

# 30-40-50 Series Impact Sprinklers (3/4" NPT male base)

Senninger's full-circle 3/4" impact sprinklers are available in three models based on their flow. These sprinklers can achieve low application rates because of their large diameter of coverage .

- Splasharm spring and bearing enclosed for better resistance to corrosion and environmental extremes
- Constructed of engineering-grade thermoplastics and specially selected stainless steel components for excellent corrosion resistance
- Wide range of nozzle/vane combinations for excellent distribution at all pressures
- Standard lower bearing pipe thread: 3/4" NPT male (3/4" NPT female and 1" NPT female also available)
- Flow range: 3023 Model ... 1.84 to 5.36 gpm (0.11 to 0.33 L/s)  
4023 Model ... 3.92 to 10.6 gpm (0.24 to 0.66 L/s)  
5023 Model ... 6.50 to 16.8 gpm (0.40 to 1.04 L/s)
- One-year warranty on materials, workmanship AND performance



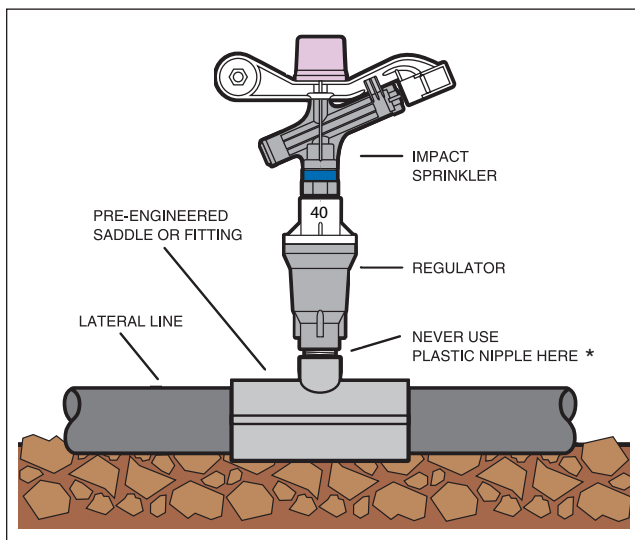
## (COPPER MINE SPECIAL®) 3023-1-3/4"M CMS 4023-1-3/4"M CMS 5023-1-3/4"M CMS

- Recommended for high sulfuric acid (0.5 to 3.0 pH) copper mining solutions
- 23° angle of throw



## (GOLD/SILVER MINING) 3023-1-3/4"M EFF 4023-1-3/4"M EFF 5023-1-3/4"M EFF

- Recommended for pH range 3.0 to 9.0 gold and silver mining solutions.
- 23° angle of throw (12° model also available, consult factory for performance data)



Impact sprinklers can be mounted directly into a pressure regulator that is in turn mounted directly into a saddle or pre-engineered plastic female fitting. They can also be mounted directly into a saddle or pre-engineered plastic female fitting.

\* Use carbon or stainless steel nipples in gold/silver mining.  
Use stainless steel nipples in acid copper leaching.

