ISO-9001:2008 / ISO-14001:2004

SEP. 2013

Innovative Stylish Dynamic

Back Pressure Regulator

For use in a high pressure spray circulating system to regulate back pressure to gun(s) and maintain proper pressure for circulation.

HASCO Character

HACORI

SPRING OPERATE FLUID PRESSURE REGULATOR

<< Standard

CARBON STEEL REGULATOR A67000

3000 psi (21 MPa, 207 bar) Maximum Working Pressure 1000-3000 psi (70-207 bar)
Regulator Fluid Pressure Range

HASCO
www.ehasco.com

Table of Contents

1. Symbols

• Warning Symbol

⚠ WARNING

This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

• Caution Symbol

⚠ CAUTION

This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

⚠ WARNING

1-1 EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are not sure, call your HASCO distributor.
- Do not alter or modify this equipment.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. Refer to the **Technical Data** on page 9 for the maximum working pressure of this equipment.
- Use fluids and solvents which are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer' s warnings.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose HASCO hoses to temperatures above 180℉ (82℃) or below -40℉ (-40℃).
- Wear hearing protection when operating this equipment.
- Do not lift pressurized equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.

2. Warnings

⚠ WARNING

2-1 INJECTION HAZARD

Spray from the gun, leaks or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid splashed in the eyes or on the skin can also cause serious injury.

- Fluid injected into the skin might look like just a cut, but it is a serious injury. **Get immediate medical attention.**
- Do not stop or deflect leaks with your hand, body, glove or rag.
- Keep your hands away from the end of the drain valve when opening it.
- Lock the gun trigger safety when you stop spraying.
- Follow the **Pressure Relief Procedure** on page 7 if the spray tip clogs and before cleaning, checking or servicing the equipment.
- Follow the **Pressure Relief Procedure** on page 7 before removing the regulator' s adjusting knob.
- Do not pressurize the system when the back pressure regulator' s adjusting knob is removed.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn or damaged parts immediately. Do not repair high pressure couplings; you must replace the entire hose.
- Use only HASCO approved hoses. Do not remove the spring guard that is used to help protect the hose from rupture caused by kinks or bends near the couplings.

2-2 TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.

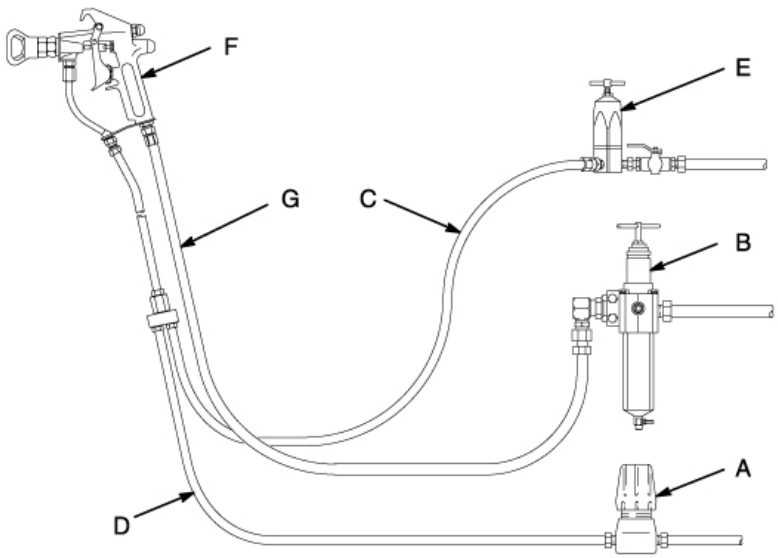
3-1 INSTALLATION

The Typical Installations shown in Figs. 1 and 2 are only guides in designing a system. For assistance in designing a system to meet your needs, contact your distributor.

- Install the back pressure regulator (A) in the spray gun return line (D). See Figs. 1 and 2.
- Connect fluid lines to the 1/4 pt(f) inlet and outlets of choice. Make sure the fluid flow agrees with the IN and OUT markings on the regulator housing.
- Install the accessory gauge, if used, in the optional inlet.
- If more than one spray station is used, install a back pressure regulator (A) in the circulating line(H) after the last spray station to maintain proper system pressures. Refer to Fig. 2, for multiple circulating spray stations.

