



ACCESSORIES

NaanDanJain offers a wide range of control and filtration solutions that answer the various needs of irrigation systems.

The Control and Filtration product range supplements NaanDanJain's sprinklers, micro-sprinklers and drip products, providing our costumers with a full package solution, according to their specific requirements and needs.

NaanDanJain's vast experience in the irrigation field results in high reliability of all our products and long years of efficient operation.

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Introduction

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NAANDANJAIN ELECTRIC VALVES



ELECTRICALLY ACTUATED GRP VALVES

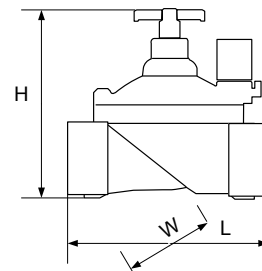
for automatic control of dripline, micro-sprinkler and sprinkler systems in open fields, orchards, greenhouses and landscape applications

MAIN FEATURES

- 3/4"–2" electric valve
- High performance integral solenoids
- Low head losses at high flow rates
- Wide range of operation pressures
- Smooth valve operation minimizes pressure surges
- Flow control handle allows flow rate adjustment
- Manual solenoid override
- Direct current (AC) as standard, pulse (Latch) actuation supplied on request

TECHNICAL DATA

- Max. operating pressure: 10 bar / 145 psi
- End connections: Female BSP (Standard) / NPT (American)
- Electrical data: Direct current: 24 VAC,
Inrush: 0.4 A
Holding: 0.2 A
- DC pulse: 9-12 VDC Latch
- Max. water temperature: 60° C



DIMENSIONS

Size	DN 20 (3/4")	DN 25 (1")	DN 40 (1 1/2")	DN 50 (2")
L (mm)	110	110	160	170
H (mm)	115	115	180	190
W (mm)	78	78	125	125

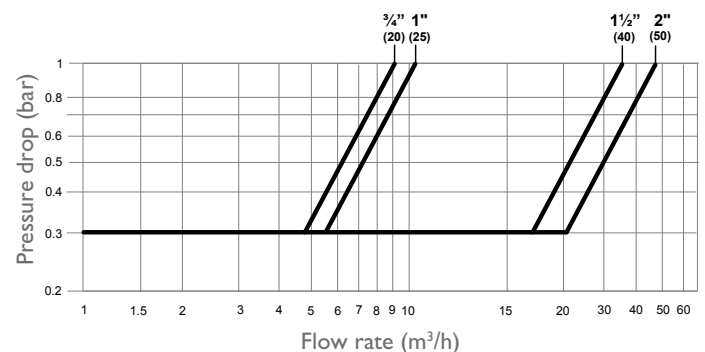
HOW TO ORDER

Size	24 VAC	24 VAC
	With flow control handle	Without flow control handle
20 mm (3/4")	6310058000	6310058050
25 mm (1")	6310058010	6310058060
40 mm (1 1/2")	6310058020	
50 mm (2")	6310058030	

*Codes refer to BSP (standard) threads. For NPT threads, please specify on request.

*For DC pulse actuation (Latching solenoid), please specify on request.

PRESSURE DROP CHART



NAANDANJAIN PLASTIC FILTERS

SCREEN/DISC PLASTIC FILTERS

For dripline, micro-sprinkler and sprinkler systems in open fields, orchards, greenhouses and landscape applications

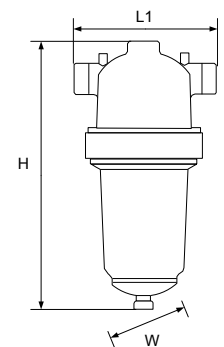
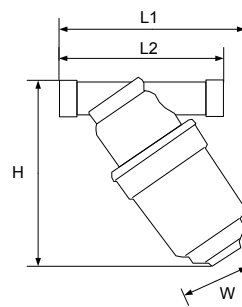


MAIN FEATURES

- Size range - from 3/4" to 3"
- Large filtration area allows for long operation periods before cleaning is required
- User-friendly maintenance - all parts are easily disassembled for cleaning
- Optional filtration elements - screen or disc with wide range of filtration degrees
- Minimal head loss even at high flow rates

TECHNICAL DATA

- Max. operating pressure: 8 bar / 115 psi
- Filtering element: 3/4"–1 1/2" Screen
2"–3" Screen/Disc
- Filtration degree: 300–80 micron
- Standard: 130 microns (120 mesh)
- End connections: Male BSP (Standard) / NPT (American)
- Max. water temperature: 60° C



DIMENSIONS

Size	3/4"	1"	1 1/2"	2"	2" Super	3"
L1 (mm)	135	137	278	278	278	280
L2 (mm)	120	125	201			
H (mm)	137	138	252	395	514	536
W (mm)	72	72	112	224	224	224

