

Xcel - Wobblers

Cooper Mine Special®
High - Angle



Senninger's mining Xcel-Wobblers utilize a unique off-center rotary-action to provide extremely uniform coverage at low operating pressures with very low evaporative losses.

Features:

- Only one moving part for longer life
- Low wind-drift and evaporative loss at low pressures
- Counter-balance design produces smooth, stable performance
- Inlet sizes: 3/4" or 1/2" M NPT
- Flow rates: 0.78 to 6.97 gpm (177 to 1583 L/hr)
- One-year warranty

Specific mid-angle features:

- Lower trajectory
- Reduced droplet size for a more gentle application

RECOMMENDATIONS	
Copper Mine Special® (CMS)	
Solution	high sulfuric acid copper solutions greater than 10/gpl H ₂ SO ₄
pH Range	less than 3.0
Gold/Silver Mining	
Solution	gold & silver solutions
pH Range	3.0 to 9.0

CMS Mid-Angle,
Gold/Silver High and
Mid-Angle Also Available

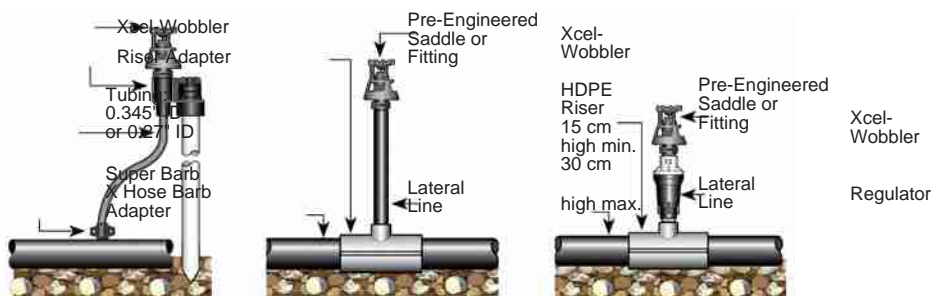


Xcel-Wobbler - (high & mid-angle)

