



We deliver water to plants and Happiness to you.

**PARAGON**  
*The Pattern of Excellence in Micro Irrigation*  
— *Since 1994* —




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*The Pattern of Excellence in Micro Irrigation*

**PARAGON IRRIGATION PVT. LTD.**

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The Pattern of Excellence in Micro Irrigation

## COMPANY PROFILE

Paragon Synthetics & Polymers Ltd is an ISO 9001:2000 company, promoted & established in 1994 by technocrats having wide experience in agriculture & micro irrigation fields and since has acquired extensive expertise in development, design, production, marketing & installation of agricultural & landscaping products and turn-key irrigation projects. Paragon products and systems are tested and proven in full scale in laboratory as well as in farmers fields. PARAGON is having its manufacturing set up at two different units in VADODARA, GUJARAT-INDIA. Paragon products are having  standard marks for all major components.

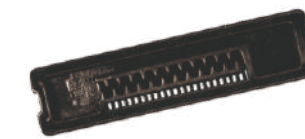
We have all plants fully automatic and micro - processor based with latest technologies from GERMANY, ISRAEL, USA and JORDAN for various plants and products.

### Main Products :

- DRIP IRRIGATION SYSTEM
- MINI SPRINKLER IRRIGATION SYSTEM
- SPRINKLER IRRIGATION SYSTEM
- GREENHOUSE AND LANDSCAPING PRODUCTS



## UNILAT (Light Flat Integral Dripper)



## FLAT DRIPLINES

- Large Inlet Filter and turbulent flow pattern designed for clog resistance.
- Range of Thickness Between 0.15 mm - 0.9 mm
- Drippers Flow Rates :  
1.2, 1.6, 2.0 and 4.0 LPH
- Wide Range of Lateral Diameters 12, 16, and 20 mm
- Ultra-soft Drippers

## UNIDUAL (Dual-Side Delivery Dripper)



- One of the most technologically advanced Products in the field of drip irrigation with dual - side Water delivery by every dripper.
- More reliable & greater resistance to clogging when used for long period.
- Increase of the irrigated surface area
- Complete emptying at the end of the irrigation cycle, reducing the risk of biological clogging
- Reduction of percolation on pipe
- Available in wide range of diameter 12 to 20 mm with discharge 1.0, 2.0, 3.4 and 4.0 LPH in all pressure class

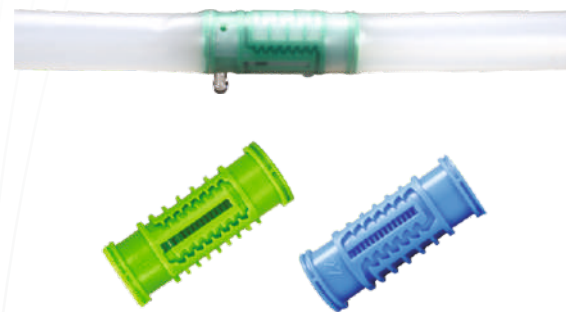
## UNITOUGH (Multi Seasonal Dripline)



- Precise water delivery system promotes uniform growth and higher yields.
- Large wide and deep flow path cross - section to minimize clogging.
- Pressure molded emitter with sharper teeth for turbulent flow and self cleaning.
- Various diameters and wall thickness make its suitable for field crops, orchards and greenhouses.
- Diameters - 12, 16 and 20 mm
- Nominal Discharge : 1.9, 2.0, 3.0, 3.4 and 4 LPH

## CYLINDRICAL DRIPLINES

### UNIGOL (Raised Inlet Sand - gaurd Dropper)



- Each emitter has a raised inlet filter, allows to enter clean water only.
- Efficient turbulent flow of the labyrinth produces vortices which avoid Sedimentations and clogging.
- Diameter : 12 & 16 mm
- Wall thickness : 0.7 to 1.1 mm
- Discharge : 1.9, 2.0, 3.4 & 4.0 LPH
- Suitable for field crops, fruit orchards & green house.

