

The Senninger Heavy-Duty

**LDN**®

LOW-DRIFT NOZZLE

**NEW**  
PART-CIRCLE  
PAD AND  
BARBED BASE

*Wind drift, evaporation  
and runoff were  
major problems for  
center pivot irrigators  
...until the LDN.*





Here's how the  
Senninger  
Low-Drift Nozzle can  
improve your pivot's  
performance. . .



*Multiple deflector pads and the integral weight enhance the LDN's water and energy saving capabilities.*

### **Water is kept in your field away from wind drift and evaporation**

The LDN is most effective at a low nozzle height, producing uniformly sized droplets with application efficiencies that can exceed 95 percent (with double and triple pads).

### **Very energy efficient operation**

The LDN works best at 10 to 15 psi, which means big savings on operating costs.

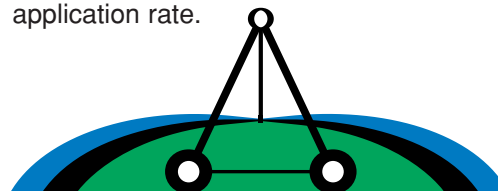


### **Rugged design for traveling through tall crops**

The LDN features a streamlined body and beefed-up components to handle the rigors of traveling through tall crops day after day.

### **Soil compaction and runoff problems are reduced**

Each level of the LDN's deflector pad assembly has its own trajectory and distance of throw, providing a gentler distribution with a lower application rate.



*The new Part-Circle LDN pad*



### **Part-Circle LDN**

The new Part-Circle LDN is specially designed to help center pivot operators manage the difficult-to-irrigate areas near towers. The Part-Circle LDN distributes water away from wheel tracks and minimizes rutting. Part-Circle LDN's can be used in conjunction with standard full circle LDN's or other Senninger sprinklers on the remainder of the machine.

## Hosebarb Adapter

With the LDN hosebarb adapter and a drag hose, you can apply water directly into the furrow. The adapter snaps right onto the LDN.



## Barbed Base

For direct-to-hose connection without the use of an NPT fitting.



*The Part-Circle LDN distributes water away from wheel tracks. (For use on rigid drops.)*

- Distributes water in a 170-degree pattern
- Binds water into 17 discrete streams for minimum evaporative loss
- Maximum radius of throw
- 10-degree trajectory
- Fits on standard LDN base, nozzle & cage
- Available for nozzle sizes 6-18

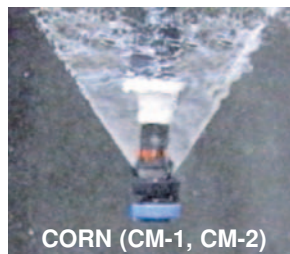


## Pads easily changed from irrigation to chemigation mode

To change modes, simply twist and unlock the deflector pad, flip it over, twist and lock it back on.

## Chemigation option

The LDN's chemigation pads produce an upward spray *under the crop canopy*, for washing or applying pesticide. . . a big advantage over aerial or boom spraying.



CORN (CM-1, CM-2)



COTTON (CT-5)

Any LDN Pad (single, double or triple) can be backed with a corn chemigation pad (58° upward throw) or a cotton chemigation pad (15° - 30° multi-level upward throw).

## LDN Weight and Bubbler Pad

The LDN is available with a 3/4 or 1 lb. slip-over weight for better stability in high wind and a bubbler pad for gentle direct-to-furrow water delivery.

