (Page 4) .....	1
2	54-4483	TRIGGER SCREW .....	1	24	54-4130▼	WRENCH (Page 4) (Optional).....	1
3	54-4462	TRIGGER .....	1	25	54-4127†	REAR HOUSING.....	1
4	71-28†	D.M. NIPPLE 1/8 NPT(m) 1/4 NPS(m).....	1	26	54-4131▲	U-CUP SEAL.....	2
5	54-4458*	4 OZ. CUP ASSEMBLY .....	1	27	54-4126▲	WASHER .....	1
6	■	CUP OUTLET.....	1	28	54-3520▲	SPRING Yellow.....	1
7	■	CUP NUT.....	1	29	54-4119▲	AIR VALVE ASSEMBLY .....	1
8	■	4 OZ. GRAVITY-FEED CUP .....	1	30	■	SPINDLE.....	1
9	54-4459◆■	LID ASSEMBLY .....	1	31	■	RETAINING RING.....	1
10	■	LID CAP .....	1	32	■	WASHER.....	1
11	■	CUP LID .....	1	33	■	AIR VALVE SEAL.....	1
12	54-4492■	HANDLE ASSEMBLY.....	1	34	54-4125▲	SPINDLE CAP .....	1
13	■	SET SCREW Stainless Steel .....	1	35	54-4134▲	SEAL RETAINER .....	1
14	54-4489	FAN CONTROL ASSEMBLY.....	1	36	55-847▲	PACKING NUT .....	1
15	■▲	RETAINING RING.....	1	37	55-846▲	PACKING.....	1
16	■	FAN CONTROL HOUSING .....	1	38	54-4497	GRAVITY-FEED FLUID INLET .....	1
17	■▲	O-RING Split PTFE.....	1	39	54-4469▲	FLUID INLET SEAL .....	1
18	■	FAN CONTROL KNOB .....	1	40	20-5740▲	O-RING PTFE.....	1
19	54-4128	FLUID CONTROL KNOB .....	1	41	54-4124†	HEAD INSERT .....	1
20	54-4495▲	SPRING Stainless Steel.....	1	42	**†	FLUID NOZZLE.....	1
21	54-4494	FLUID NEEDLE .....	1	43	46-9900	AIR NOZZLE 25 .....	1
22	54-4133	SMALL GUN BRUSH (Page 4) .....	1	44	54-4123	RETAINING RING.....	1
					54-3871	GUNNERS MATE (Not Shown).....	1

\* 8 oz. cup assembly (Part No. 81-381) available as an option.

\*\* Choose from chart on page 6.

■ Available as part of its assembly.

▲ Available in Spare Parts Kit 54-4478.

◆ Available in Kit 54-4539 (set of 3).

† Torquing information. (See chart at right).

▼ Not furnished. Please order separately.

### TORQUING INFORMATION

Item	Description	Torque Spec.
4	D.M. Nipple	48" /lbs.
14	Fan Control Assembly	48" /lbs.
25	Rear Housing	72" /lbs.
41	Head Insert	144" /lbs.
42	Fluid Nozzle	84" /lbs.

**CLEANING YOUR Binks CUB SLG GRAVITY-FEED HVLP SPRAY GUN**

**CLEANING YOUR GUN UNDER PRESSURE**

It has been customary in the industry to clean paint guns by spraying solvent through them under air pressure. This cleaning method is less effective than the steps described on page 2. In addition, you may violate local air quality regulations. Spraying solvent under pressure atomizes it and may release volatile organic compounds (VOCs) into the air.

If you wish to clean the gun using this method, we recommend one of the following alternatives:

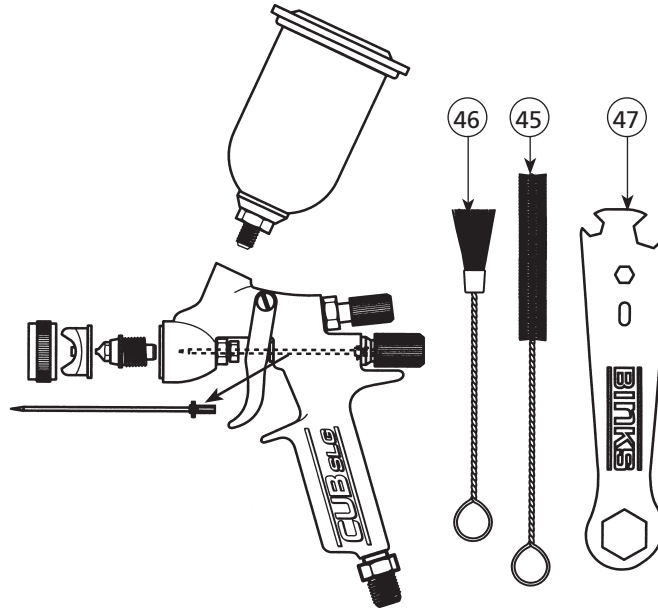
1. Spray solvent through the gun into a closed system. An enclosed unit or spray gun cleaning station condenses and captures solvent vapors, preventing the escape of VOCs.
2. Place the spray gun in a washer-type cleaner. The washer must totally enclose the gun, cup, nozzles and other parts during washing, rinsing and draining cycles. The washer must be able to flush solvent through the gun without releasing VOCs.