- Economical short dripper implies minimum pressure loss.
- The turbulent flow labyrinth dripper.
- Dropper flow rate : 2 & 4 LPH
- Lateral Diameter : 12 & 16 mm

### UNICOMPACT (Soft & Compact Dropper)



### UNIPC-R (Pressure Compensated Cylindrical Dropper)



## PRESSURE COMPENSATED DRIPLINE

- Consistent flow rate over a range of pressure.
- Dropper operate with a silicone membrane that restricts the water flow path as the pressure increases and give uniform discharge.
- Suitable for all kinds of crops on slopes.
- Available flow rates : 1.6, 1.8 LPH
- Diameter : 16 mm

### UNIPC-F (Pressure Compensated Flat Dropper)



- Expanded inlet filter and wide water passages for clog resistance.
- Maintain uniform flow rate at a wide range of pressure and topographies.
- Working pressure - 0.8 - 2.5 bars
- Dropper flow rates - 1.2, 1.6, 2.0 and 3.4 LPH
- Diameter - 12, 16 & 20 mm

## ONLINE DRIPPERS

### BUTTON DRIPPER - STORM

(3 Piece Turbo Dripper)



- Multipurpose use from greenhouse to orchards.
- Easy to open for cleaning.
- Only Change tablet to change flow rate.
- Available flow rates : 2, 4, & 8 LPH

- Built-in labyrinth flow path.
- High clogging resistance.
- Easy to assemble & dismantle.
- Resistance to sunlight & chemicals.
- Suitable for long driplines in orchards.
- Available in 4 & 8 LPH.

### PC DRIPPER - CYCLONE



- It contains unique PC mechanism by regulating labyrinth with self-flushing operation at the beginning and the end of each irrigation cycle.
- Discharge : 4 & 8 LPH

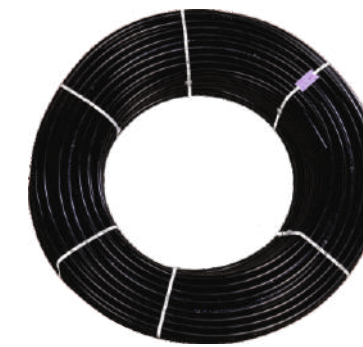
### TAKE-A - PART DRIPPER-TOOFAN

(2 Piece Barbed Dripper)



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## IRRIGATION LATERALS



- Made from 100% vergin LLDPE material.
- UV and Acid resistant.
- Uniform thickness & diameter.
- Available in all pressure class for 12 mm to 32 mm
- As per IS standard IS: 12786
- Suitable for drip and mini sprinkler laterals.
- Also available in diameters 2 mm to 6 mm for micro tube & dripper extension tubes.

## POLY FITTINGS & ACCESSORIES



### START CONNECTER

Connects Submain Pipes to laterals



### GROMMET

Prevents Leakage From Start Connection



### JOINER

connect laterals / Drippers of Same Diameter



### END CAP

Used at the end of Driplines / Laterals



### PRESSURE GAUGE

Glycerine Filled Stainless Steel Body



### WINDER

For Winding / Rewinding of Dripline at Start / end of Season

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## FERTIGATION EQUIPMENTS

### FERTILIZER TANK



- It's useful for application of fertilizer with water particularly when flow pressure is low.
- Available in 30, 60 & 90 Litre Capacity.

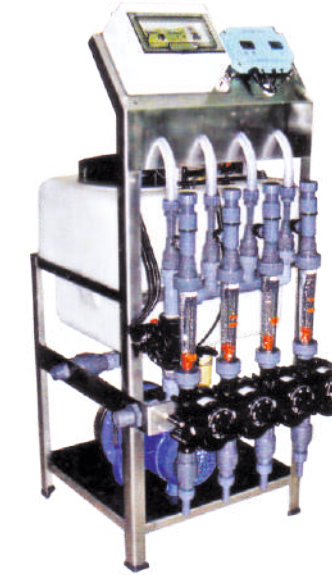
- Self operated by the water pressure of the network.
- Built with materials of high mechanical & chemical resistance.
- Suitable for injecting upto 2000 L/H
- For injection of fertilizer & chemicals through drip system.
- Available in ¾", 1", 1½" & 2" sizes.

### FERTIGATION PUMP



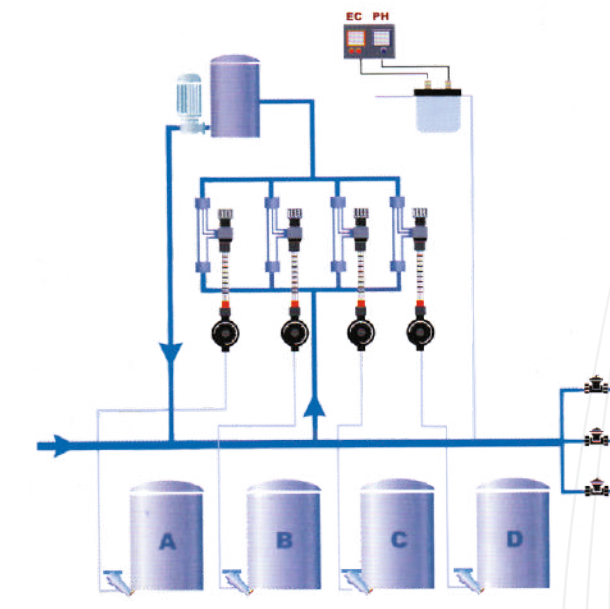
- Works on Hydraulic pressure of the irrigation system.
- Needs no external power supply.
- No head loss in the system
- Injection rate of fertilizer Can be precisely controlled.
- Could be used for injection of larger volume of fertilizer, saving in fertilizer quantity.
- Imported from world known **Jamiad** ISRAEL

