



Applications

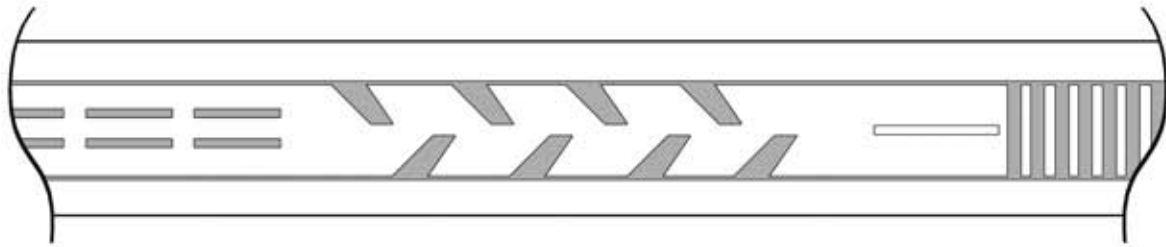
- Where uniform and reliable application of water, fertilizers and chemicals is important.
- Used for trouble-free subsurface drip irrigation of vegetables, fruits and flower beds.
- Strawberries, tomatoes, peppers, onions and garlic are some of the major row crops grown using Hydro Tape™.

Features & Benefits

- Highly turbulent and flexible secondary chamber keeps flow path clean and allows high emission uniformity.
- Uniformity saves fertilizers, chemicals and water and increases profit.
- Outlet opens outward only and closes shut on flow path ridges obstructing suction of foreign particles and root intrusion.
- Inlet filters and turbulent flow make it highly resistant to plugging, making it most reliable.
- Made with highest quality polyethylene resins for added strength and resistance to UV rays and chemicals. Reduced chance of damage saves time and labor.
- High uniformity with low coefficient of variation ($C_v < 0.05$).



