

Value of Energy Savings

Royal Purple's lubricants typically produce energy savings that quickly exceed the total cost of the oil. Royal Purple has prepared this chart as a simple means of documenting these savings.



Brake Horsepower x 0.746

Motor Efficiency

x 1000 hours x \$KW/hour (1 year = 8,760 hours)

Assumptions: Motor Efficiency = 0.9 Cost per KW hour = \$0.10

Dollars of Energy Savings per 1000 Operating Hours											1000 Hour Energy Cost	
Electric Motor Size	500 H.P.	414.45	828.90	1243.35	1657.80	2072.25	2486.70	2901.15	3315.60	3730.05	4144.50	\$41,445.00
	250 H.P.	207.23	414.45	621.68	828.90	1036.13	1243.35	1450.58	1657.80	1865.03	2072.25	\$20,722.50
	100 H.P.	82.89	165.78	248.67	331.56	414.45	497.34	580.23	663.12	746.01	828.90	\$8,289
	50 H.P.	41.45	82.90	123.35	165.80	207.25	248.70	290.15	331.60	373.05	414.50	\$4,144
	20 H.P.	16.58	33.16	49.74	66.32	82.90	99.48	116.06	132.64	149.22	165.80	\$1,658
	5 H.P.	4.14	8.28	12.42	16.56	20.70	24.84	28.98	33.12	37.26	41.40	\$414
	1 H.P.	0.83	1.66	2.49	3.32	4.15	4.98	5.81	6.64	7.74	8.30	\$83
Amount of Energy Saved	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%		

This chart provides a simplified method for estimating the total power cost for operating electric motors and documenting the actual dollars saved (through energy savings) as a result of changing to Royal Purple's energy efficient lubricants.

Assumptions:

✓ A motor efficiency rating of 0.9 was selected because it is a typical value.

✓ An electrical cost of \$0.10 per kilowatt hour was selected for simplification.

(If actual cost is \$0.06/kw/hr., multiply savings by 0.6; if cost is \$0.12/kw/hr., multiply savings by 1.2, etc.)