

# AIR SEPARATOR



**TOUGH EQUIPMENT FOR YOUR TOUGH JOBS!**



GENERAL STEEL AND SUPPLY CO.



# OVERVIEW



## A LEADER IN AIR SEPARATION TECHNOLOGY

The Fisher Air Separator effectively removes unwanted fines from aggregate products, bringing otherwise rejected material into specification. Its ability to “dry” process materials and remove excess fines promotes a clean and efficient operation. It can eliminate the need for a traditional wash plant, and in areas where water is in limited supply, it can be an effective and economic tool.

Our air separator is a field proven machine in abrasive and non-abrasive applications and has achieved successful separation of unwanted fines in limestone, granite, trap rock, basalt, silica, and sand & gravel applications. It is available as both a portable or stationary unit.

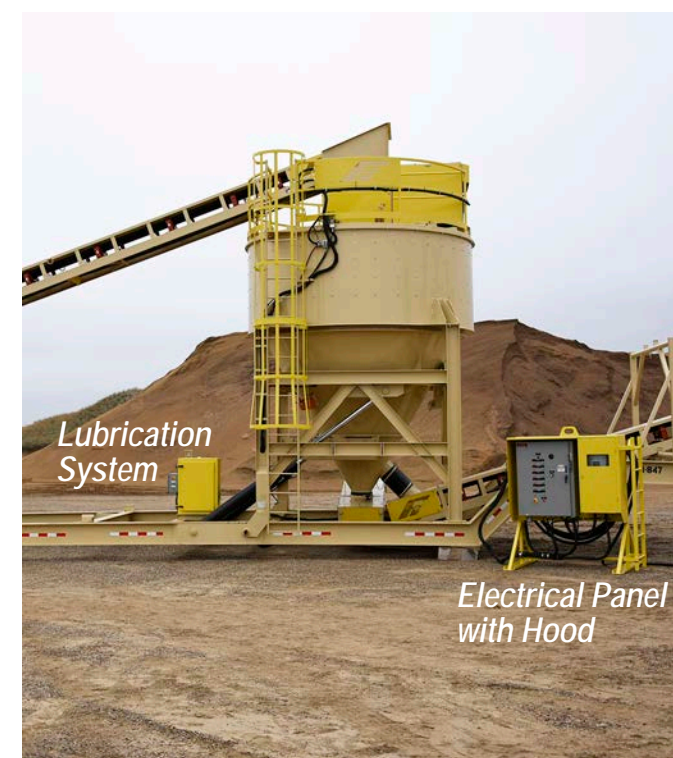


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# FEATURES



## KEY FEATURES:

- ▶ Designed for up to 150TPH of 3/8" (10 mm) minus product
- ▶ 18" (450 mm) x 34' (10.3 m) feed conveyor
- ▶ Two 18" (450 mm) x 24' (7.3 m) discharge conveyors
- ▶ 75HP Electric Motor with AC Inverter
- ▶ Automatic, timed lubrication system
- ▶ 10HP Hydraulic system for ease of set up and tear down
- ▶ Removable electrical panel stand with controls and 150' (45 m) of power cord
- ▶ Heavy-duty beam chassis frame
- ▶ U.S. Patent no. 6,290,071





