TORO Ag Irrigation

Application

- *To irrigate crops in difficult topographical conditions.*
- *In areas of high wind where spray losses and poor uniformity would be unavoidable with sprinklers.*
- *In areas with low or varying water pressure and in installations requiring long laterals.*

Advantages

- Increased Emission Uniformity (EU)
- Saves water
- Saves energy due to water savings and lower system pressures
- Avoids spray losses, evaporation and non-conformity caused by windy conditions.
- Wide pressure operating range: 30-170 kpa. (*see specifications)
- Significant elevation changes either down slopes or over undulating terrain.

Features

- Seamless construction means no more split seams or unglued strips.
- Pressure Compensating Emitter
- Multiple laser slit outlets make it less susceptible to back siphoning and root intrusion.
- Highly resistant to plugging due to the large number of inlet filters:
  - 20cm, over 64 filter inlets per outlet.
  - 30cm, over 200 filter inlets per outlet.
- Easily identifiable double blue stripe to aid in correct installation.
- Laser incised outlet slit impedes root intrusion.
- Enhanced turbulent flow path and precise moulding and manufacturing process provides an excellent CV.
- Tape is quality stamped for easy field identification of type and date of manufacture.
- Available in 8, 10,12 and 15 mil thicknesses.
- Available in two nominal bores- 16 & 22 mm

PRODUCT RANGE

Diameter	Available Wall Thickness	Emitter Spacings
16mm	8, 10, 12 and 15 mil	20, 30, 40, 45, 60 cm
22mm	10, 15 mil	20, 30, 40 cm

FLOW RATES

Code	Individual Emitter Flow Rate Lph @ 55 kPa	Spacing (cm)	Q-100 Lph per 100m @ 55 kPa
0.72 Lph @ 55 kPa			
EAPXxx0850	0.72	20	349
EAPXxx1234	0.72	30	235
EAPXxx1625	0.72	40	177
EAPXxx1822	0.72	45	158
EAPXxx2417	0.72	60	118
0.98 Lph @ 55 kPa			
EAPXxx0867	0.98	20	463
EAPXxx1245	0.98	30	315
EAPXxx1634	0.98	40	238
EAPXxx1830	0.98	45	212
EAPXxx2422	0.98	60	160

SPECIFICATIONS

Coefficient of Variation (CV)	All emitters	Less than 3%
Flow Exponent	All emitters	0.2
Inside diameter	16mm	16.13 mm
	22mm	22.22 mm
Operating Pressure Range	30 to 170 kPa	See chart for wall thickness
Hazen-Williams C Factor	Both tube sizes	140
Minimum Filtration Requirement	All emitters	200 mesh (74 micron)

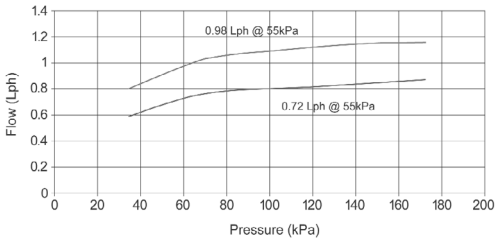
Wall Thickness	Pressure kPa minimum	Pressure kPa maximum	Reel Length metres	Reel Weight kgs	Nominal Diameter
8 mil	30	110	2286	29	16 mm
10 mil	30	138	1829	28	16 mm
12 mil	30	150	1554	27	16 mm
15 mil	30	170	1219	28	16 mm
10 mil	30	120	1341	30	22 mm
15 mil	30	150	914	29	22 mm

16mm & 22mm Aqua-Traxx® PC Recommended Run Length (m) Chart for Varying Ground Slopes

