



# irritime

## PLASTIC MINI FILTER

It is effectively used to meet the filtration needs of the water required for low capacity usage areas. It is effective in many areas due to its small size. It is widely used in areas such as garden irrigation systems, fertilization systems, small-scale cooling water filtration.

### General Specifications ;

Body Material : PP

cartridge option: Disc Cartridge-PP, Mesh Cartridge SS 304+PP

Maximum Working Pressure: 8 Bar (116 PSI)

Maximum Operating Temperature: 60 °C/ 140 °F

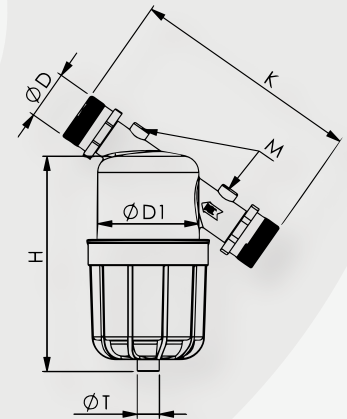
filtering degree : 130 micron



- Corrosion resistant raw material.
- High resistance to UV rays.
- High impact resistance.

- Long life.
- Minimum pressure loss.
- Easy cleaning.

Code	D	M	T	D1	H	K	FLOW	FILTER SURFACE AREA
	İnç			mm			m <sup>3</sup> /h	cm <sup>2</sup>
IR-MNPE3/4	3/4		1/2	68	190	160	5	165
IR-MNPD3/4	3/4		1/2	68	190	160	5	185
IR-MNPE10	1		1/2	68	190	160	6	165
IR-MNPD10	1		1/2	68	190	160	6	185
IR-MDPD10S	1		1/2	96	230	220	10	300
IR-MDPE10S	1		1/2	96	230	220	10	325
IR-MDPE15	1½		1/2	96	230	220	15	300
IR-MDPD15	1½		1/2	96	230	220	15	325
IR-MXPE15S	1½	1/4	1/2	120	280	270	20	515
IR-MXPD15S	1½	1/4	1/2	120	280	270	20	550
IR-MXPE20	2	1/4	1/2	120	280	270	25	515
IR-MXPD20	2	1/4	1/2	120	280	270	25	550



### Filter Cleaning ;

When there is a pressure difference between inlet and outlet, the filter must be cleaned. The cover is opened and the inner set is removed. The plastic screw for the inner disk assembly is loosened and cleaned with pressurized water and reassembled. Screen filters are washed directly with pressurized water and reassembled.