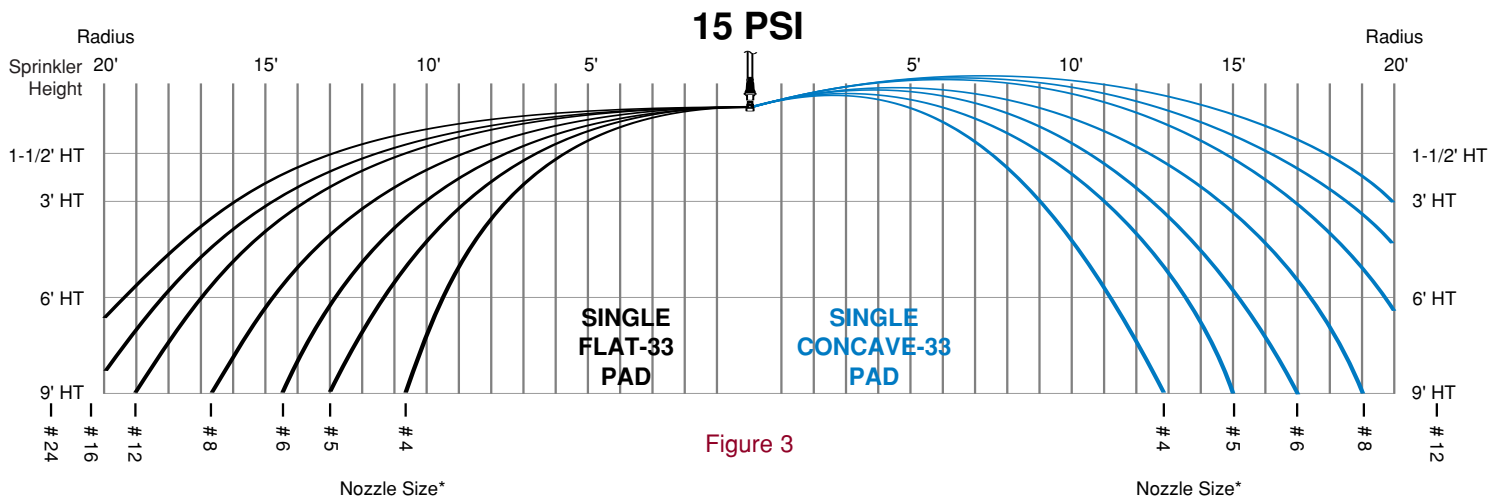
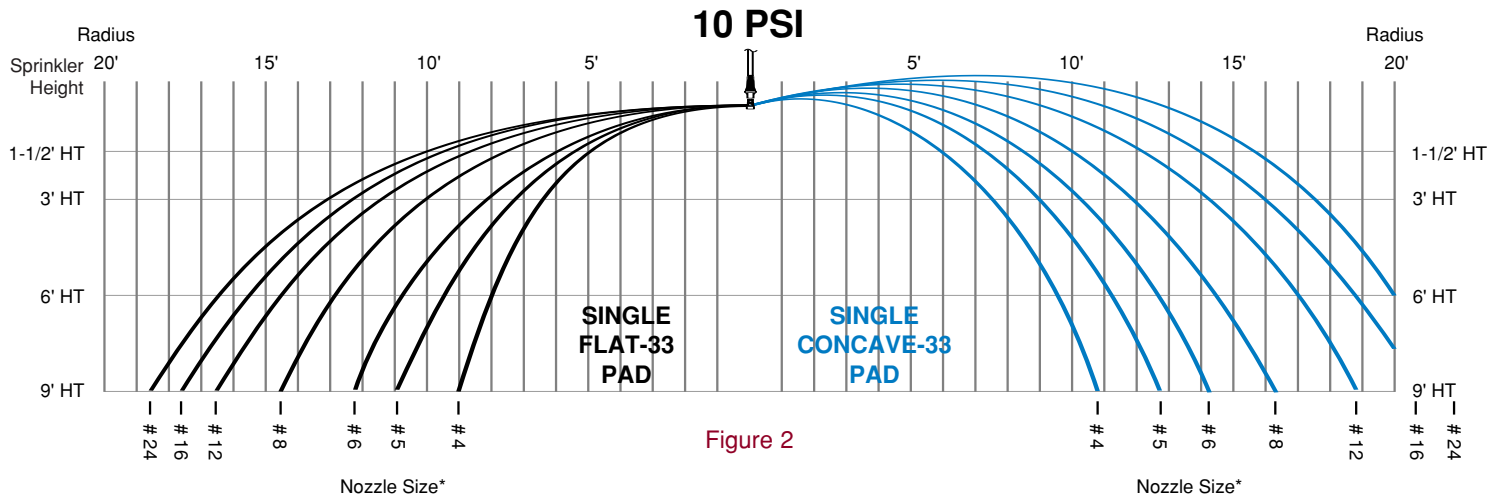
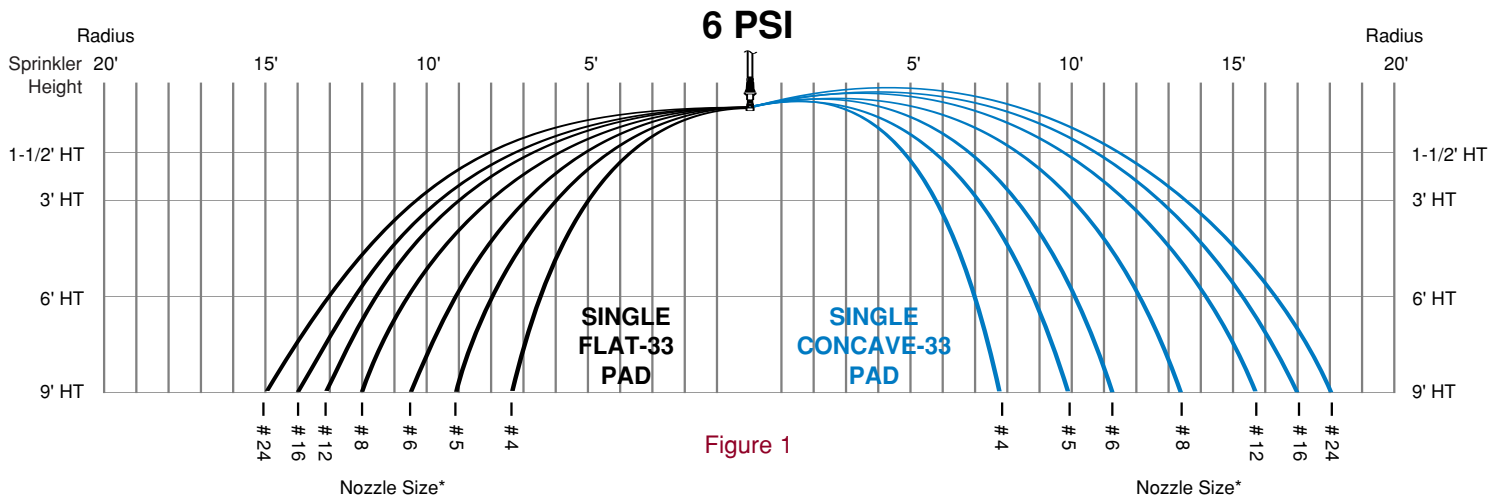