TECHNICAL SPECIFICATIONS

Filter type		3/4"	1"	1 1/2"	2"	2" Super	3"
In/ Out diameter (mm)		20	25	40	50	50	80
Maximal flow rate (m ³ /h)		3	5	15	25	25	50
Filter area (cm ²)	Screen	110	110	340	465	700	700
	Disc			460	790	1185	1185
Weight (kg)	Screen			1.0	3.6	4.2	4.5
	Disc			1.2	4.4	5.4	5.7

HOW TO ORDER

Size	Screen element 130 microns	Disc element 130 microns
20 mm (3/4")	6210081400	
25 mm (1")	6210081420	
40 mm (1 1/2")	6210081440	6200081400
50 mm (2")	6210081450	6200081410
50 mm (2") Super	6210081460	6200081420
80 mm (3")	6210081470	6200081430

*Codes refer to BSP (standard) threads. For NPT threads, please specify on request.

NAANDANJAIN SEMI-AUTOMATIC FILTER



NDJ Semi-Automatic suction scanning plastic filters offer a smart, efficient and cost-effective solution for cleaning manual irrigation filters.

These lightweight screen filters are quickly and easily cleaned with only the turn of a handle.

MAIN FEATURES

- Allows filter cleaning without shutting off water supply to the field
- Eliminates the need for dismantling and rinsing the filtration element
- Eliminates the need for installing a rinsing valve and hose next to the filter
- Pop-up clogging indicator shows when the filter is clogged
- Saves time with a quick turn-of-a-handle cleaning procedure

PRINCIPLE OF OPERATION:

The NDJ Semi-Automatic filter is a screen filter containing a suction scanning assembly.

The suction scanning assembly is a hollow pipe with a few suction nozzles facing the internal part of the screen. The bottom side of the hollow pipe is connected to the flushing valve. A turn of the handle rotates the scanning nozzles in a spiral movement, up and down the inner surface of the screen.

As the pressure differential across the screen exceeds 0.5 bars, a red button pops up from the clogging indicator, showing that the filter needs to be cleaned.

Opening the flushing valve creates low pressure conditions in the scanning nozzles, sucking the accumulated dirt particles from the screen, through the flushing valve, and out of the filter.

A turn of the handle rotates the scanning nozzles across the screen surface, ensuring complete cleaning of the screen in a few seconds.

TECHNICAL DATA

Model	2"	2" Super	3"
Design specifications			
Maximal flow rate	25 m ³ /h / 110 gpm	25 m ³ /h / 110 gpm	50 m ³ /h / 220 gpm
Head loss	At 15 m ³ /h = 0.1 bar	At 15 m ³ /h = 0.1 bar	At 40 m ³ /h = 0.1 bar
Maximal pressure	10 bar / 145 psi		
Minimal pressure	2 bar / 30 psi		
Filtration area	680 cm ²	1050 cm ²	1050 cm ²
Filtration degree	80, 100, 130, 200, 300 micron	Standard-130 micron	
End connections	Male threaded	Male threaded	Male threaded / Flanged
Max. working temp.	60°C		
Construction materials			
Filter body	Polyamide + Glass fibers		
Screen	Construction- Polypropylene + Glass fibers, Mesh-St. St.		

APPLICATIONS

A quick-cleaning filter for protection of drip or sprinkler irrigation systems in open fields, orchards, greenhouses and landscaping.

Recommended in cases where:

