

Pressure reducer



The Netafim pressure reducers are simple, fixed pressure reducers for drip irrigation and sprinkler irrigation installations. If the water withdrawal does not vary widely (for example in an irrigation set), the Netafim pressure reducers are very suitable for reducing the working pressure.

APPLICATION

Control of the pressure in drip irrigation systems and sprinkler irrigation installations and/or irrigation systems

CHARACTERISTICS

- ✓ 2 types: In-Line (Low-Flow) and PRV 2000 Series
- ✓ Modular design: pressure control units are default and interchangeable with different housings (3/4" - 3")
- ✓ Pressure levels from 0.6 to 4.5 bar (pressure behind the reducer)
- ✓ Leak-tight: completely sealed-off units

TECHNICAL DATA

Maximum working pressure	: 10 bar
Maximum capacity	: see table
PRV 2000 control pressure	: 0.6 - 0.8 - 1.1 - 1.4 - 1.8 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 bar
In-Line control pressure (Low-Flow)	: 1.1 - 1.4 - 1.8 - 2.5 - 3.0 - 3.5 - 4.0 bar
Material	: plastic / brass

INSTALLATION & MAINTENANCE

- ✓ **Note:** be aware of a connection change from female to male thread on the latest model when replacing a 2" model with 4 heads from 2019 an older.

Technical data

Type	Connection	No. of units	Min. cap (m ³ /h)	Max. cap (m ³ /h)	Housing material
In-Line (Low-Flow)	3/4" (ID)	-	0,05	1,0	Plastic
PRV 2000 3/4"	3/4" x 1" (OD x ID)	1	0,8	4,0	Plastic
PRV 2000 1 1/2"	1 1/2" (OD)	2	1,6	8,0	Plastic
PRV 2000 2"	2" (ID)	4	3,2	16,0	Brass
PRV 2000 2"	2" (ID)	6	4,8	24,0	Brass
PRV 2000 3"	3" (ID)	10	8,0	40,0	Brass



3/4" In-Line

3/4" x 1 (2000)

1 1/2" x 2 (2000)

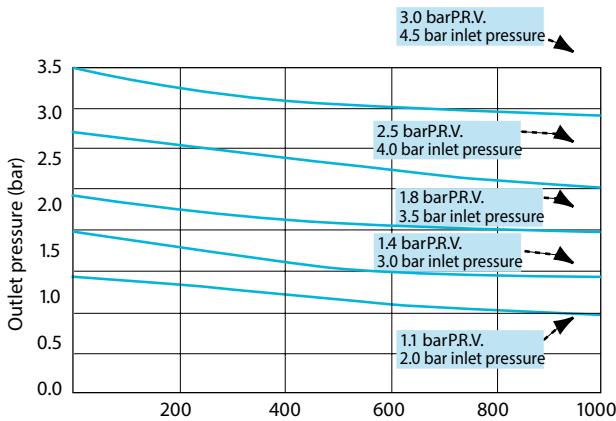
2" x 4 (2000)

2" x 6 (2000)

3" x 10 (2000)

Selection and calculation examples

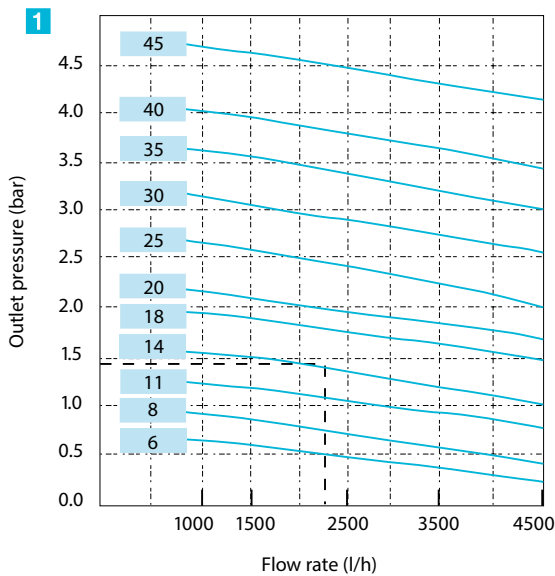
IN-LINE OUTLET PRESSURE VS. FLOW RATE



IN-LINE LOW FLOW PRESSURE REGULATOR

- Plastic body, corrosion resistant
- Stainless steel spring
- Min. flow rate 50 l/h, max. flow rate 1000 l/h
- Inlet and outlet connector 3/4 " female
- Max. inlet pressure: 10 bar
- Spring for drip irrigation: 1.1, 1.4 and 1.8 bar
- Spring for sprinklers: 2.5 and 3.0 bar

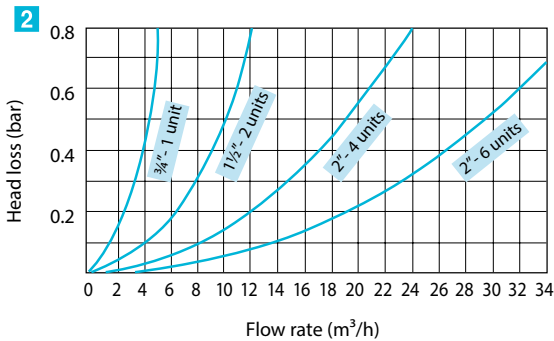
2000 SERIES OUTLET PRESSURE VS. FLOW RATE



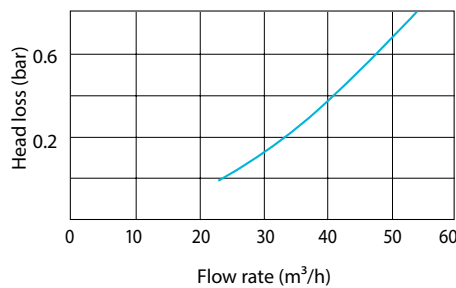
EXAMPLE: FLOW RATE – OUTPUT PRESSURE

Given flow rate = 14.0 m³/h
 Required output pressure = 1.4 bar
 Calculation: Selected product = PRV 2"x 6 springs.
 Headloss across the PRV unit at 14.0 m³/h = 0.12 bar (graph)
 Flow rate per spring = 14:6 = 2.3 m³/h.
 Selected spring 1.4 = output pressure at 2.3 m³/h is 1.4 bar (graph 1).
 Total minimum required inlet pressure = 1.4 + 0.12 + 0.2 (0 bar is constant addition to move the piston out) = 1.72 bar
 Spring pressure regulator valve => head loss + actual out pressure + 0.2 bar = minimum required inlet pressure.

PRESSURE REGULATORS (HEAD LOSS VS. FLOW RATE)



3"X10 (HEAD LOSS VS. FLOW RATE)



INSTALLATION & MAINTENANCE

Installation

- ✓ Pressure reducers can be installed both horizontally and vertically.
- ✓ The control units cannot be opened, but can be interchanged, also with the older type.