# SET-UP

Step 1



Step 2



Step 3



Step 4



Step 5



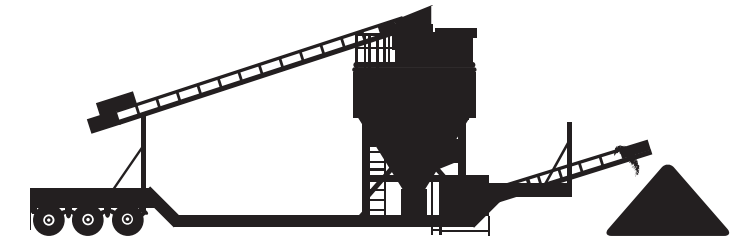
Step 6



## SETTING UP THE AIR SEPARATOR:

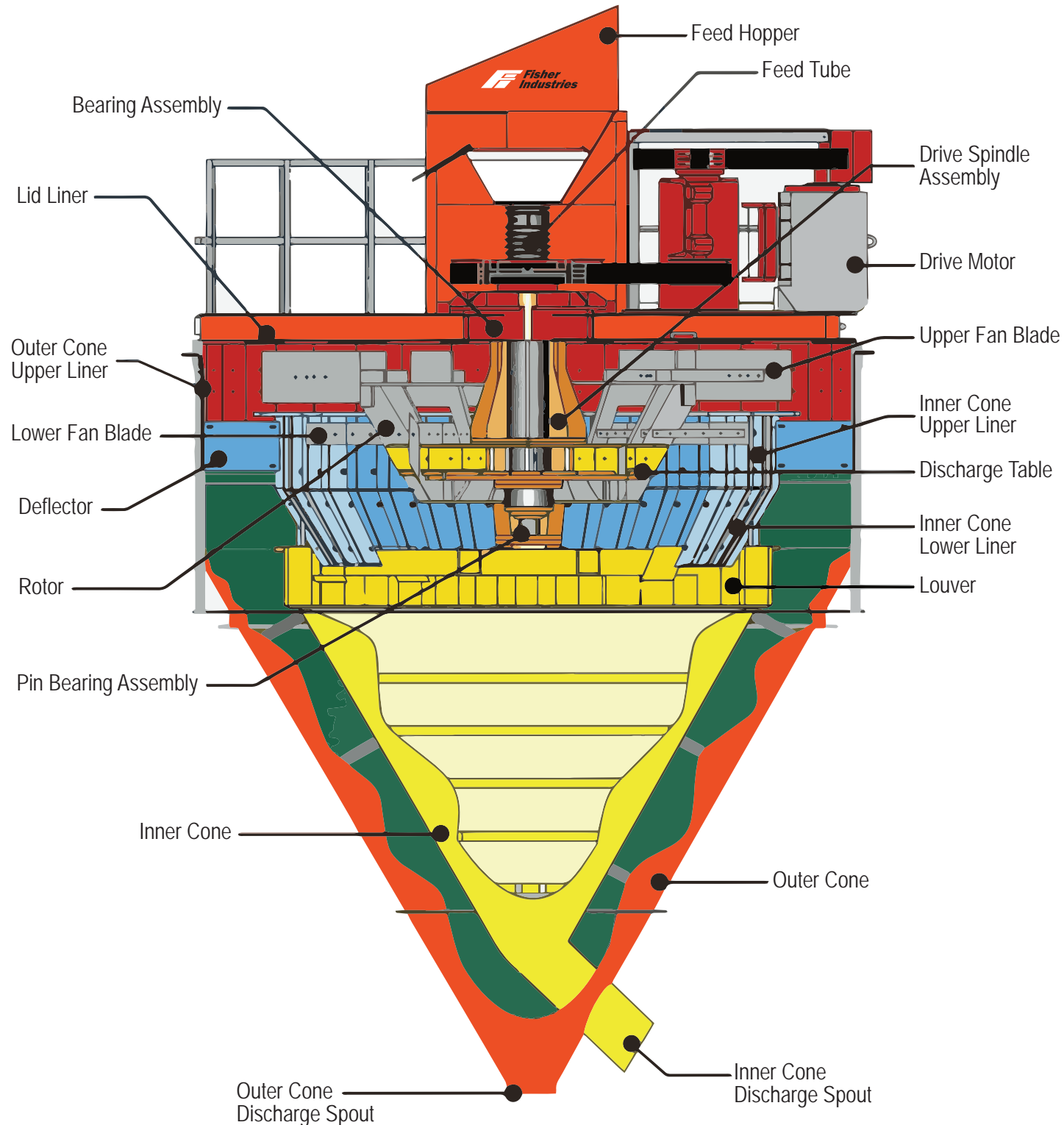
- ▶ Step 1: Level the ground
- ▶ Step 2: Block and level the separator
- ▶ Step 3: Remove the conveyors and electrical panel
- ▶ Step 4: Connect the electrical panel to the electrical source
- ▶ Step 5: With proper motor rotation obtained, turn on the hydraulic system, lifting the air separator into position
- ▶ Step 6: Mount the conveyors and you are ready to begin separating!

