SERVICE MANUAL

DISTRIBUTED BY: Pro Wood Finishes Rockville MD 20850 Ph: (301) 424-3033

14622 Southlawn Lane BINKS "TROPHY" SERIES PRESSURE AND SIPHON FEED **HVLP, LVMP & CONVENTIONAL MANUAL SPRAY GUNS**

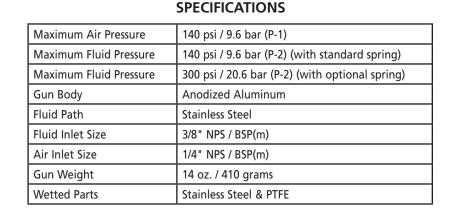
(2465-XXXX-XXXX) (((x) II 2 G X

Binks Trophy Series Spray Gun is the premier spray gun for use in pressure and siphon feed spray applications and sets a new standard in durability, ergonomics, and atomization. The lightweight ergonomic design offers unsurpassed comfort and control. The latest advanced atomization technology has been incorporated for achieving consistent, fine finishes when spraying a wide range of industrial coating applications.

Binks Trophy Series Spray Guns can be used with pumps, pressure pots, pressure cups, or siphon cups.

Binks Trophy Series Spray Guns are offered in three different atomization technologies: HVLP, LVMP and Conventional.

The Trophy HVLP Series of Spray Guns can be used to operate at high transfer efficiencies in compliance with "California South **Coast Air Quality Management** District" regulations as a High Volume, Low Pressure spray gun.



IMPORTANT! DO NOT DESTROY

It is the customer's responsibility to have all operators and service personnel read and understand this manual. Contact your local Binks representative for additional copies of this manual.

READ ALL INSTRUCTIONS BEFORE OPERATING THIS BINKS PRODUCT.



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BINKS

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.

A CAUTION

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

WARNING





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, DEPRESSURIZE, 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.



EOUIPMENT 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.

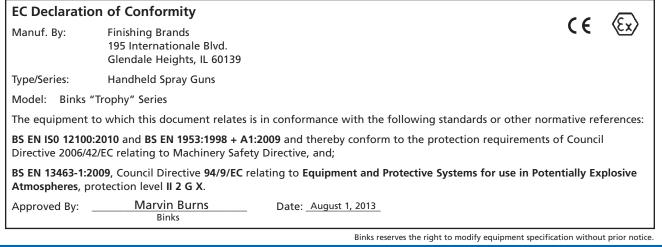


INSPECT THE EQUIPMENT DAILY

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

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).







NOTE

Important installation, operation or maintenance information.



PRESSURE RELIEF PROCEDURE

Always follow the pressure relief procedure in the equipment instruction manual.

Do not modify the equipment unless the manufacturer provides

KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE



NOISE HAZARD

written approval.

OF AN EMERGENCY

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.



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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 vour 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.

TYPES OF INSTALLATION

Air pressure for atomization is regulated at the extractor. The flow of the fluid is adjusted by the fluid valve control knob on gun, viscosity of paint and air pressure.

PRESSURE CUP HOOKUP (Figure 1)

For fine finishing with limited spraying. Air pressure for atomization is regulated at extractor; fluid pressure at cup regulator. Pressure cup is also available less regulator.

PRESSURE TANK WITH 2 REGULATORS (Figure 2)

The pressure to the tank is regulated by the first regulator. The pressure for atomization is regulated by the second regulator.

PRESSURE CIRCULATING HOOKUP (Figure 3)

For heavy production spraying. Air pressure atomization regulated at extractor. Fluid pressure regulated at fluid regulator.

SIPHON FEED HOOKUP (Figure 4)

Air pressure for atomization is regulated at extractor. The amount of fluid is adjusted by fluid control screw on gun, viscosity of paint, and air pressure.

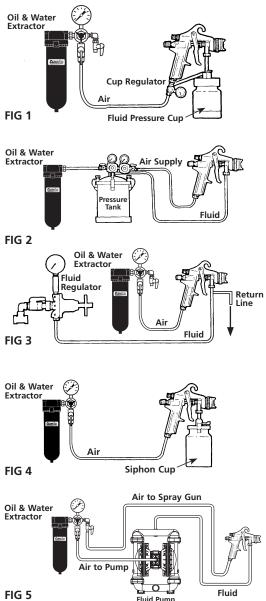
FLUID PUMP HOOKUP (Figure 5)

For medium production spraying (single regulator). Air pressure for atomization is regulated at extractor, fluid pressure at pump regulator.



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 RECOMMENDED NOT RECOMMENDED 48 PSI at gun inlet Only 34 PSI at gun inlet 25 feet of 5/16" I.D. hose causes 25 feet of 1/4" I.D. hose causes a drop of 12 PSI between the air a drop of 26 PSI between the air supply and the gun. supply and the gun. For this reason Binks recommends the use



An oil and water extractor is important.

Achieving a fine spray finish without the use of a good oil and water extractor is virtually impossible.

