

# H.V.L.P GRAVITY SPRAY GUN Operator's Manual



Product Model # 6388-00 Manual # 80018896





Read and understand this instruction manual thoroughly before using the product. It contains important information for your safety as well as operating and maintenance advice.

BRIGGS & STRATTON CORPORATION MILWAUKEE, WISCONSIN, U.S.A.

**Thank you** for purchasing this quality-built **Briggs & Stratton™** air tool. We are pleased that you've placed your confidence in the **Briggs & Stratton** brand. When operated and maintained according to the instructions in this manual, your Briggs & Stratton air tool will provide reliable service.

Where to Find Us You can contact Briggs & Stratton Customer Service by phone at (800) 743-4115, or on the Internet at BRIGGSandSTRATTON.COM.
Date Purchased

▲ WARNING Some dust created by using power tools contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. This product contains one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

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## **General Safety Information**

The safety alert symbol **A** is used to identify safety information about hazards that can result in personal injury.

A signal word **DANGER**, **WARNING** or **CAUTION** is used with the alert symbol to indicate the likelihood and the potential severity of injury.

▲ DANGER Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

**A WARNING** Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

**A CAUTION** Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**NOTICE** Indicates information considered important, but not hazard-related.

**▲ WARNING** Read

Read manufacturer's instructions.

#### **▲** WARNING

- Improper operation or maintenance of spray guns could result in serious injury and/or property damage.
   Read and understand all warnings and operation instructions before using spray guns. When using spray guns, basic safety precautions should always be followed to reduce the risk of personal injury.
- Follow all local electrical and safety codes as well as the United States National Electrical Codes (NEC) and Occupational Safety and Health Act (OSHA).
- Keep the work area clean and well lighted. Cluttered benches and dark areas increase the risks of electric shock, fire and injury to persons.
- 2. Keep bystanders, children and visitors away while operating the tool. Do not use this product with other people, children or pets in the work area.
- 3. Stay alert. Watch what you are doing and use common sense when operating the tool. Do not use the tool while tired or under influence of drugs, alcohol, or medication.
- 4. Dress properly. Do not wear loose clothing or jewelry. Keep long hair and gloves away from moving parts.
- 5. Do not overreach. Keep proper footing and balance at all times. Use a face mask/respirator and wear ANSI-approved safety goggles when spraying. Always spray in a well-ventilated area to prevent health and fire hazards. Refer to Material Safety Data (MSDS) of spray materials for details.
- 6. Never use oxygen, carbon dioxide, combustible gases or any bottled gas as an air source for the tool. Use only clean, dry, regulated compressed air at the rated pressure or within the rated pressure ranges for best spray gun performance and extend spray gun life.
- 7. Do not aim the spray gun at any dust or debris to avoid any damage to workpiece.

- 8. Do not operate the tool if it is damaged during shipping, handling or use. Damage could result in bursting and cause injury and/or property damage.
- 9. Never spray flammable materials in vicinity of open flame or near ignition sources. Never store flammable liquids or gases near air compressor.
- Maintain a distance of at least 25 feet from the air compressor. If possible, locate the air compressor in a separate room.
- 11. Do not spray acids, corrosive materials, toxic chemicals, fertilizers or pesticides. Using these materials could result in death or serious injury.
- 12. Never aim or spray at yourself or anyone else, which could result in serious injury.
- 13. Do not use pressure exceeding the operating pressure of any of the parts (hoses, fittings, etc.) in the painting system.
- 14. Do not smoke in or near the work area. Always keep a fire extinguisher present in the work area.
- 15. During cleaning and flushing, solvents can be forcefully expelled from liquid and air passages which could cause eye injury. Be sure that all others in the area are wearing impact resistance eye and face protection. Even small objects can injure eyes and cause blindness.
- 16. Paints and solvents may be harmful or fatal if swallowed or inhaled. Avoid prolonged skin contact with solvents or paints as they will irritate skin. After any contact, immediately wash off exposed area with hot, soapy water.
- 17. Always shut off air supply, drain hose of air pressure and disconnect air supply when not in use, before changing accessories or when making repairs. Turn off and detach the air supply, safely discharge any residual air pressure, and release the throttle and/or turn the switch to its off position before leaving the work area.
- 18. Keep hose away from sharp objects. Bursting air hose could result in personal injury. Examine air hoses regularly and replace them if damaged or broken.

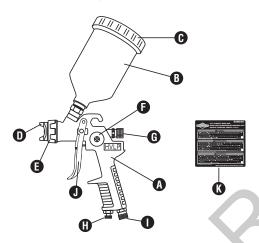
#### Spray gun safety instructions

- Check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation. If damaged, have the tool serviced before using.
- 2. Always use spray gun at a safe distance from other people in the work area.
- 3. Clean the spray gun IMMEDIATELY after each use.