### VENTURY INJECTOR



## FERTIGATION CONTROL UNITS

- This fertigation unit with manual operation but very easy to automate. It's imported from Italy.
- 2 to 4 fertilizing pipes -500 L/H each.
- 1 Acid pipe - 80 L/H.
- 2/4 volumetric regulation valves.
- 2/4 flow meters & micrometric valves
- Injection pump
- Automatic level floats.
- 50 Ltr Pre-mixing Tank.
- EC & PH control
- Integrated control panel.



## FILTRATION EQUIPMENTS

### GRAVEL FILTER



- Primary filter for naturally contaminated water.
- Its generally used to sepearate water born debris, which otherwise clogs secondary filters rapidly.
- More suitable for water with algae & other organic impurities.
- Available for flow rates ranging from 10 M<sup>3</sup> / Hr to 50 M<sup>3</sup> / Hr.
- Available in duplex, triplex, or more batteries combinations for greater volume filtration.

- Separates sand from irrigation water
- Available in both powder coated metal body as well as plastic body which is rust and corrosion free.
- Available in size 2" to 4" & flow rate from 25 M<sup>3</sup> / Hr to 50 M<sup>3</sup> / Hr.

### SCREEN FILTERS



- Its use for secondary filtration only.
- Its always fitted after primary filters like Gravel / Hydrocyclone filters.
- Its available in powder coated metal body as well as in plastic body.
- Its available in 60 to 120 mesh & flow rates ranges 10 M<sup>3</sup> / Hr to 50 M<sup>3</sup> / Hr.

### HYDROCYCLONE FILTERS



### SEMI AUTOMATIC FILTERS



- Imported from **Jamiad** - Israel
- Quick & efficient way for cleaning manual filters.
- Eliminates the need for turning off the water & extracting the filter screen for rinsing.
- No interruption of the process water flow during cleaning.
- Low pressure loss.
- Fitted with a "clogging Indicator."

- Imported from world known **Jamiad** - Israel
- Removes very fine solid particles from irrigation water.
- Low pressure loss.
- Excellent mechanical strength.
- Chemical & corrosion resistance.
- Flow rates : 3 M<sup>3</sup>/Hr to 50 M<sup>3</sup>/Hr.
- Filtration degrees : 22 to 3500 micron.
- Diameters : ¼" to 3"

### DISC FILTER



## AUTOMATIC FILTERS

### AUTOMATIC SELF CLEANING FILTERS



- An easy - to - operate automatic hydraulic filter with self cleaning mechanism driven by an electric motor.
- High flow rates and high dirt loads, in a compact design.
- Available in 2" & 3" inlet / outlet diameter.

- Uniquely designed fully automatic disc filtration technology for very large installations
- Systems are supplied complete with automation

### AUTOMATIC FILTRATION SYSTEM



## PRESSURE REGULATOR / RELIEF VALVES



PRESSURE REGULATING VALVE



PRESSURE RELIEF VALVE



PRESSURE REGULATORS

- Designed to reduce upstream pressure and lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.

## VALVES AND PRESSURE REGULATORS



PP BALL VALVES

- For flow control in irrigation & water supply lines
- UV protected
- 3/4" - 4" size



BUTTERFLY VALVES

- For flow regulation or isolation.
- Rust & corrosion - proof SS disc.
- 2" - 6" size



FLUSH VALVE

- Flushes out dirt & debris of the irrigation system
- 50 mm to 90 mm size



AIR VALVES

- Safety valve to remove trapped air and to break the vacuum in the system



CONTINUOUS ACTING AIR VALVE

- Facilitates the release of air which enters the pipeline during startup operation or is left over in the system



AIR CUM VACUUM RELEASE VALVE

- Provides positive vacuum relief when pipeline is draining.
- Extracts air when pipeline is filled with water.



