

AQUA-TRAXX® FLOWCONTROL™

Drip tape with Flow Control

Aqua-TraXX® FlowControl is the latest advancement in the field of precision drip irrigation.

Aqua-TraXX® FlowControl is the only drip tape on the market able to ensure a precise and uniform water and nutrient distribution even in the most difficult topographical conditions.

Aqua-TraXX® FlowControl guarantees even greater water, energy and fertiliser savings, giving optimum results even on land once considered marginal.

The exclusive flow path design, developed with PBX technology (Proportionally Balanced Section) guarantees exceptional performance and a highly uniform delivery.

The emitter, highly resistant to clogging, has been designed to minimise the flow's sensitivity to pressure variations for a relatively constant flow rate even in the toughest working conditions.

MAIN FEATURES

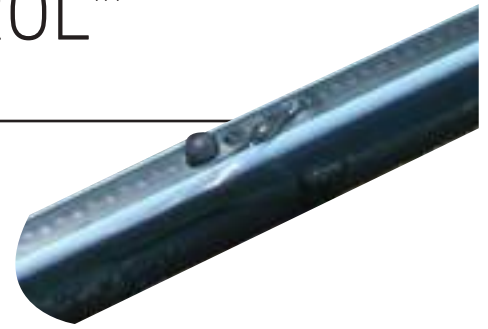
The constant quest for innovative solutions able to satisfy even the toughest irrigation requirements has led to the development of a drip tape with exceptional characteristics:

- Low emitter flow sensitivity to pressure variations (Exponent X: 0.30);
- High resistance to clogging thanks to the flow path designed with PBX technology;
- High resistance for quick easy installation (shorter laying times and therefore lower labour costs and less risk of damaging the product);
- Extraordinary efficiency, allowing implementing long side lines with very uniform water distribution and therefore high crop uniformity;

RANGE

Aqua-TraXX® FlowControl is available in the following models:

- Diameter 16 mm (5/8")
 - Wall thickness 6/8/10/12/15 mil
- Diameter 22 mm (7/8")
 - Wall thickness 8/10/12/15 mil
- Emitter spacing 15/20/30/40/45/60 cm
- 3 emitters
 - 0.51 l/h @ 0.7 bar
 - 0.76 l/h @ 0.7 bar
 - 1.01 l/h @ 0.7 bar



- Durability and excellent reliability achieved through meticulous design and a constant, precise control of the extrusion process;
- Three-hole outlet section made using laser technology;
- The emitter inlet filter prevents sediment deposits from entering the emitter;
- Excellent CV (Coefficient of Variation) thanks to the precision of the flow path which guarantees a completely turbulent flow;
- Double blue line for easy identification;
- Single extrusion process, guaranteeing uniform dimensions and mechanical characteristics (no welding, no seams);
- Product ID code laser-engraved on the tubing.



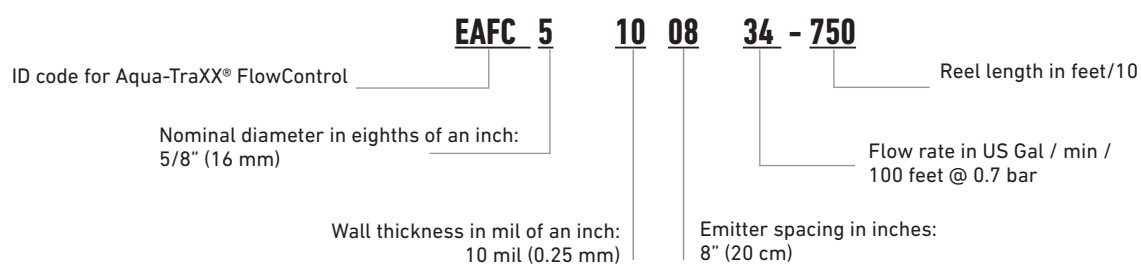
APPLICATIONS

Aqua-TraXX® FlowControl is ideal for irrigating extensive and horticultural crops where:

- The topographical conditions are particularly difficult, such as uneven land, hills and marginal areas;
- Where particularly long or sloping side lines are required.

