

# i-Wob™



## MECHANIZED IRRIGATION

Senninger introduced Wobblers technology in 1980.  
Low application intensity, unmatched uniformity,  
large area of coverage at low pressures.



# i-Wob™ UP3™ Easy Clean Nozzle



Senninger's UP3 (Universal Pivot Products Platform) has been applied to the proven technology of the i-Wob. The easy snap-in nozzle means there is no need to disassemble or remove the sprinkler to clean or change the nozzle.

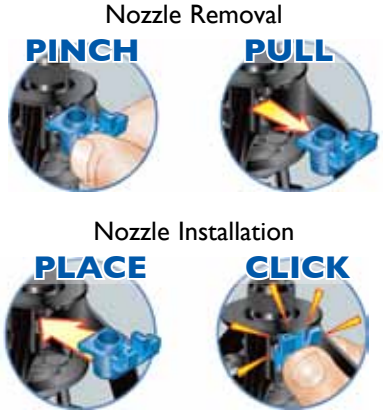
Senninger introduced "Wobblers technology" in 1980. Its unique rotary action combined with its groove geometry delivers a consistent droplet size and outstanding uniformity over a large area of coverage. This design offers distinct benefits in preventing wind drift and providing a gentle, rain-like application of water to the soil. The i-Wob doesn't dissolve soil clods or seal over the soil like other products.

### Dual Nozzle Carrier (patent pending)

Utilizing two different flow rates in a center pivot (a lower rate for germination or chemigation and a higher rate for mature crop irrigation) provides an excellent way to save water and energy. The Dual Nozzle Carrier greatly simplifies renozzling for this purpose. Simply - pinch and pull the nozzle from the applicator; flip the carrier; then place and click to install the second nozzle. The carrier is marked to show the high and low flow nozzles. The flexible material provides the ability for in-canopy operation and improves durability from possible impact.

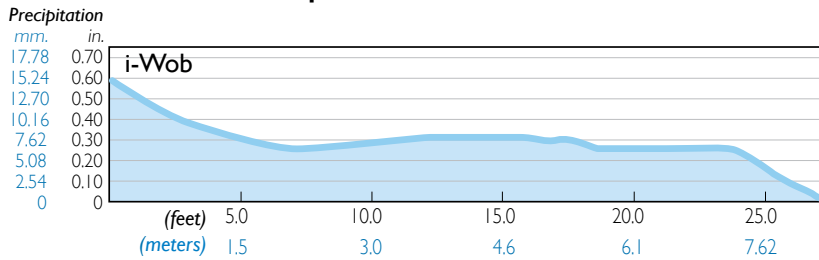


### Easy Clean - Easy Change Nozzle



# Spray Nozzle Comparison i-Wob™ UP3™

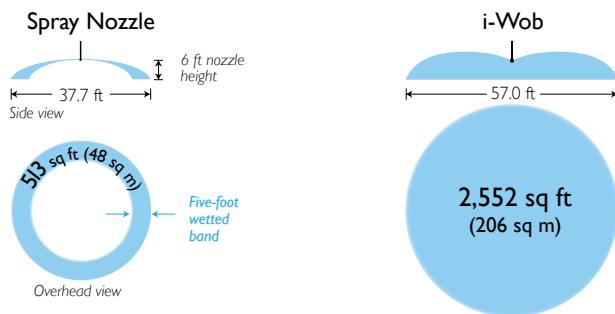
## Sprinkler Profile



## Unmatched Uniformity

Uniformity of application rate is an important consideration in lowering application intensity. Some stream-driven applicators deliver water in a more concentrated ring along the outer diameter of the coverage area. This more intense application can negatively impact the soil surface. The i-Wob offers a gentle more uniform delivery.

## Excellent Distance of Throw



In this example, the i-Wob is spreading the same amount of water over an area five times greater than the area covered by the spray nozzle. Nozzles are at 20 psi (1.38 bar), at 6 ft (1.83 m) height, using an 11/32 inch (8.73 mm) nozzle, with a flow of 14.27 gpm (3241 L/hr) in no wind conditions.

