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Hourly Cost to Run A Waterjet

There are several items to keep in mind when looking at the cost per hour to run a waterjet. These costs should be relatively universal regardless of the manufacturer of your waterjet. When we provide costs to our customers we always give a conservative target, which we believe can actually be achieved. We don't have any commissioned sales people; therefore no one here is going to give you an overly optimistic best-case scenario with regards to the cost to run your machine. Our goal is to see you succeed with your machine, not just to sell one to you. We are focused on what is best for you, not what is best for **WARDJet**. Talk with us and test us out.

Keep in mind that a waterjet manufacturer, whose survival is dependent upon commissioned sales people convincing you to purchase their product, tends to be swayed in their presentation of waterjets. They may describe it as the only ideal, perfect, lowest cost, sole solution to both your engineering as well as your life's problems. We all know at the end of the day the waterjet is just a *tool* to help you succeed in your business goals.

The facts are the same regardless of manufacturer:

- Fact: Abrasive is *not* supplied by the waterjet company and is the largest consumable cost.
- Fact: The abrasive flow rate is determined by the size of your pump, not the manufacturer.
- Fact: You should plan on your ruby orifice lasting approx 40 hrs – sales people may say 80 hrs.
- Fact: You should plan on a diamond orifice lasting approx 500 hrs – sales people may say 1,000 hrs.
- Fact: You should be conservative when calculating your cost. If there is not enough room to add $10 or more to your operating cost - **then waterjet may not be your best option**.

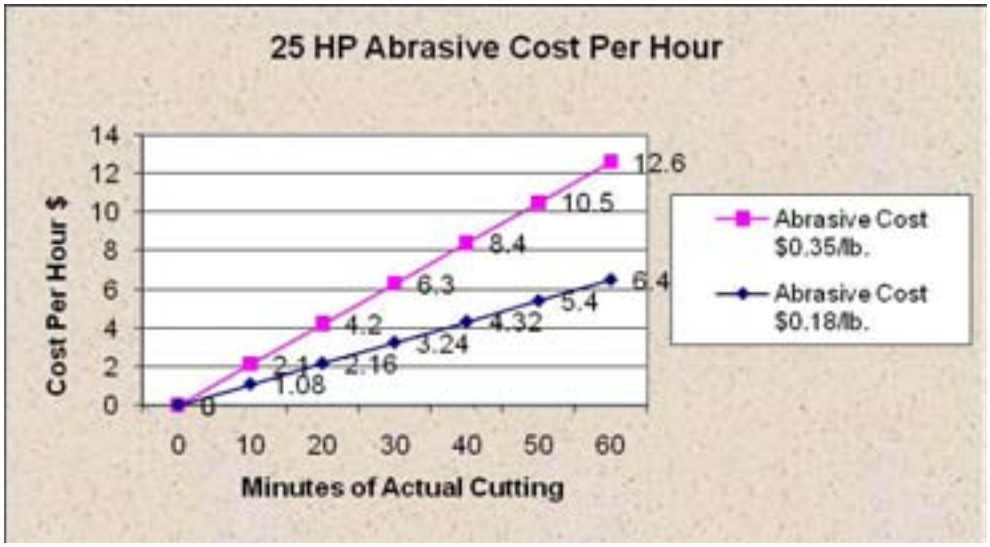
For example, you determine your operating cost using the chart below to be $60/hr, then later discover that actual operating cost is $70/hr. If that extra $10 means the difference between profit and loss for your company, then maybe a waterjet is not the right answer for your business...

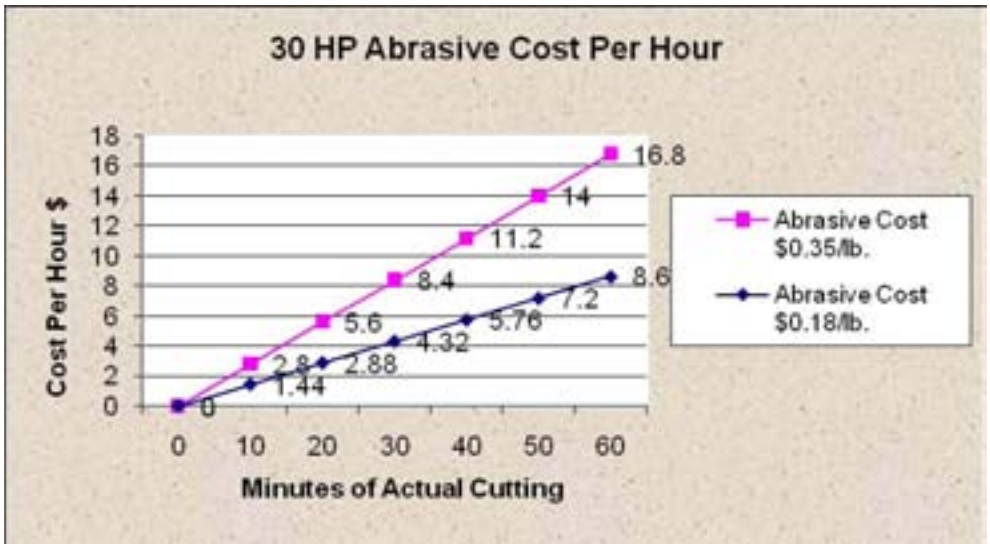
To calculate your costs per hour follow the steps below:

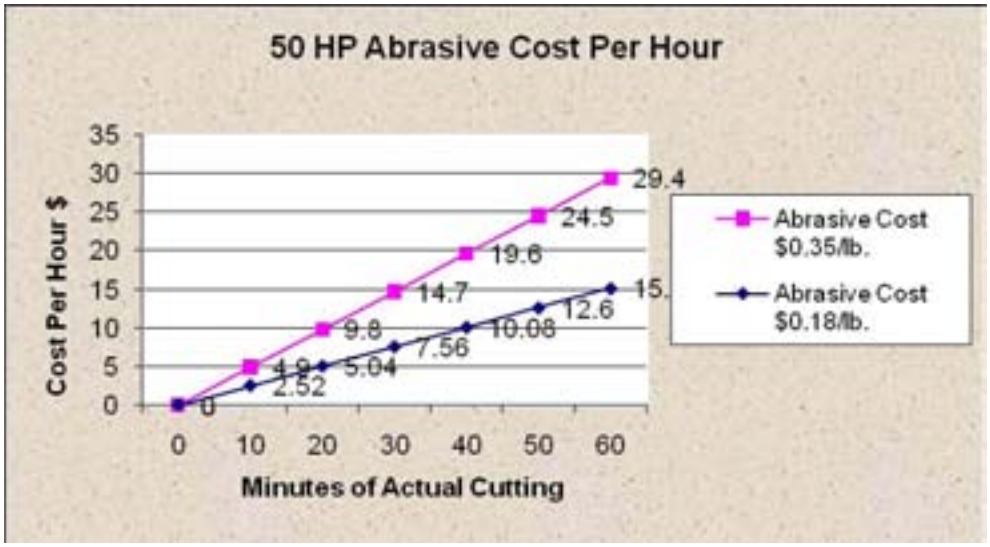
1. **Select the pump size and approx cost per lb. of abrasive you will be using**.

	25 hp	30 hp	50 hp
Flow Rate	.6 lbs/min	.8 lbs/min	1.4 lbs/min
Abrasive cost low $0.24/lb	$0.15/min	$0.19/min	$0.34/min
Abrasive cost high $0.42/lb	$0.25/min	$0.34/min	$0.59/min

2. **Find the chart for your pump type and determine how many minutes per hour you actually plan to be cutting. Use the pink line if you are using abrasive costing around $0.35/lb. or the blue line if using abrasive costing around $0.18/lb. This will give you your abrasive cost per hour.**







3. **Take the cost of your abrasive per hour and plug it in to the chart below. Add all of the items in the far right hand column including your abrasive amount to generate your total cost per hour to run the machine.**

Price Breakdown Per Hour

Orifices	$14-20	Lasts 40 hrs	$0.50/hr
Nozzles	$85	Last 80 hrs	$1.00/hr
Inserts	$155	Last 400 hrs	$0.39/hr
High Pressure Seals	$81	Last 250 hrs to 1000 hrs	$0.32/hr
Low Pressure Seals	$100	Last 5000-10,000 hrs	$0.02/hr
Power	50 HP pump	$0.10/kw hour	$4/hr
Water	50 HP pump	Estimate based on avg.	$2/hr
Abrasive	$0.35 to $0.18 per lb.	25 HP, 30 HP, or 50 HP	Insert value from chart
General Repairs	Grate Replacement, Dropped Nozzles (General Real World Issues)		$4/hr
Operator			Insert value
Capital	(Monthly payment)		Insert value
Total:			**$12.23 + abrasive + operator + capital repayment**