



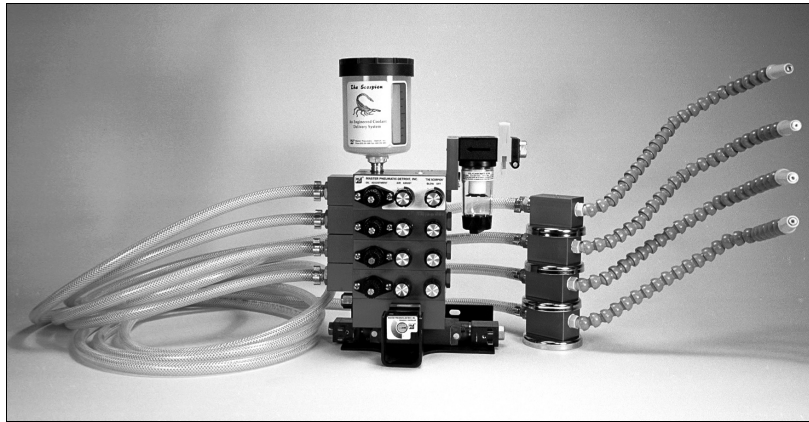
80, 83, 85 The Scorpion Stuffer

MASTER PNEUMATIC - DETROIT, INC.

6701 -18 Mile Rd. | Sterling Heights, MI 48314 | Phone: (586) 254-1000 | Fax: (586) 254-6055 | Email: mp@masterpneumatic.com

Orig Date: Unknown

Rev B: 11-14-03
(ECN 3782)



Thank You!

You have just purchased a premium quality precision coolant delivery system from Master Pneumatic.

With care in it's installation and maintenance, you can expect it to have a long and economical service life. So before you go any further, please take a few minutes to look over the information in this folder. Then save it for future reference and for the useful service information it contains.

Installation Instructions

Mounting to Machine

1. Locate a place on your machine to mount **The Scorpion** so that the nozzle will reach the workpiece, the controls are within reach, and the reservoir can be filled without obstruction.
2. Place **The Scorpion** on your chosen mounting location and mark the (2) oval shaped holes which are located on the back flange of the mounting plate.
3. Drill holes for 1/4 inch screw in center of each mark.
4. Mount unit to machine using (2) 1/4 inch screws.

Installing the Reservoir

1. Using a pipe thread sealant, apply sparingly to 1/4 inch male pipe thread located at bottom of the reservoir, making sure to keep compound off of leading thread.
2. Remove plug from 1/4 inch female pipe thread located on top of **The Scorpion**.
3. Screw reservoir into hole just enough to engage threads.
4. **CAUTION: Do not attempt to tighten by hand!** Using the reservoir bowl or cover to tighten may damage the reservoir.
5. Finish tightening reservoir with 3/4 inch wrench **only on hex at bottom of reservoir** so label is in front and operator can see the reservoir fluid level. Do not over-tighten.

Air Supply

1. Locate the "inlet" port in front of the air filter attached to unit. Before attaching air supply, be sure that the yellow air shut-off gate on the filter is in the up position so that the word "closed" is visible above the inlet port.
2. Connect air supply to inlet port - 1/4 inch female standard - standard 60-120 psig - using 1/4 inch tubing or similar. NOTE: Units with multiple nozzles and blow-off features may require larger air volume.
3. Leave the yellow shut-off gate in closed position until ready to activate unit.



