



**TORO**<sup>®</sup>

# SUPERIOR DRIP TAPE

**AQUA-TRAXX<sup>®</sup> PBX**

**AQUA-TRAXX<sup>®</sup>  
FLOWCONTROL<sup>™</sup>**

# THE EVOLUTION OF PRECISION

Market demands, weather patterns and resource availability change every day, so precision agriculture practices must evolve to stay ahead. From increasing yield and improving quality to making the best use of available resources. Irrigation technology is evolving, too — first flood, then pivot and now drip irrigation. Each step giving you more precise control over the time, energy and water you invest in your crop.

Toro drip tapes are innovative steps in the evolution of drip irrigation. Aqua-Traxx® PBX, the original drip tape, provides unmatched clog resistance, durability and precision placement of your valuable water and fertilizer. Aqua-Traxx® FlowControl™ drip tape — the only flow-regulating drip tape available — is Toro's latest advancement in the evolution of drip irrigation, giving you increased uniformity and control wherever you farm.





# AQUA-TRAXX® PBX



## The Standard in Drip Irrigation

Aqua-Traxx® PBX drip tape can help you increase yield and water-use efficiency, and also improve crop quality by putting water and fertilizer right where you need them. Choose emitter spacing from 10 to 60 cm — with no cost increase — for precise placement and flexibility when designing your system. Find the perfect tape for your application with a wide variety of available flow rates, wall thicknesses and internal diameters. The PBX Advantage increases durability, clog resistance and uniformity to set Aqua-Traxx PBX apart from ordinary drip tapes.

- Emitter spacing options for all soils: 10, 15, 20, 30, 40, 45, 60 cm
- Widest selection of flow rates
- Accurate delivery of water and fertilizer
- Superior clogging resistance

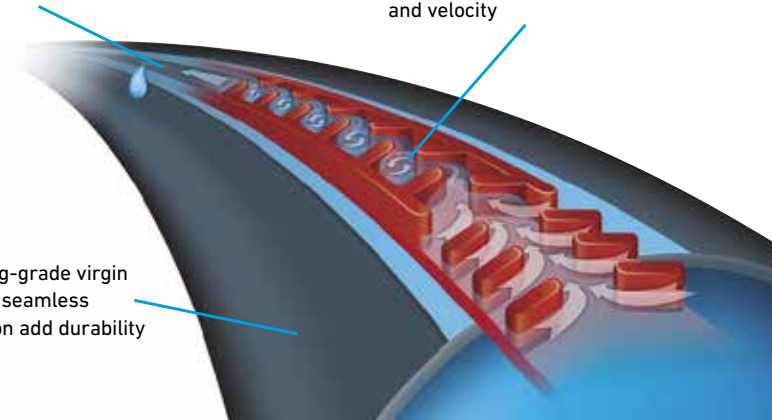
## The PBX Advantage:

Aqua-Traxx® PBX and Aqua-Traxx® FlowControl™ drip tapes are designed and molded with a high level of precision, resulting in manufacturing consistency over 97 percent — the best in the industry. With Toro Aqua-Traxx®, you get greater reliability and more uniform output compared to ordinary tapes: That's the PBX Advantage.

Precision-molded emitters resist clogging and promote uniform output

Proportionally Balanced Cross-Section (PBX) increases flow turbulence and velocity

Engineering-grade virgin resins and seamless construction add durability



# AQUA-TRAXX® FLOWCONTROL™



## The Next Level of Uniformity, Efficiency and Yield

The new Toro Aqua-Traxx® FlowControl™ drip tape is the latest advancement in precision drip irrigation. It's the only flow-regulating drip tape available — giving you more control and uniformity wherever you farm. The innovative emitter design provides you with the ability to control the flow while maintaining a uniform output across changing elevations. Now you have more control over the water your crops get, especially in long runs or hilly terrain, where water pressure can vary throughout the run.

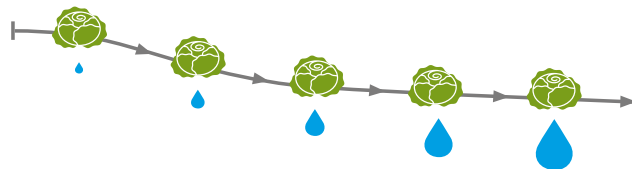
- Designed and molded with the PBX Advantage for increased durability, clog resistance and uniform output
- Available in two diameters and five wall thickness including the more-affordable 16mm (5/8")-6mil and 22mm (7/8")-8mil
- Emitter spacing from 10 to 60 cm with no cost increase for precise placement and flexibility when designing your system
- All flow rates require just 150-mesh filtration

## MORE UNIFORM OUTPUT FOR ANY TERRAIN

### STANDARD TAPE

Standard tapes stress plants and reduce yield and efficiency by over or under-watering as pressure changes throughout the run.