The Fisher Air Separator has been designed with the portable contractor in mind. It is easily set up, disassembled, and transported. In just a couple of hours, the air separator can be ready to clean and classify your aggregate materials.





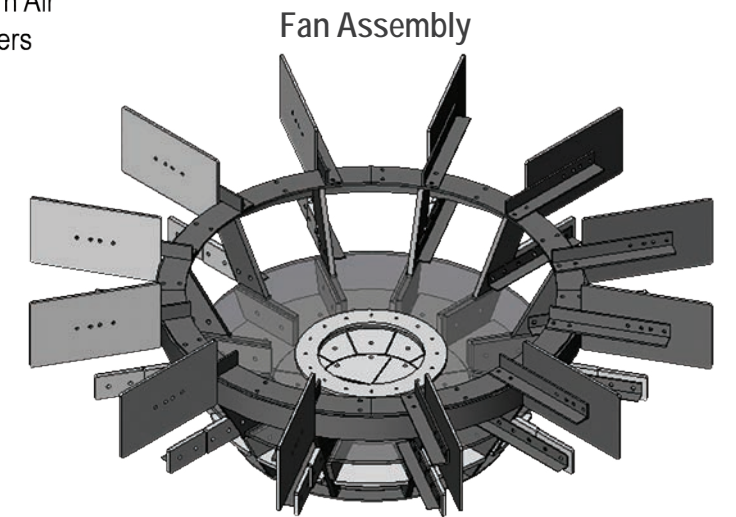
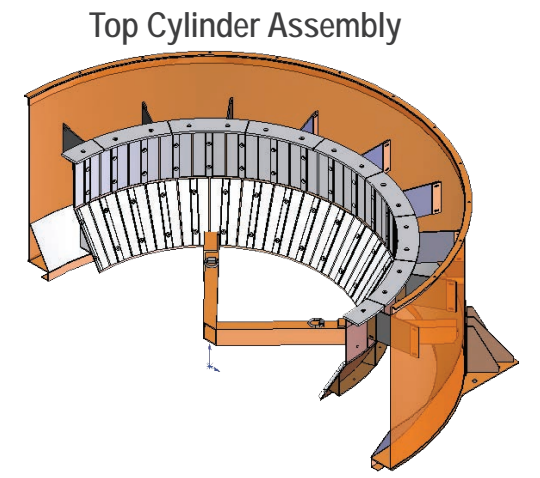
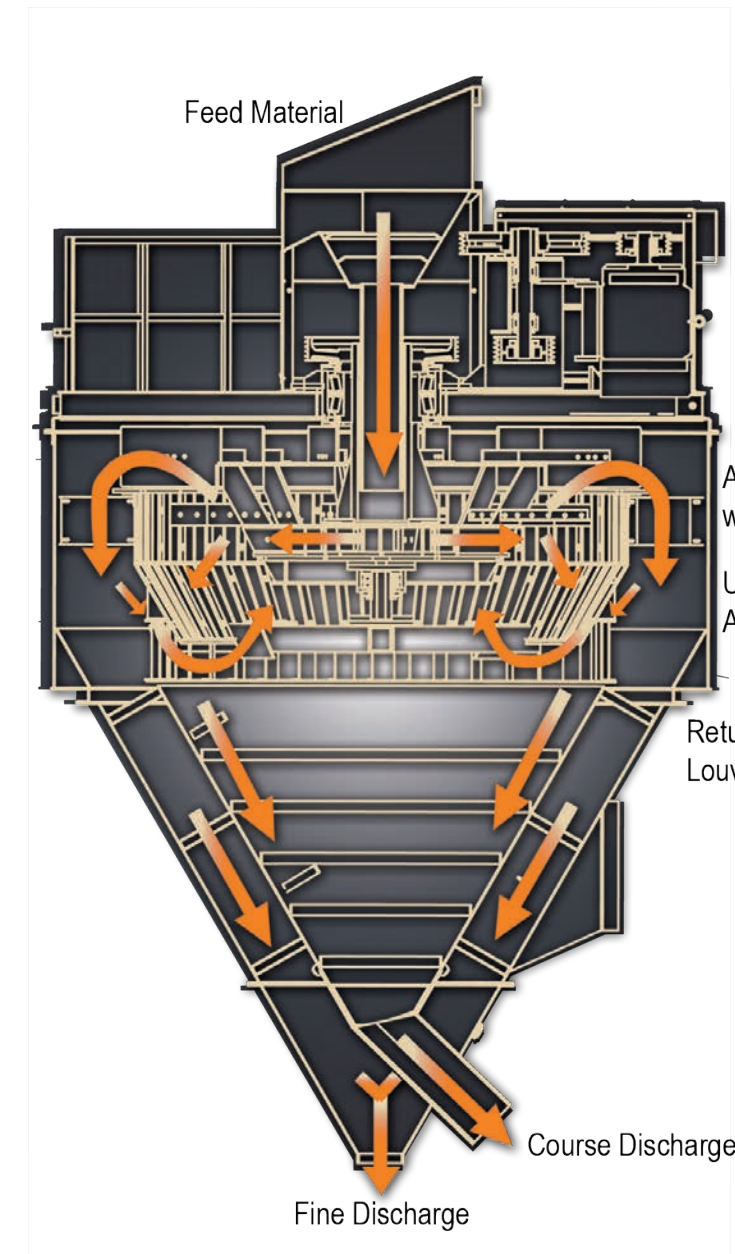
# OPERATIONS



