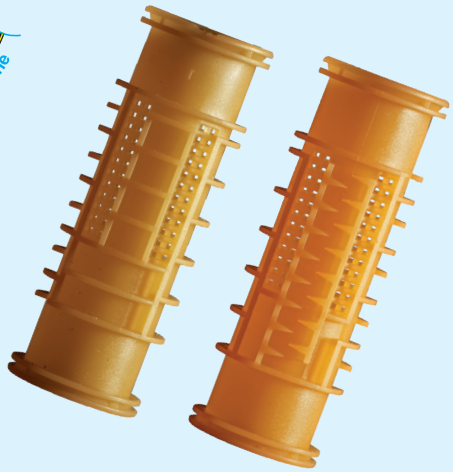
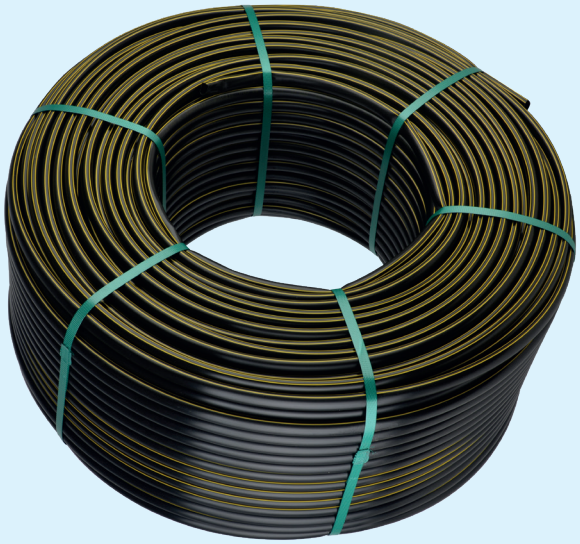
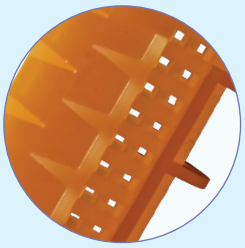
J-Turbo Line® Super

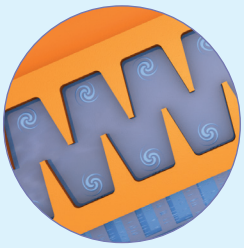






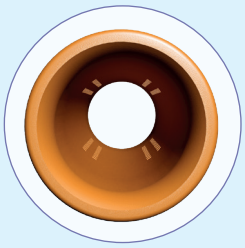
Cylindrical Dripline with Straight Labyrinth

Straight and wide labyrinth design without many torturous turnings makes the dripper truly clog resistant.



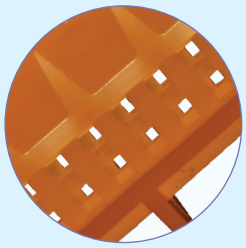
Innovative Cascade Labyrinth

Hydrodynamically designed cascade tooth structure helps to create double flow regime and turbulent cyclone for continuous flushing of particles.



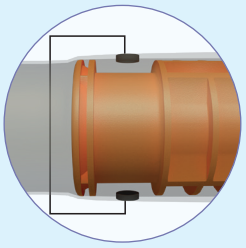
Through Bore Dripper

Hydrodynamic through bore design provides least obstruction to flow. Helps to achieve longer running lengths.



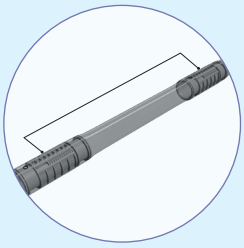
Highest Filtration Area with Finest Inlet Filters in the Industry

High precision inlet filters placed on opposite sides prevents entrance of fine particles and ensures continuous water flow.



Laser Drilled Multiple Outlet Holes

Precision laser drilled outlet gives uniform and clear opening. Multiple outlets breaks vacuum, prevents sand suction.



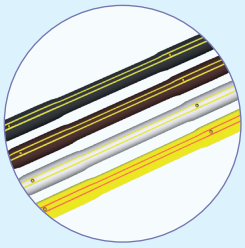
Manufactured with Most Modern, State-Of-the-Art Equipment.

It's computerised continuous online quality control monitors emitter spacing and precision in outlet drilling.



Marked with Two Parallel Yellow Stripes 'Twin- Line®'

Our copyright marking of two parallel yellow line 'Twin Line®' assures a best quality product.



Choice of color selection

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

J-Turbo Line® Super

Additional Features

Manufactured from special grade virgin plastic material

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

Excellent CVm, manufacturer's coefficient of variation

Maintains close dimensional tolerances to ensure lowest CVm and best field emission uniformity.

Quality Come First

Each batch is tested for stringent quality parameters. Conforming to Indian standard IS 13488:2008 and international standard ISO 9261:2004.

