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VC :

Mar. 2025-26/L4/

05 Mar. 2026/R1



SHAKTI IRRIGATION PRODUCT CATALOGUE

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Shakti Irrigation – Products

Shakti Irrigation System

The Shakti Irrigation System is an advanced irrigation method designed to deliver a precise and controlled quantity of water directly to each plant. The system is technically integrated through a complete drip irrigation setup comprising a filtration unit, main pipe, sub-main pipe, laterals, and drippers. Each dripper uniformly supplies water and nutrients across the entire crop area. Fertilizers and other essential inputs that support optimal crop productivity are efficiently delivered directly to the plant root zone. This ensures rapid absorption of water and nutrients, prevents water stress, and promotes healthy plant growth—resulting in improved crop quality and higher yields. The most significant advantage of the Shakti Drip Irrigation System is its ability to achieve maximum crop productivity using less electricity, less water, less fertilizer, and less time. In regions facing water scarcity or limited power availability, this system proves to be highly beneficial. At the same time, it is equally effective in areas with excess water, as it helps mitigate the adverse effects of conventional irrigation such as soil degradation, fertilizer leaching, and water wastage. In the current scenario of declining rainfall and falling groundwater levels, the Shakti Drip Irrigation System has emerged as a highly efficient and sustainable irrigation solution.

Main Systems of Shakti Drip Irrigation

The Shakti Drip Irrigation System primarily includes three types of systems:

- Inline Drip System (Cylindrical Round & Flat Emitting Systems)
- Online Drip System
- Sprinkler System

Shakti Inline Drip System

The Shakti Inline Drip System is manufactured using state-of-the-art machinery and is particularly suitable for crops planted closely together. The system includes both cylindrical and flat drippers, helping farmers meet diverse irrigation needs while ensuring optimal growth and maximum yields.

Cylindrical / Round Emitting System

The Shakti Cylindrical Emitting Drip System is produced with advanced equipment and special-grade virgin materials, ensuring durability and long-lasting performance. During production, drippers are permanently integrated inside the lateral pipes. Additionally, two emission holes are precisely formed in each dripper, delivering water drop by drop directly to the plant root zone, ensuring uniform irrigation and efficient nutrient delivery.



Features of Shakti Inline Round Drip

- Manufactured as per ISI standards using 100% virgin materials.
- Ensures uniform water and nutrient distribution for healthy and consistent crop growth.
- Delivers water directly to the plant root zone.
- Maintains uniform performance even at varying water flow rates.
- Easy to install and implement in the field.
- Offers excellent hydraulic flow characteristics.
- Provides superior resistance to ultraviolet (UV) radiation.
- Each coil is tested under strict quality parameters in compliance with IS 13488:2008.
- Available in various discharge rates and dripper spacing, suitable for different soil types and crop water requirements.

Benefits of Shakti Drip Irrigation for Farmers

1. Higher yields and superior quality crops.
2. Enhances crop growth beyond natural potential.
3. Optimized use of water and fertilizers, increasing efficiency.
4. Saves electricity.
5. Effective irrigation even on uneven terrain.
6. Greater flexibility in crop management.
7. Reduced risk of pests and diseases.
8. Suitable for saline and less fertile soils.
9. Minimizes the spread of harmful weeds.
10. Reduces the need for internal field plowing.
11. Lowers cost of tillage.
12. Saves labor during irrigation.
13. Reduces overall labor expenses.

Usage

- Shakti Round Drip is ideal for irrigation of closely planted crops such as sugarcane, cotton, banana, strawberry, vegetables, onions, oilseeds, spices, biofuel crops, and floriculture.
- Suitable for multi-seasonal applications.
- Can be installed for both surface and subsurface irrigation systems.



Technical Specifications / Chart

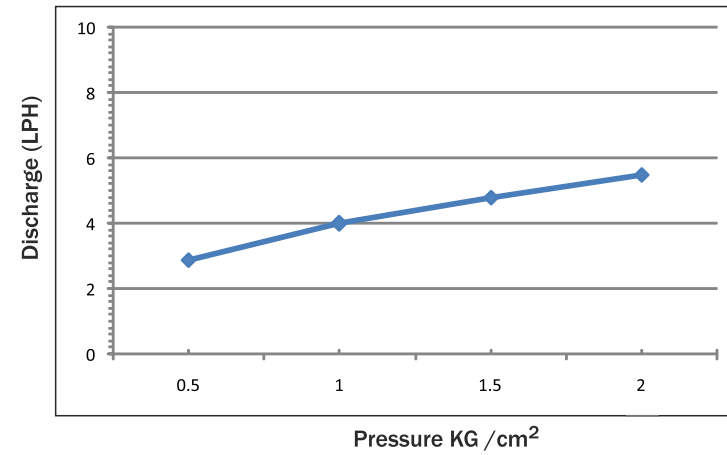
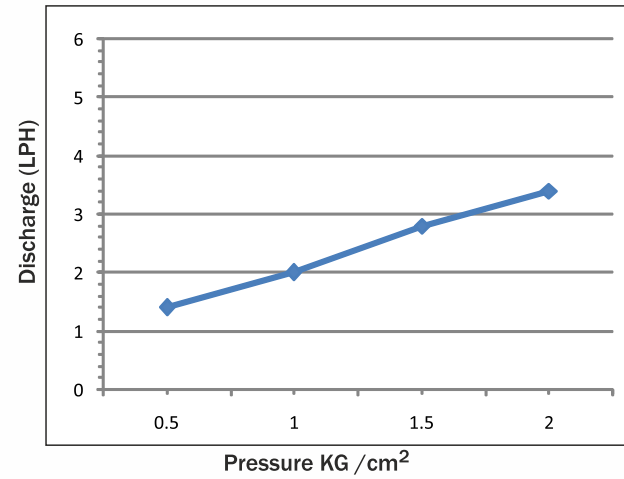
Standard	IS 13488:2008
Sizes Available	12mm and 16mm
Pressure Categories	CI-I (1.0 kg/cm ²), CI-II (1.25 kg/cm ²), CI-III (2.5 kg/cm ²)
Drip Type	Cylindrical / Round
Nominal Pressure	1.0 kg/cm ²
Flow Rates	2 LPH & 4 LPH
Dripper Spacing Options	30, 40, 50, 60, 75, 90, 100, and 150 cm
Wall Thickness	As per ISI Class-I, Class-II & Class-III
Filtration Requirement	130 micron
Operating Pressure Range	0.5 kg/cm ² to 2.0 kg/cm ²

