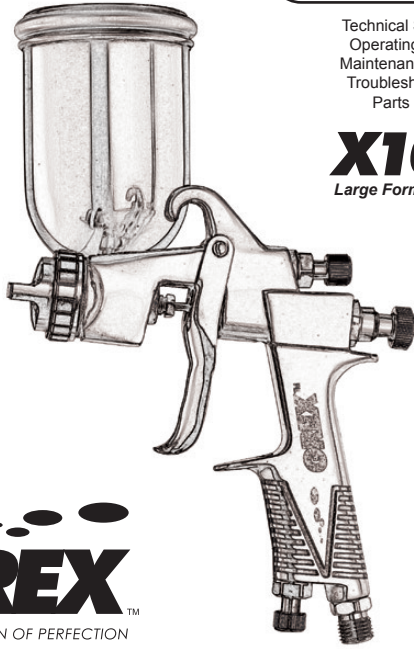


OWNER'S MANUAL

Technical Specifications
Operating Instructions
Maintenance Information
Troubleshooting Guide
Parts Diagrams

X1000

Large Format Spray Gun



GREXTM
THE EVOLUTION OF PERFECTION

Congratulations on your purchase of the Grex X1000 Spray Gun; a multi-purpose, reliable and high performance spray gun designed for the demanding professional. Precision machining and carefully selected materials are employed in the manufacturing process of each Grex spray gun to insure consistent high performance and adherence to Grex's high quality standards. To maintain your X1000 at its peak performance, proper care and attention must be observed.

SAFETY WARNINGS

Fire or Explosion Hazard

1. Fluid and solvents can be highly flammable or combustible. Use in well-ventilated spray booths and avoid any ignition sources such as smoking, open flames, electrical hazards, etc.
2. NEVER use halogenated hydrocarbon solvents. They can chemically react with aluminum and zinc parts causing an explosion. Be sure that all fluids and solvents used are chemically compatible with aluminum and zinc parts.
3. To reduce the risk of static sparking, grounding continuity to the spray equipment and object being sprayed must be maintained.

Misuse Hazard

1. NEVER point spray gun in the direction of human body.
2. NEVER exceed the maximum safe working pressure of the equipment.
3. ALWAYS release air and fluid pressures before cleaning, disassembling, or servicing. A ball valve installed near the spray gun is recommended to stop air supply in case of an emergency and to prevent unintended operation.

Hazard created while coating materials are atomized and sprayed

1. Toxic vapors produced by spraying certain materials can create intoxication & serious damage to health. Always use the gun in well ventilated areas & wear protective eyewear, gloves, respirator, etc to prevent toxic vapors, solvents & paint from coming into contact with your eyes & skin.
2. Depending on the noise level due to operation, wear ear plugs if necessary.

Other Hazards

1. NEVER modify this product for any applications.
2. NEVER spray foods or chemicals through the spray gun.
3. If something goes wrong, immediately stop operation and find the cause. Do not use spray gun until all problems have been found and solved.

GENERAL OPERATION

Important

1. This gun should only be operated by adequately trained operators.
2. Ensure that the spray gun has not been damaged.
3. Only clean and dry air should be supplied to the spray gun.
4. When using the spray gun for the first time, adjust the fluid needle packing set for smooth movement.

Compressors and Air Pressures

Choosing an appropriate air compressor that can supply sufficient pressure for your X1000 spray gun insures optimal operation and performance. Working pressures vary from 30 to 50 psi, depending on the type of work being done and what textures are desired. In general, higher pressures are needed to take full advantage of the versatile spray characteristics of the spray gun. Viscosity of the paint also effects which pressures are ideal. In general, larger volumes and/or thicker paints require higher pressures.

Assembling Spray Gun for Use

Attach an air hose to the compressor and spray gun. Adjust the air pressure according to type of paint used and desired spray characteristics. Check for any air leaks from the compressor and/or air hose. Fill the container with some cleaning solvent and securely attach the container to the spray gun. Pointing the spray gun away from you, pull back on the trigger to open the nozzle of the airbrush allowing cleaner to spray out.

Caution: The fluid nozzle and needle are very delicate parts. Even the slightest physical damage can adversely affect the spray pattern.

Paint Preparation

Proper preparation and filtering of paint through a nylon mesh is recommended for best performance. Paint should always be thinned with its proper solvent. It is best to prepare the paint relatively thin and make repeated passes across the work to achieve the desired shade. This will also improve the quality of your work and decrease the cleaning time of your spray gun.

