

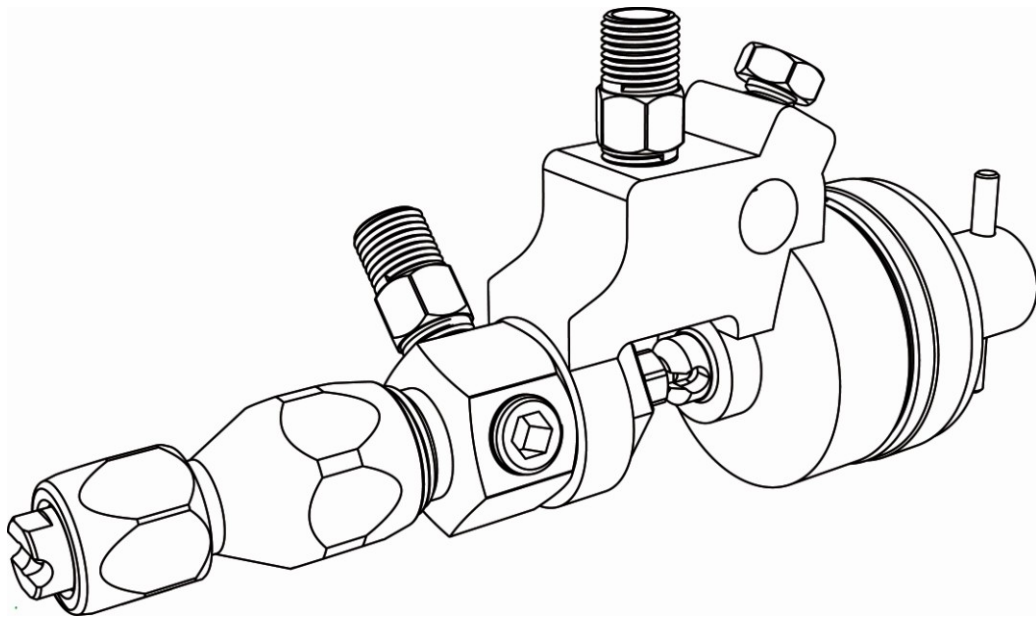
# Instructions - Parts List

STAINLESS STEEL

## AUTO SPRAY Gun (83-000)

3000 psi ( 210 bar, 21 MPa) Maximum Working Pressure

**The spray tip is not included with the gun. Order the tip separately**



*This manual contains important warning and information.*






Read and keep reference.