Also available: The **LDN Bubble Ring** attachment. Ideal for a quick low-cost conversion to a LEPA-style pattern when not using the LDN weight.

# LDN MAXIMUM THROW

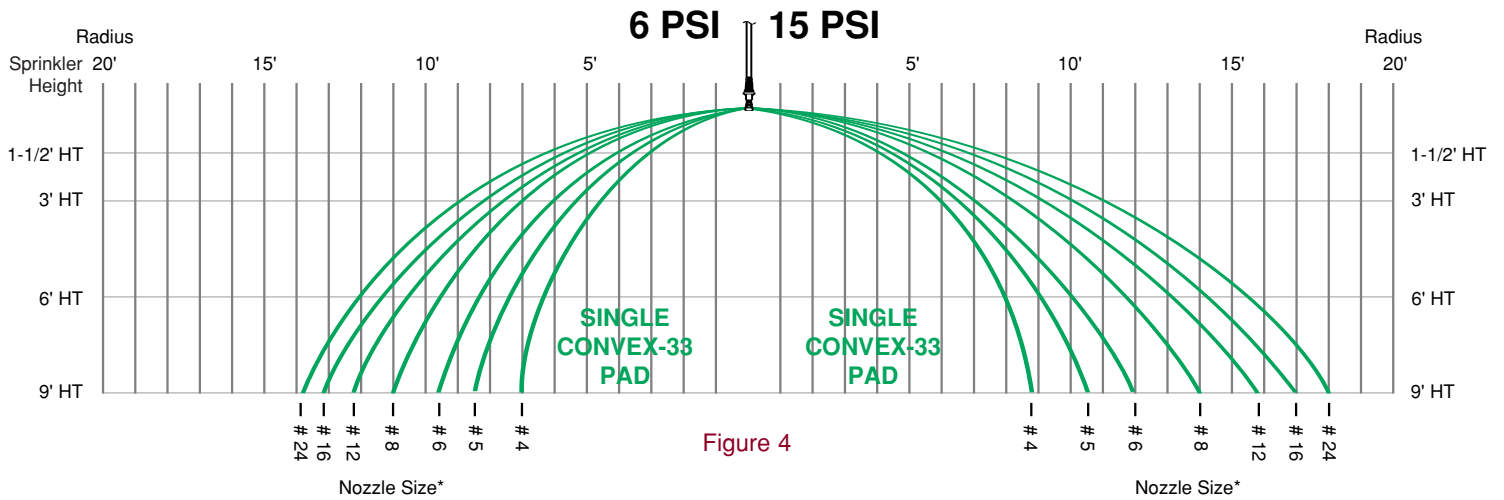
(IN NO WIND CONDITIONS)

