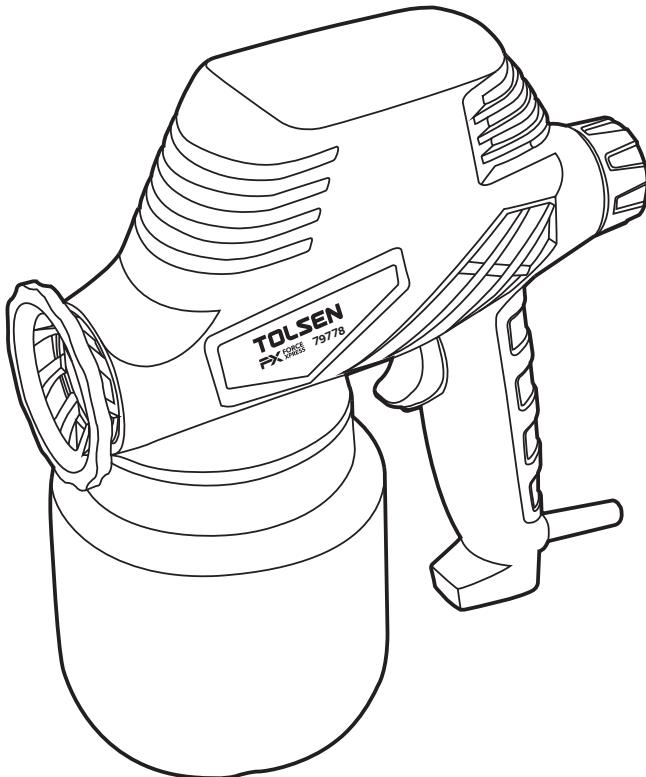


# TOLSEN FORCE XPRESS

## 79778 SOLENOID SPRAY GUN

INSTRUCTION MANUAL

1A 110W



**SAVE THIS MANUAL!**

You will need this manual for safety instructions, operating procedures and warranty.  
Put it and the original sales receipt in a safe dry place for future reference.

## IMPORTANT SAFETY INFORMATION

Instructions pertaining to a risk of fire, electric shock, or injury to persons the warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

### **WARNING!**

When using tools, basic precautions should always be followed, including the following:

### **NOTICE**

Clean the spray gun immediately after every use. Delayed or inadequate cleaning will permanently clog the spray gun. Latex paint hardens quickly and permanently inside spray gun.

## **Work area safety**

1. 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. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
3. Keep bystanders, children, and visitors away while operating the tool. Distractions are able to result in the loss of control of the tool.

## **Electrical safety**

1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a gfcii reduces the risk of electric shock.

## **Personal safety**

1. Stay alert. Watch what you are doing and use common sense when operating the tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool increases the risk of injury to persons.
2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair increases the risk of injury to persons as a result of being caught in moving parts.
3. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
4. Use safety equipment. Wear heavy-duty work gloves and a NIOSH-approved respirator during use. Non-skid safety shoes and a hard hat must be used for the applicable conditions.
5. Always wear eye protection. Wear ANSI-approved safety goggles.



## Tool Use and Care

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1. Do not force the tool. Use the correct tool for the application. The correct tool will do the job better and safer at the rate for which the tool is designed.
2. Unplug the tool before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool unintentionally. Unplug the tool, safely discharge any residual pressure, and release the trigger before leaving the work area.
3. Store the tool when it is idle out of reach of children and other untrained persons. A tool is dangerous in the hands of untrained users.
4. 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. Many accidents are caused by poorly maintained tools.
5. Use only accessories that are identified by the manufacturer for the specific tool model. Use of an accessory not intended for use with the specific tool model, increases the risk of injury to persons.

## Service

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- a. Tool service must be performed only by qualified repair personnel.
- b. When servicing a tool, use only identical replacement parts. use only authorized parts.
- c. use only lubricants supplied with the tool or specified by the manufacturer.