**3023-1-3/4" M CMS  
3023-1-3/4" M EFF**

SPRINKLER BASE PRESSURE	U.S. - Diameter (ft) at 1.5 ft. height							METRIC - Diameter (m) at 46 cm height						
	(psi)	30	35	40	45	50	55	60	(bar)	2.0	2.5	3.0	3.5	4.0
<b>#7 Nozzle - Lime (7/64")</b>														
Flow (gpm)	1.84	1.99	2.12	2.25	2.37	2.51	2.63		<b>#7 Nozzle - Lime (2.78 mm)</b>					
Diameter (ft)	77	79	81	82	83	84	85		Flow (L/s)	0.11	0.13	0.14	0.15	0.16
									Diameter (m)	23.3	24.2	24.9	25.3	25.8
<b>#8 Nozzle - Lavender (1/8")</b>									<b>#8 Nozzle - Lavender (3.18 mm)</b>					
Flow (gpm)	2.42	2.62	2.79	2.97	3.12	3.28	3.43		Flow (L/s)	0.15	0.17	0.18	0.20	0.21
Diameter (ft)	79	81	83	84	85	86	87		Diameter (m)	24.0	24.8	25.5	26.0	26.4
<b>#9 Nozzle - Grey (9/64")</b>									<b>#9 Nozzle - Grey (3.57 mm)</b>					
Flow (gpm)	3.08	3.33	3.56	3.78	3.98	4.16	4.34		Flow (L/s)	0.19	0.21	0.23	0.25	0.27
Diameter (ft)	80	82	84	85	86	87	88		Diameter (m)	24.3	25.1	25.8	26.3	26.7
<b>#10 Nozzle - Turquoise (5/32")</b>									<b>#10 Nozzle - Turquoise (3.97 mm)</b>					
Flow (gpm)	3.82	4.13	4.41	4.68	4.93	5.13	5.36		Flow (L/s)	0.24	0.26	0.29	0.31	0.33
Diameter (ft)	81	83	85	86	87	88	89		Diameter (m)	24.6	25.4	26.1	26.6	27.0

Stream heights range from 6.0 - 7.5 ft (1.8 - 2.3 m) above nozzle based on pressure and nozzle size.

**4023-1-3/4" M CMS  
4023-1-3/4" M EFF**

SPRINKLER BASE PRESSURE	U.S. - Diameter (ft) at 1.5 ft. height							METRIC - Diameter (m) at 46 cm height						
	(psi)	30	35	40	45	50	55	60	(bar)	2.0	2.5	3.0	3.5	4.0
<b>#10 Nozzle - Turquoise (5/32")</b>														
Flow (gpm)	3.82	4.13	4.41	4.68	4.93	5.17	5.40		<b>#10 Nozzle - Turquoise (3.97 mm)</b>					
Diameter (ft)	80	82	84	86	87	88	89		Flow (L/s)	0.24	0.26	0.29	0.31	0.33
									Diameter (m)	24.3	25.1	26.0	26.6	27.0
<b>#11 Nozzle - Yellow (11/64")</b>									<b>#11 Nozzle - Yellow (4.37 mm)</b>					
Flow (gpm)	4.63	5.00	5.34	5.67	5.98	6.27	6.55		Flow (L/s)	0.29	0.32	0.35	0.38	0.41
Diameter (ft)	82	84	86	88	89	90	91		Diameter (m)	24.9	25.8	26.6	27.2	27.6
<b>#12 Nozzle - Red (3/16")</b>									<b>#12 Nozzle - Red (4.76 mm)</b>					
Flow (gpm)	5.52	5.97	6.37	6.76	7.13	7.48	7.81		Flow (L/s)	0.34	0.38	0.42	0.45	0.48
Diameter (ft)	84	86	88	90	91	92	93		Diameter (m)	25.5	26.4	27.2	27.8	28.2
<b>#13 Nozzle - White (13/64")</b>									<b>#13 Nozzle - White (5.16 mm)</b>					
Flow (gpm)	6.50	7.02	7.49	7.95	8.38	8.80	9.19		Flow (L/s)	0.40	0.45	0.49	0.53	0.57
Diameter (ft)	86	88	90	92	94	96	97		Diameter (m)	26.1	27.0	27.9	28.7	29.4
<b>#14 Nozzle - Blue (7/32")</b>									<b>#14 Nozzle - Blue (5.56 mm)</b>					
Flow (gpm)	7.49	8.09	8.63	9.17	9.66	10.1	10.6		Flow (L/s)	0.46	0.52	0.57	0.61	0.66
Diameter (ft)	89	92	94	96	98	100	101		Diameter (m)	26.9	28.2	29.1	30.0	30.7

Stream heights range from 6.5 - 10.0 ft (2.0 - 3.1 m) above nozzle based on pressure and nozzle size.