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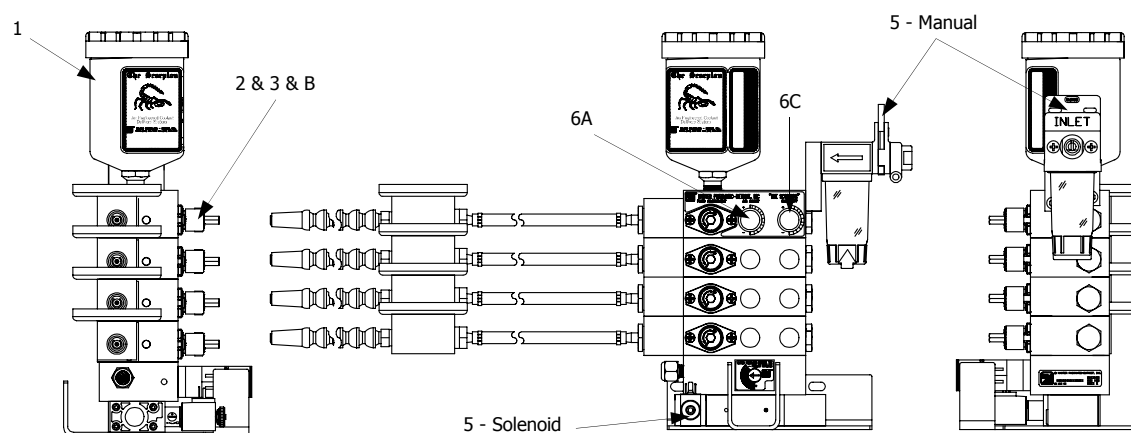
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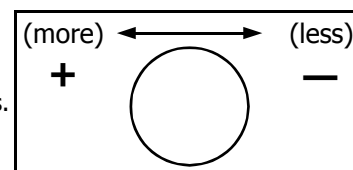
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Startup Procedure

- Fill the reservoir with **PneuCool** coolant (or your chosen coolant) using the proper mixture of concentrated coolant and water. Mixing instructions are located on label of coolant container.
- Locate the "coolant adjustment" knob on the front of the unit. **The Scorpion** is shipped **unlocked** from the factory.
- For initial start-up, the coolant volume should be adjusted to maximum. To achieve this, turn the knob clockwise until it stops - (do not over torque knob). Use the adjusting key to turn **counter-clockwise** 3-5 clicks and push knob in to lock.
- Turn the frequency generator counter-clockwise to maximize coolant delivery. This will facilitate priming the pump.
- Activate **The Scorpion** either manually or electrically (solenoid) depending on your choice of on/off control. **Manual:** Press down on yellow lockout gate located on air filter until word "open" appears underneath inlet port. **Solenoid:** The solenoid can be wired to an on-off switch or directly to the machine electrical control so that a power signal is activated when machine cycle is started and deactivated when cycle is finished. With the air inlet gate open, activate power source. The solenoid can also be activated manually by pressing the manual override button located on the solenoid.
- Adjust controls to desired settings.
 - Air assist:** Counter-clockwise for more air, clockwise for less air.
 - Frequency generator:** Counter-clockwise for more pulses per minute, clockwise for less.
 - Blow-off (if applicable):** Counter-clockwise for more air, and clockwise for less.
- Allow **The Scorpion** to cycle until coolant begins to spray from nozzle.
- Set the desired amount of coolant to be delivered on each pulse by turning the "coolant adjustment" control knob clockwise for more coolant, counter-clockwise for less.
- When desired amount of coolant is achieved, push the "coolant adjustment" control knob *in* to lock in place.
- Direct the nozzle so that the coolant will be applied to the workpiece where the tool will make contact.



The Scorpion is now ready to use...

The amount of coolant, the air-assist pressure, blow-off pressure and frequency control may vary depending on the type of machining material being machined, air inlet pressure, and length of cycle time.



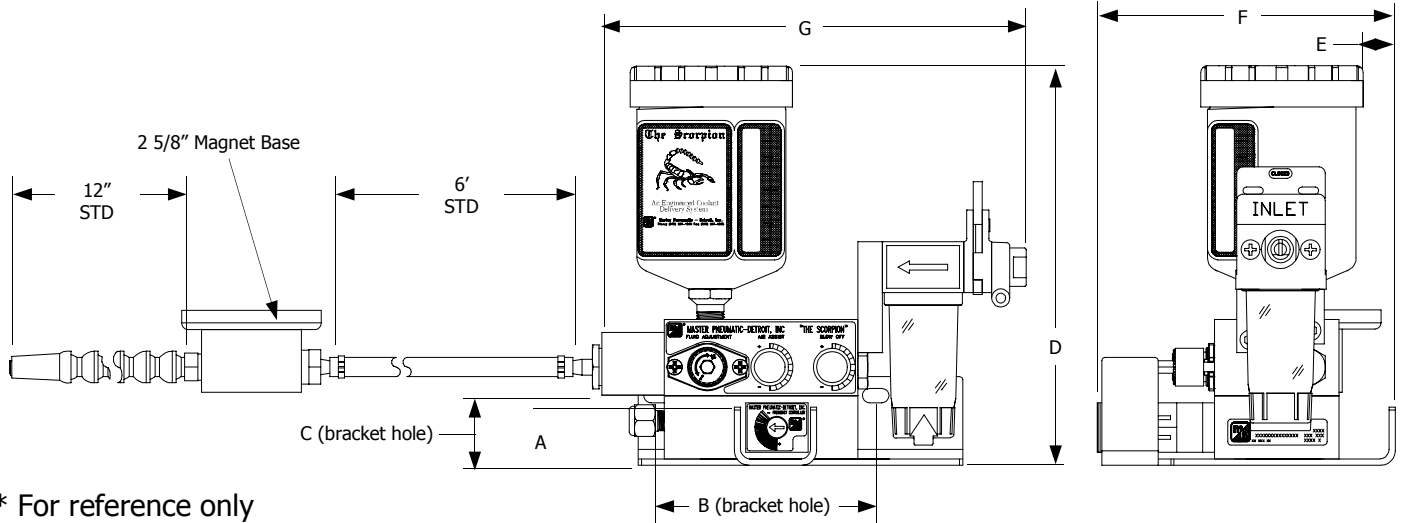
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Dimensional Specifications



