SAVINGS AS EASY AS 1-2-3

Global Pump models are designed with a state-of-the-art enclosed impeller that ensures both high efficiencies (fuel savings) and long component life due to lower wear rates. These factors combine to provide you with savings that allow our pumps to pay for themselves fairly quickly, as opposed to comparable competitor pumps.

1 - DETERMINE THE REQUIRED HORSEPOWER

Understanding how much power is required to achieve a specific duty point will help illustrate how much energy and fuel are required. To do so, we need to determine water horsepower, or the power water gains from a pump. We then determine brake horsepower, or the actual power required by the pump end, based on efficiency. The following example uses a duty point of 2500 GPM @ 100' of TDH to compare an 80% efficient 8" enclosed impeller Global Pump to a comparable, but only 60% efficient 8" open impeller pump.

WHP = (Flow x TDH)/3960 GPM-F

WHP = (2500 x 100)/3960 = **63**

BHP = WHP/Pump Efficiency

Global Pump BHP = 63/.80 = **79**

Competitor Pump BHP = 63/.60 = **105**

2 - CALCULATE THE FUEL CONSUMPTION

A fuel consumption rate of .055 gallons per HP per hour is typical for an engine of the size used in this example.

Fuel Consumption = BHP x Fuel Burn Rate

Global Pump Fuel Consumption
79 x .055 = **~4.34 GPH**

Competitor Pump Fuel Consumption
105 x .055 = **~5.77 GPH**

Fuel Consumption Differential
5.77-4.34 = **1.43 GPH**

3 - CALCULATE THE FUEL SAVINGS

Using an average diesel fuel cost rate of $3 per gallon and a fuel consumption difference of 1.43 GPH, the competitor pump costs $4.29 per hour more to operate than the comparable Global Pump. A full year's operational savings using a Global Pump nearly pays for the purchase of the pump over its competition.

Daily Savings = Fuel Cost/G x Fuel Consumption Difference/Hour x 24 Hours
= 3 x 1.43 x 24 = $102.96 in Fuel Savings Per Day

Annual Savings = Daily Savings x 365 Days
= 102.96 x 365 = $37,580.40 in Fuel Savings Per Year

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