



# VALVES

## N-100 NITRO SERIES VALVE

### ✓ Durable Material

- 100% virgin material gives the Nitro added strength over conventional PVC valves
- Hydrostatic tests prove Nitro resistance to cracking at over 700 psi

### ✓ Easy Access Cover

- Combination hex, slot and Phillips retaining screws provide multiple access options and superior operation up to 150 psi
- Nitro installers will tell you they rarely need to open a Weathermatic valve

### ✓ Unmatched Manual Bleed

- Send the Nitro into action by simply pulling the trigger
- It's the easiest, driest internal manual bleed in the business that won't flood the valve box
- No twisting on a solenoid or bleed screw is required

### ✓ Shocking Shock Cone

- The Nitro puts the hammer to water hammer by incorporating a cone-shaped diaphragm base
- The shock cone interrupts the water flow more gradually than other diaphragms to enable quick valve closure without the damaging effect of water hammer

### ✓ Multiple Connection Configurations

- Choose between 3 connection configurations: threaded, slip and male x barb

### ✓ Pressure Activated Diaphragm

- Pressure activated diaphragm ensures reliable operation with no leakage at pressures up to 150 psi



### ✓ 5 Year Track Record

- The Nitro track record shows less than a fraction of 1% return rate over 5+ years of reliable performance

### ✓ Amazing Value for the Price!

- Seasoned installers know that valves are the last place to cut expenses when just one call-back eliminates any cost savings on the job
- Plus, the Nitro makes it easy - you can install the commercial quality of a Weathermatic valve at a residential valve price!

### ✓ Revolutionary Reverse Flow Design

- The Weathermatic hallmark reverse flow design with a 45-year track record brings you:
- Reverse flow design means the valve fails shut rather than open in the event of diaphragm failure, unlike conventional forward flow valves that fail open
- Balanced pressure on the diaphragm extends valve life over forward flow valves
- Self-cleaning function is achieved as diaphragm actually flexes during operation to send dirt and debris down the line without the maintenance worry of filters and screens



### Nitro Specifications

MODEL	DESCRIPTION	FACTORY INSTALLED OPTIONS	INTERNATIONAL MODEL
N-100-H	1" Valve - FIP *		N-100-ISO-H
N-100F-H	1" Valve - FIP with Flow Control *		N-100F-ISO-H
N-100S-H	1" Valve - Slip x Slip	-NP	
N-100SF-H	1" Valve - Slip x Slip with Flow Control	Non-potable alert flow handle may be substituted for the standard flow handle	
N-100MB-H	1" Valve - Male x Barb		
N-100MBF-H	1" Valve - Male x Barb with Flow Control		



**100 gallons** given per valve

Our mission is to deliver clean drinking water to thousands of families in need, and to inspire our partners to put water first in irrigation, design, installation, and maintenance.





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## N-100 NITRO SERIES VALVE

### N-100 Series

#### DIMENSIONS

4.88" L x 3.25" W x 5" H  
(12.40 cm x 8.23 cm x 12.7 cm)

#### FLOW RANGE

0.2 to 35 GPM  
0 to 8.5 m<sup>3</sup>/hr

#### ELECTRICAL

24VAC/60HZ      24VAC/50Hz  
Inrush: 9.48 VA      Inrush: 10.66 VA  
Holding: 5.11 VA      Holding: 5.97 VA

Wiring requires a single lead from the controller to each solenoid, plus a common neutral to all solenoids; type UF wire, U.L. listed, is recommended for all hookups

### FEATURES

- 2 year trade warranty and 100% water tested
- 150 PSI (10.3 BAR) rating
- Unique "reverse flow" design permits equal pressure distribution on both sides of the diaphragm, regardless of line pressure, providing zero stress to prevent "stretching," a common cause of valve failure
- Reverse flow design for water conservation in the event of failure
- Diaphragm's self cleaning ports constantly flex, inhibiting sand and silt from blocking valve action
- Molded shock cone for smooth operation and reduction of water hammer
- Easy-to-use internal manual bleed lever; bleeds valve downstream; has positive stops for open and closed positions
- Marine-grade S20P solenoid with stainless steel actuator
- Engineering grade PVC body and Phillips retaining screws
- Non-rising flow control stem throttles valve from full open to closed position on flow control models

### Nitro Series Valve Pressure Loss

FLOW GPM	LOSS PSI	FLOW M <sup>3</sup> /HR	LOSS BAR
0-4	1.2 max	0-1.0	0.09 max
4	1.2	1.0	0.09
6	1.7	1.5	0.14
8	2.5	2.0	0.19
10	3.0	2.5	0.22
12	3.4	3.0	0.25
14	3.8	3.5	0.28
16	4.1	4.0	0.30
18	4.4	4.5	0.32
20	4.6	5.0	0.33
22	4.8	5.5	0.35
24	5.1	6.0	0.38
26	5.4	6.5	0.41
28	5.8	7.0	0.45
30	6.3	7.5	0.47
32	6.6	8.0	0.50
35	7.3	8.5	0.51



N-100-H



N-100S-H



N-100MBF-H



N-100F-H



N-100SF-H



N-100MB-H



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