Technical Chart – Shakti Round Drippers

Nominal Dia. (mm)	Inside Dia. (mm) Min.	Wall Thickness (mm)			Standard Coil Length (m)
		Class 1 0.100 MPa	Class 2 0.125 MPa	Class 3 0.250 MPa	
12mm	10.5mm	0.4–0.5	0.6–0.7	0.8–1.0	500 m
16mm	14.2mm	0.5–0.6	0.7–0.9		500 m

Shakti Irrigation – Products

Performance Graph
Shakti Round Dripper 12 mm OD
(10.5 mm ID) CI-2 2 LPH



Shakti Inline Flat Emitting System

The Shakti Inline Flat Emitting System is manufactured using advanced Swiss technology. During production, drippers are permanently integrated inside the lateral pipes, and a precision emission hole is created to deliver water drop by drop directly to the plant root zone, ensuring uniform and efficient irrigation.

Features

- Manufactured as per ISI standards using 100% virgin materials.
- Ensures uniform water and nutrient distribution for healthy and consistent crop growth.
- Delivers water directly to the plant root zone.
- Maintains uniform performance even at varying water flow rates.
- Easy to install in the field.
- Offers excellent hydraulic flow characteristics.
- Provides superior resistance to ultraviolet (UV) radiation.
- Each coil is tested under strict quality parameters in compliance with IS 13488:2008.
- Available in various discharge rates and dripper spacing, suitable for different soil types and crop water requirements.



Benefits of Shakti Drip Irrigation for Farmers

1. Produces higher yields and superior quality crops.
2. Enhances crop growth beyond natural potential.
3. Optimizes the use of water and fertilizers, improving efficiency.
4. Saves electricity.
5. Enables irrigation even on uneven terrain.
6. Provides greater flexibility in crop management.
7. Reduces the risk of pest and disease infestation.
8. Suitable for saline or less fertile soils.
9. Minimizes the spread of harmful weeds.
10. Reduces the need for internal field plowing.
11. Lowers the cost of tillage.
12. Saves labor during irrigation.
13. Reduces overall labor costs.

Usage

- Shakti Flat Drip is ideal for closely planted crops such as sugarcane, cotton, banana, strawberry, vegetables, onions, oilseeds, spices, biofuel crops, and floriculture.
- Suitable for multi-seasonal applications.
- Can be installed for both surface and subsurface irrigation systems.



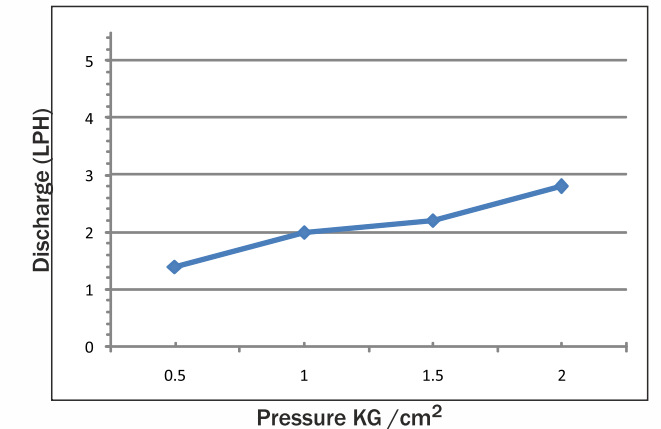
Technical Specifications – Shakti Inline Flat Drip

Standard	IS 13488:2008
Sizes Available	12mm, 16mm and 20mm
Pressure Categories	CI-I (1.0 kg/cm ²), CI-II (1.25kg/cm ²), CL- III (2.5kg/cm ²)
Drip Type	Flat
Nominal Pressure	1.0kg/cm ²
Flow Rates	1 LPH, 2 LPH & 4LPH
Dripper Spacing Options	20,30,40,50,60,75,90,100 and 150 cm.
Wall Thickness	As per ISI Class-1, Class-II & Class-III and For Non ISI Product 0.20,0.30,0.35,0.40,0.45,0.50,0.55,0.60mm
Filtration Requirement	130 micron
Operating Pressure Range	0.5 kg/cm ² to 2.0 kg/cm ²

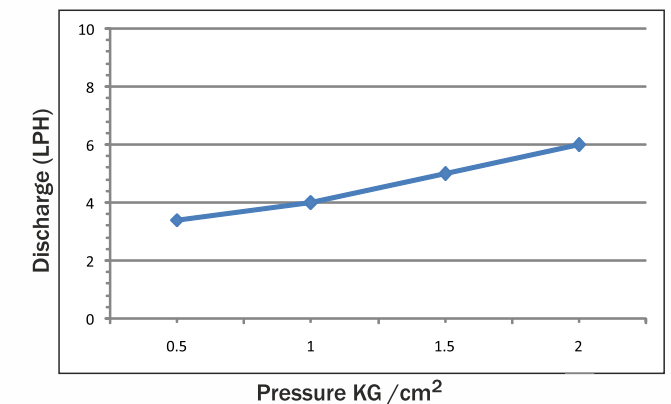
Technical Specifications – Shakti Inline Flat Drip

