

www.DragonLine.net
844-424-3724



DRAGON-LINE[®]

MOBILE DRIP IRRIGATION

TRANSFORMING PIVOT IRRIGATION
THROUGH DRIP TECHNOLOGY



WHAT IS...

US PAT #9,420,752

DRAGON-LINE®

MOBILE DRIP IRRIGATION

DRAGON-LINE® is orange dripline tubing which is coextruded from a blend of high quality PE resin. The pressure compensating emitters are continuous self-flushing, being welded to the internal wall of the dripline and fully operational at seven psi. 10' Dragon Flex Hose attaches to the end of a rigid or flexible drop and/or a manifold, whichever method is considered best for the crop being irrigated.

DRAGON-LINE Emitter Tubing is then attached to Dragon Flex Hose to drag completely on soil surface, thus the name "DRAGON-LINE". As the DRAGON-LINE is pulled behind the system, the emitters deliver a uniform water pattern across the full length of the irrigated area. The water is applied directly to the soil surface significantly reducing evaporation and eliminating wind drift. This allows deeper percolation to the plant's root zone.



SYSTEM DESIGN

Dragon-Line systems are designed and supplied with a computer generated printout, which among other features indicates:

- The precise Dragon-Line placement
- The required operating pressure
- The flow and length of Dragon-Line that drags behind the pivot (ranging in length from 2' - 100')

DRAGON-LINE® SPECIFICATIONS

Inside Diameter	0.570"	Emitter Flow Rate	1 & 2 GPH
Dripline Color	Orange	Emitter Spacing	6" & 12"
Wall Thickness	45-50 Mil	Filtration Req.	80 Mesh



The patented technology of Dragon-Line combines the efficiency of surface drip irrigation with the flexibility and economics of center pivot and lateral move irrigation systems. While conventional water application packages are efficient and provide many different options for distributing water, DRAGON-LINE technology provides increased system application efficiency through precision drip irrigation with the slow methodical release of water and nutrients directly to the soil area for optimal plant growth.



This equates to less input costs, normally results in higher yields over a conventional sprinkler package, and a uniform, quality crop throughout the entire field.

DRAGON-LINE®

ADVANTAGES

-  Potential for 20-50% water savings compared to conventional water application packages
-  Significantly reduces evaporation, run off, compaction and crusting of soil, and eliminates wind drift loss
-  Eliminates leaf burn, plant shock from sudden temperature changes, and reduces the potential for plant diseases by keeping foliage dry
-  Eliminates overwatering in beginning spans saving up to 10% of total water used to be distributed to the balance of the system
-  Accuracy of watering for small (100-500 GPM) wells throughout the complete system
-  Reduces or eliminates wheel track issues
-  No ice accumulation on the structure during winter watering, and reduces frozen plugged nozzles and drops. (Disclaimer: winter watering is at owner's discretion)
-  Increases soil moisture resulting in more water banked into the soil profile for use by the crop to increase yield



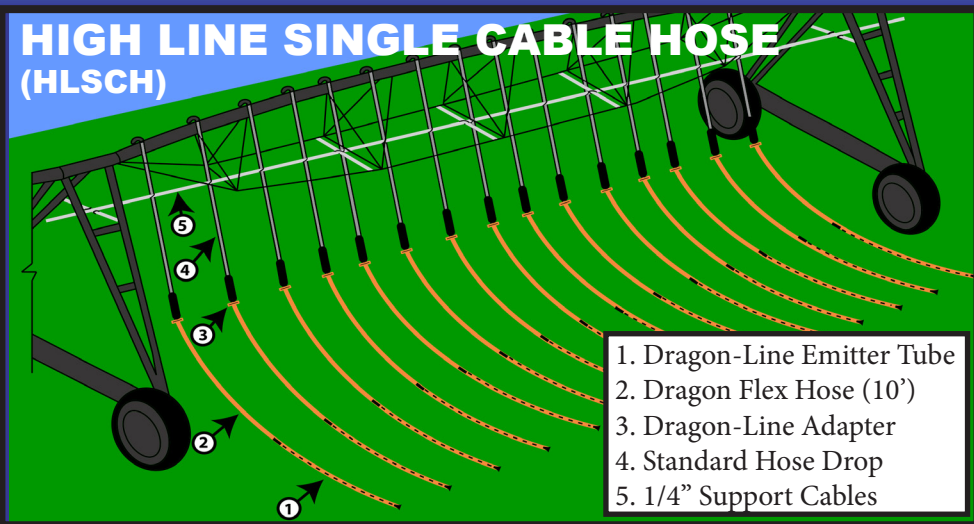
DRAGON-LINE[®]

THE DESIGN LAYOUTS...