## Large Area of Coverage

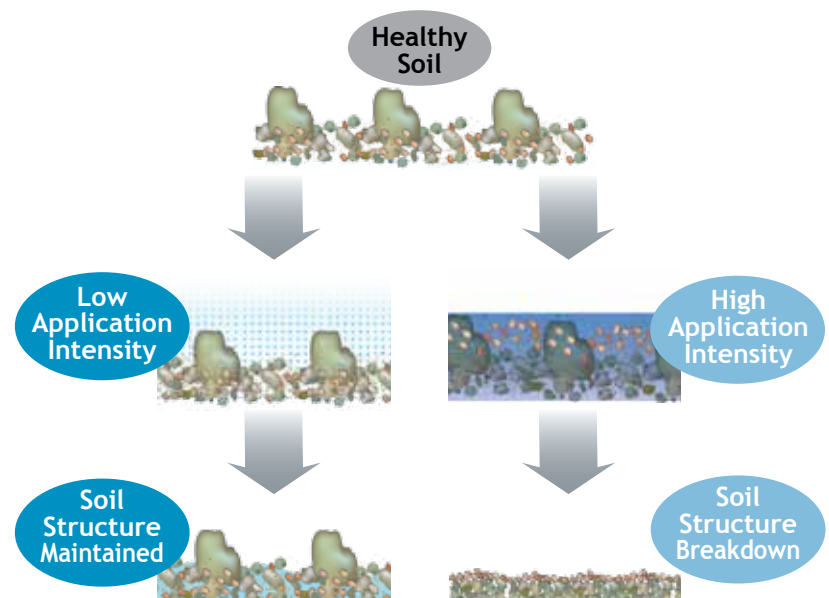
The i-Wob provides the largest area of instantaneous coverage at a lower pressure than any other market device minimizing the impact on the soil surface and crop. The larger the area of soil surface that water is applied to any given instant of a sprinkler's operation, the lower the impact of the sprinklers pattern on the soil structure, preserving the soil's ability to absorb water. Larger instantaneous coverage area also reduces the rate at which the soil is required to take in water. Preservation of intake rate and increased soak times greatly reduce the potential for irrigation water run-off and wheel rutting.

## Lowest Instantaneous Application Rate

Ordinary single-pad spray nozzles place all their water in a ring at the outer edge of their wetted circle. This causes higher application rates, soil compaction and an increased chance of runoff.

The i-Wob uniformly covers the entire area of its wetted circle. This means it is wetting a much larger area at a much lower instantaneous application rate. The result is less soil compaction and less runoff.

## Benefits of Lower Application Intensity





# i-Wob™ UP3™ Energy Savings



## Ultra Low Pressure

Senninger Irrigation's line of center pivot products is designed for peak performance at ultra-low pressures of 10 to 15 psi (0.69 to 1.04 bar), and a recommended maximum pressure of 20 psi (1.38 bar). Lower pressure translates to reduced horsepower requirements and reduced energy consumption. These low operating pressures offer many irrigators a tremendous opportunity to lower total pumping costs. Products specifically designed to provide peak performance in this low pressure range offer a center pivot irrigator increased energy savings.

**Senninger Irrigation - Low Pressure Energy Saver**

**System Information**

Pump Flow: 1000 GPM  
 Pressure: 60 Psi  
 Pumping Plant Efficiency: 80 (%)  
 Hours of Operation per Year/Season: 1000

**Energy Type and cost**

Energy Type	Wh/hrs / Kw-hour	Cost / Kw-hour
Electricity	0.885	.09
Diesel	12.5	2.5
Propane	6.09	
Natural Gas	66.7	

**High / Low - Pressure Cost Comparisons**

	High pressure	Low pressure
Pressure	60 Psi	15 Psi
Water Horsepower	34.99	20.41
Brake Horsepower	43.74	25.51
Water Pumped per Year/Season	18413 acre-feet	18413 acre-feet
Seasonal Energy Cost of Water	8748.0	5103.0

**Annual / Seasonal Savings: 3644.99**

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## Energy Savings Calculator

The Energy Saver program by Senninger Irrigation is another tool that reinforces the benefit of converting your system to LOW PRESSURE-HIGH PERFORMANCE. It gives you a first-hand look at the cost savings in lowering your pressure without sacrificing uniformity.

Available online at [www.senninger.com](http://www.senninger.com) as a link in the Literature & Software tab.