  Delayed or inadequate cleaning will permanently clog
  the spray gun.
- 4. The pressure for atomization is controlled by the regulator on the air source. The amount of fluid is adjusted by the fluid control knob, the paint viscosity, and the air pressure.
- Failure to install appropriate water/oil removal equipment could result in damage to the product or workpiece.

- 6. To avoid cross-threading, all spray gun parts should be screwed in hand tight initially. If the parts cannot easily be turned by hand, be sure that you have the correct parts, unscrew, realign, and try again. Never use excessive force in matching parts.
- 7. Use only accessories identified by the manufacturer for the specific tool model.
- 8. When servicing a tool, use only identical replacement parts and/or authorized parts.
- 9. Use only lubricants supplied with the tool or specified by the manufacturer.
- 10. Maintain spray guns with care. Keep spray guns clean and oiled for best and safest performance.
- 11. Store the tool out of reach of children and other untrained persons when it is idle.

## **Product Description**



PART	DESCRIPTION	QUANTITY
Α	H.V.L.P Gravity Spray Gun	1
В	Paint Cup	1
С	Cup Lid	2
D	Air Cap	1
Е	Air Cap Ring	1
F	Spray Pattern Adjustment Knob	1
G	Fluid Adjustment Knob	1
Н	Air Adjustment Knob	1
	Air Inlet	1
J	Trigger	1
K	Warning Label	1

# **Technical Specifications**

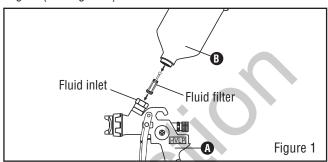
COMPONENT	SPECIFICATIONS
Feed type	Gravity
Fluid nozzle	1.4 mm
Cup capacity	600 ML
Operating pressure	30-50 PSI
Air consumption	6.5 CFM
Air inlet	1/4 in. (6.35 mm) 18 NPS
Air hose	1/4 in. (6.35 mm) (min. inner diameter)

## **Assembly Instructions**

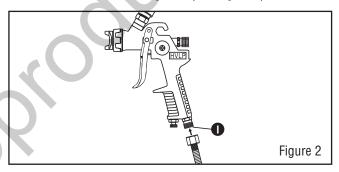
1. Take out spray gun (A) and put on paint cup (B) with hand.

Make sure that the paint cup (B) is installed with spray gun
(A) tightly and correctly. (See Figure 1)

**NOTE** Apply the fluid filter to the fluid inlet of the spray gun. (See Figure 1)



2. Connect air supply hose (not included) with the air inlet (I) of spray gun (A). Use seal tape (not included) for airtight connection. Do not overtighten. (See Figure 2)



 Set the rated working pressure (i.e. 43 PSI) for best performance. **D0 N0T** exceed spray gun maximum pressure of 50 PSI.

**NOTE** The working pressure refers to the air line pressure when the spray gun trigger (J) is pulled fully under working conditions.

## **Operation Instructions**

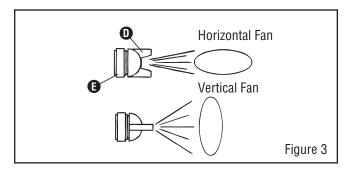
#### NOTE

- Before using desired paint in the spray gun, spray a compatible thinner or solvent through the gun to remove any contaminants and residues.
- Thin paints properly in accordance with the paint manufacturer's instructions before spraying. If necessary, carefully strain the paint through a paint strainer or a piece of cheesecloth.
- Fill the paint cup (B) about 3/4 full and start the air compressor.
- Set up a piece of cardboard or other scrap material to use as a target and adjust for best spray pattern.

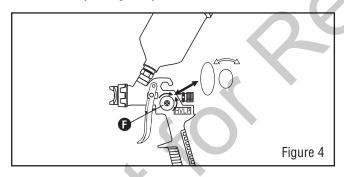
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- Test the consistency of the paint by making a few strokes on a cardboard target. If paint still appears too thick, add a small amount of thinner. Do not exceed paint manufacturer's thinning recommendations.
- Adjust the direction of air cap (D) to be either horizontal or vertical as required by loosening air cap ring (E) 90 degrees with hand. Hand tighten the air cap ring (E) after adjustment. (See Figure 3)

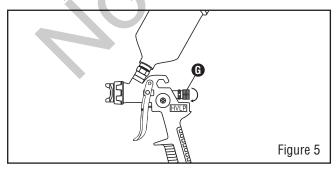
**NOTE** During normal use, the air cap (D) is adjusted to be horizontal. This provides a vertical fan-shaped pattern which gives maximum and even material coverage as the gun is moved back and forth parallel to the surface being finished.