Figures 1-4 illustrate the radius of throw at various sprinkler elevations. Select the table with the appropriate pad and operating pressure for your application.



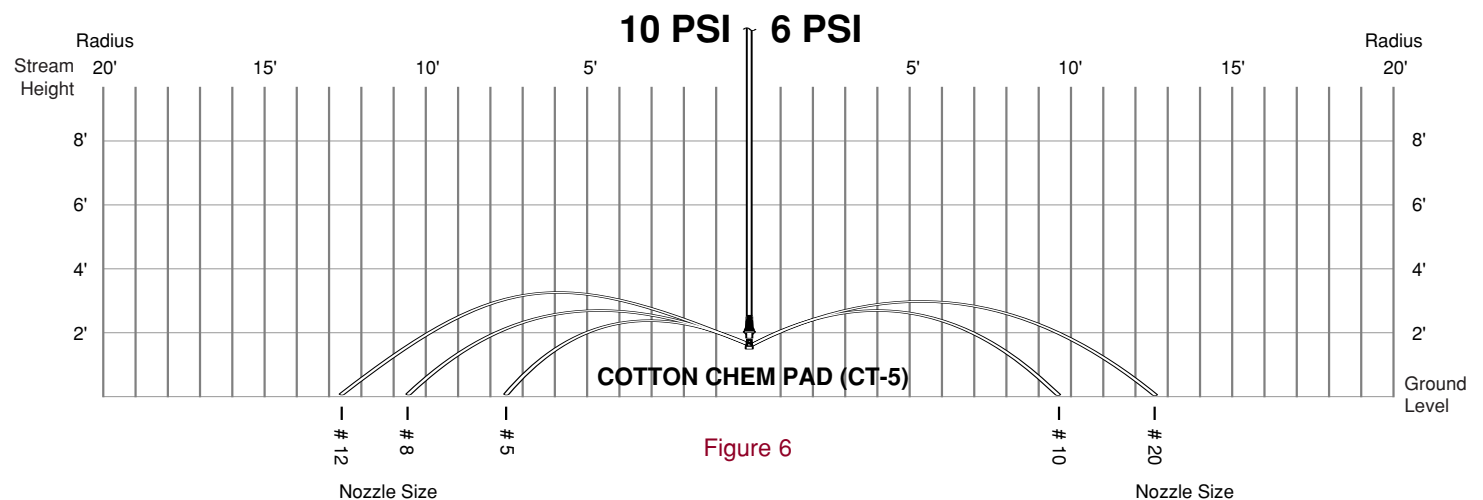
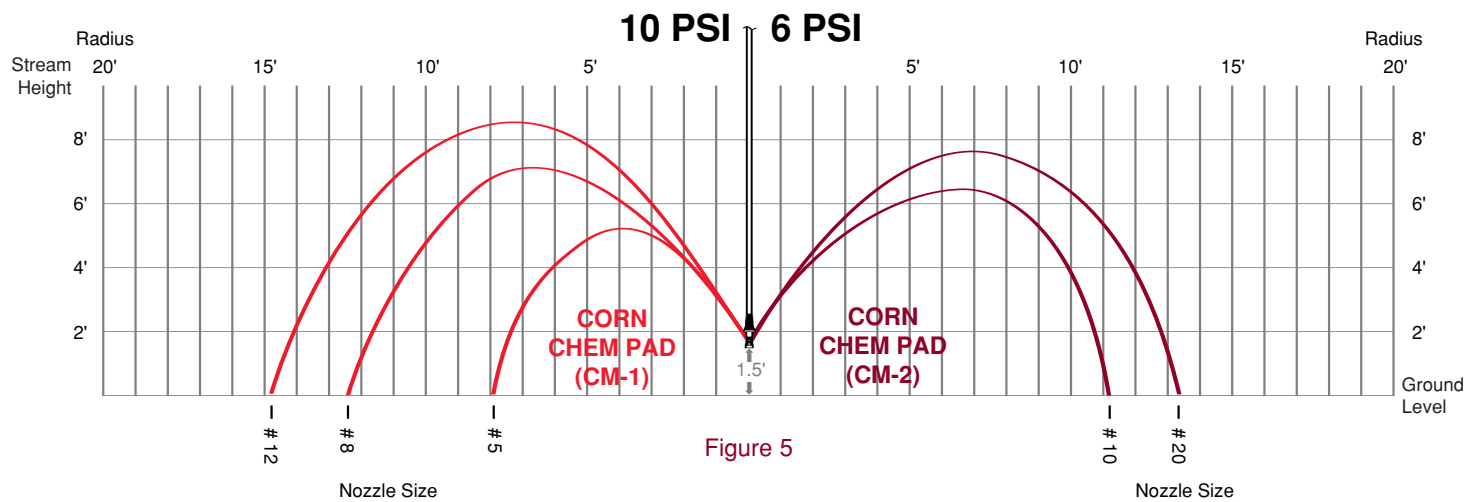
\* With 24-grooved mini pads, add two feet to diameter of throw for nozzles #4 through #9. For double and triple pads, use radius of throw of #14 nozzle.