A regulator/extractor serves a double purpose. It eliminates blistering and spotting by keeping air free of oil and

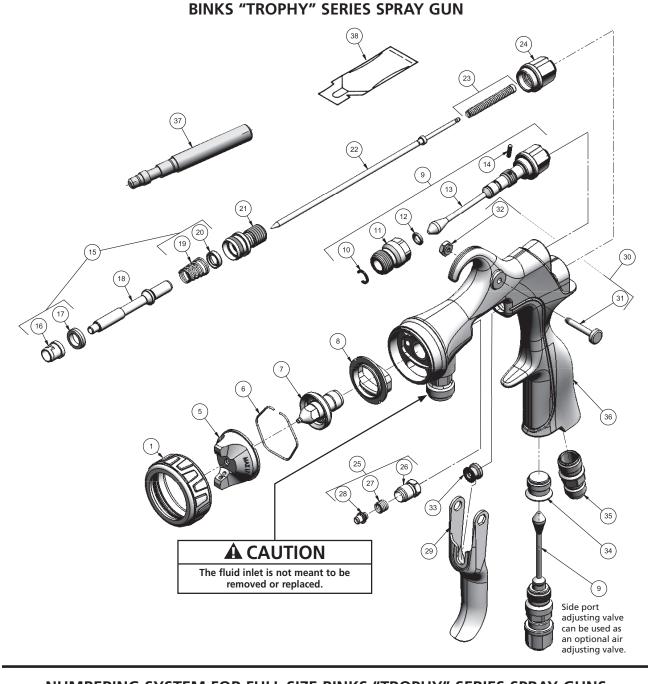
water, and it gives precise air pressure control at the gun.

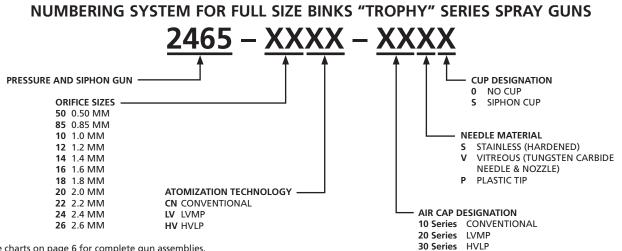
Use DeVilbiss oil and water extractors and regulators. See your local distributor for models.



of 5/16" hose.







See charts on page 6 for complete gun assemblies.



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UN	PARTS LIST		
	DESCRIPTION	QTY.	
	KNOB – NEEDLE ADJUSTING	1	
	NEEDLE PACKING KIT (STANDARD)	1	
	NEEDLE PACKING KIT (VITREOUS)	1	
*	NUT – PACKING	1	
*	SPRING FOR PACKING	1	
	NEEDLE PACKING (STANDARD)	1	
*	NEEDLE PACKING (VITREOUS KIT OF 3)	1	
	TRIGGER	1	

CHART 1: BINKS "TROPHY" SERIES SPRAY GUN PA

ITEM

NO.

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PART NUMBER

54-6111

54-6130-K

54-6129-K

ITEM NO.	PART NUMBER		DESCRIPTION	QTY.
1	54-6120		AIR CAP RETAINING RING ASSEMBLY	1
5	SEE CHARTS ON PAGE 7		AIR CAP	1
6	JGA-156-K10		SPRING-CLIP (KIT OF 10)	1
7	SEE CHARTS BELOW		FLUID NOZZLE	1
8	54-6102-K3		BAFFLE/SEPARATOR (KIT OF 3)	1
9	54-6122		SIDE PORT VALVE ASSEMBLY	1
10		$^+_{\Delta}$	RETAINING CLIP	1
11		+	BODY BUSHING	1
12		$\frac{+}{\Delta}$	O-RING	1
13		+	SIDE PORT STEM	1
14		$^+_{\Delta}$	PIN	1
15	54-6131-K		AIR VALVE SERVICE KIT	1
16		•	FRONT SEAL – AIR VALVE	1
17		•	FRONT AIR VALVE SEAL	1
18	54-6109		AIR VALVE SPINDLE	1
19		•	AIR VALVE SPRING	1
20		•	REAR SEAL – AIR VALVE	1
21	SN-66		HOUSING	1
	47-6825		NEEDLE – STAINLESS STEEL (STD.) MARKING: I	1
	SEE CHART #2		NEEDLE – FEATHERING	1
22	47-6830		NEEDLE – TUNGSTEN CARBIDE MARKING: II	1
	47-6826		NEEDLE – PLASTIC TIP MARKING: III	1
			SPRING/PAD ASSEMBLY	1
23	54-6133-КЗ		SPRING/PAD ASSEMBLY (STANDARD) (KIT OF 3)	1
	54-6134-K		SPRING/PAD ASSEMBLY KIT – HEAVY DUTY (OPTIONAL)	1

29	54-4360		TRIGGER	1
30	54-6132-K		TRIGGER SCREW NUT KIT	1
31		0	TRIGGER SCREW	1
32		0	TRIGGER NUT	1
33	54-3513		SPINDLE CAP	1
34	SN-11		PLUG	1
35	54-6112		FITTING – AIR INLET	1
36			GUN BODY WITH FLUID INLET	1
37			TOOL – SEAL INSERTION	1
38			GUNNER'S MATE (3 CC BAG)	1
FOR SIPHON GUNS ORDER CUP PART NUMBER 81-800				

+	PARTS INCLUDED IN 54-6122
*	PARTS INCLUDED IN 54-6129-K
	PARTS INCLUDED IN 54-6130-K
▼	ALSO AVAILABLE IN KIT OF 3 SN-2-K3
•	PARTS INCLUDED IN 54-6131-K

0	PARTS INCLUDED IN 54-6132-K
Δ	GTI-428-K5 SIDE PORT REPAIR KIT
*	ALSO AVAILABLE IN KIT OF 3 54-6119-K3
	PARTS INCLUDED IN 54-6135

