P GROUT PUMP BY HAND WEBSITE: CODIENQPC.COM – GMAIL: <u>CODIENQPC@GMAIL.COM</u> HOTLINE: 024.6688.3332 – ZALO: 0941388.329



QPC.02 Grout Pump by Hand

NOTICES:

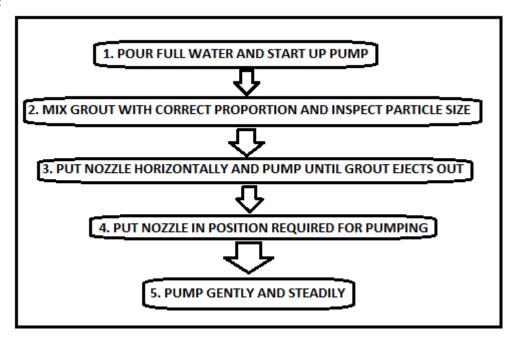
- Do not remove cylinder cluster if not ensuring to reassemble safely and correctly. If necessary, please contact the Hotline for more detailed instructions!
- Do not use pump to push grout with particle dimension over 1mm. If necessary, use pump with proper design for larger particles!

1. OPERATION INSTRUCTIONS

• Before operation:

Inspect to ensure tight joint, correct position of valves for smooth operation process.

• Operation:



- **<u>Step 1:</u>** Put nozzle at 45 degree and pour full water, then pump to start up the machine.
- **<u>Step 2</u>**: Stir and mix grout with correct proportion, sieve materials to ensure required size of the machine.

Grout requirements: Material size smaller than 0.5mm. Grout is loose enough, dense enough, not bleeding and not separated particles!



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- <u>Step 3:</u> Primer pumping process:

Hold nozzle on funnel, pour grout and pump until grout starts running out of the nozzle



- **<u>Step 4:</u>** Put nozzle at grout supply location to start pumping.



Step 5: Pump completely and steadily. Pushing routine shall not be so long. Regularly check fluidity of grout. It is possible to combine of both pumping and stirring grout



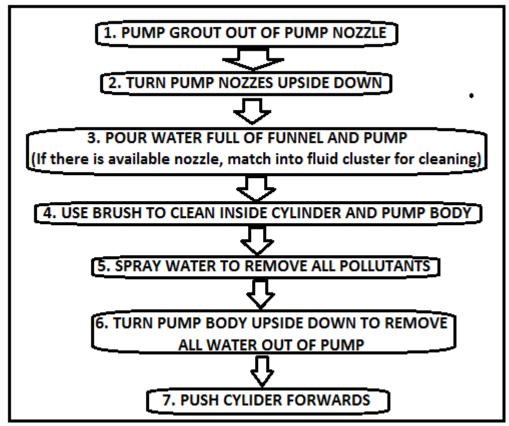
IMPORTANT:

- During operation process, when pressure defects occur, stop immediately then report to technicians to check the equipment
- When completing working shift: users need to clean the pump by flushing water and pushing the whole piston itinerary towards (this helps piston reject all remained grout attached in cylinder body)
- Before storing pump: Operator needs to pull arm at vertical state (arm perpendicular with the ground, piston in the middle of cylinder) to facilitate start-up of next shift.
- When pump is stored for long time and does not work: due to expansion and shrinkage of rubber piston and weak contact surface, first start-up process may be difficult. To handle it, first turn pump head upside down forwards, spray 3M lubricant to lubricate piston and inner cylinder until pump process is easier before pumping grout. Do not use machine oil or grease to lubricate.



3M – 08897 lubricant

- Requirements in machine operation:
- The machine shall ensure absolutely clean. When completing a working ship, clean the machine, especially in operating zone of cylinder and pump collar of 1-way valve. Avoid grout depositing to block circulation pathway of the pump and destroy mechanical system.
- Materials supplied to the machine shall ensure size below 0.5mm
- Grout amount shall meet minimum limit in grout funnel.



2. CLEANING AND MAINTENANCE INSTRUCTIONS

<u>Step 1:</u> *After completing, pump out all remained grout in the machine.*

<u>Step 2:</u> Turn pump nozzle upside down to remove all grout out of nozzle

<u>Step 3</u>: Pour water full of funnel and pump to remove all grout and water out. Discharge water and pump to remove all grout out.

<u>Step 4:</u> Use brush to clean inside cylinder and pump body.



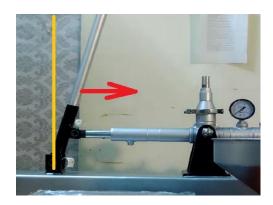
<u>Step 5:</u> Spray water and remove all grout. <u>Step 6:</u> Turn pump body upside down to remove all water out of pump

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<u>Step 7:</u> Push arm at vertical position perpendicular with the ground. Remove equipment, roll nozzle and store in warehouse.



NOTE:

- In long time, if the pump is not cleaned clearly during use process, the machine will clotted. User can use concrete auger to clean grout deposited in the machine.
- During operation process, the machine is mainly lubricated by water. During maintenance process, only use Silicon 3M 08897 lubricant. Do not use oil or grease to lubricate cylinder.



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Rubber softening lubricant: 3M - 08897

3. FREQUENT BREAKDOWN SETTLEMENT INSTRUCTIONS

PHENOMENON	REASON	SETTLEMENT
Pump is too	- Pump wall and piston	- Lubricate Silicon 3M lubricant to start pump again.
heavy to push	 has weak contact due to unused for long time. 1-way valve piggyback Fit wrong location of rubber ball at lower cluster. Cylinder wall is stuck with grout 	 Check whether 1-way valve and rubber stop ball are fitted in correct direction. If wrong, remove and fit again. If fitting correctly, it is noted that those machines working for the first time are usually accumulated pressure and have dry cylinders. Before working, the operator needs flushing by clean water and push for a certain time to lubricate cylinder system. For old machines to operate again, before operating, pour water to lubricate the system. If start-up process is still heavy, check whether grout is deposited in cylinder wall, cylinder axis is bent or not. Clean cylinder and lubricate before operating and check to align cylinder axis.
Pump but weakly and no pressure to push out grout	 Supplied grout quantity is insufficient Lack of rubber ball Lack of flange or rubber washer Tighten screw not tightly enough 	 Need to pour minimum quantity of grout to operate the machine Need to fit again with the correct order of rubber balls and enough 2 rubber balls in the machine Fit enough flanges, washers or replace by new washers for open washers Tighten screw tightly
Water leakage on pump	 Lack of washer Lack of flange 	 Need to fit enough rubber washer at 2 sides of flange
	,, ,	- Need to fit enough flange connecting clusters
Water running back to the end of cylinder body	 Screw fastening cylinder axis with piston (inside pump body) is loose. Rubber piston is worn out or cylinder is scratched. 	 Tighten screw fastening cylinder axis with piston tightly Replace new rubber piston and cylinder.

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INSTRUCTIONS

USE AND MAINTENANCE OF P-02 GROUT PUMP BY HAND



HANOI 2019