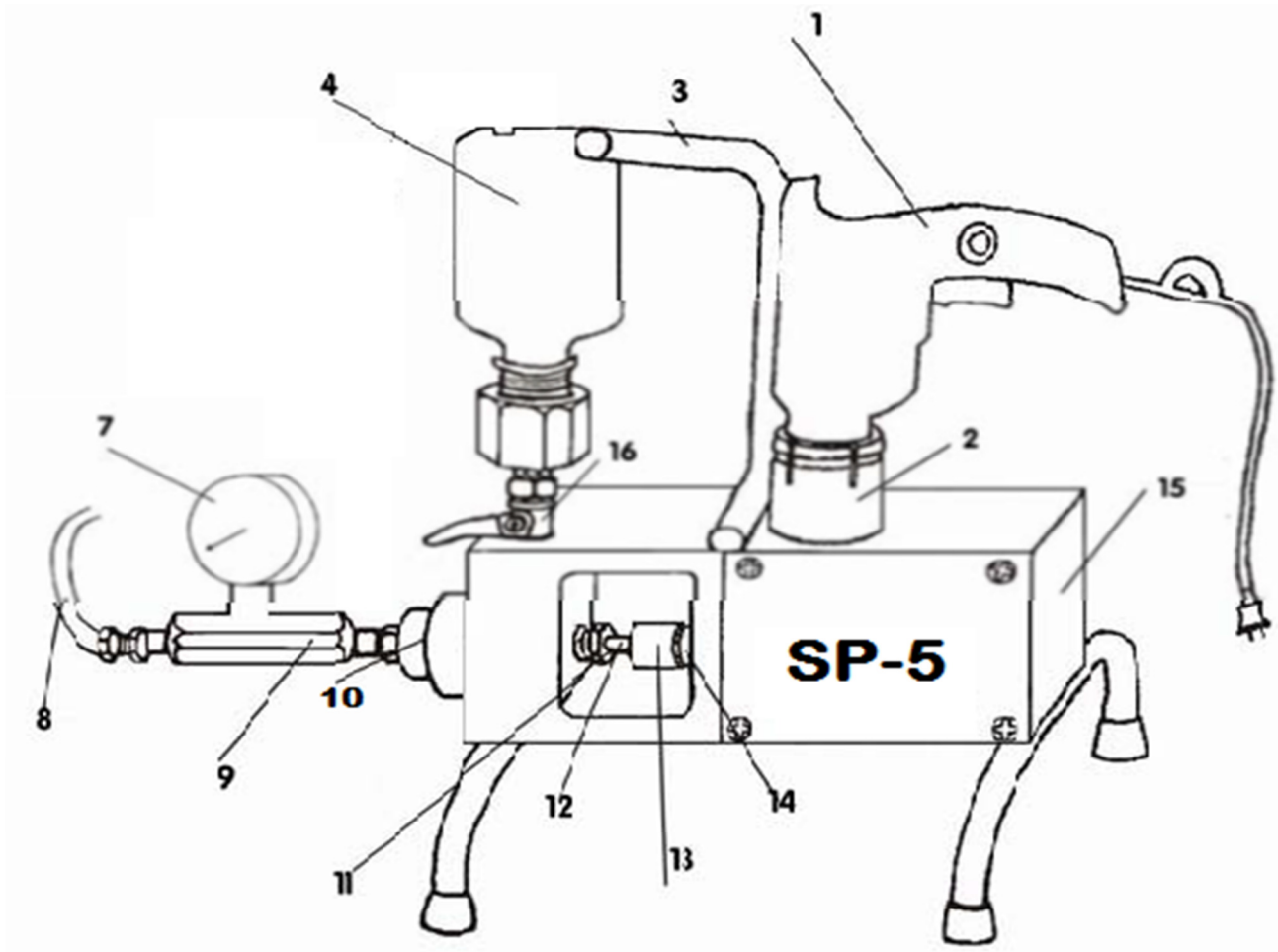




SP-5 Single Component Injection Machine



MACHINE STRUCTURE



1. Electric Drill 2. Electric Drill Fix 3. Lifting Handle 4. Inlet Tub 7. High Pressure Gauge
 8. High pressure hose 9. Four Direct Link
 10. Piston Fix 11-12. Piston 13. Copper Screw Cap 14. Piston Rod 15. Gear Case 16. On-off Valve

★ Chemical Injection Liquid for the leakage of construction work.

