

*Creating a Green World*

PRODUCT CATALOGUE | 2018





## Unit-4



## Molding Shop



## New Products Development

We are Automat.

We create cost-effective irrigation products and concepts for efficient irrigation.

An endeavour to blend on-field knowledge with the latest breakthroughs in manufacturing technology helps us meet farmer needs better.

Implementing continuous feedback from on-ground teams – who work with partners & consumers to enhance existing product features and performance, is an important challenge for our product managers.



## Introduction



Assembly

In the background of India becoming one of the largest markets for micro irrigation products, our expansion and capacity enhancement helps us fulfil the peak seasonal demand as well.

We view all of you as our partners in our endeavour of empowering the Indian farming community.



Testing

Team Automat !



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# New Products Overview



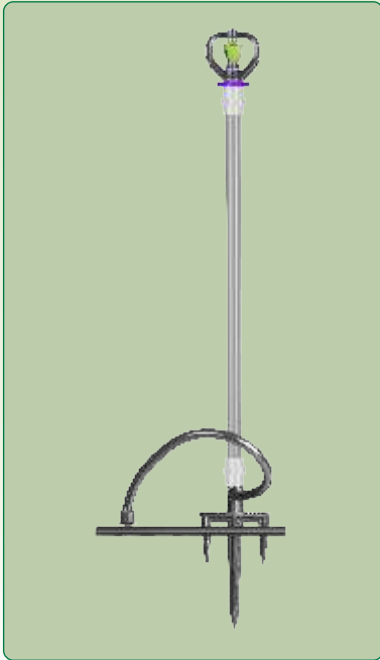
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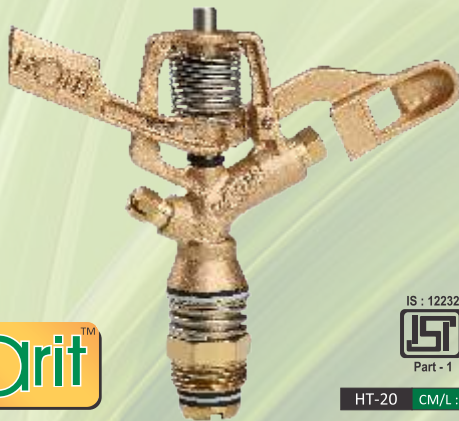


PVC Fittings  
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Pop-up sprinkler - 'Aquaturf'  
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# Impact Sprinklers



HT-20 CM/L : 8205260

## HT- 20

- Available in 3/4" BSP Male Threaded Connection.
- Bronze Body & Arms, Brass Bearing Sleeve & Nipple.



HT-46 CM/L : 8939410



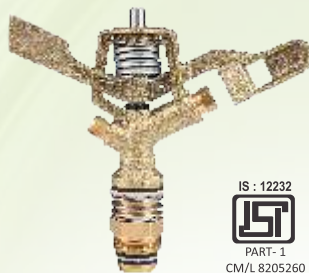
## HT- 46 (SAARAS)

- Available in 3/4" BSP Male Threaded Connection.
- Body, Arm, Bearing & Nozzles made of engineering plastic (Delrin) for durability.



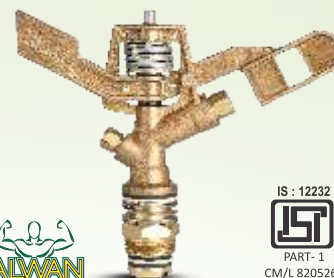
## HT- 5DN

- Available in 1/2" BSP Male Threaded Connection.
- Brass Body & Arms, Brass Bearing Sleeve & Nipple.



## HT- 20CS

- Available in 3/4" BSP Male Threaded Connection.
- Brass Body & Arms, Brass Bearing Sleeve & Nipple.



## HT- 20CS (BALWAN)

- Available in 3/4" BSP Male Threaded Connection.
- Zinc pressure die casted Arm & Body.

Other Available Models



	HT-5DN	HT-5LA7	HT-20	HT-46	HT-25	HT-30	HT-40M
Connection Size	1/2"	1/2"	3/4"	3/4"	3/4"	1"	1 1/4"
Nozzle (mm)	3.5 X 2.5	2.38	5.15 x 3.17	5.15 x 3.17	5.15 x 3.17	7.93 x 5.55	10.32 x 5.55
Pressure (kg/cm <sup>2</sup> )	2	2	2	2	2	2.5	2.5
Radius (mtr)	11	7	12.6	14.35	14.55	20	21.5
Discharge (Ltr/Min)	17.4	5.25	32	32.00	37.30	86.30	155.30

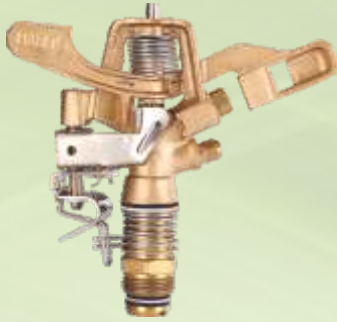


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# Part Circle Sprinklers



## HT- 20PC

- Available in 3/4" BSP Male Thread Connection.
- Bronze Body & Arm.
- Both Part Circle and Full circle operations possible.
- Part Circle operation ranging from 20° to 340°.



## HT- 46PC

- Available in 3/4" BSP Male Thread Connection.
- Body, Arm & Bearing made of Engineering Plastic (Delrin).
- Both Part Circle and Full circle operations possible .
- Part Circle operation ranging from 30° to 330°.

## Accessories For Saaras



Quick Coupling Socket



Female Socket



Spanner

## Universal Threaded Adaptor



- (3/4" & 1") X 1/2"
- (3/4" & 1") X 3/4"



IS : 12232  
Part - 1  
CM/L : 8939410

Made out of special imported Engineering Plastic for durability and smooth functioning.

## HT-22PC

- Available in 1/2" Male Thread Connection.
- Body Arm, Bearing & Nozzles made of engineering plastic (Delrin) for durability.
- Specially designed Bayonet nozzles.
- Stainless Steel Springs & Pivot Pin.
- Both Part/Full Circle Operation Possible.
- Part Circle Operation ranging from 15° to 345°.
- BIS approved.
- Trajectory Angle 25°.

## Other Available Models



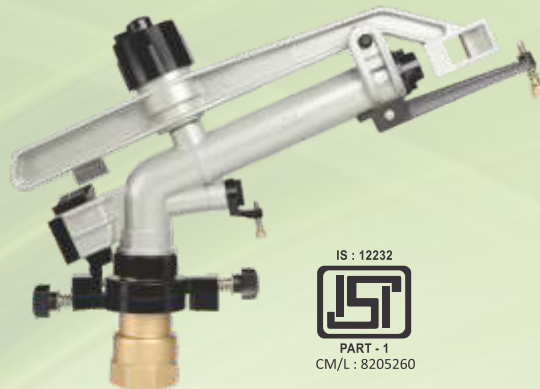
	HT-22PC	HT-05PC	HT-46PC	HT-20PC	HT-30PC
Connection Size	1/2"	1/2"	3/4"	3/4"	1"
Nozzle (mm)	3.5	3.57	4.76 X 3.17	4.76 X 3.17	7.1 X 3.2
Pressure (kg/cm <sup>2</sup> )	2.5	2.5	2	2	3
Radius (mtr)	11.5	11.7	13.4	14.6	17
Discharge (Ltr/Min)	12.5	22.6	29.4	28.8	65.3

# Water Guns / Rain Guns



IS : 12232  
  
 PART - 1  
 CM/L : 8205260

**Penguin**  
 1 1/4" Water Gun (HT-40G)



IS : 12232  
  
 PART - 1  
 CM/L : 8205260

**Pelican**  
 1 1/2" Water Gun (HT-42G)



Imported

**Skipper**  
 1 1/2" Water Gun (HT-43G)



Imported

**Duplex**  
 2" Water Gun (HT-45G)



Imported

**Mariner**  
 2 1/2" Water Gun (HT-47G)

Multiple models of Guns are available of SIME, Italy. You may visit the website - [www.sime-sprinklers.com](http://www.sime-sprinklers.com) for more details. Automat is authorized distributor of SIME, Italy in India.

## Applications

- Field Crop – Sugarcane, Ground Nut, Maize, Wheat, Grams & Pulses.
- Tea Estate & Coffee plantation.
- Dust Suppression, Green Pastures, Sports Field & Golf Courses.

## Tri Pod Stand



Available for 1 1/4" & 1 1/2" Guns

## Specifications

- Available in: 1 1/4" - HT40GSD  
 1 1/2" - HT42GSD
- Female BSP thread for inlet connection and male BSP thread for outlet connection.
- Stand leg pipe length - 1.1 m + 4 inch spike nail to sustain pressure.
- Available in standard riser length of 1.5 meter but can be specially made in 2 meter length as well.



	HT-40G	HT-42G	HT-43G	HT-44G	HT-45G	HT-47G
Connection Size	1 1/4"	1 1/2"	1 1/2"	2"	2"	2 1/2"
Nozzle (mm)	12X4	14X5	16X6	16X8	16X8	30X8
Pressure (kg/cm <sup>2</sup> )	4	4	5	4	5	6
Radius (mtr)	26	30	35	36	37	57
Discharge (Ltr/Min)	211	277	406	400	446	1479



# Flamingo

HT- 44G (2" Water Gun)



Suitable for Overtree irrigation for coffee, tea, sugarcane, fodder crop, landscape and horticulture. Also for pastures and dust suppression.



Special Tri Pod Stand for 2" Gun ( HT-44GSD)

## Features

- Available in 2" BSP Female threaded Connection.
- Available in both Full Circle & Part -circle design.
- Jet breaker screw to change the water jet from heavy droplets to fine spray.
- Recommended Pressure: 2.0 - 5.0 kg/cm<sup>2</sup> or 30 - 70Psi
- Recommended spacing: up to 36m for higher distribution uniformity.
- Trajectory Angle: 27°

## Performance Data

Nozzle mm	Pressure		Coverage Diameter		Discharge Rate	
	Kg/cm <sup>2</sup>	PSI	mtr.	ft.	LPM	GPM
14X8	2	28.44	52	170.56	230	60.75
	3	42.66	62	203.36	280	73.96
	4	56.88	66	216.48	325	85.84
	5	71.1	70	229.60	365	96.41
16X8	2	28.44	58	190.24	282	74.48
	3	42.66	66	216.48	345	91.13
	4	56.88	72	236.16	400	105.65
	5	71.1	76	249.28	445	117.54
18X8	2	28.44	62	203.36	342	90.33
	3	42.66	70	229.60	435	114.90
	4	56.88	78	255.84	505	133.39
	5	71.1	82	268.96	560	147.91

\* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.

▲ Standard Nozzle Size



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# Mini Sprinklers

HT-22U



HT-22U C/M/L : 8939410



## Slit Nozzle



- Specially Design Spray Milling Nozzle For Higher Distribution Uniformity at low pressure.
- Solution For Dry Patches In The Field.

## Plastic Pivot Pin



- Low friction coefficient Engineering Plastic Pivot Pin for smooth functioning of Arm while rotating.

## Features

- Uniform water application maintains optimum soil moisture ratio.
- Uniform germination & fertilizer application & avoids leaching of soil and fertilizer in grade water.
- Easy to install & dismantle with visibility of operation.
- Being a versatile system, can be used for 2-3 crops each year for multiple products.
- Distance between sprinklers : 8-12 mtr.
- Low application rate : 4-5mm/hr.
- Low operating pressure, thus energy saving.
- Durable and weather resistance – long life span.

## Performance Data

Nozzle Size	(mm)	2.4 X 1.8				
						
Working Pressure	(Bar)	1.0	1.5	2	2.5	3
Flow Rate	(Lit/hr)	386	475	535	600	655
Wetted Diameter	(metre)	17.5	18.0	19.0	19.5	20.0
Precipitation Rate (mm/hr) /Spacing (m)	9X9	4.7	5.7	6.5	7.3	7.9
	9X10	4.2	5.1	5.8	6.6	7.1
	10X10	3.8	4.6	5.3	5.9	6.4
	9X12	3.5	4.2	4.9	5.5	5.9
	10X12	3.1	3.8	4.4	4.8	4.8

Color Code Distribution Uniformity :

CDU < 85%	85% ≤ CDU ≤ 88%	89% ≤ CDU ≤ 92%	CDU > 92%
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## Applications

- Potato, Onion, Garlic, Ginger, Cabbage, Cauliflower, Strawberry, Groundnut, Mustard, Pulses, Tea & Nursery.
- Useful for frost control 0°C to -3°C.
- Creation of Micro Climatic Conditions.



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# Aquafly

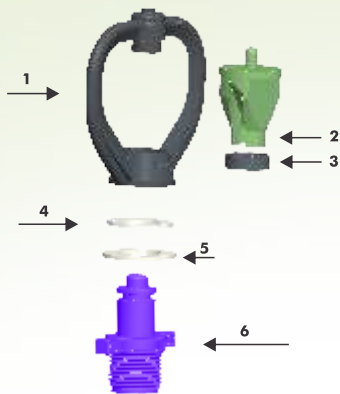
## Butterfly Micro Sprinkler (HT-220 series)

### Applications

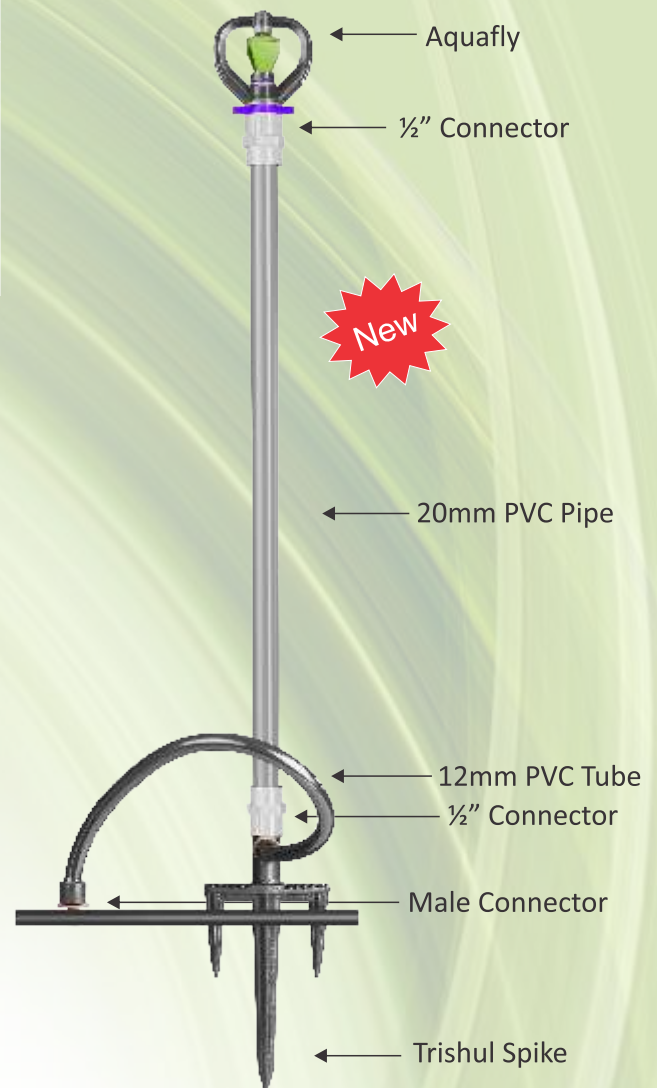
- High Volume, low pressure plastic micro sprinkler for overhead irrigation of close spacings vegetable crops (Ginger, Onion, Potatoes etc.) and flowers.
- For irrigation of widely spaced plants for spacing upto 6x6m mounted on an Agri Stand.
- Ideal for crops requiring more water.

### Features & Specifications


- Every component manufactured out of engineering plastic.
- ½" male threaded connection.
- Excellent distribution uniformity.
- Range of operating Pressure : 0.5 -2.5 kg/cm<sup>2</sup>.
- Flow Rate Range : 240 – 550 LPH.
- Recommended Spacing 4x4m, 5x5m & 6x6m.



