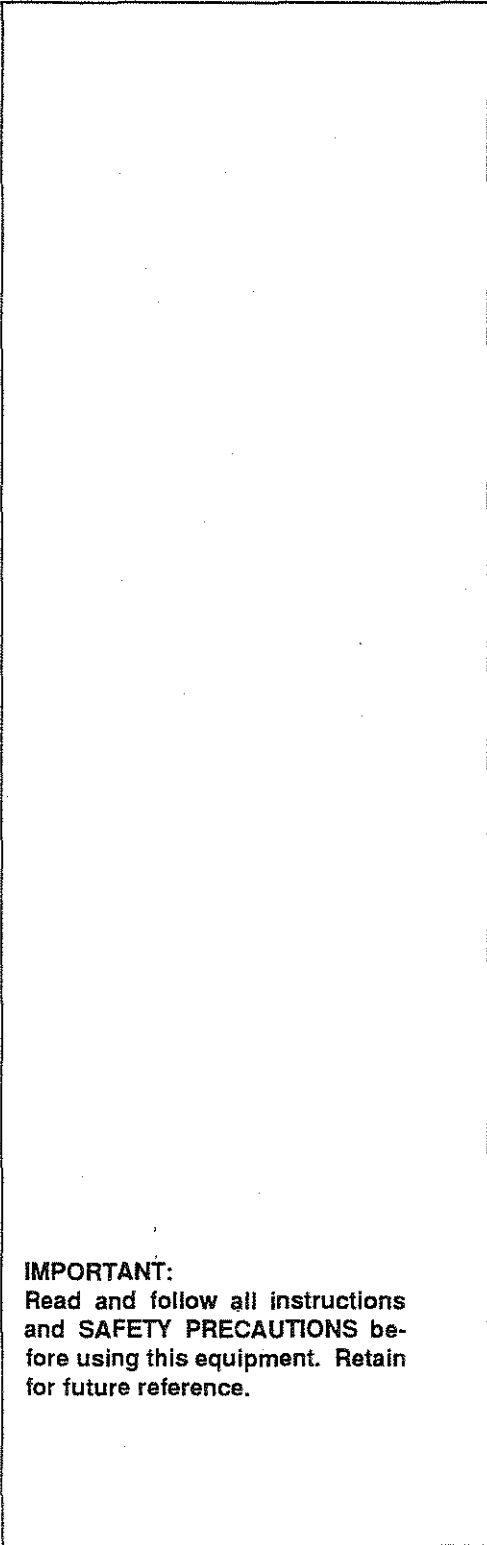




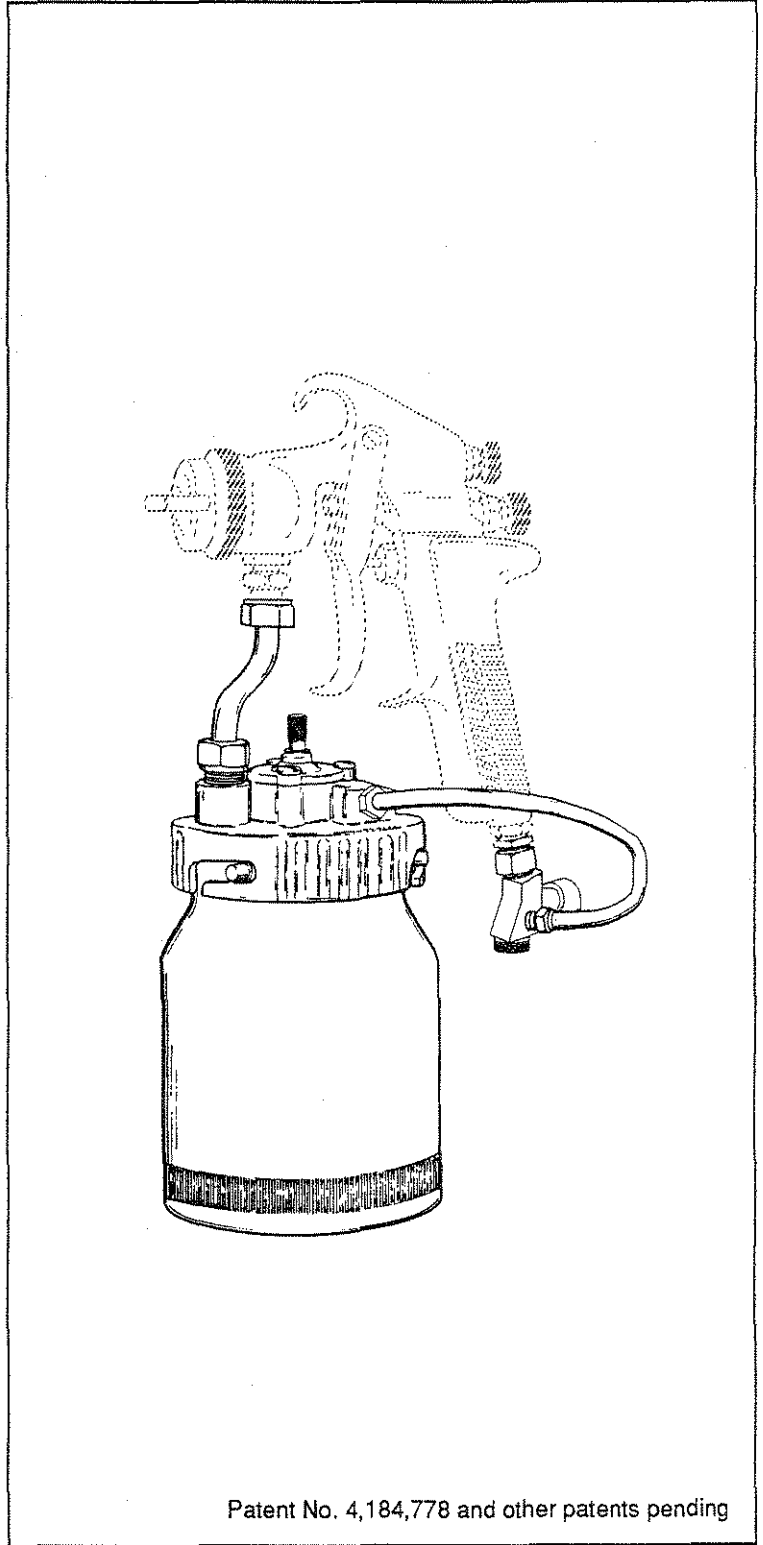
**DEVILBISS
RANSBURG**
INDUSTRIAL COATING EQUIPMENT

SERVICE BULLETIN
SB-4-394-C
Replaces SB-4-394-B

TGC-500-2 Agitator Cup



IMPORTANT:
Read and follow all instructions
and **SAFETY PRECAUTIONS** be-
fore using this equipment. Retain
for future reference.



Patent No. 4,184,778 and other patents pending

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SAFETY PRECAUTIONS

This manual contains important information that ALL users should know and understand BEFORE using the equipment. This information relates to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the following terms to draw your attention to certain equipment labels and portions of this manual. Pay special attention to any label or information that is highlighted by one of these terms:



Important information to alert you to a situation that might cause serious injury if instructions are not followed.




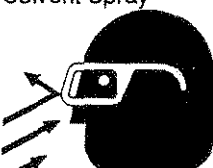

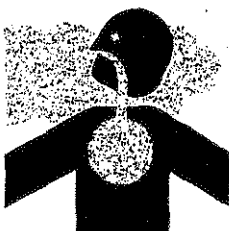
Important information that tells how to prevent damage to equipment, or how to avoid a situation that might cause minor injury.

Note

Information that you should pay special attention to.



The following hazards may occur during the normal use of this equipment. Please read the following chart.

