

# FLG4 GRAVITY FEED SPRAY GUN AND CUP

**IMPORTANT:** Before using this equipment, read all safety precautions on page 2 and instructions. Keep for future use.

## GUN DESCRIPTION

The FLG4 is a light weight, anodized aluminum, general purpose gravity feed spray gun designed for use in various types of spraying applications. Various models are available to handle HVLP, water based, and solvent based spraying applications.

These guns are sold with either a 900 cc aluminum cup (702576) or a 20 oz. Acetal cup (GFC-501). These guns are suitable for use with water based materials **ONLY** if used with a Acetal cup, or with a disposable cup system.

### WARNING

**Halogenated hydrocarbon solvents - for example; 1, 1, 1-trichloroethane and methylene chloride - can chemically react with the aluminum in this gun and cause an explosion hazard. Read the label or data sheet for the material you intend to spray. Do not use spray materials containing these solvents with this spray gun.**

**IMPORTANT:** This gun may be used with most common coating and finishing materials. It is designed for use with mildly corrosive and non-abrasive materials. If used with other high corrosive or abrasive materials, it must be expected that frequent and thorough cleaning will be required and the necessity for replacement of parts will be increased.

## HVLP MODELS:

HVLP models of this gun were manufactured to provide maximum transfer efficiency by limiting air cap pressure to 10 psi (complies with rules issued by SCAQMD and other air quality authorities).

HVLP models of this gun will produce approximately 10 psi cap pressure at 23 psi gun inlet pressure, as measured at the gun inlet. An air cap test kit (see Accessories) should be used to insure 10 psi cap pressure is not exceeded.

The No. 3 (HVLP) air cap requires a 13 cfm air supply at the gun inlet of 23 psi max., measured with the trigger pulled.

## CUP DESCRIPTIONS

### 702576 – 900 cc Aluminum Cup

The cup is constructed from durable aluminum to provide trouble-free operation. The cup insert is electroless nickel plated brass. The disposable cup lid is recyclable and is constructed with recycled polyethylene. The lid has a unique drip check to prevent paint from dripping out of the vent in the lid.

### 190252 (GFC-501) – 20 oz. Acetal Cup

The cup and screw-on lid are constructed from durable Acetal to provide trouble-free operation. The lid has a unique drip check to prevent paint from dripping out of the vent in the lid. The cup also has a high grade stainless steel connector which is compatible with water based and all common coating materials.

## ASSEMBLY OF CUP TO GUN

This gun has been assembled with a cup gasket (12) (blue) in the fluid inlet of the gun body. Place filter (15) in the cup outlet at this time if desired. See Cup Drawing on page 4. Assemble cup to gun and tighten hand tight.

## INSTALLATION

### Note

Protective coating and rust inhibitors have been used to keep the gun in good condition prior to shipment. Before using the gun, flush it with solvents so that these materials will be removed from fluid passages.

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

Connect the gun to a clean, moisture and oil free air supply using a hose size of at least 5/16" I.D. hose. Do not use 1/4" I.D. hose. (25' x 1/4" hose at 18 CFM has a pressure loss of 25 psi. 25' x 5/16" hose at 18 CFM has a pressure loss of 8 psi.)

### Note

Depending on hose length, larger I.D. hose may be required. Install a DeVilbiss air adjusting valve at the gun handle and air cap test kit over tip. When gun is triggered on, adjust regulated pressure to desired setting to provide a maximum of 10 psi at the air cap. **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 connects are required, use only high flow quick connects approved for HVLP use, such as DeVilbiss HC-4419 and HC-4719. Other types will not flow enough air for proper gun operation.

### Note

If an air adjusting valve is used at the gun inlet, use a DeVilbiss model. Some competitive adjusting valves have significant pressure drop that can adversely affect spray performance. DeVilbiss air adjusting valves have minimal pressure drop, which is important for HVLP spraying.

## OPERATION

Mix, prepare and strain the material to be sprayed according to the paint manufacturer's instructions.

## FILLING WITH PAINT

Fill the cup with paint to the full mark (702576) or to bottom of the threads (GFC-501). **Do not overfill.**

## INSTALLING THE LID

Place plastic lid on the top of the cup, and **push in the center of the lid to assemble lid (702576) or screw lid onto cup (GFC-501).** Fold vent cap and push onto center portion of lid (if vent cap is not already assembled).

(continued on page 3)

## PAINTING

Open the spreader adjustment valve (6) (Fan) by turning the valve stem counterclockwise.

Close the fluid needle adjusting knob (7) by turning clockwise.

Turn on air supply and set gun inlet pressure; 23 psi for HVLP use. Some materials can be sprayed at lower pressures, improving transfer efficiency.

Spray a test area. Turn the fluid needle adjusting knob (7) counterclockwise until a full coat is obtained.

