ORE-MAX®

Best practice drip systems for heap leach mining

THE PROVEN MAX-EMITTER® • MAXIMUM PLUG RESISTANCE • MAXIMUM ORE RECOVERY

www.ore-max.com

COPPER OPERATION, UNITED STATES: 25% COPPER EXTRACTION INCREASE A copper mine still using sprinklers wanted to see a comparison of a drip system on their heap leach operations. The results of very thorough testing showed a consistent 25% increase in copper production with the Max-Emitter system. In a second test, up to 90% of the available soluble copper was extracted. *Read more success stories at www.ore-max.com/success.*

MORE COPPER

COPPER OPERATION, SOUTH AMERICA: MAX-EMITTER CONVERSION INCREASES COPPER EXTRACTION 18% After successfully using Ore-Max Emitterline for years, the mine purchasing department decided to "save money" by purchasing less expensive agricultural emitters. The extraction rate immediately dropped 18%. Reimplementation of the Max-Emitterline restored their high 80% extraction rate and the electrowinning tankhouse was at 100% capacity for the first time in years.

Is Your Mine Operating at
DESIGN PRODUC

The high cost of PLUGGED EMITTERS

In a typical gold mine with gold at a price of $800 per ounce:

Each Emitter costs:	$ 00.22
And produces per year:	$212.00

In a typical copper mine with copper at a price of $3.50 per pound:

Each Emitter costs:	$ 00.22
And produces per year:	$188.00

Low cost emitters that plug are a false economy

HERE'S THE ANSWER: **NEW TECHNOLOGY**

Most heap leach mining operations experience ore recovery at levels significantly below their design production. Plugged emitters are the primary reason. Six years of practical application studies reveal that ***the Max-Emitter greatly reduces plugging and increases mine performance up to 25%*** bringing mine operations closer to their original performance specifications.

PROVEN INDEPENDENT TEST RESULTS

The Center for Irrigation Technology (CIT) at California State University, Fresno is the official industry testing laboratory for drip irrigation products. The Max-Emitter was put through the standard grit test developed to measure the ability of emitter designs to resist plugging. CIT could not plug this emitter under the established testing procedure. The Max-Emitterline went through the grit test TWICE with grit at 5500 ppm and still did not plug! All other types of emitters plugged early on their first test.

These mines approached or achieved full design production levels. Learn how and why mines all over the world are making the switch to the Max-Emitterline.

MORE GOLD

GOLD OPERATION, SOUTH AMERICA: 26% GOLD EXTRACTION INCREASE

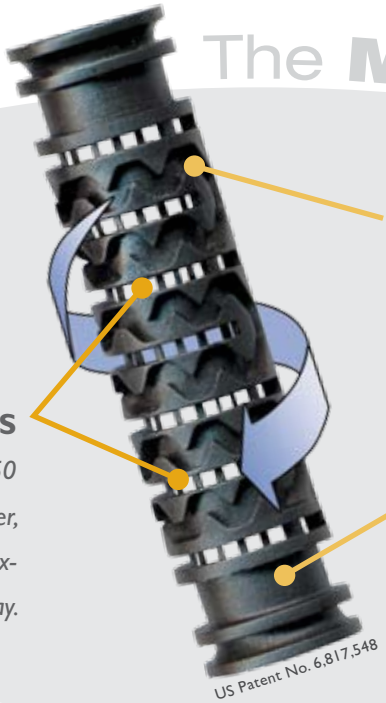
In 2003, from June through December as the Max-Emitterline was phased into operations, seven consecutive monthly production records were set. Management said extraction on the heap leach area increased from 55% to 83% when the mine converted from the "commodity emitter" to Max-Emitter.

GOLD OPERATION, UNITED STATES: MAX-EMITTERLINE CONVERSION RESULTS IN 10% EXTRACTION INCREASE A major gold operation in the U.S. was operating with a competitor's agricultural drip emitters with limited success. A brief test of the Max-Emitterline showed an immediate 10% increase in production, and the mine began a 100% conversion to Ore-Max.

Read more success stories at www.ore-max.com/success.

TION?

The MAX-EMITTER



US Patent No. 6,817,548

LARGEST FLOW PATH

The Max-Emitter has the largest flow path in the industry. This allows the emitter to pass any debris that is small enough to enter through the screen, which further reduces plugging.

