



CHECK VALVE AND FLOW CONTROLLER FOR MICROSPRINKLERS

Being continually aware of the needs and requirements of the market Palaplast has designed and produced two new products, the Check Valve and the Flow Controller for microsprinklers, covering every need in precise irrigation.

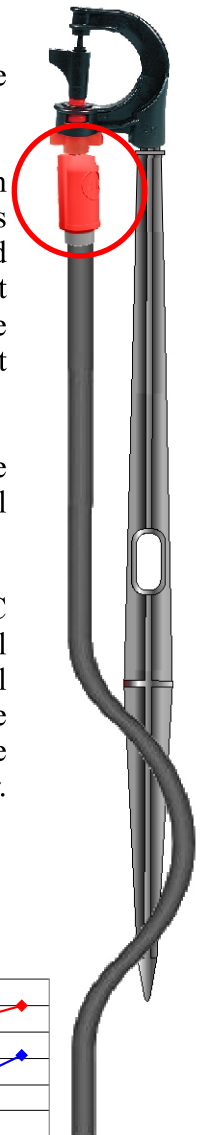
CHECK VALVE FOR MICROSPRINKLERS

The Check Valve is a pioneer product that functions as a “switch” according to the pressure in the network; it is available in two colors red and blue.

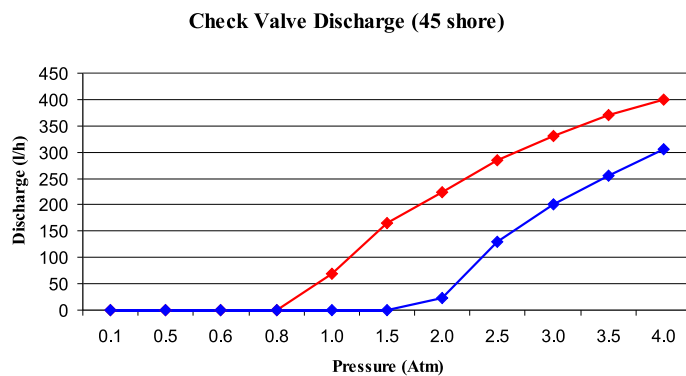
The purpose of the Check Valve is to stop the passage of water to the microsprinkler when the pressure falls below 0.4 - 0.5 Atm (red) and 1.0 - 1.1 Atm (blue) and to open when the pressure is above 0.6 - 0.7 Atm (red) and 1.8 - 1.9 Atm (blue). With the use of the Check Valve we avoid leakage of the microsprinkler when irrigation is terminated, thus avoiding plant burns that can result in greenhouses where the temperatures during the summer season can rise over 45°C. Also the Check Valve can be used in sloping fields to avoid drain out of the network to the lowest microsprinklers.

With the use of the Check Valve as a switch, the water within the network remains in the pipe and with the next irrigation run to the network, irrigation begins simultaneously at all microsprinklers.

The Check Valve is placed always prior to the microsprinkler and after the microtube PVC 7mm (see picture). It can be connected to all Palaplast micro sprinklers (“DELTA”, “2000”, Pal Rotating Super Sprayer, Pal Rotating Special Sprayer, Mist Atomizer, Pal Stable Sprayer, and Pal Stable Special Sprayer). The Check Valve does not cause any problems to the uniform discharge and radius dispersion of the micro sprinkler. The Check Valve can also be used together with the flow controller for microsprinklers and must always be placed before the flow controller.

