

# DOMRES RECYCLES MOUNTAIN, DESERT AGGREGATE

BY TOM KUENNEN

Domres Grading, Inc., of Phoenix will use its new MC 110 2i EVO in the yard to crush demolition concrete and stone from excavations, but personnel can also use it to mount/track residential home sites to crush material on-site.

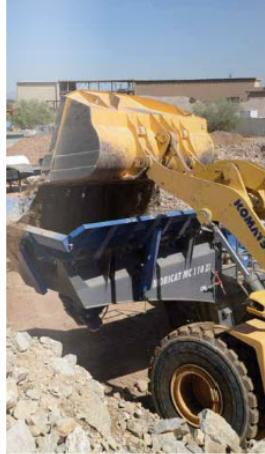
24 AUGUST 2014

25 of 68

PHOTO COURTESY OF DOMRES GRADING, INC.



LEFT The loader feeds the MC 110 Zi EVO. ABOVE While the Domres managers are pleased with the elliptical motion of the pre-screen on the machine, Kleemann offers both vibrating grizzly (G) and independent pre-screen (L) models in modern configurations for 2014. "We want to offer a machine with the same features as competing manufacturers, while presenting a different model that may cost a little more, but provides the enhanced productivity of the independent pre-screen," Kleemann technical service manager Kelly Graves said. Both models are Tier 4 Final emissions-compliant. The new MC 110 Ri EVO has a vibratory feeder with integrated grizzly, while the value-added MC 110 Zi EVO incorporates a vibrating feeder with an independent, double-deck, heavy-duty pre-screen.



In Arizona's Valley of the Sun, a new jaw crusher produces aggregate from demolition concrete, reclaimed asphalt pavement (RAP) and virgin stone brought to the yard from housing sites in the mountains above Phoenix and suburbs. Ultimately, the crusher will take its place up on the mountainsides, crushing excavated virgin stone from home sites for use right there on the spot.

The new Mobicat MC 110 Ri EVO and MC 110 Zi EVO mobile jaw crushers from Kleemann made their debut to the North American market at CONEXPO-CON/AGG 2014, and the same MC 110 Zi EVO shown there now works with multiple applications for Domres Grading Inc., an Arizona contractor, and its recycling subsidiary.

#### HOMES WITH A VIEW

The MC 110 Zi EVO acquired by Domres Grading Inc. with independent double-deck pre-screen does more for its own-

ers, who use it in their yard for processing demolition concrete and milled asphalt into recycled concrete aggregate (RCA) and reclaimed asphalt pavement (RAP), and for crushing virgin stone removed from construction sites. But in the Phoenix area, mountainside homes with scenic views and cool breezes are preferred places to live. Domres specializes in preparing sites for mountainside residences, and ultimately Domres will use the portability and mobility of its new MC 110 Zi EVO tracked jaw crusher to bring the machine to the mountainside construction sites, crushing excavated stone for re-use right there.

**"WE CAN'T BELIEVE THE AMOUNT OF FUEL THAT WE ARE NOT USING."— TOM DOMRES**

"We needed a machine that would produce for us in our yard, but also have the mobility to get into small, tight areas, like our hillside excavation work on the sides of mountains," company president Tom Domres said. "We do custom homes, and need to be able to climb up a mountain, get on a small site and crush. Not only is this machine more maneuverable, but it has a big jaw in a small body, so to speak. We can get onto a small, postage stamp-sized site and produce a lot of material. We will take the rock out of the ground, drop it in the hopper, and it will come out the other end at minus 3-inch, ready to lay down."

The machine's compact size and powerful tracks make work on mountainside home sites possible, he said. "That's where this crusher will shine, because until track-mounted crushers came out, we had to haul the excavated rock out and crush it down below, at considerable expense," he added.

This on-site process cuts costs in a number of ways, Ryan Domres said. He's the manager of Resource Recycling of Arizona LLC, an affiliated firm. "We eliminate the trucking costs, plus no dump fees for bad material, no fees for purchasing new material to replace the bad, and no fees for hauling new material back in." Exhaust emissions and airborne particulate matter from haul trucks also are eliminated.

Also, reuse of excavation material on site makes the residential project eligible for Leadership in Environmental and Energy Design (LEED) certification. This is desirable for owners of upscale architect-designed residences, as points may be awarded for LEED Materials & Resources credits based on diversion of construction waste from landfills, resource reuse, recycled content, and use of regional materials.

"Our nation is moving toward recycling and reuse, and we want to be a part of that," Tom Domres said.

#### PRE-SCREEN BOOSTS THROUGHPUT

"The pre-screen is a real big deal for us," Ryan Domres said. "With the grizzly in our old machine, mud would build up and blind over to where it could not be side-discharged. It would pack up with mud all the way to the



**astecused.com**  
 Joe Clancy, Astec Pre-Owned Equipment  
 Mobile: 423.240.6968

## SHOP SUMMER INVENTORY SILOS



**Astec 14 foot diameter, 300 ton capacity, (1) Storage Silo, New in '07**

- Electric blanket heat on cone
- 3 ton enclosed bin loading batcher
- Full 1/2" ceramic cone liners
- 1/2" ceramic batcher liners

ONLINE #694 - \$130,000



**Astec NG-30 300 ton (2) Storage Silos, plus...**

- Electric blanket heat on cone
- 3 ton enclosed bin loading batcher
- 1/2" ceramic cone & batcher liners
- Horizontal Traverse Conveyor with electric blanket heat on conveyor, walkway on one side, 30 hp drive
- 10' x 90' Astec Track Scale
- Inclined 36" x 20" Crossover Traverse Conveyor with electric blanket heat on conveyor, walkway on one side.

