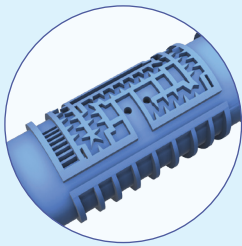


# Turboline PC®



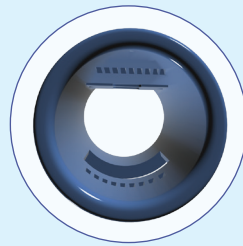
## Integral, Cylindrical, Pressure Compensating Dripline

State-of-the-art cylindrical PC (Pressure Compensating) dripper ensures highest durability and excellent performance.



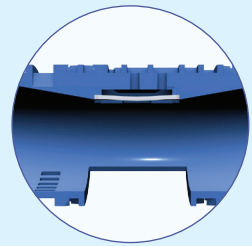
## Innovative Cascade Labyrinth

Cascade labyrinth gives strong, self cleaning turbulence. Hydrodynamic dripper design ensures continuous flushing of sediments and small dirt particles.



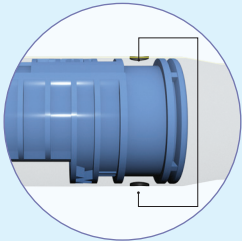
## Individual Double Filter

Individual double filter and flushing mechanism for maximal clog resistance and self-cleaning.



## Dynamic Self Cleaning mechanism

Dynamic movement of diaphragm retracts dynamically to throw away particles which are blocking the emitter.



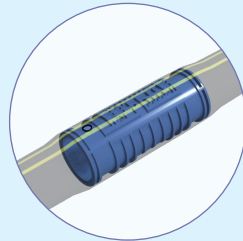
## Multiple Outlet Holes

Precision multiple outlets breaks vacuum, prevents sand suction.



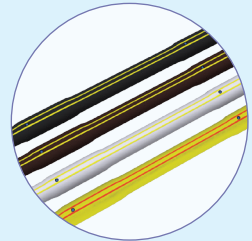
## Marked with Two Parallel White Stripes 'Twin-Line'®

Symbol of quality. It also helps to ensure upright positioning of the dripper.



## Stringent Quality Control

Each batch is tested for stringent quality parameter. Conforming to Indian standard IS 13488:2008 and international standard ISO 9261.



## Flexibility in color selection

Black - for agriculture,  
Brown - for landscape  
White - for greenhouse  
Purple - for reclaimed water

## Other Important Features

### Manufactured from Special Grade Virgin Plastic Material

Makes the tubing durable and gives best environmental stress crack resistance (ESCR).

### Manufactured with Most Modern, State-Of-the-Art Equipment.

It's computerised continuous online quality control monitors emitter spacing and precision in outlet drilling. Thus ensures reliable quality and consistent performance.

### Excellent CVM, manufacturer's coefficient of variation

Maintains close dimensional tolerances to ensure best field emission uniformity.

### Wide Pressure Compensating Range

Pressure regulation starts as low as 0.5 kg/cm<sup>2</sup> to as high as 4 kg/cm<sup>2</sup> pressure.

### Longer Lateral Lengths

Can run for longer lengths without compromising the uniformity.

### Rodent Deterrent option

Can also be supplied with Rodent Deterrent option (Condition apply)

## Applications

- Ideal for irrigation of closely spaced row crops like sugarcane, cotton, banana, strawberry, floriculture, vegetables and spices.
- Suitable for surface as well as sub-surface irrigation.
- Recommended for undulating terrain & steep slopes and where longer lateral running length is necessary.
- Open field application to maintain high field application efficiency.
- Suitable for low operating pressure/ Gravity feed irrigation system.

## Specifications

- **Nominal Discharges** : Turboline PC 16 mm: 1.1, 1.6, 2.2 and 3.5 lph for tubing wall thickness as per pressure class 2.  
Turboline PC 20 mm: 0.9, 1.6, 2.2 and 3.8 lph for tubing wall thickness as per pressure class 1.
- **Emitter Spacing** : Standard emitter spacing of 15, 20, 30, 40, 50, 60, 75, 90, 100, 120 and 150 cm. Any other emitter spacing and group spacing can be supplied on demand.
- **Sizes** : Standard sizes of 16 and 20 mm nominal diameter.
- **Pressure Compensating Range** : 0.8 to 4 kg/cm<sup>2</sup> (7 to 71 psi).

## Operating Specifications

- Maintain the operating pressure within the pressure regulating range.
- Specially designed emitting pipe fittings are available.
- Filtration recommendation 130 micron or less. Actual quality of filtration can be decided by quality of source water. Please refer to our "Maintenance Manual" for further details.
- For subsurface application, install vacuum breaker valves on the submain as well as on the collective drain to avoid soil suction during system shutdown.





## Technical Specifications - Tubing

Nominal Dia. (mm)	Inside Dia. (mm)	Minimum Wall Thickness(mm)				Standard Coil Length (m)
		Class-1	Class-2	Class-3	Class-4	
*16	14.2	0.5	0.7	1.0	1.3	100, 250, 400
*20	18.0	0.7	0.9	1.2	1.5	100, 250

\* Dimensions are as per Indian Standard IS 13488:2008.