mini MIDI MAXI

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## PLASTIC MINI FILTER



mini

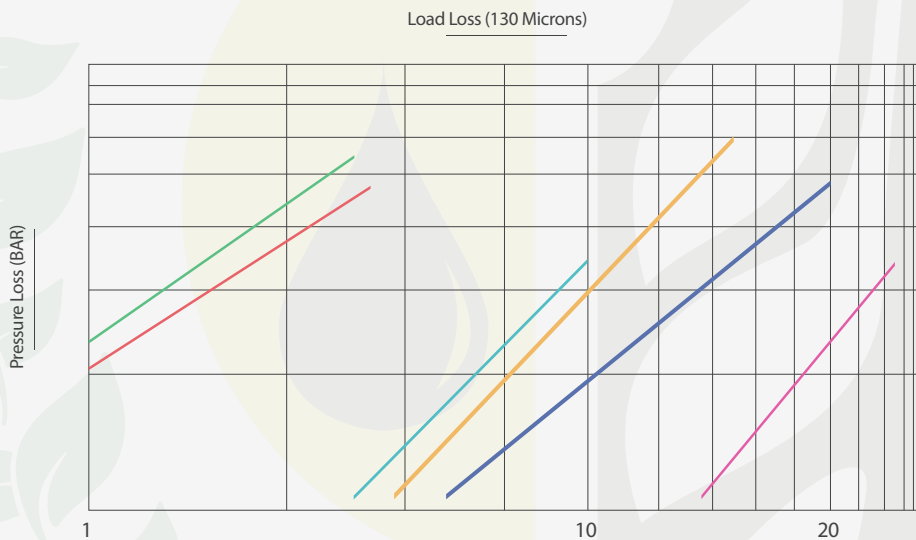
MNPD<sup>3/4</sup>  
MNPD10

MIDI

MDPD10  
MDPD15

MAXI

MXPD15  
MXPD20



mini

MNPE<sup>3/4</sup>  
MNPE10

MIDI

MDPE10  
MDPE15

MAXI

MXPE15  
MXPE20

Code	Connection Dimension	Max. Flow	Filtering Field (Mesh)	Filtering Field (Disc)
MPE <sup>3/4</sup> - MPD <sup>3/4</sup>	<sup>3/4</sup> "	5 m <sup>3</sup> /h	165 cm <sup>2</sup>	185 cm <sup>2</sup>
MPE10 - MPD10	1"	6 m <sup>3</sup> /h	165 cm <sup>2</sup>	185 cm <sup>2</sup>

Code	Connection Dimension	Max. Flow	Filtering Field (Mesh)	Filtering Field (Disc)
MPE10S - MPD10S	1"	10 m <sup>3</sup> /h	300 cm <sup>2</sup>	325 cm <sup>2</sup>
MPE15 - MPD15	1 <sup>1/2</sup> "	15 m <sup>3</sup> /h	300 cm <sup>2</sup>	325 cm <sup>2</sup>

Code	Connection Dimension	Max. Flow	Filtering Field (Mesh)	Filtering Field (Disc)
MPE15S - MPD15S	1 <sup>1/2</sup> "	20 m <sup>3</sup> /h	515 cm <sup>2</sup>	550 cm <sup>2</sup>
MPE20 - MPD20	2"	25 m <sup>3</sup> /h	515 cm <sup>2</sup>	550 cm <sup>2</sup>

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## PLASTIC FILTER

It keeps contaminants out of your irrigation system. Plastic filters are used for primary and backup filtration. Irritation filters are filters that can be cleaned manually. Almost all parts are made of plastic raw materials. The remaining parts are made of stainless steel. These materials maximize the corrosion resistance of the filter. Thus, it maintains its functionality for a long time and provides ease of use.



Body Material: PA

Cartridge material : Disk-PP, Elek SS304+PA

Maximum Working Pressure: 8 Bar (116 PSI)

Maximum Working Temperature: 60°C/ 140 °F

Filtering Sensitivity: 20-50-100-130 Micron

cartridge option : D: Disc Filters Cartridge - E: Mesh Filters Cartridge

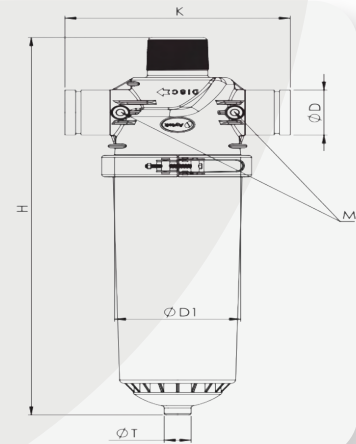
Corrosion resistant raw material.

- High resistance to UV rays.
- High impact resistance.
- Minimum pressure loss.

- Long life.
- Minimum pressure loss.
- Easy cleaning.
- Large filtration surface

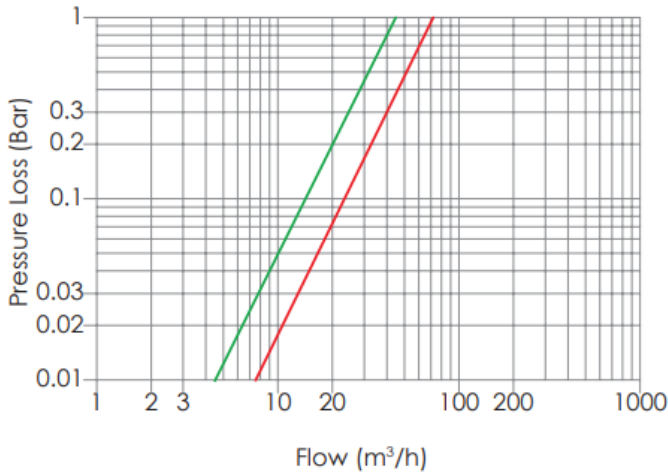
### Filter Cleaning ;

When there is a pressure difference between inlet and outlet, the filter must be cleaned. The cover is opened and the inner set is removed. The plastic screw for the inner disk assembly is loosened and cleaned with pressurized water and reassembled. Screen filters are washed directly with pressurized water and reassembled.