Parts	Parts Description	Material
1	Frame	POM
2	Swivel	Nylon Filled
3	Swivel Bush	PP
4	Washer	Nylon Filled
5	Circlip	Nylon Filled
6	Nozzle	POM



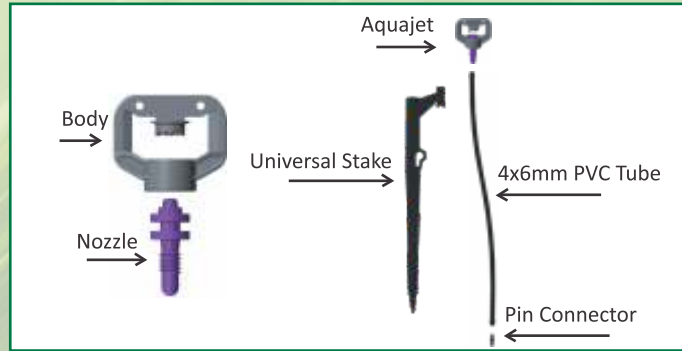
### Performance Data

Swivel Color	Nozzle Color	Nozzle (mm)	Pressure (Kg/cm <sup>2</sup> )	Flow Rate (LPH)	Diameter (m)	Precipitation Rate (mm/hr) / Spacing (m)		
						4 x 4 m	5 x 5 m	6 x 6 m
	Purple	2.5mm	1.0	240	10.5	15	9.6	6.7
			1.5	295	11.5	18.4	11.8	8.2
			2.0	345	12.0	21.6	13.8	9.6
	Brown	2.8mm	1.0	300	11.0	18.7	12	8.3
			1.5	370	12.0	23.1	14.8	8.3
			2.0	430	12.0	26.9	17.2	11.9
	Green	3.1mm	1.0	394	11.0	24.6	15.7	10.9
			1.5	476	12.0	29.7	19	13.2
			2.0	550	12.5	34.2	22	15.2

\* Tested at 100cm riser height. Color Code Distribution Uniformity : CDU < 85% 85% ≤ CDU ≤ 88% 89% ≤ CDU ≤ 92% CDU > 92%

# Aquajet

## Micro Sprinkler (HT-201)



IS : 14605:1998



CM/L : 8300110496



### Applications

- Ideal for mature widely spaced fruit trees, orchards, ornamental trees, shrubs and flowerbed.

### Features and Specifications

- Quick thread connection.
- 2 parts design.
- 2 Color - Coded nozzles for flow rates from 24- 75 l/h.
- Excellent Distribution with wide range of spacing.
- Jet characterized by 8, 9 & 12 long pointed teeth.



		8 Jets (8 X 180°) - "H"							
Nozzle Color	Nozzle (mm)	0.5 Kg/cm <sup>2</sup>		1 Kg/cm <sup>2</sup>		1.5 Kg/cm <sup>2</sup>		2 Kg/cm <sup>2</sup>	
		Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)
Purple	1	24	3.8	34	5.2	42	6.5	50	7.4
Orange	1.2	34	4.6	52	6.6	64	7.4	75	8.5



		8 Jets (8 X 210°) - "C"							
Nozzle Color	Nozzle (mm)	0.5 Kg/cm <sup>2</sup>		1 Kg/cm <sup>2</sup>		1.5 Kg/cm <sup>2</sup>		2 Kg/cm <sup>2</sup>	
		Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)
Purple	1	24	4	34	5.5	42	6.5	50	7.5
Orange	1.2	34	4.6	52	6.7	64	7.5	75	8.6



		9 Jets (9 X 270°) - "U"							
Nozzle Color	Nozzle (mm)	0.5 Kg/cm <sup>2</sup>		1 Kg/cm <sup>2</sup>		1.5 Kg/cm <sup>2</sup>		2 Kg/cm <sup>2</sup>	
		Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)
Purple	1	24	3.8	34	5.2	42	6.2	50	7.2
Orange	1.2	34	4.4	52	6.4	64	7.2	75	8.4



		12 Jets (12 X 360°) - "F"							
Nozzle Color	Nozzle (mm)	0.5 Kg/cm <sup>2</sup>		1 Kg/cm <sup>2</sup>		1.5 Kg/cm <sup>2</sup>		2 Kg/cm <sup>2</sup>	
		Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)
Purple	1	24	2.8	34	4	42	4.8	50	5.6
Orange	1.2	34	3.8	52	5.4	64	6.4	75	7.2



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# Aquamic

## Micro Sprinkler (HT-210 series)



Features
<ul style="list-style-type: none"> <li>Recommended Spacing : Upto 5 mtr (for Range Rotor).</li> <li>Coverage Diameter : Mister : 1.5 – 4 mtr : Range Rotor : 7-10 mtr</li> <li>Discharge Flow Rates : 50 to 200 ltr.</li> <li>Operating Pressure Range : 1 to 3 kg /cm<sup>2</sup>.</li> <li>With support of bayonet nozzle it can be used on high operational pressure.</li> <li>Pin &amp; Boyonet Connectors are available to connect to Lateral.</li> </ul>

Applications
<ul style="list-style-type: none"> <li>Green houses.</li> <li>Horticulture &amp; Agriculture.</li> <li>Under Tree Cultivation.</li> <li>Ideal for overhead cooling and frost protection.</li> </ul>

IS : 14605:1998



CM/L : 8300110496



### Performance Data (Mist Swivel) - Bayonet Type

Swivel Color	Nozzle color	Nozzle (mm)	1.0 Kg/cm <sup>2</sup>		2.0 Kg/cm <sup>2</sup>		3.0 Kg/cm <sup>2</sup>	
			Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)
Black	Black	0.8	24	1.8	34	2.0	42	2.2
	Purple	1.0	36	2.0	52	2.3	62	2.5
	Orange	1.2	52	2.3	76	2.6	95	2.9
	Blue	1.4	72	3.0	102	3.2	127	3.4
	Yellow	1.6	90	3.4	130	3.7	160	3.8
	Green	1.8	115	3.6	162	4.0	195	4.2

\*Tested at 25cm height above ground.

### Performance Data (Range Rotor) - Bayonet Type

Swivel Color	Nozzle color	Nozzle (mm)	1.0 Kg/cm <sup>2</sup>		2.0 Kg/cm <sup>2</sup>		3.0 Kg/cm <sup>2</sup>	
			Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)
Black	Purple	1.0	36	7.0	52	7.5	62	8.0
	Orange	1.2	52	7.5	76	8.3	95	8.5
	Blue	1.4	72	7.8	102	8.8	127	9.4
	Yellow	1.6	90	8.0	130	9.4	160	9.7
	Green	1.8	115	8.3	162	10.3	195	10.5

\*Tested at 25cm height above ground.

### Performance Data (Range Rotor) - 1/2" Male Threaded

Swivel Color	Nozzle color	Nozzle (mm)	1.0 Kg/cm <sup>2</sup>		2.0 Kg/cm <sup>2</sup>		3.0 Kg/cm <sup>2</sup>	
			Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)
Grey	White	2	155	9.5	210	10.5	270	10.8
	Brown	2.3	200	10.0	280	11.0	350	11.5
	Red	2.5	260	10.5	315	11.5	380	12.0

\*Tested at 100cm height above ground.

### Precipitation Rate (mm/hr)/Spacings (m) at 2 bar pressure

		03x03	3.5x3.5	4.0x4.0	4.5x4.5	5.0x5.0	5.5x5.5	6.0x6.0
Grey	White	19.9	14.7	11.2	8.9	7.2	5.9	5.0
	Brown	25.2	18.9	14.2	11.2	9.1	7.5	6.3
	Red	41.3	30.3	23.2	18.4	14.9	12.3	10.3

\*Tested at 1m above ground.

Color Code Distribution Uniformity :

CDU < 85%	85% ≤ CDU ≤ 88%	89% ≤ CDU ≤ 92%	CDU > 92%
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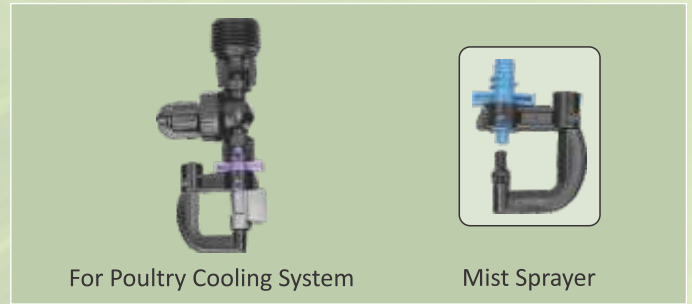


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# Aquamic Inverted

## Micro Sprinkler (HT-210 series)



### Features

- Operating Pressure Range : 1 to 3 kg/cm<sup>2</sup>.
- It can also be used for Poultry Cooling System.
- Fine drops creates uniform cloud.
- Recommended Spacing : 1.0 to 1.5 mtr.
- Coverage Diameter : 1.9 to 4.8 mtr.
- Discharge Flow Rates : 36 to 245 ltr/hr.

### LP LPD (Low Pressure Leakage Prevention Device)

Opening Pressure	1.1 Bar
Closing Pressure	0.7 Bar

### Performance Data (Mist Sprayer)

Swivel Color	Nozzle color	Nozzle (mm)	1.5 Kg/cm <sup>2</sup>		2.0 Kg/cm <sup>2</sup>		2.5 Kg/cm <sup>2</sup>	
			Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)
Black	Black	0.8	27	2.2	34	2.4	41	2.6
	Purple	1	44	2.4	52	2.6	60	2.8
	Orange	1.2	64	3.0	76	3.2	86	3.4
	Blue	1.4	88	3.2	102	3.4	116	3.6
	Yellow	1.6	110	3.8	130	4.2	146	4.4
	Green	1.8	142	4.2	162	4.6	185	4.8

\*Tested at 2m height above ground surface.

### Performance Data (Inverted Rotor)

Swivel Color	Nozzle color	Nozzle (mm)	1.5 Kg/cm <sup>2</sup>		2.0 Kg/cm <sup>2</sup>		2.5 Kg/cm <sup>2</sup>	
			Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)	Flow (lph)	Dia. (m)
Grey	Purple	1.0	44	7.6	52	7.8	60	8.3
	Orange	1.2	64	8.3	76	8.5	86	8.8
	Blue	1.4	88	8.9	102	9.3	116	9.5
	Yellow	1.6	110	9.1	130	9.5	146	10.0
	Green	1.8	142	9.5	162	10.0	185	10.4
	White	2.0	166	9.8	198	10.5	222	10.6
	Brown	2.3	221	9.7	260	10.8	300	10.8

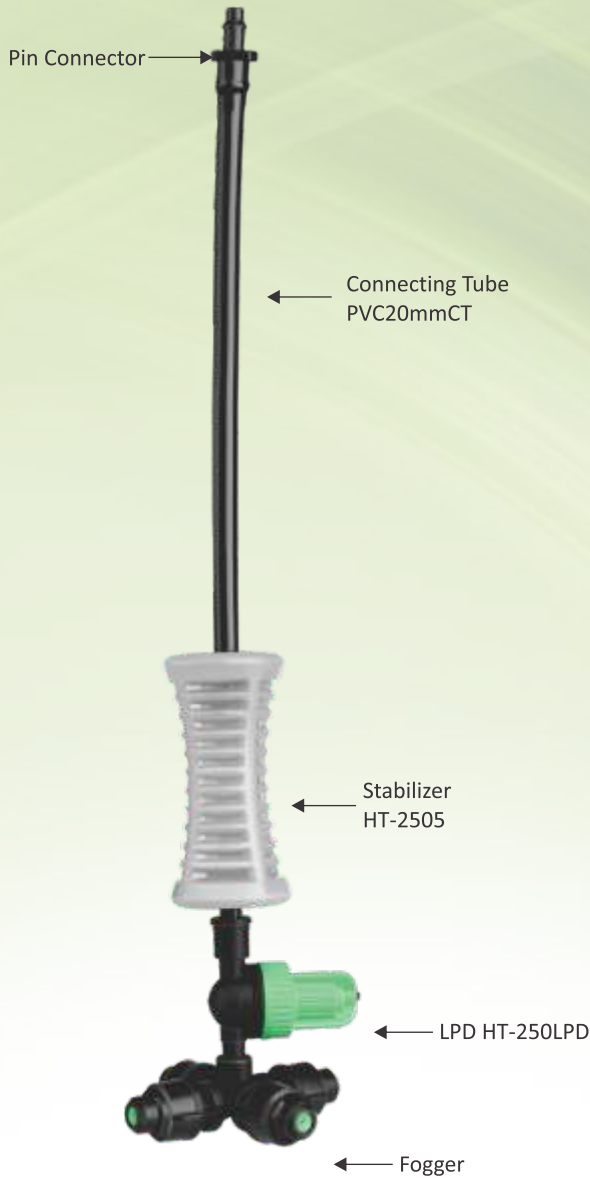
\*Tested at 25cm height above ground surface.





# Aquafog

HT-250 Series



## Accessories



## Features

- Reduces temperature and increases humidity in Greenhouse.
- Interchangeable color coded nozzles.
- Connected with LPD and push fit / bayonet.
- Fine droplet size (50-60 Microns @ 4.0 bar).
- A secondary filter (75-100 Microns) is required to operate the product.
- High water distribution uniformity and coverage.
- Easy installation and service.

## Applications

- Evaporative cooling and humidifying control for Greenhouse and long tunnels.
- Provides perfect conditions for plant propagation.
- Organic or Convention fields.

## Technical Specifications

Material	Polyacetal
Pattern	360°
Droplet Size	50-60 Microns /@ 4Kg/cm <sup>2</sup>
Operating Pressure	4 Kg/cm <sup>2</sup>
Operating Range	2-4 kg/cm <sup>2</sup> - Green LPD 3-5 kg/cm <sup>2</sup> - Blue LPD

## Nozzles Flow Rate (LPH)

Nozzle Color	Blue	Green
Single Fogger	5.5	7.5
2 Way Fogger	11	15
4 Way Fogger	22	30

## LPD (Leakage Prevention Device)

Model	Opening Pressure	Closing Pressure
MP - LPD (Green)	1.5 bar	1.0 bar
HP - LPD (Blue)	2.5 bar	1.7 bar



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Website: [www.automatworld.com](http://www.automatworld.com)

*Creating a Green World*

# Aquatuff

## Micro Sprinkler (HT-205 series)

IS : 14605:1998



CM/L : 8300110496

India's 1<sup>st</sup> Range of  
ISI Marked Micro  
Sprinklers



### Applications

- For overhead irrigation of Orchard, nurseries, Green houses and vegetable crops.
- For irrigation of widely spaced plants Upto 6x6m spacing at Agri -Stand.
- Ideal for frost protection and overhead cooling .

### Features & Specifications

- Sturdy structure and User Friendly.
- Push Fit,  $\frac{3}{8}$ " and  $\frac{1}{2}$ " male threaded connection.
- Insect proof Pop-up Swivel.
- Range of operating Pressure : 1.5 – 3.0kg/cm<sup>2</sup>.
- Flow Rate Range : 28-449 LPH.
- Recommended Spacing 4x4m & 5x5m.

### Connection: $\frac{3}{8}$ " Male Threaded

Swivel Color	Nozzle Color	Nozzle (mm)	1.5 kg/cm <sup>2</sup>		2.0 kg/cm <sup>2</sup>		2.5 kg/cm <sup>2</sup>	
			Flow lph	Dia. m	Flow lph	Dia. m	Flow lph	Dia. m
Blue	Grey	1.14	62	7.6	71	8.2	80	8.5
	Green	1.4	90	8.4	102	8.7	118	9.0
Green	Orange	1.5	105	8.7	122	9.2	136	9.6
	Black	1.78	140	9.2	162	9.5	180	10.0
	Blue	1.98	174	9.8	202	10.2	225	10.4
	Yellow	2.2	210	10.2	245	10.6	295	11.0
	Red	2.4	245	10.5	290	11.0	350	11.4

\* Tested at 1m height above ground.

### Connection: $\frac{1}{2}$ " Male Threaded

Swivel Color	Nozzle Color	Nozzle (mm)	1.5 kg/cm <sup>2</sup>		2.0 kg/cm <sup>2</sup>		2.5 kg/cm <sup>2</sup>	
			Flow lph	Dia. m	Flow lph	Dia. m	Flow lph	Dia. m
Green	Blue	1.98	174	10.6	202	11.0	225	11.5
	White	2.8	350	12.0	402	12.5	449	12.8

\* Tested at 1m height above ground.

### Connection: Pushfit Type

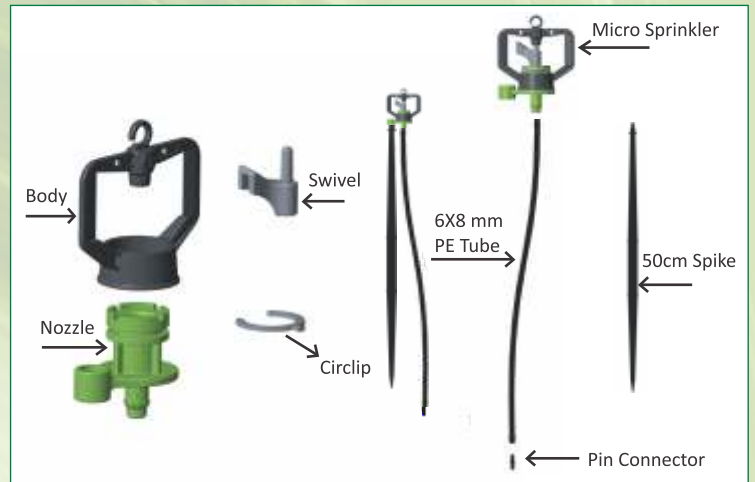
Swivel Color	Nozzle Color	Nozzle (mm)	1.5 kg/cm <sup>2</sup>		2.0 kg/cm <sup>2</sup>		2.5 kg/cm <sup>2</sup>	
			Flow lph	Dia. m	Flow lph	Dia. m	Flow lph	Dia. m
Black	Violet	0.8	28	5.5	36	6.0	41	6.2
	Brown	0.94	42	6.0	52	6.5	57	6.7
Blue	Grey	1.14	62	7.2	71	8.0	80	8.2
	Green	1.4	90	8.2	102	8.4	118	8.5
Green	Orange	1.5	105	8.5	122	9.0	136	9.4
	Black	1.78	140	9.0	162	9.4	180	9.8
	Blue	1.98	174	9.7	202	10.0	225	10.3
	Yellow	2.2	210	10.0	245	10.5	295	10.7
	Red	2.4	245	10.2	290	10.8	350	11.0

\* Tested at 25cm height above ground.