## LDN MAXIMUM THROW (IN NO WIND CONDITIONS)



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For double and triple pads, use radius of throw of #14 nozzle.

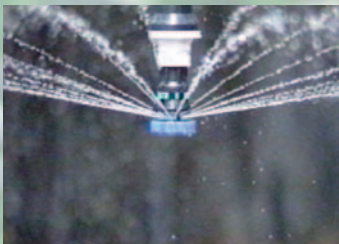
Figures 5 & 6 illustrate the stream height produced at a sprinkler elevation of 1.5'. Select the table with the appropriate chemigation pad.



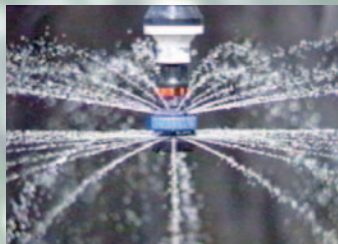


## How the LDN produces uniformly sized droplets

By using multiple levels, the LDN has more grooves (up to 99) to direct water and control droplet size. This enables it to handle a large gallonage (up to 14.5 gpm) while still providing a gentle spread-out application.



0.5 to 5.25 gpm



4.0 to 9.5 gpm



6.75 to 14.5 gpm



















As nozzle sizes increase along the length of a pivot, extra deflector pads are added to accommodate the higher flow.

## Pad combinations

This chart shows the nozzle size, height, operating pressure and outlet spacing Senninger recommends for the following LDN pad combinations.