Code	Emitter spacing (cm)	Individual Emitter Flow Rate (l/h) @ 0.7 bar	Flow rate per metre (l/h/m) @ 0.7 bar	Filtration required* mesh	Emitter exponent
Emitter (1.01 l/h)				150	0.3
EAFCxx0690-yyy	15	1.01	6.73		
EAFCxx0867-yyy	20	1.01	5.05		
EAFCxx1245-yyy	30	1.01	3.37		
EAFCxx1634-yyy	40	1.01	2.53		
EAFCxx1830-yyy	45	1.01	2.24		
EAFCxx2422-yyy	60	1.01	1.68		
Emitter (0.76 l/h)				150	0.3
EAFCxx0667-yyy	15	0.76	5.07		
EAFCxx0850-yyy	20	0.76	3.80		
EAFCxx1234-yyy	30	0.76	2.53		
EAFCxx1625-yyy	40	0.76	1.90		
EAFCxx1822-yyy	45	0.76	1.69		
EAFCxx2417-yyy	60	0.76	1.27		
Emitter (0.51 l/h)				150	0.3
EAFCxx1222-yyy	30	0.51	1.70		
EAFCxx2411-yyy	60	0.51	0.85		

Codification



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PERFORMANCE

The following tables indicate the maximum length of the lines in relation to the inflow water pressure.

Note: When determining the maximum line length, the maximum inflow pressure as indicated in the "Technical Data" table must be complied with.

DIAMETER 5/8" (16 MM) - Land slope 0%

Code	Emitter Flow Rate @ 0.7 bar	Emitter spacing	Emission Uniformity (EU)	Maximum lengths in metres			
				@ 0.7 bar	@ 1.0 bar	@ 1.4 bar	@ 1.7 bar
E AFC5xx0690-yyy	1.01 l/h	15 cm	90%	124	131	139	145
E AFC5xx0867-yyy	1.01 l/h	20 cm	90%	148	157	168	174
E AFC5xx1245-yyy	1.01 l/h	30 cm	90%	194	206	216	226
E AFC5xx1634-yyy	1.01 l/h	40 cm	90%	230	245	260	271
E AFC5xx1830-yyy	1.01 l/h	45 cm	90%	248	267	280	289
E AFC5xx2422-yyy	1.01 l/h	60 cm	90%	301	320	337	350
E AFC5xx0667-yyy	0.76 l/h	15 cm	90%	150	159	168	175
E AFC5xx0850-yyy	0.76 l/h	20 cm	90%	181	193	202	211
E AFC5xx1234-yyy	0.76 l/h	30 cm	90%	232	247	262	273
E AFC5xx1625-yyy	0.76 l/h	40 cm	90%	283	299	317	325
E AFC5xx1822-yyy	0.76 l/h	45 cm	90%	303	320	339	352
E AFC5xx2417-yyy	0.76 l/h	60 cm	90%	364	387	411	423
E AFC5xx1222-yyy	0.51 l/h	30 cm	90%	306	328	348	360
E AFC5xx2411-yyy	0.51 l/h	60 cm	90%	475	505	535	554