Manufactured from special grade virgin plastic material

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

Twin Blue Line for Class 1 Tube

Special blue colored Twin Line tube is supplied.

Rodent Deterrent option

Can also be supplied with optional rodent deterrent feature which protects tube from rats.

Applications

- J-Turbo Line Super is recommended for irrigation of closely spaced row crops like sugarcane, cotton, banana, strawberry, vegetables, spices, biofuel crops, floriculture, etc.
- Recommended to use in greenhouses and nurseries.
- Suitable for landscape, shrubs and turf irrigation.
- Used for widely spaced horticultural plants like mango, citrus, guava, apple etc. in group spacings.
- Suitable for multi-seasonal applications.
- Suitable for surface as well as sub surface installations.
- With its fine filter, large filtration area and clog resistant Cascade labyrinth, J-Turbo Line® Super is a perfect product for Mining Applications.

Specifications

- **Emitter Spacings :** Standard emitter spacing of 20, 30, 40, 50, 60, 75, 90 and 100 cm. Any other emitter spacings and group spacing can be supplied on demand.
- **Sizes :** 12, 16 and 20 mm nominal diameter.
- **Nominal Discharges :**

  J-Turbo Line Super 12 mm: 2.3 and 4 lph at working pressure of 1 kg/cm^2 (0.63 and 1.06 gph at 14.2 psi)

  J-Turbo Line Super 16 mm (14.2 mm ID) : 1.1, 2.2, 3, 4 & 8 lph at working pressure of 1 kg/cm^2 (0.29, 0.58, 1.06 & 2.1 gph at 14.2 psi)

  J-Turbo Line Super 16 mm (13.8 mm ID): 4 lph at working pressure of 1 kg/cm^2 (1.06 gph at 14.2 psi)

  J-Turbo Line Super 20 mm : 1.1, 2.2 and 4 and 8 lph at working pressure of 1 kg/cm^2 (0.29, 0.58, 1.06 and 2.1 gph at 14.2 psi)

Operating Specifications

- Nominal operating pressure 1 kg/cm^2. Can be used for other pressure rating after consulting company representative and with due care for filtration
- Recommended to use specially designed emitting pipe fittings.
- 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.



J-Turbo Line® Super

Technical Specifications for Tubing - Metric

Nominal Diameter (mm)	Inside Diameter (mm)	Minimum Wall Thickness (mm)				Standard Coil Length (m)
		Class-1	Class-2	Class-3	Class-4	
*12	10.5	0.4	0.6	0.8	1.1	250, 400, 500, 700
*16	14.2	0.5	0.7	1.0	1.3	300, 400, 500
16	13.8	–	0.9	1.0	1.3	250, 300, 400
*20	18.0	0.7	0.9	1.2	1.5	250

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

Technical Specifications for Tubing - US

Nominal Diameter (mm)	Inside Diameter (mm)	Minimum Wall Thickness (inch)				Standard Coil Length (feet)
		Class-1	Class-2	Class-3	Class-4	
*12	10.5	0.016	0.024	0.031	0.043	820, 1640, 2296
*16	14.2	0.02	0.028	0.039	0.051	984, 1312, 1640
16	13.8	-	0.035	0.039	0.051	820, 1312
*20	18.0	0.028	0.035	0.047	0.059	328, 820

Technical Specifications for Emitter - Metric

*Nominal Discharge (lph)	Emitter exponent (x)	Flow coefficient (k)	Coefficient of Mfg. Variation (CVm) ≤	Flow Path Dimensions, mm			Inlet Filter Area (mm^2)	Size of Filter Openings (mm x mm)
				Length	Width	Depth		
J-Turbo Line® Super 12mm ND (10.5mm ID)								
2.3	0.46	2.4	3.0	20	1.06	1.15	24.00	0.5 x 0.5
4.0	0.46	4.0	3.0	20	0.84	1.15	24.00	0.5 x 0.5
J-Turbo Line® Super 16mm ND (14.2mm ID)								
1.1	0.48	1.1	3.5	20	0.66	1.00	20.16	1.91 x 0.48
2.2	0.48	2.2	3.5	20	1.00	1.30	20.16	1.88 x 0.48
3.0	0.48	3.0	3.5	20				
4.0	0.46	4.0	2.5	20	1.06	1.30	22.00	0.5 x 0.5
8.0	0.48	4.0	3.0	20	1.20	1.80	56.00	0.5 x 0.9
J-Turbo Line® Super 16mm ND (13.8mm ID)								
4.0	0.46	4.0	2.5	20	1.06	1.30	22.0	0.5 x 0.5
J-Turbo Line® Super 20mm ND (18mm ID)								
1.1	0.46	1.0	2.5	38	0.64	1.00	16.67	0.45 x 0.325
2.2	0.46	2.2	3.0	38	0.85	1.20	16.67	0.45 x 0.325
4.0	0.46	4.0	3.0	38	1.15	1.40	25.65	0.45 x 0.5
8.0	0.48	8.0	3.5	20	1.20	2.00	90.86	0.5 x 0.65