**RESULT:** Wasted water and fertilizer, stressed plants and reduced yields.

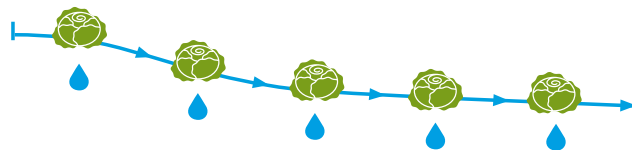


Same inlet pressure

### AQUA-TRAXX® FLOWCONTROL™

Toro Aqua-Traxx® FlowControl™ gives you uniform output regardless of elevation changes. So now you can adjust the amount of water you give your plants on hilly terrain, and they'll all receive the same amount through our uniform delivery system.

**RESULT:** More uniform plants and higher yields even in hilly terrain that might otherwise be impractical to farm.



# AQUA-TRAXX® PBX PERFORMANCE

## 16 MM DIAMETER

0% Slope - 90% Emission Uniformity (EU)

Part Number	Individual Emitter Flow Rate @ 0,7 bar	Emitter Spacing	Maximum Lateral Lengths in meters					
			@ 0,5 bar	@ 0,6 bar	@ 0,7 bar	@ 0,8 bar	@ 0,9 bar	@ 1,0 bar
RA5xx04265	2,13 l/h	10 cm	51	52	52	52	53	53
RA5xx08133		20 cm	112	113	114	115	116	118
RA5xx04170	1,41 l/h	10 cm	73	74	74	75	75	76
RA5xx06112		15 cm	94	95	96	96	97	98
RA5xx0884		20 cm	113	114	115	116	118	118
RA5xx1256	1,14 l/h	30 cm	147	149	150	151	152	153
RA5xx04134		10 cm	84	85	85	86	87	87
RA5xx0867		20 cm	131	132	133	134	135	136
RA5xx1245		30 cm	170	172	173	175	176	177
RA5xx1634	0,87 l/h	40 cm	204	206	208	209	211	212
RA5xx04100		10 cm	102	103	104	105	105	106
RA5xx0667		15 cm	132	133	135	136	136	137
RA5xx0851		20 cm	159	160	161	163	164	165
RA5xx1234		30 cm	206	208	209	211	212	214
RA5xx1625	40 cm	246	250	252	254	256	257	
RA5xx0650	0,64 l/h	15 cm	159	160	162	163	164	165
RA5xx1226		30 cm	246	250	252	254	255	257
RA5xx0467	0,57 l/h	10 cm	134	135	137	138	139	139
RA5xx0834		20 cm	209	211	213	214	216	217
RA5xx1222		30 cm	270	274	276	278	280	281
RA5xx1617		40 cm	324	328	331	333	336	338
RA5xx0825	0,42 l/h	20 cm	241	242	243	244	245	245
RA5xx1613		40 cm	381	383	385	387	388	389
RA5xx0822	0,38 l/h	20 cm	258	259	260	261	263	263
RA5xx1611		40 cm	400	401	404	405	406	408
RA5xx0817	0,30 l/h	20 cm	304	305	306	308	308	308
RA5xx1608		40 cm	470	472	474	476	477	479

## 22 MM DIAMETER

0% Slope - 90% Emission Uniformity (EU)

Part Number	Individual Emitter Flow Rate @ 0,7 bar	Emitter Spacing	Maximum Lateral Lengths in meters					
			@ 0,5 bar	@ 0,6 bar	@ 0,7 bar	@ 0,8 bar	@ 0,9 bar	@ 1,0 bar
RA7xx08133	2,13 l/h	20 cm	232	234	236	238	239	240
RA7xx06112	1,41 l/h	15 cm	192	194	197	198	200	201
RA7xx0867	1,14 l/h	20 cm	233	235	237	239	240	242
RA7xx1245		30 cm	302	305	307	309	311	313
RA7xx1634		40 cm	361	365	368	370	373	375
RA7xx04100	0,87 l/h	10 cm	181	183	185	186	187	188
RA7xx0667		15 cm	234	237	239	241	243	244
RA7xx0851		20 cm	282	285	287	289	291	293
RA7xx1234		30 cm	365	368	372	375	378	381
RA7xx0467	0,57 l/h	10 cm	238	241	243	245	246	249
RA7xx0834		20 cm	370	374	379	382	383	387
RA7xx1222		30 cm	478	486	490	494	497	500
RA7xx0825	0,42 l/h	20 cm	426	428	431	433	434	435
RA7xx1613		40 cm	664	667	670	672	674	676
RA7xx0822	0,38 l/h	20 cm	457	459	461	462	463	465
RA7xx1611		40 cm	706	713	717	719	721	723
RA7xx0817	0,30 l/h	20 cm	536	539	541	543	544	546
RA7xx1608		40 cm	833	837	840	843	847	849