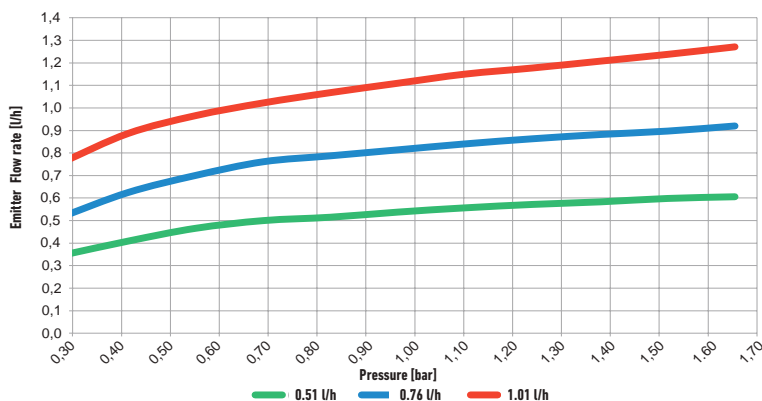
DIAMETER 7/8" (22 MM) - Land slope 0%

Code	Emitter Flow Rate @ 0.7 bar	Emitter spacing	Emission Uniformity (EU)	Maximum lengths in metres		
				@ 0.7 bar	@ 1.0 bar	@ 1.4 bar
E AFC7xx0690-yyy	1.01 l/h	15 cm	90%	217	230	244
E AFC7xx0867-yyy	1.01 l/h	20 cm	90%	261	277	294
E AFC7xx1245-yyy	1.01 l/h	30 cm	90%	336	361	384
E AFC7xx1634-yyy	1.01 l/h	40 cm	90%	404	430	458
E AFC7xx1830-yyy	1.01 l/h	45 cm	90%	438	466	494
E AFC7xx2422-yyy	1.01 l/h	60 cm	90%	526	556	590
E AFC7xx0667-yyy	0.76 l/h	15 cm	90%	263	279	296
E AFC7xx0850-yyy	0.76 l/h	20 cm	90%	318	337	355
E AFC7xx1234-yyy	0.76 l/h	30 cm	90%	412	436	463
E AFC7xx1625-yyy	0.76 l/h	40 cm	90%	497	525	554
E AFC7xx1822-yyy	0.76 l/h	45 cm	90%	528	564	595
E AFC7xx2417-yyy	0.76 l/h	60 cm	90%	633	674	718
E AFC7xx1222-yyy	0.51 l/h	30 cm	90%	538	573	609
E AFC7xx2411-yyy	0.51 l/h	60 cm	90%	840	888	939

The Irrloc application allows you to quickly and easily dimension your irrigation system, including on uneven land.

With Irrloc you can also dimension the drip line feed manifold and view delivery uniformity on the line and the irrigation block.

Free download: www.toro-ag.it



Technical and Logistical data

Nominal diameter	Inner diameter	Wall thickness		Min pressure	Max pressure	Reel length	Reel weight	Gross weight*	Reel dimensions (Ø X h)
16 mm (5/8")	16.1 mm	6 mil	0.15 mm	0.3 bar	1.1 bar	3048 m	28.05 kg	29 kg	52.5 cm x 28 cm
		8 mil	0.20 mm	0.3 bar	1.1 bar	2286 m	29.05 kg	30 kg	52.5 cm x 28 cm
		10 mil	0.25 mm	0.3 bar	1.7 bar	1828 m	28.05 kg	29 kg	52.5 cm x 28 cm
		12 mil	0.30 mm	0.3 bar	1.7 bar	1554 m	28.05 kg	29 kg	52.5 cm x 28 cm
		15 mil	0.38 mm	0.3 bar	1.7 bar	1220 m	28.05 kg	29 kg	52.5 cm x 28 cm
22 mm (7/8")	22.3 mm	8 mil	0.20 mm	0.3 bar	1.0 bar	1828 m	32.05 kg	33 kg	52.5 cm x 28 cm
		10 mil	0.25 mm	0.3 bar	1.4 bar	1341 m	31.05 kg	32 kg	52.5 cm x 28 cm
		12 mil	0.30 mm	0.3 bar	1.4 bar	1219 m	32.05 kg	33 kg	52.5 cm x 28 cm
		15 mil	0.38 mm	0.3 bar	1.5 bar	914 m	29.05 kg	30 kg	52.5 cm x 28 cm