Nominal Dia. (mm)	Inside Dia. (mm) Min.	Wall Thickness(mm)			Standard Coil Length (m)
		Class 1 0.100 MPa	Class 2 0.125 MPa	Class 3 0.250 MPa	
12mm	10.5mm	0.4–0.5	0.6–0.7	0.8–1.0	500 m
16mm	14.2mm	0.5–0.6	0.7–0.9		500 m
20mm	18mm	0.7–0.8			400 m

Performance Graph
Shakti Flat Dripper 16 mm OD (14.2 mm ID) CI-1 4 LPH



Performance Graph
Shakti Flat Dripper 18 mm OD (18.0 mm ID) CI-1 4 LPH



Shakti Irrigation – Products

Shakti Plain Lateral Pipes

Shakti Plain Lateral Pipes are manufactured from virgin materials and are primarily used in online drip systems, micro-irrigation, and mini-irrigation setups.



Features of Shakti Plain Lateral Pipes

- Manufactured from LLDPE virgin material using state-of-the-art technology.
- Excellent properties of LLDPE ensure durability and mechanical strength of the lateral pipes.
- Produced in compliance with IS 12786:2024 standards.
- Environmentally safe with no adverse impact.
- UV stable, providing long-term outdoor performance.
- Smooth internal surface minimizes friction losses.
- Each coil undergoes rigorous quality testing in our laboratory.

Usage

- Used as laterals in online drip irrigation systems.
- Suitable as laterals in micro-irrigation and mini-irrigation systems.
- Can be used as laterals for high-pressure foggers, spray heads, and jets in greenhouses.

Technical Specifications – Shakti Plain Lateral Pipes

Nominal Diameter (MM)	Outside Diameter (MM)	Wall Thickness (MM)			Coil Length Meter
		Class 1 (0.20Mpa)	Class 2 (0.25Mpa)	Class 3 (0.40Mpa)	
12	12.00-12.20	0.60-0.80	0.90-1.10	1.20-1.40	500
16	16.00-16.20	0.80-1.00	1.10-1.30	1.40-1.60	400
20	20.00-20.20	0.90-1.10	1.20-1.40	-	200
25	25.00-25.30	-	1.70-2.00	-	200
32	32.00-32.30	1.50-1.90	2.00-2.40	-	200

Technical Description

Standard	IS 12786:2024
Sizes Available	12mm, 16mm, 20mm, 25mm, & 32mm
Pressure Categories	• CI-I: 2.0 kg/cm ² • CI-II: 2.5 kg/cm ² • CI-III: 4.0 kg/cm ²
Wall Thickness	As per ISI Class-I, Class-II & Class-III
Carbon Black Content	2.5 ± 0.5%
Carbon Black Dispersion	Uniform dispersion
Heat Reversion	> 3%
Tensile Strength	Minimum 12.5 MPa
Elongation at Break	Minimum 500%
Hydraulic Pressure	No leakage, no swelling
ESCR (Environmental Stress Crack Resistance)	Pass



Flat PC Inline Drip Pipes

(As per IS: 13488:2008)



Features

- Wide operating pressure range for versatile irrigation applications.
- Ensures uniform water flow rate across all drippers.
- Equipped with extended inlet filters for reliable operation.
- Highly precise pressure-compensating labyrinth flow path mechanism.
- Wide water passage integrated with the labyrinth flow path.
- Suitable for various water sources and qualities.
- Durable under harsh field conditions and exposure to chemicals.
- Very low Coefficient of Variation (CV) for consistent performance.
- Long-lasting silicone diaphragm ensures reliability over extended use.



Applications

- Greenhouses
- Landscaping
- Orchards
- Vineyards
- Row crops
- Vegetables

Benefits of Shakti Drip Irrigation Products

- Easy-to-install drip irrigation system.
- Saves water and energy.
- Compatible with multi-crop farm irrigation setups.
- Drip pipes are useful for irrigation uneven land (high and low terrain), steep slopes, and long distances.

Technical Specifications – PC Pipe

Nominal Diameter (MM)	Inside Diameter (MM)	Wall Thickness (MM)		Coil Length Meter
		Class 2 0.125 MPa	Flow Rate (LPH)	
16	14.20-14.40	0.70-0.90	1.20	500
16	14.20-14.40	0.70-0.90	2.10	500
16	14.20-14.40	0.70-0.90	3.40	500

Shakti Online Dripper



Features

- Manufactured from virgin materials using state-of-the-art technology.
- Easily opened and cleaned for maintenance.
- Ensures uniform flow across all drippers.
- UV resistant for long-lasting outdoor performance.
- Easy to install in various irrigation setups.
- Product quality is consistently tested as per IS 13487:2024 standards.

Benefits

- Saves 70–80% of water compared to conventional methods.
- Enables higher crop yields.
- Reduces time and labor requirements.
- Increases fertilizer efficiency by up to 30%.

Applications

- The Shakti Online Drip System is suitable for gardens, orchards, and nurseries, including fruit crops such as mango, grapes, pomegranate, ber, guava, banana, apple, coconut, and more.
- Ideal for longer distance irrigation requirements.