* NOTE : The two mounting holes on the side of the regulator housing are for mounting the regulator when flexible fluid lines are used

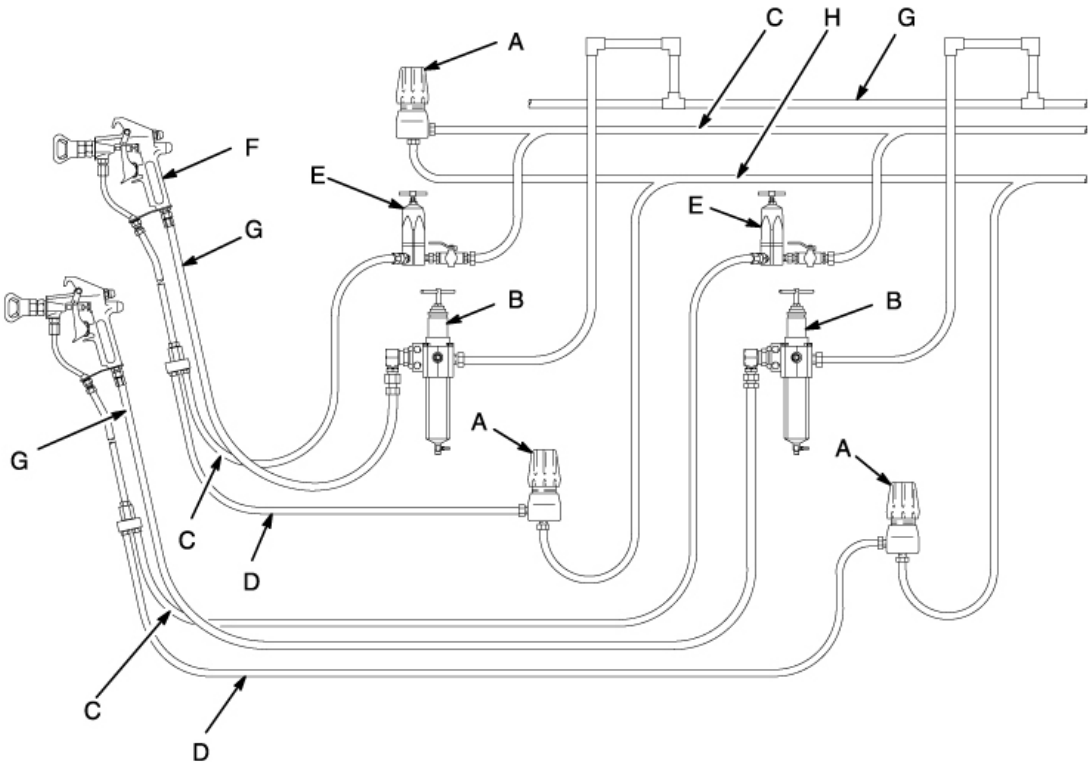
3-2 SINGLE CIRCULATING SPRAY STATION



KEY	
A	Back Pressure Regulator
B	Air Filter/Regulator
C	Fluid Supply Line
D	Fluid Return Line
E	Fluid Regulator
F	Air-Assisted Airless Spray Gun
G	Air Line

<Fig. 1>

3-3 MULTIPLE CIRCULATING SPRAY STATION



<Fig. 2>

KEY	
A	Back Pressure Regulator
B	Air Filter/Regulator
C	Fluid Supply Line
D	Fluid Return Line
E	Fluid Regulator
F	Air-Assisted Airless Spray Gun
G	Air Line
H	Fluid Circulation Line

4. Operation

4-1 PRESSURE RELIEF PROCEDURE

⚠ WARNING

INJECTION HAZARD

The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, splashing fluid, or moving parts, follow the Pressure Relief Procedure whenever you

- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- or install or clean the spray tip.

1. Lock the gun trigger safety.
2. Close the bleed-type master air valve (required in your system).
3. Unlock the gun trigger safety.
4. Hold a metal part of the gun firmly to the side of a grounded metal pail, and trigger the gun to relieve pressure.
6. Open the drain valve (required in your system), having a container ready to catch the drainage.
7. 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.

4-2 ADJUSTING THE REGULATOR

- The back pressure regulator controls pressure ahead of the regulator intake.
- To adjust the regulator, first, back the adjusting knob out until there is no spring pressure. Then, turn the knob clockwise to increase pressure.
- Adjust the pump air pressure and the back pressure regulator for the best spraying combination and proper circulation of fluid.
- Record the regulator and air pressure settings for future reference. The regulator cylinder has exterior markings (set points 1 to 8) for repeat settings

5. Maintenance

5-1 COMPONENT RUPTURE HAZARD

⚠ WARNING

To reduce the risk of serious bodily injury, including fluid injection or splashing in the eyes or on the skin, always follow the Pressure Relief Procedure on page 7 before adjusting, cleaning, repairing, or removing the regulator from the system.

- Never pressurize the system with the back pressure regulator adjusting knob removed.
- Never completely remove the adjusting knob when system pressure is present.

5-2 FLUSHING

Flush the regulator whenever the rest of the system is flushed. Before flushing, open the regulator by turning the adjusting knob counterclockwise until the spring tension is relieved.

* NOTE: Do not allow paint or solvent to set in the system for a long time. Fluid could dry on the piston, causing leakage at the piston packing. If leakage occurs, disassemble and clean the regulator.

5-3 CLEANING

Regular cleaning and inspection, and lubrication of the regulator are necessary to keep the regulator working properly.

1. Open the regulator and follow the Pressure Relief Procedure on page 7.
2. Remove the back pressure regulator from the system.
3. Disassemble the regulator, referring to the parts drawing on page 9. Clean and inspect all parts.

