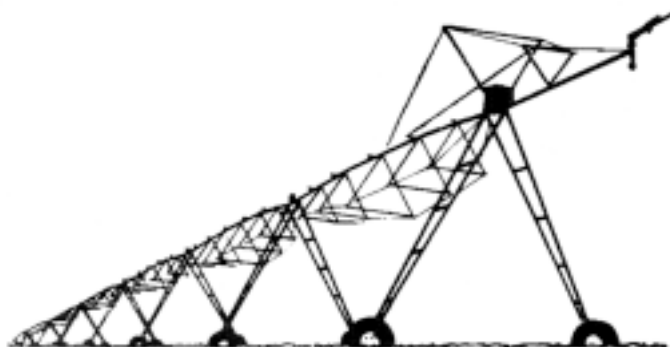


innovation in irrigation™

NELSON

PIVOT GUN CONTROL VALVE

800P CONTROL VALVE — SR100 BIG GUN®

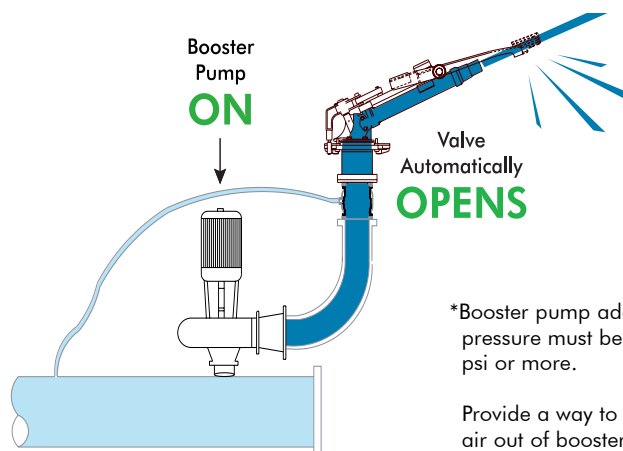
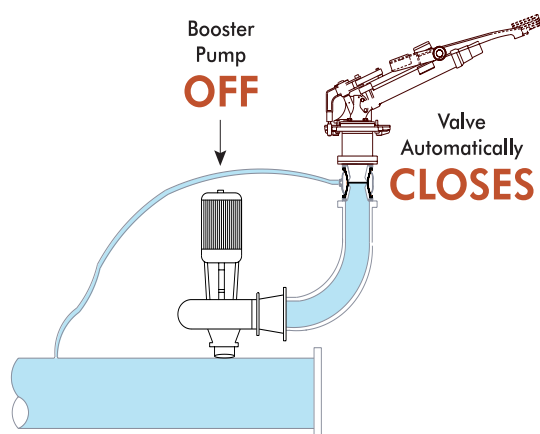


No solenoid for this gun-control.*

* When a booster pump is used.

PRINCIPLE OF OPERATION

The 2" valve is normally closed. When the booster pump is turned on, the added pressure* causes the valve to open operating the gun. No other accessory is needed. The small amount of water in the sleeve chamber (about 1/2 cup) is forced back into the system. When the booster pump is turned off then the system pressure re-closes the valve.



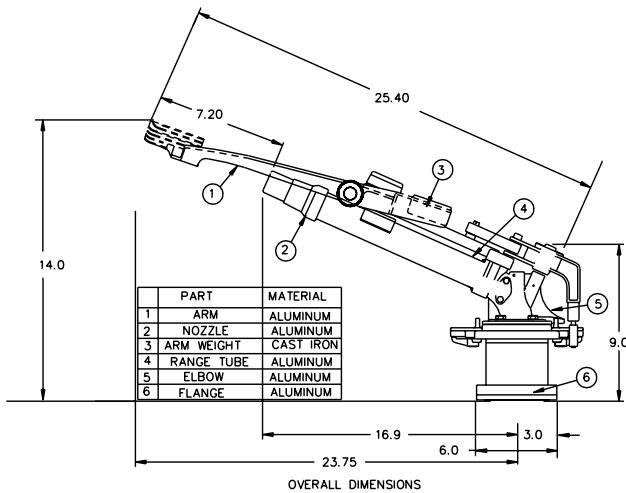
*Booster pump added pressure must be 18 psi or more.

Provide a way to vent air out of booster pump.