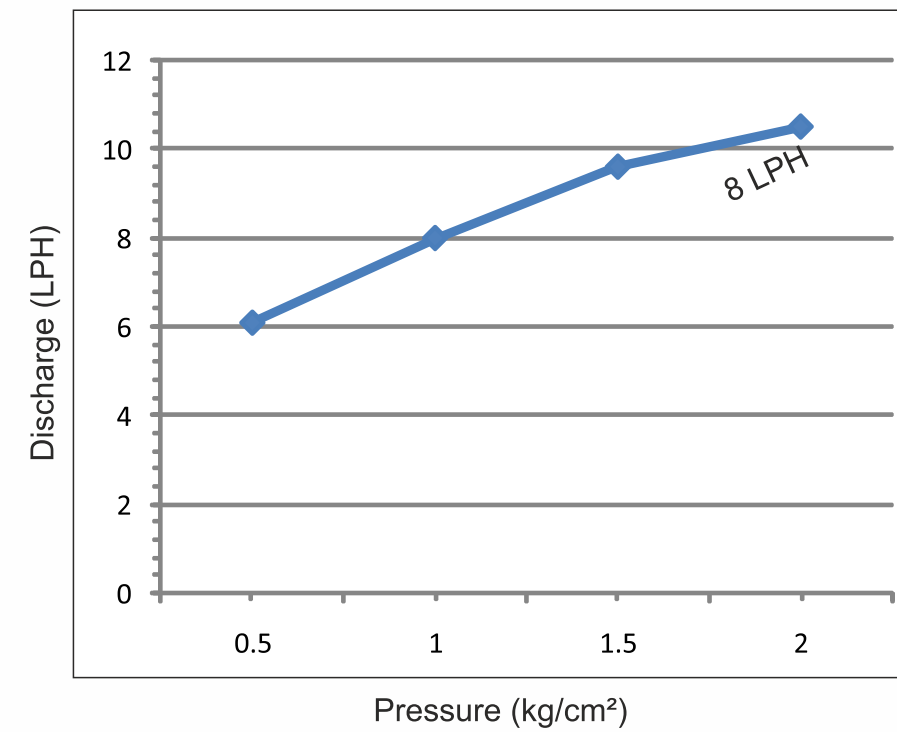


Technical Specifications – Shakti Online Dripper

Standard	IS 13487: 2024
Flow Rates	2.0 lph , 4.0 lph & 8 lph
Nominal Pressure	1.0kg/cm ²
Filtration Requirement	130 micron
Operating Pressure Range	0.5 kg/cm ² to 2.0 kg/cm ²

Performance Graph

• Shakti Online Dripper – 8 LPH



Shakti RPBC Pipes (UPVC)

Key Features

- Manufactured from 100% virgin material using state-of-the-art technology, ensuring world-class quality.
- Lightweight, making transportation and handling easy.
- Strong, flexible, and durable.
- Supports solvent cement joints.
- Completely leak-proof.
- Smooth internal surface ensures higher discharge, reducing electricity consumption.
- High electrical resistance, low thermal conductivity, and safe for health.
- Termite-resistant and UV-resistant.
- Self-extinguishing, providing fire resistance.
- Manufactured as per AS 4985 standards.

Benefits

- Long-lasting with minimal maintenance and cost.
- Health-friendly and safe.
- Saves labor and money.

Product Range – Solvent Fit Pipes

- **Pressure Ratings 6, 8, 10, & 12.5 kg/cm²:** Diameters 40mm to 315mm
- **Pressure Ratings 4, 6, 8, 10, & 12.5 kg/cm²:** Diameters 63mm to 315mm
- **Pressure Ratings 2.5, 4, 6, 8, 10, & 12.5 kg/cm²:** Diameters 90mm to 315mm

Applications

- Agricultural:** Irrigation and farm water supply
- Industrial:** Chemical effluents and waste transport; acid and dilute solution handling; saline water transport
- Domestic:** Drinking water distribution in urban areas
- Others:** Telecommunications cables



Technical Chart

Compliant with IS:4985

Pipe Size (Inch)	Nominal Outside diameter (nominal Size)	Mean Outside diameter		Outside diameter at Any Point		Class-1 0.25 Mpa (2.5kg/cm ²)		Class-2 0.40 Mpa (4kgf/cm ²)		Class-3 0.60 Mpa (6kg/cm ²)		Class-4 0.80 Mpa (8kg/cm ²)		Class-5 1.00 Mpa (10kg/cm ²)		Class-6 1.25 Mpa (12.5kg/cm ²)		
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
0.5"	20	20.0	20.3	19.5	20.5									1.1	1.5	1.4	1.8	
0.75"	25	25.0	25.3	24.5	25.5							1.2	1.6	1.4	1.8	1.7	2.1	
1.0"	32	32.0	32.3	31.5	32.5							1.5	1.9	1.8	2.2	2.2	2.7	
1.25"	40	40.0	40.3	39.5	40.5						1.4	1.8	1.8	2.2	2.2	2.7	2.8	3.3
1.5"	50	50.0	50.3	49.4	50.6						1.7	2.1	2.3	2.8	2.8	3.3	3.4	4.0
2.0"	63	63.0	63.3	62.2	63.8				1.5	1.9	2.2	2.7	2.8	3.3	3.5	4.1	4.3	5.0
2.5"	75	75.0	75.3	74.1	75.9				1.8	2.2	2.6	3.1	3.4	4.0	4.2	4.9	5.1	5.9
3.0"	90	90.0	90.3	88.9	91.1	1.3	1.7	2.1	2.6	3.1	3.7	4.0	4.6	5.0	5.7	6.1	7.1	
4.0"	110	110.0	110.4	108.6	111.4	1.6	2.0	2.5	3.0	3.7	4.3	4.9	5.6	6.1	7.1	7.5	8.7	
4.5"	125	125.0	125.4	123.5	126.5	1.8	2.2	2.9	3.4	4.3	5.0	5.6	6.4	6.9	8.0	8.5	9.8	
5.0"	140	140.0	140.5	138.3	141.7	2.0	2.4	3.2	3.8	4.8	5.5	6.3	7.3	7.7	8.9	9.5	11.0	
6.0"	160	160.0	160.5	158.0	162.0	2.3	2.8	3.7	4.3	5.4	6.2	7.2	8.3	8.8	10.2	10.9	12.6	
7.0"	180	180.0	180.6	177.8	182.2	2.6	3.1	4.2	4.9	6.1	7.1	8.0	9.2	9.9	11.4	12.2	14.1	
8.0"	200	200.0	200.6	197.6	202.4	2.9	3.4	4.6	5.3	6.8	7.9	8.9	10.3	11.0	12.7	13.6	15.7	
9.0"	225	225.0	225.7	222.3	227.7	3.3	3.9	5.2	6.0	7.6	8.8	10.0	11.5	12.4	14.3	15.3	17.6	
10.0"	250	250.0	250.8	247.0	253.0	3.6	4.2	5.7	6.5	8.5	9.8	11.2	12.9	13.8	15.9	17.0	19.6	
11.0"	280	280.0	280.9	276.6	283.4	4.1	4.8	6.4	7.4	9.5	11.0	12.5	14.4	15.4	17.8	19.0	21.9	
12.0"	315	315.0	316.0	311.2	318.8	4.6	5.3	7.2	8.3	10.7	12.4	14.0	16.1	17.3	19.9	21.4	24.7	