 Set pattern size for desired shape. For full pattern, open spray pattern adjustment knob (F) counterclockwise. For a round pattern, turn spray pattern adjustment knob (F) clockwise. (See Figure 4)

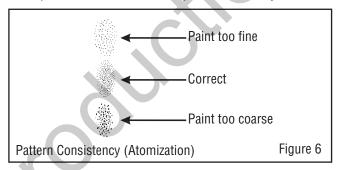


3. Turn the fluid adjustment knob (G) fully clockwise until closed. (See Figure 5)

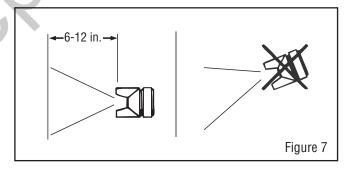


4. Holding the gun 6-12 in. away from workpiece depending on material and atomizing pressure, spray a short burst while turning the fluid adjustment knob (G) until desired pattern/atomization is obtained. If the spray is too fine, which is caused by too much air from amount of paint being sprayed, reduce the air pressure or open the fluid adjustment knob (G) more to spray more paint. If the spray is too coarse/spitting blobs, reduce the amount of paint with the fluid adjustment knob (G) or thin the paint more. (See Figure 6)

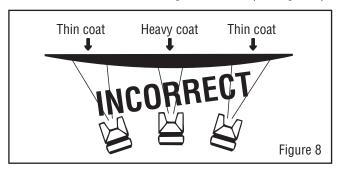
**NOTE** The fluid adjustment knob (G) can be adjusted either clockwise or counterclockwise to finely adjust pattern consistency. Before spraying on workpiece, practice a few minutes on a cardboard target to ensure that the pattern size and consistency are set correctly.



5. Keep spray gun (A) at the right angle of 90 degrees to the surface being covered while spraying. (See Figure 7)

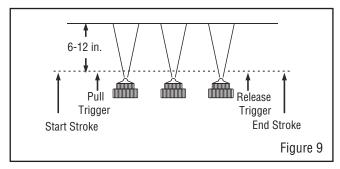


**NOTE** Always keep spray gun (A) moving parallel to the surface being covered while spraying. Stopping gun movement in mid-stroke will cause a build-up of paint and will result in runs. Do not fan the gun from side to side while painting. This will cause a build-up of paint in the center of stroke and an insufficient coating at each end. (See Figure 8)



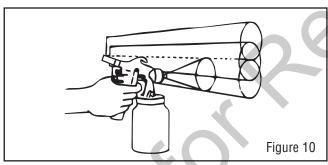
6. Trigger the gun properly. Start the gun moving at the beginning of the stroke before squeezing the trigger (J) and release the trigger (J) before stopping gun movement at the end of stroke. This procedure will feather/blend each stroke with the next without showing overlap or unevenness. (See Figure 9)

**NOTE** The amount of paint being applied can be varied by the speed of stroke, distance from the workpiece and adjustment of the fluid adjustment knob (G). If speed of stroke is too slow, paint will be wet on workpiece and may run. If speed of stroke is too fast, paint will be dry and uneven on workpiece.



7. Overlap strokes just enough to obtain an even and fine coat. (See Figure 10)

**NOTE** Two thin coats of paint will yield better spraying results and have less chance of runs than one heavy layer.



8. Use a piece of cardboard as a shield to catch overspray at the edges of workpiece and protect other surfaces. Use masking tape (not included) to cover other areas if needed.

### **Care and Maintenance**

# DAILY CLEAN-UP NOTE

- Local codes may require specific cleaning methods and equipments. Follow local codes and manufacturer's recommendations for the use of disposal of spray paints and solvent.
- Clean the spray gun IMMEDIATELY after use. Paint and other materials dry quickly in the small passages inside the spray gun.
- 1. Remove and empty paint cup. Rinse with a solvent recommended for the paint.

- Refill the paint cup with clean solvent and attach the cup to the gun body. Spray solvent through the gun into a container while shaking the spray gun. Once the paint cup is empty, repeat the process until the solvent comes out clean. Wipe the gun exterior with a solvent-soaked rag.
- 3. **Disconnect the spray gun from air supply.** After disconnecting, point the spray gun into the spent solvent container and squeeze the trigger again to make sure that no air remains.
- 4. Remove the air nozzle and soak in solvent until clean. Use a small brush for stubborn stains if necessary. Toothpicks or small brushes may be used to clean air passages.

