

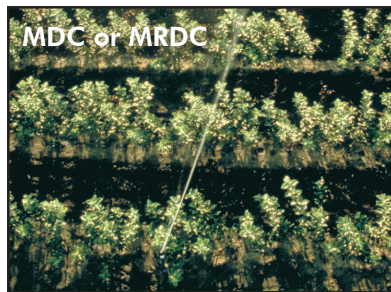
innovation in irrigation™



# MINI REGULATOR, MINI REGULATOR DRAIN CHECK & MINI DRAIN CHECK



**MDC or MRDC**  
Portable irrigation systems to eliminate crop wash out from partially pressurized sprinklers during system start up and shut down.



**MDC or MRDC**  
Overhead cooling of apples and other crops to prevent drainage of the system in between frequent on / off cycles of the irrigation system.



**MDC or MRDC**  
Greenhouse irrigation systems where sprinkler dripping or drainage after shut down cannot be tolerated.



**MR or MRDC**  
Systems where pressure gains or losses are high due to uneven topography or high friction loss in pipes to ensure high uniformity and even flow of all sprinklers in a system.



## Mini Regulator (MR)

For systems in which pressure ranges are excessive, the Nelson Mini Regulator provides uniform flow and distribution at each sprinkler through pressure regulation. Choose from 20, 30, 35, 40, 45, or 50 PSI (1.4, 2.1, 2.4, 2.8, 3.1 or 3.4 BAR) nominal pressures.

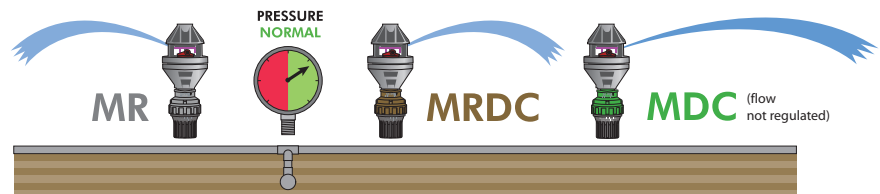
## Mini Regulator Drain Check (MRDC)

To eliminate sprinkler drizzle during shut down and start up and for pressure regulation use the Nelson Mini Regulator Drain Check. Choose from 20, 30, 35, 40, 45, or 50 PSI (1.4, 2.1, 2.4, 2.8, 3.1 or 3.4 BAR) nominal pressures.

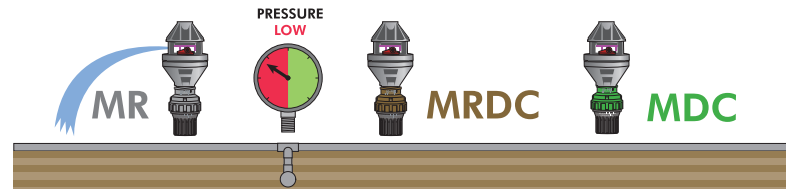
## Mini Drain Check (MDC)

The MDC is a check valve only that opens 2-5 PSI (.14-.35 BAR) below the nominal pressure rating. Available in 20 and 35 PSI (1.4-2.4 BAR) options. Ideal when a check feature only is needed or when it is necessary to operate sprinklers at different pressures that best suit environmental conditions.

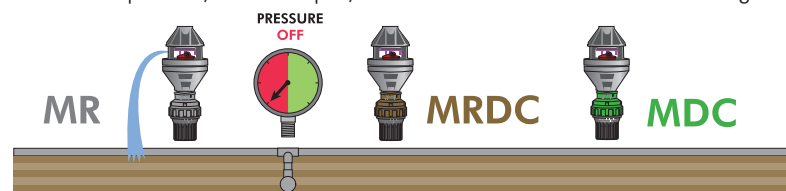
With adequate pressure, the MR and MRDC regulate to design pressure but the MDC is open fully and does not regulate.