## Technical Specifications - Emitter Technical Specifications for Emitter - Metric

Nominal Discharge (lph)	Emitter exponent	Flow coefficient	Coeff. of mfr. variation,	Flow path dimensions (mm)			Inlet filter area (mm <sup>2</sup> )
	x	k	CVm	Length	Width	Depth	
16 mm							
1.1	0	1.1	2.5	60	0.70	0.98	14.08
1.6	0	1.6	2.5	60	0.78	1.08	14.08
2.2	0	2.2	1.5	60	0.80	1.10	14.08
3.5	0	3.5	4.0	60	1.04	1.32	14.08
20 mm							
0.9	0	0.9	2.5	110	0.74	1.10	7.29
1.6	0	1.6	2.5	87	1.04	1.10	9.20
2.2	0	2.2	3.0	87	1.04	1.30	11.00
3.8	0	3.8	3.0	128	1.00	1.20	14.40

Flow equation  $q = kH^x$ ,  $q$  = Nominal Discharge, lph,  $H$  = Pressure head, kg/cm<sup>2</sup>,  $x$  = Emitter exponent

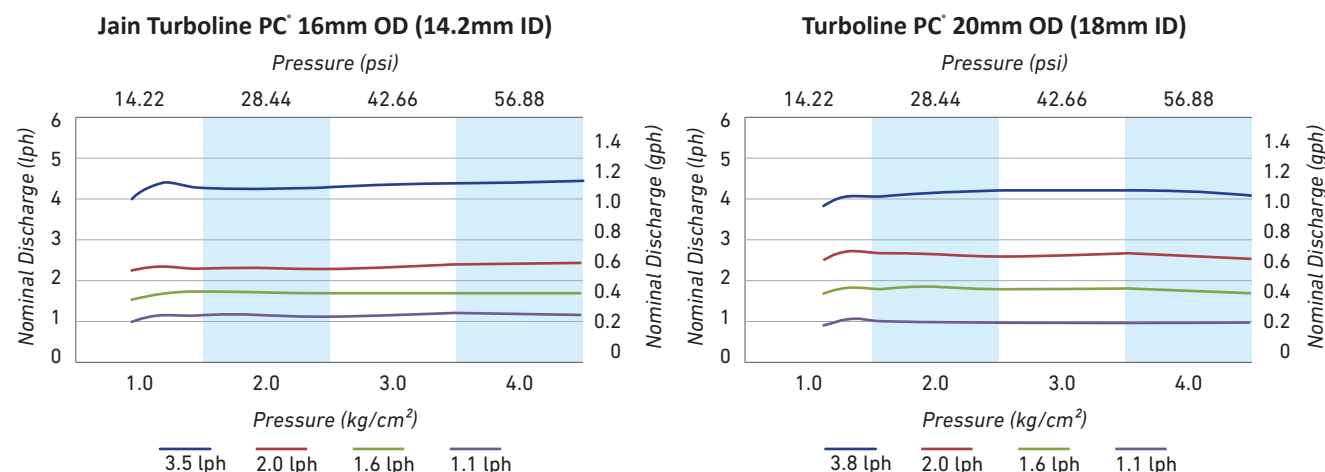
## Technical Specifications for Emitter - US

Nominal Discharge (gph)	Emitter exponent	Flow coefficient	Coeff. of mfr. variation,	Flow path dimensions (inch)			Inlet filter area (inch <sup>2</sup> )
	x	k	CVm	Length	Width	Depth	
16 mm							
0.29	0	0.290	2.5	2.36	0.028	0.039	0.022
0.42	0	0.423	2.5	2.36	0.031	0.043	0.022
0.58	0	0.581	1.5	2.36	0.031	0.043	0.022
0.93	0	0.925	3.0	2.36	0.041	0.052	0.022
20 mm							
0.24	0	0.238	2.5	4.33	0.023	0.043	0.011
0.42	0	0.423	2.5	3.43	0.041	0.043	0.014
0.58	0	0.581	3.0	3.43	0.041	0.051	0.017
1.00	0	1.004	3.0	5.04	0.04	0.047	0.022

Flow equation  $q = kH^x$ ,  $q$  = Nominal Discharge, gph,  $H$  = Pressure head, psi,  $x$  = Emitter exponent



## Performance Graph



Note: Performance graph for Jain Turboline PC® as per Pressure Class-2.      Note: Performance graph for Jain Turboline PC® as per Pressure Class-1.

## Technical Specifications for Emitter with different wall thickness tube

Size	Nominal Discharge (lph)	Nominal Flow rate as per wall thickness		
	Wall thickness (mm)	0.5 - 0.6	0.7 - 0.9	1.0 - 1.2
16	1.1	1.4	1.3	1.1
	1.6	2.0	2.0	1.30
	2.2	2.8	2.6	2.2
	3.5	3.8	3.6	2.8
	Wall thickness (mm)	0.7 - 0.8	0.9 - 1.1	1.2 - 1.4
20	0.9	1.1	0.9	MTO
	1.6	2.0	1.7	MTO
	2.2	2.6	1.8	MTO
	3.8	4.3	4.0	MTO

Note: MTO refers to Make To Order

## Ordering Specifications

L	XX	XX	XXX	X	XXX	P	X
	Nominal diameter in mm	Nominal Discharge in lph x 10	Dripper Spacing in cm	Pressure Rating Class	Standard Coil Length in meter	P - Pressure compensating	Color of the tube Blank - Standard Black with 'Twin Line' B - Brown (Landscape) W - White (Greenhouse) P - Purple (Reclaimed Water)

**Example :** L16400602400P - This code refers to Turboline PC option of 16mm nominal diameter having nominal discharge of 4.0 lph, emitter spaced at 60 cm, pressure rating class-2 and standard coil length of 400 m black tube with 'Twin Line'.

### Note

- Turboline PC is manufactured with ID control and declared OD are nominal. If you have specific ID or OD requirement, please mention while ordering.
- Turboline PC can be supplied in any other wall thickness and pressure ratings.
- Turboline PC can be supplied in group spacing on request. Specify distance between drippers in the group, distance between two groups & no. of drippers in a group (minimum three drippers) as,