# Aquamic Excel

## Micro Sprinkler (HT-211)

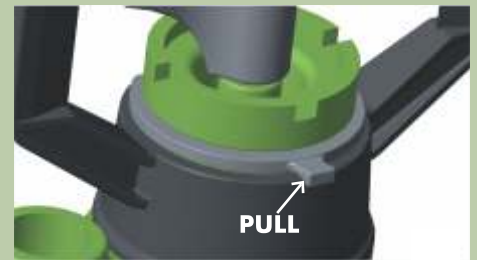


### Features

- Barbed type connection.
- No dry patches due to body rotation, excellent distribution uniformity.
- Range of operating Pressure : 0.5 – 2.5 kg/cm<sup>2</sup>.
- Flow Rate Range : 82 -225 LPH.
- Recommended Spacing : 3x3m, 3.5x3.5m & 4x4m.
- Special material achieves high wear resistance and trouble free swivel rotation.
- 6x8mm PE tube for more water carrying capacity to run sprinkler at low pressure.
- UV & Chemical Resistant material.

### Applications

- For overhead irrigation of vegetables, nurseries, flower beds, shrubs & landscape.
- For irrigation of widely spaced plants upto 4x4m spacing with different mounting options.



Specially designed Circlip for easy opening of microsprinkler for cleaning by the end user.

### Specifications

Swivel Color	Pressure kg/cm <sup>2</sup>	Yellow Nozzle (1.5mm)		Green Nozzle (1.85mm)		White Nozzle (2.1mm)	
		Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)	Flow (LPH)	Dia. (m)
Black	1	82	5.8	105	6.5	142	7.2
	1½	102	6.4	132	7.5	165	7.8
	2	115	7.0	155	7.8	188	8.2
	2½	125	7.4	170	8.2	208	8.8
	3	135	7.8	185	8.6	225	9

\* Tested at 50 cm height above ground.

# Flow Regulating Micro Sprinkler

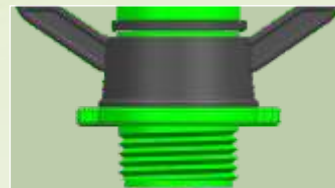
HT-206PC



## Connections Available



Barb Type



Threaded Type



Push-Fit Type

## Applications

For Uniform irrigation of orchard, vineyards, nursery & undertree where undulating terrain and long laterel lengths are challenging.

## Features

- Constant Flow between 2 to 4 bar pressure.
- Range of operating Pressure: 2 - 4 bar.
- Flow Rate: 20, 28, 39, 62 LPH.
- Recommended Spacing 3x3, 3.5x3.5 & 4x4m
- Two Stage wetted diameter control.
- Insect proof design.
- Specially designed Circlip to easily open micro sprinkler for cleaning by the end user.
- Excellent distribution uniformity.
- Quick thread & push fit adpoter connection.
- 4x7mm PE/PVC tube.
- UV & Chemical Resistant material.



Specially designed Circlip for easy opening of micro sprinkler for cleaning by the end user.

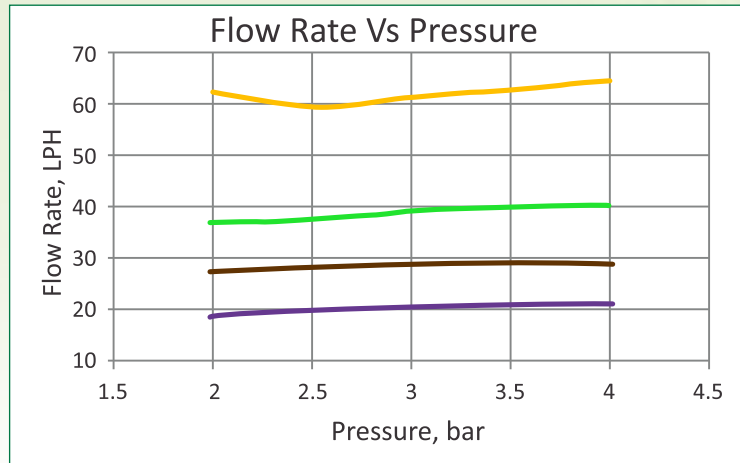


# Flow Regulating Micro Sprinkler

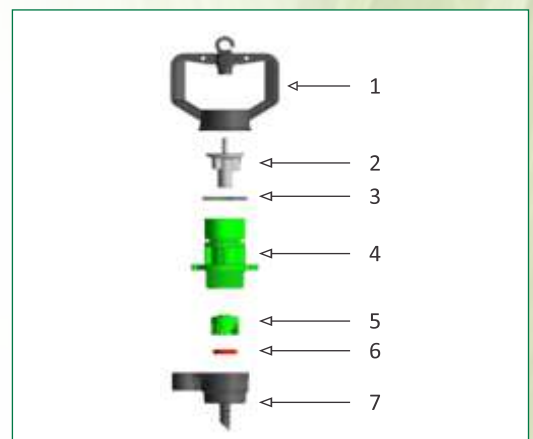
HT-206PC

Performance Data						
Nozzle Color	Nozzle Size (mm)	Flow Rate (LPH)	Swivel Color (Gray)		Swivel Color (Black)	
			Short Diameter		Large Diameter	
			Diameter (m)		Diameter (m)	
			1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage	1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage
Purple	0.8mm	20	1.2	3.5	1.6	4.5
Brown	0.94mm	28	1.2	4.0	1.6	5.0
Green	1.05mm	39	1.4	4.0	2.0	6.0
Yellow	1.25mm	62	1.6	4.6	2.0	7.0

\*Tested at 25cm high above ground



Assembly/Exploded View		
Parts	Parts Description	Material
1	Body	POM
2	Swivel Gray	FILLED NYLON
3	Circlip	POM
4	Nozzle	POM
5	Nozzle Bottom	POM
6	Seal	Silicon
7	Adopter	POM



# Plastic Foot Batten/Reinforced Saddle Stabilizer

## Technical Specifications

- Working Pressure: 0.5-4 kg/cm<sup>2</sup>
- Pipe Size OD: 63mm/75mm
- Riser Connection Size: ¾" Female Threaded.

## Features

- Suitable for ¾" Sprinkler installation at riser stand.
- Foot Batten designed for excellent gripping in the field with minimal riser vibration.
- O-ring in saddle avoid leakage at minimum pressure.
- Robust design for good use in harsh field conditons without breakage.
- Fast Installation and easy to use in the field.
- **Foot Batten compatible with all available couplers in the market.**
- Saddle with Plated MS ring and metal inserted thread Optional.
- Polypropylene material gives excellent strength and flexible to achieve functional.
- UV resistant material for long life.



New



Suitable for irrigation of almost all field and vegetable crops.

# Micro Sprinklers

## Accessories



## Selection Guidelines Micro & Mini Sprinklers

Product Details	Aquamic	Aquatuff	Mini Sprinkler
	(Model-210)	(Model-205)	(Model HT-22U)
Nozzle Size Available (mm)	0.8 - 2.5	0.8 - 2.8	2.4 x 1.8, 2.5 x 1.8
Discharge Range Available (ltr/hr)	24 - 376	28 - 449	450 - 600
Recommended Operating Pressure(kg/cm <sup>2</sup> )	1.0 - 2.0	1.0 - 2.0	1.5 - 3.0
Recommended Spacing (m)			
Nurseries (in open area)	2.0 - 3.0**	3.0 - 5.0**	7.0 - 8.0**
Nurseries (in Tunnels)/propagation chambers	1.0 - 2.0(Mist Sprayer)	NA	NA
Nurseries/Green houses) for Irrigation	3.0 - 5.0 (Inverted Micro.Sprinkler)	NA	NA
Orchards closed spacing (less than 4m)	40lph M.S placed after every tree in row Or 70lph M.S placed every second tree in the row	40lph M.S placed after every tree in row Or 70lph M.S placed every second tree in the row	NA
Orchard Spacing (4 to 6m)	70 to 120lph 1nos. M.S per tree Or 1nos. M.S midway between trees	70 to 120lph 1nos. M.S per tree Or 1nos. M.S midway between trees	NA
Orchard Spacing (6m and above)	NA	120 to 160lph 1nos. Of M.S. per tree	NA
Vegetables* (openfield)(m)	NA	3.0 - 4.5**	7.0 - 10.00**
Recommended Precipitation Rate(mm/hr)			
Nurseries ( in open area)	3.0***	3.0***	3.0***
Tunnels	8.0 -12.0***	NA	NA
Vegetables	3.0 - 4.0***	3.0 - 4.0***	4.0 - 5.0***

\* For types of Vegetables refer to particular catalogue of item. / \*\* Normal wind Condition. / \*\*\* can vary according to soil type & site condition.



# Screen Filters - For Small Farm Holdings

¾", 1", 1½" & 2" - Y Type

IS : 12785:1994



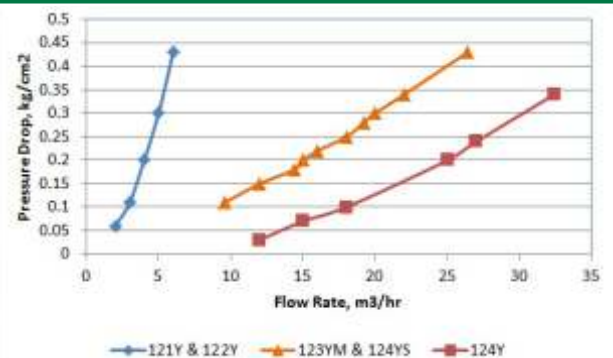
CM/L : 3006128



## Features

- Flow passes through Inside to Outside of Screen cartridge.
- Uniform distribution of flow into filter housing optimize filtration process.
- Filter designed for Max. Operating Pressure 6 bar (PN-6).
- ¼" Male threaded 2 Pressure ports.
- Stainless Steel (SS 316) double mesh screen for rust prevention.
- Filter body cap equipped with ¾" female threaded connection for draining.
- Screen Cartridge with Double Screen 30 & 120 mesh to avoid tearing of mesh.

## Performance Graph



## Specifications

Model	HT-121Y	HT-122Y	HT-123YM	HT-124YS	HT-124Y
Max. Working Pressure	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>
Recommended flow	5 m <sup>3</sup> /h (83 lit/m)	7 m <sup>3</sup> /h (116.7 lit/m)	15 m <sup>3</sup> /h (250 lit/m)	20 m <sup>3</sup> /h (333 lit/m)	25 m <sup>3</sup> /h (417 lit/m)
Range of Flow Rate	4-6 m <sup>3</sup> /hr	5-8 m <sup>3</sup> /hr	12 – 16 m <sup>3</sup> /h	18 – 22 m <sup>3</sup> /h	18 – 27 m <sup>3</sup> /h
Filter Mesh (Standard)	Single Screen 120 mesh		Double Screen 30/120 mesh		
Filtration Surface Area	120.5 cm <sup>2</sup>	120 cm <sup>2</sup>	295 cm <sup>2</sup>	295 cm <sup>2</sup>	492 cm <sup>2</sup>
Inlet/Outlet Connection	¾" BSP/NPT male thread	1" BSP/NPT male thread	1½" BSP/NPT male thread	2" BSP/NPT male thread	2" BSP/NPT male thread
Distance between End Connections	155.5mm	183mm	237mm	237mm	303mm
Filter Height (With End Plug)	252mm	245mm	320mm	325mm	410mm
Filter Width	86.5mm	87mm	128mm	128mm	171mm
Cartridge Diameter	48mm	48mm	70mm	70mm	110mm
Cartridge Length	151mm	151mm	224mm	224mm	285mm
End Plug	½" Male Threaded	¾" Female Threaded	¾" Male Threaded	¾" Male Threaded	¾" Male Threaded

# Disc Filters - For Green House & Small Farm Holdings

¾", 1", 1½" & 2" - Y Type

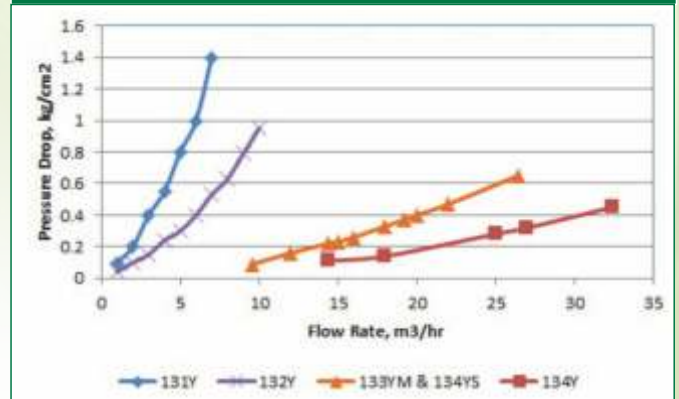


2" Y Type long Body Disc Filter

## Features

- Disc Filter designed for Outside to Inside flow.
- AUXILIARY CONNECTIONS - Two pressure gauge ports with ¼" male threaded connections.
- Filter body and cap connected by threaded connection to sustain high pressure and easy opening & closing.
- High filtration efficiency.
- Spring loaded Disc cartridge for uniform compression of Discs.
- UV protected, chemical and high pressure resistant reinforced plastic material used.

## Performance Graph



## Specifications

Model	HT-131Y	HT-132Y	HT-133YM	HT-134YS	HT-134Y
Max. Working Pressure	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>
Recommended flow	3 m <sup>3</sup> /h (50 lit/m)	6 m <sup>3</sup> /h (100 lit/m)	15 m <sup>3</sup> /h (250 lit/m)	20 m <sup>3</sup> /h (333 lit/m)	(25 m <sup>3</sup> /h) 417 lit/m
Range of Flow Rate	3-5 m <sup>3</sup> /hr	5 – 8 m <sup>3</sup> /h	12 – 16 m <sup>3</sup> /h	18 – 22 m <sup>3</sup> /h	18 – 27 m <sup>3</sup> /h
Filter Disc (Standard)	120 mesh PP disc (One removable cartridge)				
Filtration Surface Area	147.5 cm <sup>2</sup>	147.5 cm <sup>2</sup>	409 cm <sup>2</sup>	409 cm <sup>2</sup>	500 cm <sup>2</sup>
Inlet/Outlet Connection	¾" BSP/NPT Male Thread	1" BSP/NPT Male Thread	1½" BSP/NPT Male Thread	2" BSP/NPT Male Thread	2" BSP/ NPT male thread
Distance between End Connections (A)	155.5mm	183mm	237mm	237mm	303mm
Filter Height (With End Plug) (B)	252mm	245mm	320mm	325mm	286mm
Filter Width ©	86.5mm	87mm	128mm	128mm	170mm
Cartridge Diameter	47.5mm	47.5mm	70mm	70mm	107mm
Cartridge Length	143.5mm	143.5mm	208mm	208mm	292mm
End Plug	½" Male Threaded	¾" Female Threaded	¾" Female Threaded	¾" Female Threaded	¾" Female Threaded

# Eco Screen Filters

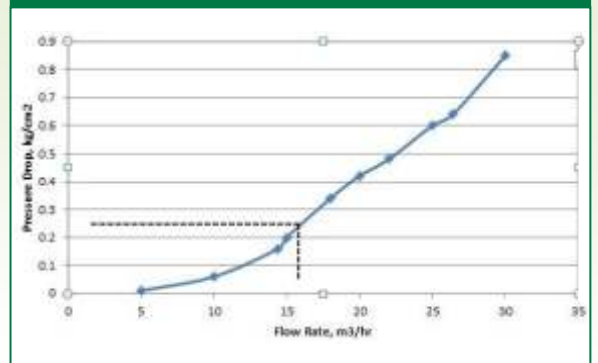
1½" & 2"



## Features

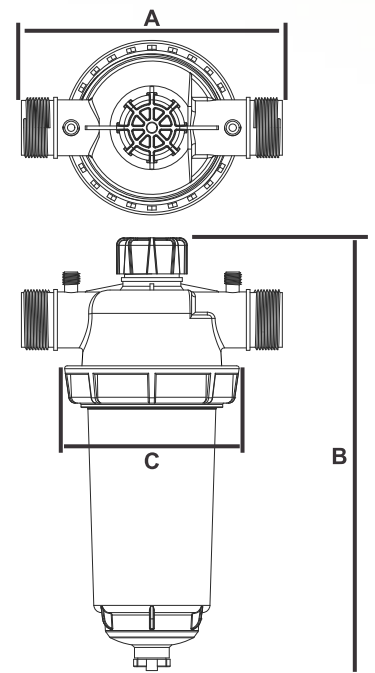
- Flow passes through Inside to Outside of Screen cartridge.
- Uniform distribution of flow into filter housing optimize filtration process.
- Filter designed for Max. Operating Pressure 6 Bar (PN-6).
- ¼" Male threaded 2 Pressure ports.
- Stainless Steel (SS 316) double mesh screen for rust prevention.
- Union Nut for easy dismantling of filter for fast cleaning operation.
- Filter body cap equipped with ½" female threaded connection for draining.
- Screen Cartridge with Double Screen 30 & 120 mesh to avoid tearing of mesh.