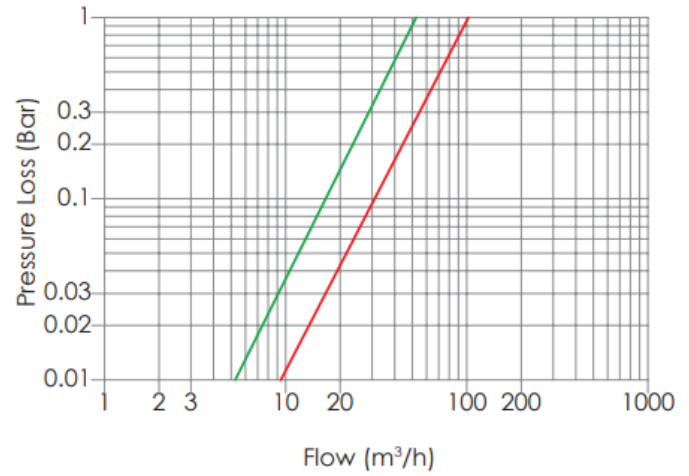


HEAD LOSS (130 micron)



PD2 — PSD3

HEAD LOSS (130 micron)



PE2 — PSE3

### Working Principle and Washing Process:

During filtration, particles accumulate on the outer surface of disk filters and on the inner surface of screen filters and cause contamination. This contamination increases the difference between inlet and outlet pressures. This is undesirable and the filter must be cleaned. The cover clamp of the filters is opened and the inner tool is removed. In disc filters, the inner set clamping nut is loosened, disk gaps are created and the disks are cleaned with the help of clean water. In sieve filters, the sieves are cleaned with clean water. Then the filters are reassembled and made ready for use.

Code	D	M	T	D1	H	K	Flow rate	Filtering Area	Weight
	inch			mm			m³/h	cm²	kg
PMD2	2	1/4	3/4	190	500	335	20	868	6
PD2	2	1/4	3/4	190	600	335	33	1302	7
PSD2	2	1/4	3/4	190	750	335	35	1805	8
PD25	2½	1/4	3/4	190	600	335	35	1302	7,1
PSD25	2½	1/4	3/4	190	750	335	40	1805	8,1
PD3	3	1/4	3/4	190	600	335	45	1302	7,2
PSD3	3	1/4	3/4	190	750	335	50	1805	8,2
PME2	2	1/4	3/4	190	500	335	20	868	5,2
PE2	2	1/4	3/4	190	600	335	30	1140	5,4
PSE2	2	1/4	3/4	190	750	335	35	1520	6,3
PE25	2½	1/4	3/4	190	600	335	35	1140	5,5
PSE25	2½	1/4	3/4	190	750	335	40	1520	6,4
PE3	3	1/4	3/4	190	600	335	45	1140	5,6
PSE3	3	1/4	3/4	190	750	335	50	1520	6,5





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## PLASTIC DOUBLE FILTER

It serves to keep contaminants out of your irrigation system. Plastic filters are used for primary and backup filtration. Irritime filters are filters that can be cleaned manually. Almost all parts are made of plastic raw materials. The remaining parts are made of stainless steel. These materials maximise the corrosion resistance of the filter. Thus, it provides ease of use by maintaining its functionality for a long time.