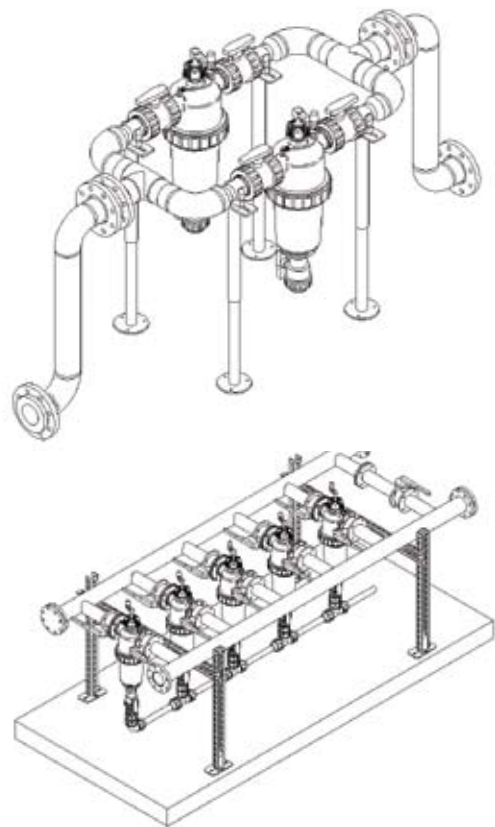
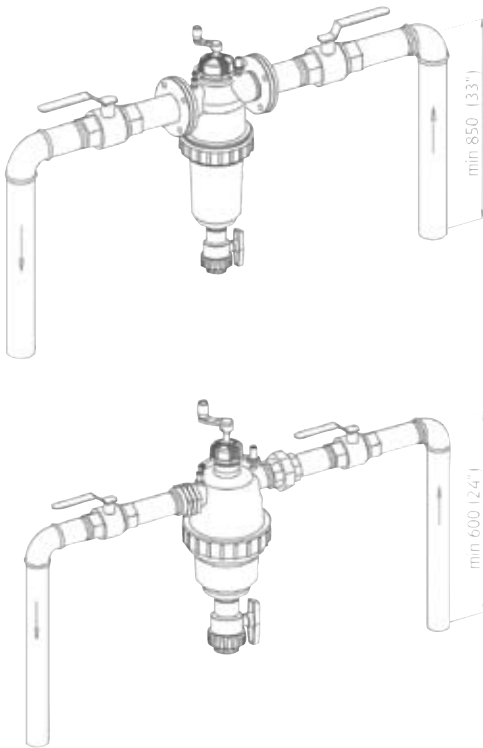
- The main filtration head is far from the plot.
- Water quality is bad, requiring frequent filter cleaning.
- Flow to the plot should not be interrupted for filter cleaning.

A main filtration head for relatively small plots of drip or sprinkler irrigation systems in open fields, orchards, and greenhouses.

The filtration head consists of several NDJ Semi-Automatic filters in a parallel array.

Recommended in cases where:

- A cost-effective main filtration solution is required.
- Automation is not viable.
- Flow rates are moderate or low.
- The system allows maintenance or replacement of one unit without stopping water supply to the plot.



HOW TO ORDER

Size Connection	2"	2" Super	3"
Male threaded BSP	6210087016	6210087004	6210087028
Male threaded NPT	6210087017	6210087003	6210087023
Flanged ISO-PN16			6210087027
Flanged ASA150			6210087026
Flanged BSTD			6210087024

*All codes are for filters with 130 micron screens

NAANDANJAIN AUTOMATIC FILTER—200 SERIES



MAIN FEATURES

- Applicable for various water sources, such as wells, reservoirs, rivers, lakes and reclaimed water
- Fully automatic self-cleaning process
- Easy to install and maintain
- Enables uninterrupted water supply during the cleaning process
- Offers a lightweight, small footprint, cost-effective filtration solution

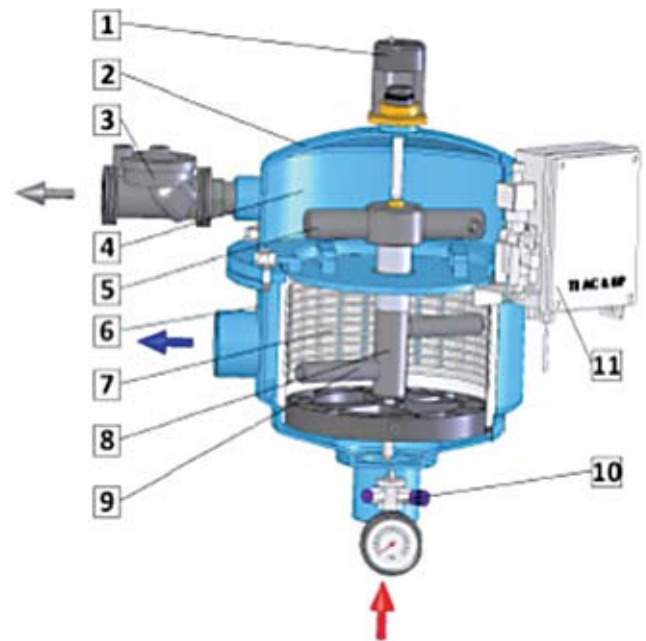
OPERATING PRINCIPLE:

Raw water enters the filter inlet and flows through the fine screen [7]. The screen retains the dirt particles, supplying clean water to the irrigation system and protecting it from clogging.

As dirt accumulates on the inner surface of the screen, the pressure difference across it rises. Once the pressure differential (ΔP) across the filter has reached the preset value, normally set at 0.5 bar (7psi), the flushing controller [11] orders the start of the cleaning procedure.

Pressure from the hydraulic piston [1] is released and the flush valve [3] opens, creating strong back flow suction in the nozzles, while rotating the hydraulic motor [5].