## “The One” Weight



It's all that is needed to provide stability on drops for a number of pivot applicators. The design includes unique **fit technology** that allows the weight to fit securely onto the i-Wob, LDN and the Super Spray and even some other manufacturer's applicators. The weight's easy-to-install design allows it to remain on the applicator during nozzle changes. The aerodynamic design resists uplift forces of high wind. **The One** weight is constructed entirely of zinc alloy for strength and resistance to corrosion 0.85 lbs. (.30 kg).

# 4 Models i-Wob™ UP3™

The Senninger i-Wob is available with four different deflectors. This allows you to customize the droplet size and trajectory that best suits your installation, soil, and crop needs.



**Standard-Angle 6-Groove**  
 • Gray deflector  
 • Small droplets

**Standard-Angle 9-Groove**  
 • Black deflector  
 • Medium droplets

**Low-Angle 9-Groove**  
 • Blue deflector  
 • Medium droplets

**Low-Angle 6-Groove**  
 • White deflector  
 • Largest droplets

## i-Wob System Design Criteria

	SA6G	SA9G	LA9G	LA6G
<b>Nozzle Sizes</b>				
Minimum	#10 5/23" (3.97 mm)	#6 3/32" (2.38 mm)	#6 3/32" (2.38 mm)	#12 3/16" (4.76 mm)
Maximum*	#26 13/32" (10.32 mm)	#26 13/32" (10.32 mm)	#26 13/32" (10.32 mm)	#26 13/32" (10.32 mm)
<b>Flows</b>				
Minimum	2.24 gpm (509 L/hr)	0.80 gpm (182 L/hr)	0.80 gpm (182 L/hr)	3.24 gpm (736 L/hr)
Maximum	21.18 gpm (4811 L/hr)	21.18 gpm (4811 L/hr)	21.18 gpm (4811 L/hr)	21.18 gpm (4811 L/hr)
<b>Diameters</b>				
Minimum at 3 ft (0.91 m)	36 ft (11.0 m)	31 ft (9.5 m)	31 ft (9.5 m)	40 ft (12.2 m)
Maximum at 3 ft (0.91 m)	46 ft (14.0 m)	56 ft (17.1 m)	48 ft (14.6 m)	49 ft (14.9 m)
Minimum at 6 ft (1.83 m)	35 ft (10.7 m)	34 ft (10.4 m)	35 ft (10.7 m)	44 ft (13.4 m)
Maximum at 6 ft (1.83 m)	51 ft (15.5 m)	60 ft (18.3 m)	52 ft (15.8 m)	53 ft (16.2 m)
<b>Maximum Spacing**</b>				
at 6 ft (1.8 m) ground clearance	18 ft (5.5 m)	20 ft (6.1 m)	18 ft (5.5 m)	15 ft (4.6 m)
<b>Pressure at the Nozzle</b>				
Minimum	10 psi (0.69 bar)	10 psi (0.69 bar)	10 psi (0.69 bar)	10 psi (0.69 bar)
Maximum	20 psi (1.38 bar)	20 psi (1.38 bar)	20 psi (1.38 bar)	20 psi (1.38 bar)

\*It is recommended that larger nozzle sizes be used only on soils and slopes that can handle higher application rates.

\*\* For optimum performance Senninger recommends the use of maximum spacing for 1 to 2 spans only.

**Note:** Keep i-Wobs above crop canopy when outlet spacing exceeds 10 ft (3.0 m). This is especially important on high profile crops.