Shakti Poly Fittings



Take-Offs
16mm x 16mm



Take-Offs
16mm x 12mm



Take-Offs
16mm x 20mm



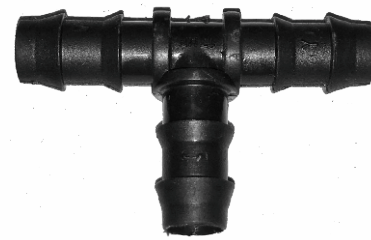
Plain Joiners
12mm, 16mm, 20mm



Ring Joiners
12mm, 16mm, 20mm



Elbows
12mm, 16mm, 20mm



Tees
12mm, 16mm, 20mm



End Caps
12mm, 16mm, 20mm



Cocks
12mm, 16mm, 20mm



Shakti Grommets
16mm



Simple Grommets
16mm



Drill Bits
16mm



Punches
16mm



Spikes / Spicules

Disk Filters

Available in 2", 2.5", and 3" sizes



T-Type Disk Filter



Disk Elements



Wire-Type Disk Filter

Features – T-Type Disk Filter

- Nylon hybrid clamps designed for high-pressure operations.
- PPGF slip flange on the body for easy installation (optional).
- Large drainage port with 3/4" ball valve for quick water discharge.
- Disk filters are constructed with a special spiral design, ensuring better performance and filtration results.

Technical Specifications – T-Type Disk Filter

Parameter	Model 1	Model 2	Model 3
Maximum Operatingn Pressure	6 kg/cm ²	6 kg/cm ²	6 kg/cm ²
Maximum Recommended Flow	417 L/min (25 m ³ /hr)	667 L/min (40 m ³ /hr)	833 L/min (50 m ³ /hr)
Flow Rate Range	18–27 m ³ /hr	35–45 m ³ /hr	45–52 m ³ /hr
Filtering Surface Area	878 cm ²	1193 cm ²	1690 cm ²
Inlet/Outlet Connection	2" BSP/NPT Male Thread	2.5" BSP/NPT Male Thread	3" BSP/NPT Male Thread

Applications: Used for secondary filtration in drip irrigation systems.

Related Accessories / Filters



Vacuum Breaker



Slip-On Flange

Screen Filter

3/4", 1", 1.5", 2", 2.5", and 3"



T-Type Filter



Wire-Type Filter



Screen Element



Metal Body Screen Filter

Features – T-Type Filter

- External-internal filtration for efficient performance.
- Designed for upright installation.
- Large drainage port for quick water removal.
- Special S316 single mesh provides strength and corrosion resistance.
- Comes with a specially designed vacuum breaker valve to prevent vacuum/trapping and enable rapid water drainage.
- Constructed from chemical-resistant polymers, ensuring no adverse effects from weather.
- Durable nylon clamp reinforced with plated steel lock assembly for long-lasting performance.
- Long handle designed for easy opening and closing of the clamp.



T-Type Filter

Performance Chart – T-Type Screen Filter

Parameter	Model 1	Model 2	Model 3
Maximum Operatingn Pressure	6 kg/cm ²	6 kg/cm ²	6 kg/cm ²
Maximum Recommended Flow	417 L/min (25 m ³ /hr)	667 L/min (40 m ³ /hr)	833 L/min (50 m ³ /hr)
Flow Rate Range	20–27 m ³ /hr	35–45 m ³ /hr	45–51 m ³ /hr
Filtering Surface Area	480 cm ²	754 cm ²	960 cm ²
Inlet/Outlet Connection	2" BSP/NPT Male Thread	2.5" & 3" BSP/NPT Male Thread	3" BSP/NPT Male Thread

Features – Wire-Type Screen Filter

- Flow passes from inside the screen cartridge to the outside.
- Uniform flow distribution inside the filter housing enhances the filtration process.
- Designed for maximum operating pressure up to 6 bar (Pn6).
- Equipped with two 1/4" male threaded pressure ports.
- Stainless steel (SS 316) double mesh screen for corrosion resistance.
- Filter body cap with 3/4" female threaded connection for easy drainage.
- Double-screen cartridge (30 and 120 mesh) prevents screen damage or breakage.



