

innovation in irrigation™

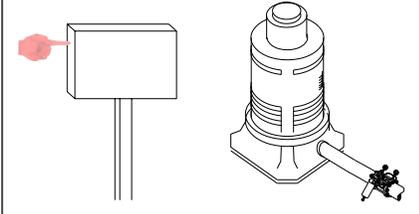
NELSON

RATE-OF-FLOW CONTROL

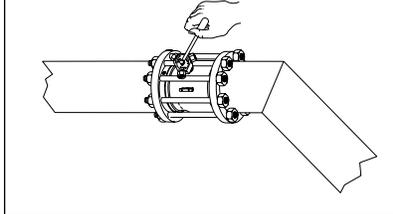
800 SERIES CONTROL VALVES

HERE'S YOUR SOLUTION TO CONTROL WATER HAMMER!

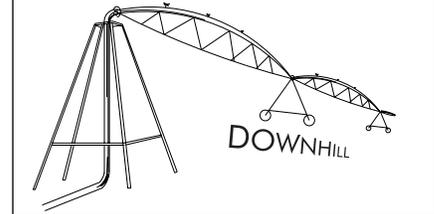
Starting a pump.



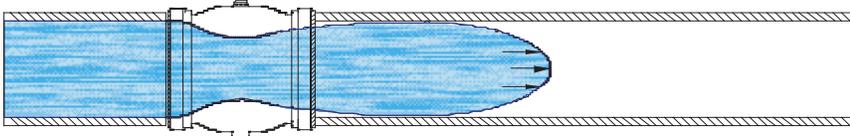
Opening a valve.



Starting a pivot system.

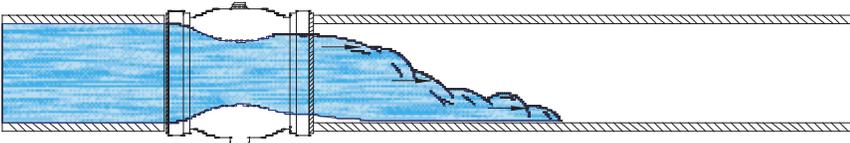


Without Rate-Of-Flow the valve opens wide on start-up.



High velocity water can cause water hammer and burst pipes.

Rate-Of-Flow opens the valve part way on start-up.



Rate-Of-Flow results in slow fill of the pipe so that water hammer is controlled.

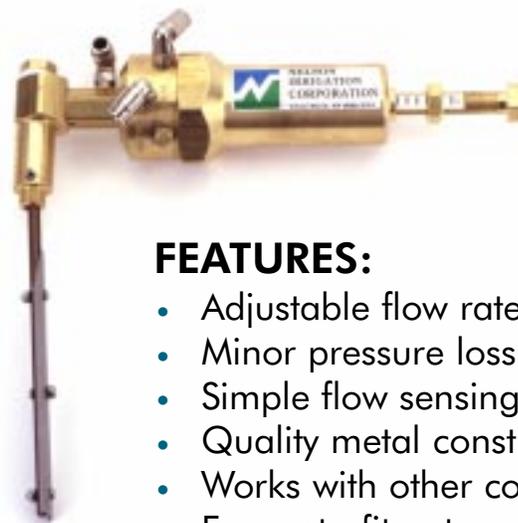
NELSON RATE-OF-FLOW CONTROL



Rate-Of-Flow Control

Shown on pressure reducing valve
(remote mount available for 3", 4", 6"
and 8" size. In-valve mount for 6", 8").

Patent number 5671774



FEATURES:

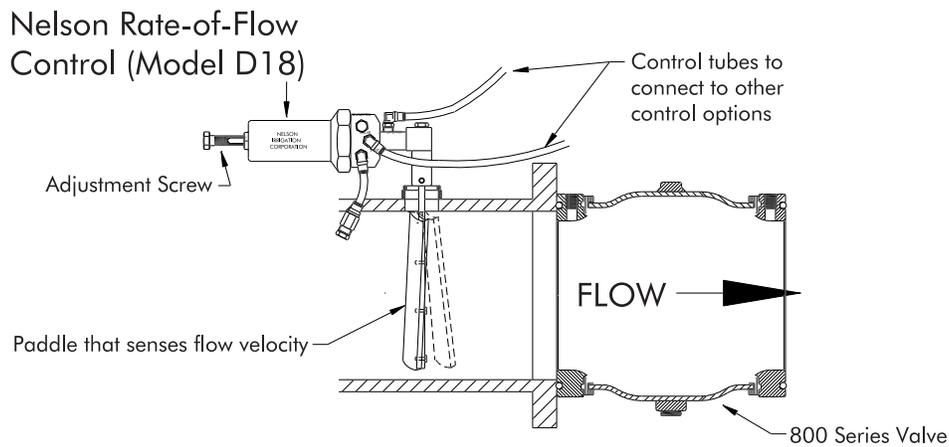
- Adjustable flow rate.
- Minor pressure loss.
- Simple flow sensing paddle.
- Quality metal construction.
- Works with other controls.
- Easy retrofit onto valves.

HOW THE RATE-OF-FLOW CONTROL WORKS

The Nelson 800 Series valve can be equipped with the Rate-Of-Flow Control (Option D18) to regulate the flow rate passing through the valve. The Rate-Of-Flow works by means of a flow sensing paddle in the flow on the upstream side of the valve. It is a significant advancement in accuracy because it works independent of line pressure responding only to the flow velocity impinging upon the sensing paddle. The Rate-Of-Flow Control is an option which can be combined with most other pressure and electric controls used on the 800 Series valve.

The main application is during system filling. The control can keep the valve from fully opening. This has the effect of holding the flow back to avoid unwanted water hammer or surges which can damage system pipes. Application is also for flow rate regulation resulting in more steady hydraulic conditions upstream or downstream of the valve on an irrigation system network.

The Nelson Rate-Of-Flow Control has been designed for efficiency and causes insignificant pressure loss. The control has a calibrated adjustment screw for simple setting and can work over a wide range of flow rates. The Rate-Of-Flow Control is designed to fit into the valve but can optionally be located in an adjacent upstream section of pipe.



Size*	Range of Flow Control adjustment
3"	120 GPM (27 M ³ /Hr) - 400 GPM (91 M ³ /Hr)
4"	200 GPM (45 M ³ /Hr) - 540 GPM (122 M ³ /Hr)
6" low flow	330 GPM (75 M ³ /Hr) - 1000 GPM (227 M ³ /Hr)
8" low flow	490 GPM (111 M ³ /Hr) - 1500 GPM (341 M ³ /Hr)
6"	500 GPM (114 M ³ /Hr) - 2000 GPM (454 M ³ /Hr)
8"	900 GPM (204 M ³ /Hr) - 3800 GPM (863 M ³ /Hr)

*Pipe diameter

PERFORMANCE NOTE: Better valve operation and accuracy will result if you avoid pipe size changes, flow meters, pumps and elbows immediately upstream of the Rate-Of-Flow Control. A straight length of pipe five pipe diameters long helps reduce the turbulence and will improve the valve performance. The Rate-Of-Flow Control is not intended to replace a flowmeter. Nelson normal warranty and disclaimer applies.

WARRANTY AND DISCLAIMER

Nelson 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.