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Power Injection Gun - SG 400

Item	Qty	Part No	Description
	1	SG 400	Power Injection Gun
	1	SG 401	Power Injection Gun with abrasive container and carrier
1	1	SG 402	Gun Housing
2	1	SG 403	Power Nozzle
3	1	SG 404	Mixing Chamber
4	1	SG 405	Air Jet
5	1	SG 406	Abrasive Feeder
6	/m	SG 407	Suction Hose for Abrasive
7	/m	SG 408	Air Hose
8	2	SG 409	'O' clip for Suction Hose
9	1	SG 410	'O' clip for Air Hose
10	1	BW 4	3/4" coupling & clamp
11	6	FAS M5 50	Grub Screw
Operating Limits			
Max working Pressure:		7 bar (100 psi)	
Abrasive:		All media with size <1.5mm	
Max suction hose Length using Steel Grit (size <0.8mm):		Tests prove an adequate performance at a suction length of up to 10m with a suction height of 4m and a blast pressure of 7bar (100 psi)	

Air Consumption

Working Pressure	Bar	3	4	5	6	7
	Psi	44	58	73	87	100
Air Consumption	M ³ /min	2.4	3.0	3.6	4.2	4.8
	CFM	85	106	127	148	169

IMPORTANT NOTICE FOR SAFER AND MORE PRODUCTIVE BLAST CLEANING

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| <ol style="list-style-type: none"> 1. Use protective equipment:- abrasive resistant clothing, safety shoes, leather gloves, ear protection, approved air-fed helmet and air filtration system. 2. Do not blast with damaged or worn equipment. 3. Point nozzle only at area being cleaned. 4. Use only abrasives specifically approved for blasting. 5. Keep unprotected workers out of the blast area. | <ol style="list-style-type: none"> 6. Before blasting:
Check fittings and hose for wear.
Use safety hose restraint
Check helmet filters and air supply.
Test controls. 7. Use only Clemco genuine spares without modification |
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Setting up instructions

- 1.1 Ensure that all connections are securely located and check all components for sign of wear.
- 1.2 Securely connect the air supply hose to a suitable sized compressor, ensuring that the hose diameter is large enough to avoid undue pressure loss. For optimum efficiency the air supply hose should be as short as possible.
- 1.3 Place abrasive feeder directly into abrasive ensuring the air inlet holes are kept clear.

Operating Instructions**Warnings:**

1. The operation of this equipment can generate noise levels which can be damaging to the ears. It is essential that the operator and all other personnel in the vicinity be made aware of this and that suitable ear defenders are worn.
2. Abrasive ricochet and dust levels generated from the blast cleaning operation can be dangerous and all personnel within the area must wear adequate protection.
Signs warning of these dangers must be positioned around the perimeter of the blasting operation and measures must be taken to ensure that no one enters the area of the blasting operation without permission and without adequate safety protection equipment. Should anyone enter the area the blasting operation should cease immediately.
3. Static may be generated by this unit therefore electrical earth continuity should be maintained

- 2.1 Turn ON the compressed air supply to the suction gun at the compressed air supply outlet valve.
- 2.2 Refer to the helmet manufacturer's instructions and turn ON the breathing air supply to the helmet.

Warning: It is essential that all connections on the helmet air hoses are secured. Under no circumstances must the helmet be used until the air supply has been turned on and found to be entering the helmet in the required volume and quality.

- 2.3 The blasting operator must now don protective clothing, sturdy gauntlets, ear defenders and air fed helmet.
- 2.4 Ensure that all personnel within the vicinity are adequately protected and warning signs in position.
- 2.5 The operator must first check that no one has entered the marked area of the operation and then firmly take a secure hold of the suction gun, at all times directing the nozzle at the work surface.

Warning: A back thrust is created by the action of compressed air passing through the nozzle. Therefore the operator must ensure he has adopted a safe stance and position and must maintain firm hold of the blast gun.

- 2.6 Close the trigger and compressed air and abrasive will pass through the nozzle.
- 2.7 The adjustment knob on the rear of the gun can be used to alter the volume of air being used by the unit. Clockwise rotation of the knob reduces the volume of air.
- 2.8 Release the trigger and the blast stream will cease to pass through the nozzle.
- 2.9 Shut down procedure - pull out the abrasive feeder and blast the remaining abrasive from the suction hose.
- 2.10 Close the air supply valve.

Maintenance

For safety and efficiency, it is ESSENTIAL to operate a preventative maintenance programme. The degree of wear is variable and is dependent upon many factors:- type and grade of abrasive, air pressure, nozzle size, operator expertise etc and these factors should be taken into consideration when planning regular maintenance schedules. The following checklists are a basic guide to assist in planning maintenance programmes.

Warning: Ensure that the compressed air supply to the equipment is turned off and all airlines are purged of pressure and disconnected from the equipment before any maintenance work is carried out. Precautions should be taken to prevent accidental turning on of the compressed air supply.

Note: Maintenance should only be carried out by trained competent persons.

Maintenance Check List

- 3.1 Check condition of all air hoses, connections and gaskets for sign of wear and replace as necessary.
- 3.2 Nozzle. Replace the nozzle when its diameter has increased by more than 1.5mm, or sooner if suction diminishes noticeably.
- 3.3 Obstructions. If the material hose clogs, it can normally be cleared by the following method: Remove the abrasive feeder from the abrasive and point in a safe direction. Press the nozzle outlet hard against a flat surface to block the nozzle and then squeeze the trigger. Back pressure will blow air through the suction head, forcing the obstruction out of the suction hose.

Warning: Ensure that the air supply at the compressor is turned off and the air line is purged of pressure before repair work is carried out

- 3.4 Poor suction/blow back. If the gun has poor suction, check for adequate air supply and nozzle wear. If abrasive blows back through the abrasive feeder this is probably due to an air jet problem. The jet will be missing, worn out or too big.

Fault Analysis

Symptom	Probable Fault	Action Required
No air or abrasive passes through nozzle	Compressor not turned on. Valve seat not releasing.	Turn on compressor. Check action of trigger and valve seat.
Air but no abrasive passes through nozzle	Damp abrasive or large object restricting flow Insufficient air volume	Clean out hopper and/or material hose See 2.7
Intermittent flow of abrasive	Check air jet and mixing jet chamber nozzle wear	Change as necessary Check nozzle – see 3.2