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# WARNING

	<p><b>INJECTION HAZARD</b></p> <p>Spray from the spray gun, hose leaks or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Splashing fluid in the eyes or on the skin can also cause serious injury.</p> <ul style="list-style-type: none"> <li>Fluid injected into the skin is a serious injury. The injury may look like just a cut, but it is a serious injury. <b>Get immediate medical attention.</b></li> <li>Do not point the gun at anyone or any part of the body.</li> <li>Do not put hand or fingers over the spray tip.</li> <li>Do not stop or deflect leaks with your hand, body, glove or rag.</li> <li>Do not “blow back” fluid; this is not an air spray system.</li> <li>Always have the tip guard on the spray gun when spraying</li> <li>Check the spray gun diffuser (if so equipped) operation weekly. Refer to the gun manual.</li> <li>Be sure the spray gun safety knob operates before operating the gun.</li> <li>Lock the spray gun safety knob when you stop spraying.</li> <li>Follow the <b>Pressure Relief Procedure</b> on page 3 when you are instructed to relieve pressure, stop spraying, check, clean or service any system equipment, or install or change spray tips.</li> <li>Tighten all fluid connections before each use.</li> <li>Check the hoses, tubes and couplings daily. Replace worn or damaged parts immediately. Permanently coupled hoses cannot be repaired.</li> <li>Handle and route hoses and tubes carefully. Keep hoses and tubes away from moving parts and hot surfaces. Do not use the hoses to pull equipment. Do not expose KST hoses to temperatures above 150_F (66_C) or below -40_F (-40_C).</li> </ul>	 <p>INSTRUCTIONS</p>	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.</p> <ul style="list-style-type: none"> <li>This equipment is for professional use only.</li> <li>Read all instruction manuals, tags, and labels before operating the equipment.</li> <li>Use the equipment only for its intended purpose. If you are uncertain about the usage, call your distributor.</li> <li>Do not alter or modify this equipment. Use only genuine KST parts and accessories.</li> <li>Check the equipment daily. Repair or replace worn or damaged parts immediately.</li> <li>Do not exceed the maximum working pressure of the lowest rated system component. This equipment as a <b>3000 psi (210 bar) maximum working pressure.</b></li> <li>Do not lift pressurized equipment.</li> <li>Route the hoses away from the traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose KST hoses to temperatures above 150_F (66_C) or below -40_F (-40_C).</li> <li>Do not use the hoses to pull the equipment.</li> <li>Use fluids or solvents that are compatible with the equipment wetted parts. See the <b>Technical Data</b> section of all the equipment manuals. Read the fluid and solvent manufacturer's warnings.</li> <li>Fluid hoses must have spring guards on both ends to protect them from rupture caused by kinks or bends near the couplings.</li> <li>Comply with all applicable local, state and national fire, electrical and other safety regulations.</li> </ul>
	<p><b>TOXIC FLUID HAZARD</b></p> <p>Hazardous fluids or toxic fumes can cause a serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> <li>Know the specific hazards of the fluid you are using.</li> <li>Store hazardous fluid in an approved container. Dispose hazardous fluid according to all local, state and national guidelines.</li> <li>Always wear protective eyewear, gloves, clothing and recommended by the fluid and solvent manufacturer.</li> </ul>		<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Improper grounding, poor air ventilation, open flames, or sparks can cause a hazardous condition and result in fire or explosion and serious injury.</p> <ul style="list-style-type: none"> <li>Ground the equipment and the object being sprayed. See <b>Electrical Grounding</b> on page 3.</li> <li>Provide fresh air ventilation to avoid the buildup of flammable fumes from solvent or the fluid being sprayed.</li> <li>Extinguish all the open flames or pilot lights in the spray area.</li> <li>Electrically disconnect all the equipment in the spray area.</li> <li>Keep the spray area free of debris, including solvent, rags, and gasoline.</li> <li>Do not turn on or off any light switch in the spray area while operating or if fumes are present.</li> <li>Do not smoke in the spray area.</li> <li>Do not operate a gasoline engine in the spray area.</li> <li>If there is any static sparking while using the equipment, <b>stop spraying immediately.</b> Identify and correct the problem.</li> </ul>
	<p><b>MOVING PARTS HAZARD</b></p> <p>Moving parts, such as the air motor piston and the secondary pump lever and connecting rod area, can pinch or amputate fingers.</p> <ul style="list-style-type: none"> <li>Do not operate the equipment with the air motor plates removed.</li> <li>Keep your body and tools clear of any moving parts when starting or operating the equipment.</li> </ul>		

# Installation

! WARNING			
	<b>INJECTION HAZARD</b> To reduce the risk of a serious injury, always follow the <b>Pressure Relief Procedure</b> on page 3 whenever you are instructed to relieve the pressure.		<b>FIRE AND EXPLOSION HAZARD</b> To reduce the risk of static sparking, which can cause a fire or explosion and result in serious injury, including electric shock, and property damage, always follow these Precautions. <ul style="list-style-type: none"> <li>_ Read and follow the warnings in FIRE and EXPLOSION HAZARD on page 2.</li> <li>_ Provide electrical grounding continuity throughout the entire spray system as instructed below.</li> <li>_ Have a trained and qualified person perform all electrical wiring.</li> <li>_ Comply with all applicable local, state and national fire, electrical and other safety regulations.</li> </ul>
	<b>INJECTION HAZARD</b> Your spray system must have a bleed type master air valve and a fluid drain valve. These two accessories help reduce the risk of serious injury, including fluid injection, splashing in the eyes or on the skin, or injury from moving parts, if you are adjusting or repairing the pump or gun.		

1. Connect a grounded fluid hose to the gun fluid inlet.
2. Without the spray tip installed, start the pump or sprayer and flush and prime it according to the pump or sprayer instructions.
3. Relieve the pressure.
4. With the gun safety Trigger lock, unscrew the tip guard (1) and install the tip (2) and filter assembly (3) in the tip guard nut. Screw the assembly firmly onto the gun. Tighten with a wrench. See Fig. 1.
5. Strain the fluid you are spraying if it contains particles which clog the spray tip.