Pattern Width Adjustments

Pattern widths produced by the spray gun are controlled by adjusting the distance the gun is held from the work surface and adjusting the Fluid Adjustment Knob on the rear of the spray gun. Turning the knob clockwise helps produce finer patterns, while turning the knob counter clockwise helps produce wider patterns.

The gun should be held so that it is perpendicular to the surface of the work piece at all times. Then, the gun should move in a straight and horizontal line. Arcing the gun causes uneven painting.

MAINTENANCE

Your X1000 spray gun is a durable precision instrument and as with any precision instrument it is susceptible to damage if handled improperly. It is essential to take care to prevent damaging the components of this highly sensitive tool in order to assure its peak performance during its lifetime. Proper maintenance of the X1000 spray gun demands appropriate cleaning and requires correctly replacing and adjusting the parts. Daily and thorough maintenance of your spray gun will result in spraying that is smooth, consistent and hassle-free.

Warning

1. Turn off the air and fluids to the gun and release pressure by triggering the gun before disassembling, cleaning or servicing.
2. Pay attention when disassembling spray gun since you may be touching sharp internal parts.
3. Do not disassemble the spray gun without receiving enough knowledge and education about the equipment.

Cleaning the Spray Gun

It is only necessary to clean areas of the spray gun which come in contact with paint namely, the paint reservoir, around the tip of the needle and the head cap assembly. These areas must be kept clean for optimum performance of the spray gun.

Before each use

At the beginning of every session, spray water or appropriate paint solvent through the spray gun to make sure the tool is working properly.

Cleaning spray gun between color changes

Empty out remaining paint in the container and spray out any excess paint. Wipe off as much residual paint as possible with a paper towel. Partially fill the paint reservoir with appropriate cleaning solution and spray the cleaner at a heavy spray setting into a paper towel or similar material. Repeat rinse and spray until spray gun is flushed free of color.

Periodic Cleaning

The cleaning procedures described above are recommended before intermittent breaks during your work session to prevent paint from drying inside the spray gun's internal parts. Always empty paint out if the spray gun is not used for relatively long periods of time and spray appropriate cleaning solution until the spray gun is flushed free of color. Blockages caused by dried paint are the biggest problem when using a spray gun. Any time the spray gun becomes clogged, increase the air pressure and spray appropriate cleaning solution through the spray gun for a short period of time.

After each use

At the end of every session, follow the same cleaning procedures as those described for cleaning between color changes. Then remove and clean only those parts which come into contact with paint. Remove fluid nozzle after removing fluid needle set or while keeping fluid needle pulled, in order to protect seat section. Carefully wipe clean the needle, nozzle and needle cap assembly with the appropriate cleaning solution. It is not necessary to dismantle the entire spray gun. While keeping fluid needle set inserted, tighten the fluid needle packing set by hand. Then tighten gradually with a spanner. Adjust packing set while pulling trigger and watch movement of fluid needle set, since too much tightening will slow down movement of fluid needle and result in leakage from the tip of nozzle. If tightened too much, turn counterclockwise to a sufficient position until the needle is not stuck and there is no fluid leakage.

Before replacing the needle, apply a light coat of lubrication to the needle to facilitate smooth triggering. After the spray gun parts have been removed and cleaned, they must then be carefully replaced and adjusted in their designated positions. Failure to align each part correctly will prevent the spray gun from functioning properly. In many instances, when a spray gun fails to perform correctly, these problems result from improper cleaning and/or alignment of parts.

Caution: Never soak entire spray gun in any solvent and/or cleaning solution to avoid damaging of o-rings and spray gun packaging. Never use commercial or other parts instead of Grex original spare parts. Never damage holes of air cap, fluid nozzle and fluid needle.

Lubrication of Spray Gun

Caution: Do not use light machine oil or W-40 for lubrication. Doing so will cause the needle to stick as it moves through the needle packing.

To insure smooth operation, lubricate the needle and trigger mechanism regularly. Periodically remove the fluid needle and coat with high quality lubricant. Then wipe the needle with a soft clean cloth, leaving a light coat of lubricant. Several drops of lube should also be placed in to the trigger slot of the spray gun body to lube the trigger mechanism and air valve.

Caution: Do not over-lube the needle or the main lever mechanism. Doing so may transfer excess lube into the nozzle causing severe paint flow problems.

Replacement Parts

Caution: If it is necessary to disassemble the spray gun DO NOT use pliers. In most cases, no tools are required to disassemble the spray gun except those provided in the kit.

Even though Grex spray guns are manufactured with precision machining and high quality materials, several delicate parts require replacement due to normal wear and tear. These include the fluid nozzle, fluid needle and o-rings.