▲ WARNING Never use metal objects to clean precisely drilled passages. Damaged passages will cause improper spraying.

5. Clean gaskets with a solvent-soaked rag.

**▲ WARNING** Never immerse gaskets or spray gun body in solvents to prevent damage.

- 6. After using water to clean out the spray gun, spray mineral spirits through the gun to prevent corrosion.
- 7. Clean and flush gun thoroughly to neutralize any contaminants corrosive to the spray gun.
- 8. Use a non-silicone oil or a light lubricant on all moving parts when reassembling. Use Vaseline or light grease on all threaded connections before storage.

#### PERIODIC CLEAN-UP

**NOTE** Due to improper cleaning and/or paint, it may be necessary to inspect and clean the internal parts and the gun body.

- 1. Examine the openings of the air nozzle tip and fluid nozzle tip. If clogged, remove and soak them in solvent.
- 2. A brush, toothpick or something similar may be used to dislodge the dried paint from holes and passages.

▲ WARNING Never use metal objects to clean precisely drilled passages. Damaged passages will cause improper spraying.

3. Remove and check the fluid needle for excessive wear at the tip and straightness.

**NOTE** If the fluid needle tip is worn more on one side than the other, either the needle is bent or the gun body has been dropped or knocked out-of-line. There are no adjustments that can be made to a bent gun body. Test the needle by rolling on a flat surface. Replace if necessary.

- Check and replace any damaged gaskets and/or packing nuts.
- 5. Unscrew the needle packing seat and replace the needle packing only if a leak will not stop when the needle packing seat is tightened. DO NOT overtighten the needle packing seat because this will restrict movement of the fluid needle.
- 6. Reassemble in verse order of the above and use a non-silicone oil on the moving parts. Apply Vaseline or light grease on all threaded connections.

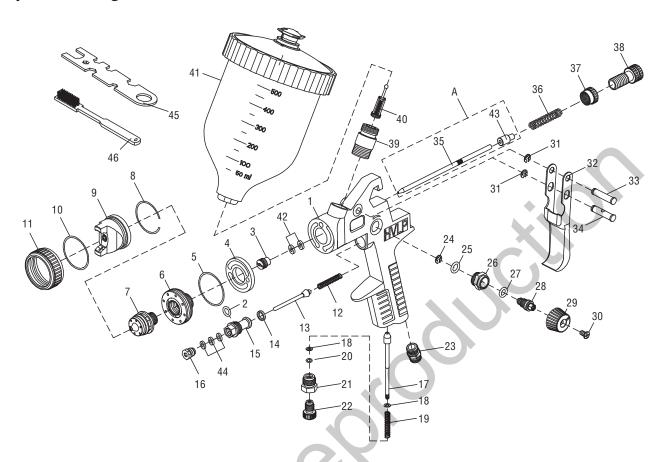
#### **STORING**

- 1. When not using the spray gun, turn the fluid adjustment knob counterclockwise to open fully. This will reduce the spring tension on the fluid needle tip.
- 2. The spray gun must be well cleaned and lightly lubricated.
- 3. Store the spray gun in a dry and safe place out of reach of children.

# **Troubleshooting**

PROBLEM	POSSIBLE CAUSE	SOLUTION
Right or left heavy spray pattern	One side of nozzle is clogged.	Soak nozzle in solvent to loosen clog, then blow air through until clean. To clean nozzle tip use a broom straw or toothpick. Never try to detach dried material with sharp tool.
Top or bottom heavy spray pattern	a) Loose air nozzle.     b) Material around outside of air nozzle has dried.	a) Trigger air nozzle. b) Take off air nozzle and wipe off nozzle tip, using a rag moistened with thinner.
Split spray pattern	a) Atomization air pressure is set too high.     b) Trying to spray a thin material in too wide a pattern.	a) Reduce air pressure.      b) Increase material control by turning fluid adjustment knob counterclockwise.
Intermittent spray	a) Needle packing around needle is dried out.  b) Fluid nozzle loosely installed, or dirt between nozzle and body.	a) Release needle packing seat, put a few drops of machine oil on the needle packing, retighten. b) Take off fluid nozzle, clean rear of nozzle and seat in gun body. Replace nozzle and bring in tight to body.
Improper spraypattern.	<ul><li>a) Gun improperly adjusted.</li><li>b) Dirty air nozzle and lock ring.</li><li>c) Fluid tip obstructed.</li><li>d) Sluggish fluid needle.</li></ul>	a) Re-adjust gun. Follow instructions carefully. b) Clean. c) Clean. d) Lubricate.
Will not spray.	<ul><li>a) No air pressure at gun.</li><li>b) Air pressure too low.</li><li>c) Fluid adjustment knob not open enough.</li><li>d) Fluid too heavy.</li></ul>	<ul><li>a) Check air supply and air lines.</li><li>b) Increase air pressure.</li><li>c) Open fluid adjustment knob more.</li><li>d) Thin material properly.</li></ul>
Fluid leakage from needle packing seat.	a) Needle packing seat loose. b) Needle packing worn or dry.	a) Tighten, but not so tight as to grip needle.     b) Replace packing or lubricate.
Thin, sandy coarse finish.	a) Gun held too far from surface.     b) Atomization pressure set too high.	a) Tighten, but not so tight as to grip needle.     b) Replace packing or lubricate.
Thick, dimpled finish resembling orange peel.	Gun held too close to surface.	Move gun further from surface.