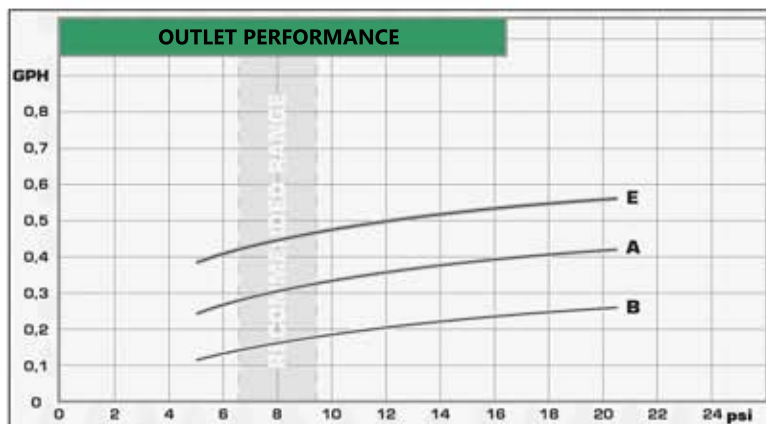
Hydro Tape™



Secondary Chamber Details

Specifications

Thickness	Dripper Spacing	Nominal Flow Rates						Length per roll	Inlet pressure	
mil	inch	Low Flow		Standard Flow		High Flow		ft	Suggested psi	Max psi
		gph	gpm/100'	gph	gpm/100'	gph	gpm/100'			
4	4 1/4"	-		0.21	1.00	0.42	2.00	15000	8.00	10.00
	8 1/2"	0.19	0.45	0.29	0.67	0.42	1.00			
	12 1/2"	0.22	0.34	0.29	0.45	0.42	0.67			
5	4 1/4"	-		0.21	1.00	0.42	2.00	12500	8.00	11.00
	8 1/2"	0.19	0.45	0.29	0.67	0.42	1.00			
	12 1/2"	0.22	0.34	0.29	0.45	0.42	0.67			
6	4 1/4"	-		0.21	1.00	0.42	2.00	10,000	8.00	12.00
	8 1/2"	0.19	0.45	0.29	0.67	0.42	1.00			
	12 1/2"	0.22	0.34	0.29	0.45	0.42	0.67			
	17 1/2"	-		0.29	0.34	0.40	0.45			
8	4 1/4"	-		0.21	1.00	0.42	2.00	7,500	8.00	14.00
	8 1/2"	0.19	0.45	0.29	0.67	0.42	1.00			
	12 1/2"	0.22	0.34	0.29	0.45	0.42	0.67			
	17 1/2"	-		0.29	0.34	0.40	0.45			
10	4 1/4"	-		0.21	1.00	0.42	2.00	6,000	8.00	16.00
	8 1/2"	0.19	0.45	0.29	0.67	0.42	1.00			
	12 1/2"	0.22	0.34	0.29	0.45	0.42	0.67			
	17 1/2"	-		0.29	0.34	0.40	0.45			
12	4 1/4"	-		0.21	1.00	0.42	2.00	5,000	8.00	20.00
	8 1/2"	0.19	0.45	0.29	0.67	0.42	1.00			
	12 1/2"	0.22	0.34	0.29	0.45	0.42	0.67			
	17 1/2"	-		0.29	0.34	0.40	0.45			



	Spacing	gpm/ 100 ft.
E	4 1/4"	2
	8 1/2"	1
	12 1/2"	0.67
	17 1/2"	0.45
A	8 1/2"	0.67
	12 1/2"	0.45
	17 1/2"	0.34
B	8 1/2"	0.34
	12 1/2"	0.25

Hydro Tape™

Performance Charts

0.25 gpm/100'		1.9 lph/m				
T	EU	psi				
%	%	6	8	10	12	14
	90	220	270	325	380	410
	85	390	505	580	640	700
	80	530	650	745	820	900
	90	360	430	480	500	550
	85	580	675	750	800	860
	80	730	840	930	1000	1080
	90	665	685	700	720	760
	85	775	835	870	1010	1050
	80	1080	1140	1200	1230	1270
	90	825	840	855	860	880
	85	1125	1145	1160	1180	1200
	80	1350	1390	1405	1430	1450
	90	825	815	830	855	875
	85	1200	1235	1265	1285	1310
	80	1430	1490	1510	1530	1570

0.34 gpm/100'		2.5 lph/m				
T	EU	psi				
%	%	6	8	10	12	14
	90	175	215	260	300	330
	85	310	400	455	505	555
	80	415	510	585	640	700
	90	290	345	390	400	440
	85	455	535	595	630	680
	80	575	660	730	780	840
	90	530	550	565	575	610
	85	695	740	780	800	830
	80	845	890	935	965	995
	90	660	670	680	690	700
	85	890	900	920	930	950
	80	1055	1085	1100	1120	1135
	90	690	730	745	765	790
	85	950	980	1000	1005	1035
	80	1120	1165	1180	1195	1230

0.45 gpm/100'		3.4 lph/m				
T	EU	psi				
%	%	6	8	10	12	14
	90	155	190	230	265	290
	85	275	350	405	445	490
	80	360	445	510	565	615
	90	250	300	340	350	390
	85	405	470	525	560	600
	80	500	580	640	680	740
	90	470	480	495	505	535
	85	615	655	680	710	735
	80	740	780	820	845	870
	90	580	585	600	605	615
	85	790	800	810	825	835
	80	950	950	965	985	1000
	90	805	845	855	870	890
	85	835	865	885	890	915
	80	985	1025	1035	1050	1075

0.67 gpm/100'		5 lph/m				
T	EU	psi				
%	%	6	8	10	12	14
	90	110	140	165	195	210
	85	195	255	290	320	350
	80	265	325	375	415	455
	90	185	220	245	255	285
	85	290	340	375	400	435
	80	365	425	470	500	540
	90	340	350	360	365	390
	85	445	470	490	510	530
	80	540	570	600	620	640
	90	425	435	436	440	450
	85	565	575	585	595	600
	80	675	685	705	720	730
	90	440	470	475	490	495
	85	600	620	635	640	655
	80	720	750	760	770	790

