



MSRP-B8



Multi-Stream Variable-Ratio Grout Pump

INTRODUCTION

The MSRP-B8 Multi-Stream, Variable-Ratio Grout Pump from Strata Tech is a high volume, variable pressure, air-powered grout pump. An MSRP (sometimes called a "rocker pump") is a grout placement tool capable of receiving two, three, or even four material inputs, moving the inputs in variable quantities through separate hoses, and then combining them to form a single injection material in a predetermined variable ratio at the point of application. The ratios of all the various input fluid streams can be changed in the field by the applicator as conditions warrant.

The heart of an MSRP pump is a rocking steel grid having several rails, each of which connects the power supply output shaft to the various pistons. Each piston can be of any appropriate displacement, but all pistons have the same maximum stroke length. Additionally, each piston may be moved to reposition it along the rails of the rocking grid. This movement changes that piston's stroke length and, therefore, changes the displacement of that cylinder.

By varying the diameters and the positions of the cylinders, a very broad range of ratios can be achieved among the fluids.

The output pressure/volume relationship of an MSRP is ultimately governed by the choice of the air motor, with Binks B-8 and B-10 motors being most common.

The MSRP-B8 Pump will move any chemical grout available today and will also handle some particulate grouts containing suspended solids. The MSRP is useful for a wide range of water control and soil stabilization applications, including grout curtains, stabilizing water-bearing soils, and sealing cracks or joints in concrete walls, buildings, dams and utility vaults. For higher pressure and volume requirements, the B-10 may be indicated.

The MSRP-B8 uses stainless steel in the wet ends of the pump and for many of its fittings. Stainless steel is recommended for long-wearing parts. Most Stratathane grout materials are not much more corrosive than water. Cleanup of solidified material in the system, however,

sometimes requires caustic cleaning compounds, making stainless steel advisable.

DESCRIPTION

The standard MSRP component list is as follows:

- 1 ea Binks B-8 air motor
- 2 ea D fluid pump assembly
- 1 ea Slave Fluid Pump #5 with stainless check balls
- 1 ea Rocker Frame with cage
- 1 ea large wheel kit
- 1 ea Caster wheel kit with brakes

The MSRP-B8 Multi-Stream Pump includes a cart mounted Binks B-8 fixed ratio power head. The standard configuration is equipped with one "A"-sized and two "D"-sized wet ends. Maximum inlet pressure is 150 psi. Output pressures vary depending upon the grout mix ratio being placed and air inlet pressure. Some approximate values for 100 psi inlet air pressure are found on the following table.

OUTPUT AT 100 PSI INLET AIR

GROUT RATIO	OUTPUT GPM	B8 MAX PSI OUT	B10 MAX PSI OUT
1:1	4.7	1850	2900
2:1	3.5	2470	3875
4:1	3.3	2195	3440
8:1	5.2	1645	2580
12:1	5.1	1700	2665
15:1	5.0	1730	2700
20:1	4.8	1760	2760
NEAT	2.3	3700	5800

The combinations of wet ends will produce several different output ratios, including 12:1 (A-DD) and 1:1 (D-D). Fluid output is a rated four g.p.m. at 60 pump cycles per minute. The pump is equipped with an air regulator assembly, three 4' x 1" intake hoses with pail siphon tubes, and three 4' x 1/2" fluid recirculating hoses with pail tubes.



The unit also includes two fluid outlet manifolds with 3000 psi fluid-filled gauges, ball valves for fluid supply or recirculating, and quick-disconnect fittings at all points required. Another fluid outlet manifold contains the same trim plus a stainless steel pressure relief valve and a wye adaptor assembly.

The discharge detail includes a 50' x 3/8" high pressure hose with quick disconnects and a 50' x 1/2" high pressure hose similarly fitted. The unit also comes with a packing nut wrench. Each unit is fully assembled and pressure tested prior to crating and shipment.

SPARE PARTS

The MSRP-B8 Multi-Stream Pump is assembled primarily from components made by major pump manufacturers, including Graco, Inc. and Binks. Repair parts are available from Strata Tech, but the use of assemblies from these major manufacturers helps assure that spare parts will be available nearby in the event of an unforeseen breakdown.

Certain spare parts and consumables are recommended for inclusion with each unit at the time of shipment. A few of these are listed below. Others may be advisable depending on the application and the work site location. If in doubt, discuss your situation and site requirements with your Strata Tech sales representative.

QTY PART DESCRIPTION

- 2"D" Cylinder Minor Repair Kit
- 1"A" Cylinder Minor Repair Kit
- 1Hose - 25' x 3/8"
- 1Hose - 25' x 1/2"
- 1Gauge - 3000 psi
- 1Wye Assembly

CLEANUP

Grout should not stand in equipment more than 12 hours without precautions because the possibility of moisture contamination is high. Flush equipment with ST-590 purging fluid and ST-522 Cleaner soon after use. Check solvents for water content prior to use.

When using solvents during cleanup, extinguish all ignition sources and observe proper precautions for handling such

materials. For cleanup of cured resins, soak in a 100% solution of ST-522 Veri-Kleen Grout Cleaner using a covered polyethylene container. Grout spills on clothing are permanent, so disposable coveralls are recommended.



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STATEMENT

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