CHART 5: TEST AIR CAP KITS -OPTIONAL

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CHART 2: STAINLESS STEEL FEATHERING NEEDLES AND NOZZLES – OPTIONAL

FEATHERING NEEDLE PART NO.	MARKING ON THE NEEDLE	MATCHING NOZZLE P/N (ORIFICE SIZE)
47-6833	1 1111	45-11050-12 1.2MM (.047")
47-6834	11 1111	45-11050-14 1.4MM (.055")
47-6835		45-11050-18 1.8MM (.071")

CHART 3: TUNCCTEN CADDIDE NO77LEC AND NEEDLEC

TUNGSTEN CARBIDE NOZZLES AND NEEDLES					
NOZZLE SIZE	TC NOZZLE P.N.	TC NEEDLE P.N.			
1.4 MM (.055")	45-11080-14	47-6830			
1.8 MM (.071")	45-11080-18	47-6830			
2.2 MM (.086")	45-11080-22	47-6830			
2.6 MM (.102")	45-11080-26	47-6830			

CHART 4: STAINLESS STEEL (HARDENED) FLUID NOZZLES – STD.

FLUID NOZZLES – STD.				
STAINLESS FLU ORIFICE	FUID NOZZLE PART NUMBER			
.020"	.50 mm	45-11050-50		
.035"	.85 mm	45-11050-85		
.039"	1.0 mm	45-11050-10		
.047"	1.2 mm	45-11050-12		
.055"	1.4 mm	45-11050-14		
.063"	1.6 mm	45-11050-16		
.071 "	1.8 mm	45-11050-18		
.079"	2.0 mm	45-11060-20		
.087"	2.2 mm	45-11060-22		
.102"	2.6 mm	45-11060-26		

CONVENTIONAL		
54-6140-K	11-C KIT	
54-6141-K	12-C KIT	
54-6142-K	14-C KIT	
LVMP		
54-6146-K	22-L KIT	
54-6147-K	23-L KIT	
54-6149-K	25-L KIT	
HVLP		
54-6151-K	31-H KIT – HVLP	
54-6152-K	32-H KIT – HVLP	
54-6153-K	33-H KIT – HVLP	
54-6154-K	39-H KIT – HVLP	



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BINKS "TROPHY" SERIES SPRAY GUN PRESSURE FEED SPRAY GUN NEEDLE AND NOZZLE SELECTION GUIDE

CHART 6: CONVENTIONAL GUN SET-UPS

CHART O. CONVENTIONAL GOIL SEI-OFS					
TYPE OF FLUID TO BE SPRAYED	COMPLETE GUN ASSEMBLY PART NUMBER	FLUID NOZZLE AND AIR CAP			
THIN	2465-10CN-11S0	1.0 mm (.039") X 11C			
5-25 CENTIPOISE	2465-12CN-11S0	1.2 mm (.047") X 11C			
15-19 sec. Zahn 2 cup	2465-14CN-11S0	1.4 mm (.055") X 11C			
wash primers, dyes, stains, solvents,	2465-16CN-11S0	1.6 mm (.063") X 11C			
water, inks, sealers,	2465-16CN-12S0	1.6 mm (.063") X 12C			
laquers, lubricants, zinc chromates,	2465-16CN-12SS	1.6 mm (.063") X 12C 🔺			
acrylics	2465-18CN-12SS	1.8 mm (.070") X 12C 🔺			
	2465-12CN-11S0	1.2 mm (.047") X 11C			
MEDIUM	2465-14CN-11S0	1.4 mm (.055") X 11C			
25-70 CENTIPOISE 20-30 sec. Zahn 2 cup	2465-16CN-11S0	1.6 mm (.063") X 11C			
synthetic enamels,	2465-16CN-12S0	1.6 mm (.063") X 12C			
varnishes, shellacs,	2465-18CN-11S0	1.8 mm (.070") X 11C			
fillers, primers, epoxies, urethanes,	2465-16CN-12SS	1.6 mm (.063") X 12C 🔺			
lubricants,	2465-18CN-12SS	1.8 mm (.070") X 12C 🔺			
wax emulsions, enamels	2465-20CN-14S0	2.0 mm (.079") X 14C			
enameis	2465-22CN-14S0	2.2 mm (.087") X 14C			
	2465-16CN-11S0	1.6 mm (.063") X 11C			
HEAVY	2465-16CN-12S0	1.6 mm (.063") X 12C			
70-160 CENTIPOISE	2465-18CN-11S0	1.8 mm (.070") X 11C			
31-66 sec. Zahn 2 cup	2465-20CN-14S0	2.0 mm (.079") X 14C			
	2465-22CN-14S0	2.2 mm (.087") X 14C			
ADHESIVES	2465-18CN-12SS	1.8 mm (.070") X 12C ▲			
water based vinyl glues, solvent based neoprenes,	2465-20CN-14S0	2.0 mm (.079") X 14C			
contact cements	2465-22CN-14S0	2.2 mm (.087") X 14C			
MOLD RELEASE	2465-12CN-11S0	1.2 mm (.047") X 11C			
CERAMICS	2465-14CN-14V0	1.4 mm (.055") X 14C 🔳			
abrasive materials,	2465-18CN-14V0	1.8 mm (.070") X 14C ■			
glazes, engobes, porcelain enamel	2465-22CN-14V0	2.2 mm (.087") X 14C 🔳			
porcelain enamer	2465-26CN-14V0	2.6 mm (.102") X 14C 🔳			
	2465-10CN-11S0	1.0 mm (.039") X 11C			
NON-STICK COATINGS	2465-12CN-11S0	1.2 mm (.047") X 11C			
	2465-18CN-12SS	1.8 mm (.070") X 12C 🔺			
	2465-14CN-11S0	1.4 mm (.055") X 11C			
HAMMERS	2465-16CN-11S0	1.6 mm (.063") X 11C			
	2465-16CN-12S0	1.6 mm (.063") X 12C			
WRINKLE	2465-14CN-1150	1.4 mm (.055") X 11C			
ENAMELS	2465-16CN-1150	1.6 mm (.063") X 11C			
ZINC RICH COATINGS	2465-22CN-14V0	2.2 mm (.087") X 14C ■			