**5023-1-3/4" M CMS  
5023-1-3/4" M EFF**

SPRINKLER BASE PRESSURE	U.S. - Diameter (ft) at 1.5 ft. height							METRIC - Diameter (m) at 46 cm height						
	(psi)	30	35	40	45	50	55	60	(bar)	2.0	2.5	3.0	3.5	4.0
<b>#13 Nozzle - White (13/64")</b>														
Flow (gpm)	6.50	7.02	7.49	7.95	8.38	8.80	9.19		<b>#13 Nozzle - White (5.16 mm)</b>					
Diameter (ft)	90	92	94	96	98	100	102		Flow (L/s)	0.40	0.45	0.49	0.53	0.57
									Diameter (m)	27.3	28.2	29.1	30.0	30.8
<b>#14 Nozzle - Blue (7/32")</b>									<b>#14 Nozzle - Blue (5.56 mm)</b>					
Flow (gpm)	7.49	8.09	8.63	9.17	9.66	10.1	10.6		Flow (L/s)	0.46	0.52	0.57	0.61	0.66
Diameter (ft)	91	93	95	97	99	101	103		Diameter (m)	27.6	28.5	29.4	30.3	31.1
<b>#15 Nozzle - Dark Brown (15/64")</b>									<b>#15 Nozzle - Dark Brown (5.95 mm)</b>					
Flow (gpm)	8.51	9.19	9.81	10.4	11.0	11.5	12.0		Flow (L/s)	0.53	0.59	0.64	0.70	0.74
Diameter (ft)	92	94	96	98	100	102	104		Diameter (m)	27.9	28.8	29.7	30.6	31.5
<b>#16 Nozzle - Orange (1/4")</b>									<b>#16 Nozzle - Orange (6.35 mm)</b>					
Flow (gpm)	9.63	10.4	11.1	11.8	12.4	13.0	13.6		Flow (L/s)	0.60	0.67	0.73	0.79	0.84
Diameter (ft)	93	95	97	99	101	103	105		Diameter (m)	28.2	29.1	30.0	30.9	31.8
<b>#17 Nozzle - Dark Green (17/64")</b>									<b>#17 Nozzle - Dark Green (6.75 mm)</b>					
Flow (gpm)	10.7	11.6	12.3	13.1	13.8	14.5	15.1		Flow (L/s)	0.66	0.74	0.81	0.88	0.94
Diameter (ft)	94	96	98	100	102	104	106		Diameter (m)	28.5	29.4	30.3	31.2	32.1
<b>#18 Nozzle - Purple (9/32")</b>									<b>#18 Nozzle - Purple (7.14 mm)</b>					
Flow (gpm)	11.9	12.9	13.7	14.6	15.4	16.1	16.8		Flow (L/s)	0.74	0.82	0.90	0.98	1.04
Diameter (ft)	95	97	99	101	103	105	107		Diameter (m)	28.8	29.7	30.6	31.5	32.4

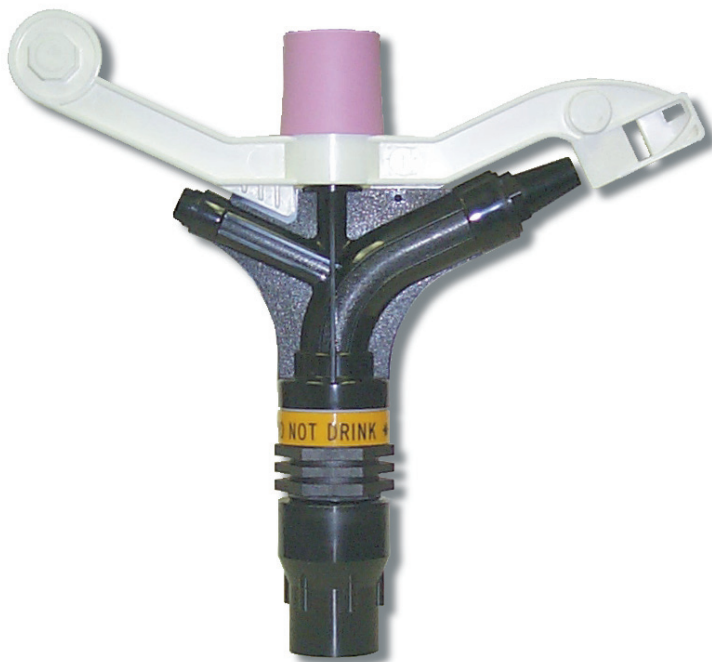
Stream heights range from 7.0 - 11.5 ft (2.1 - 3.5 m) above nozzle based on pressure and nozzle size.