Flow equation $q = kH^x$, q = nominal discharge, lph, H = Pressure head, kg/cm^2, x = Emitter exponent

Technical Specifications for Emitter - US

Nominal Discharge (gph)	Emitter Expo	Flow Coeff.	CV	Dimension (inch)			Inlet Filter Area ($inch^2$)	Opening (inch x inch)
				L	W	D		
J-Turbo Line® Super 1/2 inch								
0.63	0.46	0.187	3	0.79	0.042	0.045	0.037	0.02 x 0.02
1.06	0.46	0.312	3	0.79	0.033	0.045	0.037	0.02 x 0.02
J-Turbo Line® Super 7/8 inch								
0.29	0.48	0.079	3.5	0.79	0.026	0.039	0.031	0.75 x 0.02
0.58	0.48	0.163	3.5	079	0.039	0.051	0.031	0.77 x 0.02
0.79	0.48	0.221	3.5					
1.06	0.46	0.312	2.5	0.79	0.042	0.051	0.043	0.02 x 0.02
2.11	0.48	0.591	3.0	0.79	0.047	0.071	0.087	0.02 x 0.035
J-Turbo Line® Super 7/8 inch								
1.06	0.46	0.312	2.5	0.79	0.042	0.051	0.043	0.02 x 0.02
J-Turbo Line® Super 3/4 inch								
0.26	0.46	0.078	2.5	1.5	0.025	0.039	0.026	0.018 x 0.013
0.58	0.46	0.171	3.0	1.5	0.033	0.047	0.026	0.018 x 0.013
1.06	0.46	0.312	3.0	1.5	0.045	0.055	0.04	0.018 x 0.02
2.11	0.48	0.591	3.5	0.79	0.05	0.08	0.141	0.02 x 0.026

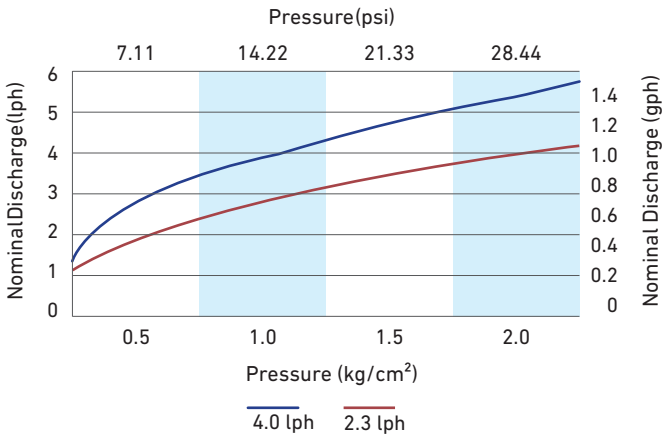
Flow equation $q = kH^x$, q = Nominal Discharge, gph, H = Pressure head, psi, x = Emitter exponent

* At an operating pressure of $1kg/cm^2$ and for pressure Class-2 for 12 & 16mm OD (10.5mm , 13.8 and 14.2mm ID respectively) and pressure class-1 for 20mm OD (18mmID) under standard test conditions.

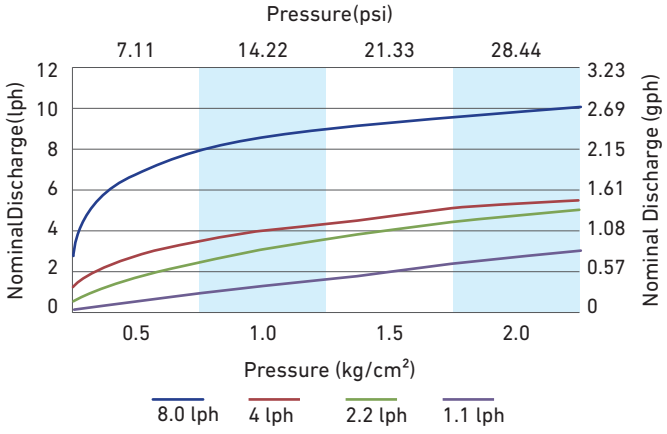
J-Turbo Line® Super

Performance Graph- J-Turbo Line® Super

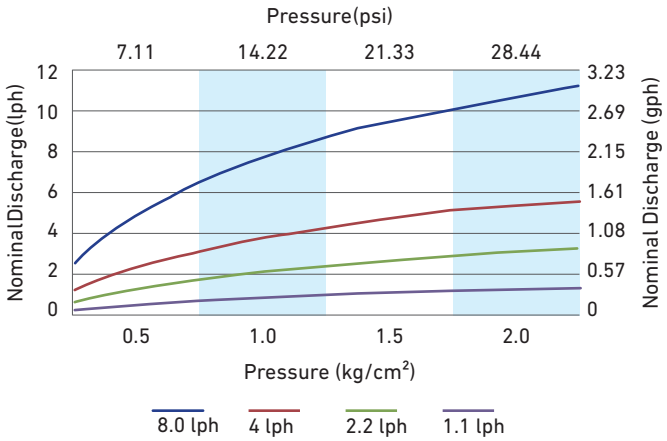
Performance Graph -J-Turbo Line® Super 12mm OD (10.5mm ID)



