

# Gravel Pit & Rock Crushing

UPPER MIDWEST - MULTIPLE LOCATIONS

## Aggregate Company Sees Significant Fuel Savings on Portable GenSet

### Problem

In the aggregate business, there is a dependence on Generator Power due to the remote locations as well as the versatility of having to move to different locations over a vast geographical area. This customer has numerous locations of this nature and the problem was fuel prices were soaring so the cost to power these locations went up dramatically. With this in mind, 360 ESI explored the possibility of optimizing these locations based on the fact that after initial testing, it was found that the GenSet systems were experiencing an extremely LOW Power Factor, even running at full load.

### Solution

360 ESI Engineers found that by correcting the Power Factor of the GenSet system to nearly 100%, the operating amps nearly were cut in half without changing any of the operational load, which resulted in a direct, immediate fuel consumption savings. Also, because of the ever changing load condition in these types of applications, 360 ESI designed a custom Automatic Adjusting Power Factor Correction Unit specifically for generator power that automatically adjusted with the changing load condition to keep the Power Factor at nearly 100%.

## RESULTS

### Facility Type

Aggregate/Rock Crushing/Gravel Pit

### Kilowatt Savings

10.2%

### Amperage Load Savings

44.4%

reduced from 1008.3 amps  
down to 560.3 amps

### Power Factor Correction

40% Improvement

59.3% to 99%

### Fuel Consumption

20% Reduction

in diesel consumption

### Projected Payback

9 months

"Every hour, we're saving 11 gallons, actually \$40 an hour, just on fuel consumption!"

- GENERAL MANAGER