**Body Material: PA**

**Cartridge material : Disc-PP, Screen SS304+PA**

**Maximum Operating Pressure: 8 Bar (116 PSI)**

**Maximum Operating Temperature: 60°C/ 140 °F**

**filtering Degree: 20-50-100-130 Micron**

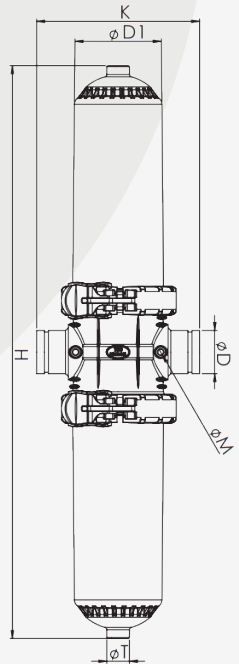
**Cartridge Option: D: Disc Inner Set - E: Sieve Inner Set**



- Corrosion resistant raw material.
- High resistance against UV rays.
- High impact resistance.
- Minimum pressure loss.

- Long life.
- Minimum pressure loss.
- Easy cleaning.
- Large filtration surface

CODE	D	M	T	D1	H	K	FLOW	FILTERING AREA	WEIGHT
	inch			mm			m <sup>3</sup> /h	cm <sup>2</sup>	kg
DD3	3	1/4	3/4	190	960	340	50	2604	11,4
DD4	4	1/4	3/4	190	960	340	70	2604	11,6
DDS3	3	1/4	3/4	190	1200	340	60	3610	13,6
DDS4	4	1/4	3/4	190	1200	340	80	3610	13,8
DE3	3	1/4	3/4	190	960	340	50	2280	8,4
DE4	4	1/4	3/4	190	960	340	70	2280	8,6
DES3	3	1/4	3/4	190	1200	365	60	3040	9,8
DES4	4	1/4	3/4	190	1200	365	80	3040	10