## Specific Safety Instructions

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1. To reduce the risk of electric shock, do not expose to rain. Store indoors.
2. Risk of Explosion – Do not spray flammable liquids.
3. Do not direct spray at people or animals.
4. Read all of the information concerning coating products and cleaning solvents. Do not use chlorinated solvents (e.g. 1-1-1 trichloroethylene and dichloromethane, also known as methylene chloride) to clean spray guns. Many spray guns contain aluminum, which reacts strongly to chlorinated solvents. Contact the solvent or coating manufacturer as needed regarding potential chemical reactions.
5. Risk of injection–Do not point spray gun at any person or any part of the body. In case of skin injection, seek medical attention immediately.
6. Spraying hazardous materials may result in serious injury or death. Do not spray pesticide, acid, corrosive material, fertilizer, or toxic chemicals.
7. 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.
8. Attach all accessories properly to the tool before plugging in the tool. A loose accessory may detach or break during operation.
9. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Tolsen Tools for a replacement.
10. Avoid unintentional starting. Prepare to begin work before turning on the tool.
11. Do not leave the tool unattended when it is plugged into an electrical outlet. Turn off the tool, and unplug it from its electrical outlet before leaving.
12. This product is not a toy. Keep it out of reach of children.
13. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should: • Avoid operating alone. • Do not use with power switch locked on. • Properly maintain and inspect to avoid electrical shock. • Properly ground power cord. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.
14. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



**SAVE THESE INSTRUCTIONS.**

**SPECIFICATIONS AND SETUP**

**NOTE!** Clean the Spray Gun IMMEDIATELY after EVERY use. Delayed or inadequate cleaning will permanently clog the Spray Gun. Latex paint hardens quickly and permanently inside Spray Gun.

**Specifications**

Electrical Rating	110-120V~, 60Hz, 1A, 110W
Cup Capacity	800ml
Max. Flow	300ml/min
Max. viscosity	60din/sec
Nozzle	Φ0.8mm

**Set-up: Before use**

**!** Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product

Note: Do not immerse Spray Gun Body in liquid.

1. Unplug the Spray Gun from its electrical outlet.
2. Remove the Container.
3. Fill the Container with warm soapy water, then replace the Container.
4. Attach a Nozzle with the included Wrench.
5. Plug the Spray Gun into an electrical outlet.
6. Depress the Trigger to spray the warm soapy water through the Spray Gun and into a bucket, while shaking the Spray Gun.
7. Fill the Container with plain warm water.
8. Depress the Trigger to spray the plain warm water through the Spray Gun and into a bucket, while shaking the Spray Gun.
9. Unplug the Spray Gun from its electrical outlet.
10. Remove the Container and Suction Tube, then thoroughly dry all parts.
11. Apply a few drops of spray gun lubricant as indicated in Figure C.
12. Reassemble the Spray Gun.

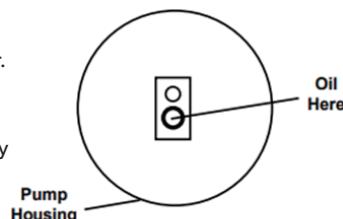
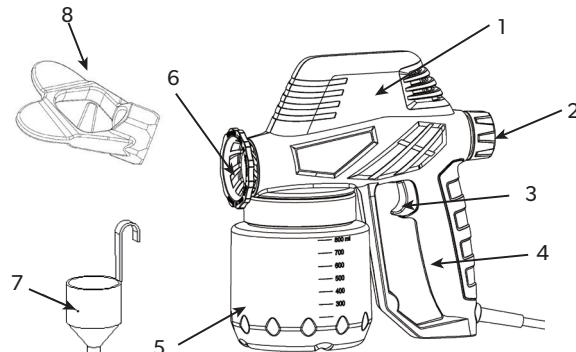


Figure C

**Components**

1. Motor housing
2. Output control
3. Trigger switch
4. Handle
5. Paint container
6. Spray basket nozzle
7. Viscosity cup
8. Nozzle wrench



## Spray Gun Setup and Adjustment (Material preparation and Filling)



RISK OF EXPLOSION -

DO NOT SPRAY FLAMMABLE LIQUIDS.