Performance Graph -J-Turbo Line® Super 16mm OD (14.2mm ID)



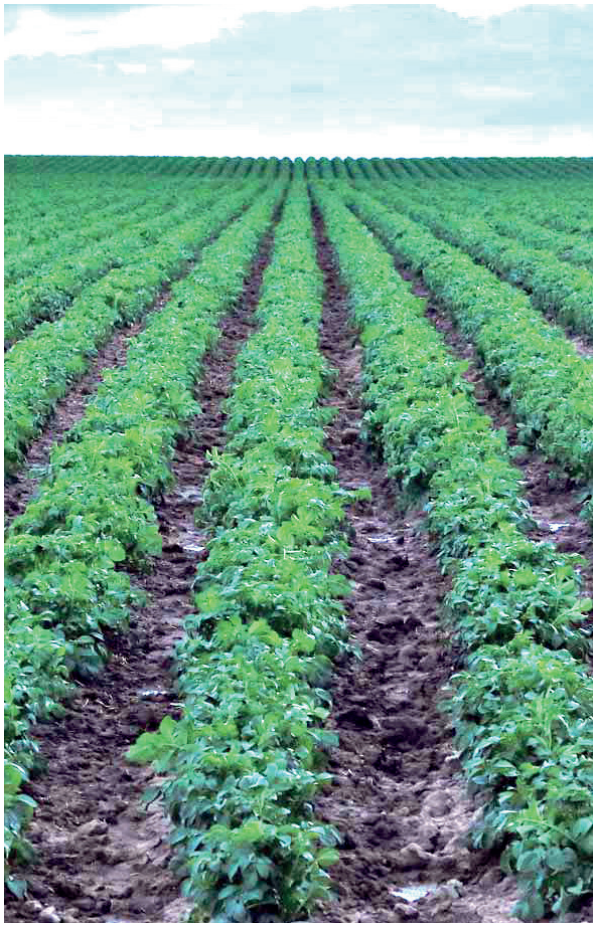
Performance Graph -J-Turbo Line® Super 20 mm OD (18 mm ID)



Technical Specifications for Emitter with different wall thickness tube

Size	Nominal Discharge (lph)		
Wall thickness (mm)	**0.4-0.5**	**0.6-0.7**	**0.8-1.0**
12	2.4	2.3	1.9
	4.0	4.0	3.5
Wall thickness (mm)	**0.5-0.6**	**0.7-0.9**	**1.0-1.2**
16	1.1	1.1	1.0
	2.2	2.2	1.6
	4.2	4.0	3.1
	8.8	8.0	6.0
Wall thickness (mm)	**0.7 - 0.8**	**0.9 - 1.1**	**1.2 - 1.4**
20	1.2	1.0	MTO
	2.2	2.0	MTO
	4.0	3.6	MTO
	MTO	MTO	MTO

Note: MTO refers to Make To Order



J-Turbo Line® Super

Ordering Specifications

LS	XX	XX	XXX	X	XXX	N	X
	Nominal diameter in mm	Nominal Discharge in lph x 10	Dripper Spacing in cm	Pressure Rating Class for Indian Standard tubing	Standard Coil Length in meter	N - Non pressure compensating	Color of the tube
				For tubings other than Indian Standard- min. wall thickness x 10			Blank - Standard Black with 'Twin Line' B - Brown (Landscape) W - White (Greenhouse) P - Purple (Reclaimed Water)

Example: LS16400602400N - This code refers to J- Turbo Line® Super of 16mm nominal diameter having nominal discharge of 4 lph, emitter spaced at 60 cm, pressure rating class-2 and standard coil length of 400 m black tube with 'Twin Line'.

- J- Turbo Line® Super 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,

LS1640 060 3 500 2 400 N

- 060: Distance between drippers in a group, cm
- 3: No. of drippers in a group
- 500: Distance between two groups, cm



Note:

- J- Turbo Line® Super is manufactured with ID control and declared OD are nominal. If you have specific ID or OD requirement, please mention while ordering.
- J- Turbo Line® Super can be supplied in any other wall thickness and pressure ratings.