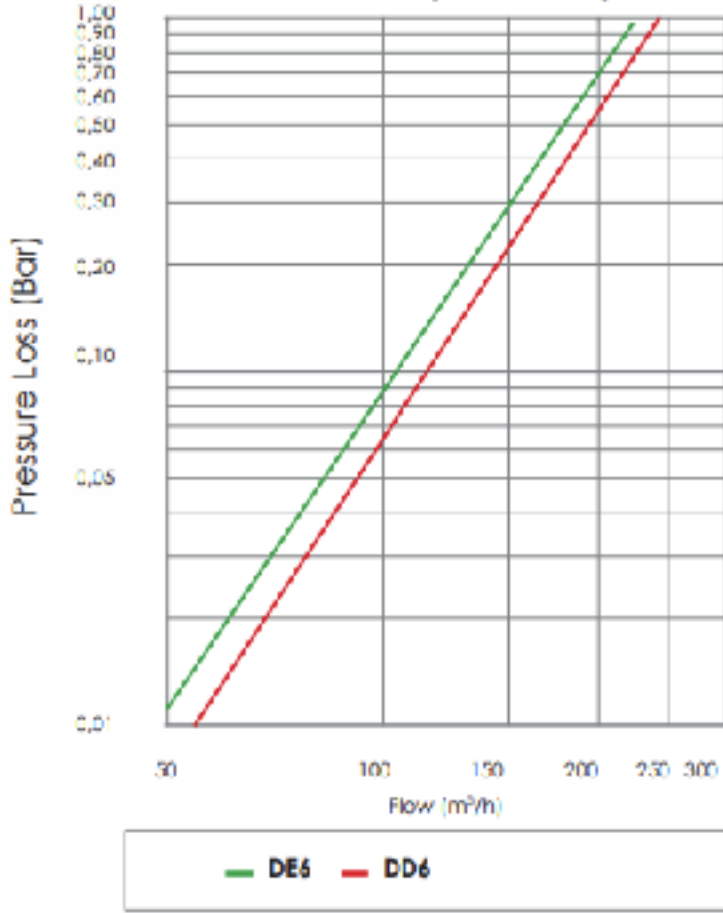




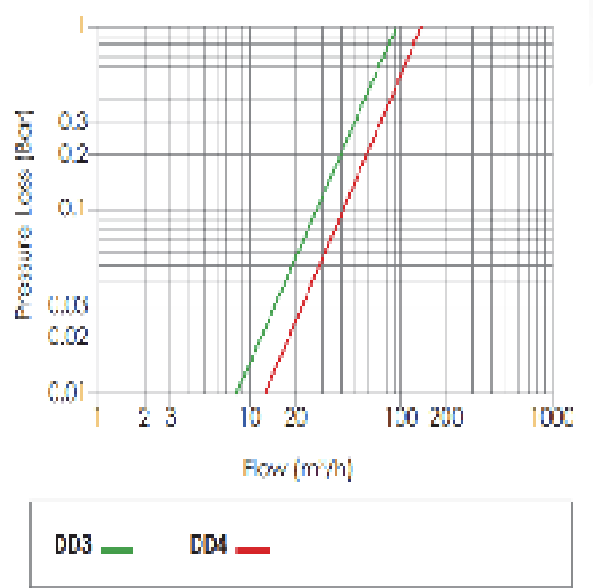
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## PLASTIC DOUBLE FILTER

HEAD LOSS (130 MICRON)



HEAD LOSS (130 micron)



### Working Principle and Washing Process

During filtration, particles accumulate on the outer surface of disc filters and on the inner surface of screen filters and cause contamination. This contamination increases the difference between inlet and outlet pressures. This is an undesirable situation and the filter must be cleaned. The cover clamp of the filters is opened and the inner set is removed. In disc filters, disc gaps are created by loosening the inner set tightening nut and discs are cleaned with the help of clean water. In sieve filters, the sieves are cleaned with clean water. Then the filters are reassembled and made ready for use.





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## PLASTIC GRAVEL (MEDIA) FILTERS

### **Sand Media Filter:**

Irritime Sand Media Filtration systems are designed to filter organic materials and particles which may come from water source in micro irrigation systems. Sand Media Filter systems is applicable for open water sources such as river lake and dam to eliminate organic matters like algae for agricultural usage. Sand Media Filters are also the most common used filters for water treatment and sludge filtration in industrial areas as well.

### **Plastic Sand Media Filter :**

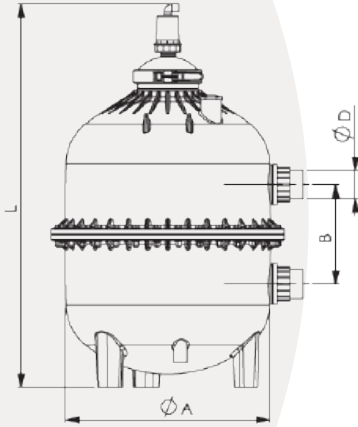
#### GENERAL CHARACTERISTICS

Body Material: PA6GFR30

Maximum Working Pressure: 6 Bar (88 PSI)

Maximum Working Temperature: 60° C/ 140 °F

Maximum Sand Capacity: 200 Kg



CODE	A		B		L		D		Flow Rate		Weight	
	inch	mm	inch	mm	inch	inch	DN	m <sup>3</sup> /h	Usgpm	kg	lb	
IR-P3020	24"	300	12	1100	44	2	50	20	88	43	94,8	
IR-P3025	24"	300	12	1100	44	2 1/2	65	25	110	43,2	95,2	
IR-P3030	24"	300	12	1100	44	3	80	20	132	43,5	95,9	

### **What is the back-flushing process :**

Throughout the filtration process, particles suspended in the sand layer shall later cause obstruction in the filter following a particular operation period. Therefore, pressure loss in the system will increase and media filter is required to be cleaned. Cleaning process of media filters is referred as back flushing. During back flushing process, the issue required to be considered is to wash the filter using clean water. Pressure clean water supplied from outlet (clean water) manifold progresses to sand layers from filter corks. Particles suspended among sand layers are pushed forward under effect of pressure clean water and they are released to the atmosphere from discharge port of the back flushing control gate. Thus, filter is efficiently cleaned. Duration of back flushing process is adjusted according to obstruction degree of the filter. It is highly recommended that a short-term back flushing process in regular intervals is performed rather than long-term back flushing process.