BEST  
OVERALL  
PACKAGE

CLOSE  
SPACING  
REQUIRED

NOZZLE #	BEST OPERATING PRES-SURE	CONCAVE		FLAT		CONVEX		
		Single	Stacked	Single	Stacked	Single	Stacked	
5	10 - 15 psi							
6		cc-mini	cc-mini	fl-mini	fl-mini	cv-mini	cv-mini	
7			↓	↓	↓	↓	↓	↓
8								
9								
10								
11		CC	CC	FL	FL	CV	CV	
12		↓	↓	↓	↓	↓	↓	
13								
14			↓		↓		↓	
15								
16			CC-FL		CC-FL		FL-CV	
17			↓		↓		↓	
18								
19			CC-CC-FL		CC-FL-FL		FL-FL-CV	
20			↓		↓		↓	
21								
22								
23								
24								
Nozzle to Ground →		1' - 5'		3' - 7'		6' - up		
Nozzle to Nozzle →		Minimum 150% Overlap						

\* All mini pads have 24 grooves for slightly farther throw with small nozzles (standard pads have 33 grooves)



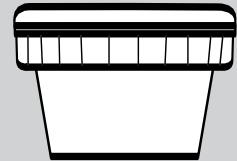
## BEST WARRANTY IN THE BUSINESS

When you choose a Senninger product, you get something extra — the best warranty in the business. All water emitting products used for irrigation are warranted to maintain their original orifice size for five years. Plus, all products used for ag, turf or nursery irrigation carry a two year warranty on materials, workmanship and performance.

Compare our warranty with any other in the industry. You'll see that no one else offers you backup like this — no one even comes close.

### LDN Components

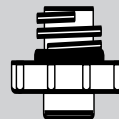
WEIGHT



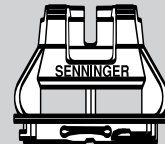
BASE



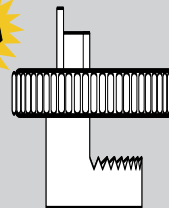
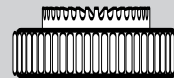
NOZZLE



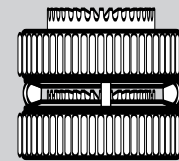
CAGE



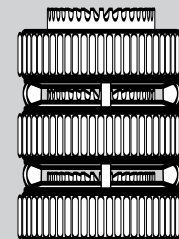
PAD (33 groove)  
or  
MINI PAD (24 groove)



PART-CIRCLE PAD



DOUBLE PADS



TRIPLE PADS



BUBBLER  
PAD

OR



CHEMIGATION  
PAD

COMPLETE LDN UNIT WITH SINGLE PAD

DEFLECTOR PAD OPTIONS



# LDN FLOW DATA

(in gallons per minute)

NOZZLE	PSI			
	6*	10	15	20*
#5 Beige (5/64")	.43	.55	.66	.76
#6 Gold (3/32")	.64	.82	.98	1.14
#7 Lime (7/64")	.87	1.12	1.34	1.56
#8 Lavender (1/8")	1.12	1.45	1.73	2.01
#9 Grey (9/64")	1.41	1.82	2.17	2.52
#10 Turquoise (5/32")	1.74	2.25	2.69	3.12
#11 Yellow (11/64")	2.05	2.65	3.21	3.76
#12 Red (3/16")	2.45	3.16	3.81	4.45
#13 White (13/64")	2.92	3.77	4.50	5.23
#14 Blue (7/32")	3.40	4.39	5.24	6.09

NOZZLE	PSI			
	6*	10	15	20*
#15 Dark Brown (15/64")	3.91	5.05	6.03	7.00
#16 Orange (1/4")	4.48	5.79	6.91	8.03
#17 Dark Green (17/64")	5.03	6.50	7.76	9.01
#18 Purple (9/32")	5.62	7.25	8.65	10.04
#19 Black (19/64")	6.19	7.99	9.54	11.08
#20 Dark Turquoise (5/16")	6.78	8.75	10.44	12.13
#21 Mustard (21/64")	7.37	9.52	11.36	13.20
#22 Maroon (11/32")	7.97	10.29	12.28	14.27
#23 Cream (23/64")	8.86	11.18	13.34	15.50
#24 Dark Blue (3/8")	9.34	12.06	14.40	16.73

\* For optimum performance, Senninger recommends operating the LDN at 10 to 15 psi.



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Lubbock, TX (806) 793-3010

*Your Senninger Dealer is:*

## Visit your Senninger dealer today

Thousands of irrigators are utilizing the multi-pad advantage of the Low-Drift Nozzle to save water and control runoff. Visit your nearest Senninger dealer and put the LDN to work for you today.