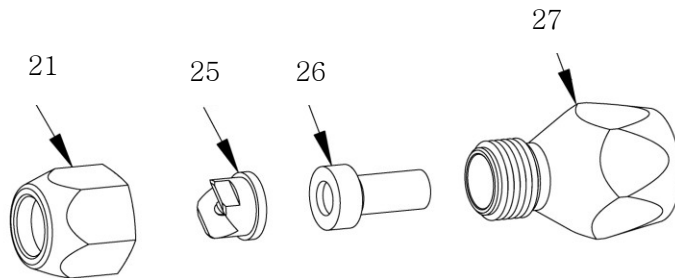


FIG1.

## Required Accessories

1. The *bleed-type master air valve* relieves air trapped between this valve and the pump after the air regulator is shut off. Trapped air can cause the pump to cycle unexpectedly.
2. The *fluid drain valve* assists in relieving fluid pressure in the displacement pump, hose and gun; triggering the gun to relieve pressure may not be sufficient.

## Electrical Grounding

1. Provide electrical grounding for the **pump or sprayer** as instructed in its separate manual.
2. Provide electrical grounding for the **air compressor or hydraulic power supply** according to the local code and the manufacturer's recommendations.
3. Use only electrically conductive **fluid hoses** with a maximum of 500 feet (150 m) combined hose length to ensure grounding continuity.
4. Obtain electrical grounding continuity for the **spray gun** by connecting it to a properly grounding fluid hose and pump or sprayer.
5. Provide electrical grounding for these components according to the local code: the **fluid supply container**, the **object being sprayed**, and **all of the solvent pails used when flushing**. Use only metal pails, which are conductive. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts the grounding continuity.
6. **To maintain grounding continuity when flushing or relieving pressure**, always hold a metal part of the gun firmly to the side of a *grounded* metal pail, then trigger the gun.

# Operation

## Pressure Relief Procedure

1. Shut off the power to the pump.
2. Close the bleed-type master air valve(required with air-powered pumps).
3. Actuate the gun to relieve pressure .
4. Open the pump drain valve (required in your system) to help relieve fluid pressure in the displacement pump..
5. Actuating the gun to relieve pressure may not be sufficient. Have a container ready to catch the drainage .
6. Leave the drain valve open until you are ready to spray again.



*If you suspect that the spray tip or hose is completely clogged or that pressure has not been fully relieved after following the steps above, VERY SLOWLY* loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually, then loosen completely. Now clear the tip or hose .

## Startup

1. Start the pump. Adjust the fluid pressure so the spray is completely atomized. Always use the lowest pressure necessary to get the desired results. Higher pressure may not improve the spray pattern and will cause premature tip and pump wear.
2. If adjusting the pressure does not give a good spray pattern, try another size tip. Relieve the pressure before changing a spray tip.
3. Use a full-open, full-close trigger action. Hold the gun about 14 inches (350 mm) from and at right angles to the work surface. Don't swing the gun in an arc. Practice to find the best length and speed of stroke.

## How to Adjust the Spray Pattern

1. Relieve the pressure.
2. Loosen the tip guard retaining nut.
3. Turn the spray tip so the groove is horizontal for a horizontal spray pattern and vertical for a vertical pattern. See Fig. 1.
4. The spray tip orifice size and spray angle determines the coverage and size of the pattern. When more coverage is needed, use a larger spray tip rather than increasing the fluid pressure.

! WARNING		
	<b>INJECTION HAZARD</b> To reduce the risk of an injection or splashing fluid in the eyes or on skin, follow these precautions before removing, cleaning or changing a spray tip or tip guard. <ul style="list-style-type: none"><li>_ Do not hold your hand, body, or rag in front of the spray tip when cleaning or checking a clogged tip.</li><li>_ Always point the gun toward the ground or into a waste container when checking to see if the spray tip is cleared.</li><li>_ Do not try to "blow back" paint; this is NOT an air spray gun.</li><li>_ Follow the <b>Pressure Relief Procedure</b> on page 3 before wiping the fluid buildup off the gun or spray tip, before removing the tip guard or the spray tip, and whenever you are instructed to relieve the pressure.</li></ul>	
		<b>FIRE AND EXPLOSION HAZARD</b> To reduce the risk of a serious injury from fluid injection, static sparking, or splashing fluid in the eyes on or the skin, follow these precautions when flushing. <ul style="list-style-type: none"><li>_ Be sure the entire system and the flushing pails are properly grounded. Refer to <b>Electrical Grounding</b> on page 3.</li><li>_ Remove the spray tip from the gun.</li><li>_ Use the lowest possible fluid pressure.</li><li>_ Maintain firm metal-to-metal contact between the gun and pail during flushing.</li><li>_ Follow the <b>Pressure Relief Procedure</b> on page 4 whenever you are instructed to relieve pressure.</li></ul>

## How to Clear or Clean a Clogged Spray Tip.

**NOTE:** Clean the tip frequently during the daily operation and at the end of the work day. This helps keep fluid buildup from drying and clogging the spray tip.

