Hunter Product Written Specification Template (HDL-COP)

**Part 1 – General**

* 1. The Hunter Copper Dripline (HDL-COP) family of subsurface irrigation products shall be designed to reduce root intrusion. HDL-COP shall provide consistent irrigation at designated flows and emitter spacing, and shall conform to either:
1. 17 mm tube version: An inside diameter (ID) of 0.56" (14.2 mm) and an outside diameter (OD) of 0.66" (16.8 mm)
2. 16 mm tube version: An inside diameter (ID) of 0.54" (13.8 mm) and an outside diameter (OD) of 0.63" (16.2 mm)
	1. The pressure-compensated HDL-COP shall incorporate a slow-draining check valve function that greatly reduces low-point pooling while draining water to deter moisture-seeking roots and animals.
	2. The copper-oxide-infused emitters shall help lower the risk of root intrusion and shall not wear off or leach into the soil.
	3. The anti-siphon feature fall prevent debris from entering the emitters.

**Part 2 – Parts and Materials**

2.1Manufactured by Hunter Industries, the HDL-COP shall be triple-layered, co-extruded, copper-infused, and pressure-compensating, with an included slow-draining check valve. The inline emitters installed during the extrusion process shall have regular intervals and flows, as specified by the model.

Dripline shall be available in the following options:

1. 17 mm tube version (North America)
	1. HDL-06-12-XXX-COP; 0.6 GPH emitters spaced at 12" on center
	2. HDL-06-18-XXX-COP; 0.6 GPH emitters spaced at 18" on center
	3. HDL-09-12-XXX-COP; 0.9 GPH emitters spaced at 12" on center
	4. HDL-09-18-XXX-COP; 0.9 GPH emitters spaced at 18" on center
2. 16 mm tube version (Metric-International)
	1. HDL-22-30-XXX-COP; 2.1 l/hr emitters spaced at 30 cm on center
	2. HDL-22-45-XXX-COP; 2.1 l/hr emitters spaced at 45 cm on center
	3. HDL-34-30-XXX-COP; 3.4 l/hr emitters spaced at 30 cm on center
	4. HDL-34-45-XXX-COP; 3.4 l/hr emitters spaced at 45 cm on center
3. The product used shall be a linear, low-density polyethylene and shall have a mixture of virgin materials and pre-consumer reprocessed resins. Resins used shall not create a weakened and degraded molecular structure, unlike post-consumer repalletized resins. Outside layers of virgin material shall provide higher ultraviolet (UV) resistance and a better surface for emitters to adhere to the inner circumference of the tube.
	1. All HDL-COP products shall offer UV resistance and meet required standards.
4. HDL-COP shall be color-coded with stripes for easy flow identification. There shall be one middle stripe into which the emitter holes are drilled and one pinstripe of the same color on each side of the thicker middle stripe.
	1. 0.6 GPH (2.1 l/hr) shall have three stripes, all in GRAY.
	2. 0.9 GPH (3.4 l/hr) shall have three stripes, all in BLACK.
5. Stripes shall be part of the extrusion process and shall not be painted or printed.
6. The presence of HDL-COP shall be identified by the earth-tone copper color of the tube.

2.2 Warranty

1. All HDL-COP products shall be warranted to be free of material and workmanship defects under normal use in landscape irrigation applications for five years. An additional two years shall be added to the warranty for environmental stress cracking.
2. While the use of copper does not completely remove the chance of root intrusion, it has been shown to assist in its prevention when coupled with proper irrigation scheduling. Hence, there shall be no warranty against root intrusion.

 **Part 3 – Function and Operation**

1. Consistent, pressure-compensated flow shall be supplied from each emitter, based on inlet pressure in the range of 15 to 60 PSI (1.0 to 4.1 bar; 100 kPA to 410 kPa).
2. Emitters shall be available in two separate flows: 0.6 GPH (2.1 l/hr) and 0.9 GPH (3.4 l/hr).
3. The required filtration for all HDL models shall be 120 mesh (125 microns).
4. HDL-COP shall be connected with any standard 0.66" (17 mm) barb fittings (for the 17 mm version), 0.62" (16 mm) barb fittings (for the 16 mm version), or the universal PLD-LOC Fittings with 0.62" to 0.70" (16 to 18 mm) tube size.