CHART 7: LVMP GUN SET-UPS

TYPE OF FLUID TO BE SPRAYED	COMPLETE GUN ASSEMBLY PART NUMBER	FLUID NOZZLE AND AIR CAP			
	2465-85LV-22S0	0.85 mm (.034") X 22L			
	2465-10LV-22S0	1.0 mm (.039") X 22L			
	2465-12LV-23S0	1.2 mm (.047") X 23L			
THIN	2465-14LV-23S0	1.4 mm (.055") X 23L			
5-25 CENTIPOISE	2465-16LV-23S0	1.6 mm (.063") X 23L			
15-19 sec. Zahn 2 cup	2465-18LV-23SS	1.8 mm (.070") X 23L 🔺			
· · · · · · · · · · · ·	2465-85LV-25S0	0.85 mm (.034") X 25L			
	2465-10LV-25S0	1.0 mm (.039") X 25L			
	2465-12LV-25S0	1.2 mm (.047") X 25L			
	2465-12LV-23S0	1.2 mm (.047") X 23L			
	2465-14LV-23S0	1.4 mm (.055") X 23L			
	2465-16LV-23S0	1.6 mm (.063") X 23L			
MEDIUM	2465-14LV-24S0	1.4 mm (.055") X 23L			
25-70 CENTIPOISE	2465-18LV-23SS	1.8 mm (.070") X 23L 🔺			
20-30 sec. Zahn 2 cup	2465-12LV-25S0	1.2 mm (.047") X 25L			
	2465-14LV-25S0	1.4 mm (.055") X 25L			
	2465-18LV-25S0	1.8 mm (.070") X 25L			

CHART 8: HVLP GUN SET-UPS

TYPE OF FLUID TO BE SPRAYED	COMPLETE GUN ASSEMBLY PART NUMBER	FLUID NOZZLE AND AIR CAP
	2465-85HV-32S0	0.85 mm (.034") X 32H
	2465-85HV-33S0	0.85 mm (.034") X 33H
THIN	2465-85HV-31P0	0.85 mm (.034") X 31H •
5-25 CENTIPOISE	2465-10HV-32S0	1.0 mm (.039") X 32H
15-19 sec. Zahn 2 cup	2465-10HV-33S0	1.0 mm (.039") X 33H
wash primers,	2465-10HV-31P0	1.0 mm (.039") X 31H •
dyes, stains, solvents, water,	2465-12HV-32S0	1.2 mm (.047") X 32H
inks, sealers,	2465-12HV-31P0	1.2 mm (.047") X 31H ●
laquers, lubricants,	2465-18HV-32SS	1.8 mm (.070") X 32H 🔺
zinc chromates, acrylics	2465-85HV-39S0	0.85 mm (.034") X 39H
aci yrics	2465-10HV-39S0	1.0 mm (.039") X 39H
	2465-12HV-39S0	1.2 mm (.047") X 39H
	2465-12HV-32S0	1.2 mm (.047") X 32H
MEDIUM	2465-12HV-31P0	1.2 mm (.047") X 31H
25-70 CENTIPOISE 20-30 sec. Zahn 2 cup	2465-14HV-32S0	1.4 mm (.055") X 32H
	2465-14HV-32SS	1.4 mm (.055") X 32H
synthetic enamels, varnishes, shellacs,	2465-14HV-31P0	1.4 mm (.055") X 31H •
fillers, primers,	2465-16HV-32S0	1.6 mm (.063") X 32H
epoxies, urethanes,	2465-18HV-32S0	1.8 mm (.070") X 32H
lubricants, wax emulsions,	2465-18HV-32SS	1.8 mm (.070") X 32H 🔺
enamels	2465-12HV-39S0	1.2 mm (.047") X 39H
	2465-14HV-39S0	1.4 mm (.055") X 39H
	2465-14HV-32S0	1.4 mm (.055") X 32H
HEAVY 70-160 CENTIPOISE	2465-14HV-31P0	1.4 mm (.055") X 31H •
31-66 sec. Zahn 2 cup	2465-16HV-32S0	1.6 mm (.063") X 32H
JI-00 Sec. Zann Z cup	2465-18HV-32S0	1.8 mm (.070") X 32H

CHART 9: ROUND SPRAY GUN SET-UPS

TYPE OF FLUID TO BE SPRAYED	COMPLETE GUN ASSEMBLY PART NUMBER	FLUID NOZZLE AND AIR CAP
THIN 5-25 CENTIPOISE 15-19 sec. Zahn 2 cup	2465-12CN-16S0	1.2 mm (.047") X 16
MEDIUM 25-70 CENTIPOISE 20-30 sec. Zahn 2 cup	2465-12CN-1650	1.2 mm (.047") X 16