# **Exploded Diagram and Parts List**



Part No.	Description	Qty.
1	Gun body	1
2	O-ring	1
3	Needle packing screw	1
4	Air ring	1
5	Gasket	1
6	Nozzle seat	2
7	Fluid nozzle	1
8	E-clip	1
9	Air cap	1
10	Bushing	1
11	Lock ring	1
12	Spring	1
13	Valve stem	1
14	Gasket	1
15	Valve	1
16	Needle packing screw	1
17	Air regulating stem	1
18	Gasket	3
19	Spring	1
20	O-ring	1
21	Air adjustment seat	1
22	Air adjustment knob	1
23	Air inlet	1

Part No.	Description	Qty.
24	E-clip	1
25	O-ring	1
26	Pattern regulating seat	1
27	O-ring	1
28	Pattern regulating valve	1
29	Patern adjustment knob	1
30	Screw	1
31	E-clip	2
32	Trigger	1
33	Bolt	1
34	Bolt	1
35	Fluid needle	1
36	Spring	1
37	Fluid adjustment seat	1
38	Fluid adjustment knob	1
39	Fluid inlet nipple	1
40	Fluid filter	1
41	Paint cup	1
42	Needle packing	2
43	Needle seat	1
44	Needle packing	3
45	Wrench	1
46	Cleaning brush	1

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# Briggs & Stratton™ Air Tool Warranty Policy

January, 2016

#### LIMITED WARRANTY

Briggs & Stratton™ is a trademark of BRIGGS & STRATTON CORPORATION and is used under license to Alton Industry Co. Ltd® Alton Industry Co. Ltd warrants this Briggs & Stratton brand product for a period of one year from the date of original retail purchase against defects in materials and workmanship. Subject to the conditions and limitations described below, if Alton Industry Co. Ltd determines this product is covered under this warranty, it will be replaced with the same model or one of equal value or specication, at Alton Industry Co. Ltd's option. Alton Industry Co. Ltd will bear the cost of replacement. The purchaser must contact Alton Industry Co. Ltd® for all warranty authorizations.

There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year, or to the extent permitted by law. Liability for incidental or consequential damages are excluded to the extent exclusion is permitted by law. Some states or countries do not allow limitations on how long an implied warrant lasts, and some states of countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specic legal rights and you may also have other rights which vary from state to state or country to country.

Save your proof of purchase receipt. If you do not provide proof of the initial purchase date at the time warranty service is requested, the manufacturing date of the product will be used to determine the warranty period. Product registration is not required to obtain warranty service on Briggs & Stratton products.

These are our standard warranty terms, but occasionally there may be additional warranty coverage that was not determined at time of publication. For a listing of current warranty terms for your air tool, go to BRIGGSandSTRATTON.COM

## This Limited warranty does not include the following:

- A. Parts that are worn or broken or which have become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or product that has been used for industrial, professional, commercial or rental purposes;
- B. Normal wear and tear or expendable parts or accessories that may be supplied with the product which are expected to become inoperative or unusable after a reasonable period of use:
- C. Routine maintenance and consumable items such as, but not limited to fuel, lubricants, valves, belts, knobs, nuts, uids, tune-ups, or adjustments;
- D. Damage caused by repairs made or attempted by persons not authorized by the manufacturer;
- E. Product that was sold to the original purchaser as reconditioned or refurbished product (unless otherwise specied in writing);
- F. Product or parts thereof if any part from another manufacturer has been installed or any repairs or alterations have been made or attempted by unauthorized persons:
- G. Normal deterioration of the exterior nish such as, but not limited to, scratches, dents, paint chips, nor any corrosion or discoloring by heat, abrasive and chemical cleaners:
- H. Component parts sold by and identied as the product of another company, which shall be covered under the other product manufacturer's warranty, if any.

For questions about our warranty on this product, contact us at:
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