DRAGON-LINE systems combine the high efficiency technology with the economics of center pivot move irrigation systems. They are adaptable to both low and high profile crops in any row spacing.

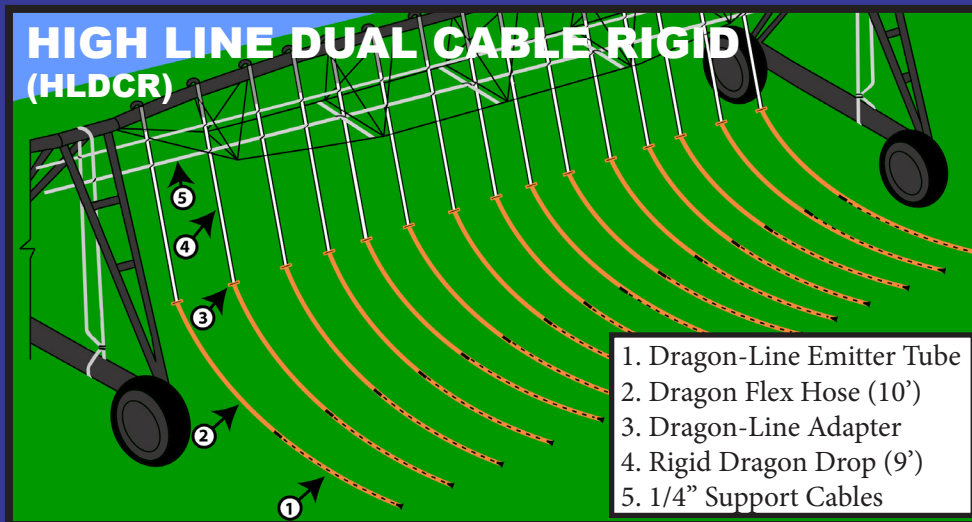
FOUR DIFFERENT

HIGH LINE SINGLE CABLE HOSE (HLSCH)



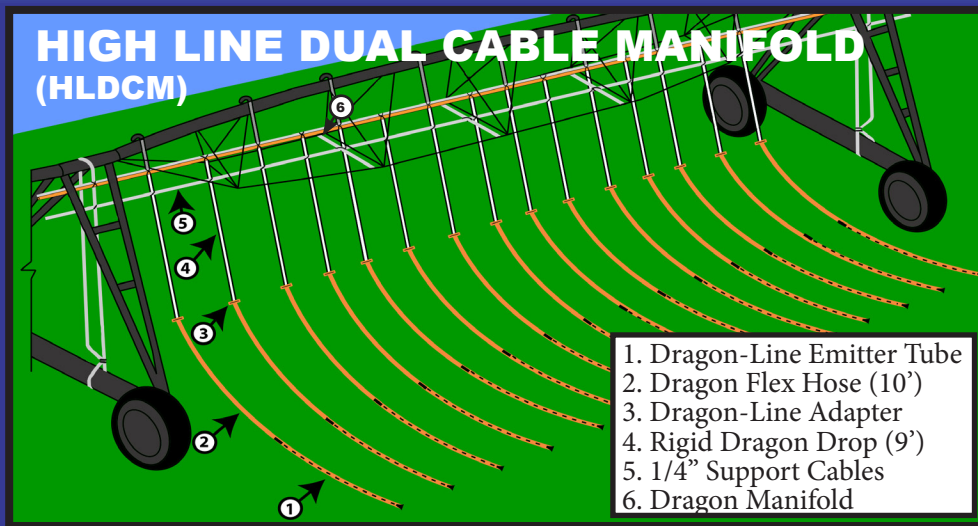
HIGH LINE SINGLE CABLE HOSE - Designed for the use of unique Dragon Flex Hose and Dragon-Line Emitter Tubing which attaches directly to the flexible drop for irrigation of taller crops such as corn or tall sorghum. Style can be dragged over & through crops with limited reversing, unless planted in a circle.