▲ Siphon set-up: includes Binks cup 81-800

- Tungsten carbide needle and nozzle set-ups
- Plastic needle tip set-ups

BINKS "TROPHY" SERIES SPRAY GUN AIR CAP AND FLUID NOZZLE SELECTION CHARTS

	CHART 10: CONVENTIONAL AIR CAP AND FLUID NOZZLE SELECTION CHART								
Air Cap	Air Cap Part No.	Spray Pattern Range	CFM @ 30 PSI	CFM @ 50 PSI	CFM @ 70 PSI	Fluid Nozzle	Siphon or Pressure	Typical Coatings	
11-C	46-6500	8 – 12"	9.8	14.2	18.7	45-11050 series, 1.0 mm – 1.8 mm	Р	Stains, Primers, Lacquers, Enamels, Acrylics, Reduced Latex, Mold Release	
12-C	46-6501	4 – 12"	8.3	12.1	14.2	45-11050 series, 1.0 mm – 1.8 mm	P, S	Lacquers, Enamels, Top Coats, Low Viscosity Adhesives	
14-C	46-6503	8 – 14"	17.0	24.4	31.2	45-11060 series, 2.0 mm – 2.6 mm or 45-11080 Tungsten Carbide Series (VT), 1.4 mm – 2.6 mm	Ρ	Zinc Rich, Adhesives, Glazes, Engobies, Ceramics, Porcelain Enamels	

	CHART 11: LVMP – LOW VOLUME MEDIUM PRESSURE AIR CAP AND FLUID NOZZLE SELECTION CHART									
Air Cap	Air Cap Part No.	Spray Pattern Range	CFM @30 PSI Gun Inlet (Dynamic)	Fluid Nozzle	Siphon or Pressure	Typical Coatings				
22-L	46-6510	4 – 12"	11.2	45-11050 series, .5 mm – 1.6 mm	P, S	Stains, Primers, Lacquers, Enamels, Acrylics, Reduced Latex				
23-L	46-6511	4 – 12"	10.6	45-11050 series, 1.0 mm – 1.8 mm	P, S	Lacquers, Enamels, Top Coats, Low Viscosity Adhesives				
24-L	46-6512	2 – 6"	14.3	45-11050 series, .5 mm – 1.8 mm	P, S	Small Pattern Applications of Stains, Lacquers, Enamels, Acrylics				
25-L	46-6513	4 – 15"	14.7	45-11050 series, .85 mm – 1.8 mm	Ρ	Dyes, Stains, Toners, Enamels, Lacquers, Primers, Urethanes, Solvent Coatings, Waterborne Coatings				

	CHAR	T 12: HVLP –	HIGH VOL	UME LOW	PRESSURE AIR CAP AND	FLUID NO	ZZLE SELECTION CHART
Air Cap	Air Cap Part No.	Spray Pattern Range	SCFM @ 10 PSI Cap Pressure (Dynamic)	Gun Inlet PSI @ 10 PSI at Air Cap (Dynamic)	Fluid Nozzle	Siphon or Pressure	Typical Coatings
31-H	46-6517	8 – 12"	10.5	17	45-11050 series, .85 mm – 1.8 mm	P, S	Stains, Low Viscous Enamels
32-H	46-6518	8 – 18"	15.5	24	45-11050 series, .85 mm – 1.8 mm	P, S	Lacquers, Enamels, Multi-Colors, Multi-Spec, Nonstick Coatings, Cut-Latex
33-H	46-6519	8 – 12"	11.0	16	45-11050 series, .85 mm – 1.6 mm	Р	Stains, Lacquers, Enamel, Multi-Color, Multi-Spec, Nonstick Coatings
39-H	46-6525	4 – 12"	10.0	14	45-11050 series, .85 mm – 1.6 mm	Р	Dyes, Stains, Toners, Enamels, Lacquers, Primers, Urethanes, Solvent Coatings, Waterborne Coatings

	CHART 13: ROUND SPRAY AIR CAP AND FLUID NOZZLE SELECTION CHART								
Air Cap	Air Cap Part No.	Spray Pattern Range	CFM @ 30 PSI	CFM @ 50 PSI	CFM @ 70 PSI	Fluid Nozzle	Siphon or Pressure	Typical Coatings	
16	46-6505	2 – 4"	5.6	7.8	10.5	45-11050 series, 1.0 mm – 1.8 mm	P, S	Lacquers, Enamels	



INSTALLATION INSTRUCTIONS

For maximum transfer efficiency, do not use more pressure than is necessary to atomize the material being applied.

NOTE

When using HVLP do not exceed inlet pressures listed on page 7.

1. Connect the gun to a clean, moisture and oil free air supply using a conductive hose of at least 5/16 in I.D.

NOTE

Depending on hose length, larger I.D. hose may be required. Install an air gauge at the gun handle. See page 7 for operating pressures. Do not use more pressure than is necessary to atomize the material being applied. Excess pressure will create additional overspray and reduce transfer efficiency.

NOTE

If quick connect couplings are required, use only high flow quick connects approved for HVLP use. Other types will not flow enough air for correct gun operation.