ELECTRIC SOLENOID VALVE



PRESSURE REDUCING VALVE



PRESSURE SUSTAINING CONTROL VALVE

- Imported from BERMAD & DOROT - ISRAEL
- Sizes : 3/4" to 4"
- Use for control valve, filter back wash, green - houses, turf & golf course

## HEADER ASSEMBLY & MANIFOLDS



- Use to assemble the filtration unit or to assemble valves in fields.



## AUTOMATION & COMPUTERIZED CONTROLLERS



### MULTI STATION CONTROLLER

- 32 outputs (including valves & pumps)
- 32 irrigation programs
- Fertilizer dosing programs
- EC - PH monitoring & control
- Filter flushing control



### SINGLE NET SYSTEM

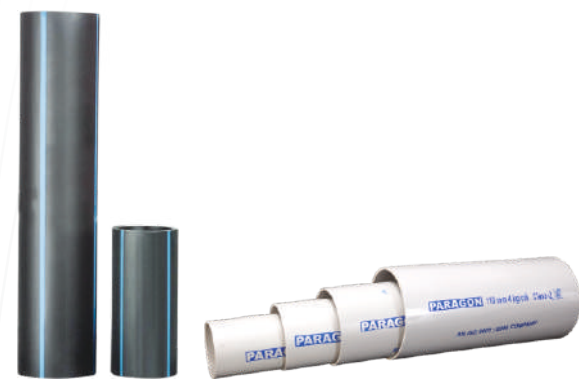
- 2 wire technology controller
- Just install, set & forget
- The controller communicates with valves & sensors situated far away in the field via 2 wire cable system (for power & communication)
- A remote terminal unit situated in the field near valves decodes signal from the controller and control valves

## TURN KEY PROJECTS



## PVC AND HDPE PIPES

### PVC AND HDPE PIPES



- Used for drip irrigation main and submain pipes.
- Size : 32 to 200 mm
- Pressure Rating : 2.5 Kg / cm<sup>2</sup> to 10 Kg / cm<sup>2</sup>

### QAC PIPES (Quick Action Pipes)



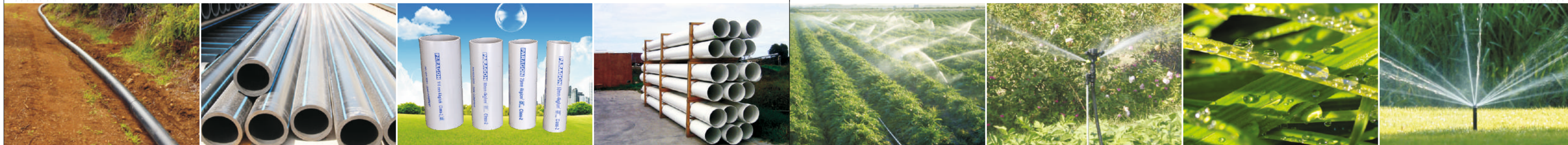
- Used for sprinkler system mainline & drip system sub - main lines.
- socket fusion welded c - clamp as well as regular clamps couplers.
- Size : 63 mm to 110 mm diameter.

## SPRINKLER IRRIGATION SYSTEM

Sprinkler irrigation was the first irrigation system over flooding for mechanical spraying & distribution of water using impact type metal or plastic sprinkler nozzles. A complete portable set of HDPE pipes with welded male & female couplers for quick & easy coupling is available with metal & plastic spray nozzles & accessories. It can be shifted to cover required area manually. It requires high pressure & water volume and better suited for close spacing field crops & sandy soil type where flood irrigation is difficult.

### Salient Features

- Advanced high quality product.
- Easy to assemble and disassemble in field.
- Permits a wide range of soils and terrains.
- Couplers are welded with a imported electro-fusion welding machine.
- Uniform distribution of water.



## MINI SPRINKLER IRRIGATION SYSTEM

Paragon mini sprinkler irrigation system designed to provide complete solution to irrigate wide range of crops. It is a mixed system where main & submain pipeline are permanently fixed, where as the field unit is foldable using compression fittings, low discharge plastic nozzles and tubing. It is most popular in the areas having sufficient water quantity, sandy soil type and cropping pattern of close spacing field crops like potato, groundnut, flowers, fodder grass etc.

### Salient Features

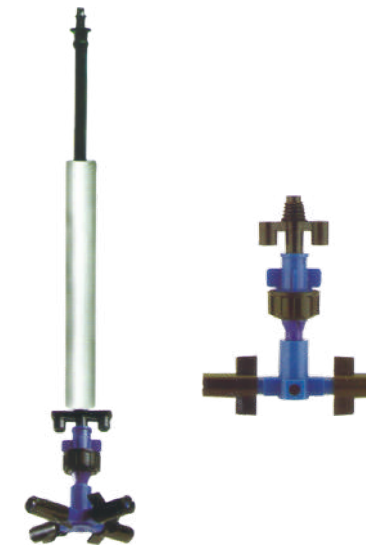
- Constant flow rate under any topography.
- Excellent Uniform water distribution 90% CU
- Gentle droplets with low application rate.
- Lower impact effect with fine droplet size.
- Application of pesticides and fertilizers possible.