Diameters shown are for standard straight bore nozzles and barrel cylinder vanes (blue). Other nozzles and/or vane combinations are available; consult factory for specific performance data.

# 80 Series Impact Sprinklers (1 1/4" & 1 1/2" NPT male base)

*Senninger's largest impact sprinklers distribute water over a large diameter. They are designed for maximum efficiency at high flow rates.*

- *Splasharm spring and bearing enclosed for better resistance to corrosion and environmental extremes*
- *Constructed of engineering-grade thermoplastics and specially selected stainless steel components for excellent corrosion resistance*
- *25° angle of throw*
- *Standard lower bearing pipe thread:  
1 1/4" NPT female and 1" NPT female  
(1 1/4" NPT male and 1 1/2" NPT male also available)*
- *Flow range: 25.2 to 91.8 gpm (1.66 to 5.69 L/s)  
(Consult factory for lower or higher flow rates.)*
- *One-year warranty on materials, workmanship AND performance*



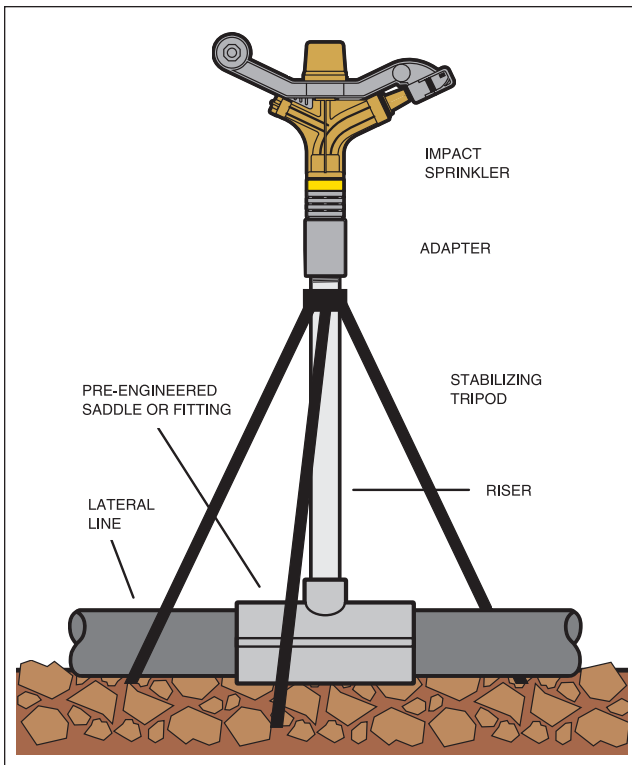
## **(COPPER MINE SPECIAL®) 8025HD-1-1 1/4" M CMS**

- Recommended for high sulfuric acid (0.5 to 3.0 pH) copper mining solutions
- New heavy-duty design to withstand rugged mining conditions
- 23° angle of throw
- Single-nozzle design provides greater resistance to clogging
- Double-nozzle design also available for greater uniformity

## **(GOLD/SILVER MINING) 8025HD-1-1 1/4" EFF**

- Recommended for pH range 3.0 to 9.0 gold and silver mining solutions.
- New heavy-duty design to withstand rugged mining conditions
- 23° angle of throw
- Single-nozzle design provides greater resistance to clogging
- Double-nozzle design also available for greater uniformity
- 1" model (7025) also available.  
(Consult factory for specific flow rates.)

# 80 Series Impact Sprinklers (1 1/4" & 1 1/2" NPT male base)



Impact sprinklers that are mounted to a riser should be stabilized to preserve the integrity of the throw. When using risers in gold/silver mining, use carbon steel or stainless steel pipe. When using risers in acid copper leaching, use stainless steel pipe.