The rotation of the suction nozzles, combined with the axial movement of the piston, cleans the entire surface of the screen, while maintaining an uninterrupted water supply. The flushing cycle takes 5 seconds. When it ends, the flush valve closes, the piston returns to its initial position, and the filter is ready for the next cycle



No.	Discription
1	Piston
2	Cover
3	Flushing valve
4	Flushing chamber
5	Hydraulic motor
6	Body
7	Fine screen
8	Collector
9	Suction nozzle
10	Pressure gauge
11	Controller

NAANDANJAIN AUTOMATIC FILTER—200 SERIES

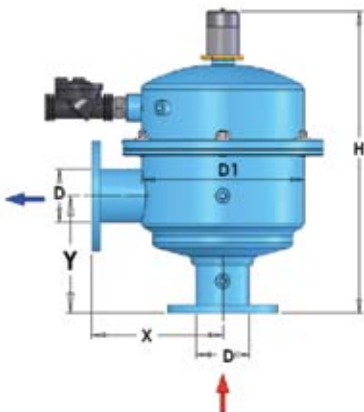
TECHNICAL SPECIFICATIONS

	Standard Features	Special Features
Maximal operating pressure	Up to 10 bar / 145 psi	Up to 16 bar / 230 psi
Minimal operating pressure	2 bar / 29 psi	
Filtration degree	50–3000 µm (micrometer)	
Maximal water temperature	65°C / 149°F	95°C / 203°F
Control options	Electronic—by ΔP with time backup Hydraulic—by ΔP	Computerized and custom design
Electronic control options	9 VDC, 12 VDC, 24 VAC	110 V, 220 V, single phase, 24 V
Filter body material	Carbon steel	Stainless steel 304, 316, Titanium
Coating	Electrostatically-applied, oven-baked epoxy at thickness of 150–200 µm (micrometer)	On request

DIMENSIONS

Model	Connection Options*	D (mm)	D1 (mm)	X (mm)	Y (mm)	H (mm)	Operation Weight (kg)
202	M / V / F	50	250	177	174	450	42
202S	M / V / F	50	250	177	174	590	53
203	M / V / F	80	250	192	188	465	41
203S	M / V / F	80	250	192	188	605	56
204	V / F	100	250	220	210	610	63
204S	V / F	100	250	220	315	920	102
206	V / F	150	250	220	400	1150	127
208	V / F	200	400	303	450	1219	219

* M = Threaded, V = Victaulic, F = Flanged



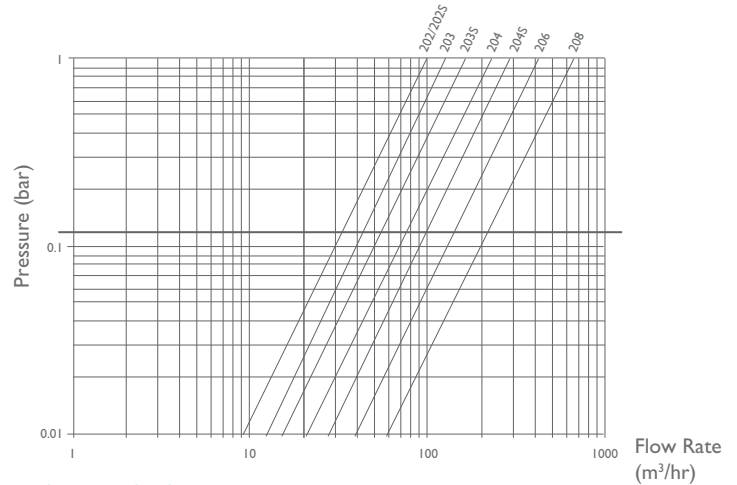
HYDRAULIC PERFORMANCE DATA

Model	Inlet / Outlet diameter	Max. Flow Rate* (m³/hr)	Screen Area (cm²)	Flushing Flow Rate** (m³/hr)	Water consumption per flush cycle** (liter)
202	2"	30	1100	6	8
202S	2"	30	1630	6	8
203	3"	40	1100	6	8
203S	3"	50	1630	6	8
204	4"	80	1630	6	8
204S	4"	90	3100	20	25
206	6"	130	4500	20	25
208	8"	200	5780	20	25

*For high quality water at filtration grade of 130 µm

** At minimal operating pressure of 2 bar (29 psi)

Pressure loss with 130 µm screen



HOW TO ORDER

Model	Filtration Degree (µm)	Control	Connection Standard
202	100	DC	Threaded BSP
202S	130	110 AC	Threaded NPT
203	200	220 AC	Flanged BSTD
203S	300	Hydraulic	Flanged ISO PN16
204	Other		Flanged ASA150
204S			Victaulic
206			
208			



NAANDANJAIN AUTOMATIC FILTER—800 SERIES



MAIN FEATURES

- Applicable for various water sources, such as wells, reservoirs, rivers, lakes, and reclaimed water
- Fully automatic, self-cleaning process
- Easy to install and maintain
- Enables uninterrupted water supply during the cleaning process
- Large filtration surface area retains high dirt load and reduces the number of flush cycles