HIGH LINE DUAL CABLE RIGID (HLCR)

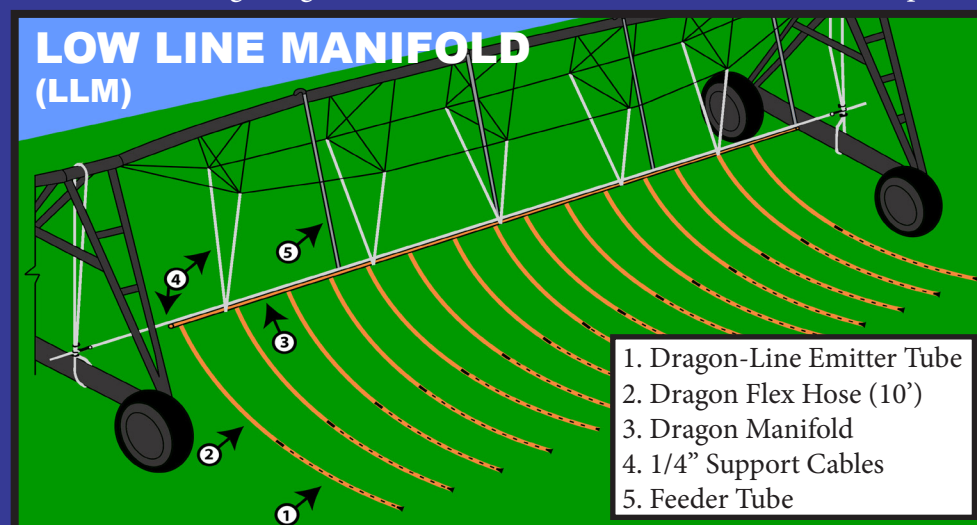


HIGH LINE DUAL CABLE RIGID - Designed for use of a Rigid Dragon Drop or sleeved hose drop that is connected to the two cables to secure precise placement of Dragon Flex Hose and Dragon-Line Emitter Tubing, utilizing wire ties for taller crops planted in a circle.

APPLICATION STYLES



HIGH LINE DUAL CABLE MANIFOLD - Designed to attach a 3/4" Dragon Hose Manifold with specific placement of outlets to top cable, and Rigid Dragon Drop or sleeved hose drop to bottom cable for precise placement of Dragon Flex Tubing & Dragon-Line Emitter Tubing using wire ties to control movement within the taller crop.



LOW LINE MANIFOLD - Designed to attach a 1/2" Dragon Manifold to the suspended cable (3-5' clearance) with specific placement of outlets. Dragon Flex Line and Dragon-Line Emitter Tubing is connected for precise placement. Low Line benefits irrigation of crops such as potatoes, wheat, soybeans, onions, alfalfa, etc.

Average evaporative loss measured over a two year study.
Applying 1.2" of water in the months of April, May, and June.

EVAPORATIVE LOSS BY SOIL TEXTURE & IRRIGATION AMOUNT SURFACE APPLIED ON BARE SOIL

READILY EVAPORABLE WATER (1-2 DAYS)

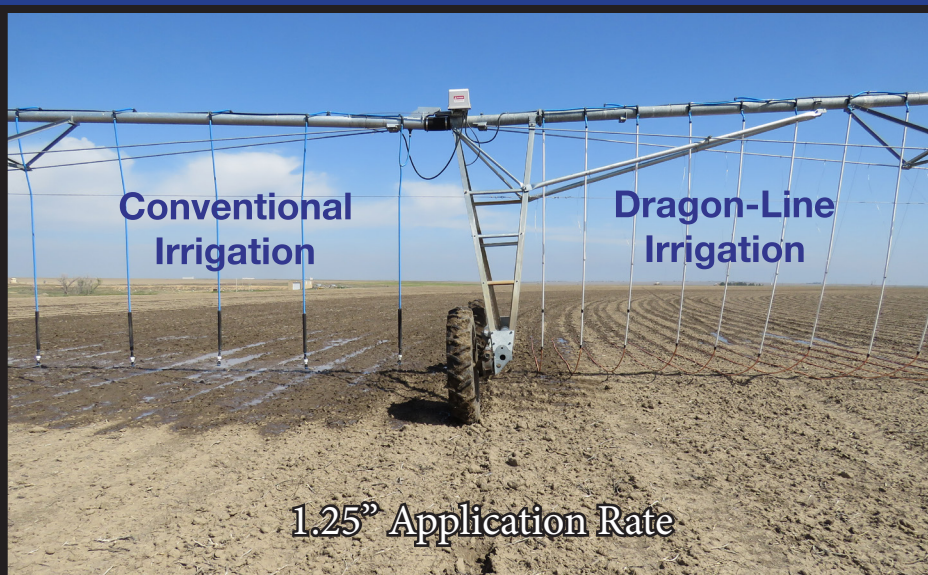
Clay Loam Soils	0.67" - 0.79"
Silt Loam Soils	0.60" - 0.70"
Sandy Loam Soils	0.47" - 0.60"
Fine Sand Soils	0.27" - 0.32"