SPRINKLER BASE PRESSURE	(psi)	U.S. - Diameter (ft) at 1.5 ft. height							METRIC - Diameter (m) at 46 cm height						
		40	45	50	55	60	65	70	75	(bar)	3.0	3.5	4.0	4.5	5.0
<b>#24 Nozzle - (3/8")</b>															
Flow (gpm)		25.2	26.7	28.2	29.6	30.9	32.1	33.3	34.5	Flow (L/s)	1.66	1.79	1.91	2.03	2.14
Diameter (ft)		134	139	144	149	154	157	159	160	Diameter (m)	41.9	44.1	46.3	47.9	48.6
<b>#26 Nozzle - (13/32")</b>															
Flow (gpm)		29.3	31.0	32.7	34.3	35.9	37.3	38.7	40.1	Flow (L/s)	1.92	2.08	2.22	2.36	2.48
Diameter (ft)		142	147	152	157	161	164	166	168	Diameter (m)	44.4	46.6	48.6	50.0	50.9
<b>#28 Nozzle - (7/16")</b>															
Flow (gpm)		33.9	36.0	38.0	39.8	41.6	43.3	44.9	46.5	Flow (L/s)	2.23	2.41	2.58	2.73	2.88
Diameter (ft)		148	153	157	161	166	169	171	173	Diameter (m)	46.2	48.0	50.0	51.5	52.4
<b>#30 Nozzle - (15/32")</b>															
Flow (gpm)		38.6	40.9	43.1	45.2	47.2	49.2	51.0	52.8	Flow (L/s)	2.53	2.74	2.93	3.10	3.27
Diameter (ft)		153	158	162	166	170	173	175	178	Diameter (m)	47.7	49.6	51.3	52.8	53.8
<b>#32 Nozzle - (1/2")</b>															
Flow (gpm)		43.9	46.5	49.0	51.4	53.7	55.9	58.0	60.1	Flow (L/s)	2.88	3.11	3.33	3.53	3.72
Diameter (ft)		156	161	165	169	173	176	179	183	Diameter (m)	48.6	50.5	52.2	53.7	55.2
<b>#34 Nozzle - (17/32")</b>															
Flow (gpm)		49.5	52.5	55.4	58.1	60.7	63.1	65.5	67.8	Flow (L/s)	3.25	3.51	3.76	3.99	4.20
Diameter (ft)		159	164	168	172	176	180	183	186	Diameter (m)	49.5	51.4	53.2	54.9	56.2
<b>#36 Nozzle - (9/16")</b>															
Flow (gpm)		55.5	58.9	62.1	65.1	68.0	70.8	73.5	76.0	Flow (L/s)	3.65	3.94	4.21	4.47	4.71
Diameter (ft)		161	166	170	174	178	183	187	190	Diameter (m)	50.1	52.0	53.8	55.8	57.5
<b>#38 Nozzle - (19/32")</b>															
Flow (gpm)		59.9	63.5	66.9	70.2	73.3	76.3	79.2	82.0	Flow (L/s)	3.93	4.25	4.54	4.82	5.08
Diameter (ft)		163	168	172	176	180	185	190	192	Diameter (m)	50.8	52.6	54.4	56.5	58.2
<b>#40 Nozzle - (5/8")</b>															
Flow (gpm)		67.1	71.1	75.0	78.7	82.1	85.5	88.7	91.8	Flow (L/s)	4.41	4.76	5.09	5.40	5.69
Diameter (ft)		165	170	174	178	182	187	192	194	Diameter (m)	51.4	53.2	55.0	57.1	58.8

Diameters shown are for standard straight bore nozzles and stream-straightening vanes (black). Other nozzles are available; consult factory for specific performance data. Stream heights range from 12.5 - 28.0 ft (3.8 - 8.5 m) above nozzle based on pressure and nozzle size.

# Part-Circle Impact Sprinklers

(3/4" NPT male base)



The Senninger 3123 & 4123 Series Part-Circle Impact sprinklers are ideal for dust control and are designed specifically for use where a directional impact sprinkler is required. Senninger's part-circle sprinklers are available in two models based on their flow.