Every separator built by Fisher Industries, whether it's portable or stationary, receives the same careful craftsmanship and attention to detail. Utilizing rugged, bolt-on wear liners, the Fisher Air Separator is designed for minimal downtime.

## ABOUT THE AIR SEPARATOR:

- ▶ Operation is simple, effective, and requires very little training
- ▶ A properly adjusted and fed Air Separator will maintain 100% of circulating air in the machine
- ▶ The only air discharge from the machine is the air displacement from the material





# ECO-FRIENDLY



Water and fuel conservation are both important factors when it comes to environmental and economic stewardship. Use of the patented Fisher Air Separator supports conservancy of both these valuable resources. Its ability to “dry” process materials can eliminate the need for a traditional wash plant and significantly reduce the amount of sludge generated. Asphalt producers are able to reduce fuel costs, as the material is already dry upon entering an asphalt drum, meaning less time and energy is needed to manufacture asphalt.

Another benefit quarries are seeing when using a Fisher Air Separator, is the production of a second salable product. Dry fines from limestone, granite, and sand & gravel applications have been sold as aglime, mineral fillers for fertilizer, concrete filler, composite shingles, and pipe bedding. What was once washed away and rendered into non-salable sludge is now being turned into valuable and useful products.

Recently one of our customers from Australia has been awarded the Cement, Concrete, & Aggregates Australia (CCAA) Health & Safety Extractive – Environmental Innovation Award for their use of the Fisher Air Separator. This award is presented to the quarry operation achieving best overall environmental innovation performance, considering its location, size, and age. They were chosen for this award due to their “environmentally sustainable” way to produce quality manufactured sand considering such determining factors as: air quality, and water & waste management.



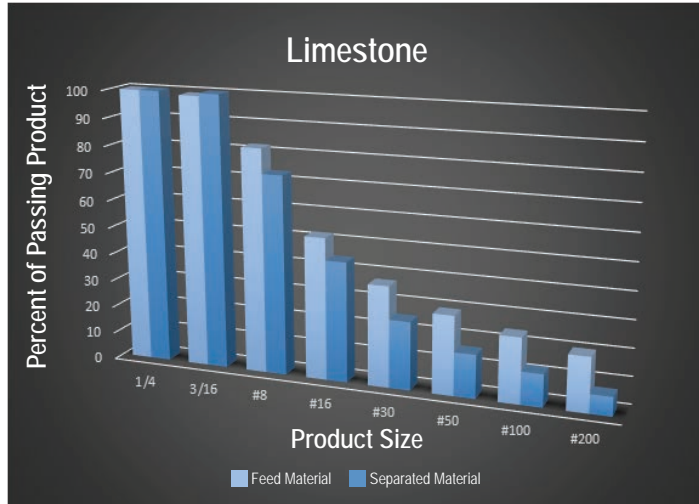
## TURN DRY FINES INTO A SALABLE PRODUCT:

- ▶ Aglime
- ▶ Mineral Fillers for Fertilizer
- ▶ Concrete Filler
- ▶ Pipe Bedding
- ▶ Use in Composite Shingles





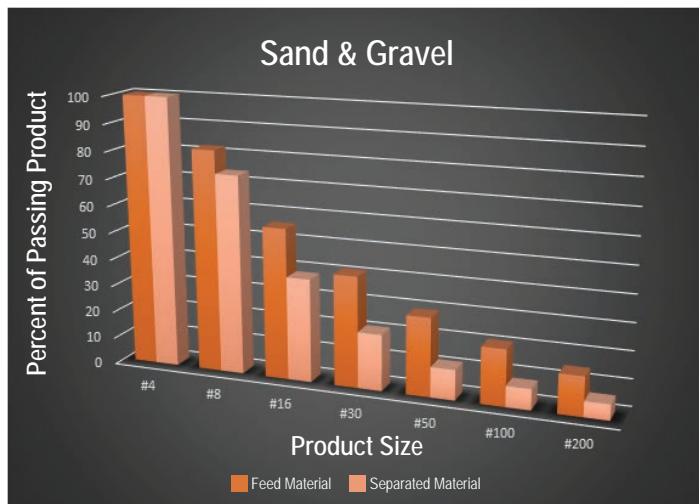
# RESULTS



## Limestone Results

90 TPH @ 1.5% Moisture; Speed @ 40 Hz

Product Size	Feed Material (% Passing)	Separated Material (% Passing)	Fine Material (% Passing)
1/4	100	100	100
3/16	99	100	100
#8	82	73	100
#16	52	44	98
#30	37	25	97
#50	29	16	94
#100	24	12	83
#200	20	7	66



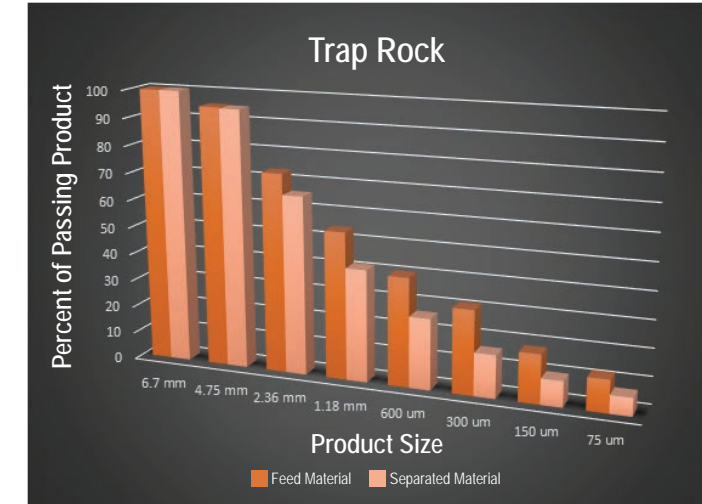
## Sand & Gravel Results

125 TPH @ 1% Moisture; Speed @ 55 Hz

Product Size	Feed Material (% Passing)	Separated Material (% Passing)	Fine Material (% Passing)
#4	100	100	100
#8	82	73.6	99.4
#16	55.8	38.2	97.2
#30	41	20.8	92.9
#50	29	11.2	79.2
#100	20.8	7.7	61
#200	14.5	5.8	42.3

In granite, limestone, trap rock, or sand & gravel, the Fisher Air Separator effectively removes unwanted fines from your aggregate material. In some cases, the Fisher Air Separator has cut the amount of #200 fines in half.