## Performance Graph



## Specifications

Model	HT-123T	HT-124TM
Max. Working Pressure	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>
Recommended flow	15 m <sup>3</sup> /h (250 lit/m)	15 m <sup>3</sup> /h (250 lit/m)
Range of Flow Rate	10 – 20 m <sup>3</sup> /hr	10 – 20 m <sup>3</sup> /h
Filter Mesh (Standard)	Double Screen 30/120 mesh	
Filtration Surface Area	295 cm <sup>2</sup>	295 cm <sup>2</sup>
Inlet/Outlet Connection	1½" BSP/NPT Male Thread	2" BSP/NPT Male Thread
Distance between End Connections (A)	208 mm	221mm
Filter Height (With End Plug) (B)	342 mm	345 mm
Filter Width (C)	140 mm	140 mm
Cartridge Diameter (with O-Ring)	70 mm	70 mm
Cartridge Length	224 mm	224 mm
End Plug	½" Male Threaded	½" Male Threaded





# Eco Disc Filters

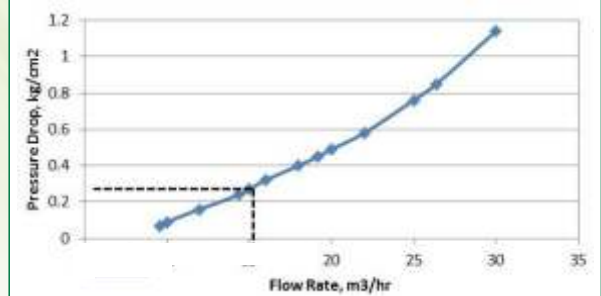
1½" & 2"



## Features

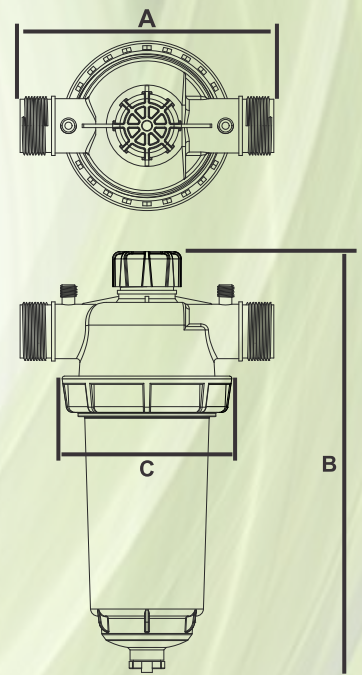
- Flow passes through Outside to inside of Disc cartridge.
- Uniform distribution of flow into filter housing optimize filtration process.
- Filter designed for Max. Operating Pressure 6 Bar (PN-6).
- ¼" Male threaded 2 Pressure ports.
- Spring Loaded disc cartridge for uniform compression of disc.
- Fast cleaning of disc cartridge because of self loosen design.
- Union Nut for easy dismantling of filter for fast cleaning operation.
- Filter body cap equipped with ½" female threaded connection for draining.
- Grooved disc design with dimensional consistency proven with more than 95% filter efficiency.

## Performance Graph



## Specifications

Model	HT-133T	HT-134TM
Max. Working Pressure	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>
Recommended flow	15 m <sup>3</sup> /h (250 lit/m)	15 m <sup>3</sup> /h (250 lit/m)
Range of Flow Rate	10 – 20 m <sup>3</sup> /hr	10 – 20 m <sup>3</sup> /h
Filter Disc (Standard)	120 Mesh PP Disc (One removable cartridge)	
Filtration Surface Area	409 cm <sup>2</sup>	409 cm <sup>2</sup>
Inlet/Outlet Connection	1½" BSP/NPT Male Thread	2" BSP/NPT Male Thread
Distance between End Connections (A)	208 mm	221 mm
Filter Height (With End Plug) (B)	342 mm	345 mm
Filter Width (C)	140 mm	140 mm
Cartridge Diameter (with O-Ring)	70 mm	70 mm
Cartridge Length (without spring)	208 mm	208 mm
End Plug	½" Male Threaded	½" Male Threaded



# Screen Filters

T Type

IS : 12785:1994



C/M/L : 3006128



HT-87VB

Specially designed Vacuum Breaker

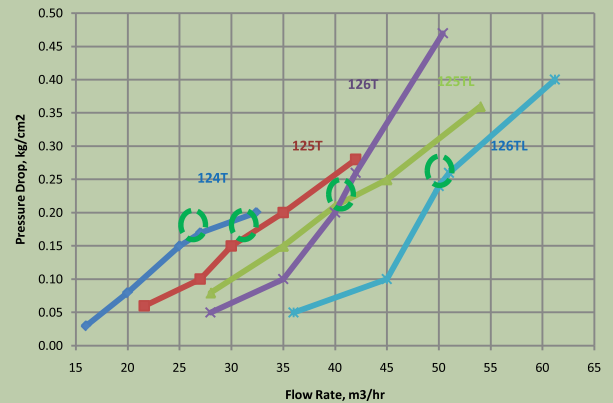


Size Available  
100, 130, 200 Microns  
Specially designed cartridge skeleton for giving extra ordinary strength to screen element.

## Specifications

Model	HT-124T	HT-125T	HT-125TL	HT-126T	HT-126TL
Max. Working Pressure	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>
Max. Recommended Flow	417 ltr/min (25 m <sup>3</sup> /h)	500 ltr/min (30 m <sup>3</sup> /h)	667 ltr/min (40 m <sup>3</sup> /h)	667 ltr/min (40 m <sup>3</sup> /h)	833 ltr/min (50 m <sup>3</sup> /h)
Range of Flow Rate	20-27 m <sup>3</sup> /h	27-35 m <sup>3</sup> /h	35-45 m <sup>3</sup> /h	35-45 m <sup>3</sup> /h	45-51 m <sup>3</sup> /h
Filtration Surface Area	480 cm <sup>2</sup>	480 cm <sup>2</sup>	754 cm <sup>2</sup>	754 cm <sup>2</sup>	960 cm <sup>2</sup>
Inlet/Outlet Connection	2" BSP/NPT male thread	2½" BSP/NPT male thread	2½" BSP/NPT male thread	3" BSP/NPT male thread	3" BSP/NPT male thread

## Head Loss Graph



## Features

- Outside – Inside filtration.
- For upside installation.
- Bigger port for water drainage.
- Special SS-316 single mesh for strength and corrosion resistance.
- Provided with specially designed vacuum breaker valve for quick drain and to avoid vacuum / air trapping.
- The filters are made from special chemically banded polymer which are weather resistant.
- Clamp made out of re-inforced Nylon with plated steel lock assembly for durability.
- Specially designed long handle for easy clamp opening & closing.



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Website: [www.automatworld.com](http://www.automatworld.com)

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# Disc Filters

## T Type

IS : 12785:1994



CML : 3006128

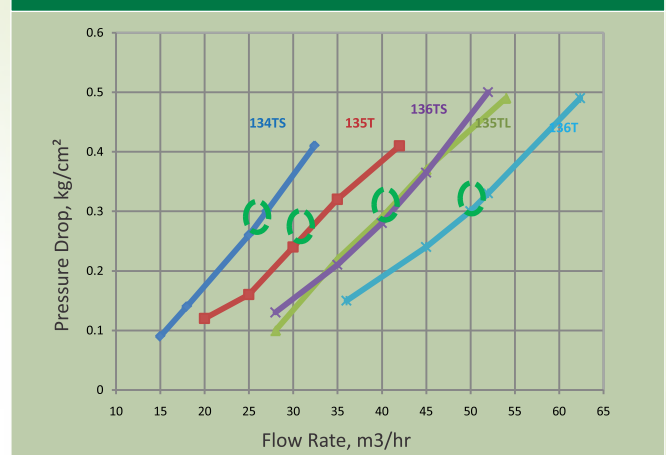


Disc Size Available  
100 Microns, 130  
Microns

### Specifications

Model	HT-134TS	HT-135T	HT-135TL	HT-136TS	HT-136T
Max. Working Pressure	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>	6 kg/cm <sup>2</sup>
Max. Recommended Flow	417 ltr/min (25 m <sup>3</sup> /h)	500 ltr/min (30 m <sup>3</sup> /h)	667 ltr/min (40 m <sup>3</sup> /h)	667 ltr/min (30 m <sup>3</sup> /h)	833 ltr/min (50 m <sup>3</sup> /h)
Range of Flow Rate	18-27 m <sup>3</sup> /h	25-35 m <sup>3</sup> /h	35-45 m <sup>3</sup> /h	35-45 m <sup>3</sup> /h	45-52 m <sup>3</sup> /h
Filtration Surface Area	878 cm <sup>2</sup>	878 cm <sup>2</sup>	1193 cm <sup>2</sup>	1193 cm <sup>2</sup>	1690 cm <sup>2</sup>
Inlet/Outlet Connection	2" BSP/NPT male thread	2½" BSP/NPT male thread	2½" BSP/NPT male thread	3" BSP/NPT male thread	3" BSP/NPT male thread

### Head Loss Graph



### Features

- DuPont Nylon Hybrid Clamp with SS Lock for high pressure operations.
- PPGF Slip – on flange for easy installation (Optional).
- Bigger drain port with ¾" ball valve for quick drainage.
- Disc filters are made with special Helix system which gives better performance & results.



Vacuum Breaker



Drain Port



Hybrid Clamp



Slip on Flange



# Double Body Screen Filters

3" & 4"

IS : 12785:1994



CM/L : 3006128



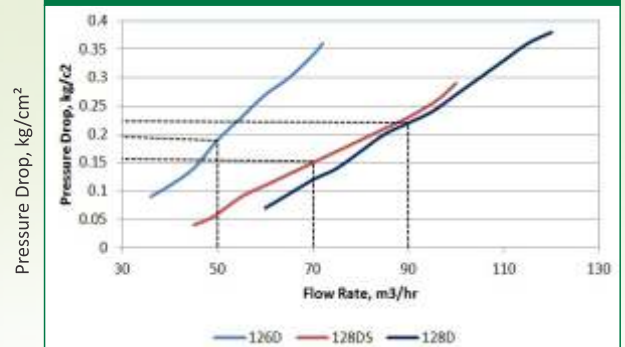
## Features

- Flow passes through inside to outside of screen cartridge.
- Uniform distribution of flow into filter housing optimizes the filtration process.
- Threaded brass insert, 4 pressure ports for increasing operational life of the filter.
- Double mesh provides extra strength to avoid damage to 120 mesh screen.
- Both barrels equipped with 3/4" female threaded connection for easy drainage.
- Inside design of screen cartridge facilitates easy cleaning by brush.

120 mesh



## Clean Pressure Drop Curve



Flow Rate, m<sup>3</sup>/hr

## Specifications

Model	HT-126D	HT-128DS	HT-128D
Max. Working Pressure	8 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>
Recommended flow	50 m <sup>3</sup> /h (833 lit/m)	70 m <sup>3</sup> /h (1167 lit/m)	90 m <sup>3</sup> /h (1500 lit/m)
Range of Flow Rate	45 – 60 m <sup>3</sup> /h	60 – 80 m <sup>3</sup> /h	80 – 100 m <sup>3</sup> /h
Screen Cartridge (Standard)	120 mesh Screen, Blue color Cartridge (2nos. Removable cartridge)		
Filtration Surface Area	1108 cm <sup>2</sup>	1662 cm <sup>2</sup>	2216 cm <sup>2</sup>
Inlet/Outlet Connection	3" BSP/NPT male thread	4" BSP/NPT male thread	4" BSP/NPT male thread
Closing System	Stainless Steel Clamp		
Distance between End Connections	360 mm	360 mm	360 mm
Filter Height (Both Side Ball Valve)	970 mm	1128 mm	1378 mm
Filter Width	257 mm	257 mm	257 mm
Cartridge Diameter	121 mm	121 mm	121 mm
Cartridge Length	254 mm x 2	383 mm x 2	504 mm x 2
Drain Valve (2 nos.)	3/4" Female x Male Threaded	3/4" Female x Male Threaded	3/4" Female x Male Threaded

# Double Body Disc Filters

3" & 4"

IS : 12785:1994



CML : 3006128



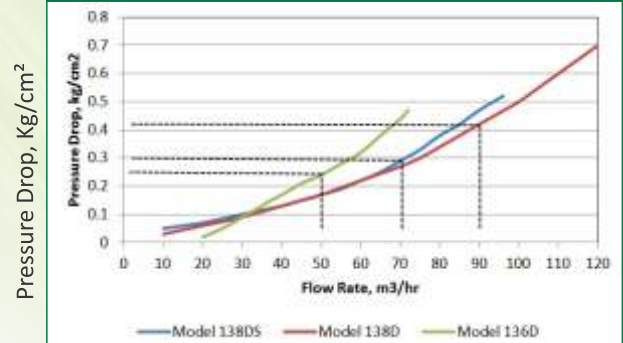
## Features

- Robust design.
- Disc housing fan generates hydro cyclonic effect that reduces cleaning frequency.
- Grooved disc design provides high filtration efficiency.
- Uniform distribution of flow into filter housing optimizes filtration process.
- 3/4" Drain Ball Valve & end plugs supplied along with the filter.

120 mesh PP Red Disc



## Clean Pressure Drop Curve



Flow Rate, m<sup>3</sup>/hr

## Specifications

Model	HT-136D	HT-138DS	HT-138D
Max. Working Pressure	8 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>
Recommended flow	50m <sup>3</sup> /h (833 lit/m)	70m <sup>3</sup> /h (1167 lit/m)	90 m <sup>3</sup> /h (1500 lit/m)
Range of Flow Rate	45 – 60 m <sup>3</sup> /h	60 – 80 m <sup>3</sup> /h	80 – 100 m <sup>3</sup> /h
Filter Disc (Standard)	120 mesh PP Red disc (2nos. removable cartridge)	120 mesh PP Red disc (2nos. removable cartridge)	120 mesh PP Red disc (2nos. removable cartridge)
Filtration Surface Area	1756 cm <sup>2</sup>	2380 cm <sup>2</sup>	3380 cm <sup>2</sup>
Inlet/Outlet Connection	3" BSP/NPT Male Thread	4" BSP/NPT Male Thread	4" BSP/NPT male thread
Distance between End Connections	360 mm	360 mm	360 mm
Filter Height (Both Side End Plug)	835 mm	992 mm	1240 mm
Filter Width	338 mm	338 mm	338 mm
Cartridge Diameter	121 mm	121 mm	121 mm
Cartridge Length	300 mm x 2	400 mm x 2	525 mm x 2
Drain Valve (1no.)	3/4" Female x Male Threaded	3/4" Female x Male Threaded	3/4" Female x Male Threaded
End Plugs (2nos.)	3/4" Male Threaded	3/4" Male Threaded	3/4" Male Threaded

# Semi Automatic Screen Filters

2", 2½" & 3"

IS : 12785:1994



C/M/L : 3006128

Pressure Differential Indicator



Can be used for Primary filtration in place of Sand Media Filters for small farm holdings



## Features

- Available in  
2" BSP/NPT male thread connection : HT-124T-SA.  
2½" BSP/NPT male thread connection : HT-125T-SA.  
3" BSP/NPT male thread connection : HT-126T-SA.
- Body made of special chemically bonded polymer for durability.
- Non Corrosive SS-316 Stainless Steel Filter Mesh.
- Easy to install & Low Maintenance.

## Specifications

Model No.	HT-124TSA	HT-125TSA	HT-126TSA
Mesh Size	120 Mesh/130 Micron	120 Mesh/130 Micron	120 Mesh/130 Micron
Filtering Cartridge	Stainless Steel Screen	Stainless Steel Screen	Stainless Steel Screen
Max. Pressure	8 Kg/cm <sup>2</sup>	8 Kg/cm <sup>2</sup>	8 Kg/cm <sup>2</sup>
Range of Flow Rate	18-27 m <sup>3</sup> /hr	25-35 m <sup>3</sup> /hr	35-42 m <sup>3</sup> /hr
Nominal Flow Rate	25 m <sup>3</sup> /hr	30 m <sup>3</sup> /hr	40 m <sup>3</sup> /hr
Clean Pressure Drop	Max. 0.26 kg/cm <sup>2</sup>	Max. 0.28 kg/cm <sup>2</sup>	Max. 0.28 kg/cm <sup>2</sup>
Filtration Surface Area	554 cm <sup>2</sup>	831 cm <sup>2</sup>	831 cm <sup>2</sup>
Closing System	Stainless Steel Clamp	Stainless Steel Clamp	Stainless Steel Clamp
Cartridge Diameter	119 mm	119 mm	119 mm
Cartridge Length	252 mm	378 mm	378 mm

## Cleaning Instructions

- Cleaning of the filter must be done when pressure differential across the screen reaches 0.5kg/cm<sup>2</sup> (7psi) or when the pressure indicator red button pops up.
- Cleaning the semi-automatic filter must be done while the filter is under pressure.
- Open the drain valve gradually.
- Rotate the handle gripper in clockwise direction 4 - 5 times and then rotate in anti-clockwise direction to finish the process. This is to be done online when the system is on.
- Close the valve gradually.
- In case the filter is still clogged (pressure indicator button is up).Repeat the above while the downstream valve of the filter is closed.