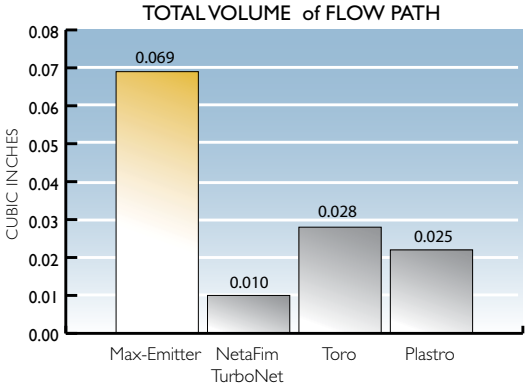
OVER 150 SCREEN INLETS

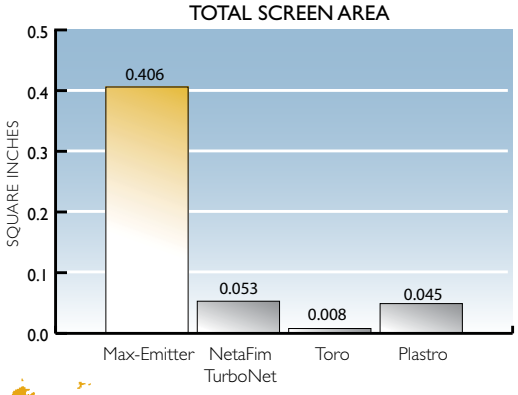
The Max-Emitter design incorporates over 150 screen inlets placed 330° around the Max-Emitter, holding out all but the smallest particles. The Max-Emitter is the most plug resistant emitter today.

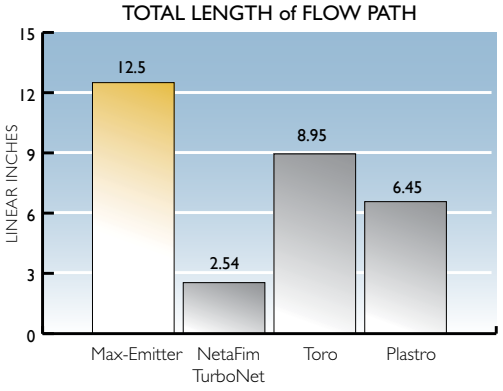
TWO DRIP EXIT HOLES

Two exit holes are drilled 180° apart at the exit chamber of the emitter. Either one will pass the full discharge amount. This ensures unhampered flow regardless of how the emitter is placed on the pad.

MAX-EMITTER vs. THE COMPETITION:







www.ore-max.com • Don't leave 25% behind.

MAX-PROFITABILITY

THE DOLLARS & SENSE OF INCREASED EXTRACTION

Typical gold mine:

Annual potential increase in gold production using the Max-Emitter for a typical gold mine producing 270,000 oz per year at $850/oz:

OVERALL GOLD PRODUCTION (OZ)	GROSS REVENUE	INCREASE %	ADDITIONAL GOLD PRODUCED (OZ)	REVENUE INCREASE @ $850/OZ
272,700	$ 231,179,000	1%	2,700	$ 2,295,000
283,500	$ 241,000,000	5%	13,500	$ 11,475,000
324,000	$ 278,811,000	20%	54,000	$ 45,900,000

Typical copper mine:

Annual potential increase in copper production using the Max-Emitter for a typical copper mine producing 27,000 short tons per year at $3.50/lb Cu:

OVERALL COPPER PRODUCTION (ST)	GROSS REVENUE	INCREASE %	ADDITIONAL COPPER PRODUCED (ST)	REVENUE INCREASE @ $3.50/LB CU
27,270	$ 190,890,000	1%	270	$ 1,890,000
28,350	$ 198,450,000	5%	1,350	$ 9,450,000
32,400	$ 226,800,000	20%	5,400	$ 37,800,000

COMPLETE LEACH PAD SYSTEM DESIGN & SUPPLY

LEACH SYSTEM DESIGN
20 years experience

Max-Emitterline: Available in different flow rates and spacing to fit each mine's needs.

Ore-Max Sprinkler Systems: Custom designed systems for the pad.

SunFlow Lay Flat Hose: Supply lines, low cost, flexible, easy to move.

Drainage Pipe: High quality, reliability.

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ORE-MAX®

THE MAX-EMITTER® inside the tubing

US Patent No. 6,817,548 • Foreign Patents Pending