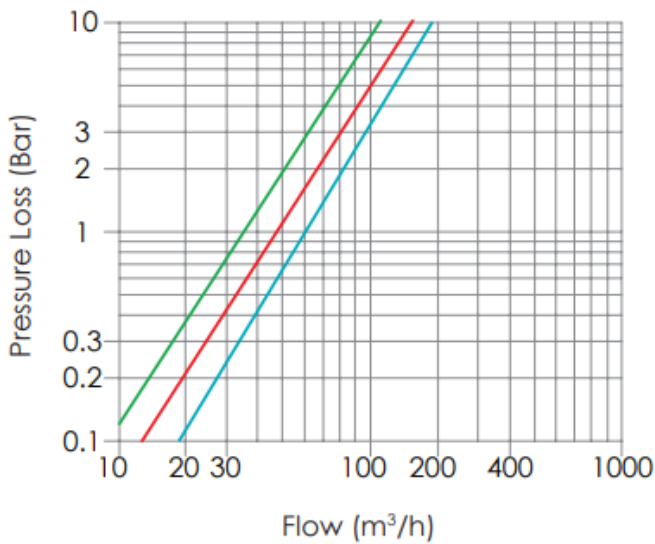




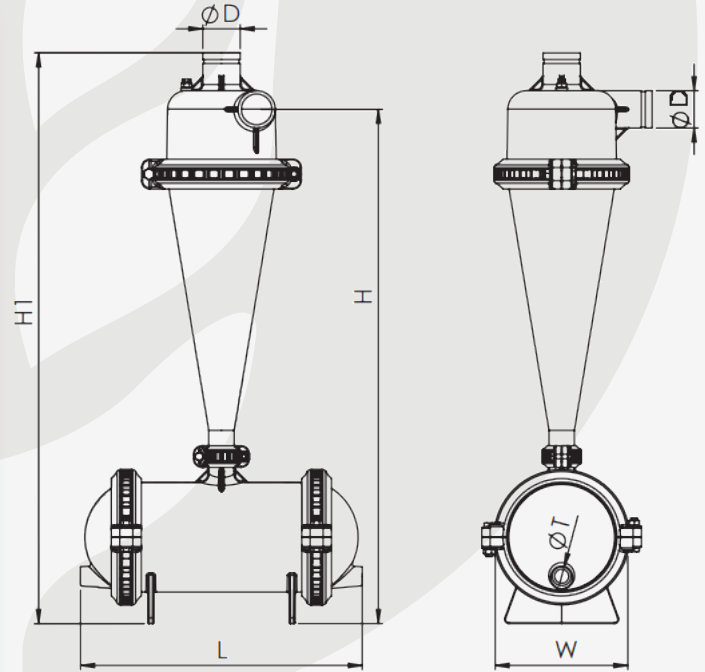
Plastic hydrocyclones relieve the filter system by pre-filtering the filter systems. Filter systems are used to protect against heavy contamination. Depending on water capacity and contamination status, hydrocyclones by increasing the number of parallel connections and can be used simultaneously.

Hydrocyclones are designed in a simple structure for the filtration of well water or water containing sand, gravel and particles heavier than the weight of water. filter systems used for agricultural irrigation is used as the first filter element. Hydrocyclones, irrigation systems by creating minimum pressure loss and maximum works with efficiency. Solid particles heavier than the weight of the water in the water fall down the narrowing conical part of the hydrocyclone and are collected in the waste chamber (sand tank). Clean water, separated from the solid particles, is conveyed through the outlet pipe into the system. The accumulated particles are discharged from the bottom tank (sand tank) through the discharge valve. Inlet and outlet directions should be taken into consideration when connecting with the line.

