Linear Options

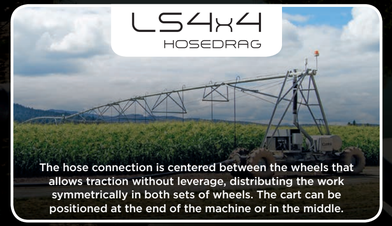
LS200

The LS200 system consists of a two-wheel cart designed to tow polyethylene which makes it the perfect system to be used in rectangular fields. The articulating elbow of six inches in diameter accommodates the hookup for the hose to the cart.

LS400

The LS400 possesses a four-wheel cart that provides a traction system with greater towing capacity. It has an articulating elbow of six inches in diameter.

LS4x4 HOSEDRAG



The hose connection is centered between the wheels that allows traction without leverage, distributing the work symmetrically in both sets of wheels. The cart can be positioned at the end of the machine or in the middle.

LS4x4 BIGFOOT

This system is characterized by its capacity to turn up to 180 degrees from its footing, doubling the surface of irrigation in each direction of the system's movement.

LS4x4 DITCHFEED

The DitchFeed systems capture water from a canal through a suction system. The cart can be situated at the end of the system or in the center, depending on the location of the canal and the surface to be irrigated.

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LIN-ENG-20

LINEAR SYSTEM

Western

Squaring the Circle

Every acre, every drop of water and every kilowatt consumed represents an investment. Optimizing these resources is critical to the success of any farming enterprise, and Western Linear systems can help achieve that goal.

Our linear systems can irrigate a variety of field shapes and sizes. Thanks to forward-thinking engineering, Western linears maximize water-usage through controlled distribution. Studies show they irrigate more than 90% of rectangular parcels while using 60% less water. In addition labor costs are reduced by 50% when compared to flood irrigation methods.

Benefits

- Flexibility: designed to adapt to a variety of weather, crop and field conditions.
- High uniformity of distribution (up 98%).
- Optimizes water efficiency.
- Maximizes the area irrigated.
- Reduces operation costs.
- Increases profitability .

Spans and overhangs used in the Linear Systems

Linears can be configured with a diversity of span lengths and overhang combinations.

Pipe diameters are typically determined by flow requirements and span and overhang lengths. Permapipe is a recommended option when irrigating with treated waste water or corrosive fertigation elements.

Spans			
Diameter		Length	
Inches	Mm	Meters	Feet
5"	127	38.38	125'7"
5"	127	44.22	145'1"
5"	127	50.17	164'7"
5"	127	56.11	184'1"
6" 5/8	168.3	38.38	125'7"
6" 5/8	168.3	44.22	145'1"
6" 5/8	168.3	50.17	164'7"
6" 5/8	168.3	56.11	184'1"
6" 5/8	168.3	62.05	203'7"
8" 5/8	219.1	38.38	125'7"
8" 5/8	219.1	44.22	145'1"
8" 5/8	219.1	50.17	164'7"

Overhang Length
1.8
3.7
5.9
7.8
9.6
11.9
13.7
15.5
17.8
19.7
23.8
25.6

Modular Components

Our engines, pumps and generators are modular and frame mounted. In addition to a wide selection of engine horsepowers, flow rate and fuel tank capacities, self-priming and self-cleaning options are also available.