AREA Tells where hazards may occur.	HAZARD Tells what the hazard is.	SAFEGUARD Tells how to avoid the hazard.
Spray Area-Fire Hazard 	Solvent and coatings can be highly flammable or combustible, especially when sprayed.	<ol style="list-style-type: none"> 1. Do not spray near open flames, pilot lights in stoves or heaters, or other heat sources. 2. Adequate ventilation must always be provided. Industrial applications must comply with OSHA requirements.
Solvent Spray 	During cleaning and flushing, solvents can be forcefully expelled from fluid and air passages. Some solvents can cause eye injury.	Wear eye protection.
Explosion Hazard-Incompatible Materials 	The solvent 1, 1, 1- Trichloroethane and Methylene Chloride (sometimes called methyl chloride) can chemically react with the aluminum used in most spray equipment, and these cups, to produce an explosion hazard.	<ol style="list-style-type: none"> 1. Read the label or data sheet for the material you intend to spray. 2. Do not use any type of spray coating material containing these solvents. 3. Do not use these solvents for equipment cleaning or flushing. 4. If in doubt as to whether a material is compatible-contact your material supplier.
Toxic Substances 	Certain materials may be harmful if inhaled, or if there is contact with the skin.	<ol style="list-style-type: none"> 1. Follow the requirements of the Material Safety Data Sheet supplied by your coating material manufacturer. 2. Adequate exhaust must be provided to keep the air free of accumulations of toxic materials. 3. Use a mask or respirator whenever there is a chance of inhaling sprayed materials. The mask must be compatible with the material being sprayed and its concentration. Equipment used must be as prescribed by an industrial hygienist or safety expert, and be NIOSH approved.

DESCRIPTION

The TGC-500-2 cup is used in applications where agitation of material in the spray gun cup is required to prevent the settling of pigments and solids in the paint during application. An air turbine mixing blade lifts pigments and solids from the bottom of the cup and keeps it in suspension.

An air regulating valve on the turbine air line regulates the speed of the turbine to control the mixing action. An air adjusting valve is also supplied at the gun inlet to control spray gun nozzle atomization.

INSTALLATION

Attach fluid connector (25, Figure 1) to spray gun fluid inlet. Make sure tube is attached to the gun with the tube bend out and away from the gun to allow room for the cup.

Attach lower end of fluid connector to fluid outlet on cup housing (24).

Attach air adjusting valve to gun handle so that the valve air line fitting is on the left side of the gun handle.

Attach air line (9) to fittings. The assembled gun and cup should appear as shown in Figure 1.

OPERATION**CAUTION**

Risk of damage to shaft and seal. Do not operate the turbine without material in the cup.

Fill the cup with paint reduced to spray viscosity. The full level is about 1 inch from the top, or just below the area where the cup starts to bell out.

Attach the cup to the spray gun. Make sure turbine air regulator valve (17) is turned off (all the way in) and connect the air supply line to the gun.

Note

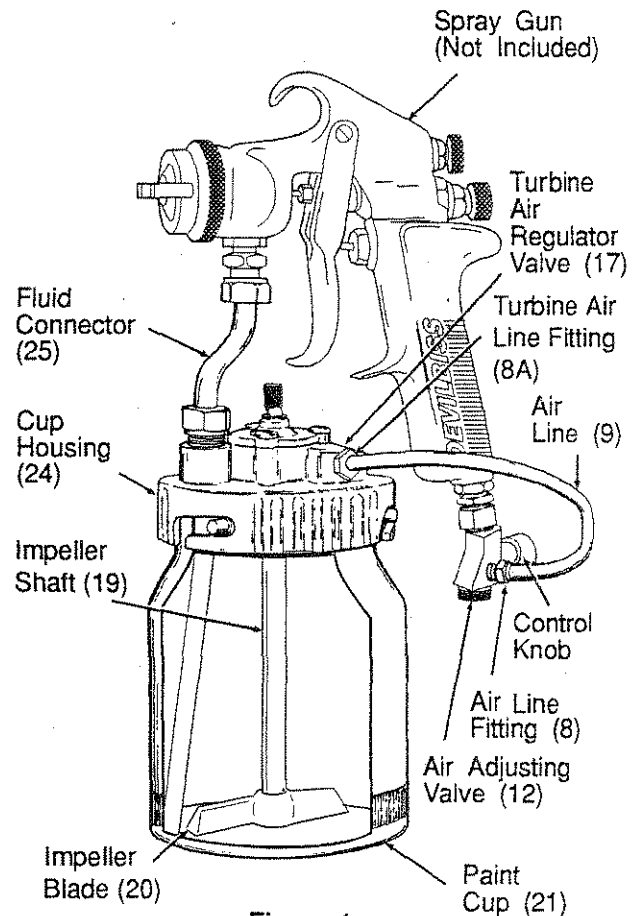
Spray guns with an agitator cup require higher air line pressure. Spray gun nozzle air (atomization) is regulated by the air adjusting valve (12) instead of air line pressure when using the cup.

