3HP Boost Pump

424661 – Pump,Goulds,3HP,208-230/460V

Hydro-Chem, Inc.
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Connection Size	2"
HP	3
Hz	60
Heads to (Feet)	Up to 1200
Motor Enclosure	TEFC PE
Nominal Flow (GPM)	53
Shaft Seal	Viton
Stages	3
Speed (RPM)	3500
Voltage	208/230/460

General Info

The purpose of this manual is to provide the necessary information to install and operate the Hydro-Chem equipment to exceed your defined expectation.

Installation & Set-Up

Typically, the Boost Pump is plumbed in line with 2" SCH80 PVC or copper after a Water Softener and before a Water Heater. In this instance, a hose bib is called for before the pump with a Pressure Reducing Valve (PRV) and gauge installed after the pump. The pump must be anchored securely to the concrete foundation utilizing the provided anchors. Once anchored, the motor adapter and coupling should be secured by positioning the provided shim below it and tightening the set screws on the coupling. Plumbing details and specifications specific to the system where the pump is being installed are in the HCS supplied MEP and should be referred to.

When starting the system, ensure that the pump has proper rotation. This is done by observing the motor fan or coupling through the coupling guard. Do not confuse the flow arrows on the pump body with the rotation arrows on the coupling and motor adapter. If the rotation is not correct, then the electrician shall reverse the legs of the power between the Pump Motor and the Starter to provide proper rotation.

Maintenance & Repair

To perform a mechanical seal replacement, a pump stack removal or a motor replacement – refer to the e-SV Instruction Manual for specific details and information.

Troubleshooting

Issue	Potential Cause or Solution
Motor Not Running	Is the thermal protector or overload tripped?
	Check for an open circuit breaker or blown fuse
	Check for impellers binding
	Motor may be improperly wired
	Is the motor defective?
Little To No Water Moved by Pump	Pump is not primed - air or gas in the line
	Is there a valve closed on the discharge side?
	Incorrect pump rotation - switch legs of power supply to the motor.
	Low voltage or phase loss
	Impellers may be worn or plugged
	Too high of system head
	Excessive suction lift or losses
Power Consumption is Too High	Check for impellers binding
	Check for worn bearings
	Discharge head too low / excessive flow rate
Excessive Noise and Vibration	Check for impellers binding
	Pump is not primed - air or gas in the line
	Is there a valve closed on the discharge side?
	Incorrect pump rotation - switch legs of power supply to the motor.
	Impellers may be worn or plugged
	Excessive suction lift or losses
	Discharge head too low / excessive flow rate
	The pump, motor or piping may be loose