LINEAR SPECIFICATIONS		LS200	LS400	LS4x4 HOSEDRAG	LS4x4 BIGFOOT	LS4x4 DITCHFEED	
CART	Type	Hose drag	Hose drag	Hose drag	Hose drag	Canal	
	Position	End feed (1)	End feed (1)	End feed or center feed	End feed	End feed or center feed	
	Span	6"5/8	6"5/8	8"5/8 or 6"5/8	8"5/8 or 6"5/8	8"5/8 or 6"5/8	
	Profile (crop clearance)						
	Standard	3.0m	3.0m	3.0m	3.0m	3.0m	
	High	4.5m (adaptable)	Not available	4.5m available	4.5m available	Not available	
DRIVE TRAIN	Gearboxes on cart	Heavy duty UMC 760-UV	Heavy duty UMC 760-UV	Heavy duty UMC 760-UV	Heavy duty UMC 760-UV	Heavy duty UMC 760-UV	
	Motors (60Hz/50Hz)						
	End	35/29rpm (2)	35/29rpm (2)	35/29rpm (2)	35/29rpm (2)	35/29rpm (2)	
	Intermediate	44/35rpm	44/35rpm	44/35rpm	44/35rpm	44/35rpm	
	Wheels						
	Cart	14.9x24"	14.9x24"	14.9x24" (16.9x24" option)	14.9x24" (16.9x24" option)	14.9x24" (16.9x24" option)	
	Spans	14.9x24" (11.2x38" option)	14.9x24" (11.2x38" option)	14.9x24" (11.2x38" option)	14.9x24" (11.2x38" option)	14.9x24" (11.2x38" option)	
GUIDANCE (4)	Furrow guidance	Recommended on the cart	Recommended on the cart	Recommended	Available for short systems	Not Recommended	
	Above ground cable	Available	Available	Available	No applicable	Recommended on the cart	
	Antenna guidance	Not recommended	Not recommended	End feed machine >500m	Recommended	End feed machine >500m	
PANEL	iControlStandard (110Vac)	Recommended	Recommended	Recommended	Available	Recommended	
	iControlLinear (24Vdc)	Mandatory for antenna guidance	Mandatory for antenna guidance	Mandatory for antenna guidance	Mandatory for antenna guidance	Mandatory for antenna guidance	
	iControlTracker Linear	Available soon	Available soon	Available soon	Available soon	Available soon	
ALIGNMENT	Standard	<4 spans	<4 spans	Not recommended	Not recommended	Not recommended	
	Modified	Recommended	Recommended	Recommended	Recommended	Recommended	
	Floating cable	Not available	Not applicable	> 10 spans	> 10 spans	> 10 spans	
MAXIMAL SLOPE	Frontal at cart	5%	5%	5%	5%	No frontal slope for water level	
	At spans	12%	12%	12%	12%		
	Cross slope	3%	3%	3%	3%	3%	
OPTIONS	Power source	Eng-gen set or drag cable	Eng-gen set or drag cable	Eng-gen set or drag cable	Eng-gen set or drag cable	Engine-pump-gen. set	
	Hose connection	6" Swivel elbow (on the side)	6" Swivel elbow (on the side)	6" or 8" basebeam flanges	6" or 8" basebeam flanges	Not applicable	
	Fuel tank	300L (3)	300L (3)	300L (3)	300L (3)	1730L or 1970L	
HOSE OPTIONS	Polyethylen PEMD-PN10 (5)					INLET SUCTION	
	90mm	E.F.: 220m C.F.: -20%	E.F.: 340m C.F.: -20%	Not recommended	Not recommended		8" 5/8 < 250 m3/h
	125mm	E.F.: 140m C.F.: -20%	E.F.: 250m C.F.: -20%	E.F.: 370m C.F.: -20%	E.F.: 370m		10" < 350 m3/h
	160mm	Not Recomendable	E.F.: 150m C.F.: -20%	E.F.: 230m C.F.: -20%	E.F.: 230m		12" < 600 m3/h
	200mm	Not Applicable	Not Applicable	E.F.: 140m C.F.: -20%	E.F.: 140m		
	Flex Hose (5)					INLET OPTIONS	
	4"	E.F.: 160m C.F.: -20%	E.F.: 260m C.F.: -20%	Not recommended	Not recommended		Simple filter inlet
	5"	E.F.: 100m C.F.: -20%	E.F.: 200m C.F.: -20%	E.F.: 260m C.F.: -20%	E.F.: 260m		Self-cleaning inlet
	6"	Not Recomendable	E.F.: 120m C.F.: -20%	E.F.: 180m C.F.: -20%	E.F.: 180m		Electrical winch
	8"	Not Applicable	Not Applicable	E.F.: 100m C.F.: -20%	E.F.: 100m		Electric priming pump

Notes:

(1): Center Feed option is posible but not a standard product.

(2): Higher speed combination of motors is available but will reduce the capacity of hose length traction. It is not recommended.

(3): The fuel tank can be replaced by the fuel tank of the the engine-generator set if it already includes a tank in its frame.

(4): Furrow Guidance is generaly installed on the cart but can also be installed on an intermediate tower in the middle of the span lenght.

Above ground cable gaudance is installed on the cart. The guidance by antennas in installed in the middle span lenght, generally bellow the Free Standing Span.

If the machine is longer than 500m, choose a guidance system to be installed in the middle of the machine. (Also recommended for machines longer than 400m)

(5): The maximum hose lenght are given just as reference. It depends also of the type of soil and whether the path is grassy.

For more information contact ***info@western-irrigation.com***