Fluid Nozzle –Before replacing the fluid nozzle, be sure that the needle is slightly pulled back in the spray gun. Simply turn the width adjust knob counter-clockwise. Remove the needle cap and nozzle cap then carefully unscrew the nozzle using the wrench supplied with your kit. Replace with a new nozzle and reassemble the spray gun. Do not over tighten any parts of the spray gun.

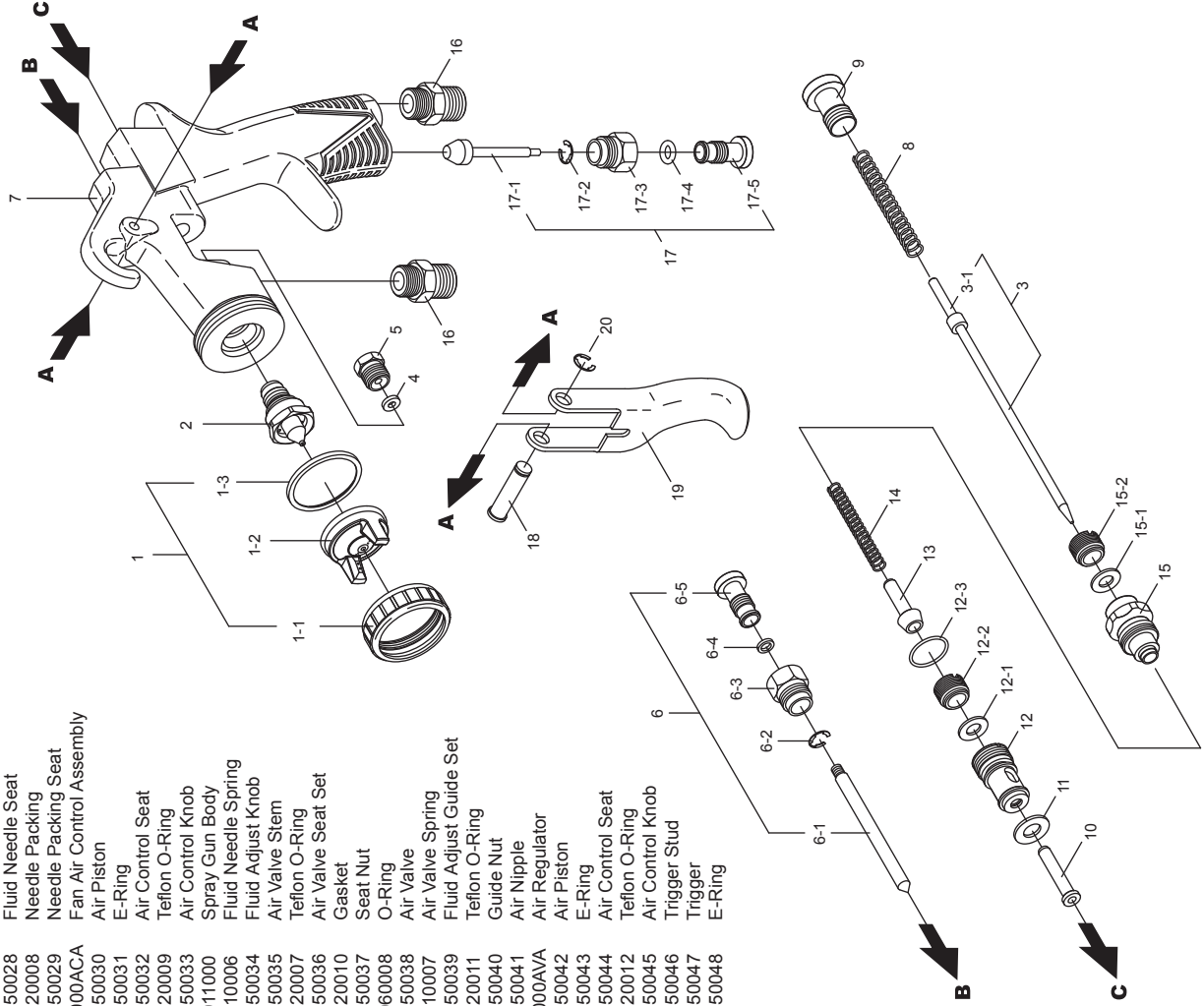
Note: It is recommended to change the fluid needle at the same time to insure even wear

Fluid Needle – Grex needles are made of precision ground and hardened stainless steel and will withstand prolonged use. However, because of their fine tip and long taper, they are easily subject to physical damage. This is a highly delicate part and any small deformations to the needle tip will compromise the performance of the spray gun. If the tip is severely bent, it must be straightened before being removed to prevent damage to the fluid nozzle.