**Note:** This Spray Gun can only be used for spraying water based or oil-based low viscosity paints, stains and varnishes.

**IMPORTANT!** Before THINNING, check the viscosity of FLUID.

1. Carefully strain the material through a paint strainer or a piece of cheesecloth.
2. Fully submerge the included Viscosity Cup into the material.
3. Lift the Cup out of the material and time how many seconds it takes for it to completely run out of the cup.



4. Refer to Viscosity Chart for recommended times for different materials.

Material	Time in seconds
Water-Based Paint Varnish	20 - 25
Oil-Based Paint Enamel Paint	18 - 22
Primer	24 - 28
Wood Sealer	28 - 35
Wood Stain	No thinning Required

### Viscosity Chart

**Note:** Proper material mixture is essential. Follow the manufacturer's directions for thinning instructions. Most materials will spray easily if they are thinned properly.

5. If necessary, thin the material according to manufacturer's directions and mix thoroughly.
6. Check viscosity. Thin and check until proper viscosity is achieved.
7. Carefully strain the material through a paint strainer or a piece of cheesecloth.
8. Fill the Container 3/4 full, then replace it on the Pump Housing.
9. Attach the appropriate Nozzle for the application. Tighten firmly with the Wrench.
10. Plug the Spray Gun into an electrical outlet.

**Note:** For painting ceilings, attach the Flexible Extension first.

## Fluid Adjustment

1. Test the consistency by spraying on a piece of scrap material.
2. Adjust the Regulator until proper material flow is achieved.



Too Coarse  
(Close  
Regulator)



Correct



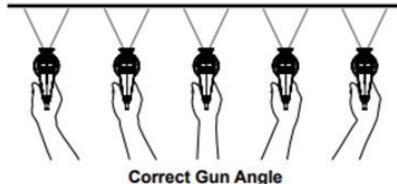
Too Fine  
(Open  
Regulator)

## Spraying Technique

When first filled, the gun may take up to 30 seconds after the trigger is held to prime and start spraying.

**IMPORTANT:** Proper spraying technique is ESSENTIAL to achieve good results.

1. Keep the Spray Gun upright and at a right angle to the work piece.



Move your arm, not just your wrist. Point gun directly towards the surface and maintain an even, steady distance and speed.

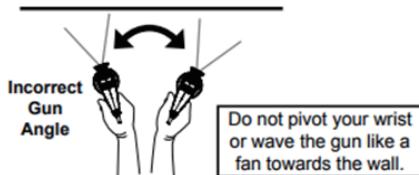


Figure G: Spray Gun Angle - top view

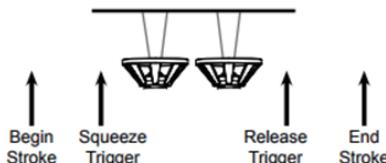
2. Using two hands, one to steady the Container and the other to operate the Spray Gun, aim Nozzle at the work piece.

**NOTICE:** DO NOT STOP WHEN SPRAYING.

Spraying materials will start to set and dry as soon as they come in contact with the air. They will cause a permanent clog if not cleared immediately.

3. Pull Trigger slowly and move Spray Gun in parallel strokes to the work piece. Keep the distance from the work piece at about 10" to 12", depending on the flow adjustment and the paint.

4. To avoid paint build up, start moving the Spray Gun before squeezing the Trigger. When finished with the stroke, release the Trigger while still moving the Spray Gun. See Figure H. Doing this will produce a smoother finish. Do not stop moving the Spray Gun while spraying. If the Spray Gun stops even briefly while spraying the paint will build up and run down the work piece.



**Note:** The stroke speed, the Regulator adjustment, and the distance from the work piece, will determine how much paint is being applied. Apply two thin coats rather than one thick coat.

5. KEEP CONTAINER FILLED. Do not allow material to drain out completely to prevent pump cavitation.

6. To prevent accidents, release trigger, unplug the tool, safely discharge any residual pressure, and again release trigger after use.