# i-Wob™ UP3™ Nozzle Flows

Sprinkler Base Pressure (psi)			10	15	20	(bar)	0.69	1.03	1.38
Nozzle	Color	Orifice (in.)	Flow (gpm)			Orifice (mm)	Flow (L/hr)		
6	Gold	3/32	0.80	0.98	1.13	2.38	182	223	257
6½	Gold (notched)	13/128	0.94	1.15	1.33	2.58	213	261	302
7	Lime	7/64	1.09	1.34	1.54	2.78	248	304	350
7½	Lime (notched)	15/128	1.26	1.54	1.77	2.98	286	350	402
8	Lavender	1/8	1.43	1.75	2.02	3.18	325	397	459
8½	Lavender (notched)	17/128	1.62	1.98	2.29	3.37	368	450	520
9	Grey	9/64	1.81	2.22	2.56	3.57	411	504	581
9½	Grey (notched)	19/128	2.02	2.48	2.86	3.77	459	563	650
10	Turquoise	5/32	2.24	2.75	3.17	3.97	509	625	720
10½	Turquoise (notched)	21/128	2.47	3.03	3.50	4.17	561	688	795
11	Yellow	11/64	2.72	3.33	3.84	4.37	618	756	872
11½	Yellow (notched)	23/128	2.97	3.64	4.20	4.56	675	827	954
12	Red	3/16	3.24	3.97	4.58	4.76	736	902	1040
12½	Red (notched)	25/128	3.52	4.31	4.97	4.96	799	979	1129
13	White	13/64	3.81	4.66	5.38	5.16	865	1058	1222
13½	White (notched)	27/128	4.11	5.03	5.81	5.36	933	1142	1320
14	Blue	7/32	4.42	5.41	6.25	5.56	1004	1229	1420
14½	Blue (notched)	29/128	4.74	5.81	6.71	5.75	1077	1320	1524
15	Dark Brown	15/64	5.08	6.22	7.18	5.95	1154	1413	1631
15½	Dark Brown (notched)	31/128	5.42	6.64	7.67	6.15	1231	1508	1742
16	Orange	1/4	5.78	7.08	8.17	6.35	1313	1608	1856
16½	Orange (notched)	33/128	6.15	7.53	8.69	6.55	1397	1710	1974
17	Dark Green	17/64	6.53	7.99	9.23	6.75	1483	1815	2096
17½	Dark Green (notched)	35/128	6.92	8.47	9.78	6.95	1572	1924	2221
18	Purple	9/32	7.32	8.96	10.35	7.14	1663	2035	2351
18½	Purple (notched)	37/128	7.73	9.47	10.93	7.34	1756	2151	2482
19	Black	19/64	8.15	9.98	11.53	7.54	1851	2267	2619
19½	Black (notched)	39/128	8.58	10.51	12.14	7.74	1949	2387	2757
20	Drk Turquoise	5/16	9.02	11.05	12.76	7.94	2049	2510	2898
20½	Drk Turquoise (notched)	41/128	9.47	11.60	13.40	8.14	2151	2635	3043
21	Mustard	21/64	9.93	12.17	14.05	8.33	2255	2764	3191
21½	Mustard (notched)	43/128	10.40	12.74	14.71	8.53	2362	2894	3341
22	Maroon	11/32	10.88	13.33	15.39	8.73	2471	3028	3495
22½	Maroon (notched)	45/128	11.37	13.92	16.08	8.93	2582	3162	3652
23	Cream	23/64	11.87	14.54	16.78	9.13	2696	3302	3811
23½	Cream (notched)	47/128	12.37	15.15	17.49	9.33	2810	3441	3972
24	Dark Blue	3/8	12.88	15.78	18.22	9.53	2925	3584	4138
24½	Dark Blue (notched)	49/128	13.40	16.41	18.95	9.72	3043	3727	4304
25	Copper	25/64	13.92	17.05	19.69	9.92	3162	3872	4472
25½	Copper (notched)	51/128	14.45	17.69	20.43	10.12	3282	4018	4640
26	Bronze	13/32	14.98	18.35	21.18	10.32	3402	4168	4811

## UP3 Nozzle Visibility

The color-coded nozzles are highly visible and easy to identify. The nozzle numbers (corresponding to orifice size in 64ths of an inch) are visible on the ears, with half-sizes denoted beneath the second digit and notches on the lower edge of the nozzle.

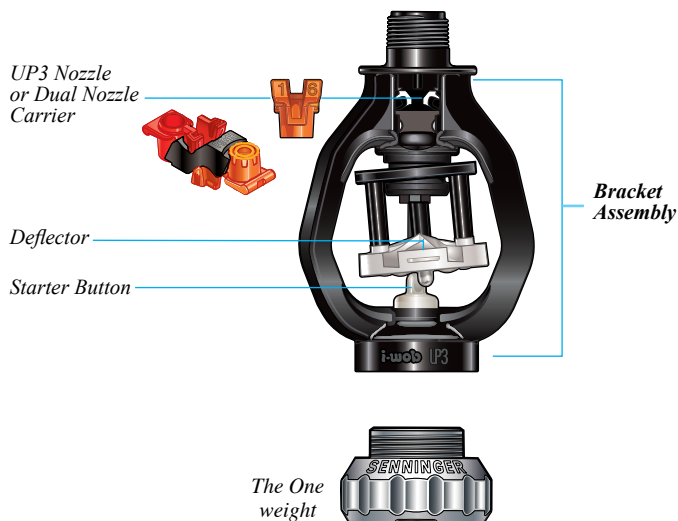


# Components i-Wob™ UP3™

## Integrated base

With the new UP3 design, the i-Wob base is now an integral part of the bracket. It can be installed directly into a pressure regulator or female NPT fitting. This increases reliability and means fewer parts are required.