ONLINE #710 - \$425,000



**Astec 300 ton portable, (1) Storage Silo, New in '01**

- Hot oil heat on cone
- Seismic II design
- 1/4" AR spool liners up to the high bin indicator.
- 8 ton weigh batcher
- Dims with axles and 5th wheel 78' L x 14' W x 14'-10" H, 65,000 lbs.

ONLINE #395 - \$135,000

**ASTEC, INC.** an Astec Industries Company  
 4101 JEROME AVENUE • CHATTANOOGA, TN 37417 USA  
 423.867.4210 • FAX 423.867.7909 • 4382916.com





In the yard, Domres workers put demolition concrete or milled asphalt into the MC 110 Zi EVO's hopper.

The crusher inlet is 28 by 44 inches.

Recycled concrete aggregate (RCA) or reclaimed asphalt pavement (RAP) product comes out.

The tracked crusher offers mobility for use outside the yard as well.

grizzly, and all the fines would be forced through the jaw.

"The way this pre-screen shakes, all the mud and wet material falls through," Ryan Domres said, "whereas with the old machine it would be compacted into a blob that would ride across the grizzly feeder and into the jaw. It would then lock up in the jaw and you would be crushing wet, sticky mud, sand and dirt."

"The pre-screen provides a totally different motion from the vibrating grizzly," Tom Domres said. "The grizzly has a linear motion, while the pre-screen has an elliptical motion, just like a stand-alone screen would have. It separates the material instantly, and that's big for us."

#### MISERLY FUEL CONSUMPTION

Users of the new MC 110 Zi and MC 110 Ri benefit from a newly designed crusher unit with an extra-long, articulated crusher jaw. Like the EVO Mobirex mobile impact crushers, the new Mobicat EVO mobile jaw crushers use direct drive crushers and electric drives for the vibrating conveyors, belts and

the pre-screen. This permits efficient operation with low fuel consumption, and allows optimal loading of the crusher. Beneath the crusher a deflector plate keeps tramp metal from degrading the conveyor belt.


Although he had less than 100 hours on the machine when interviewed, Tom Domres already could see substantial fuel savings due to the Mobicat's diesel-electric drive system.

"Today, fuel consumption is a big deal," Tom Domres said. "We don't have the exact numbers this early, but not

**"THE GRIZZLY HAS A LINEAR MOTION, WHILE THE PRE-SCREEN HAS AN ELLIPTICAL MOTION, JUST LIKE A STAND-ALONE SCREEN WOULD HAVE."— TOM DOMRES**

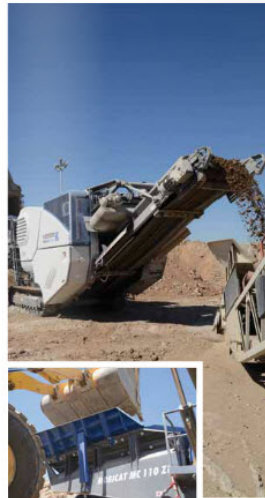
only is the Mobicat 'crushing' our other crushers, but all our other equipment in fuel consumption. We can't believe the amount of fuel that we are not using. We had not been familiar with the diesel-electric drive but now are believers in its fuel economy."

The Kleemann CFS is designed to manage a more equal loading of the crushing area, in which the conveying frequencies of the feeder trough and the pre-screen are adapted independently of each other to the level of the crusher, thus boosting performance.

The new Mobicat crushers incorporate a newly designed longer swing jaw, which prevents blocking of coarse material while moving all mounting elements of the crusher jaw from the wear area. In addition, the transfer from the pre-screen to the feeder trough is designed so material simply tilts into the crushing jaw, providing an even material flow. With this property and other features the new Kleemann Mobicat MC 110 Ri and MC 110 Zi achieve outputs of up to 300 tons per hour. 



ABOVE Both have been completely redesigned with a lighter transport weight to ease portability, with the MC 110 Ri EVO weighing 85,000 pounds, and the MC 110 Zi EVO weighing 87,000 pounds. The new design includes hopper walls integrated in the chassis, and a fully hydraulic crushing gap adjustment via touch panel. BELOW With the Kleemann Continuous Feed System (CFS), each step the material goes through in the plant is wider than the diameter of the step before it, eliminating choke or wear points; the CFS also keeps a choke feed to the crusher, eliminating stop/starts of the feed system and improving production, material shape and wear.



## RAP & SHINGLE BINS



Tarmac provides consulting, installation, operation and trouble shooting services around the world; including integration of RAP & Shingle Bins. Call Tarmac today.

**TARMAC**   
INTERNATIONAL, INC.  
www.tarmacinc.com  
816-220-0700

World Leader in Asphalt, Frac-Sand Processing, Thermal and Air Pollution Control Equipment.