1. Relieve the pressure.
2. Use a solvent-soaked brush to clean the tip.
3. Remove the tip (25) and the filter (26). See Fig. 1.
4. Blow out the tip obstruction with air from the front of the spray tip, or soak the spray tip and gun nozzle long enough to dissolve the obstruction. If the clog won't dissolve, tap the back of the spray tip against a flat surface to remove it.

## How to Flush the Gun.

Always flush the gun thoroughly whenever you are done spraying for the day and before the fluid being sprayed can dry or set up in the gun.

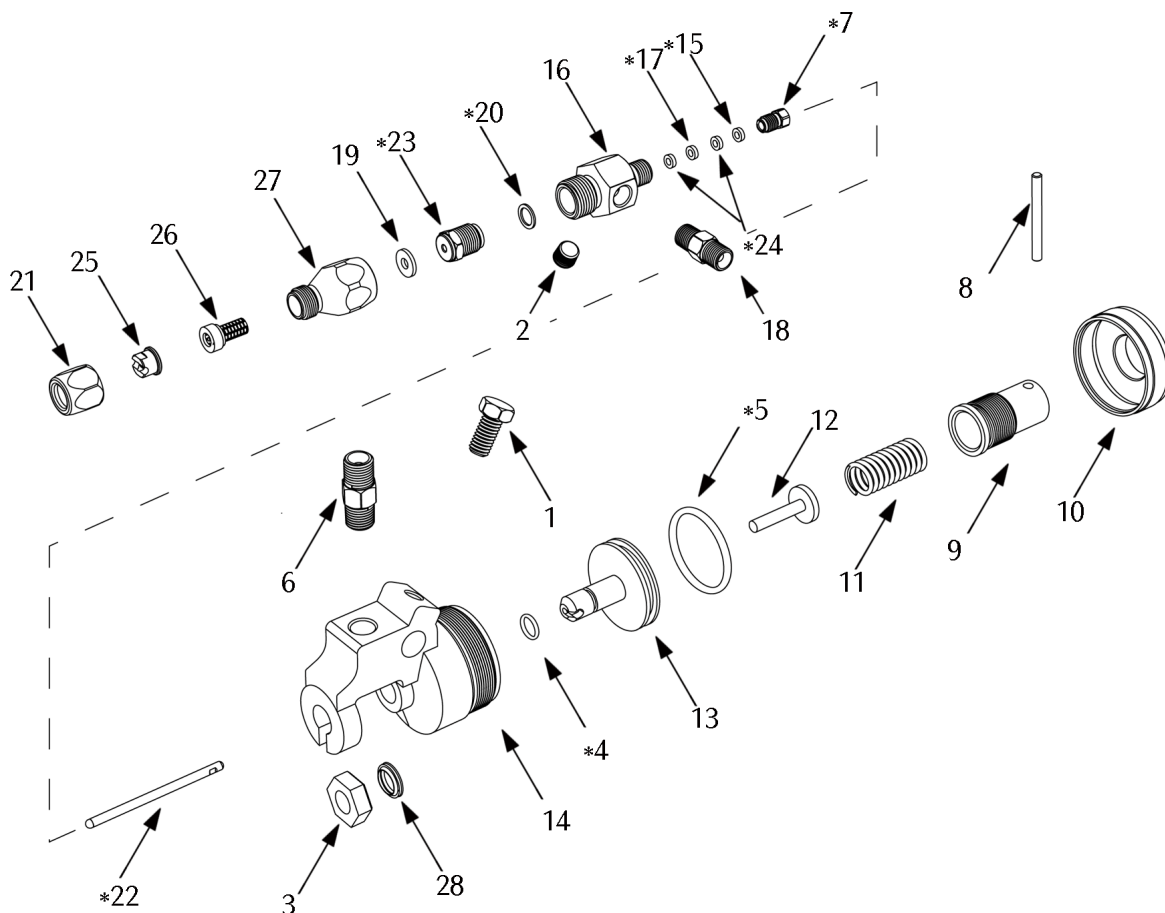
1. Use a solvent that is compatible with the wetted parts in the gun and the rest of the system, as well as with the material being sprayed.
2. Follow the flushing instructions for your spray system or pump.
3. If you are flushing with water, follow the water with a rust inhibitor to protect the gun and packings from corrosion.
4. If necessary, disassemble the gun and clean all passages thoroughly with a soft bristle brush.