OPERATING PRINCIPLE:

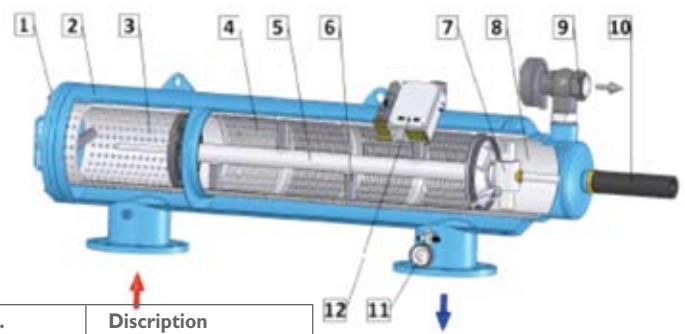
Raw water enters the filter inlet and passes through the coarse screen [3], acting as a first barrier retaining large debris. The water then passes through the fine screen [4] which retains the dirt particles, supplying clean water to the irrigation system and protecting it from clogging.

As dirt accumulates on the inner surface of the screen, the pressure differential across it rises.

Once the pressure differential (ΔP) across the filter has reached the preset value, normally set at 0.5 bar (7psi), the flushing controller [12] orders the start of the cleaning procedure.

Pressure from the hydraulic piston [10] is released and the flush valve [9] opens, creating strong back flow suction in the nozzles, while rotating the hydraulic motor [7].

The rotation of the suction nozzles, combined with the axial movement of the piston, cleans the entire surface of the screen, while maintaining an uninterrupted water supply. The flushing cycle takes about 10 seconds. When it ends, the flush valve closes, the piston returns to its initial position, and the filter is ready for the next cycle



No.	Description
1	Cover
2	Body
3	Coarse screen
4	Fine screen
5	Collector
6	Suction nozzle
7	Hydraulic motor
8	Flushing chamber
9	Flushing valve
10	Piston
11	Pressure gauge
12	Controller

TECHNICAL SPECIFICATIONS

	Standard Features	Special Features
Maximal operating pressure	Up to 10 bar / 145 psi	Up to 16 bar / 230 psi
Minimal operating pressure	2 bar / 29 psi	
Filtration degree	50–3000 μm (micrometer)	
Maximal water temperature	65°C / 149°F	95°C / 203°F
Control options	Electronic—by ΔP with time backup Hydraulic—by ΔP	Computerized and custom design
Electronic control options	9 VDC, 12 VDC, 24 VAC	110 V, 220 V, single phase, 24 V and solar energy
Filter body material	Carbon steel	Stainless steel 304, 316, Titanium
Coating	Electrostatically-applied, oven-baked epoxy at thickness of 150–200 μm (micrometer)	On request

NAANDANJAIN AUTOMATIC FILTER—800 SERIES

HYDRAULIC PERFORMANCE DATA

Model	Inlet / Outlet diameter	Max. Flow Rate* (m ³ /hr)	Screen Area (cm ²)	Flushing Flow Rate** (m ³ /hr)	Water consumption per flush cycle** (liter)
803L	3"	50	3220	30	80
804L	4"	80	5780	30	80
804XL	4"	100	8410	30	80
806L	6"	150	5780	30	80
806XL	6"	160	8410	30	80
808L	8"	300	8410	30	80
810L	10"	400	8410	30	80
810XL	10"	450	11710	90	250

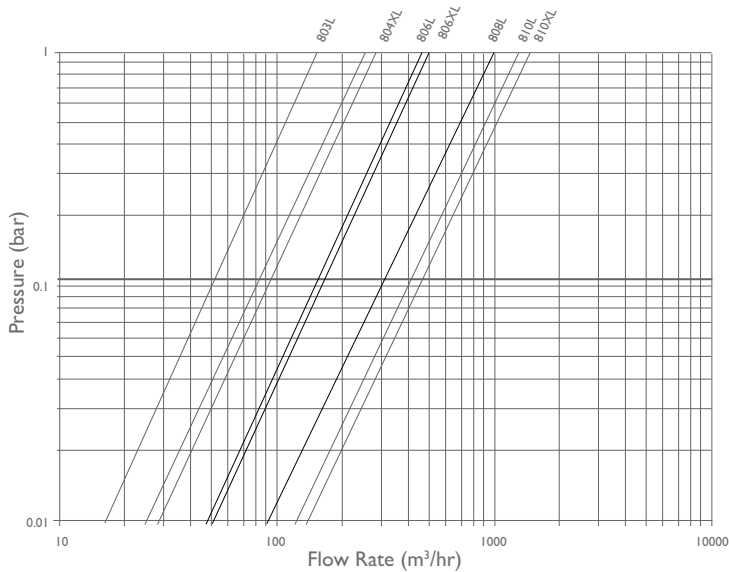
*For high quality water at filtration grade of 130 µm