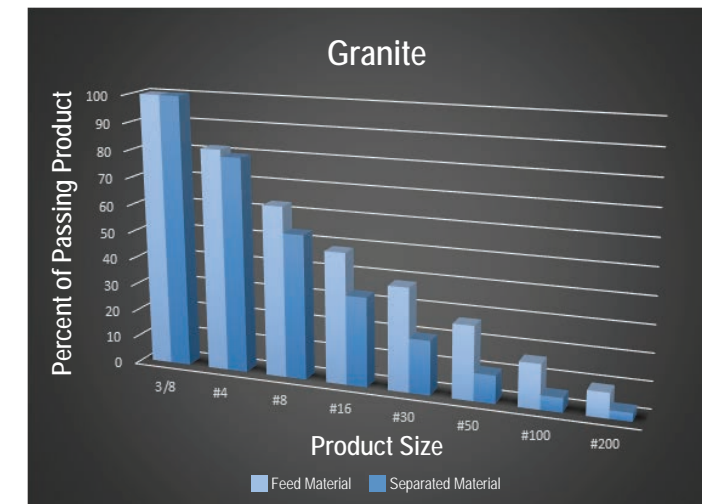
When processing natural fines with the Fisher Air Separator, a moisture content of three percent or less will provide the best results. In processing crusher fines, the Air Separator will run effectively at three to five percent moisture content.



## Trap Rock Results

150 TPH @ 2.5% Moisture; Speed @ 70 Hz

Product Size	Feed Material (% Passing)	Separated Material (% Passing)
6.7 mm	100	100
4.75 mm	95	94.7
2.36 mm	73	65.5
1.18 mm	54	41.2
600 um	40	26.1
300 um	31	15.8
150 um	18	9.5
75 um	12	6.7



## Granite Results

150 TPH @ 1% Moisture; Speed @ 60 Hz

Product Size	Feed Material (% Passing)	Separated Material (% Passing)	Fine Material (% Passing)
3/8	100	100	100
#4	81.8	79.4	99.6
#8	63.1	53.5	99.5
#16	48.5	33.1	98.9
#30	38.3	20	95.2
#50	27.2	10.3	78.8
#100	16.4	5.3	49.2
#200	9.2	3.1	26.1



# TESTIMONIALS



*"We can easily transport this machine to our other facilities as needed. It's as easy as leveling a piece of ground, blocking and leveling the separator, connecting the conveyors and electrical panel, and turning on the hydraulic system which lifts the separator into position."*

- Mark Pfaff, Plant Engineer, John S. Lane & Son's

*"Operation is easy, with very little training required. The unit is simple and straightforward to use and within half a day, you will know what is going on."*

- Joe Theron, Technical Advisor, Dakota Mining & Quarry Equipment



*"Up until now, about 15 percent of the product coming out of our crushers was a mixed undersized material that we deemed unusable and it went into the legacy pile. With the addition of the Fisher Air Separator, 85 percent of that unusable material is now usable, which dramatically decreases what is going to our legacy piles."*

- Mark Pfaff, Plant Engineer, John S. Lane & Son's



*"The process does not use water, it eliminates the need for traditional wash plants and silt ponds and the associated high costs of site rehabilitation. Since installing the plant, it has been found that the consumption of electricity has been considerably reduced and the production of aglime has improved."*

- Brendan Carruthers, Southern Quarries



*"The things that impress us about this unit are the energy, fuel, and labor savings. They are all reasons we put it in. The advantages are in the savings and they are looking quite significant."*

- Steve Butcher, Quarry Manager, Bass Point Quarry





## FISHER INDUSTRIES

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Fisher Industries is: Fisher Sand & Gravel Company, General Steel & Supply Company, Fisher Sand & Gravel - New Mexico, Inc., Arizona Drilling & Blasting, Fisher Grading & Excavation, Fisher Ready Mix, Southwest Asphalt, Southwest Asphalt Paving