GreX.X1000

Exploded Diagram & Parts List

No.	Part No.	Part Description
1	X1000NCS	Air Nozzle Cap Set
1-1	A150027	Brass Ring
1-2	A041000	Air Nozzle
1-3	A120006	Teflon Ring
2	A051000	Fluid Nozzle
3	A021000	Fluid Needle
3-1	A150028	Fluid Needle Seat
4	A120008	Needle Packing
5	A150029	Needle Packing Seat
6	X1000ACA	Fan Air Control Assembly
6-1	A150030	Air Piston
6-2	A150031	E-Ring
6-3	A150032	Air Control Seat
6-4	A120009	Teflon O-Ring
6-5	A150033	Air Control Knob
7	A011000	Spray Gun Body
8	A110006	Fluid Needle Spring
9	A150034	Fluid Adjust Knob
10	A150035	Air Valve Stem
11	A120007	Teflon O-Ring
12	A150036	Air Valve Seat Set
12-1	A120010	Gasket
12-2	A150037	Seat Nut
12-3	A060008	O-Ring
13	A150038	Air Valve
14	A110007	Air Valve Spring
15	A150039	Fluid Adjust Guide Set
15-1	A120011	Teflon O-Ring
15-2	A150040	Guide Nut
16	A150041	Air Nipple
17	X1000AVA	Air Regulator
17-1	A150042	Air Piston
17-2	A150043	E-Ring
17-3	A150044	Air Control Seat
17-4	A120012	Teflon O-Ring
17-5	A150045	Air Control Knob
18	A150046	Trigger Stud
19	A150047	Trigger
20	A150048	E-Ring



TROUBLESHOOTING GUIDE

Spray Pattern	Problem	Remedies
Fluttering	<ol style="list-style-type: none"> Air enters between fluid nozzle and seat of gun body. Air is suctioned from fluid needle packing. 	<ol style="list-style-type: none"> Remove fluid nozzle to clean seat Tighten fluid needle packing.
Crescent	<ol style="list-style-type: none"> Paint buildup on air cap partially clogs horn holes. Air pressure from both horns differs. 	<ol style="list-style-type: none"> Remove obstructions from horn holes, but do not use metal objects to clean horn holes.
Inclining	<ol style="list-style-type: none"> Paint buildup on air cap partially clogs horn hole or air cap center hole, or causes damage Loose fluid nozzle 	<ol style="list-style-type: none"> Remove obstructions. Replace if damaged Remove nozzle and clean seated section
Split	<ol style="list-style-type: none"> Paint viscosity too low Fluid output too high 	<ol style="list-style-type: none"> Add paint to increase viscosity Adjust fluid or pattern adjustment knob
Heavy Center	<ol style="list-style-type: none"> Paint viscosity too high Fluid output too low 	<ol style="list-style-type: none"> Reduce viscosity Increase fluid output
Spit	<ol style="list-style-type: none"> Fluid nozzle and fluid needle set are not seated properly. The first stage travel of trigger (when only air discharges) decreases. Paint buildup inside air cap set. 	<ol style="list-style-type: none"> Clean or replace fluid nozzle and fluid needle set. Replace fluid nozzle and fluid needle set. Clean air cap set.

TECHNICAL SPECIFICATIONS

Fluid Nozzle	1.0 mm	Air Consumption	7 cfm (200 L/min)
Feed Type	Side Gravity	Fluid Output	115 mL/min
Fluid Capacity	8.5 oz. (250 ml)	Air Inlet	1/4" NPS
Container Type	Side detachable cup	Fluid Inlet	1/4" NPS
Pattern Width	1 1/2" (280 mm)	Working Pressure	30 ~ 45 psi
Weight	1.3 lbs. (0.58 kgs)		

WARRANTY

All Grex spray guns are warranted against manufacturing defects of material and manufacture or workmanship for a period of ONE year from the original date of purchase. This warranty does not cover fluid needles, fluid nozzles and o-rings since these parts need to be replaced occasionally due to normal wear. Any parts of the product covered under this warranty will be repaired or replaced at our option, which after examination proves to be defective in workmanship or material during the warranty period.

This warranty does not apply to repair or replacement parts required due to misuse, abuse, normal wear and tear or repairs and alterations attempted. In no event shall Grex be liable for any indirect, incidental, or consequential damage from the sales or use of this product. This disclaimer applies both during and after the term of this warranty.

This is the only warranty and our company makes no warranties express or implied, including merchantability and fitness for a practical purpose, after the one year term of this warranty.

This limited warranty gives you specific rights and you may also have other rights, which vary from state to state.



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