Wire-Type Filter

Wire-Type Screen Filter – Technical Specifications

Parameter	Model 1	Model 2	Model 3	Model 4	Model 5
Maximum Operatingn Pressure	6 kg/cm ²	6 kg/cm ²	6 kg/cm ²	6 kg/cm ²	8 kg/cm ²
Recommended Flow	5 m ³ /hr (83 L/min)	7 m ³ /hr (116.7 L/min)	15 m ³ /hr (250 L/min)	20 m ³ /hr (333 L/min)	25 m ³ /hr (417 L/min)
Flow Rate Range	4–6 m ³ /hr	5–8 m ³ /hr	12–16 m ³ /hr	18–22 m ³ /hr	18–27 m ³ /hr
Filter Disc (Standard)	Single Screen 120 Mesh	Double Screen 30/120 Mesh	Double Screen 30/120 Mesh	Double Screen 30/120 Mesh	Double Screen 30/120 Mesh
Filtering Surface Area	120.5 cm ²	120 cm ²	295 cm ²	295 cm ²	492 cm ²
Inlet/Outlet Connection	3/4" BSP/NPT Male Thread	1" BSP/NPT Male Thread	1 1/2" BSP/NPT Male Thread	2" BSP/NPT Male Thread	2" BSP/NPT Male Thread

Applications: Used for secondary filtration in drip irrigation systems.

Sand Filter

Benefits

- Constructed with coated metal and fiberglass reinforced plastics
- Provides high-level filtration.
- Easy installation, operation, and maintenance.
- Equipped with a pressure gauge.
- Maximum operating pressure: 10 kg/cm².
- New advanced design of flutes which prevents clogging & reduces the pressure drop in the filter.
- 55% less weight as compared to metal filters with equivalent strength & capacity per volume.
- The filter works efficiently even in high humidity areas.
- Large service ports for easy maintenance.



Applications

- Used for primary filtration in drip irrigation systems.
- Typically installed in open water sources such as rivers and lakes.
- Primary filtration to protect drip & micro-irrigation systems and prevent emitters from plugging.
- For filtering surface water from open sources like - an open well, pond, river, or lake, which often contains organic biological contaminants, silt & clay.
- Suitable to use with fertilizers and acids.

Technical Information

Size	Discharge
2", 2.5", 3"	25m3/hr, 30m3/hr, 40m3/hr, 50m3/hr

Hydrocyclone Filter

2", 2.5", and 3"



Hydrocyclone Filter

Features

- Durable body made of high-quality engineering plastic.
- Designed to generate maximum centrifugal action for effective separation.
- Easy sand removal via the drain port.
- Collector chamber can be cleaned easily by opening the collector cover.
- Simple installation with low maintenance requirements.
- High filtration capacity.
- Maximum operating pressure: 6 kg/cm².



Hydrocyclone Filter – Metal

Performance Specifications – Plastic Hydrocyclone Filter

Inlet/Outlet (Inch/mm)	Flow Rate (m ³ /hr)
2 /50	25
2 ½ /65	30
3 /80	40

Applications

- Used for primary filtration in drip irrigation systems.
- Suitable for water sources with high sand content, such as borewells.
- Available in both plastic and metal body options.

Fertilizer Tank

Technical Information

- Made of coated metal for durability.
- Equipped with high-pressure inlet and outlet connections.
- Maximum operating pressure: 10 kg/cm².
- Available in capacities of 30, 60, 90, 120, and 160 liters.

Applications

- Used for chemical and fertilizer injection through drip and sprinkler irrigation systems.



Venturi Injector

•3/4", 1", 1.5", and 2" (BSPT)



Features

- Built-in check valve to prevent backflow of liquid.
- Rotameter included, allowing precise measurement of fertilizer injection rate.
- Rotameters are available for all sizes.
- All Venturi injectors are available as complete assemblies.

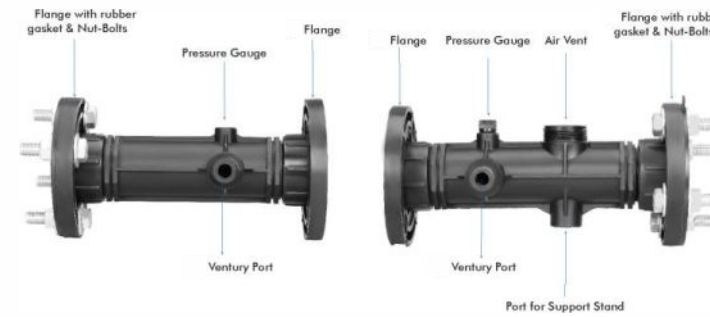
Benefits

- Provides controlled and adjustable fertilizer suction.
- Delivers nutrients directly to the moisture zone where root development is most active.
- Compatible with a wide range of chemicals and fertilizers.
- Ensures uniform fertilizer application.
- Saves energy and labor.

Venturi Injector – Performance Data

Size (ID/OD)	Minimum Suction Efficiency (P)	Driven Flow through Injector @ 2.5 kg/cm ²	Injection Capacity (L/hr)
3/4"	30%	1,525 L/hr	40
1"	25%	4,645 L/hr	78
1½"	25%	7,860 L/hr	320
2"	25%	11,080 L/hr	330

Header Assembly



Features

- Single port air vent for 1" and 1.5" connections.
- Dual pressure measurement ports with brass bushings.
- Support assembly for enhanced structural strength.
- Made of glass-reinforced engineering plastic, stronger than PP.
- UV resistant and corrosion-resistant.
- Pressure rating: PN-6.