* The gross weight includes the weight of the packaging and of the pallet

	Container 40' HC	Truck 13.6 m
Quantity of reels	704	768

	Quantity of reels	Dimensions (lxdxh)
Pallet	16	105x105x128 cm



INSTALLATION

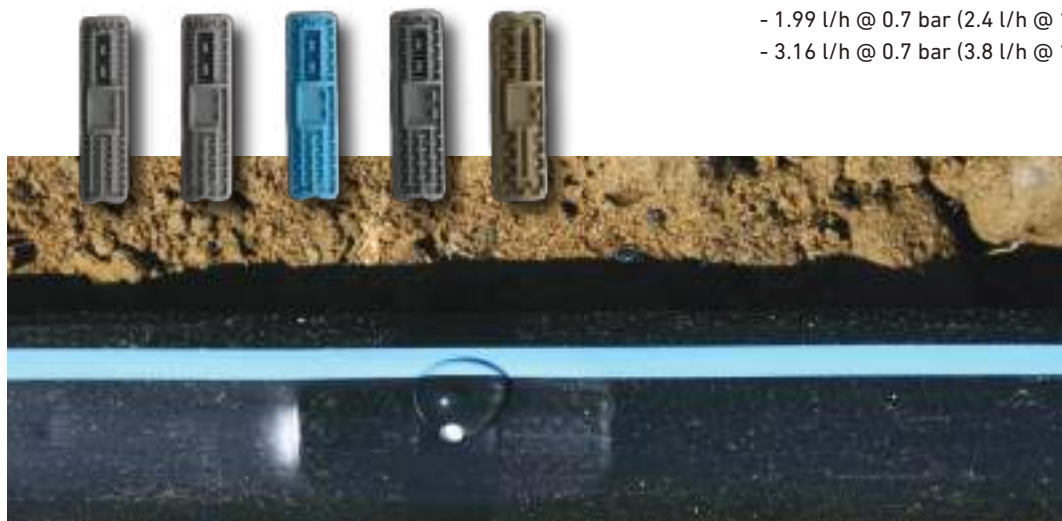
- The double "blue" line must always face upwards during installation under penalty of cancellation of the warranty;
- Aqua-TraXX® can be installed underground, under black mulch or on the surface;
- During installation avoid stretching, cutting, perforating or tearing it;
- If the soil is infected with insects with a masticatory or stinging system, we recommend disinfecting the soil;
- To avoid clogging, purge the main and secondary lines before connecting Aqua-TraXX®;
- When installing Aqua-TraXX® under mulch, begin pressurising the system within 12 hours from its installation;
- Use only water-soluble fertilisers and clear the lines of residues before interrupting irrigation;
- It is advisable to fit double-acting air valves on the manifolds to prevent impurities from being drawn in through the holes in Aqua-TraXX® when it is installed underground;
- When using transparent mulch, Aqua-TraXX® must be laid underground; drops of condensate on the bottom of the plastic may act as a magnifying glass, concentrating sunlight and possibly leading to holes.



NEPTUNE

Flat Emitter Drip Line

The Neptune drip line with flat emitter is designed for irrigating multi-year and seasonal crops. The turbulent flow emitter with wide flow path ensures Neptune has a high resistance to clogging. The use of top-quality polymers ensures high durability and resistance to possible mechanical damage. Neptune has been designed and produced according to the highest possible quality standards and represents an accessible but top performance economic investment.



MAIN FEATURES

Advanced production technology and superior quality standards define the characteristics of Neptune:

- High resistance for quick easy installation (shorter laying times and therefore lower labour costs and less risk of damaging the product);
- High efficiency for uniform delivery to all plants;
- High durability even in the most difficult conditions;
- High reliability achieved through precise and constant production process control;
- High resistance to clogging, thanks to the turbulent flow emitter with wide flow path;

RANGE

The flat emitter is extremely versatile, making it possible to offer Neptune in a complete range of configurations with different spacing and wall thickness (up to 30 mil/0.75 mm):

- Diameter 16 mm (5/8")
 - Wall thickness 6/8/10/12/15/16/18/20/24/30 mil
- Diameter 22 mm (7/8")
 - Wall thickness 6/8/10/12/15/16/18/20/24/30 mil
- Emitter spacing 20/30/40/50/60 cm (other spacing available on request)
- Grouped spacing (optional)
- 5 different emitters
 - 0.67 l/h @ 0.7 bar (0.8 l/h @ 1 bar)
 - 1.08 l/h @ 0.7 bar (1.3 l/h @ 1 bar)
 - 1.30 l/h @ 0.7 bar (1.5 l/h @ 1 bar)
 - 1.99 l/h @ 0.7 bar (2.4 l/h @ 1 bar)
 - 3.16 l/h @ 0.7 bar (3.8 l/h @ 1 bar)