**HOW TO MAINTAIN YOUR GUN**

All part names and item numbers in parentheses refer to the exploded drawing and Parts List on page 3.

**TO REPLACE THE AIR VALVE ASSEMBLY (29) OR THE REAR U-CUP SEAL (26)**

1. Remove the fluid control knob (19), stainless steel spring (20) and needle assembly (21).
2. Unscrew the rear housing (25) using a 5/16" hex wrench. Inside the rear housing is the washer (27) and the rear u-cup seal (26).
3. Remove the washer. The rear u-cup seal can be pushed out from behind if you need to replace it.
4. Remove the yellow spring (28).
5. Holding the spindle cap (34) to avoid losing it, pull out the air valve assembly.



6. Replace and reassemble in reverse order.

- Lightly lubricate new seals with petroleum jelly.
- Note the orientation of the rear u-cup seal: the open side should face the front of the gun.
- Take care when starting the rear housing into the gun. Make sure the air valve assembly is lined up with the rear u-cup seal. Otherwise, the end of the air valve spindle (30) may damage the seal.

**TO REPLACE THE FRONT U-CUP SEAL (26)**

1. Remove the air valve assembly as described above.
2. Remove the cup assembly (5), retaining ring (44), air nozzle (43), fluid nozzle (42), head insert (41), o-ring (40) and fluid inlet assembly (36-39) from the front of the gun.
3. Unscrew the trigger screw (2) from the trigger stud (1) and remove the trigger (3).
4. Unscrew the seal retainer (35).
5. Push out the front u-cup seal and replace it.
6. Reassemble in reverse order.
  - Lightly lubricate new seals with petroleum jelly.
  - Note the orientation of the front u-cup seal—the open side should face the back of the gun.

**TO REPLACE THE PACKING (37) IN THE FLUID INLET (38)**

1. Remove the fluid control knob (19), stainless steel spring (20), and needle assembly (21).

**NOTE**

Take care not to lose the spindle cap (34).

2. Unscrew the packing nut (36).
3. Remove the packing using a stiff wire hook or small sheet metal screw.
4. Replace the packing and reassemble in reverse order.

**TO REPLACE THE O-RING (17) IN THE FAN CONTROL ASSEMBLY (14)**

1. Remove the fan control assembly.
2. Pry off the retaining ring (15).
3. Unscrew the fan control housing (16).
4. Remove and replace the o-ring.
5. Re-assemble.

**CLEANING and MAINTAINING YOUR Binks CUB SLG GRAVITY-FEED HVLP SPRAY GUN**

**GENERAL INSTRUCTIONS FOR AIR-SUPPLIED PAINT SPRAYING**

To reduce overspray and obtain maximum efficiency, always spray with the lowest possible 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. Atomizing air pressures should not exceed 10 psi. See the tables on page 6 and Important Regulatory Note on page 8.

Generally use 30-35 psi air at the gun inlet. Unusually heavy or difficult to atomize materials may require up to 50 psi inlet air. Refer to air pressure recommendations on page 6.

**⚠ WARNING**  
 Always wear appropriate gloves, eye protection and a respirator when using your gun. Atomized materials may cause bodily injury.

**SPRAY TECHNIQUE**

To get a good finish you must handle the gun properly. Hold the gun perpendicular to the surface you are painting. Each paint stroke should be made parallel to the plane of the surface being painted. Start the stroke before you trigger the gun and release the trigger before you end the stroke. This will give you accurate control of both gun and material and will prevent excessive build-up of material at the stroke ends.

The distance between the gun and surface should be 6"-10" depending on the material and the atomizing pressure. The material deposited should always be even and wet. Lap each stroke about half of the preceding stroke to obtain a uniform finish.

**IF YOU HAVE TROUBLE WITH GUN OPERATION OR RESULTING FINISH**

**FAULTY SPRAY PATTERN**

A faulty spray pattern is often caused by dried materials around the fluid nozzle tip or in the air nozzle left behind by improper cleaning. Soak these parts in thinner to soften the material and remove it with a brush or cloth.

**⚠ CAUTION**  
 Never use anything metal to clean the air nozzle or fluid nozzle. These parts are precisely machined, and any damage to them will cause faulty spray patterns.