# Service

## Needle, Seat, and Packings

1. To clean or replace the needle(22), its seat(23) or packing(17 or 24), **relieve the pressure**, remove the spray tip and flush the gun with a compatible solvent.
3. Disconnect the fluid hose. Screw the locknut(3) off the head(16) and align the slot in the air piston(13) with the slot in the body(14).
4. Swing the head out of the gun body and slide the needle out of the socket in the air piston.
5. Screw the packing nut(7) out and remove the packings(17 or 24), gland(15), and needle(22).
6. Remove the tip and screw the seat(23) out of the housing.
7. Handle the needle and seat carefully and inspect them closely for wear or damage.
8. Reassemble the gun using new parts as necessary.
9. Soak a new leather packing in light, compatible oil before installing it

# Parts



No	Code	Description	Qty	No	Code	Description	Qty
1	83-001	SET SCREW	1	15	83-015	GLAND (F)	1
2	83-002	PLUG	1	16	83-016	SPRAY GUN HEAD	1
3	83-003	NUT	1	17	83-017	PACKING, leather	1
4	83-004	O-RING, Viton	1	18	83-018	NIPPLE	1
5	83-005	O-RING, Viton	1	19	83-019	GASKET	1
6	83-006	NIPPLE	1	20	83-020	GASKET, copper	1
7	83-007	PACKING NUT	1	21	83-021	TIP RETAINER NUT	1
8	83-008	PIN	1	22	83-022	NEEDLE	1
9	83-009	ADJUSTING SCREW	1	23	83-023	SEAT	1
10	83-010	AIR CYLINDER CAP	1	24	83-024	PACKING, UHMWPE	2
11	83-011	COMPRESSION SPRING	1	25	83-025	TIP	1
12	83-012	SPRING GUIDE	1	26	83-026	FILTER, tip	1
13	83-013	AIR PISTON	1	27	83-027	RETAINER	1
14	83-014	BODY		28	83-028	DUST SEAL	

**Note :** part marked in color are the option parts

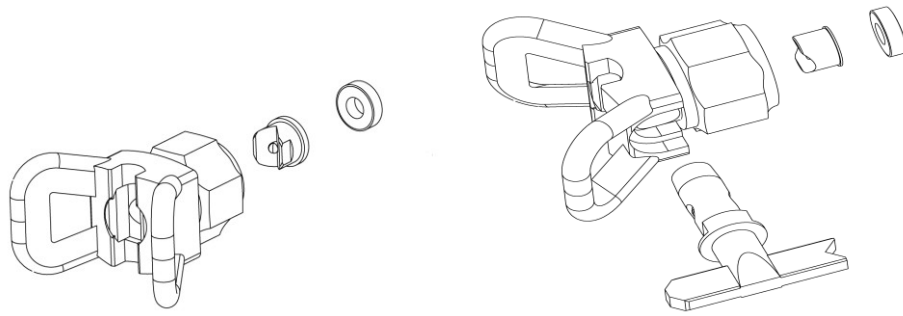
Replacement Danger and Warning labels, tags and cards are available at no cost.

These parts are included in repair kit which may be purchased separately.

**Always use genuine KST parts.**



## Option Tip GUARD & Switch Tip



## Technical Data

Maximum Fluid  
Working pressure 7900 psi (550 bar)  
Fluid Inlet 1/4 npsm

# KST Standard Warranty

KST warrants all equipment referenced in this document which is manufactured by KST and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by KST, KST will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by KST to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with KST written recommendations.

This warranty does not cover, and KST shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-KST component parts. Nor shall KST be liable for malfunction, damage or wear caused by the incompatibility of KST equipment with structures, accessories, equipment or materials not supplied by KST, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by KST.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized KST distributor for verification of the claimed defect. If the claimed defect is verified, KST will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

KST sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within one (1) years of the date of sale.

**KST MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD**

**BUT NOT MANUFACTURED BY KST.** These items sold, but not manufactured by KST (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. KST will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will KST be liable for indirect, incidental, special or consequential damages resulting from KST supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of KST or otherwise.

## KST Information

**TO PLACE AN ORDER OR FOR SERVICE**, contact your KST distributor, or call these numbers to identify the nearest distributor.

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