- The emitter inlet filter prevents sediment deposits from entering the emitter;
- Outlet hole made using precision mechanical technology;
- Blue line for easy identification;
- Extrusion process with simultaneous insertion of the Emitter to guarantee uniform dimensions and mechanical characteristics (no welding, no seams);
- Product ID code laser-engraved on the tubing.

APPLICATIONS

Neptune is particularly suitable for irrigating:

- Extensive crops: corn, cotton, sorghum, chard, tobacco;
- Horticultural crops:
 - Solanaceae (tomatoes, potatoes, peppers, aubergines);
 - Brassicaceae (cauliflower, broccoli, cabbage);
 - Asteraceae (artichokes, lettuce, chicory);
 - Cucurbitaceae (courgettes, melons, water melons, cucumbers, pumpkins);
 - Liliaceae (asparagus, onions, garlic, leeks, shallots);
 - Apiaceae (fennel, parsley, celery);
- Small fruit: strawberries, bilberries, raspberries, blackberries, blackcurrants;



Code	Emitter spacing (cm)	Individual emitter flow rate (l/h) @		Flow rate per metre (l/h/m) @		Required filtration mesh
		0.7 bar	1.0 bar	0.7 bar	1.0 bar	
Emitter (3.16 l/h)						
PTWXXxx2032-yy	20	3.16	3.80	15.80	19.00	120
PTWXXxx3032-yy	30	3.16	3.80	10.53	12.67	
PTWXXxx4032-yy	40	3.16	3.80	7.90	9.50	
PTWXXxx5032-yy	50	3.16	3.80	6.32	7.60	
PTWXXxx6032-yy	60	3.16	3.80	5.27	6.33	
Emitter (1.99 l/h)						
PTWXXxx2020-yy	20	1.99	2.40	9.95	12.00	120
PTWXXxx3020-yy	30	1.99	2.40	6.63	8.00	
PTWXXxx4020-yy	40	1.99	2.40	4.98	6.00	
PTWXXxx5020-yy	50	1.99	2.40	3.98	4.80	
PTWXXxx6020-yy	60	1.99	2.40	3.32	4.00	
Emitter (1.30 l/h)						
PTWXXxx2014-yy	20	1.30	1.50	6.50	7.50	120
PTWXXxx3014-yy	30	1.30	1.50	4.33	5.00	
PTWXXxx4014-yy	40	1.30	1.50	3.25	3.75	
PTWXXxx5014-yy	50	1.30	1.50	2.60	3.00	
PTWXXxx6014-yy	60	1.30	1.50	2.17	2.50	
Emitter (1.08 l/h)						
PTWXXxx2011-yy	20	1.08	1.30	5.40	6.50	120
PTWXXxx3011-yy	30	1.08	1.30	3.60	4.33	
PTWXXxx4011-yy	40	1.08	1.30	2.70	3.25	
PTWXXxx5011-yy	50	1.08	1.30	2.16	2.60	
PTWXXxx6011-yy	60	1.08	1.30	1.80	2.17	
Emitter (0.67 l/h)						
PTWXXxx2006-yy	20	0.67	0.80	3.35	4.00	120
PTWXXxx3006-yy	30	0.67	0.80	2.23	2.67	
PTWXXxx4006-yy	40	0.67	0.80	1.68	2.00	
PTWXXxx5006-yy	50	0.67	0.80	1.34	1.60	
PTWXXxx6006-yy	60	0.67	0.80	1.12	1.33	

Available Emitters					
Flow rate l/h @ 1 bar	0.80	1.30	1.50	2.40	3.80
Flow rate l/h @ 0.7 bar	0.67	1.08	1.30	1.99	3.16
Emitter code	06	11	14	20	32

Codification