** At minimal operating pressure of 2 bar (29 psi)

L = Long filter with large filtration area

XL = Extra-long filter with extra-large filtration area

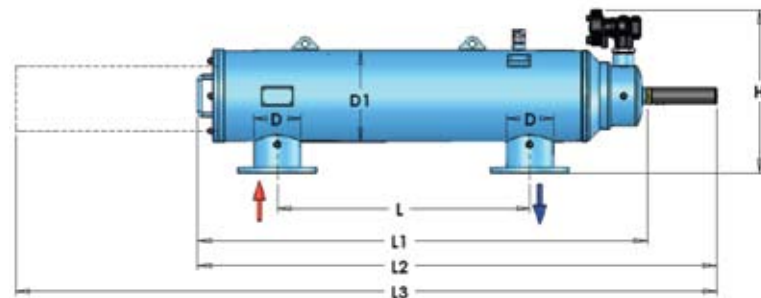
Pressure loss with 130 µm screen



DIMENSIONS

Model	Connection Options*	D (mm)	D1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	H (mm)	Operation Weight (kg)
803L	V / F	80	273	450	1160	1410	1980	540	190
804L	V / F	100	273	900	1550	1800	2770	540	229
804XL	V / F	100	273	900	1585	1826	2801	540	266
806L	V / F	150	323.9	900	1620	1870	2840	580	297
806XL	V / F	150	273	900	2020	2270	3630	540	275
808L	V / F	200	323.9	900	2210	2450	3820	580	380
810L	V / F	250	350	900	2194	2441	3870	595	469
810XL	V / F	250	400	1100	2700	3145	5420	720	644

* V = Victaulic, F = Flanged



HOW TO ORDER

Model	Filtration Degree (µm)	Control	Connection Standard
803L	100	DC	Threaded BSP
804L	130	110 AC	Threaded NPT
804XL	200	220 AC	Flanged BSTD
806L	300	Hydraulic	Flanged ISO PN16
806XL	Other		Flanged ASA150
808L			Victaulic
810L			
810XL			



NAANDANJAIN METAL HYDRAULIC VALVES



For automation and regulation in mainlines, control heads and infield installations

The hydraulic metal control valves offer high reliability and accuracy for pressure and flow control applications in medium and high pressure ranges.

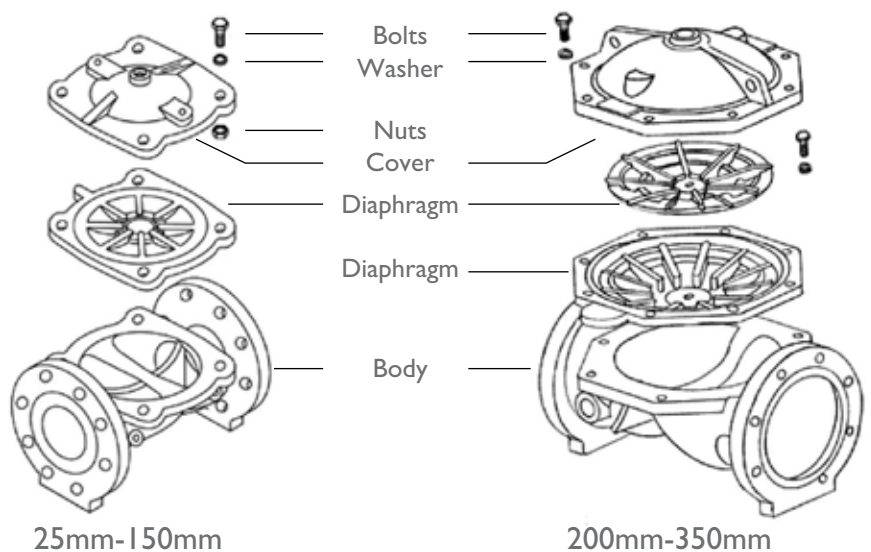


MAIN FEATURES

- Sizes: 1”–14”
- High Kv values—low pressure losses
- Low minimal operating pressure with standard diaphragms
- Patented no-spring design
- Unique Rilsan (nylon) coating provides high resistance to mechanical impact and wear
- Simple 3-part structure enables simple maintenance

TECHNICAL DATA

- Max. operating pressure: 16 bar / 230 psi
- Min. operating pressure: 0.5–0.7 bar (varies according to diameter)
- Standard materials:
- Body and cover—cast iron
- Diaphragm—natural rubber
- Nuts and bolts—plated steel
- Cover—Rilsan
- Structure:
- Inline: 1”–14”
- Angle: 2”–8”