NOTE

If an air adjusting valve is used at the gun inlet, use HAV-501 adjusting valve.

- 2. **SIPHON MODELS ONLY.** Attach the cup lid assembly to the fluid inlet connector. Position cup yoke at right angles to the gun.
- 3. **PRESSURE FEED MODELS.** Connect the fluid supply hose to fluid inlet connector.

NOTE

Before using the spray gun, flush it with solvent to ensure that the fluid passages are clean.

OPERATION

SIPHON MODELS

- 1. Mix coating material to manufacturer's instructions and strain material.
- 2. Fill the cup to no more than 3/4 inch from the top of the cup. DO NOT OVERFILL.
- 3. Attach to cup lid.

ALL MODELS

- 4. Turn fluid adjusting knob (24) clockwise to prevent fluid needle movement.
- 5. Turn sideport control (9) counter clockwise to fully open.
- 6. Adjust inlet air pressure if required.

- 7. Turn fluid adjusting knob counter clockwise until first thread shows.
- 8. Test spray. If the finish is too dry, reduce airflow by reducing air inlet pressure.
- 9. If finish is too wet, reduce fluid flow by turning fluid adjusting knob (24) clockwise. If atomization is too coarse, increase inlet air pressure. If too fine, reduce inlet pressure.
- 10. The pattern size can be reduced by turning sideport control (9) clockwise.
- 11. Hold gun perpendicular to surface being sprayed. Arcing or tilting may result in uneven coating.
- 12. The recommended spray distance is 8 inches.
- Spray edges first. Overlap each stroke a minimum of 75%. Move gun at a constant speed.
- 14. Always turn off air supply and relieve pressure when gun is not in use.

PREVENTIVE MAINTENANCE AND CLEANING

To clean air cap and fluid nozzle, brush exterior with a stiff bristle brush. If necessary to clean cap holes, use a broom straw or toothpick if possible. If a wire or hard instrument is used, extreme care must be used to prevent scratching or burring of the holes which will cause a distorted spray pattern.

To clean fluid passages, remove excess material from gun, then flush with gun wash solution. Wipe the gun exterior with a dampened cloth. Never completely immerse in any solvent or cleaning solutions as this is detrimental to the lubricants and life of the spray gun.

NOTE

When replacing the fluid nozzle (7) or fluid needle (22), replace both at the same time. Using worn parts can cause fluid leakage. See page 4. Also, replace the needle packing at this time. Torque the fluid nozzle to 230–240 inch-lbs. Do not over tighten.

A CAUTION

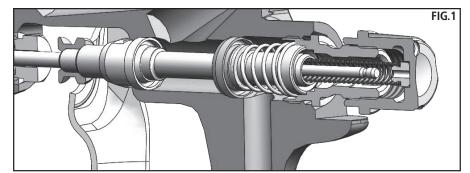
To prevent damage to fluid nozzle (7) or fluid needle (22), be sure to either 1) pull the trigger and hold while tightening or loosening the fluid nozzle, or 2) remove fluid adjusting knob (24) to relieve spring pressure against needle collar.

SIPHON CUP. Empty excess material and clean the cup. Make sure the vent hole in the lid is clear.

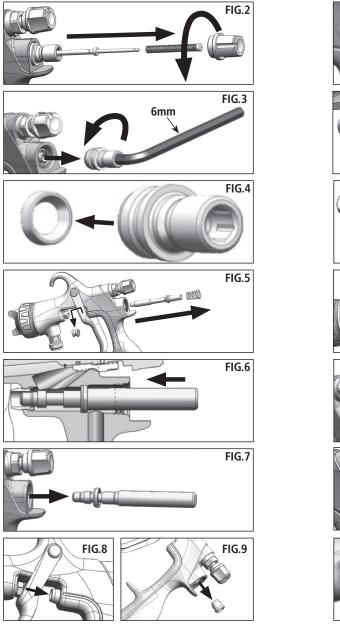


REMOVAL AND INSTALLATION PROCEDURES

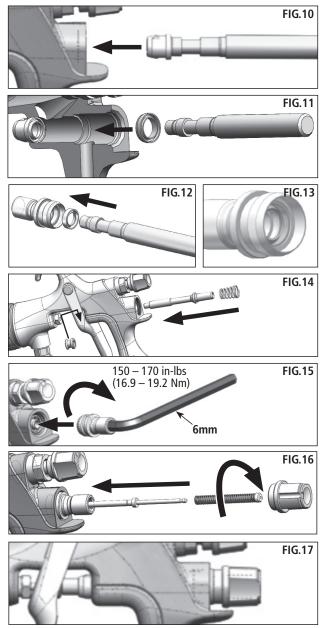
NEEDLE AND VALVE DISASSEMBLY AND ASSEMBLY



