ORE MAX®

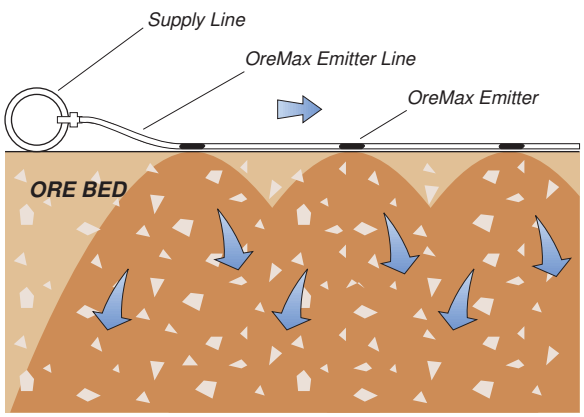
CONTROLLED PERCOLATION SYSTEMS FOR HEAP LEACH MINING

Level Surface Applications

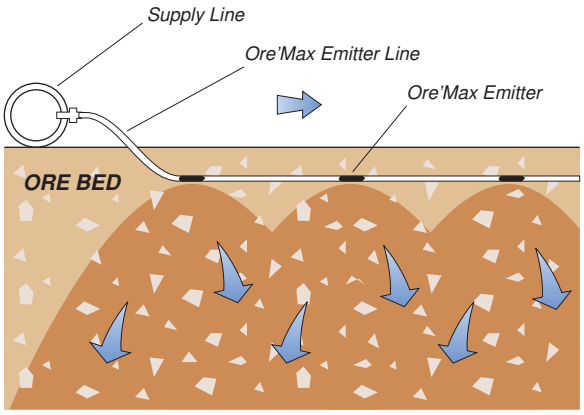
WADE RAIN Irrigation Systems offers Ore'Max® emitter line products for all mining applications. All lines are engineered to provide long life with maximum resistance to clogging by scale or organic material.

- Large turbulent flow emitter pathways provide outstanding flow accuracy
- Clog resistant design of emitter reduces filtration requirements
- High distribution uniformity is maintained through the life of the system to maximize leaching efficiency
- All tubing and component materials have been selected for durability and chemical resistance
- May be used for surface or buried applications
- Heavy wall or welded emitter line available to suit site requirements

ABOVE GRADE



BELOW GRADE



Ore-Max Heavy Wall Emitter Line

- .520" ID x .630" OD x .055" wall polyethylene tubing for excellent emitter retention at normal operating pressures (up to 40 PSI maximum)
- Ore'Max turbulent flow in-line emitter
- Standard spacings of: 20", 24", 28", 32" and 36"
- Standard 1,000' coil length
- Ordering information example:

6924H	2 GPH, 24" emitter spacing, heavy wall emitter Line
6928H	2 GPH, 28" emitter spacing, heavy wall emitter Line

Ore-Max Welded Emitter Line

- .520" ID x .620" OD x .050" wall polyethylene tubing
- Ore'Max turbulent flow in-line emitter
- Emitter barbs sonic welded to tubing for maximum emitter retention. Ideal for use on systems requiring repeated retrieval and layout (40 PSI maximum)
- Standard spacings of: 20", 24", 28", 32" and 36"
- Standard 1,000' coil length
- Ordering information example:

6924W	2 GPH, 24" emitter spacing, welded emitter line
6928W	2 GPH, 28" emitter spacing, welded emitter line

ORE MAX®
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U.S. Patent Nos: 5,005,864 and 5,030,279

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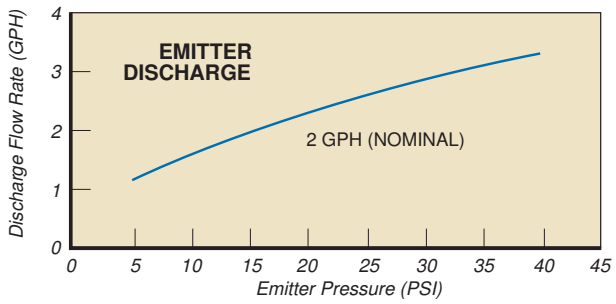
Specifications

Emitter Specifications:

Rated Flow - 2 GPH @ 14 PSI
Pressure range for ± 10% flow variation: 11 PSI - 17 PSI
Pressure range for ± 20% flow variation: 8 PSI - 20 PSI

Flow Rate vs Pressure Curve



Construction Materials

- High Density Polyethylene or Polypropylene for heavy wall emitter line.
- High Density Polyethylene For welded products.

Manufacturer's Cv

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Passageway Design

Long path, fully turbulent flow large passageway
Minimum path dimension exceeds .040"

Flow Entry Configuration

360° radial non-clog design

Filtration Requirements

Variable depending on specific application. 155 mesh recommended.

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Tubing Specifications

WADE RAIN Irrigation Systems utilizes the finest polyethylene resins available for the production of Ore'Max Emitter Line.

Material

Tubing shall fall within the specification outlined in ASTM D1248 for a Type 1, Class C, Category 4, P14 Polyethylene and to ASTM D3350 for PE12111C. More specifically, materials shall equal or exceed Union Carbide G-Resin 7510 Natural 5 linear low density polyethylene blended with Union Carbide DFDN-0092 carbon black master batch to produce an optimum carbon content of between 2 and 3 percent by weight of 25 millimicron particle size.

Processing

Carbon content test will be run according to ASTM Standard D1603-76 to determine that the proper percentage of carbon content is being maintained. Tests will be conducted to determine mixing and dispersion for maintaining optimum resistance to UV degradation.

Environmental Stress Crack Resistance

Tubing shall be tested for resistance to environmental stress cracking according to the standards and procedures outlined in ASAE S435.

Dimensional Tolerances

±.003: on all published dimensions.

Engineering Data

Application Flow Rate, GPM/Square Foot:
(2 GPH Emitter ÷ 60) x (emitter spacing' x emitter line spacing')

Example:

2 GPH emitter, 24" emitter spacing, 36" line spacing
(2 ÷ 60) ÷ ((24 ÷ 12) x (36 ÷ 12)) = .0055 GPM/Square Foot

Emitter Line Pressure Loss