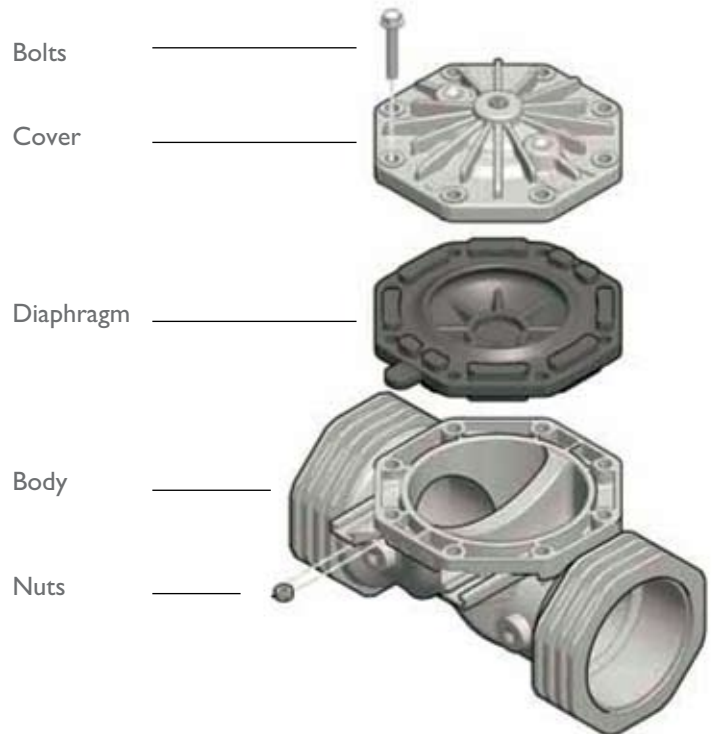


NAANDANJAIN PLASTIC HYDRAULIC VALVES



For automation and regulation in control heads and infield installations

The hydraulic plastic control valves offer high reliability and accuracy for pressure and flow control applications in medium and low pressure ranges.



MAIN FEATURES

- Sizes: 1.5”–4”
- High Kv values—low pressure losses
- Low minimal operating pressure with standard diaphragms
- Patented no-spring design—metal-free valve
- Simple 3-part structure enables simple maintenance

TECHNICAL DATA

- Max. operating pressure: 10 bar / 145 psi
- Min. operating pressure: 0.5 bar
- Standard materials:
- Body and cover—glass-reinforced nylon
- Diaphragm—natural rubber
- Nuts and bolts—plated steel

NAANDANJAIN PLASTIC AIR VALVES



The air valves play a major role in ensuring efficient and reliable operation of the irrigation system.

Air valves release air from the system, minimizing the pressure loss and admit air into the system, thus protecting the lines from collapse and preventing sand from being sucked into the driplines when the lines are drained.

AIR DISCHARGE AND VACUUM-BREAKING VALVE

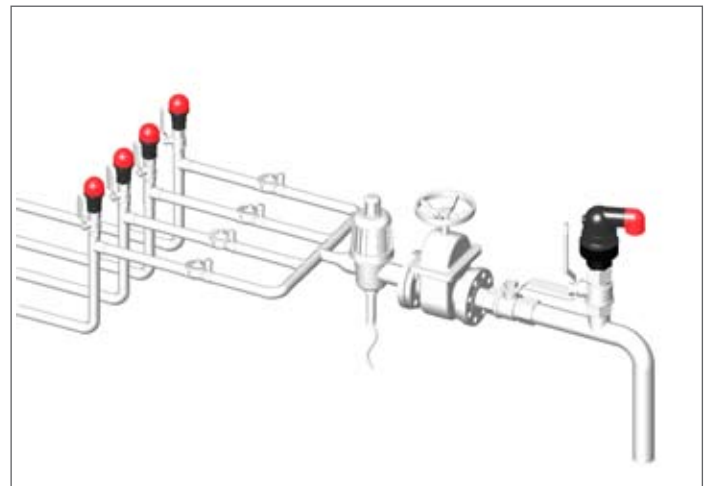
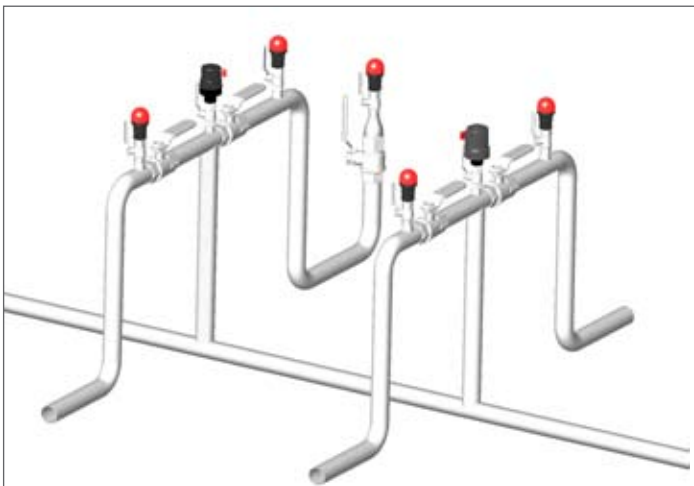