DISASSEMBLY

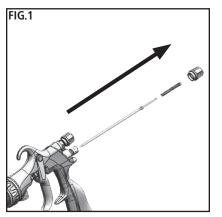


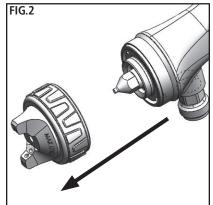
ASSEMBLY

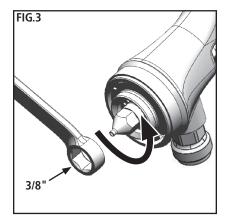


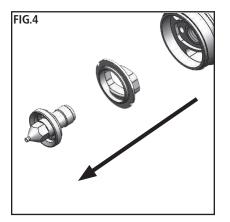


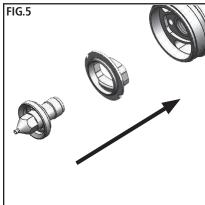
MAINTENANCE – FLUID NOZZLE AND BAFFLE REMOVAL AND INSTALLATION

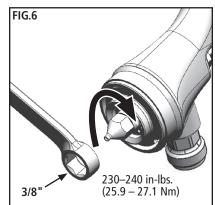


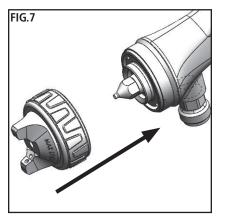


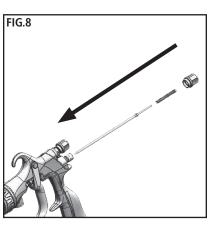








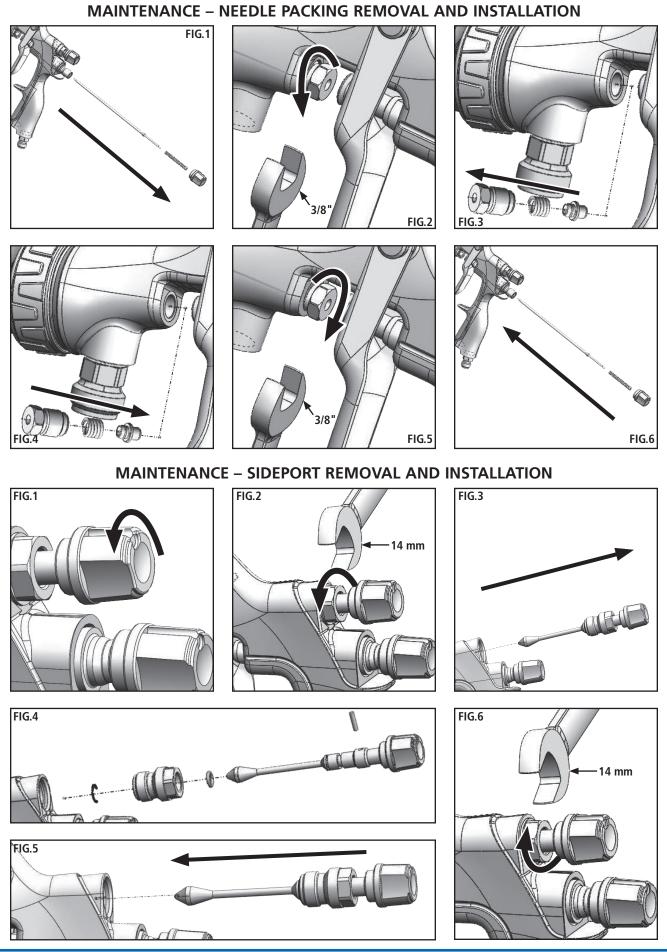




AIR CAP INDEX PIN (54-6184) INSTALLATION (OPTIONAL – 90° INCREMENTS INDEXING FEATURE)









TROUBLESHOOTING

CONDITION	CAUSE	CORRECTION				
Heavy top or bottom pattern	Horn holes plugged. Obstruction on top or bottom of fluid tip. Cap and/or tip seat dirty.	Clean. Ream with non-metallic point. Clean. Clean.				
Heavy right or left side pattern	Left or right side horn holes plugged. Dirt on left or right side of fluid tip.	Clean. Ream with non-metallic point. Clean.				
X	 Remedies for the top-heavy, bottom-heavy, right-heavy, and left-heavy patterns: Determine if the obstruction is on the air cap or the fluid tip. Do this by making a test spray pattern. Then, rotate the cap one-half turn and spray another pattern. If the defect is inverted, obstruction is on the air cap. Clean the air cap as previously instructed. If the defect is not inverted, it is on the fluid tip. Check for a fine burr on the edge of the fluid tip. Remove with #600 wet or dry sand paper. Check for dried paint just inside the opening; remove by washing with solvent. 					
Heavy center pattern	Fluid flow too high for atomization air.	Balance air pressure and fluid flow. Increase spray pattern width with spreader adjustment valve.				
	Material flow exceeds air cap's capacity. Spreader adjustment valve set too low. Atomizing pressure too low. Material too thick.	Thin or lower fluid flow. Adjust. Increase pressure. Thin to proper consistency.				
Split spray pattern	Atomization air pressure too high. Fluid flow too low. Spreader adjusting valve set too high.	Reduce at transformer or gun. Increase fluid flow (increases gun handling speed). Adjust.				
Jerky or fluttering spray	*Loose or damaged fluid tip/seat. Material level too low. Container tipped too far. Obstruction in fluid passage. Dry or loose fluid needle packing nut.	Tighten or replace. Refill. Hold more upright. Backflush with solvent. Lubricate or tighten.				
Unable to get round spray	Spreader adjustment screw not seating properly. Air cap retaining ring loose.	Clean or replace. Tighten.				
Will not spray	No air pressure at gun. Fluid needle adjusting screw not open enough. Fluid too heavy for gravity feed.	Check air supply and air lines, blow out gun air passages. Open fluid needle adjusting screw. Thin material and/or change to larger tip size.				
Paint bubbles in cup	Fluid tip not tight.	Tighten tip.				
Fluid leaking or dripping from cup lid	Cup lid loose. Dirty threads on cup or lid. Cracked cup or lid.	Tighten lid. Clean. Replace cup and lid.				