Applications

- Small sprinkler systems
- Drip irrigation
- Landscape irrigation

Applications

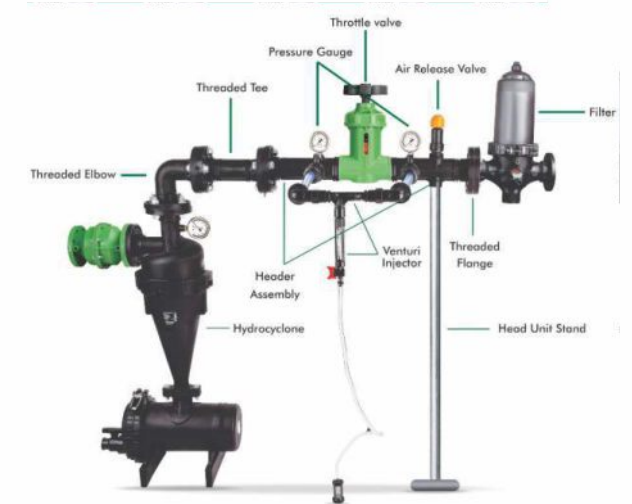
- All parts of the header assembly are fusion-welded into a single unit, saving installation time and cost. Fusion welding strengthens the joint area against pressure and tensile stress.
- Ensures uniformity and alignment of assembly components.
- Pressure rating: 6 kg/cm²

Fusion-welded header assembly with male and female connections

2", 2.5", and 3"



Header Assembly Unit



Header Assembly Unit

Irrigation Equipment



Slip-On Flange

Benefits:

- Available in 2" and 2.5" with female threading.
- Made of reinforced polypropylene material.
- Available in black color.



Benefits:

- Available in 2", 2.5", and 3" sizes with male threading.
- Made from reinforced polypropylene.
- Available in black color.
- UV resistant and ensures smooth flow at low pressure.



Pressure Gauge

Features:

- 1/4" BSP male threaded connection, dial available in 2" and 2.5".
- Valve positioned below the gauge to reduce needle vibration.
- Pressure rating: 7 kg/cm²



Threaded Tee

Benefits:

- Available in 2", 2.5", and 3" with male threading.
- UV resistant.
- Ensures easy flow at low pressure.



Flush Valve

Benefits:

- Lightweight and chemical-resistant.
- Corrosion and alkali-resistant.
- Available in sizes 40, 50, 63, 75, 90 mm.
- Maximum operating pressure: 8 kg/cm²

Features:



Vacuum Breaker

- Prevents pipe collapse during draining or sudden pressure drop.
- Removes siphoning of hazardous liquids.
- Prevents vacuum formation that can damage filters.
- Suitable for corrosive or ultra-pure liquids.
- Sizes: 3/4" & 1" male threaded.
- Body and float: high-strength polypropylene.

Plastic Air & Vacuum Relief Valve

Sizes: 3/4", 1", 2" & 3".

Functions:

- Durable, weather-resistant, corrosion-proof.
- Made of reinforced polypropylene and polyamide (nylon).
- Maximum working pressure: 100 PSI.
- Seals at 5 PSI.
- Various sizes available as per requirement.
- 3/4", 1", 2" BSPT male threaded, and 3" BSP/NPT female threaded connections.



Metal Air Release Valve

Sizes: 3/4", 1", 1 1/2", 2", 3"

Functions:

- Releases trapped air from pipelines.
- Reduces water hammer and pressure spikes caused by air pockets.
- Prevents pipe bursting due to air pressure.
- Prevents vacuum formation, protecting the pipeline.
- Available in multiple sizes as per requirement.



Pressure Relief Valve

- Available with 2" BSP male/female threaded connections.
- Aluminum cover with 0.5" BSP/NPT female threaded drain port.
- Coated with protective layer for long-lasting durability.
- Relief settings adjustable from 1.5 kg/cm² to 5.5 kg/cm² (20–80 PSI).
- Factory pre-set at 2–4 kg/cm² (60 PSI) and adjustable onsite with a pressure gauge.
- Controls flow in drip irrigation systems.

Features

Helps regulate water flow in a drip irrigation system



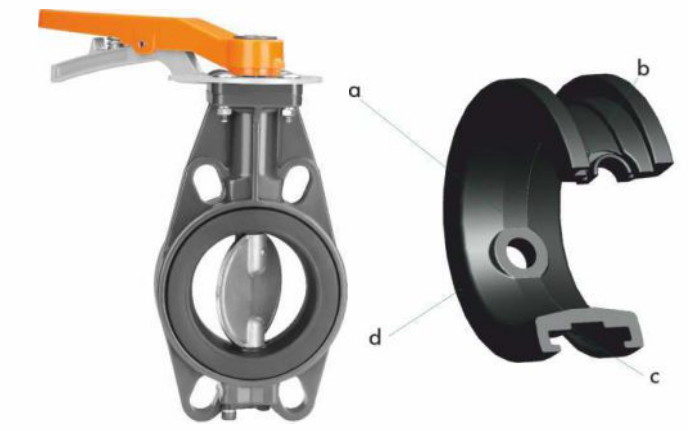
Hybrid Butterfly Valve

Sizes: 2", 2.5", 3".

Pressure Rating: PN 10 (150 PSI)

Technical Specifications

Size	50mm/2"- 65mm/2½" 80mm/3"
Pressure Rating	PN 10 (150 Psi)



PVC Butterfly Valve

EPDM Rubber Seal

- Wide disc design for superior sealing performance
- Shaft seal bearing for durable and long lasting sealing operation
- Optimized rubber grip that ensures firm contact with metal under linear pressure and friction preventing twisting and slippage during operation
- Gasket free flange sealing contact for easy valve mounting
- Compatible with various types of butterfly valves

Features

- Lightweight construction for easy installation
- One piece body made of PVC* Disc designed to ensure low operating torque and minimal pressure loss
- Suitable for piping in confined spaces
- For corrosion resistance all major components such as the disc and minor parts like bolting and washers are made from high grade stainless steel SS 304 or SS 316
- Locking plate provided with anti reverse notches at every 15° up to 90° or full shut off position allowing the lever to be padlocked at any desired notch

CI Butterfly Valve

Technical Specifications

Size	50mm / 2"
	65mm / 2.5"
	80mm / 3"
	100mm / 4"

Features:

- Cast iron construction, robust and durable.
- Suitable for regulating flow in irrigation pipelines.