MAIN FEATURES

- Sizes: 3/4", 1" and 2"
- Kinetic operation (vacuum-breaking)
- Perfect sealing at low pressures: from 0.2 bar (3 psi)
- Maximal pressure: 10 bar (145 psi)
- Large orifice area allows high air flows
- Compact lightweight design

TYPICAL APPLICATION

- At the inlet of a drip submain pipe:
 - Preventing dirt suction into the driplines when lines are drained
 - Discharging air from the submain pipe when lines are filled



AUTOMATIC AIR VALVE



MAIN FEATURES

- Sizes: 3/4" and 1"
- Automatic operation
- Perfect sealing at low pressures: from 0.1 bar (1.45 psi)
- Maximal pressure: 10 bar (145 psi)
- Efficient air release from the system when under pressure
- Compact lightweight design

TYPICAL APPLICATION

- Releasing accumulated air in the outlet of buster pumps, filters and injection pumps

COMBINATION AIR VALVE

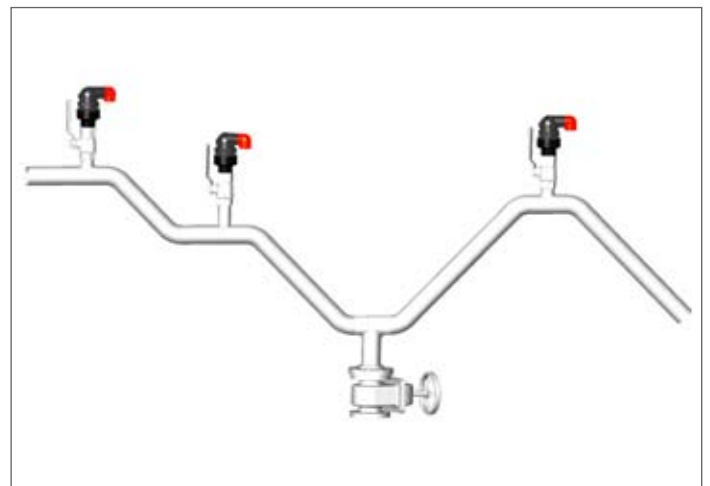
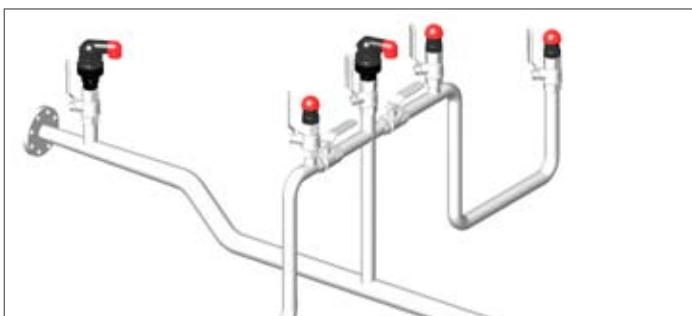
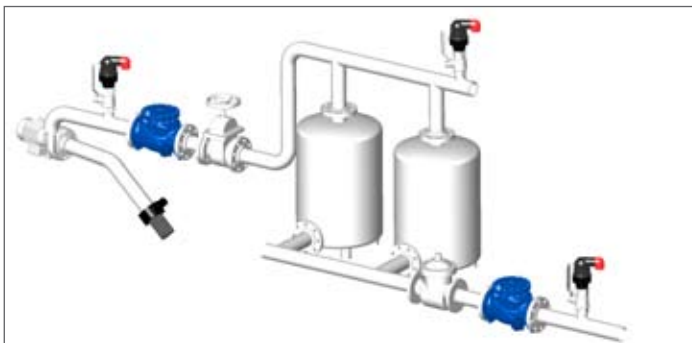


MAIN FEATURES

- Sizes: 3/4", 1" and 2"
- Kinetic and automatic operation
- Perfect sealing at low pressures: from 0.1 bar (1.45 psi)
- Maximal pressure: 10 bar (145 psi)
- Efficient air release from the system when under pressure
- Releasing high flow of air from the system while lines are filled
- Admitting high flow of air into the system while lines are drained
- Compact lightweight design

TYPICAL APPLICATION

- At high points of the line and inclination changes
- After pumps
- At main and infield control heads
- Before and after isolating valves
- On gravel filtration systems





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