With the gun and cup in an upward position, open turbine air valve until the required amount of agitation (mixing speed) is obtained. The mixing speed is determined by the amount of paint in the cup, paint viscosity, and air pressure used. **Do not operate turbine without material in the cup.**

Approximately 3 minutes is needed to completely mix a full cup of paint.

Check for leaks from the cup and fittings by holding the gun and cup in a horizontal position with the mixer on. If a leak occurs, tighten cup, or turbine air valve packing slightly.

Spray in the normal manner. Should the mixing slow down considerably, or stop when the gun is triggered, increase the air line pressure at the main air regulator for the gun.

**Figure 1****Note**

Should the texture of the applied finish have too much orange peel or appear too dry, further reduction of paint may be necessary. This is caused by the total blending of the paint due to the mixing action of the cup.

CLEANING

After use, pour a small amount of paint solvent into the cup. Attach the cup to the spray gun and turn the air turbine **on** (adjust turbine air regulator valve).

Shake the gun and cup up and down and trigger the gun to clean all fluid passages.

With the air turbine **on**, turn the gun upside down, turn the air turbine **off**. With the gun still turned over depress the ball and allow paint solvent to run through the vent passages.

CAUTION

To prevent excessive wear to shaft and shaft seal, clean cup as indicated below. Wear to the seal can cause paint leakage.

When cleaning the cup, it is very important to clean all paint residue from shaft seal and shaft area. Failure to clean all paint residue will allow paint to harden. Once hardened, the paint will cause abrasion and wear between the rotating shaft and seal. If worn, paint can leak from cup (thru air holes on the cover assembly (3) if cup is tipped at an angle while spraying.

Remove cup from gun. Using a clean soft cloth dampened with paint solvent, wipe all exterior surfaces of the cup and housing. Clean gasket area of cup housing to remove all paint from the gasket and cup lid edges.

After cleaning, inspect the shaft adjacent to washer (18). Make sure all paint has been removed to prevent hardening.

Attach cup loosely to the housing when not in use.

PARTS REPLACEMENT

Remove fluid connector (25) from cup.

Remove retaining ring (2). Pull shaft (19) out of bottom of cup housing (24) and remove impeller (20) from shaft.

Remove the 3 screws (1) from cover assembly. Remove turbine (4) from top of housing. Invert shaft (19) and use it to press out the bushing (10) and seal (11) through bottom of housing.

Insert new bushing (10) as shown. Insert seal (11) (spring side towards turbine) through bottom of lid assembly. Gently press into place using the turbine end of the old shaft with a shaft washer (18) in place.

Reinsert washer (18) on shaft (19) and insert into housing (24). Reassemble impeller (20) onto bottom of shaft. Insert turbine (4) (be sure turbine blades are in direction shown in Fig. 2) and cover assembly (3) at top and tighten with the 3 screws (1). Torque to 15 in. lbs. Reassemble retaining ring (2).

GENERAL CLEANING

Remove turbine air regulator valve (17), bushing (16), and gasket (15).

Soak all parts in paint solvent to loosen all dried paint and residue from cup passages. Clean all parts using a soft bristle brush and clean soft cloth.

After cleaning, dry all parts thoroughly.

Inspect all gaskets and parts for any signs of wear or damage and replace if necessary.

PREVENTIVE MAINTENANCE

Frequently check agitator shaft area between shaft (19) and shaft washer (18). Remove any accumulated paint to prevent premature wear. Disassemble and clean the inside of the upper and lower bushings and the seal with paint solvent.

The cup is equipped with a spring-loaded ball check dripless vent system. The vent opens automatically when gun is triggered and closes when trigger is released. In order for it to work effectively, the vent must be kept clean at all times.