Average Total Evaporable Water Loss

47% loss of irrigation > 1.2" applied - 72% loss of irrigation < 1.2" applied

Source: Tolck, J.A. & S.R. Evett, Field-measured hourly soil water evaporation stages in relation to reference ET and soil to air temperature ratio. Submitted to Vadose Zone J.

Grow the SAME CROP with LESS WATER



1.25" Application Rate

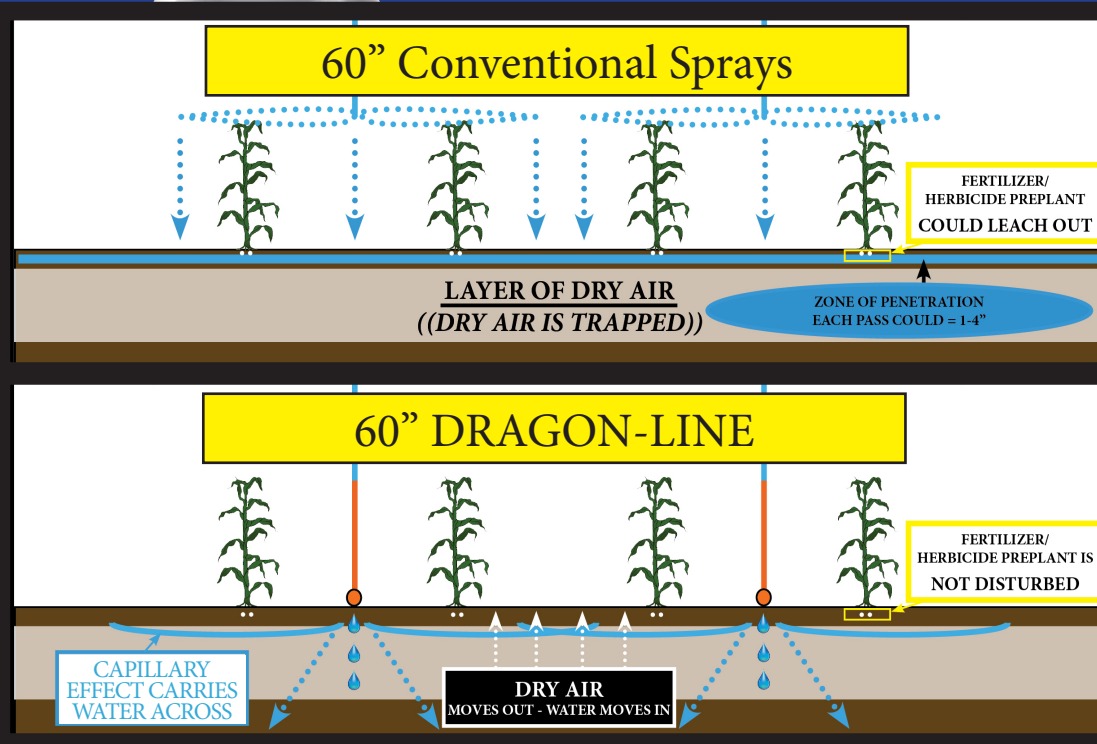


MAKING EVERY DROP OF WATER COUNT

What is the Value of Water?