## Component Assembly



## i-Wob System Assembly

### Mounting

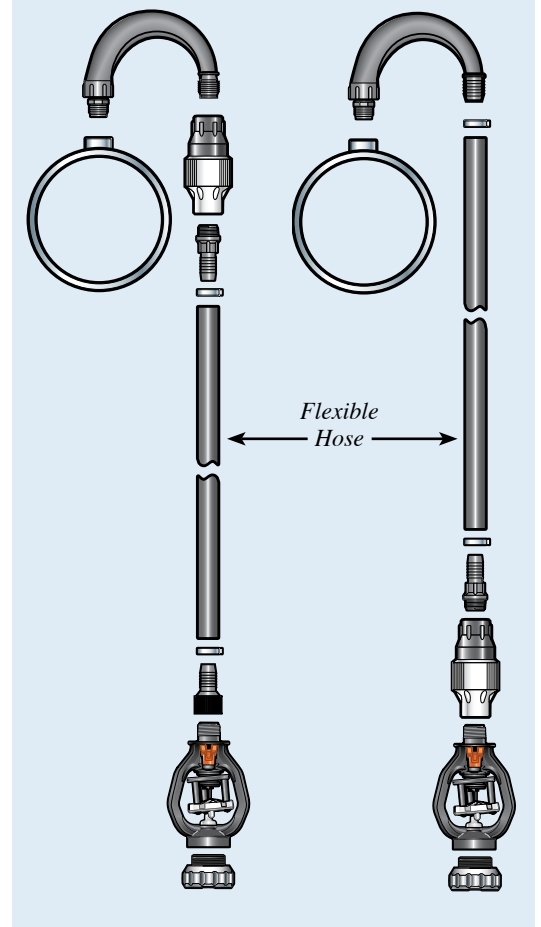
1. Always mount the i-Wob on a minimum of 2 ft. (0.6 m) reinforced flexible hose. Hose must be on outlet end of any semi-rigid or rigid drop.
2. Mount the i-Wob no less than 3 ft. (0.91 m) above the ground.
3. When using The One Weight, always be sure it is tightly threaded into the bottom of the i-Wob.
4. When using The One Weight, never use another weight above the i-Wob.
5. If using a conventional drop weight, never use a threaded lower weight also.
6. If using a conventional drop weight above the i-Wob, only use a threaded weight weighing at least 1.5 lbs (0.7 kg) but not exceeding 1 ft. (0.38 m) in length.

Please note that using a slip-over drop weight may cause premature failure of the drop tube assembly.



## Installation Components

To maintain product warranty, and maximize drop component life, refer to the diagrams below...



## Energy Savings

“The i-Wob saves energy with an application efficiency unmatched by other devices.”

*Marcus Schmidt, Engineer, Brazil*

“When my customers use the i-Wob, they get the best for less. The best water application for the least pumping cost.

*Mike Woodhead, Woody's Pivot Service, Colorado*

## Gentle Rain-Like Pattern!

“I won't use anything else.”

*Steve Bean, Idaho*

“The i-Wob is simply the best sprinkler on the market.”

*Derek Wagner, Wagner's Irrigation, Nebraska*

## Uniformity

“With the i-Wob, it seems like I have a more uniform crop. I also like the fact that they don't seal over the ground.”

*Gary Miller, Texas*

## Low Pressure High Performance

“Because the water gets to the ground quicker, it is recommended by the water management district and the USDA as good efficient irrigation.”

*Dave Dymond, H&H Sod Company, Florida*

## Longevity

“Mechanical longevity is absolutely critical for us. That's one of the reasons we've again decided to go with Senninger i-Wobs for the new systems we've put in.”

*Klaren Koompin, Idaho*

**Senninger®**  
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