CI Butterfly Valve

Fogger

Features:

- Reduces temperature and increases humidity in greenhouses.
- Color-coded interchangeable nozzles.
- Compatible with LPD and push-fit / bayonet connections.
- Produces fine droplets (50–60 microns @ 4 bar).
- Requires a secondary filter (75–100 microns) for proper operation.
- Ensures high uniformity of water distribution and coverage.
- Easy to install and maintain.

Applications:

- Greenhouses and long tunnel evaporative cooling & humidity control.
- Provides optimal conditions for plant growth.
- Suitable for organic or conventional farming areas.

Technical Data:

Parameter	Value
Material	Acetal
Spray Pattern	360°
Droplet Size	50–60 microns @ 4 kg/cm ²
Operating Pressure	4 kg/cm ²
Operating Range	3–5 kg/cm ²

Nozzle Flow Rate (LPH)

Nozzle Color	Single Fogger	2-Way Fogger	4-Way Fogger
Blue	5.3	10.6	21.2
Green	7.0	14	28

LPD Anti-Drip Device

Open Pressure: 2.5 kg/cm²
Close Pressure: 1.5 kg/cm²

Accessories:

Couplers, T, Bayonet Plug, Pin Connector



Accessories



Union PVC Valve

Sizes: 3/4", 1", 1.25", 1.5", 2", 2.5", 3"

Features:

- Long handle designed for ease of operation and strength.
- Special interlocking system prevents internal parts from falling when the union is open.
- Low torque required for operation and easy installation.
- Pressure Rating: PN-6



Single Union PVC Ball Valve



Single Union PVC Ball Valve



Single Union PVC Ball Valve



Single Union PVC Ball Valve



Double Union PVC Ball Valve



Flange Union PVC Ball Valve



Single Union PVC Ball Valve



Single Union PVC Ball Valve



Single/Double Union PP Ball Valve with Long Handle



Double Union PVC Ball Valve



Flange Union PP Ball Valve With Long Handle

Shakti Sprinkler System

Mini Sprinklers



- Features:**
- Maintains proper air and water ratio in soil through uniform moisture and light irrigation.
 - Ensures uniform germination and consistent application of fertilizers.
 - Easy to install, remove, and operate.
 - Multipurpose system suitable for 2–3 crops per year.
 - Sprinkler spacing: 8–12 meters.
 - Low application rate: 4.5 mm/hr.
 - Low operating pressure, conserving energy.
 - Durable and weather-resistant for long-term use
- Applications:**
- Suitable for crops like potato, onion, garlic, ginger, leafy vegetables, cauliflower, strawberry, peanut, mustard, pulses, tea, and horticulture.
 - Helps maintain humidity during hot weather conditions.
- Technical Details:**
- Available with 1/2" male threaded connection.
Recommended operating pressure: 0.7–2.5 bar.

Performance Figures

Product Specifications					
Nozzle Size (mm)	(mm)	2.4 X 1.8			
Working Pressure (Bar)	(Bar)	1	1.5	2	2.5
Discharge Rate (Litre/hour)	(Lit/hr)	386	475	535	600
Wetted Diameter	(meter)	17.5	18	19	19.5
Precipitation Rate (mm/ hour/ spacing) m	9 x9	4.7	5.7	6.5	7.3
	9 x 10	4.2	5.1	5.8	6.6
	10x10	3.8	4.6	5.3	5.9
	9x12	3.5	4.2	4.9	5.5
	10x12	3.1	3.8	4.4	4.8

Shakti Micro Sprinkler System



- Features & Specifications**
- Suitable for various soil types and crop applications
 - Full-circle operation with 3/8" or 1/2" male threaded connection
 - Precision-engineered high-strength nozzle
 - Operating pressure range: 1.5–3.0 kg/cm²
 - Discharge range: 60–350 LPH
 - Effective irrigation coverage upto 6 meter
- Application**
- Under foliage irrigation, flower beds, shrubs and nurseries
- Additional Features**
- Effective irrigation coverage up to 5 meters (Jet Spray)
 - Riser height: 1.5–4 meters
 - Discharge range : 50-200 liters
 - Optimal operating pressure: 1–3 kg/cm²
 - Can be operated at higher pressures using booster nozzles
 - Compatible with quick-connect metal fittings for ease of installation
- Application**
- Can be used for irrigation in orchards, vegetables, gardens, cooling of poultry and livestock.

Butterfly Micro Sprinkler

- Benefits**
- Manufactured using advanced polymer engineering plastics
 - 1/2-inch male threaded connection
 - Uniform and consistent water distribution
 - Operating pressure range: 0.5–3.0 kg/cm²
 - Maximum coverage radius: 5 × 5 to 6 × 6 meters
 - Discharge rate: 350–950 litres/hour



Shakti Irrigation – Products

Compression & UPVC Fittings



90° Elbow
(Clamp Type)

90° Male
Threaded Tee

90° Male
Threaded Elbow

Male Threaded Adapter

End Cap

90° Plain Elbow

Coupler

Features

- Designed to prevent leakage even under high pressure; leakage tolerance limited to 0.5% or less
- High-quality rubber sealing ring ensures excellent sealing performance
- High flow efficiency, suitable for pressure irrigation systems
- Easy and quick installation with secure fitting
- Available pressure ratings:
 - PN-10 for compression fittings
 - PN-4 for UPVC fittings
- Available size range: 25 mm to 32 mm

Shakti Sprinkler

Features

- Available with 1/4 inch female threaded connection
- Operating pressure range: 2.0–3.0 kg/cm²
- Ensures uniform water distribution
- Coverage diameter: 38–58 meters
- Water discharge rate: 106–311 litres per hour (LPH)

Application

Suitable for all types of crops, including vegetables, orchards, pulses, and cereals.

