

CHOPX Efficiency Comparison

Higher Pump Efficiencies... Add Up To Big Savings

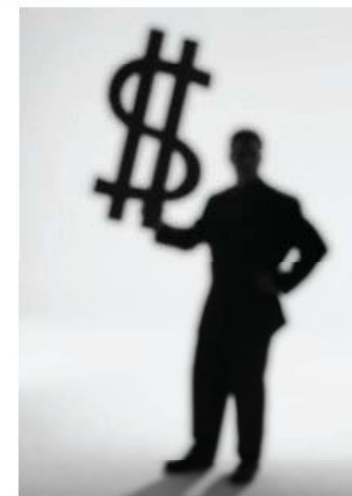
Duty Point		Hayward Gordon			Vaughan			Annual Energy Savings Using CHOPX
Capacity (GPM)	TDH (Ft)	CHOPX Model	Efficiency	BHP	HE Model	Efficiency	BHP	
300	30	3A	57	4.0	3M6	45	5.0	\$326.00
600	45	4A	66	10.3	4K6	55	12.4	\$686.00
650	60	4B	70	14.1	4L6	60	16.4	\$751.00
1500	80	5B	72	42.1	6U8	58	52.2	\$3,298.00
2500	45	8RB	72	39.5	8N10	68	41.8	\$751.00
3500	60	10B	75	70.7	10R12	68	78.0	\$2,384.00
5500	50	12B	72.5	95.8	12U14	68.5	101.4	\$1,830.00

It is estimated that nearly 20% of the world's energy demand is in the form of pumping systems and range between 25-35% of total energy required for many of the process industries. With constantly rising energy rates, pump efficiencies should be scrutinized more than ever which can result in significant savings.

Industry is placing an increased emphasis on pump cost of ownership or Life Cycle Cost analysis and it is important to remember that the single largest component is normally the

energy cost to operate the pump. In fact, the Hydraulic Institute estimates that energy consumption is 90% of the total cost of ownership.

A 10 percentage point difference in pump efficiency can add up to a \$700 annual saving on a typical 4" Chopper pump. The table above compares various size Hayward Gordon CHOPX models with the Vaughan offering for some commonly encountered duty points. We have used an energy price of \$0.05 per kWh and an operating time of 24/7.



The savings from a superior hydraulic design are significant enough when just considering one pump for one year. When multiple pumps are considered over the life time of the pumps, the savings can really add up.