**Exclusive Specification**

**Micro Irrigation**

**PCZ-101**

The kit shall be pre-assembled with stainless steel filtration and pressure regulation.

* The kit shall feature a water tested 1” x ¾” inline valve.
* The kit shall feature a Senninger pressure regulator.
* The kit shall be available in 25 PSI or 40 PSI (1.7 or 2.8 bar; 170 or 280 kPa) regulator versions
* The kit shall have a flow of 0.5 to 15 GPM (30 to 900 GPH) (2 to 55 l/min).
* The kit shall have an operating pressure of 20 to 120 PSI (1.4 to 8.0 bar; 140 to 800 kPa).
* The kit shall have an operating temperature up to 120 F (66 C).
* The kit shall feature a 1” x ¾” filter-regulator.
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.

**ACZ**

The kit shall be pre-assembled with filtration and pressure regulation for above ground installation.

**ACZ-075**

* The kit shall feature a ¾” x ¾” anti-siphon valve
* The kit shall be available in 25 PSI or 40 PSI (1.7 or 2.8 bar; 170 or 280 kPa) regulator versions.
* The kit shall have a flow of 0.5 to 15 GPM (30 to 900 GPH) (2 to 55 l/min).
* The kit shall have an operating pressure of 20 to 120 PSI (1.4 to 8.0 bar; 140 to 800 kPa).
* The kit shall have an operating temperature up to 120 F (66 C).
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.

**ACZ-101**

* The kit shall feature a 1” anti-siphon valve
* The kit shall be available in 25 PSI or 40 PSI (1.7 or 2.8 bar; 170 or 280 kPa) regulator versions.
* The kit shall have a flow of 0.5 to 15 GPM (30 to 900 GPH) (2 to 55 l/min).
* The kit shall have an operating pressure of 20 to 120 PSI (1.4 to 8.0 bar; 140 to 800 kPa).
* The kit shall have an operating temperature up to 120 F (66 C).
* The kit shall feature a 1” x ¾” filter-regulator.
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.

**1” ICZ**

The kit shall be offered in durable low, medium and high-flow versions.

**ICZ-101**

* The kit shall offer factory-installed Filter Sentry.
* The kit shall be available in 25 PSI or 40 PSI (1.7 or 2.8 bar; 170 or 280 kPa) regulator versions.
* The kit shall have a flow of 2 to 20 GPM (120 to 1,200 GPH)
* The kit shall have an operating pressure upto 120 PSI (8.0 bar; 800 kPa).
* The kit shall have an operating temperature of up to 120 F (66 C).
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.

**ICZ-101-LF**

* The kit shall be available in 25 PSI or 40 PSI (1.7 or 2.8 bar; 170 or 280 kPa) regulator versions.
* The kit shall have a flow of 0.5 to 15 GPM (30 to 900 GPH)
* The kit shall have an operating pressure upto 120 PSI (8.0 bar; 800 kPa).
* The kit shall have an operating temperature of up to 120 F (66 C).
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.
* The kit shall feature a 1” inlet and ¾” outlet. (You could use this single statement for the PCZ kits and the 1” ACZ kits if you wanted. Since you used the valve sizes above, I added the filter size. However, this single statement would consolidate if it made sense.)

**ICZ-101-LF-R**

* The kit shall be available in 25 PSI or 40 PSI (1.7 or 2.8 bar; 170 or 280 kPa) regulator versions.
* The kit shall have a flow of 0.5 to 15 GPM (30 to 900 GPH)
* The kit shall have an operating pressure upto 120 PSI (8.0 bar; 800 kPa).
* The kit shall have an operating temperature of up to 120 F (66 C).
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.
* The kit shall feature a 1” inlet and ¾” outlet.
* The kit shall feature a reclaimed water ID tag, purple flow control knob, Filter Sentry, and purple chlorine-resistant diaphragm.

**ICZ-151**

The kit shall be constructed of glass-filled Nylon with a fabric-reinforced diaphragm, and a double-beaded diaphragm seal.

ICZ-151-40-XL

* The kit shall be factory assembled.
* The kit shall be pressure regulated to 40 PSI.
* The kit shall have a flow of 20 to 80 GPM.
* The kit shall have an operating pressure of up to 120 PSI.
* The kit shall have an operating temperature of up to 120 F.
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.
* Optional 120mesh (125 micron) disc filter is available
* The kit shall feature a 1 1/2” inlet and 2” outlet.

**ICZ-201**

The kit shall be constructed of glass-filled Nylon with a fabric-reinforced diaphragm, and a double-beaded diaphragm seal.

ICZ-201-40-XL

* The kit shall be factory assembled.
* The kit shall be pressure regulated to 40 PSI.
* The kit shall have a flow of 20 to 100 GPM.
* The kit shall have an operating pressure of up to 120 PSI.
* The kit shall have an operating temperature of up to 120 F.
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.
* Optional 120mesh (125 micron) disc filter is available

**FILTER REGULATORS**

The filter/regulator combo shall feature a Senninger regulator and a stainless-steel filter screen.