**WARNING:** To prevent water hammer (surge), always open and close upstream valve gradually.



# Semi Automatic Disc Filters

2" & 3"



Pressure Differential Indicator



## Features

- flow passes through outside to Inside of Disc cartridge.
- Uniform distribution of flow into filter housing optimize filtration process.
- Filter designed for Pressure rating PN8 (8bar)
- 2 male threaded pressure port at the top for easy visibility of pressure.
- Disc cartridge enabled with spring loaded for full compression of disc and loosen during cleaning.
- Filter with Clogging indicator, Red pop up comes out at 0.6 kg/cm<sup>2</sup> pressure differential, indicated end user to clean filter manually.
- During cleaning operation, all inlet water passes through the pipe, and water jets removes dirt from the discs.
- Barrel with 1½" Drain port.
- Handle for 90 degree rotation for cleaning of disc without dismantling of filter.
- Disc housing fan gives hydro cyclonic effect which makes particles in suspension that reduces cleaning frequency.
- Grooved disc design with dimensional consistency proven with more than 95% filter efficiency

## Specifications

Model	134T-SAD	136T-SAD
Max. Working Pressure	8 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>
Recommended flow	417 lit/m ( 25m <sup>3</sup> /hr)	667 lit/m (40 m <sup>3</sup> /hr)
Range of Flow Rate	18-27 m <sup>3</sup> /hr	35-50 m <sup>3</sup> /hr
Filter Disc (standard)	120 mesh PP Red disc (Single Removable cartridge)	
Filtration Surface area	1080 cm <sup>2</sup>	1590 cm <sup>2</sup>
Inlet/outlet connection	2" BSP/NPT male thread	3" BSP/NPT male thread
Closing System	Stainless Steel/ Hybrid Clamp	
Distance between End connections	341mm	344mm
Filter height (With Ball Valve)	800mm	930mm
Filter width (With End Plug)	235mm	235mm
Cartridge Diameter	121mm	121mm
Cartridge Length	375mm	510mm
Drain Valve (1no.)	1½" Female x Female threaded	
End Plugs (1nos.)	¾" Male Threaded	

## Cleaning Instructions

- Cleaning of the filter must be done when pressure differential across the disc filter reaches 0.6 kg/cm<sup>2</sup> (8.5psi) or when the clogging indicator red button pops up.
- Cleaning the semi-automatic filter must be done while the filter is under pressure.
- Gradually open the flushing valve below the filter.
- To start cleaning mode of filter, turn the handle (top of the filter) 90° degree in clockwise direction.
- Cleaning operation starts, system pressure might increase during cleaing operation.
- When cleaning operation done, first filter handle direction should be at filtration mode. And then flushing valve gradually close.
- In case the the filter is still clogged (pressure indicator button is up). Repeat the above steps for effective disc cleaning.

**WARNING:** In order to prevent water hammer (surge), always open or close filter handle valves in a gradual motion.



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*Creating a Green World*

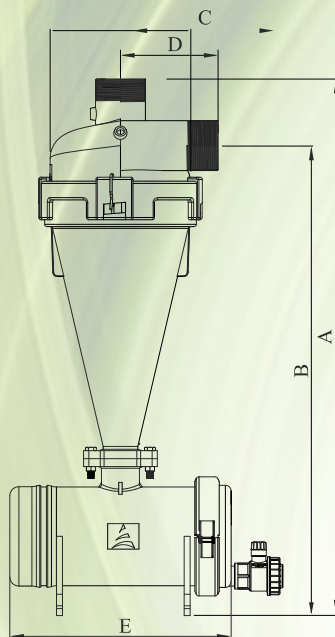
# Hydrocyclone Filters/ Sand Separator

2", 2½" & 3"



HT-144M

HT-146M



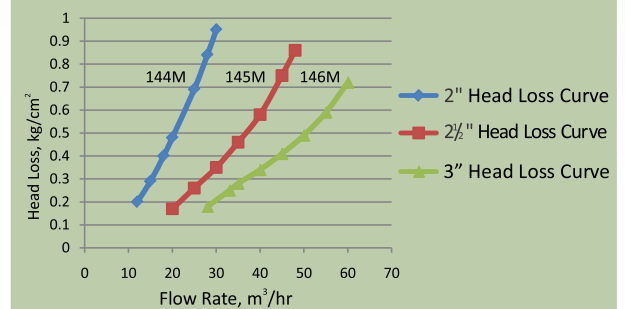
## Features

- Body made of reinforced engineering plastic for durability.
- Hydro dynamically designed to create maximum centrifugal action.
- Dirt can be easily flushed out through drain port.
- Collector chamber can be easily cleaned by opening collector cover.
- Hybrid Nylon Clamp with SS Lock used to open/close collector cover from collector chamber.
- Easy to install and low maintenance.
- Stand for Height Increase.
- Specially designed High Wear Resistant Special Plastic inserted in the bottom of cone to avoid wear due to strong sand vortex.

## Specifications

- Available in  
2" : HT-144M  
2½" : HT-145M  
3" : HT-146M
- Material of Construction : Reinforced Polypropylene/Nylon.
- Available Connections : BSP Male Threaded/Flange/Victaulic.
- Maximum Operating Pressure : 6 kg/cm<sup>2</sup>

## Performance Graph



## Performance Data

Model No.	Inlet / Outlet Inch/mm	Rec. Range of Flow Rate, m <sup>3</sup> /hr	Nominal Flow Rate m <sup>3</sup> /hr	Dimensions (mm)					Capacity of Underflow Chamber (ltr)	Gross Weight
				A	B	C	D	E		
144M	2"/50	15-25	25	940	808	206	151	395	8	7.6 kg.
145M	2½"/65	25-40	30	940	815	206	151	395	8	7.8 kg.
146M	3"/ 80	35-50	50	990	868	248	175	395	8	9.4 kg.
				990	868	248	175	482	10	9.6 kg.

# Plastic Fertilizer Tank

30 Ltr

## Applications

- Fertilizer tank for use of chemical and fertilizer injection through drip and sprinkler irrigation system.

## Features

- Available in 30 Ltr – HT-117.
- Vacuum Breaker for fast air release to fill tank completely and air intake to avoid damage to tank and fast draining.
- Inlet flow becomes turbulent for excellent mixing of fertilizer and chemical with water.
- Fertilizer tank inlet and outlet ports are provided with valve to control the injection rate.
- MS plated handle for easy portable tank to suitable location. Wall thickness of tank suitable for high working pressure without damage to tank and for robust use.
- Handle fitted to the tank cover, end user can use it for easy open/close the cover for pouring fertilizer/chemical into the tank.
- Hose assembly suitable for high working pressure without expansion and slipout connections.
- UV & Chemical resistant.

## Technical Specification

- Available tank capacity : 30 litre.
- Inlet Outlet and Drain Ports Connection : 3/4" BSP/NPT Female threaded.
- Max. working Pressure : 6Kg/cm<sup>2</sup>.
- Material of Construction : HDPE.

## Operation

The fertilizer tanks are simple to use and easy to portable. A pressure differential between the inlet and outlet connection creates flow into the tank through inlet port, displacing chemical from the tank through the outlet and into the mains.

## Performance Chart

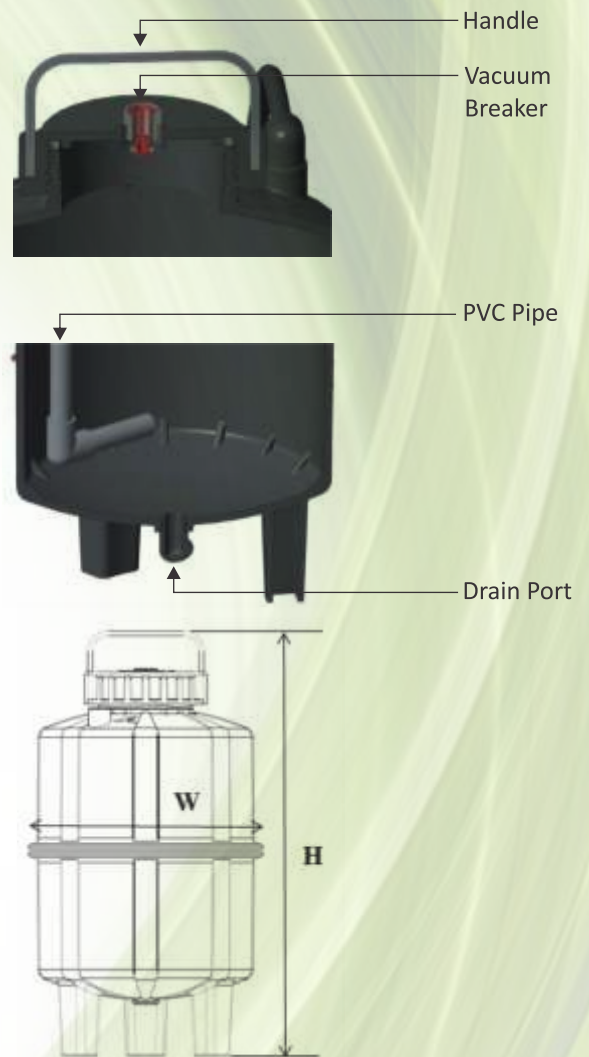
Pressure Differential between inlet/outlet, kg/cm <sup>2</sup>	Min. Operation Time, min.
0.2	12
0.3	9
0.5	7

Note: The min. operation time for fertilizing are for general use only, and for fertilizers easily soluble in water. Usually, fertilizing times are determined according to type of fertilizer, crops and experience.

## Dimensions & Weight

Height, H	685 mm
Width, W	382 mm
Weight	6.15 kg

New





# Venturi Injector

¾", 1", 1½" & 2"



ROTAMETER  
Realtime visibility & control  
of fertigation

20%-30% Energy Loss For  
Suction As Compared To 50%-60%  
Energy Loss Of Other Brands.

## Features

- Available in  
HT 112RS – ¾" – BSPT  
HT 113RS – 1" – BSPT  
HT 114RS – 1½" – BSPT/NPT  
HT 115RS – 2" – BSPT/NPT
- In built check valve for protecting the injected liquid against back flow.
- With Rotameter, one can measure/read accurate suction of fertilizer injection rate.
- Rotameter is available in all sizes.
- All Venturies are also available with full assembly.

## Benefits

- Controlled/Adjustable suction of fertilizers.
- Delivers plant nutrients directly into the wetted zone (where root development is intensive).
- Can be used with a large variety of chemicals.
- Uniform application of fertilizers.
- Saves Energy & Manpower.

## Injector Selection Guide

Model No.	Size In/Out	Efficiency (P) required to Initiate suction	Motive flow (Lit/Hr) through injector @ 2.50kg/cm <sup>2</sup>	Injection Capacity Lit/Hr
112	¾"	30%	1525	40
113	1"	25%	4645	78
114	1½"	25%	7860	320
115LF	2"	25%	11080	330
115HF	2"	20%	20100	450

## Performance Data

Pressure		¾" Venturi Injector		1" Venturi Injector		1½" Venturi Injector		2" Venturi Injector Low Flow	
P. in	P. out	Q inj	Q asp	Q inj	Q asp	Q inj	Q asp	Q inj	Q asp
Inlet Pressure kg/cm <sup>2</sup>	Outlet Pressure kg/cm <sup>2</sup>	Motive Flow L/H	Water Suction L/H	Motive Flow L/H	Water Suction L/H	Motive Flow L/H	Water Suction L/H	Motive Flow L/H	Water Suction L/H
2	1	1310	165	4295	290	7050	700	10250	710
	1.25		115		157.5		440		630
	1.5		53.5		30		130		275
2.5	1	1505	185	4647.5	352.5	7860	750	11080	700
	1.5		155		220		610		675
	1.75		95		80		370		475
3	1.5	1625	185	5070	335	8200	750	12025	700
	2		130		160		450		625
	2.25		62.5		22		250		425
3.5	2	1740	180	5380	310	9070	720	12945	700
	2.5		105		85.5		400		550
	2.75		40		0		130		222.5
4	2	1870	200	5727.5	365	9750	750	13960	700
	2.5		175		250		700		690
	2.75		125		135		500		625
	3		77.5		27.5		320		430

\*The test carried out by using water as suction liquid.

# Fertigation Manifold

2", 2½" & 3"



Specially Designed For Fertigation  
Via Sprinkler Irrigation

## Features

- Complete assembly of manifold with options of threaded and fusion welding.
- 2" manifold with option of 2" venturi injector installation.
- 2½" & 3" manifold with options of ¾" & 2" venturi injector install as per requirement.
- 2½" & 3" manifold with ¼" female threaded option for pressure gauge installation.
- Single union PP ball valve for smooth adjustment of pressure differential between venturi injector.
- Availability of venturi injector assembled with manifold.
- Size available in 2" -HT-164MTBVPPN  
2.5"-HT-165MTBVPPN (venturi Port ¾")  
2.5"-HT-165MTBVPPN (venturi Port 2")  
3"-HT-166MTBVPPN

## Benefits

- Controlled / Adjustable suction of fertilizers.
- Delivers plant nutrients directly into the wetted zone (where root development is intensive).
- Can be used with a large variety of chemicals.
- Uniform application of fertilizers.
- Saves Energy & Manpower.

## Assembled View



# Single Union PVC Ball Valves

¾", 1", 1¼", 1½", 2", 2½", 3" & 4"



HT - 64FFSU



HT - 65FMSU



HT - 66FFSU



HT - 69BVSP

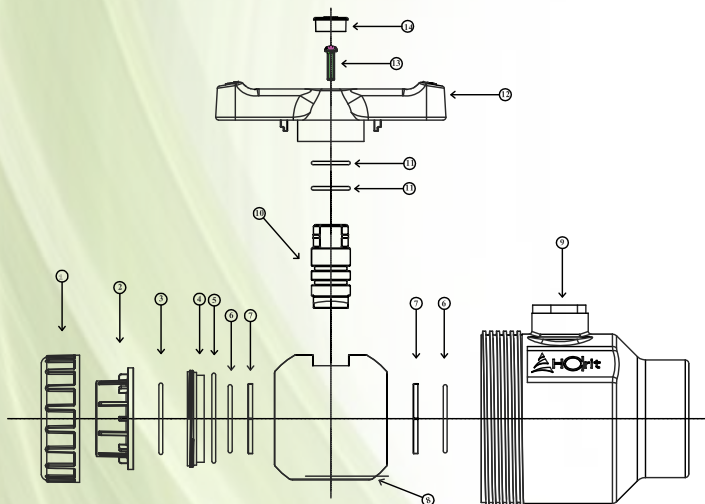
## Features

- Regular handle for use in complete header assembly unit.
- Pressure Rating- PN- 16 for upto 2" Ball valves  
PN- 10 for 2½", 3" & 4"
- Specially designed long handle for ease of operation once installed in system.