HEAD LOSS



P2020 — P2025 — P2030 —





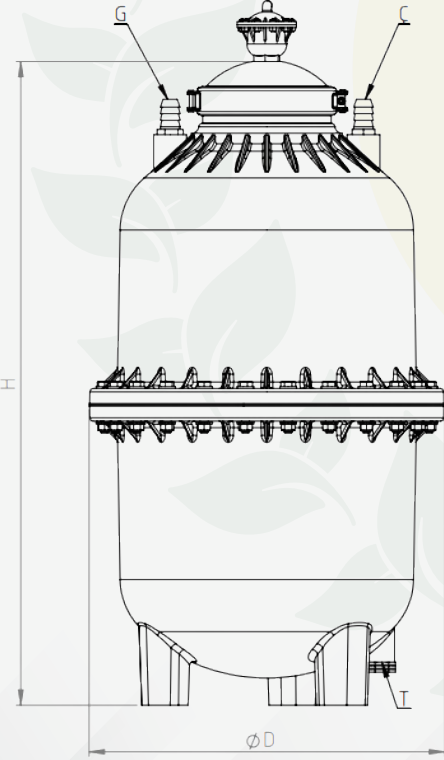


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## Plastic Fertilizer Tank

Fertilizer tanks are used in agriculture and horticulture to supply fertilizer to plants. They are used to feed fertilizer into irrigation systems. This allows fertilizers to be delivered directly to the root zones to increase the growth and productivity of plants.

Code	D	G	Ç	T	H	Capacity	weight
	inch				mm	lt	kg
P1100	21	1	1	3.Nis	965	100	24
P1200	28	1	1	3.Nis	1050	200	36



- Corrosion resistant raw material,
- High resistance to UV radiation,
- High impact resistance,
- Longevity,

**Body Material: PA6GFR30 Maximum Operating Pressure: 6 Bar (88 PSI)**

**Maximum Operating Temperature: 60 °C/ 140 °F**





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## VENTURI TUBE



We can provide four sizes of Venturi fertilizer injector including 3/4", 1", 1.5" and 2". You can select it according to irrigation fertilizer amount. It has many advantages such as simple construction, easy operation, free power. And it is very efficient for small and medium-sized irrigation areas to apply water and fertilizer. Meanwhile, Venturi injector can inject liquid fertilizer and other water solvent into pipe network of irrigation system. So this kind of fertilizing device was widely applied in micro-irrigation, drip irrigation, micro-spray system.

### Venturi Tube

Code	Size	Packaging-Box
IR-VEN-3/4	3/4"	10
IR-VEN-1	1"	10
IR-VEN-11/2	1 1/2"	3
IR-VEN-2	2"	3

### Features And Advantages:

- Low cost, easy operation, stable fertilizer concentration, free extra power.
- Realize fertilizing in proportion to maintain a constant nutrient concentration.
- Realize the integration of irrigation & fertilization and save fertilizer and manpower.
- PP material with high resistance to chemicals used in agriculture.
- Adaptable to all micro-irrigation, drip irrigation and micro-spray systems.
- Easy installation, operation and maintenance.

### How To Work?

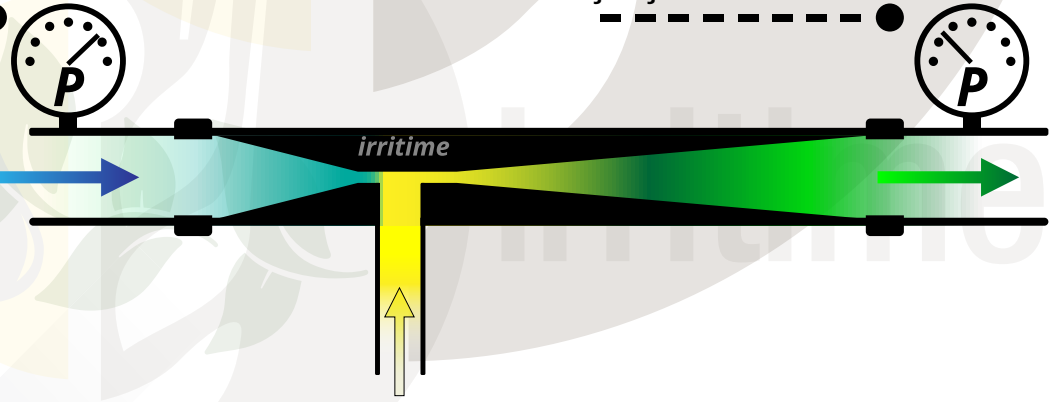
Turn down the waterway main valve when working, it will form a differential pressure which makes the water flow through the branch of Venturi injector. When the water flow through the narrow Venturi pipe's throat, the flow rate could become increased and the pressure could become decreased. When there is a smaller diameter pipe accordingly equipped in the Venturi tube's throat, the created negative pressure would draw the liquid fertilizer into the pipe system to fertilize from the exposed fertilizer bucket. The switch valve at the entrance can adjust the proportion of the intake of water and fertilizer.