**INTERMITTENT SPRAY**

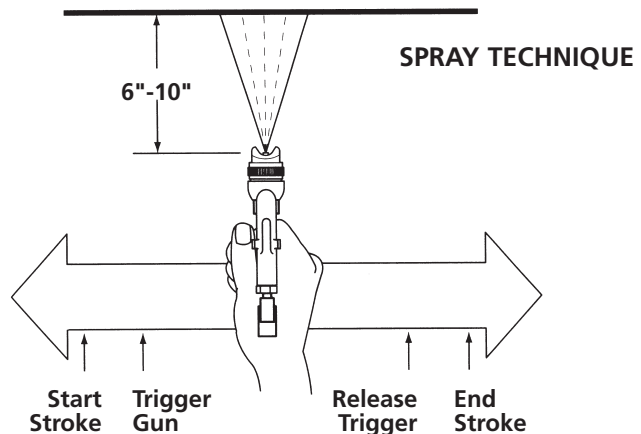
Fluttering spray is caused by one of the following problems:

1. Air leaking into the fluid passages due to any of the following: The packing nut (36) may be loose. The packing (37) may be worn and need replacement. The fluid nozzle (42) may be loose. The cup assembly (5) may be loose in the gun. The fluid inlet seal (39) may be worn.
2. Insufficient fluid available.

**SPITTING**

Spitting is caused by anything that restricts the movement of the fluid needle assembly (21). The probable causes include:

1. The packing nut (36) is too tight.
  2. The needle assembly (21) is bent. You may be able to straighten it.
  3. Dried material has built up on the needle or in the fluid nozzle (42).
  4. Lumps or impurities in the fluid.
- Regulator pressures are based on 25 feet of 1/4" hose in good condition without quick disconnects or other restrictive fittings. Gun inlet pressures are measured at the gun air inlet with the gun triggered. Use the air nozzle test gauge accessory 54-4150 to confirm the atomizing/regulator pressure relationship for your actual air supply setup. These recommendations are for typical or average fluids, and are intended to serve as a starting point. Adjust as necessary for your specific application. Regulator pressures for 5/16" hose are 3 to 5 PSI lower.



**FLUID NOZZLE OPTIONS, AIR PRESSURE RECOMMENDATIONS  
FOR YOUR Binks Cub SL HVLP SPRAY GUN**

**FLUID NOZZLE OPTIONS**

<b>Material</b>	<b>Fluid Nozzle No.</b>	<b>Part No.</b>
Very Light/Reduced Flow	20T (.020" dia. opening)	45-9900
	25T (.025" dia. opening)	45-9901
	30T (.030" dia. opening)	45-9902
<b>Light/Medium:</b> less than 15 to 20 seconds in a ZAHN 2 Cup, e.g., stains, varnishes, thin lacquers, automotive refinishing materials	40T (.040" dia. opening)	45-9905
<b>Medium:</b> 20 to 30 seconds in a ZAHN 2 Cup, e.g., general industrial coatings	55T (.055" dia. opening)	45-9908
<b>Heavy:</b> greater than 30 seconds in a ZAHN 2 Cup, e.g., low VOCs coatings		

**AIR PRESSURES AND FLOWS**

<b>Gun Inlet Pressure (PSI)</b>	<b>Nozzle Atomizing Air Flow (SCFM)</b>		<b>Nozzle Atomizing Pressure (PSI)</b>
20	<b>2S Nozzle</b>	6.0	3
30	<b>2S Nozzle</b>	7.5	5
45	<b>2S Nozzle</b>	10.0	9
50	<b>2S Nozzle</b>	11.0	10

Gun inlet pressure is measured at the gun inlet fitting with the gun triggered.

**AIR PRESSURE RECOMMENDATIONS**

<b>Type of Material</b>	<b>Atomizing PSI</b>	<b>Gun Inlet PSI</b>	<b>Regulator PSI</b>
Primer/Surfaces	3-4	20-26	27-33
Light Stains/Inks	4-5	26-30	33-38
Acrylic Enamels	6-7	35-40	44-47
Lacquers	7-8	40-42	47-55
Low VOCs, Urethanes	8-10	42-50	55-59

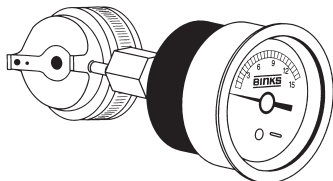
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NOTES

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## IMPORTANT REGULATORY NOTE

Regulations in some areas prohibit the operation of HVLP spray guns above 10 psi nozzle atomizing pressure. Users subject to this regulation should not exceed 50 psi gun inlet pressure (see the air pressure chart for various fluid materials on page 6). Some agencies require users to have a nozzle test gauge available on site to verify gun operating pressures. We recommend that you use Nozzle Test Gauge (Part No. 54-4150) shown below for accurate nozzle operating pressures.



**TEST GAUGE ACCESSORY  
54-4150**

**(GAUGE ONLY: 59-299)**

### WARRANTY

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

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**Binks Sales and Service: [www.binks.com](http://www.binks.com)**

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**BINKS**

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77-2735R-5 Revisions: Trademark updates;  
(P8) Updated contact information.