

ATC - ATG GUN INSTRUCTIONS

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CAUTION: Always wear proper safety equipment (glasses, respirator, gloves, etc.) when working on spray equipment.

FEATURES OF THE AT SERIES ACTUATED GUNS

There is basically one adjustment on the gun. This is the air refinement adjustment. All adjustments of needles, etc. have been taken out of the gun. The AT series guns are “air trigger” guns. Air is moved into two chambers in which are located two pistons. The air moves the pistons forward or backward depending on the position of the trigger, e.g. on or off. These air pistons in turn are attached to the needle assemblies. This actuation is what opens and closes the valves. The response is instantaneous. There is no lead or lag of catalyst spraying without resin or vice-versa.

The seat, diffuser, and packing arrangement are built into a cartridge assembly for service, adjustment or replacement. The cartridge is removed from the front of the gun.

The catalyst valve is the same unique, patented design as on our previous guns. It is also removable from the front of the gun.

The air valve for triggering the gun is a 4-way air valve that works the same as the catalyst valve. A rod spool design with three O-rings opens and closes the air passages to the pistons.

The AT series guns are the most advanced state of the art guns introduced to the composites industry. Magnum Industries has given customers what they asked for - a simple gun with low maintenance, few adjustments, and superb quality. This gun will help give you a superior finished product along with few problems and a long life of service provided you **do not soak the gun in acetone.**

Additional benefits will be seen as the needles are kept out of the spraying atmosphere and enclosed inside the gun. No more sticking needles!!! The air section and the fluid section of the gun are separate avoiding the possibility of fluid in the air section. The guns are light weight, well balanced and feature the patented air assisted airless design.

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BASIC TROUBLE SHOOTING GUIDE FOR MAGNUM SYSTEMS Air Assisted 'AT' Guns

Problem	Possible Causes	Recommended Solution
Air leaking from exhaust port on back of handle while trigger is in OFF position.	O-ring material worn or cut.	Replace O-rings.
	O-rings on catalyst piston worn or cut.	
	O-rings on trigger valve worn or cut.	
Air leaking from exhaust port on back of handle while trigger is in OFF or ON position.	O-rings on trigger valve worn or cut.	Replace O-rings.
	O-rings on Catalyst Valve and/or Material Piston worn or nicked.	
Catalyst leaking from catalyst tip while gun is sitting, not being triggered.	O-rings on catalyst valve worn or cut.	Replace O-rings.
Catalyst leaks from weep hole on catalyst side of gun.	O-rings on catalyst valve worn or cut.	Replace O-rings.
No catalyst is coming from gun.	Catalyst air piston is not actuating.	Check for clogged catalyst air passages (small holes underneath back cylinder) Note: There is more than one passageway from holes.
	Plugged catalyst restrictor (allen screw with orifice located in front of catalyst valve).	Clean and clear orifice in front of catalyst valve.
	Plugged catalyst passageway in head of gun or catalyst tips.	Inspect, clean and clear passageways.
	No catalyst flow to gun.	See "Slave Pump – Trouble Shooting."
Material is leaking from tip (front of gun)	Loose diffuser seat.	Tighten diffuser seat ¼ to ½ turn at a time until snug and then one more ¼ turn. Over tightening of diffuser seat may cause binding of material needle.
	Worn needle and/or seat.	Replace worn items.
	O-ring on diffuser nicked or cut.	Replace O-ring.
Material leaking from weep hole on material side of gun.	Loose diffuser seat.	Adjust until snug. Then turn ¼ to ½ turn more. Don't over tighten.
	Worn needle packing.	Replace packing and adjust as indicated above.

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ASSEMBLY:

For your convenience, your Magnum Spray System has been mostly pre-assembled at the plant.

The only assembly required for the unit is as follows:

1. Assemble mast and pump assembly onto cart if applicable.
2. Assemble Boom assembly onto mast. Use caution and additional labor to avoid injury or tipping of the entire unit.
3. Route the attached hoses as shown on schematic.