If the finish is too sandy and dry, the material flow may be too low for the atomization air pressure being used. Turn the fluid needle adjusting knob (7) counterclockwise to increase fluid flow.

If the finish sags, there is too much material flowing for the atomization air pressure being used. Turn the fluid needle adjusting knob (7) clockwise to decrease fluid flow.

Pattern width can be altered by turning spreader adjustment valve (6), either clockwise to decrease the width or counterclockwise to increase the width.

Adjust inlet air pressure to provide a uniform dispersion of atomized paint throughout the pattern. Keep air pressure as low as possible to minimize bounce-back and overspray. Excessive pressure will result in split spray patterns. Inadequate pressures will cause heavy centered patterns and poor atomization.

## CLEANING

### Note

For routine cleaning, it is not necessary to remove cup from gun. Do not remove washer (12) from gun. If washer (12) is removed, it must be replaced.

Chart 1 – Air Caps

Air Cap (Ref. No. 2)		Application
Part No.	Computer No.	
FLG-1-1	690000	Conventional
FLG-1-3	690001	HVLP

Chart 2 – Fluid Tips

Fluid Tip (Ref. No. 3)	Fluid Tip	Fluid Tip	Applications	
Part No.	Size (in.)	Size (mm)		
FLG-332-13K	803051	0.051	1.3	Stains, lacquers, basecoats, clears.
FLG-332-15K	803052	0.059	1.5	General purpose, light to medium viscosity material.
FLG-332-18K	803053	0.070	1.8	Primers and medium viscosity materials.
FLG-332-22K	803054	0.086	2.2	Latex and heavy materials.

Chart 3 – HVLP Air Flows (#3 Cap)

Inlet Press. (PSI)	Air Flow (SCFM)	Cap Press. (PSI)
15	10	6
19	11.5	8
23	13	10

The 702576 cup lid is designed to be disposable but may be cleaned and reused if slightly contaminated with overspray. **If lid becomes tight, or does not fit, it is due to extended soaking in solvent. Let lid air dry overnight and the lid should return to its original size and fit.**



**Do not soak the lid in solvent for extended periods of time. Doing so could cause cup/lid sealing problems and leakage.**

Remove lid and properly dispose of any excess paint. Pour in a small amount of clean solvent. The amount will vary with different coatings and solvents. Reinstall lid. Shake cup to wash down the inside surfaces. **Hold 702576 lid while shaking to prevent lid from coming off.** Pull trigger to allow some solvent to be flushed through gun. Remove lid and pour out dirty solvent. Add a small amount of clean solvent and repeat procedure. Wipe exterior of lid with a clean cloth and clean solvent.

If a paint filter was used in the bottom of the cup outlet, it should be removed and cleaned or replaced at this time. Dispose of used cup lid if contaminated and replace with new.

To clean air cap and fluid tip, 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 at source, then flush with a suitable solvent. Wipe gun exterior with a solvent dampened cloth. Never completely immerse in solvent as this is detrimental to the lubricants and packings.

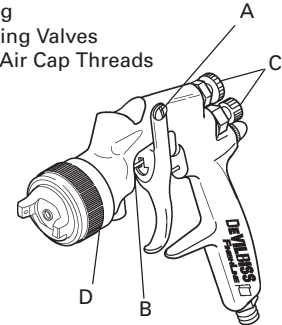
## PREVENTIVE MAINTENANCE

### Spray Gun Lubrication

Daily, apply a drop of spray gun lube at trigger bearing stud (11) and the stem of the air valve (9). The shank of the fluid needle (8) where it enters the packing nut (8) should also be oiled. The fluid needle packing (8) should be kept soft and pliable by periodic lubrication. Make sure the baffle (5) and retaining ring (1) threads are clean and free of foreign matter. Before assembling retaining ring to baffle, clean the threads

thoroughly, then add two drops of spray gun lube to threads. The fluid needle spring (7) and air valve spring (9) should be coated with a very light grease, making sure that any excess grease will not clog the air passages. For best results, lubricate the points indicated, daily.

- A. Trigger Points
- B. Packing
- C. Adjusting Valves
- D. Baffle/Air Cap Threads



## PARTS REPLACEMENT

### Note

When replacing the fluid tip or fluid needle, replace **both** at the same time. Using worn parts can cause fluid leakage. Also, replace the needle packing and fluid tip seal at this time. Lightly lubricate the threads of the fluid tip before reassembling. Torque to 15-20 ft-lbs. Do not overtighten the fluid tip.

The fluid tip part number and tip size are stamped around the outside of the fluid tip.

See Chart 2 for selecting the proper size fluid tip for the material you are spraying.



**To prevent damage to the fluid tip (3) or fluid needle (8), be sure to either 1) pull the trigger and hold while tightening or loosening the fluid tip or 2) remove fluid needle adjusting screw (7) to relieve spring pressure against needle collar.**