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## MICRO SPRINKLER AND RAINGUNS

### FOGGERS

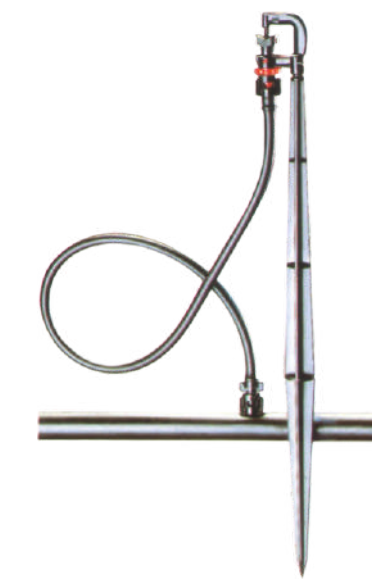


- Pressure range : 2.5 - 3.5 bar
- Discharge : 5 - 10 LPH Nozzle.
- Anti - Leak
- Single or four way
- Droplet size : 70 - 100 microns
- Suitable for Climate control in green house, Poultries, Nurseries.



### MIST SPRAYERS

- Low operating pressure (1.5 bar)
- Discharge : 10 - 30 LPH
- Throw diameters : upto 2 mtrs
- Increasing humidity & lowering temperature
- Use in Nurseries, Green - House etc.

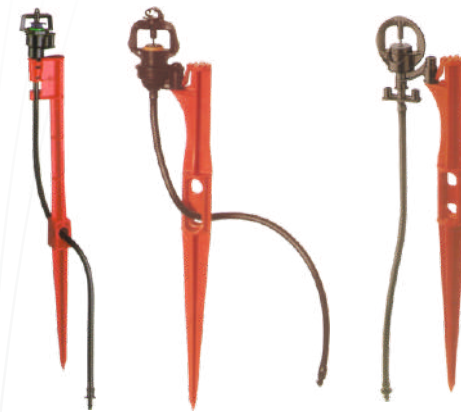


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## MICRO SPRINKLER AND RAINGUNS



### MEDIUM RANGE SPRINKLERS



- Ideal for overhead cooling and frost protection
- Unique water spreader for uniform distribution, maximum range & fine droplets.
- For green house, orchards, vegetable crops & landscaping.



- Available in 1¼" to 2½" connection
- Spray radius range : 19 to 60 meter at pressure 2.0 to 8 kg/cm<sup>2</sup>
- For large fields, golf courses, sport fields

### RAINGUNS



## TRAINING AND AGRONOMY SERVICES



PARAGON, provides advanced solution for raising yields, cutting costs and improving quality to farmers and associates. Paragon's professional teams committed to train all associates and beneficiaries on the technical support, training, agronomy and after sales service.

### TRAINING SUPPORT

- Training to Dealer & staff
- Farmer Tours, & Demonstration and factory visit.
- High-Tech farm visits and training.
- Farmer meetings and crop seminars.
- Krishimelas, Exhibitions, APMC meetings, kisan carnivals.
- Van campaign and road shows.





## TRAINING AND AGRONOMY SERVICES

### DESIGN SUPPORT

- Micro irrigation field survey by GPS system
- MIS design for specific crops and specific needs.
- Cost efficient and optimum performance design.



### AGRONOMY SERVICES

- Irrigation and fertigation scheduling.
- Crop production & cultivation practices.
- New crop introduction.
- Disease and pest management.



### AFTER SALES & TECHNICAL SERVICES

- Installation Support.
- Operation and periodical maintenance support and training.



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### COMPANY POLICY

Paragon Synthetics & Polymers LTD is committed to provide Drip Irrigation systems & sprinkler irrigation system, HDPE Pipes & fittings which are manufactured, delivered and supported in manner that meets and exceeds customer's requirements and expectations.

### COMPANY PHILOSOPHY

- We believe in building lasting relationship with our valued customers by meeting their requirements on time. We aim to achieve this by providing excellent service and world class products. At Paragon synthetics & Polymers Ltd it is a tradition to respect the customers and the suppliers, equally.
- We are committed to continual improvement in performance by effective implementation of quality management system conforming to international standards.