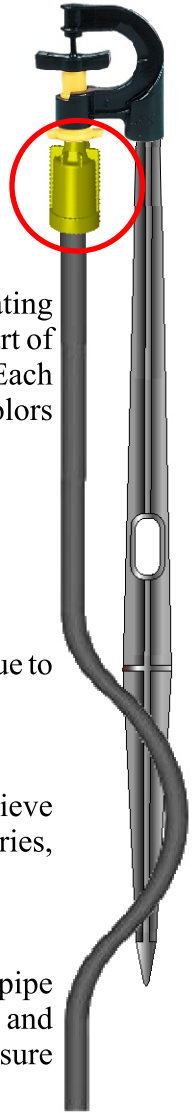


SILICONE		
	$\Phi 6 \times 1.0 \times 17.0$ 	$\Phi 6 \times 1.0 \times 17.0$
Pressure (Atm)	Discharge (l/h)	Discharge (l/h)
0.1	0.0	0.0
0.5	0.0	0.0
0.6	0.0	0.0
0.8	0.0	0.0
1.0	70,0	0,0
1.5	165,0	10,0
2.0	225,0	24,0
2.5	285,0	130,0
3.0	330,0	200,0
3.5	370,0	255,0
4.0	400,0	305,0
Opening:	0.6 - 0.7 Atm	1.8 - 1.9 Atm
Closing:	0.4 - 0.5 Atm	1.0 - 1.1 Atm



FLOW CONTROLLER FOR MICROSPRINKLERS

The Flow Controller is a new product that can be used to improve to the maximum irrigation using microsprinklers with female inlet 6mm. Working pressure range is from 2Atm up to 5Atm. The Flow Controller has markings indicating the direction of the water flow and it is placed always between the microsprinkler inlet and the nozzle of the PVC 7mm microtube. It can be connected to Palaplast microsprinklers “DELTA”, “2000”, Pal Rotating Super Sprayer, Pal Rotating Special Sprayer, Mist Atomizer, Pal Stable Sprayer, and Pal Stable Special Sprayer. The external part of the flow controller is color coded and each color distinguishes the different flow rates available. Each Flow controller is used with the corresponding microsprinkler of the same colour. The available colors are orange 50lt/h, black 70lt/h, blue 105lt/h, pink 140lt/h and yellow 200lt/h.



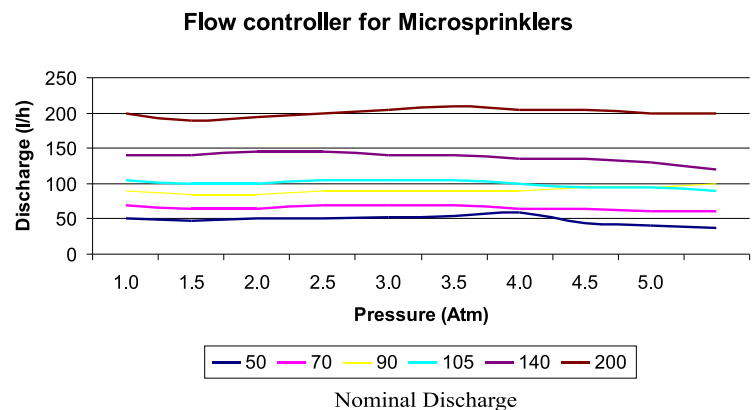
Advantages:

Uneven Terrain: With the use of the Flow Controller the problems with uneven terrain are resolved due to the flanged silicone part that stabilizes the flow rate, irrelevant of the working pressures.

Uniform irrigation: Due to the stabilized flow rate to all the microsprinklers of the run length we achieve uniform irrigation throughout the network, suitable in circumstances where we have nurseries, greenhouses etc.

Increase in irrigation run lengths: With the Flow Controller it is not necessary to use large diameter pipe and high inlet pressures to cover long irrigation run lengths. Thus we can irrigate more efficiently and economically without the cost of large diameter pipe, long irrigation run lengths, with less inlet pressure and even increase the number of microsprinklers.

DISCHARGE L/H						
Atm	Nominal Discharge					
	50	70	90	105	140	200
1.0	48	65	85	100	140	190
1.5	50	65	85	100	145	195
2.0	50	70	90	105	145	200
2.5	52	70	90	105	140	205
3.0	54	70	90	105	140	210
3.5	49	65	90	100	135	205
4.0	44	65	95	95	135	205
4.5	40	60	95	95	130	200
5.0	38	60	100	90	120	200



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