Code	Emitter Spacing	EU (%)	55 6% Fall	70 6% Fall	70 0%	100 0%	125 0%
16mm, 0.72 Lph @ 55 kPa							
Inlet Pressure (kPa)			55	70	70	100	125
EAP5xx0850	20cm	95	12	16	125	131	138
		90	230	252	197	214	220
EAP5xx1234	30cm	95	12	13	162	172	177
		90	83	113	255	278	294
EAP5xx1625	40cm	95	13	16	182	200	220
		90	82	105	312	340	355
EAP5xx1822	45cm	95	13	15	205	226	232
		90	81	101	330	360	380
EAP5xx2417	60cm	95	13	15	249	270	288
		90	81	101	406	440	460
16mm, 0.98 Lph @ 55 kPa							
Inlet Pressure (kPa)			55	70	70	100	125
EAP5xx0867	20cm	95	12	15	98	109	115
		90	200	212	164	175	185
EAP5xx1245	30cm	95	13	15	129	132	148
		90	243	265	210	235	240
EAP5xx1634	40cm	95	13	17	159	172	180
		90	85	112	257	270	291
EAP5xx1830	45cm	95	13	14	165	180	190
		90	83	110	275	300	316
EAP5xx2422	60cm	95	13	14	202	223	229
		90	82	102	304	362	370
22mm, 0.72 Lph @ 55 kPa							
Inlet Pressure (kPa)			55	70	70	100	125
EAP7xx0850	20cm	95	12	16	207	223	236
		90	79	103	280*	353*	385
EAP7xx1234	30cm	95	12	16	273	291	310
		90	76	100	370*	460*	510
EAP7xx1625	40cm	95	13	16	332	355	368
		90	78	95	435*	555*	610
EAP7xx1822	45cm	95	13	16	360	382	398
		90	78	98	465*	609*	655
EAP7xx2417	60cm	95	13	16	422	463	487
		90	79	99	571*	700*	800
22mm, 0.98 Lph @ 55 kPa							
Inlet Pressure (kPa)			55	70	70	100	125
EAP7xx0867	20cm	95	13	14	172	189	197
		90	83	109	231*	294*	322
EAP7xx1245	30cm	95	12	16	225	242	254
		90	80	104	297*	386*	419
EAP7xx1634	40cm	95	12	16	270	290	306
		90	80	100	358	464*	500
EAP7xx1830	45cm	95	13	16	290	320	332
		90	78	100	389*	489*	540
EAP7xx2422	60cm	95	13	16	349	377	402
		90	79	100	458*	600*	660

Run Lengths apply to single runs only.
Derate if multiple laterals are connected to a header submain.
* Run Length is based on minimum operating pressure, EU > 90%

Aqua-Traxx PC Emitter Flow vs Pressure



Understanding Aqua-Traxx PC Part Numbers

X - denotes 5 for 5/8" diameter,
7 for 7/8" diameter or

XX - denotes mil thickness

Example: Nominal flow @ 10 PSI
How to Order

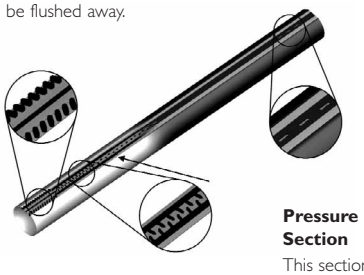
EAP 5 10 08 67

- EAP — Pressure Compensating
- 5 — diameter as 5/8"
- 10 — 10 mil thickness
- 08 — 8" spacing
- 67 — Q-100 flow rate @ 10psi

NOTE: Install Aqua-Traxx with blue stripes up.

Inlets
Inlet openings are shaped like a reverse funnel. The smaller opening acts like a filter to hold grit and debris to the outside of the emitter where it can easily be flushed away.

Outlet
Precision Laser cut outlet slits eliminates start-up plugging. Root intrusion is impeded by the opening and closing action of the outlet during the irrigation cycle.



Labyrinth
Precision molded flow labyrinth increases plug resistance and produces excellent emission uniformity. All emitters yield Cv's of less than 3%.

Pressure Responsive Section
This section responds to the changes in water pressure to maintain a consistent flow throughout the recommended pressure range.