HFR

* No assembly other than installing the bonnet. The filter shall be available in 25 PSI or 40 PSI (1.7 or 2.8 bar; 170 or 280 kPa) regulator versions.
* The filter shall be available in 1” x ¾” and ¾” x ¾” versions.
* The kit shall feature a 150 mesh (100 microns) stainless steel screen.

HFR-R

* The filter shall be available in 25 PSI or 40 PSI regulator versions
* The filter shall be available in 1” x ¾” and ¾” x ¾” versions.
* The kit shall feature a 150 mesh SS screen
* The kit shall feature a purple bonnet without a flush cap.

**FILTERS – ¾” & 1”**

The filter assembly shall feature a polypropylene body and stainless-steel filter screen.

HY-075, HY-100, HY-100-075, HY-100-R

* The filter shall feature a 150 mesh (100 microns) stainless steel screen.
* The filter shall have an operating pressure up to 120 PSI.
* The filter shall also be offered with a reclaimed purple bonnet without flush cap.

**FILTERS – 1 ½” & 2”**

The filter assembly shall feature a glass-filled polypropylene body and stainless-steel filter screen.

HY-151, HY-151-D, HY-201, HY-201-D

* The filter assembly shall feature a 150 mesh (100 microns) stainless steel screen.
* The filter assembly shall have an operating pressure up to 150 PSI.
* The filer assembly shall have optional screens of 80 and 120 mesh.
* The filter assembly shall have an available disk filter (125 microns).

**SENNINER PRESSURE REGULATORS**

The pressure regulators maintain consistent preset outlet pressure to prevent damage to system components.

* The pressure regulator shall be 100% water tested.
* The pressure regulator shall be capable of above or below ground installation.
* The pressure regulator shall feature tamper-proof construction.

**HDL-CV**

The drip line shall feature pressure compensation with check valve, flow indication stripes, and a 6’ check height.

* The drip line shall feature an anti-siphon feature.
* The drip line shall feature 3 color-coded stripes to indicate flow.
* The drip line shall be UV resistant.
* The CV dripline shall be distinguished from other HDL by its dark brown base resin.
* The drip line shall be offered in stretch-wrapped coils.
* The drip line shall utilize flat emitters with multiple inlet filters.
* The dripline shall feature a check valve which holds the water to a height of at least 6 feet.

**HDL-PC & HDL-R**

The drip line shall feature construction of robust materials and pressure compensation.

* The drip line shall feature color-coded stripes to indicate flow.
* The drip line shall be UV resistant.
* The PC dripline shall be distinguished from other HDL by its light brown base resin.
* The drip line shall be offered in stretch-wrapped coils.
* The drip line shall utilize flat emitters with multiple inlet filters.
* The drip line shall be available in a reclaimed version identified by purple stripes to indicate irrigation using non-potable water.

**HDL-COP**

The drip line shall feature copper oxide to minimize root intrusion.

* The drip line shall feature slow-draining check valve (CV) emitters.
* The drip line shall feature pressure-compensating emitters.
* The drip line shall feature an anti-siphon feature.
* The drip line shall feature color-coded stripes indicating flow.
* The drip line shall be UV resistant.
* The COP dripline shall be distinguished from other HDL by its copper-red base resin.
* The drip line shall be offered in stretch-wrapped coils.
* The drip line shall feature multiple inlet filters and a wide turbulent labyrinth.
* The drip line shall feature emitters that inhibit debris and root intrusion.

**LOC FITTINGS**

The fittings shall be compatible with any nominal 16-18mm tubing and dripline.

* The fittings shall be constructed of glass-filled polypropylene.
* The fittings shall feature thread lock connection.
* The fitting shall be reusable.

**17 MM BARB FITTINGS**

The fittings shall be constructed of Acetal and function with vinyl and PE tubing.

* The fittings shall provide a secure connection.
* The fittings shall feature a dual barb design.

**ECO-MAT**

The product shall feature a fleece-wrapped dripline and fleece blanket for sub-surface irrigation.

* The product shall have an anti-siphon feature to minimize debris and root intrusion.
* The product shall provide for a 20-40% water savings over standard products.
* The product shall feature non-draining, pressure-compensating emitters that open/close simultaneously.
* The product shall use a porous, non-woven PET (polyethylene Terephthalate) material to move water laterally within the soil.
* The product shall feature a check height of 6’.

**ECO-WRAP**

The product shall feature fleece-wrapped dripline.

* The product shall have an anti-siphon feature to minimize debris and root intrusion.
* The product shall provide for a 20-40% water savings over standard products.
* The product shall feature non-draining, pressure-compensating emitters that open/close simultaneously.
* The product shall use a porous, non-woven PET (polyethylene Terephthalate) material to move water laterally within the soil.
* The product shall feature a check height of 6’.

**SUPPLY TUBING**

The tubing shall be constructed of UV-resistant polyethylene.

* The tubing shall be constructed with a thick wall.
* Product dimensions: .700” x .600”
* The tubing shall offer kink resistance.

**ECO-INDICATOR**

The product shall provide a visual indication of system operation.