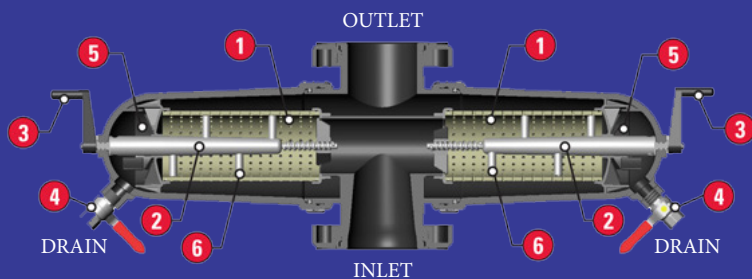
"When the Well is Dry, We Know the Worth of Water."
Benjamin Franklin



Dragon-Line allows water to penetrate soil moving dry air out

FILTRATION SYSTEMS

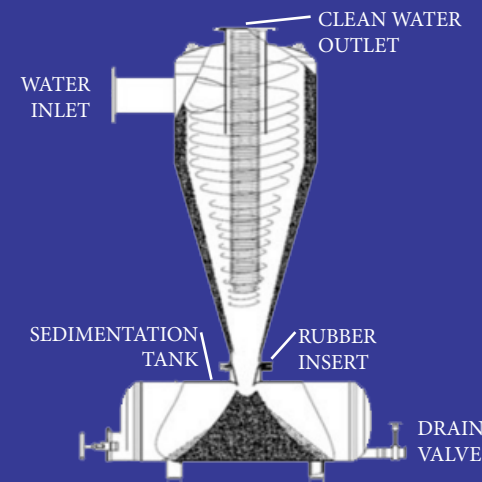
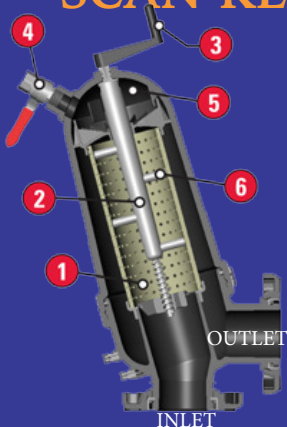
HYDROCYCLONE SAND SEPARATORS



SCAN-KLEEN SCREEN FILTERS

KEY	DESCRIPTION	KEY	DESCRIPTION
1.	Screen	4.	Flush Valve
2.	Dirt Collector	5.	Flush Chamber
3.	Handle	6.	Nozzles

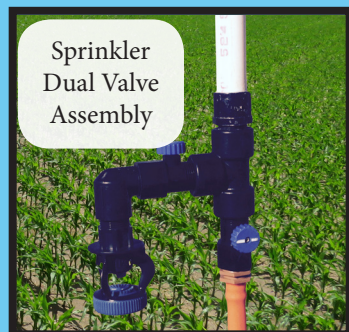
SIZE	MAX. FLOW RATE (GPM)	SCREEN AREA (SQ. IN.)
3" Angle	250	194
4" Angle	300	194
4" Twin	500	388
6" Twin	600	388



For separation of sand and other solid matter from water with 90% or better efficiency

ADAPTERS

DRAGON-LINE systems can be combined with a conventional irrigation application package (sprinkler) to provide germination, chemigation and fertigation.



FITTINGS

- BARBED FITTINGS FOR SECURE FIT AND EASY INSTALL WITHOUT GLUE, CLAMPS, OR TOOLS
- MAX RECOMMENDED PRESSURE: 50 PSI
- DURABLE ONE-PIECE CONSTRUCTION
- UV AND CHEMICAL RESISTANT



TESTIMONIALS:

“The Dragon-Line technology is one of the best things to come along in the last 20 years.” – Loren Seaman, Seaman Crop Consulting

“What Dragon-Line has done for us is that it’s made so that the water doesn’t even see the sunlight, it doesn’t even feel the wind, it puts the water right down at the root base, where in years past, we might have lost 25-30% of that water on a hot and windy day.” – Tom Willis, T&O Farms

“You can take less gallons and do more with Dragon-Line than you can bubble pads or sprays.” – Keith Watson, Keith Watson Farms

“With Dragon-Line, we get the water savings of drip irrigation with the managability of a pivot, and this is a great way to help reach sustainability with our aquifers.” – Robert Jochens, Western Irrigation Supply House

“Mobile Drip Irrigation has the potential to increase crop water use efficiency by reducing evaporation and increasing transpiration.” – Isaya Kisekka, Ph.D., KSU Assistant Professor, Research Agricultural Engineer

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