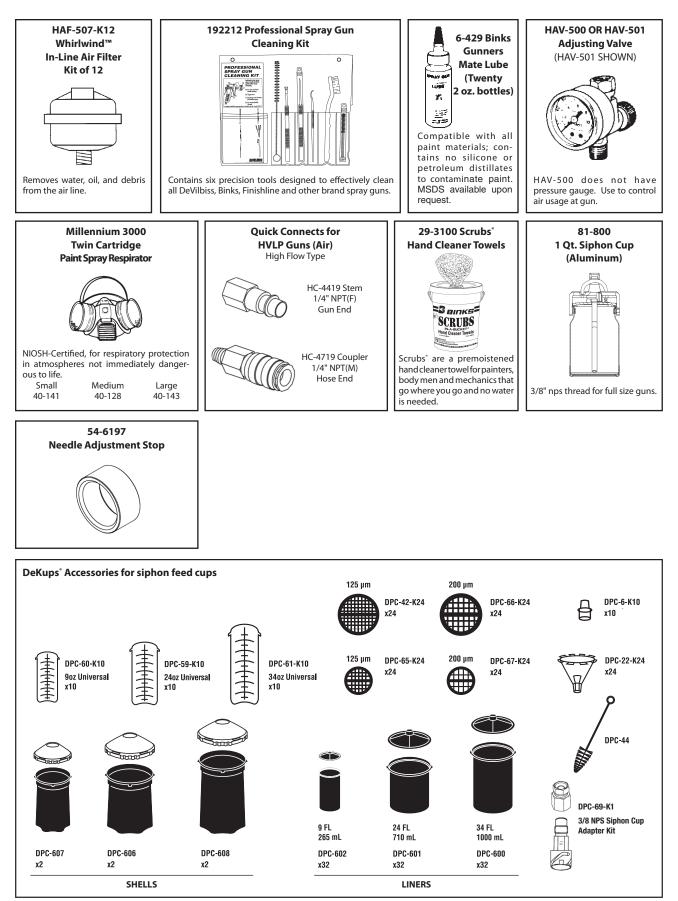
*Most common problem.

TROUBLESHOOTING

CONDITION	CAUSE	CORRECTION
Starved spray pattern	Inadequate material flow.	Back fluid adjusting screw out to first thread, or change to larger tip size.
	Low atomization air pressure.	Increase air pressure and rebalance gun.
Excessive overspray	Too much atomization air pressure. Gun too far from work surface. Improper stroking (arcing, gun motion too fast).	Reduce pressure. Adjust to proper distance. Move at moderate pace, parallel to work surface.
Excessive fog	Too much or too fast-drying thinner. Too much atomization (air pressure.)	Remix properly. Reduce air pressure.
Dry spray	Air pressure too high. Gun tip too far from work surface. Gun motion too fast. Gun out of adjustment.	Reduce air pressure. Adjust to proper distance. Slow down. Adjust.
Fluid leaking from packing nut	Packing nut loose. Packing worn or dry.	Tighten, do not bind needle. Replace or lubricate.
Fluid leaking or dripping from front of gun	Packing nut too tight. Dry packing. Fluid tip or needle worn or damaged. Foreign matter in tip. Fluid needle spring broken. Wrong size needle or tip.	Adjust. Lubricate. Replace tip and needle. Clean. Replace. Replace.
Fluid dripping or leaking from bottom of cup	Cup loose on gun. Cup gasket worn or missing below cup. Cup threads dirty.	Tighten. Replace cup gasket. Clean.
Runs and sags	Too much material flow. Material too thin. Gun tilted on an angle, or gun motion too slow.	Adjust gun or reduce fluid flow. Mix properly or apply light coats. Hold gun at right angle to work and adapt to proper gun technique.
Thin, sandy coarse finish drying before it flows out	Gun too far from surface. Too much air pressure. Improper thinner being used.	Check distance. Normally approximately 8". Reduce air pressure and check spray pattern. Follow paint manufacturer's mixing instructions.
Thick, dimpled finish "orange peel"	Gun too close to surface. Too much material coarsely atomized. Air pressure too low. Improper thinner being used. Material not properly mixed. Surface rough, oily, dirty.	 Check distance. Normally approximately 8". Follow paint manufacturer's mixing instructions. Increase air pressure or reduce fluid flow. Follow paint manufacturer's mixing instructions. Follow paint manufacturer's mixing instructions. Properly clean and prepare.



ACCESSORIES



NOTES



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China

www.finishingbrands.com.cn mkt@carlisleft.com.cn Tel: +8621-3373 0108 Fax: +8621-3373 0308

Mexico

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France

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Japan

www.ransburg.co.jp overseas-sales@carlisleft.co.jp Tel: 081 45 785 6421 Fax: 081 45 785 6517

Brazil

www.devilbiss.com.br vendas@carlisleft.com.br Tel: +55 11 5641 2776 Fax: 55 11 5641 1256

Germany

www.finishingbrands.eu info@carlisleft.eu Tel: +49 (0) 6074 403 1 Fax: +49 (0) 6074 403 281

Australia

www.finishingbrands.com.au sales@carlisleft.com.au Tel: +61 (0) 2 8525 7555 Fax: +61 (0) 2 8525 7500



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