## Cleaning



RISK OF EXPLOSION - DO NOT SPRAY FLAMMABLE LIQUIDS.

- a. Follow solvent manufacturer's clean up instructions and safety precautions.
- b. If collecting flushed solvents in metal container, transfer to nonmetal container, and flush metal container.
- c. Work far away from any ignition sources in a vapor free area.
- d. Keep class ABC fire extinguisher nearby.

## Solvent Selection

Follow the paint and solvent manufacturer's recommendations for cleaning, solvent type, and disposal.

## After Every use

**NOTICE:** Do not immerse Spray Gun Body in solvent or any liquid.

1. Unplug the Spray Gun from its electrical outlet.
2. Use solvent recommended by material manufacturer.
3. Remove the Container.
4. Remove the Suction Tube from the Pump Housing.
5. Carefully empty material out of Container. Dispose of excess material properly, then clean Container and Suction Tube with solvent.
6. Replace the Suction Tube, fill the Container with solvent, then replace the Container.
7. Plug the Spray Gun into an electrical outlet.
8. Spray the solvent through the Spray Gun into a spent solvent container, while shaking the Spray Gun.  
Once the Container is empty, repeat the process until the solvent comes out clean.
9. Remove the Nozzle with the Wrench and soak it in solvent until it is clean. Use included Probe to remove any residual material, then rinse in warm water.
10. If switching from oil-based to water-based material, after cleaning with solvent, repeat steps 3. through 9. with warm soapy water.
11. Unplug the Spray Gun from its electrical outlet.
12. Remove the Container and Suction Tube, rinse with warm water, then thoroughly dry all parts. 13. Use spray gun lubricant as indicated in Figure I.
13. Make sure all parts are dry and free from residual paint, then reassemble Spray Gun.

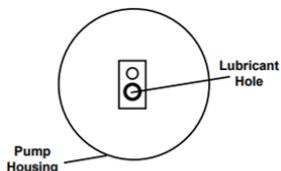


Figure I

14. Reassemble Spray Gun.

### NOTICE

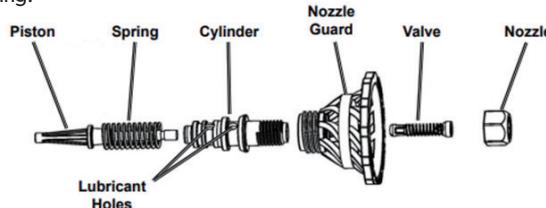
Clean the Spray Gun IMMEDIATELY after EVERY use.  
Delayed or inadequate cleaning will permanently clog the Spray Gun.  
Latex paint hardens quickly and permanently inside Spray Gun.

## Nozzle Assembly Cleaning

**Note:** The Piston, Spring and Cylinder are one piece. Do not disassemble.

1. Loosen the Nozzle Guard, and then pull to remove assembly.
2. Use the Wrench to remove the Nozzle. Remove the Nozzle Guard.
3. Soak all parts in solvent. If necessary, use a brush (sold separately) and the Cleaning Probe.
4. Make sure all parts are free from residual paint.
5. Rinse with warm water, then thoroughly dry all parts.
6. Apply a few drops of spray gun lubricant to lubricant holes.
7. Reassemble the spray gun.

**Important:** When replacing Nozzle assembly, position the lubricant holes down so they will line up with lubricant hole under Pump Housing.



## Spent Solvent Disposal

After cleaning, dispose of spent solvent according to the solvent manufacturer's directions and local hazardous waste standards.

## User-Maintenance Instructions



Procedures not specifically explained in this manual must be performed only by a qualified technician.

### WARNING

**TO PREVENT SERIOUS INJURY:** Detach the air supply and safely discharge any residual air pressure in the tool before performing any inspection, maintenance, or cleaning procedures. **TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:** Do not use damaged equipment. If abnormal noise, vibration, or leaking air occurs, have the problem corrected before further use.

## Inspection

**Note:** These procedures are in addition to the regular checks and maintenance explained as part of the regular operation of the air-operated tool.