# AQUA-TRAXX® FLOWCONTROL™ PERFORMANCE

## 16 MM DIAMETER

0% Slope - 90% Emission Uniformity (EU)

Part Number	Individual Emitter Flow Rate @ 0,7 bar	Emitter Spacing	Maximum Lateral Lengths in meters			
			@ 0,7 bar	@ 1,4 bar	@ 1,4 bar	@ 1,7 bar
EAFCSxx0690-yyy	1,01 l/h	15 cm	124	131	139	145
EAFCSxx0867-yyy		20 cm	148	157	168	174
EAFCSxx1245-yyy		30 cm	194	206	216	226
EAFCSxx1634-yyy		40 cm	230	245	260	271
EAFCSxx1830-yyy		45 cm	248	267	280	289
EAFCSxx2422-yyy	60 cm	301	320	337	350	
EAFCSxx0667-yyy	0,76 l/h	15 cm	150	159	168	175
EAFCSxx0850-yyy		20 cm	181	193	202	211
EAFCSxx1234-yyy		30 cm	232	247	262	273
EAFCSxx1625-yyy		40 cm	283	299	317	325
EAFCSxx1822-yyy		45 cm	303	320	339	352
EAFCSxx2417-yyy	60 cm	364	387	411	423	
EAFCSxx1222-yyy	0,51 l/h	30 cm	306	328	348	360
EAFCSxx2411-yyy		60 cm	475	505	535	554

## 22 MM DIAMETER

0% Slope - 90% Emission Uniformity (EU)

Part Number	Individual Emitter Flow Rate @ 0,7 bar	Emitter Spacing	Maximum Lateral Lengths in meters			
			@ 0,7 bar	@ 1,0 bar	@ 1,4 bar	@ 1,5 bar
EAFCFxx0690-yyy	1,01 l/h	15 cm	217	230	244	250
EAFCFxx0867-yyy		20 cm	261	277	294	300
EAFCFxx1245-yyy		30 cm	336	361	384	390
EAFCFxx1634-yyy		40 cm	404	430	458	465
EAFCFxx1830-yyy		45 cm	438	466	494	500
EAFCFxx2422-yyy	60 cm	526	556	590	604	
EAFCFxx0667-yyy	0,76 l/h	15 cm	263	279	296	300
EAFCFxx0850-yyy		20 cm	318	337	355	360
EAFCFxx1234-yyy		30 cm	412	436	463	466
EAFCFxx1625-yyy		40 cm	497	525	554	558
EAFCFxx1822-yyy		45 cm	528	564	595	604
EAFCFxx2417-yyy	60 cm	633	674	718	722	
EAFCFxx1222-yyy	0,51 l/h	30 cm	527	560	593	602
EAFCFxx2411-yyy		60 cm	820	870	925	930

The maximum inlet pressure must be respected when determining the maximum lateral length.