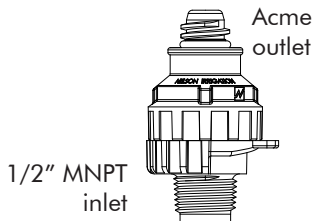
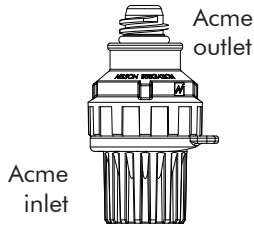
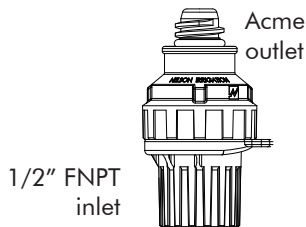
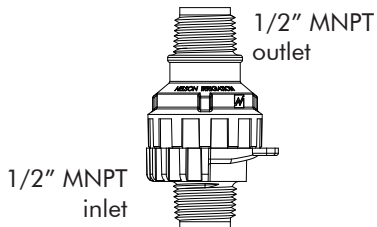
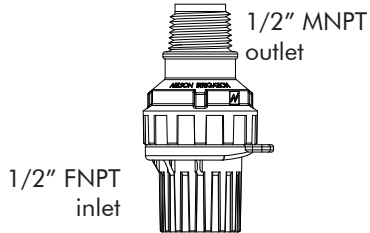
With low pressure, the MR is open, the MRDC and MDC are closed to draining.



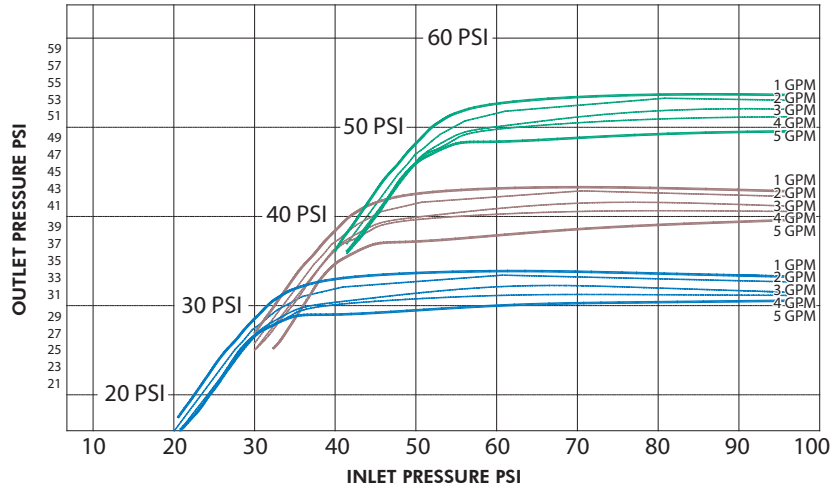
With no pressure, the MR is open, the MRDC and MDC are closed to draining.



**CONNECTION OPTIONS**



**MRDC PERFORMANCE GRAPH**



**Pressure Options Shown: 30, 40, 50 PSI** (20, 35 and 45 PSI options also available.)  
**Recommended Flow Range: 0.15 GPM to 5 GPM**  
**Maximum Inlet Pressure: 150 PSI**  
**Minimum Inlet Pressure: 5 PSI above regulator pressure**

**Opening & Closing Pressures for the MRDC:**

<u>PRESSURE OPTION</u>	<u>PRESSURE TO OPEN</u>	<u>PRESSURE TO CLOSE</u>	<u>HOLD BACK ELEVATION</u>
30 PSI	23 PSI	15 PSI	35 ft.
40 PSI	28 PSI	19 PSI	44 ft.
50 PSI	38 PSI	29 PSI	67 ft.

**HOW IT WORKS:** The MRDC is a normally closed device. The check will not open until a certain minimum inlet pressure is reached. The MRDC begins to open at approximately 75% of nominal pressure. Provide 5 PSI above the nominal pressure for the most accurate pressure regulation.



Use the Nelson Pressure Gauge Tap assembly **ONLY ON THE INLET SIDE** of the MR, MRDC or MDC to check your system operating pressures.

**SPECIAL WARNINGS!**

1. With the MR, MRDC and MDC always maintain a minimum of 5 PSI above the nominal pressure rating to avoid severe distortion of sprinkler distribution patterns and decreased flow.
2. Remove the MRDC and MDC and drain the irrigation system during freezing conditions to prevent damage to the product and the irrigation system. **THE MRDC AND MDC ARE NOT RECOMMENDED FOR USE IN FREEZING CONDITIONS.**
3. Partial plugging of the MR, MRDC and MDC inlet can cause severe distortion of distribution patterns and decreased flow.
4. The maximum inlet pressure is 150 PSI.
5. The MR and MRDC require flow through it to regulate pressure. **IT IS NOT FOR USE IN CONTINUOUSLY STATIC CONDITIONS.**

**WARRANTY AND DISCLAIMER:** The Nelson Mini Regulator and Mini Regulator Drain Check 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 product was 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. The Mini Regulator Drain Check is covered by the following U.S. Patents: 5875815, 5257646, and other pending US and Foreign Patents.