BEFORE EACH USE, inspect the general condition of the tool. Check for:

- loose screws,
- misalignment or binding of moving parts,
- clogged nozzle or fluid tip,
- cracked or broken parts, and
- any other condition that may affect its safe operation.

## Storage

Store in a dry, secure area out of reach of children.

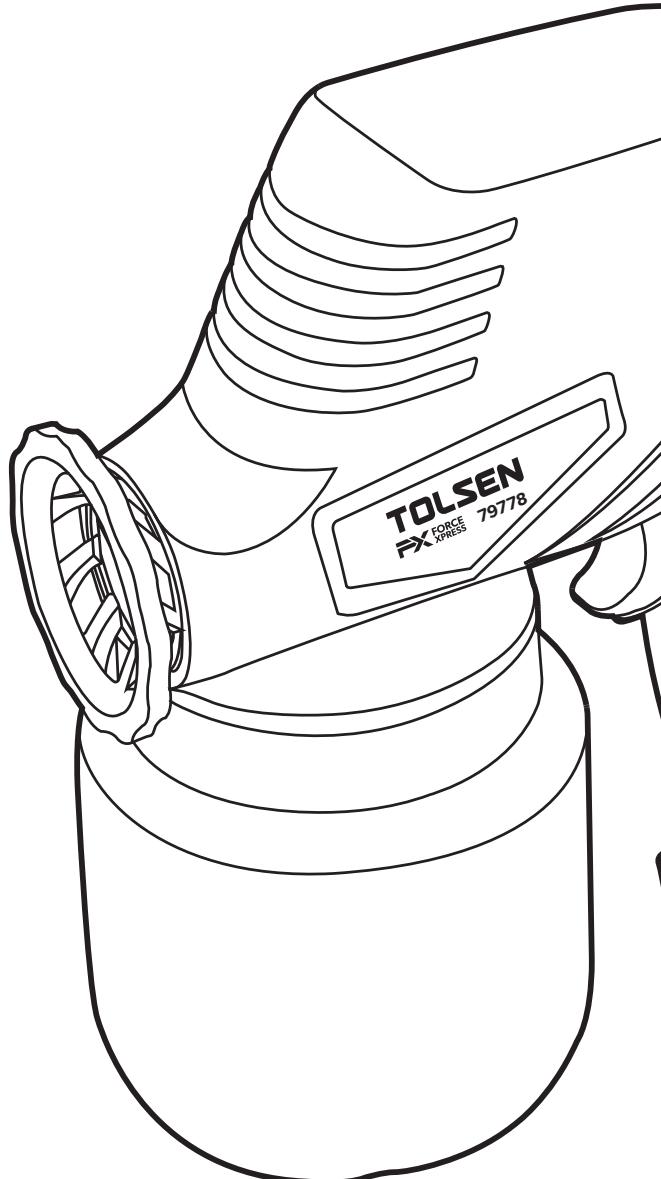
## General Troubleshooting Chart

problem	possible causes	Likely Solutions
Sputtering Spray	1. Low paint level. 2. Cup tipped. 3. Cup and/or Lid loose. 4. Clogged Check Valve.	1. Refill. 2. Hold upright. 3. Tighten Cup and/or Lid. 4. Clean Check Valve.
Will Not Spray	1. No power at Spray Gun. 2. Fluid too thick. 3. Cup and/or Lid loose. 4. Clogged Check Valve.	1. Check Power Cord. 2. Thin fluid. 3. Tighten Cup and/or Lid. 4. Clean Check Valve.
Overspray (Paint drifting to unintended objects.)	1. Improper application speed. 2. Improper distance from workpiece. 3. Airflow too high. 4. Clogged Check Valve.	1. Move moderately and parallel. 2. Adjust distance. 3. Reduce Airflow. 4. Clean Check Valve.
Spray Tip Leakage	1. Dirty Nozzle. 2. Worn or damaged Nozzle.	1. Clean Nozzle. 2. Replace Nozzle.

 Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power cord and safely discharge pressure before service.

## Please read the following carefully

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