## AQUA-TRAXX® PBX PRODUCT SPECIFICATIONS

Emitter Flow Rate	Spacing	Individual Emitter Flow Rate (L/h) @		Flow Rate per meter (L/h/m) @		Emitter Exponent	Required Filtration
Part Number	cm	0.55 bar	0.7 bar	0.55 bar	0.7 bar		mesh
<b>Emitter (2.13 U/h)</b>							
RAXxx04265	10	2.00	2.13	20.00	21.30	0.5	120-140
RAXxx08133	20	2.00	2.13	10.00	10.65		
<b>Emitter (1.41 U/h)</b>							
RAXxx04170	10	1.29	1.41	12.90	14.10		
RAXxx06112	15	1.29	1.41	8.60	9.40		
RAXxx0884	20	1.29	1.41	6.45	7.05	0.5	120-140
RAXxx1256	30	1.29	1.41	4.30	4.70		
RAXxx1642	40	1.29	1.41	3.23	3.53		
RAXxx2428	60	1.29	1.41	2.15	2.35		
<b>Emitter (1.14 U/h)</b>							
RAXxx04134	10	1.02	1.14	10.20	11.40		
RAXxx0867	20	1.02	1.14	5.10	5.70		
RAXxx1245	30	1.02	1.14	3.40	3.80	0.5	120-140
RAXxx1634	40	1.02	1.14	2.55	2.85		
RAXxx2422	60	1.02	1.14	1.70	1.90		
<b>Emitter (0.87 U/h)</b>							
RAXxx04100	10	0.76	0.87	7.60	8.70		
RAXxx0667	15	0.76	0.87	5.07	5.80		
RAXxx0851	20	0.76	0.87	3.80	4.35	0.5	140
RAXxx1234	30	0.76	0.87	2.53	2.90		
RAXxx1625	40	0.76	0.87	1.90	2.18		
RAXxx2417	60	0.76	0.87	1.27	1.45		
<b>Emitter (0.64 U/h)</b>							
RAXxx0650	15	0.57	0.64	3.80	4.27		
RAXxx1225	30	0.57	0.64	1.90	2.13	0.5	140
RAXxx1817	45	0.57	0.64	1.27	1.42		
<b>Emitter (0.57 U/h)</b>							
RAXxx0467	10	0.49	0.57	4.90	5.70		
RAXxx0834	20	0.49	0.57	2.45	2.85		
RAXxx1222	30	0.49	0.57	1.63	1.90	0.5	140
RAXxx1617	40	0.49	0.57	1.23	1.43		
RAXxx2411	60	0.49	0.57	0.82	0.95		
<b>Emitter (0.42 U/h)</b>							
RAXxx0825	20	0.38	0.42	1.90	2.10	0.55	200
RAXxx1613	40	0.38	0.42	0.95	1.05		
<b>Emitter (0.38 U/h)</b>							
RAXxx0822	20	0.34	0.38	1.70	1.90	0.55	200
RAXxx1611	40	0.34	0.38	0.85	0.95		
<b>Emitter (0.30 U/h)</b>							
RAXxx0817	20	0.27	0.30	1.35	1.50	0.55	200
RAXxx1608	40	0.27	0.30	0.68	0.75		

## AQUA-TRAXX® PBX WALL THICKNESS

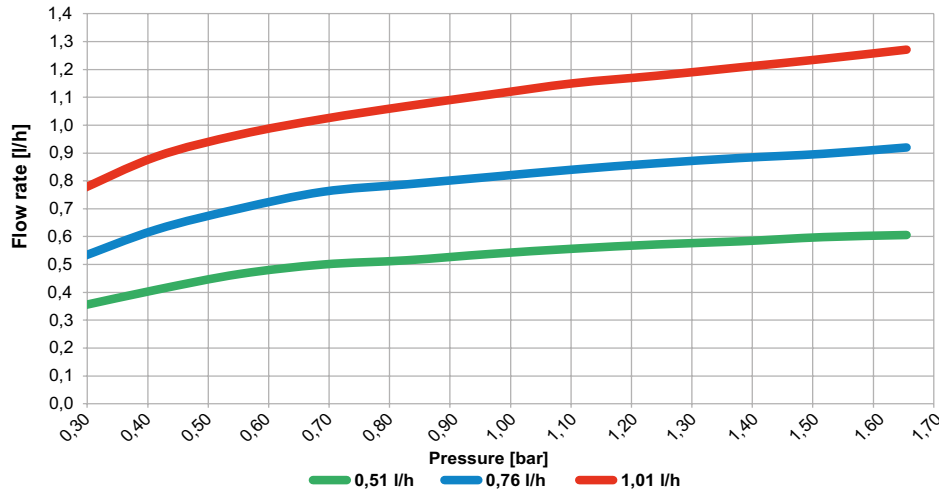
Nominal Diameter	Wall Thickness		Min Pressure	Max Pressure	Reel Length	Reel Weight	Reel Gross Weight*
16 mm (5/8")	5 mil	0.13 mm	0.3 bar	0.7 bar	4250 m	31.65 kg	32.60 kg
	6 mil	0.15 mm	0.3 bar	0.8 bar	3300 m	28.95 kg	29.90 kg
	7 mil	0.18 mm	0.3 bar	0.9 bar	3050 m	30.35 kg	31.30 kg
	8 mil	0.20 mm	0.3 bar	1.0 bar	2500 m	28.25 kg	29.20 kg
	10 mil	0.25 mm	0.3 bar	1.0 bar	2050 m	28.45 kg	29.40 kg
	12 mil	0.30 mm	0.3 bar	1.0 bar	1800 m	29.65 kg	30.60 kg
22 mm (7/8")	15 mil	0.38 mm	0.3 bar	1.0 bar	1300 m	26.45 kg	27.40 kg
	7 mil	0.18 mm	0.3 bar	0.7 bar	2150 m	28.55 kg	29.50 kg
	8 mil	0.20 mm	0.3 bar	0.8 bar	1900 m	28.65 kg	29.60 kg
	10 mil	0.25 mm	0.3 bar	1.0 bar	1400 m	26.25kg	27.20 kg
	12 mil	0.30 mm	0.3 bar	1.0 bar	1250 m	27.85 kg	28.80 kg
	15 mil	0.38 mm	0.3 bar	1.0 bar	1100 m	30.25 kg	31.20 kg
16 mm (5/8") short reels	6 mil	0.15 mm	0.3 bar	0.8 bar	400 m	4.10 kg	4.30 kg
	6 mil	0.15 mm	0.3 bar	0.8 bar	700 m	8.30 kg	8.60 kg
	8 mil	0.20 mm	0.3 bar	1.0 bar	250 m	3.40 kg	3.60 kg
	8 mil	0.20 mm	0.3 bar	1.0 bar	600 m	9.50 kg	9.80 kg