1.0 gpm/100'		7.5 lph/m				
T	EU	psi				
%	%	6	8	10	12	14
	90	79	98	115	134	148
	85	141	177	203	226	248
	80	187	230	266	292	318
	90	128	154	174	180	200
	85	203	239	266	282	305
	80	258	298	330	355	385
	90	240	245	253	260	272
	85	312	331	344	360	374
	80	384	403	423	436	453
	90	295	302	308	310	315
	85	400	407	413	420	426
	80	480	492	498	508	515
	90	308	328	335	344	350
	85	426	440	450	453	466
	80	508	528	535	541	558

2.0 gpm/100'		15 lph/m				
T	EU	psi				
%	%	6	8	10	12	14
	90	49	62	75	85	95
	85	75	95	108	121	134
	80	95	118	134	151	164
	90	82	98	112	115	128
	85	108	128	141	151	164
	80	134	154	170	180	197
	90	154	157	161	164	174
	85	167	177	184	194	200
	80	197	207	216	223	230
	90	190	194	197	200	203
	85	213	216	220	223	226
	80	246	253	256	259	262
	90	197	210	213	217	220
	85	226	233	239	243	249
	80	259	272	276	279	285

Hydro Tape™

Installation Recommendations

- Determine proper outlet spacing and flow rate of Hydro Tape™ based on agronomic and hydraulic calculations.
- Analyze the irrigation water quality and decide on the correct type and level of filtration.
- Installation should be done using a seamless tube and correct type of shank for the above ground or subsurface installations.
- The Hydro Tape™ is installed subsurface or aboveground as needed with the outlets always facing up. Subsurface installation improves water distribution, reduces evaporation, runoff and damage from animals and cultural practices.
- After subsurface installation, it should be pressurized to detect any leak during installation which will show when the soil is dry and capping of the soil surface which may reduce flow rate.
- Before operating the system, make sure that the filtration system has been prepared properly and the back-flushing interval has been set.
- Fill the system slowly to avoid water hammering; and flush out mains and submain lines thoroughly before connecting the Hydro Tape™ lines to assure even distribution of water.
- The air release and vacuum relief valves are recommended to be installed at all required locations.
- Never operate a system at higher pressure than various system components are rated for and also higher than recommended Hydro Tape™ pressure.

Filtration

- We recommend 150-mesh (100 microns) filtration. For surface water, sand media filtration system is most recommended. However, depending on quality of surface water, i.e., amount and concentration of algae, micro-algae, organic and inorganic contents, other filters such as disk filters may be used. For subsurface ground water, screen or disk filters, sand separators as well as sand media filters may be used depending on contents to be filtered.
- Regular back-flushing of all filters is a must for proper filtration level to be achieved. Automatic back flushing at required interval is best for drip irrigation. Back-flushing interval should be based on filtration requirement, flow rate, sediment, organic and inorganic content load (concentration) which changes during the season. Success of manual back-flushing is dependent on reliability and experience of the operator.
- Secondary filtration systems upstream of a zone valve adds another layer of protection and also saves the field irrigation components and crop in case the distribution line breaks.

Fertigation & Chemigation

- Hydro Tape™ is a reliable means to apply chemicals and fertilizers with the irrigation water.
- It is advisable to use high quality soluble fertilizers and chemicals.
- The injection system should be installed upstream of the filtration system to filter out the insoluble particles.
- The sequence of operation for fertigation should be: (1) Pressurize the system and run for 15 to 30 minutes, (2) Introduce fertilizers through injection system (3) Flush out system for 15 minutes through the line ends to ensure all fertilizers have been distributed and the lines are clean.
- Fertigation is best when applied frequently and in small quantities so the plant root can utilize the fertilizers efficiently.
- All plant, soil and water characteristics must be considered for fertigation and chemigation. We recommend to consult with a specialist before applying fertilizers and chemicals.