- a) Water-base (Hydrophilic) polyurethane grouting material
- b) Oil-base (Hydrophobic) polyurethane grouting material
- c) Epoxy resin grouting material

★ Machine operating pressure should not exceed 50Mpa, otherwise we cannot maintain it. And the working pressure always should fall within the yellow part of the high pressure gauge.

Machine Specifications :

No	Item	Standard
1	Appearance	Aluminum structure, modular design
2	Volume	450mm length * 500mm height * 230mm width
3	Drive power	220V、 50HZ、 26A、 560W
4	Maximum pressure	70Mpa / 10000psi / 680bar
5	Working pressure	20-40MPa / 2800-5600psi / 195-390bar
6	Injection performance	easy to inject, can use at low temperatures; single component grouting, simple construction, easy to clean up
7	Application range	subways, tunnels, reservoirs, underground structures, hair-like cracks, construction joints, expansion joints, cracks, site improvements, harbor construction, floor and other upgrading works.
8	sealing agent applied	water base polyurethane, oil base polyurethane, epoxy resin
9	Net Weight	7 KG
10	Gross Weight	9 KG
11	Package	carton

How to Safely use injection pump SP-5

1. Check to make sure the screws in all parts of the machine are locked tightly.
2. High pressure hose is connected with the coupler tightly, no oil leaking out.
3. There is an iron Teflon ring between piston and piston screw cap, and the function is to resist leaking. When there is leaking in this place, please adjust the screw cap of piston to a proper position.
4. Since the maximum momentary pressure of machine is more than 10000 psi (about 70Mpa), it is required to use high-pressure durable injection packer and spare parts to reduce the dangerous.
5. Please notice Polyurethane water stopper applied to this machine should not contain cement or sand or solid particles which will damage the machine. If any external substances penetrate the equipment, it may cause the defect.
6. Do not use low viscosity liquid or Water when doing test. Please use machine oil or hydraulic oils for testing.
7. The function of pressure adjustable valve is to control the injection pressure. You can set a pressure value to discharging to protect the machine. The suggest pressure adjust value is 40MPa. If for special injection, can consider to set at 50MPa for relief the pressure.
8. Stop operating the equipment for more than 1 minute after the 30 minutes' operation for the safe operation and preventing any anticipated overheat.
9. Special Notice,
 - 1) The working pressure of machine should not operate more than 50 Mpa, if over pressure, a, it will cause the gear shaft overload and damaged, b, the high pressure hose will easy broken
 - 2) It is prohibited to re-start the machine when the pressure is above 40Mpa. When operate injection construction, the re-start is only allowed when the pressure is back to less than 20Mpa.
 - 3) Make sure to wear the safety helmet, safety goggles, working uniform and safety mask all the times
10. Cleansing,
 - 1) The remained grouting resin in the machine and tube should be washed out by 200 ml acetone or xylene. Cycle for 5 minutes. Notice, since its low flame point of the detergent, make sure the machine is cooled when washing.
 - 2) Close the on and off valve of connector, knob the adjust pressure switch to zero, cleansing the residual pu material in the pressure adjustable valve part, cycle for 5 minutes.
11. After cleansing, use hydraulic oil to maintain the machine.

TROUBLESHOOTING

1. If there is no pressure or the pressure is too low, it may cause by
 - 1) The in and out material system is block up by solid particles.
 - 2) There is sand or remain curing material in the piston or piston fix part.

Method to work out

- 1) for situation1, just cleansing the block
- 2) for situation 2, open the three pcs screw of piston fix, clean the steel ball and spring
Or just replace them.

Notice, when fasten the screw, make sure fasten it at average level for the total 3 pcs. And please do not open other fix screws

2. Pressure adjustable Valve is plugged up, it may cause by not totally cleaned or there are solid particles in it. Just replace it. Notice, clean the machine in time.