* The product shall have a visible bright yellow or reclaimed purple stem indicator.
* The product shall operate when system pressure exceeds 12 PSI (6” version) or 15 PSI (12” version)
* 6” version shall feature a ½” FPT bottom inlet port.
* 12” version shall feature ½” FPT bottom and ½” FPT side inlet port

**MLD**

The product shall be ¼” dripline for tight spaces and raised planters.

* The product shall offer superior flexibility.
* The product shall provide irrigation without being intrusive to the landscape.
* The product will feature evenly spaced emitters at either 6” or 12” spacing

**DISTRIBUTION TUBING**

The product shall offer stability and flexibility when using point-source emitters or micro sprays.

* The product shall be constructed of high-quality vinyl or polyethylene for connection to acetal ¼” fittings.
* Product dimensions are .250” x .170”
* The product shall be offered in vinyl for cooler climate installations.
* The product shall be offered in polyethylene for warmer climate installations.

**¼” BARBED FITTINGS**

The product offers a superior hold with robust acetal construction.

* Acetal construction provides a secure connection.
* Available goof plug lays flat to prevent leaking.

**IH RISERS**

The product shall offer simple point-to-point and vandal resistant irrigation.

* The product shall be made of flexible PVC.
* The product shall be brown to blend in with landscape.
* The product shall accept any ½” FPT emitter.
* The product shall be pre-assembled.
* The product shall be suitable for at-grade or below-grade installation.
* The product shall be offered in multiple lengths.
* The product shall be available with optional check valve.
* The product shall hold back 12’ of head when specified with check valve.

**POINT-SOURCE EMITTERS**

The product shall offer accurate irrigation in a wide range of flow rates.

* The product shall feature pressure-compensating for consistent and reliable flow.
* The product shall be color-coded by flow for easy identification.
* The product shall be offered in earth-tone colors that blend in with the surrounding environment.
* The product shall be offered in three inlet variations: ¼” barb, 10-32 thread, ½” FPT.
* The product shall have coined edges for easy grip.
* The product shall have a self-piercing barb.
* The product shall have an optional diffuser cap.
* The product shall have a self-flushing diaphragm.

**MULTI-PORT EMITTERS**

The product shall offer the ability to irrigate groups of plant effectively from one source.

* The product shall feature six pressure-compensating emitter ports to provide consistent and reliable flow.
* The product shall be color-coded by flow for easy identification.
* The product shall be offered in earth-tone colors to blend in with the surrounding landscape.
* The product shall feature swivel elbows to assist in placing water directly to plant.
* The MPM (Multi-Port-Manifold) shall provide unrestricted flow for each outlet.

**MICRO SPRAYS**

The product shall apply water accurately for small-area coverage.

**SOLO-DRIP**

* The product shall feature eight streams of water for thorough coverage.
* The product shall feature an adjustable cap for flow and radius adjustment.

**HALO-SPRAY**

* The product shall feature and adjustable umbrella of water.
* The product shall feature an adjustable cap for flow and radius adjustment.

**TRIO-SPRAY**

* The product features full, half, and quarter-circle configurations.
* The product shall feature an adjustable cap for flow and radius adjustment.

**RIGID RISERS**

The product shall maintain stiffness when used with micro sprays for high-throw applications.

* The product shall accept 10-32 threaded components.
* The product shall be with ½” FPT, ¼” barb or blank inlet configurations.
* The product shall be constructed of HDPE.

**MULTI-PURPOSE BOX**

The product shall be the ideal size to provide protection and easy access to essential irrigation components.

* The product shall have a small footprint.
* The product shall be available in five colors to blend in with any environment.
* The product shall feature and overlapping lid to prevent debris from entering the box.
* The product shall feature a knock-out bolt hole.
* The product shall feature a UV-protected, non-slip lid.
* The product shall be constructed of HDPE.

**AIR/VACUUM RELIEF VALVE**

The product shall prevent water hammer and system collapse by discharging air during startup and allowing air to enter during shutdown.

* The product shall release air pockets without premature closure.
* The product shall feature leak-free closure after release.
* The product shall be constructed of UV-protected and corrosion-resistant material.
* The product shall have an operating range up to 80 PSI.

**AUTOMATIC FLUSH VALVE**

The product shall keep laterals clean by automatically flushing water, air, and debris at each system startup.

* The product shall feature a reversible diaphragm to coordinate with low or high flow.
* The product shall feature a removeable top for diaphragm maintenance.

**RZWS**

The product shall deliver water across all levels of the root zone for high-efficiency subsurface irrigation of trees and shrubs.

* The product shall feature patented StrataRoot baffles that divert water to all levels of the root zone while adding strength to the unit.
* The product shall feature a durable locking cap for vandal resistance.
* The product shall feature a pressure-compensating bubbler for accurate water flow.
* The product shall feature a built in Hunter swing joint for direct installation to ½” PVC fittings.
* The product shall be pre-assembled.

**RZB**

The product shall assist in the root watering of small trees and shrubs.

* The product shall feature a solid mesh tube with perforated top.
* The product shall allow oxygen and natural precipitation to reach the root zone.
* The product shall allow for easy installation.