**Inlet Pressure**  
Giriş Basıncı

**Outlet Pressure**  
Çıkış Basıncı

**Motive Flow**  
Akış Yönü

**Suction Flow**  
Emme Akışı





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## VENTURI TUBE

### ***Installation;***

- Conditions where the pressure difference at the venturi inlet and outlet is greater than 20% is required.
- There are two types of connection.

#### ***1. Parallel to the main pipeline (by-pass connection)***

A parallel connection recommended to the main pipe when Liquid flow in system is more than recommended at low pressure. Throttling the valve on the main pipe causes the pressure in the parallel line to rise and venturi starts to work properly. The desired pressure difference is controlled by the valves on both sides of the venturi and the manometer. The minimum distance between venturi and valve should be 60cm. Pressure difference, suction and discharge values are as in the Pressure-Flow Rate Chart.





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## VENTURI TUBE

### 2. On-line connection;

Online connection recommended when Liquid flow in system is less than recommended at low pressure The desired pressure difference is controlled by the valves on both sides of the venturi and the manometer. Pressure difference, suction and discharge values are as in the Pressure-Flow Rate Chart.





### Pressure-Flow Rate Chart

n (bar)	P out (bar)	3/4"		1"		1 1/2"		2"	
		Injection	Aspiration	Injection	Aspiration	Injection	Aspiration	Injection	Aspiration
		Flow (l/min)	Flow (l/h)	Flow (l/min)	Flow (l/h)	Flow (l/min)	Flow (l/h)	Flow (l/min)	Flow (l/h)
0,5	0	9	400	41	480	54	655	146	1000
0,75	0	11	440	47	500	70	900	174	1075
1	0	13	420	50	514	81	1029	204	1200
	0,25	13	420	50	514	73	1029	202	1200
	0,5	13	360	47	480	73	800	200	1040
1,5	0	15	400	57	514	94	1029	238	1200
	0,5	15	400	57	514	94	1029	236	1075
	0,75	15	300	53	480	90	900	242	1075
	1	15	103	53	340	85	655	213	889
2	0	18	380	64	514	105	1029	268	1200
	0,5	18	380	64	514	105	1029	268	1200
	0,75	18	380	64	514	105	1029	268	1200
	1	18	200	64	514	105	1029	268	1040
	1,25	18	100	61	400	105	800	255	1000
	1,5			60	120		232	238	
2,5	0	20	360	70	500	116	1029	285	1200
	0,5	20	360	70	500	116	1029	285	1200
	0,75	20	360	70	500	116	1029	285	1200
	1	20	360	70	500	116	1029	285	1200
	1,25	20	360	69	480	116	1029	281	1200
	1,5	20	200	69	480	112	900	281	1040
	1,75			66	343	109	800	272	527
	2			65	120				
3	0	21	330	75	500	126	1029	319	1200
	1	21	330	75	500	126	1029	315	1200
	1,25	21	330	75	450	126	1029	315	1200
	1,5	21	330	75	450	126	1029	315	1125
	1,75	21	330	75	450	125	800	306	1125
	2	21	200	75	400	119	655	302	1000
	2,25			73	200	117	277	293	889
	2,5								527
3,5	0	22	300	81	480	135	1029	344	1200
	1	22	300	81	480	135	1029	344	1200
	1,5	22	300	81	480	135	1029	344	1200
	1,75	22	300	81	480	135	1029	344	1200
	2	22	300	81	480	135	1029	340	1200
	2,25	22	240	79	400	130	800	332	1125
	2,5	22	100	79	340	128	655	319	889
	2,75			78	200	125			
4	0	24	280	85	480	143	1029	366	1200
	1	24	280	85	480	143	1029	366	1200
	2	24	280	85	480	143	1029	357	1200
	2,25	24	280	85	480	141	1029	357	1200
	2,5	24	240	85	480	140	1029	357	1200
	2,75	24	180	85	400	138	655	349	1125
	3	24	100	83	300	135	277	340	527
				81	120				