* For reference only

DIM	Manual On/Off	Solenoid On/Off	Solenoid Blow off	Add Per Additional Nozzle Assembly
A	7/8	Same	Same	
B	4 - 3/8	Same	Same	
C	1 - 1/4	2	2	
D	7 - 3/8	9 - 1/8	9 - 1/8	1 - 1/4

DIM	Manual On/Off	Solenoid On/Off	Solenoid Blow off	Add Per Additional Nozzle Assembly
E	1/2	Same	Same	
F	5 - 15/16	Same	Same	
G	8 - 5/16	Same	Same	

General Specifications

Hose: 6-ft. length braided PVC. Longer or shorter hose available in 1-ft increments.

Nozzle: 12-inch flexible segmented plastic. 18-inch and 24-inch lengths also available. Copper nozzles also available.

Coolant output:

Injector	Output per Pulse
Std. 1 drop	0 - 0.027 ml
2 drop	0 - 0.060 ml

On/Off Control: Manual. Solenoid control with or without blow off feature also available.

Solenoid Voltages: (When used) 110 volts, 50-60 Hz; 220 volts, 50-60 Hz; 24 volts D.C.

Coolant Reservoir: Integral, Plastic; 10-ounce capacity standard; 1-quart, 2-quart, and 1-gallon capacities available. Also available without integral reservoir for use with 5-gallon remote reservoir.

Inlet Port: 1/4 NPTF. Also available are 1/8 NPTF, 1/8 BSPP, 1/4 BSPP.

Inlet Pressure: 60 - 120 psig.

Operating Temperature: 40° to 125° F.

SEVEN YEAR WARRANTY

Master Pneumatic warrants to the Purchaser that the equipment to be delivered will be free from defects in material and workmanship for seven years. This warranty does not cover normal service parts (such as filter elements) or parts that fail due to chemical attack, abuse, improper service, or improper use. The foregoing warranty is exclusive and in lieu of all other warranties whether written, oral, expressed or implied. There is NO WARRANTY OF MERCHANTABILITY OR FITNESS OF PURPOSE. If it appears within seven years from the date of shipment by the Company that the equipment has not met the warranties specified above and the Purchaser notifies the Company promptly, the Company shall correct any defect, at its option, either by repairing any defective part or parts or by making available at the Company's plant a repaired or replacement part.

Except as otherwise specified by the manufacturer, these products specifically designed for compressed air service. Use with any other fluid must be approved by Master Pneumatic-Detroit, Inc.

In no event will Master Pneumatic-Detroit, Inc. be liable for business interruptions, loss of profits, harm, injury, damage, personal injury, cost of delay, or any other special, indirect, incidental, or consequential losses, costs, or damage.