## Sizes Available

Size	Threaded Connections		Solvent Connections
	Female x Female	Female x Male	Plain x Plain
¾"	HT - 62FFSU	HT - 62FMSU	HT - 62PSU
1"	HT - 63FFSU	HT - 63FMSU	HT - 63PSU
1¼"	HT - 64FFSU	HT - 64FMSU	HT - 64PSU
1½"	HT - 65FFSU	HT - 65FMSU	HT - 65PSU
2"	HT - 66FFSU	HT - 66FMSU	HT - 66PSU
2½"	HT - 67FFSU	HT - 67FMSU	HT - 67PSU
3"	HT - 68FFSU	HT - 68FMSU	HT - 68PSU
4"	HT - 69BVSP (FF)	HT - 69BVSP (FM)	HT - 69BVSP (C)

## Exploded View



## List of Spare Parts

Position	Description	Material
1	Ring	UPVC
2	Socket	UPVC
3	Bush Small 'O' Ring	NBR
4	Bush	UPVC
5	Bush Big 'O' - Ring	NBR
6	Seal 'O' *Ring 3" & 4"	NBR
7	Seal	TPE
8	Ball	UPVC
9	Body	UPVC
10	Shaft	UPVC
11	Shaft O - Ring	NBR
12	Handle	ABS
13	Handle Screw *4"	SS
14	Handle insert (Logo)	ABS



# Double Union & Flanged PVC Ball Valves

1", 1½", 2", 2½" & 3"



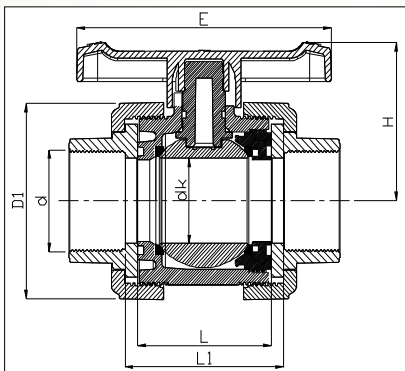
HT - 67FFDU



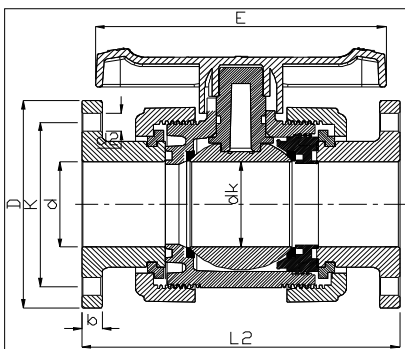
HT - 68FL

Sizes Available			
Size	Connections		
	Female x Female	Plain x Plain	Flanged
1"	HT - 63FFDU	HT - 63PPDU	N.A.
1½"	HT - 65FFDU	HT - 65PPDU	N.A.
2"	HT - 66FFDU	HT - 66PPDU	HT - 66FL
2½"	HT - 67FFDU	HT - 67PPDU	HT - 67FL
3"	HT - 68FFDU	HT - 68PPDU	HT - 68FL

## Double Union & Flanged BV Assembly Dimension



Double Union Ball Valve									
Size			Dimension						
d	DN	DN	D1	E	dk	L	L1	H	Lt
mm	mm	inch							
44.846	40	1.5	94.4	121	39.4	76.6	89.6	88.3	148.8
56.656	50	2	116	149.9	49.5	88	104	97	175.4
72.22	65	2.5	131.6	162	59	108.4	122.8	106	186.7
84.92	80	3	176.8	198.3	76	140	156	139	213.8



Flanged Ball Valve									
Size			Dimension						
d	DN	DN	D	E	dk	d2	b	k	L2
mm	mm	inch							
59.7	65	2.5	164.4	162	59	16.3	15	126	214
76.2	80	3	184	198.3	76	15.9	15.7	145.2	275

# Union PP Ball Valves

¾", 1", 1¼", 1½", 2", 2½" & 3"



HT - 263

Specially designed for Mini Sprinkler system



HT-263BVCF



HT - 267



HT - 268

## Features

- Specially designed long handle for sturdiness and ease of operation.
- Special Inter-locking system (internal parts do not fall when union is opened).
- Compatible with Automat make push fitting and other standard quality push fittings.
- Pressure rating – PN-6.

## Sizes Available

Sizes	¾"	1"	1¼"	1½"	2"	2½"	3"
Single Union	HT - 262SU	HT - 263SU	HT - 264SU	HT - 265SU	HT - 266SU	HT - 267SU	HT - 268SU
Double Union	N.A.	HT - 263DU	N.A.	HT - 265DU	HT - 266DU	HT - 267DU	HT - 268DU

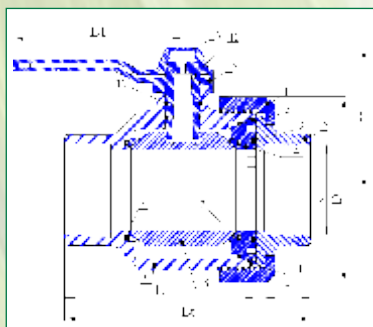


HT - 66FFDU

Specially designed & Approved in APMIP/TSMIP

## Features

- Specially designed re-inforced handle with metal insert
- It prevents breakage of handle in rough handling by farmers.
- Most popular Union Ball Valve in APT/Telangana.
- Pressure rating-PN-6



## Threaded & Plain Ball Valve Dimensions

Size	BSP	NPT	ASTM	BS	DIN	ISO	dk	D	I	L	Lt	E	H
	Thin./in	Thin./in	d	d	d	d							
20mm(¾")	14	14	26.67	26	25	25	20	60	18	64.5	82.6	60.3	56.5
25mm(1")	11	11.5	33.4	34	32	32	24.5	69.2	20	71	93	70.5	62.6
40mm(1½")	11	11.5	48.26	48	50	50	39.4	94.4	32	76.6	148.8	121	88.3
50mm(2")	11	11.5	60.33	60	63	63	49.5	116	35.4	88	175.4	149.9	97
65mm(2½")	11	8	73.03	75	75	75	59	131.6	30.45	108.4	186.7	162	106
80mm(3")	11	8	88.9	89	90	90	76	176.8	43.4	140	213.8	198.3	139

# Flanged PP Ball Valves

2", 2½" & 3"



HT - 267FL



HT - 268FL

## Features

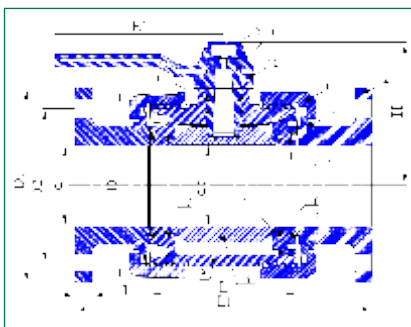
- Quarter turn handle operated ball valve.
- End connections : flange Socket
- PVC lining gives excellent gripping for solvent cement joins with PVC pipes.
- Max. Pressure : 6 Bar
- User friendly design allows smooth operation of handle
- Load of the union nut does not transfer onto ball.
- TPE seals affect that ensures leakage free and low fixed torque.
- Chemical/corrosion resistant, Color UV stabilized
- Available in

Size	2"	2½"	3"
Model No.	HT-266FL	HT-267FL	HT-268FL

## Material

S.No.	Part Name	Material	Qty.
1	SU/Flange Ring	PP	1/2
2	Socket/Flange	PP	1/2
3	Bush Small O-Ring	NBR	1/2
4	Bush	UPVC	1
5	Bush Big O-Ring	NBR	1
6	*Seal O-Ring	NBR	2
7	Seal	TPE	2
8	Ball	UPVC	1
9	Body	PP	1
10	Shaft	UPVC	1
11	Shaft O-Ring	NBR	**2
12	Handle	ABS	1
13	Handle Logo	ABS	1
***14	Flange Clamp	UPVC	2

\* Only in 3" Ball valve, \*\* one in 2" Model, \*\*\*Flange Ball valve part



## Flange Ball Valve Dimensions

Size	d	dk	D	D1	D2	L	L1	Lt	E	H
50mm(2")	50	49.5	116	152	114	88	16	206	150	97
65mm(2½")	60	59	132	164	126	102.5	15.8	210	162.4	106
80mm(3")	76	76	176.8	183.8	145.3	141.3	16	275.4	200	139



# Hybrid Butterfly Valve

2", 2½", 3" & 4"



Approved in GGRC

## Features

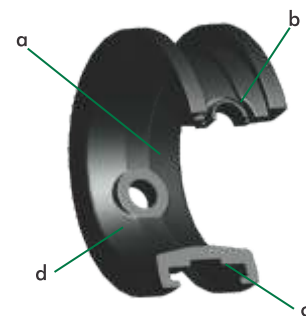
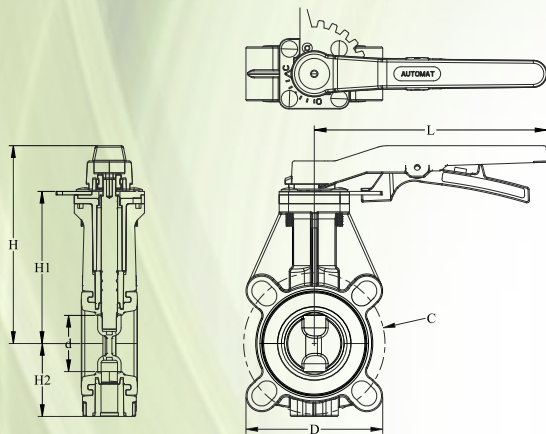
- Light Weight, easy to install.
- One Piece Body made of U-PVC.
- Disc designed ensuring low torque and low pressure loss.
- Suitable for piping in a limited space.
- **Rust Prevention** : Main parts such as Disc shaft and small parts such as bolting washers are made of high graded stainless (SSS304/316) for rust prevention.
- **Lock Plate** provided with throttling notches every 15° in balancing upto 90° or shut off service. The lever may be padlocked in any one of the notches position.

## Technical Specification

- Size : 50mm/2" - HT-81  
65mm/ 2½" - HT-82  
80mm/3" - HT-83  
100mm /4" - HT-84
- Rating : PN10 (150 Psi)

## EPDM Rubber Seal

- Wide disc seating contact for good sealing performance
- Dual shaft seal bearing for stabilized sealing function
- Excellent gripping of rubber seal to avoid operating such as distortion, deformation and skidding caused by line pressure and friction with metal.
- Gasketless flange sealing contact for easy valve mounting.



## Dimensions (mm)

Size	d	D	H1	H2	H	L	C
2"	50	117	130	62.4	156	198.5	120.8
2½"	65	112	134	88	161	198.5	137.5
3"	80	128	140.5	91	182	198.5	155.5
4"	100	162	142	106	197	183	183



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*Creating a Green World*

# Bronze Hydraulic Control Valve

1", 1½" & 2"



Hydraulically operated valve for green house irrigation system as well as turf and field crop irrigation.

## Features

- Simple and robust design, only 4 parts involved.
- Bronze Body and cover plate for durability and corrosion resistant.
- Metal reinforced rubber valve lid designed for smooth operation without deformation at high pressure with drop tight shutoff.
- Very less down time.
- Minimum Head loss due to very efficient internal design.
- Arrow for correct installation of hydraulic valve.
- Compatible with most irrigation controllers available in market.
- Inlet/ Outlet connection: 1", 1½" & 2" BSP/ NPT Female Threaded.
- Operating Pressure Range : 0.6 - 10 kg/cm<sup>2</sup> (8 - 145Psi).
- Pressure Rating: PN-10.
- Temperature Range: (with water) Upto 60°C.

## Metal Pilot



### Technical Specifications

- Funcion: Universal (Pressure Reducing, Sustaining or Relief).
- Operating System: 3 -way.
- Ports connection: ¼" BSP/ NPT Female Threaded.
- 3 Way Pilot Port: Female threaded ¼" -19 BSP or ¼"-18NPT
- 3 different Pilot available with Max. Operating & Pressure adjustment range.

### Features

- Simple design for easy pressure adjustment.
- Light in weight for easy installation and maintenance.
- Glass Reinforced plastic Base & Body for strength.
- Pilot designed for quick sensing of line pressure and work for pressure reducing, pressure sustaining /Pressure relief.

## Plastic Pilot



### Technical Specifications

- 3 Way Pilot Port: Female threaded 1/8" -28 BSP or 1/8"-27NPT
- Pressure Adjustment Range: Blue Body: 0.5 -2.5 kg/cm<sup>2</sup> (7 - 36Psi) Red Body: 0.7 - 5.5 kg/cm<sup>2</sup> (7 - 80Psi)
- Max. Oprt Press:10 Bar
- Suitable for Valve Sizes: 20mm to 150mm (¾" to 6")

- Very less down time.
- Marking for correct installation of hydraulic valve.
- Compatible with all hydraulic valves available in market.
- Color Coding Body for identification of Pressure adjusting range.
- UV & chemical resistant for long life.
- PE/PVC tubing & accessories are compatible for high pressure.

# PVC Wafer Swing Check Valve

3" & 4"



Used in-line as a non return valve to stop fluids flowing back through your system.

## Technical Specifications

- Type of check valve: Swing Type Check Valve.
- Max. Operating Pressure: 6.0kg/cm<sup>2</sup>.
- Min. return pressure: 0.2Bar or 3Psi (Minimal downstream pressure to keep the valve closed in horizontal position).
- Horizontal and vertical installation.
- Available in : 3" - HT-298  
: 4" - HT-299

## Features

- High performance and cost Effective design.
- Requires little space in the piping system.
- U-PVC Material gives excellent chemical and corrosion resistant.
- Prevents leakage from flap seal at lower pressure.
- Easy installation: Wafer body slips between the standard flanges.
- No flange gaskets required.
- Arrow for correct installation Check valve.
- Light weight.

# Ball Type Check Valve - Kaveri (NRV)

2", 2½" & 3"

Used in - line as a non return valve to stop fluids flowing back through your system.

Approved in TANHODA



## Technical Specifications

- Type of check valve : Guided Ball Check Valve.
- Max. Operating Pressure : 4.0Kg/cm<sup>2</sup>.
- Min. Cracking pressure: Valve Cracking pressure : Valve begins to open at 2 to 3 Psi.
- Horizontal and vertical installation.
- Available in : 2" - HT-96E  
: 2½" - HT-97E  
: 3" - HT-98E

## Features

- High performance and Cost Effective design.
- Delivers High Volume of water quickly with unrestricted full flow.
- Guided half Ball for smooth operation.
- Polypropylene Material gives excellent chemical and corrosion resistant.
- Prevents leakage from Ball seal at lower pressure.
- Connection of two body parts by plated steel bolts, nuts & washers for long life.
- Two pressure Ports.
- Inlet Pressure port can work for priming of pump also.
- Arrow for correct installation of Check Valve.
- Light weight.



# Premium Ball Type Check Valve - Harit (NRV)

2", 2½" & 3"

## Approved in APMIP/TSMIP/TANHODA

Allows the flow of water in one direction to avoid the reverse flow during the closure of pump.

### Specifications

- Type of check valve : Spring loaded guided ball check valve.
- Connection Flanged end.
- Max. operating pressure : 6.0 Kg/cm<sup>2</sup>.
- Min. cracking pressure: Valve begins to open at 2 to 3 Psi.
- Horizontal and vertical installation.
- Available in : 2" – HT-96SL  
: 2½" – HT-97SL  
: 3" – HT-98SL



HT-97



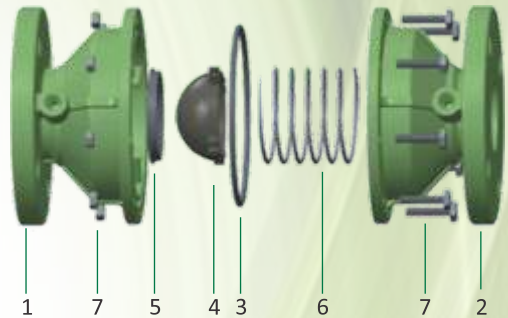
HT-96

### Application

- To be used after pumps and boosters, lateral pivots, filtration systems, Swimming pool and can also be used as a foot valve in suction line.
- Recommended for usage in micro/drip irrigation systems as a safety valve to prevent the water hammer and to maintain water column in delivery pipe.

### Features

- High performance and Cost Effective design.
- Delivers High Volume of water quickly with unrestricted full flow.
- Spring Loaded Guided Ball for smooth & quick operation.
- Polypropylene Material gives excellent chemical and corrosion resistant.
- Prevents leakage from Ball seal at lower pressure.
- Stainless steel bolt, nut & washer for long life.
- Two pressure Ports.
- Inlet Pressure port works as indicator for priming of pump.
- Arrow for correct installation of Check valve.
- Light weight.

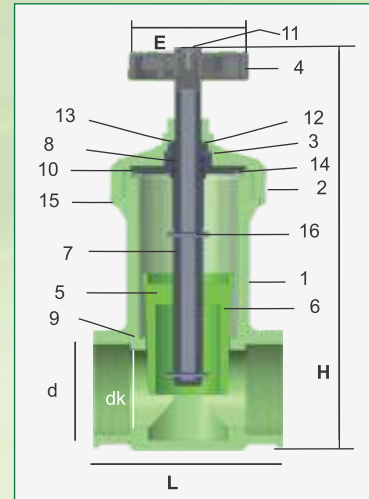


### Material

S.NO.	Parts Name	Material	Qty
1	Body (Inlet Side)	PP	1
2	Body (Outlet Side)	PP	1
3	Body O-ring	EPDM	1
4	Ball	ABS	1
5	Ball Seal	EPDM	1
6	Spring	SS	1
7	Nut & Bolt	SS	8 each

# Plastic Control (Throttle) Valve

2", 2½" & 3"



## Dimensions

Size	BSP	NPT	d	dk	E	L	H
	Thd./in	Thd./in					
50mm(2")	11	11.5	65	48	117	130	275
65mm(2½")	11	8	74	63	117	182	393
80mm(3")	11	8	93	74	117	182	393

## Specification of Material

Position	Description	Material	Qty
1	Body	Reinforced PP	1
2	Flange	Reinforced PA	1
3	Disc	Reinforced PA	1
4	Handle	Reinforced PA	1
5	Cylinder	Reinforced PP	1
6	PC Housing	Polycarbonate	1
7	Shaft	Reinforced PA + MS	1
8	Shaft O - ring	NBR	2
9	Bottom Gasket	NBR	1
10	Sleeve Gasket	NBR	1
11	Handle Screw	MS	1
12	Teflon Seal Big	Teflon	1
13	Teflon Seal Small	Teflon	1
14	Housing Gasket	NBR	2
15	Locking Pin	SS - 304	2
16	Dowel Pin (4*30) SS	SS - 304	2

## Features

- Multi turn Linear motion throttle valve.
- End connections: Female Threaded type.
- Max. Pressure : 6 Bar/85Psi.
- Straight through flow with minimal pressure loss.
- Its slow operation prevents water hammer.
- Visual float position indicator to show us % throttle of piping system.
- Steel Rod inserted in full length during injection moldings of Shaft made of Reinforced Nylon, that gives excellent strength without breakage during rough usage.
- Float Body profile is matched by CNC machines for smooth operation and keeping the leakage under permissible limit during complete shut off.
- Dowel pin inserted in the shaft to prevent extra travel of float which do not transfer load on during extra tightening by farmers. This prevents breakage of cap.
- During assembly of throttle valve, 2 nos. lock pins inserted to avoid any slippage or loosening of threads of throttle valve cap.
- Maintaining seat leakage permissible limit as per standard ANSI/FCI-70-2-2006 in Class III (0.10%).
- Chemical / Corrosion resistant, Color UV stabilized.

