



QUARRYING | MDS M515 PROCESSING RIP-RAP

A customer in Virginia, U.S.A operates a Granite Quarry and received a large order to produce Rip-Rap material for a sea defense project.

Challenge

The Job required an oversize material of (12"-31.5") 300-800mm and a mid-product size of (6"-12") 150mm-300mm. The quarry rock had been blasted and contained material up to (30") 750mm.

A traditional scalping screen could not give the required 2 products in one pass due to the size restrictions between the top and middle deck of screens.

Job Requirements

- Machine should be able to handle a feed size of up to (30") 750mm
- Must be heavy-duty enough withstand a consistent high tonnage feed of large, abrasive material
- Produce 2 products within spec at (6"-12") 150mm-300mm and (12"-31.5") 300-800mm in one pass



M515 Heavy Duty Trommel Solution

The MDS M515 has a 1.5m wide drum, and wide mouth hopper opening meaning it can accommodate material up to (31.5") 800mm in size. The design of the machine offers large clearance between the bottom of the drum and the side discharge belt resulting in a mid-product of up to (18") 450mm.

Weighing in at 48 tonnes the 515 is heavy duty and robust enough to handle the most abrasive materials. The machine is protected from excessive wear by using Hardox steel in the feed hopper, screens, and drum outlets and using crusher-grade tough flex conveyor belts.



The MDS M515 Heavy Duty Trommel can handle large feed loads of up to 20T in its massive 12.6m³ (16.5yd³) hopper, taking up to (32") 800mm size rocks in the feed. This unit offers a different screening mechanism to regular screens, allowing it to effectively clean rocks and screen materials. It has a rotating drum that tumbles and agitates the material inside, allowing it to break impurities from the rocks.



Location: USA

Machine: MDS M515

Application: PROCESSING RIP-RAP

Throughput: 450-500 TPH, Fuel Efficiency 15 L/hr

Machine Specs:

- Engine, CAT 3.6 Tier 4 Stage 5 Diesel
- Fines, (6") 150mm changeable screens
- Mid-Product, (12") 300mm changeable screens





Key Benefits:

- 1. Product Classification:** The M515 was able to create 3 different sized products:
 - (0-6") 0-150mm Fines Product
 - (6"-12") 150-300mm product on the mid-conveyor (Job requirement)
 - (+12") +300mm product on the oversize conveyor (Job requirement)
- 2. Fines Separation:** The M515 was able to separate the (0-6") 0-150mm fines product that was not a requirement for the job. However, the stockpile height of the fine's conveyor (4.07m) means the material can be feed directly to another screening plant to make additional products.
- 3. Wear Resistance:** Easily replaceable wear parts made from tough materials means an extended life span of the MDS units even in the harshest conditions.

Conclusion:

The implementation of the MDS M515 heavy duty trommel resulted in the customer being able to successfully fulfill the job requirements, in a cost-effective, efficient manner and helped to secure further contracts for other Rip-Rap projects.

See the machine in action here - [M515 Processing Rip-Rap in Richmond, USA - YouTube](#)