⚠ CAUTION

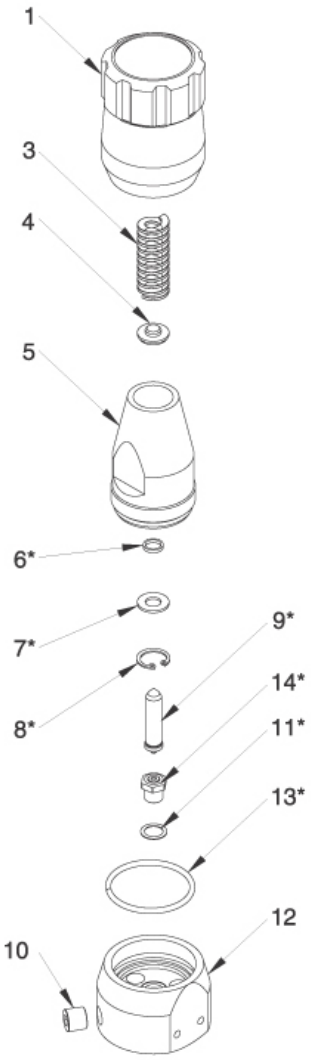
Use special care when handling the hard carbide portions of the piston (9*) and seat (14*). Damage will cause poor operation and leakage.

5-4 REPAIRING

Reference numbers marked with an asterisk (for example,*) are included in the repair kits, which may be purchased separately.

1. Lubricate the piston packing (6*), piston (9*), and spring locater (4) with lithium base grease.
2. Place the washer (7*) over the pointed end of the piston (9*).
3. Place the packing (6*), with its lips facing down, over the pointed end of the piston (9*) and against the washer (7*).
4. Insert the piston (9*) into the bottom of the cylinder (5) and gently work it into place.
5. Reassemble the remaining parts in reverse order of disassembly. Make sure the gasket (13*) and o-ring (11*) are in place. Torque the regulator seat into the housing to 175 to 200 in-lb (20 to 22 Nem). Over-tightening could break off the hex portion of the seat.

6. Parts



A67000			
No.	Part No.	Description	Qty
1	A67001A	KNOB (AL,RED FOR B.P.R)	1
3	A67003	SPRING	1
4	A67004	LOCATER (SPRING)	1
5	A67005	CYLINDER	1
6*	A61006	U-PACKING (CARBON)	1
7*	A67007	WASHER (TEFLON)	1
8*	A61008	SNAP RING	1
9*	A67009	PISTON (VALVE,STS)	1
10	G74002	PLUG (1/4" NPT)	2
11*	A67011	O-RING (TEFLON)	1
12	A67012	HOUSING	1
13*	G50024	GASKET (COPPER,CU)	1
14*	A67014	SEAT (STS)	1

* Repair kit RA67000 : Consisted of A61006(No.6*), A67007(No.7*), A61008(No.8*), A67009(No.9*), A67011(No.11*), G50024(No.13*), A67014(No.14*) These parts are included in the repair kits which may be purchased separately.

7. Technical Data

Category	Data
Maximum Fluid Inlet Pressure	3000 psi (21 MPa, 207 bar)
Maximum Flow Rate	3.5 gpm (13.25 liters/min) with 70 centipoise fluid at 75℉ (23℃)
Fluid Inlet	3/8 pt(f)
Fluid Outlet (two)	1/4 pt(f)
Wetted Parts	Tungsten carbide, PTFE, cadmium and zinc-plated steel, 6000 Series Aluminum

MEMO

MEMO

Warranty and Limitations

Warranty General

All HASCO products have a one year guarantee from the invoice date, unless otherwise stated in writing.
The warranty covers all manufacturing faults and material defects. Any spare part replacement or repair operations are covered only if they are carried out by our authorized distributors. This warranty covers when the equipment is installed, operated and maintained in accordance with HASCO's written recommendations. HASCO shall not be liable for, any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of Non-HASCO component parts.
This warranty is conditioned upon the CARRIAGE PAID return of the equipment claimed to be defecive to an authorized HASCO distrbutors for verification of the claim. If the claimed defect is verified, HASCO will repair or replace free of charge any defective parts. This components will be returned to the original purchase CARRIAGE PAID 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.

The Warranty does not cover

- Damage or breakdown caused by improper use or assembly.
- Damage or breakdown caused by the use of spare parts that are different from the original or recommended ones.
- Damage or breakdown caused by bad preservation.
- **Components subject to wear(described in parts list) Warranty Forfeiture:**
- In case of delayed payment or other contractual defaults.
- Whenever changes or repairs are carried out on our equipment without prior authorization.
- When the serial number is damaged or removed.
- When the damage is caused by improper use or functioning, or if the equipment falls, is bumped or by other causes not due to the normal working conditions.
- Whenever the unit disassembled, tampered with or repaired without the authorization of HASCO.

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