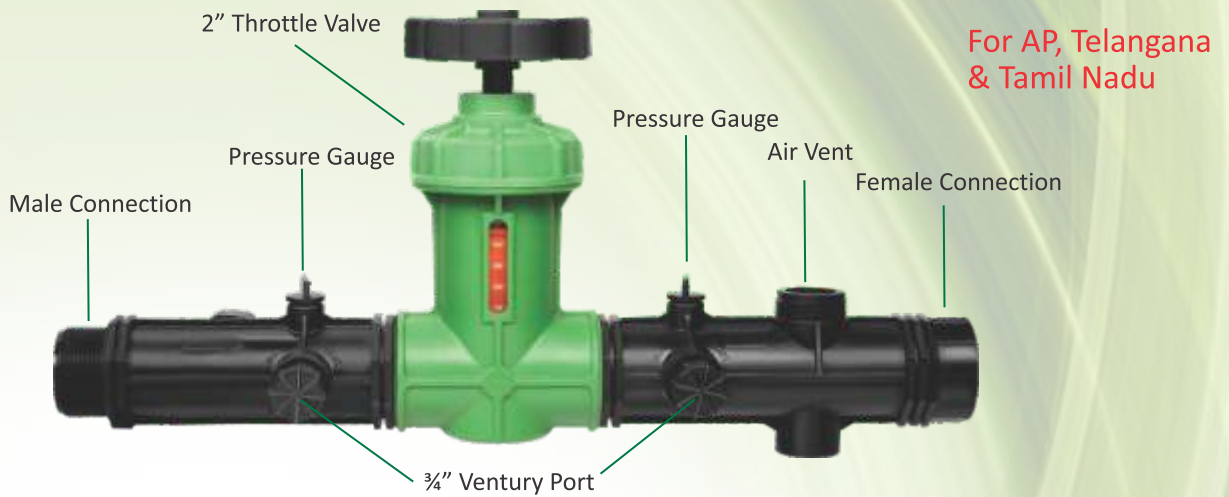
## Header Assembly - Small Farm Application

2"



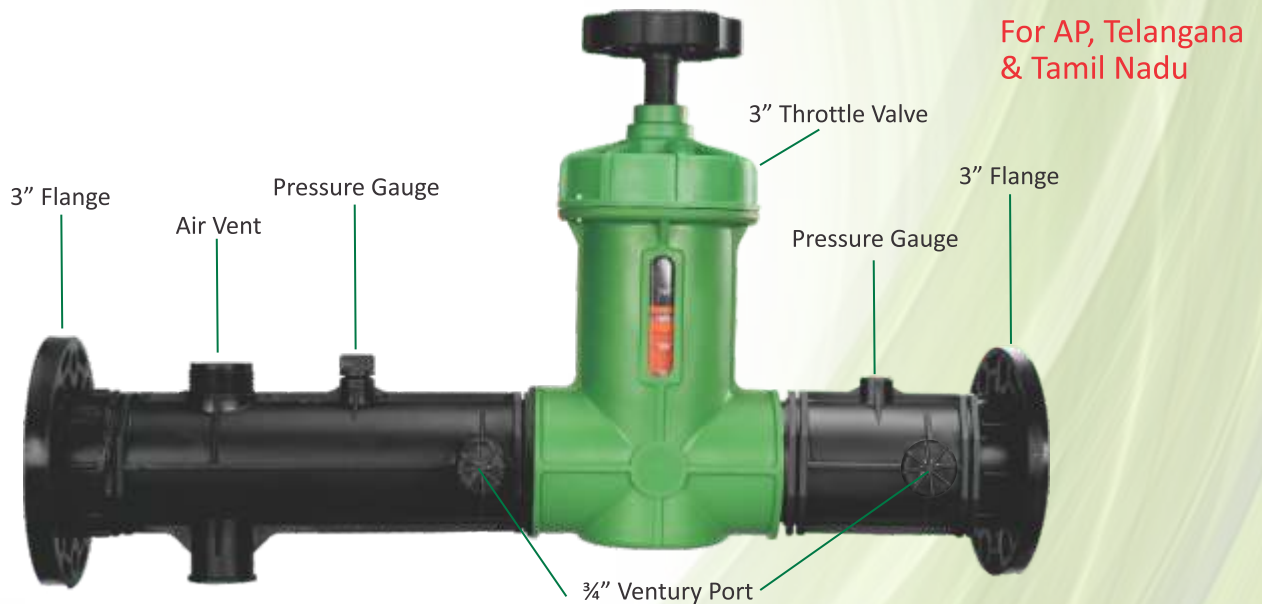
## Header Assembly with Male X Female Connections

2", 2½" & 3"



## Fusion Welded Header Assembly Flange Ended

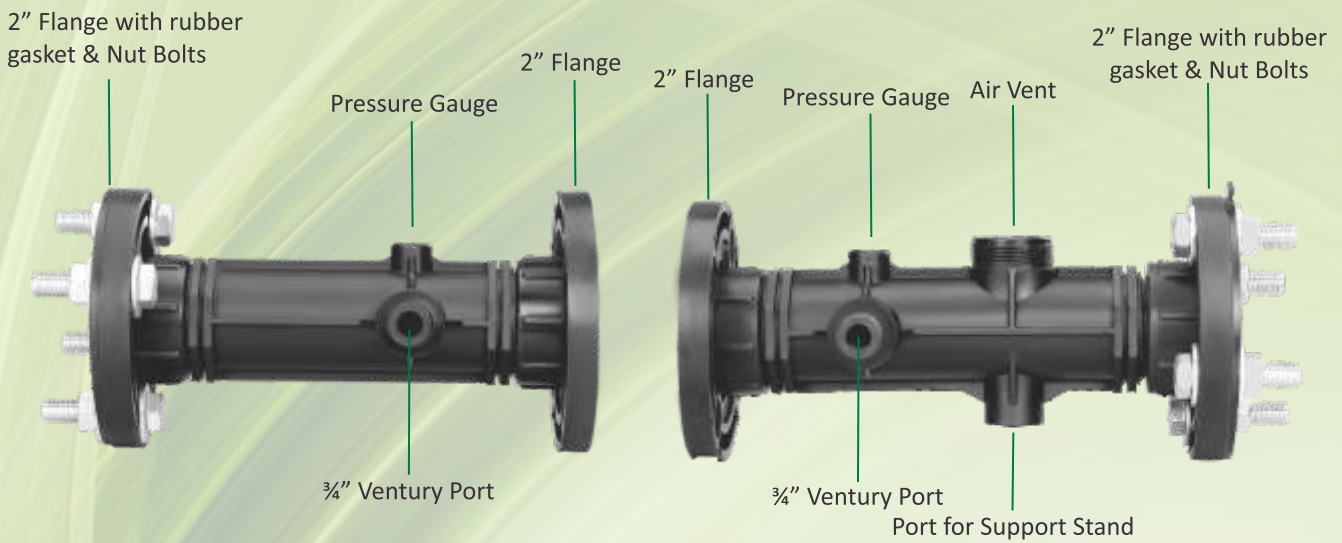
2", 2½" & 3"





# Header Assembly

2", 2½" & 3"



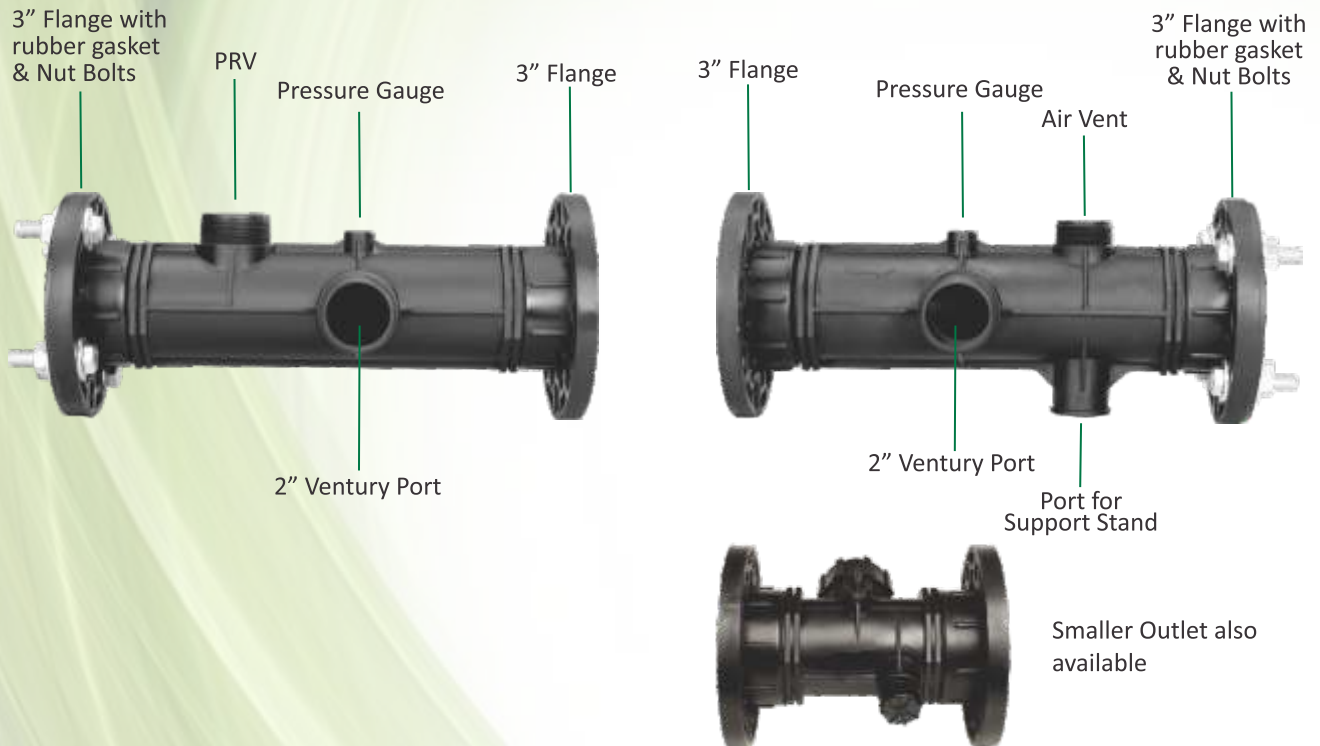
## Features

- Both 1" & 1½" Connection for air vents in single port.
- Double Pressure gauge ports with brass bushes.
- Support for assembly to maintain sturdiness.
- Made of Glass reinforced engineering plastic which is much stronger than PP.
- UV stabilized.
- Corrosion resistant, which is a major problem with metal Head Units.
- Pressure Rating : PN-8.

## Application

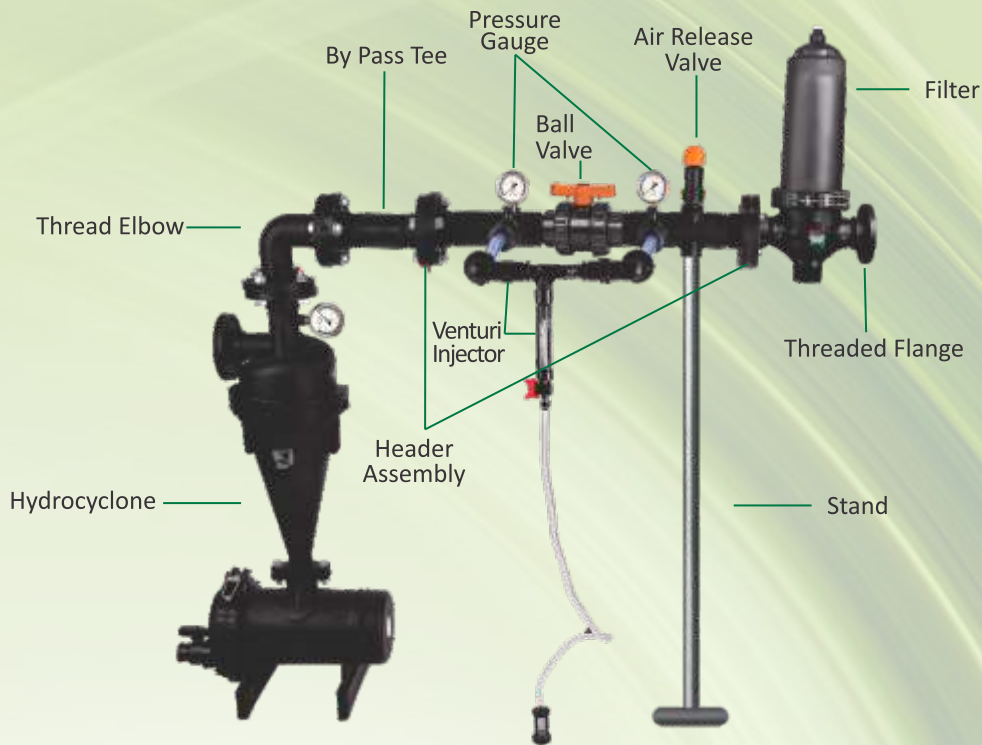
- Mini Sprinklers System
- Drip Irrigation
- Landscape Irrigation

Approved in GGRC

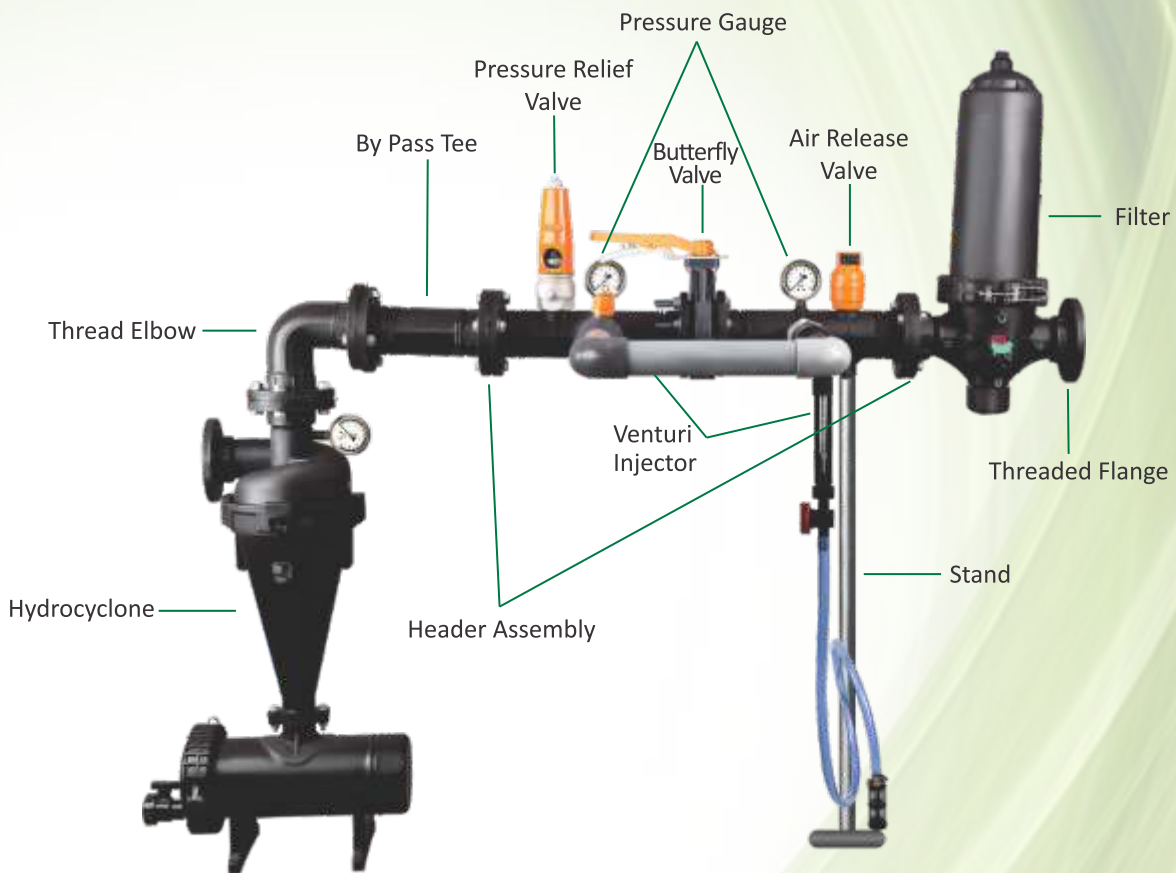


# Header Assembly

## Assembled View – 2"



## Assembled View – 2½" & 3"



## Irrigation Accessories

### Plastic Air Release Cum Vacuum Relief Valve

¾", 1", 1½", 2" & 3"



#### Specification

- Durable, Weather Resistant and Non corrosive Made of reinforced Polypropylene.
- Maximum working pressure : HT-87P & 88P-100 psi.  
HT-89P,90P & 91P – 175psi.
- Seals at 5 Psi.
- Available in :
  - ¾" BSPT Male Thread Connection : HT-87P
  - 1" BSPT Male Thread Connection : HT-88P
  - 1½" BSPT Male Thread Connection : HT-89P
  - 2" BSPT Male Thread Connection : HT-90P
  - 3" BSPT/NPT Female Thread Connection : HT-91P

### Continuous Acting Air Release Cum Vacuum Relief Valve

2"



#### Specification

- Available in: 2" BSPT Thread Connection : HT-90CP.
- Manufactured out of Durable, Weather Resistant and Non- Corrosive reinforced Polyamide (Nylon).
- Minimum sealing Pressure : 5 psi.
- Working Pressure : HT-90CP : 5-224 psi.
- Threaded Elbow Outlet.