With paint solvent in the cup, loosen top vent cap and turn spray gun and cup over allowing paint solvent to flow through the vent passages. If the vent does not clean satisfactorily, remove both vent caps (5), spring (7), and ball (6) and soak parts in paint solvent. Use a pipe cleaner or similiar object soaked in paint solvent to clean the vent passages in the cup housing.

PARTS LIST

Ref. No.	Replacement Part No.	Description	Qty
1	TGC-102-K6	Cover Screw	3
2	SST-8425-K5	Retaining Ring	1
3	TGC-418	Cover Assembly (Includes Bushing)	1
4	TGC-107	Turbine	1
*5	-----	Vent Cap	2
*6	-----	Ball	1
*7	-----	Spring	1
8	SSP-8246	Air Line Fitting	1
8A	SSP-8229	Turbine Air Line Fitting	1
9	TGC-121	Air Line	1
10	TGC-142	Bushing	1
11	TGC-144	Seal	1
12	HAV-502	Air Adjusting Valve	1
13	-----	Not Used	
14	-----	Not Used	
##15	-----	Gasket	1
##16	-----	Bushing	1
##17	-----	Air Regulator Valve	1
18	TGC-147-K5	Shaft Washer	1
19	TGC-146	Impeller Shaft	1
20	TGC-118	Impeller Blade	1
21	TGC-120	Paint Cup	1
22	TGC-119	Siphon Tube	1
23	TGC-115-K5	Cup Gasket	1
24	TGC-150-1	Cup Housing	1
25	TGC-406	Fluid Connector	1

* Included in Vent Cap TGC-415
 ## Included in Needle Valve Kit TGC-412

Suffix -K6 designates kits of multiple parts. Example TGC-102-K6 is a kit of 6 cover screws.

SPECIFICATIONS

Fluid Capacity: 1 quart
 Turbine Inlet Pressure: 0 - 60 psi

CAUTION

Equipment damage could occur. Do not operate turbine without material in cup.

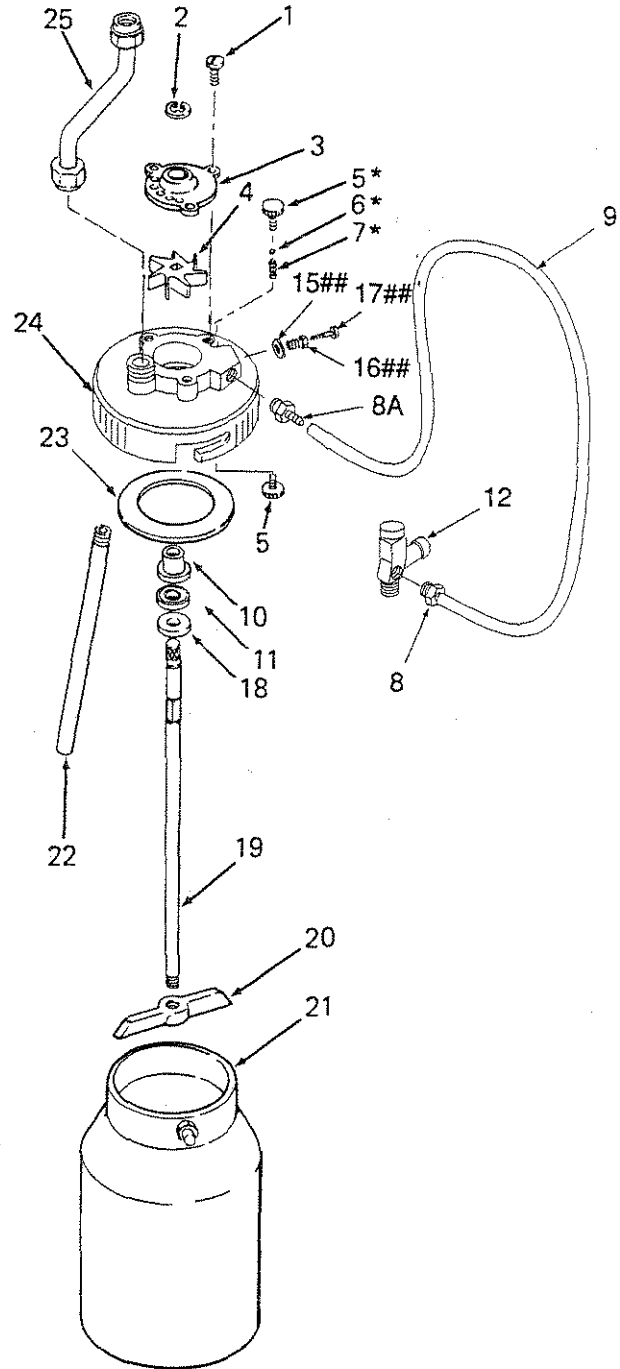
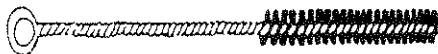