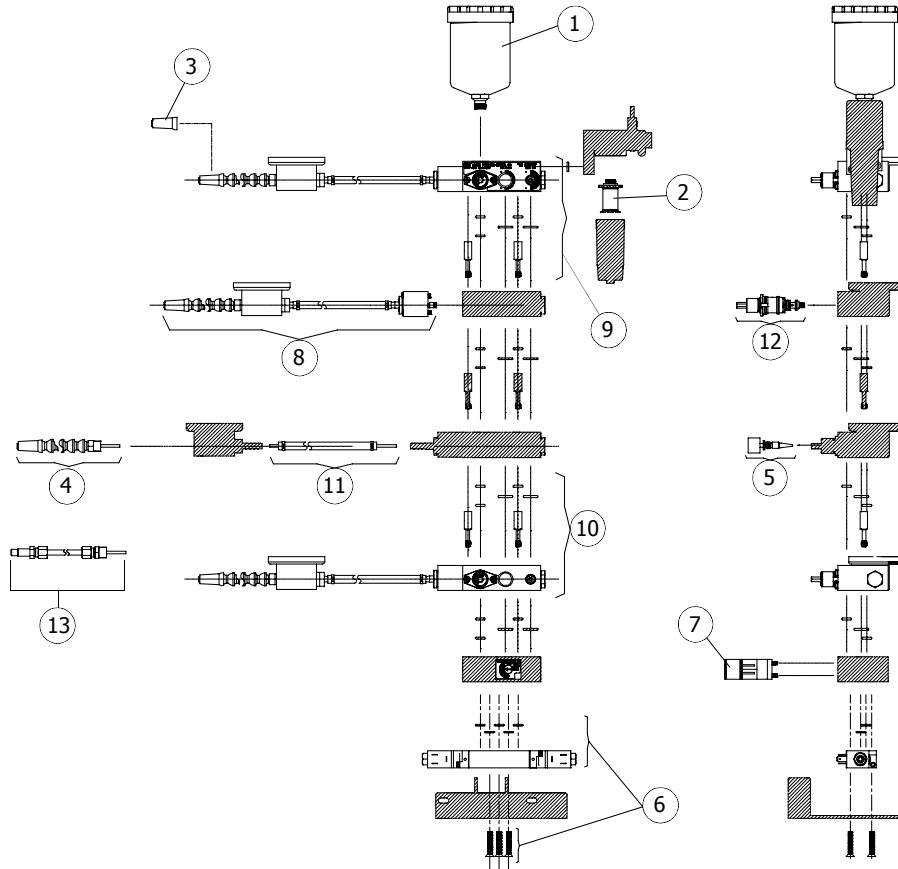
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Repair Kits / Replacement Parts



KEY	DESCRIPTION	8001	8002-8004	8301	8302-8304	8501	8502-8502
1	RESERVOIR	M476RP	SAME	SAME	SAME	SAME	SAME
2	FILTER ELEMENT KIT	KA130-27PE5	SAME	SAME	SAME	SAME	SAME
3	NOZZLE END CAP ASSEMBLY	A556-133	SAME	SAME	SAME	SAME	SAME
4	NOZZLE ASSEMBLY	A556-134-*	SAME	SAME	SAME	SAME	SAME
5	FLOW CONTROL NEEDLE ASSEMBLY	A556-127	SAME	SAME	SAME	SAME	SAME
6	SOLENOID VALVE KIT (CONSULT FACTORY)	NONE	NONE	0	0	0	0
7	FREQUENCY GENERATOR KIT (FREQ/LABEL)	A456-117	SAME	SAME	SAME	SAME	SAME
8	NOZZLE HOSE ASSEMBLY	A556-113-*N@	SAME	SAME	SAME	SAME	SAME
9	TOP PLATE MANIFOLD ASSY KIT	A556-125-*N@	A556-125-*N@	A556-130-*N@	A556-130-*N@	A556-108-*N@	A556-108-*N@
9A	TOP PLATE MANIFOLD ASSY KIT - 2 DROP	A556-125B-*N@	A556-125B-*N@	A556-130B-*N@	A556-130B-*N@	A556-108B-*N@	A556-108B-*N@
10	MID PLATE MANIFOLD ASSY KIT	NONE	A556-129-*N@	NONE	A556-129-*N@	NONE	A556-128-*N@
10A	MID PLATE MANIFOLD ASSY KIT - 2 DROP	NONE	A556-129B-*N@	NONE	A556-129B-*N@	NONE	A556-128B-*N@
11	TUBING HOSE ASSEMBLY	A556-119-@	SAME	SAME	SAME	SAME	SAME
12	ADJUSTMENT ASSEMBLY KIT	A556-11M-1	SAME	SAME	SAME	SAME	SAME
13	COPPER NOZZLE ASSEMBLY	A556-134-C*	SAME	SAME	SAME	SAME	SAME

* Nozzle length in 1" increments @ Hose length in 1 foot increments