\*Gross Weight includes packaging and pallet weight



# AQUA-TRAXX® FLOWCONTROL™ PRODUCT SPECIFICATIONS

Emitter Flow Rate	Spacing	Individual Emitter Flow Rate (l/h) @	Flow Rate per meter (l/h/m) @	Emitter Exponent	Required Filtration
Part Number	cm	0,7 bar	0,7 bar		mesh
<b>Emitter (1,01 l/h)</b>					
EAFCTXx0690-yyy	15	1,01	6,73	0,3	150
EAFCTXx0867-yyy	20	1,01	5,05		
EAFCTXx1245-yyy	30	1,01	3,37		
EAFCTXx1634-yyy	40	1,01	2,53		
EAFCTXx1830-yyy	45	1,01	2,24		
EAFCTXx2422-yyy	60	1,01	1,68		
<b>Emitter (0,76 l/h)</b>					
EAFCTXx0667-yyy	15	0,76	5,07	0,3	150
EAFCTXx0850-yyy	20	0,76	3,80		
EAFCTXx1234-yyy	30	0,76	2,53		
EAFCTXx1625-yyy	40	0,76	1,90		
EAFCTXx1822-yyy	45	0,76	1,69		
EAFCTXx2417-yyy	60	0,76	1,27		
<b>Emitter (0,51 l/h)</b>					
EAFCTXx1222-yyy	30	0,51	1,70	0,3	150
EAFCTXx2411-yyy	60	0,51	0,85		



# AQUA-TRAXX® FLOWCONTROL™ WALL THICKNESS

Nominal Diameter	Wall Thickness	Min Pressure	Max Pressure	Reel Length	Reel Weight	Reel Gross Weight*
16 mm (5/8")	6 mil, 0,15 mm	0,3 bar	1,1 bar	3048 m	27,21 kg	28,16 kg
	8 mil, 0,20 mm	0,3 bar	1,1 bar	2286 m	26,33 kg	27,28 kg
	10 mil, 0,25 mm	0,3 bar	1,7 bar	1828 m	25,87 kg	26,82 kg
	12 mil, 0,30 mm	0,3 bar	1,7 bar	1554 m	26,07 kg	27,02 kg
	15 mil, 0,38 mm	0,3 bar	1,7 bar	1220 m	25,31 kg	26,26 kg
22 mm (7/8")	8 mil, 0,20 mm	0,3 bar	1,0 bar	1828 m	28,12 kg	29,07 kg
	10 mil, 0,25 mm	0,3 bar	1,4 bar	1341 m	25,56 kg	26,51 kg
	12 mil, 0,30 mm	0,3 bar	1,4 bar	1219 m	27,65 kg	28,60 kg
	15 mil, 0,38 mm	0,3 bar	1,5 bar	914 m	25,58 kg	26,53 kg

\*Gross Weight includes packaging and pallet weight

There is a Toro Aqua-Traxx® PBX and Aqua-Traxx® FlowControl™ drip tape for every application.







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