- Distributes water in a 60 - 360° pattern at 5° increments
- Enclosed stainless steel springs and fulcrum pin to resist contamination
- Constructed of engineering-grade thermoplastics and specially selected stainless steel components for excellent corrosion resistance
- Standard lower bearing pipe thread: 3/4" NPT male (3/4" NPT female and 1" NPT female also available)
- Flow range:  
3123 Model ... 2.42 to 4.34 gpm (0.15 to 0.27 L/s)  
4123 Model ... 3.82 to 7.81 gpm (0.24 to 0.48 L/s)
- One-year warranty on materials, workmanship AND performance

**(GOLD/SILVER MINING)**  
**3123-1-3/4" M EFF and**  
**4123-1-3/4" M EFF**

- Recommended for pH range 3.0 to 9.0 gold and silver mining solutions.
- 23° angle of throw



**IDEAL FOR  
DUST  
CONTROL**

**3123-1-3/4" M EFF**

SPRINKLER BASE PRESSURE	U.S. - Radius (ft) at 1.5 ft height							METRIC - Radius (m) at 46 cm height						
	(psi)	30	35	40	45	50	55	60	(bar)	2.0	2.5	3.0	3.5	4.0
<b>#8 Nozzle - Lavender (1/8")</b>									(psi)	29.00	36.25	43.50	50.75	58.00
Flow (gpm)	2.42	2.62	2.79	2.97	3.12	3.28	3.43		<b>#8 Nozzle - Lavender (3.18 mm)</b>					
Radius (ft)	40.0	41.5	43.0	43.5	44.0	44.5	44.5		Flow (L/s)	0.15	0.17	0.18	0.20	0.21
									Radius (m)	12.1	12.8	13.2	13.4	13.6
<b>#9 Nozzle - Grey (9/64")</b>									<b>#9 Nozzle - Grey (3.57 mm)</b>					
Flow (gpm)	3.08	3.33	3.56	3.78	3.98	4.16	4.34		Flow (L/s)	0.19	0.21	0.23	0.25	0.27
Radius (ft)	41.0	43.0	44.5	45.5	46.0	46.5	46.5		Radius (m)	2.4	13.2	13.8	14	14.2

Stream heights range from 6.0 - 7.5 ft (1.8 - 2.3 m) above nozzle based on pressure and nozzle size.

**4123-1-3/4" M EFF**

SPRINKLER BASE PRESSURE	U.S. - Radius (ft) at 1.5 ft height							METRIC - Radius (m) at 46 cm height						
	(psi)	30	35	40	45	50	55	60	(bar)	2.0	2.5	3.0	3.5	4.0
<b>#10 Nozzle - Turquoise (5/32")</b>									(psi)	29.00	36.25	43.50	50.75	58.00
Flow (gpm)	3.82	4.13	4.41	4.68	4.93	5.17	5.40		<b>#10 Nozzle - Turquoise (3.97 mm)</b>					
Radius (ft)	42.0	44.0	46.0	47.0	47.5	48.0	48.0		Flow (L/s)	0.24	0.26	0.29	0.31	0.33
									Radius (m)	12.7	13.6	14.2	14.5	14.6
<b>#11 Nozzle - Yellow (11/64")</b>									<b>#11 Nozzle - Yellow (4.37 mm)</b>					
Flow (gpm)	4.63	5.00	5.34	5.67	5.98	6.27	6.55		Flow (L/s)	0.29	0.32	0.35	0.38	0.41
Radius (ft)	43.0	45.5	47.5	48.5	49.5	50.0	50.0		Radius (m)	13.0	14.0	14.7	15.1	15.2
<b>#12 Nozzle - Red (3/16")</b>									<b>#12 Nozzle - Red (4.76 mm)</b>					
Flow (gpm)	5.52	5.97	6.37	6.76	7.13	7.48	7.81		(L/s)	0.34	0.38	0.42	0.45	0.48
Radius (ft)	44.0	46.5	49.0	50.0	51.5	52.0	52.0		Radius (m)	13.3	14.4	15.1	15.7	15.8

Stream heights range from 6.0 - 10.0 ft (1.8 - 3.1 m) above nozzle based on pressure and nozzle size.