Sprinkler Base Pressure (psi)	10	15	20	25	(bar)	0.69	1.03	1.38	1.72
#6 Nozzle - Gold (3/32")					#6 Nozzle - Gold (2.38 mm)				
Flow (gpm)	0.78	0.95	1.10	1.23	Flow (L/hr)	177	216	250	279
HA Diameter at 1.5 ft ht (ft)	36.5	41.0	45.0	46.0	HA Diameter at 0.46 m ht (m)	11.1	12.5	13.7	14.0
MA Diameter at 1.5 ft ht (ft)	32.0	35.0	38.5	41.0	MA Diameter at 0.46 m ht (m)	9.8	10.7	11.7	12.5
#7 Nozzle - Lime (7/64")					#7 Nozzle - Lime (2.78 mm)				
Flow (gpm)	1.06	1.30	1.50	1.68	Flow (L/hr)	241	295	341	382
HA Diameter at 1.5 ft ht (ft)	40.0	46.5	47.0	50.5	HA Diameter at 0.46 m ht (m)	12.2	14.2	14.3	15.4
MA Diameter at 1.5 ft ht (ft)	33.0	36.5	40.5	41.0	MA Diameter at 0.46 m ht (m)	10.1	11.1	12.3	12.5
#8 Nozzle - Lavender (1/8")					#8 Nozzle - Lavender (3.18 mm)				
Flow (gpm)	1.40	1.71	1.98	2.21	Flow (L/hr)	318	388	450	502
HA Diameter at 1.5 ft ht (ft)	42.0	46.5	47.0	51.5	HA Diameter at 0.46 m ht (m)	12.8	14.2	14.3	15.7
MA Diameter at 1.5 ft ht (ft)	34.0	38.5	41.0	42.5	MA Diameter at 0.46 m ht (m)	10.4	11.7	12.5	13.0
#9 Nozzle - Grey (9/64")					#9 Nozzle - Grey (3.57 mm)				
Flow (gpm)	1.80	2.20	2.54	2.84	Flow (L/hr)	409	500	577	645
HA Diameter at 1.5 ft ht (ft)	44.0	47.0	50.5	52.5	HA Diameter at 0.46 m ht (m)	13.4	14.3	15.4	16.0
MA Diameter at 1.5 ft ht (ft)	34.5	40.5	42.0	43.0	MA Diameter at 0.46 m ht (m)	10.5	12.3	12.8	13.1
#10 Nozzle - Turquoise (5/32")					#10 Nozzle - Turquoise (3.97 mm)				
Flow (gpm)	2.22	2.72	3.14	3.51	Flow (L/hr)	504	618	713	797
HA Diameter at 1.5 ft ht (ft)	44.5	49.0	50.5	53.5	HA Diameter at 0.46 m ht (m)	13.6	14.9	15.4	16.3
MA Diameter at 1.5 ft ht (ft)	36.0	41.0	42.5	44.0	MA Diameter at 0.46 m ht (m)	11.0	12.5	13.0	13.4
#11 Nozzle - Yellow (11/64")					#11 Nozzle - Yellow (4.37 mm)				
Flow (gpm)	2.69	3.30	3.81	4.26	Flow (L/hr)	611	750	865	968
HA Diameter at 1.5 ft ht (ft)	44.5	50.5	51.5	54.0	HA Diameter at 0.46 m ht (m)	13.6	15.4	15.7	16.5
MA Diameter at 1.5 ft ht (ft)	36.0	41.5	43.0	44.0	MA Diameter at 0.46 m ht (m)	11.0	12.6	13.1	13.4
#12 Nozzle - Red (3/16")					#12 Nozzle - Red (4.76 mm)				
Flow (gpm)	3.23	3.96	4.57	5.11	Flow (L/hr)	734	899	1038	1161
HA Diameter at 1.5 ft ht (ft)	40.0	45.5	48.0	49.5	HA Diameter at 0.46 m ht (m)	14.0	15.4	15.8	16.6
MA Diameter at 1.5 ft ht (ft)	37.0	42.0	45.5	46.5	MA Diameter at 0.46 m ht (m)	11.1	12.6	13.6	13.6
#13 Nozzle - White (13/64")					#13 Nozzle - White (5.16 mm)				
Flow (gpm)	3.80	4.65	5.38	6.01	Flow (L/hr)	863	1056	1222	1365
HA Diameter at 1.5 ft ht (ft)	46.5	51.0	52.5	55.5	HA Diameter at 0.46 m ht (m)	14.2	15.5	16.0	16.9
MA Diameter at 1.5 ft ht (ft)	36.5	41.5	44.5	45.0	MA Diameter at 0.46 m ht (m)	11.1	12.6	13.6	13.7
#14 Nozzle - Blue (7/32")					#14 Nozzle - Blue (5.56 mm)				
Flow (gpm)	4.40	5.39	6.23	6.97	Flow (L/hr)	999	1224	1415	1583
HA Diameter at 1.5 ft ht (ft)	47.0	51.0	53.0	55.5	HA Diameter at 0.46 m ht (m)	14.3	15.5	16.2	16.9
MA Diameter at 1.5 ft ht (ft)	37.0	42.5	45.0	46.5	MA Diameter at 0.46 m ht (m)	11.3	13.0	13.7	14.2

HA= high-angle, MA= mid-angle. Sprinkler performance may vary with actual field conditions. Other nozzle sizes are available; consult factory for specific performance data. Stream heights range from 2.5 to 5.5 ft (0.8 to 1.7 m) above nozzle based on pressure and nozzle size.

Mounting Options



1. Xcel-Wobbler on Riser with Riser Adapter
2. Xcel-Wobbler on Riser
3. Xcel-Wobbler into a pressure regulator