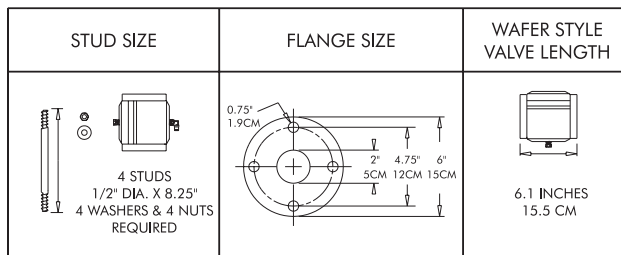
SR100 BIG GUN® + 800 SERIES VALVE (A2 B7 C3)

- The proven SR100 reliability.
- Steady drive reduces end gun vibration.
- Long life bearings.
- Maximum throw performance.
- No adjustment needed.
- Easy to use bolt-on connection.
- Smooth operation.
- Efficient low pressure loss.
- Minimal control water = minimized filtration.
- Fail safe normally-closed valve.
- Automatic drain to avoid freeze damage.

See reverse side for more details.

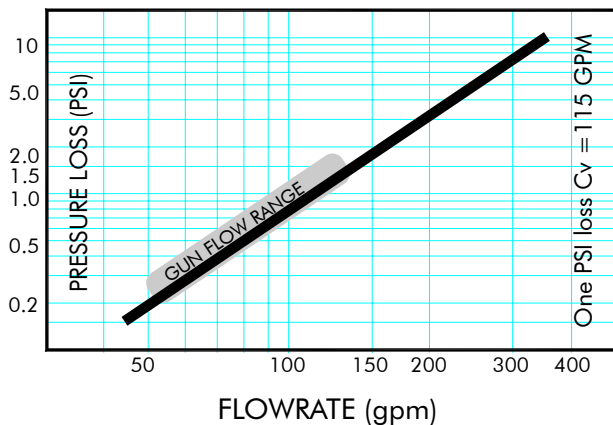


SR100 x ANSI Flange x 18°



800P Series Valve (A2 B7 C3)

VALVE PRESSURE LOSS DATA



INSTALLATION NOTES

WATER SOURCE: The source of water pressure to keep the valve closed must be upstream of the booster pump (as shown). The water must be filtered. Hint: The best reliability has been experienced when the supply tap is a riser up top of the pivot system pipe.

REDUCE FREEZE DAMAGE: The built-in rubber drain automatically empties water from the top-side of the valve/gun to reduce potential freeze damage. Likewise, a drain is provided for the pipe below the valve. When working correctly, drainage can be observed immediately after the valve shut-off. Pressure of 6-15 PSI will close the drain.

PUMP PRIME: Air venting below the base of the valve is essential for operation. Trapped air may hinder the booster pump. In the normal installation, venting is accomplished by the lower drain/vent. HINT: If turning on the pump will not open the valve, check to be certain the booster pump chamber evacuates air so that the pump can prime.

TROUBLESHOOTING

VALVE WON'T OPEN:

1. Make certain that the pump can prime as stated above.
2. Verify the pump pressure is boosted at least 18 PSI.
3. For the application where an electric solenoid is used, the following check order should be followed:
 - a. The pivot panel or controller.
 - b. The span or control wiring.
 - c. The solenoid coil.

Don't go to the span or control wiring until you have verified that the pivot panel is sending out the necessary voltage. It is more often the wiring or solenoid but too much time can be wasted if it is the pivot control. Check out the span wiring for resistance and voltage. This can usually be done at the pivot panel location. Lastly go to the valve and check the solenoid by disconnecting the coil from the wire. Normal coil resistance (W) for Nelson supplied 'Parker Skinner' solenoid is:

- 110 VAC \cong 180 Ohms
- 220 VAC \cong 744 Ohms
- 440 VAC \cong 2960 Ohms

VALVE WON'T CLOSE:

1. Check that the control tube is open and is not plugged or kinked.
2. Look for debris caught in the valve inlet that could potentially prevent the diaphragm from seating.

WARRANTY AND DISCLAIMER

Nelson Big Gun® and 800 Series Control Valves are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the products were designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair of defective parts. The manufacturer's liability under this warranty is limited solely to replacement or repair of defective parts and the manufacturer will not be liable for any crop or other consequential damages resulting from defects or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of this warranty, nor to make any representations or warranty not contained herein. Products in this brochure may be covered by one or more of the following U.S. Patent Nos. 3,744,720 and 3,559,887 and other U.S. Patents pending or corresponding issued or pending foreign patents.