Figure 2

ACCESSORIES

Cleaning Brush

- 42884-214-K5 (3/8" dia.)
- 42884-215-K10 (5/8" dia.)



SERVICE BULLETIN REVISIONS

Refer to the following chart for Part No./Literature Changes.

Part Number Changes			Literature Changes
Old Part Number	New Part Number	Interchangeability	
TGC-500-1	TGC-500-2 New Agitator Cup	All parts are not interchangeable	1. Revised for redesigned cup housing assembly.
			2. Revised Worldwide Sales & Service listing.

WARRANTY

This product is covered by DeVilbiss' 1 Year Limited Warranty. See SB-1-000 which is available upon request.

WORLDWIDE SALES AND SERVICE - DeVilbiss Automotive Refinishing Products

DeVilbiss has authorized distributors throughout the world. For equipment, parts and service, check the Yellow Pages under "Automobile Body Shop Equipment and Supplies".

If further assistance is required, write or call one of the following DeVilbiss Distribution Centers or Sales Offices nearest you.

U.S. Sales & Customer Service

Address

Telephone Number

MAUMEE, OH 43537

1724 Indian Wood Circle, Suite G

General Inquiry (419) 891-8100
 Sales/Customer Service 800-445-3988
 Fax No. 800-445-6643
 (818-912-3800)
 Fax No. 818-912-8045

CITY OF INDUSTRY, CA 91748

Puente Hills Business Center
 17800 Castleton St., Suite 570

Canada Sales & Customer Service

BARRIE, ONTARIO, CANADA L4M 6K1

P. O. Box 2300

General Inquiry (705) 728-5533
 Sales/Customer Service 800-668-8558
 Fax No. 705-739-5956

INTERNATIONAL MARKETING AND MANUFACTURING

- The DeVilbiss Company Ltd., Bournemouth, England
- DeVilbiss S.A., Sao Paulo, Brasil
- DeVilbiss G.m.b.H. Dietzenbach, West Germany
- DeVilbiss (Japan) Co., Ltd., Tokyo, Japan
- DeVilbiss Europa G.m.b.H. Frankfurt/main, West Germany

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- DeVilbiss Latinoamerica, Miami, Florida, U.S.A.

WORLDWIDE SALES AND SERVICE - DeVilbiss Ransburg Industrial Coating Equipment

DeVilbiss Ransburg has authorized distributors throughout the world. For equipment, parts and service, check the yellow pages under "Spray Equipment." If further assistance is required, write or call one of the following DeVilbiss Ransburg Distribution Centers or Sales Offices nearest you.

**FOR LOCAL ORDER ENTRY AND CUSTOMER SERVICE, CALL TOLL FREE 1-800-338-4448 (U.S. ONLY).
 FOR LOCAL CALLS, SEE LISTING BELOW.**

U.S. Sales and Distribution Centers

Address

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 Toll Free Fax No. 1-800-733-2256

- * Sales Office Only
- * ATLANTA, GA 30336
- * MAUMEE, OH 43537

520 Wharton Circle, P.O. Box 43226
 Industrial Branch
 1724 Indian Wood Circle, Suite F

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 (419) 891-8200
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Address
 50 Wood St., P.O. Box 3700

Telephone No.
 (705) 728-5982