## Irrigation Accessories

### Plastic Air Release Valve ( Superior)

1"



HT-88PM

#### Functions

- **Expulsion (Kinetic Air):** When the pipe is being filled, the air release valve remains open expelling all the surplus air outside the installation. When the pipe is full of water air release valve closes tightly.
- **Air Admission (Air Intake):** While negative pressure (pipe vacuum) the air release valve opens to allow the air to go inside the pipe. This system avoids possible damages in pipes and accessories.

#### Technical Specifications

- 1" BSP/NPT Male thread
- Single Acting Air Release/Vacuum Relief Valve
- Min. Sealing Pressure : 5 PSI
- Working Pressure: 5 – 175 PSI
- 04 Nos. hole in the cap for sufficient amount of air release/ intake.

### Plastic Continuous Air Release Valve

1"



HT-88CPM

#### Functions

- **Expulsion (Kinetic Air)-** When the pipe is being filled, the air release valve remains open expelling all the surplus air outside the installation. When the pipe is full of water air release valve closes tightly.
- **Air Admission (Air Intake)-** While negative pressure (pipe vacuum) the air release valve opens to allow the air to go inside the pipe. This system avoids possible damages in pipes and accessories.
- **Expulsion of the residual air (Automatic Air)-** The air release valve purges constantly the residual air generated in the installation, expelling it even when it is under pressure.

#### Technical Specifications

- 1" BSP/NPT Male thread.
- Continuous Acting Air Release/Vacuum Relief Valve.
- Min. Sealing Pressure : 5 PSI
- Working Pressure: 5 – 175 PSI
- Plain Elbow outlet.

## Irrigation Accessories

### Metal Air Release Cum Vacuum Relief Valve

½", ¾", 1", 1½", 2", 3" & 4"



#### Specification

- Simple Design Ensures trouble- free Performance.
- Cast Aluminium Body Combines the Dual advantage of being Lightweight as well as Provides Corrosion resistance.
- Synthetic Rubber Seal Assures Positive Rubber Seal Even with Low Head Application.
- Available :
  - ½" BSPT Male Thread Connection : HT-86
  - ¾" BSPT Male Thread Connection : HT-87
  - 1" BSPT Male Thread Connection : HT-88
  - 1½" BSPT Male Thread Connection : HT-89
  - 2" BSPT/NPT Female Thread Connection : HT-90
  - 3" BSPT/NPT Female Thread Connection : HT-91
  - 4" BSPT/NPT Female Thread Connection : HT-92

### Pressure Relief Valve

2"



HT-102CLM  
Male Threaded

HT-102CLF  
Female Threaded

#### Technical Specifications

- Pressure Relief Setting : 1.5kg/cm<sup>2</sup> to 5.5kg/cm<sup>2</sup> (20psi to 80psi).
- Specify Pressure Setting : Factory Set & Sealed under actual hydraulic conditions.
- Pressure Relief Valve comes with preset pressure from factory at 4kg /cm<sup>2</sup> (60 psi) which can be changed in field as per requirement by using a Pressure Gauge.

#### Features

- Available in:
  - 2" BSP Male Threaded Connection : HT-102CLM.
  - 2" BSP Female Threaded Connection : HT-102CLF.
- Aluminium Cover with ½" BSP/NPT Female Threaded drain port.
- Orange Color powder coated cover for easy visibility on unit and longer life.

# Irrigation Accessories

## Special Reinforced Nylon/PVC Flanges



### Features

- Material: Reinforced Nylon/ PVC.
- Threaded Socket: 3" & 4" BSP/ NPT Female threaded/Plain Socket.
- Chemical Resistant: Good resistance to strong acids except highly active oxidizers, such as nitric acid.
- It also has excellent resistance to weak and strong alkalis and to most organic solvents.
- Color: Black.
- Flange dimensions suited for Standard: BS10 (Table D & E), ANSI Class 125/150, ISO 7001 (DIN), BS EN 1092.
- Max. working pressure 10 Bar.

## PVC Fittings



Union



Socket



Elbow

### Features

Fittings	Connection Size
Union	1½" & 2" One/both side Female threaded/ Plain
Socket	1½", 2", 2½" & 3" One/both side Female threaded/Plain
Elbow	1½" & 2" One/Both side Female Threaded / Plain

- The Threads follow BSP & NPT standard whereas Plain connection follow ISO/ASTM/DIN/BS etc.
- The material made of good quality PVC with impact & UV resistant.
- Max. Operating Pressure: PN-10

## PP Elbow, Tee & Flanges



### Features

Available in

Size	Threaded Elbow	Threaded Tee	Slip On Flanges
50mm (2")	HT-174	HT-184	HT-154S
65mm (2½")	HT-175	HT-185	HT-155S
80mm (3")	HT-176	HT-186	HT-156S

- Material : Reinforced Polypropylene.
- Color : Black.
- Smooth Flow And Minimal Pressure Drop.
- UV Stabilized.

## Compression & Push Fittings



90° T Coupling

90° Male Threaded T

90° Male Threaded Elbow

Male Threaded Adapter

End Cap

90° Elbow Coupling

Coupling

### Features

- It prevents the problems which may arise due to size difference up to 0.5 in the pipes or ovality, easy to assemble and sealing feature.
- Pipe holder is made of Polyacetal.
- High impact resistance, also resistant to pulsed pressures.
- Seal is made of natural rubber and proves high sealing.
- Pressure Rating : PN-10 for Compression Fittings.  
PN- 4 for Push Fittings.
- Sizes Available – 25mm to 32 mm.



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# Irrigation Accessories

## Pressure Gauge



Pressure Gauge Valve



HT-305



HT-310



HT-320

Features	Features	Features	Features
<ul style="list-style-type: none"> <li>• ¼" BSP/NPT Male X Female Threaded Connection.</li> <li>• Install Valve Underneath The Pressure Gauge.</li> <li>• Increase The Life Of Pressure Gauges.</li> <li>• Vibration Of Pressure Gauge Needle Will Reduce.</li> <li>• Pressure Rating : 6 Bar.</li> </ul>	<ul style="list-style-type: none"> <li>• Thread Size ¼" BSP Male</li> <li>• Economical Version</li> <li>• General Purpose Application</li> <li>• Dial : 2"</li> </ul>	<ul style="list-style-type: none"> <li>• Thread Size : ¼" BSP Male</li> <li>• General Purpose Application</li> <li>• Warranty : 12 months</li> <li>• Dial : 2½"</li> </ul>	<ul style="list-style-type: none"> <li>• Thread Size : ¼" BSP Male</li> <li>• Rugged Construction</li> <li>• Glycerine Filled</li> <li>• Standard follower in General EN 837-1/ General EN 837-1</li> <li>• Warranty : 12 months</li> <li>• Dial : 2½"</li> </ul>

## Lateral Valve



Barb x Barb

12mm x 12mm  
12mm x 16mm  
12mm x 20mm



Barb x Barb

16mm x 16mm  
16mm x 20mm  
20mm x 20mm



½" Male Thread x Barb

½" Male Thread x 12mm  
½" Male Thread x 16mm  
½" Male Thread x 20mm



¾" Female Thread x Barb

¾" Female Thread x 12mm  
¾" Female Thread x 16mm  
¾" Female Thread x 20mm



¾" Male Thread x Barb

¾" Male Thread x 12mm  
¾" Male Thread x 16mm  
¾" Male Thread x 20mm



Male Thread x Male Thread

½" Male Thread x ½" Male Thread  
¾" Male Thread x ¾" Male Thread

## Vacuum Breaker



### Features

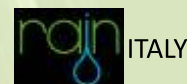
- Designed to protect enclosed tanks from collapse or structural damage during draining.
- Eliminates siphoning of dangerous fluids.
- Prevents vacuum which can cause damage to filters.
- Prevents pipe collapse during transient pressure drop.
- For corrosive or ultra-pure liquid applications.
- Sizes ½", ¾" & 1" Male Thread.
- Body & Float Materials : Reinforced Polypropylene.

# Automatic Irrigation Controller & Solenoid Valves



## HT-AIC-10

- Farmer User Friendly. Have very simple and minimum programming step as compared to existent controllers in market.
- Suitable for erratic electricity availability conditions where the real time controllers could not perform.
- Has pause delay feature which shuts the pump for 30 seconds during change of stations (Valves) to maintain the hydraulic balance in the main line. Has inbuilt rain sensor feature and its sensibility to even pure rain (distilled water) is there.
- Specially designed stand for controller.
- Can operate 10 solenoid Valves individually in sequence.
- Electrical Power Supply 230VAC, 5Hz.
- Electrical Output – 24VAC, 2Amps i.e. per station (up to 2 valves/station can be operated simultaneously).



## Solenoid Valves

- Heavy Duty, corrosion and UV Resistant PVC construction increases the life of the valve.
- External Bleed Screw with Removable Metering Pin-Allows for easy cleaning of the metering pin without disassembling the valve.
- Manual Internal Bleed through Solenoid – Provides for manual operation without discharging water outside the valve.
- Removable Inlet Cap – Allows for easy conversion from globe to angle style valve.
- Flow Control-Allows for precise flow adjustment and manual shut off.
- Captured Plunger Allows for the solenoid to be removed without losing the internal plunger.
- Heavy Duty Santoprene Diaphragm – Unique design improves durability of diaphragm.
- Sizes available : 1", 1½", 1½" & 2".
- MOC : Nylon glass filled.

## Auto Flush®

### Automatic Disc Filter Systems

Back flushing control valves adjusting filtration and back flushing positions of AutoFlush® automatic disc filters connected parallel to the manifold collector system are programmed by differential pressure sensor (DP) for pressure and by control device for timedependent parameters.

Mesh No	Micron	Effective Filtering Surface (%)	Disc Color
80	200	%39	Blue
120	130	%39	Red
150	100	%40	Yellow

## Specifications

- Back-flushing pressure is 1 bar.
- Back flushing process is completed in automated manner.
- Water supply is not interrupted during back flushing process.
- As it can be cleaned within short time, very low amount of water is used in back flushing process.
- Due to discs with varying dimensions, desired filtration degree is ensured.
- Maintenance during operation is very easy.
- As it is used in modular filter systems, filtration at desired rates can be performed.
- Due to body and framework reinforced against corrosion, it has long operation life.



### Applications:

- Filtration of well water
- Filtration of river, lake and reserve water
- Filtration of applications such as process water and cooling water
- Upwards the ultra-filtration systems
- Agricultural drip and micro-irrigation systems
- For recreational irrigation system practices

BACK-FLUSHING  
PRESSURE

1BAR



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Creating a Green World



# Turf Products



## Brass QCVs



## Plastic QCVs



## Aluminium QCVs



### Features

- One piece solid brass construction for durability.
- Stainless steel spring.
- Brass Valve.
- Drain hole in body to minimize debris collection
- Specially designed grommet.
- Auto close lid when not in use.
- Cover made of Thermo Plastic Elastomere.
- Maximum working pressure – 10 Bar.

### Features

- Click Lock on lid.
- Stainless Steel Spring .
- Specially designed grommet .
- UV Stabilized .
- Rugged two piece valve body design.
- "Push & Lock" Key .
- Specially designed for application in public area
- Plasson Compatible.
- Maximum working pressure - 6 Bar.

### Features

- Auto Close lid made of rubber when QCV is not in use.
- Single piece construction for 76A & double piece construction for 77A.
- Stainless Steel Spring.
- Brass valve.
- Steel key with Handle.
- Maximum working pressure – 10 Bar.

### Model No.

### Product Name

HT-70B	¾" Brass QCV
HT-70BK	Opener for HT-70B
HT-70SE	¾" X ¾" Swivel Elbow
HT-71B	1 Brass QCV
HT-71BK	Opener for HT-71B
HT-71SE	1" x 1" Swivel Elbow
HT-72B	1½" Bronze QCV
HT-72BK	Opener for HT-72B
HT-72SE	1½" x 1" Swivel Elbow

### Model No.

### Product Name

HT-70PM	¾" Plastic QCV
HT-70PMK	Opener for HT-70PM
HT-70SEP	¾" X ¾" Swivel Elbow
HT-71PM	1" Plastic QCV
HT-71PMK	Opener for HT-71PM

### Model No.

### Product Name

HT-76A	1" Aluminium QCV
HT-76AK	Opener for HT-76A
HT-77A	1½" Aluminium QCV
HT-77AK	Opener for HT-77A

## Swing Joints



### Features

- Full 3 way adjustability including height.
- Durable polyethylene construction used for ½" & ¾".
- HI-impact PVC material used for construction for 1".
- High quality EPDM O-ring threads used for seals.
- Full 360° adjustment.
- Heat resistant – operates at 50° C also.

### Model No.

### Product Name

HT-2ASJ	½" X ½" Swing Joint
HT-2BSJ	¾" X ¾" Swing Joint
HT-2CSJ	1" X 1" Swing Joint

## Aquadrip Automatic Watering System for Potted Plants



Capillary Micro Stake

### Features

- Pressure Compensating Dripper's gives constant flow of discharge in event of variation of pressure in supply line.
- Capillary tube of 3.3x0.8mm available in standard length of 50, 85 & 100cm.
- Battery operated controller, hence no need to rely upon electricity supply.
- Easy programming for start time, watering duration & irrigation frequency depending upon climatic conditions.

Pressure (kg/cm <sup>2</sup> )	0.5	1.0	1.5	2.0
Flow (lph)	1.9	2.8	3.6	4.5



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# Aquaturf Pop-up Impact Sprinkler

HT - 405



## Applications

Pop-up sprinkler for underground installation in landscaping, residential park, public lawn irrigation.

## Features



- Interchangeable, bayonet color coded nozzles.
- Heavy-duty plastic case with reinforced ribbed design for excellent gripping.
- Adjustable to full-circle or part circle.
- Diffuser screw for fine droplets & throw control.
- Double-weighted arm for balance and smooth rotation.
- Sand resistant pressure activated wiper seal.
- Excellent distribution uniformity.
- ½" & ¾" female threaded bottom inlet & ½" female threaded side inlet.
- Having provision of bottom inlet filter.



## Technical Specifications

- Discharge: 456-1192 L/H
- Diameter: 22.5-25.5 mtr
- Operating pressure: 2.0-4.0 kg/cm<sup>2</sup>
- Bottom Inlet connection ½" & ¾" female threaded
- Nozzles available in sizes 2.9, 3.2, 3.5 & 4.0 mm
- Trajectory Angle: 25°
- Full-circle (360°) OR  
Part-circle (adjustable arc from 15° to 345°)
- Spacing between sprinkler : upto 12m for excellent uniformity.

## Performance Data

Nozzle size-Color	Pressure (Kg/cm <sup>2</sup> )	Flow rate (L/H)	Diameter (mtr.)
 2.9 Orange	2.0	456	22.5
	2.5	509	23.5
	3.0	559	23.8
	3.5	604	24.0
	4.0	646	24.5
 3.2 Green	2.0	565	22.8
	2.5	636	23.8
	3.0	700	24.5
	3.5	755	25.0
 3.5 Blue	4.0	805	25.2
	2.0	680	23.0
	2.5	760	24.0
 4.0 Black	3.0	845	24.8
	3.5	905	25.3
	4.0	975	25.5
	2.0	865	23.2
	2.5	960	24.0
	3.0	1042	25.0
	3.5	1125	25.5
	4.0	1192	25.5

\* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.  
 † Standard Nozzle Size



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## Warranty & Disclaimer

Automat products are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair. The manufacturer's liability under this warranty is limited solely to replacement or repair of defective parts, and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects in design or breach of warranty.



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