

**RinSave® Water and Labor Savings Calculations**

**Healthcare and Hospitality**

	Standard Washer	Milnor RinSave® Washer	Standard Washer	Milnor RinSave® Washer	Standard Washer	Milnor RinSave® Washer	Standard Washer	Milnor RinSave® Washer	Standard Washer	Milnor RinSave® Washer	Standard Washer	Milnor RinSave® Washer
<b>lbs/load</b> hp	<b>40</b> 5	<b>40</b> 5	<b>60</b> 5	<b>60</b> 5	<b>80</b> 10	<b>80</b> 10	<b>100</b> 10	<b>100</b> 10	<b>140</b> 15	<b>140</b> 15	<b>160</b> 15	<b>160</b> 15
mins/load	<b>45</b>	<b>40</b>	<b>45</b>	<b>40</b>	<b>45</b>	<b>40</b>	<b>45</b>	<b>40</b>	<b>45</b>	<b>40</b>	<b>45</b>	<b>40</b>
loads/hour	1.33	1.50	1.33	1.50	1.33	1.50	1.33	1.50	1.33	1.50	1.33	1.50
hours/day	8.00	7.11	8.00	7.11	8.00	7.11	8.00	7.11	8.00	7.11	8.00	7.11
loads/day	10.67	10.67	10.67	10.67	10.67	10.67	10.67	10.67	10.67	10.67	10.67	10.67
lbs/day	<b>427</b>	<b>427</b>	<b>640</b>	<b>640</b>	<b>853</b>	<b>853</b>	<b>1,067</b>	<b>1,067</b>	<b>1,493</b>	<b>1,493</b>	<b>1,707</b>	<b>1,707</b>
lbs/year (56 hrs/week)	<b>155,733</b>	<b>155,733</b>	<b>233,600</b>	<b>233,600</b>	<b>311,467</b>	<b>311,467</b>	<b>389,333</b>	<b>389,333</b>	<b>545,067</b>	<b>545,067</b>	<b>622,933</b>	<b>622,933</b>
gals/lb	<b>2.33</b>	<b>2.00</b>	<b>2.33</b>	<b>2.00</b>	<b>2.33</b>	<b>2.00</b>	<b>2.33</b>	<b>2.00</b>	<b>2.33</b>	<b>2.00</b>	<b>2.33</b>	<b>2.00</b>
gals/cycle	93.2	80	139.8	120	186.4	160	233	200	326.2	280	372.8	320
gals/day	994	853	1,491	1,280	1,988	1,707	2,485	2,133	3,479	2,987	3,977	3,413
gals/year	362,859	311,467	544,288	467,200	725,717	622,933	907,147	778,667	1,270,005	1,090,133	1,451,435	1,245,867
\$/1000 gals	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50	\$ 8.50
<b>Water/Sewer, \$/day</b>	<b>\$ 8.45</b>	<b>\$ 7.25</b>	<b>\$ 12.68</b>	<b>\$ 10.88</b>	<b>\$ 16.90</b>	<b>\$ 14.51</b>	<b>\$ 21.13</b>	<b>\$ 18.13</b>	<b>\$ 29.58</b>	<b>\$ 25.39</b>	<b>\$ 33.80</b>	<b>\$ 29.01</b>
<b>\$/year, Water/Sewer</b>	<b>\$ 3,084</b>	<b>\$ 2,647</b>	<b>\$ 4,626</b>	<b>\$ 3,971</b>	<b>\$ 6,169</b>	<b>\$ 5,295</b>	<b>\$ 7,711</b>	<b>\$ 6,619</b>	<b>\$ 10,795</b>	<b>\$ 9,266</b>	<b>\$ 12,337</b>	<b>\$ 10,590</b>
% HOT	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
Hot gals/day	696	597	1,044	896	1,392	1,195	1,740	1,493	2,436	2,091	2,784	2,389
Hot temp, deg F	140	140	140	140	140	140	140	140	140	140	140	140
Cold temp, deg F	55	55	55	55	55	55	55	55	55	55	55	55
Temp Rise, deg F	85	85	85	85	85	85	85	85	85	85	85	85
BTU's/day	493,319	423,450	739,978	635,174	986,638	846,899	1,233,297	1,058,624	1,726,616	1,482,074	1,973,275	1,693,798
Therms Used/day	4.9	4.2	7.4	6.4	9.9	8.5	12.3	10.6	17.3	14.8	19.7	16.9
\$/Therm Used (see Table below)	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85	\$ 0.85
<b>Water Heating Fuel, \$/day</b>	<b>\$ 4.19</b>	<b>\$ 3.60</b>	<b>\$ 6.29</b>	<b>\$ 5.40</b>	<b>\$ 8.39</b>	<b>\$ 7.20</b>	<b>\$ 10.48</b>	<b>\$ 9.00</b>	<b>\$ 14.68</b>	<b>\$ 12.60</b>	<b>\$ 16.77</b>	<b>\$ 14.40</b>
<b>\$/year, Fuel</b>	<b>\$ 1,531</b>	<b>\$ 1,314</b>	<b>\$ 2,296</b>	<b>\$ 1,971</b>	<b>\$ 3,061</b>	<b>\$ 2,628</b>	<b>\$ 3,826</b>	<b>\$ 3,284</b>	<b>\$ 5,357</b>	<b>\$ 4,598</b>	<b>\$ 6,122</b>	<b>\$ 5,255</b>
Elec Motor hp	5	5	5	5	10	10	10	10	15	15	15	15
Kwh/hr per hp	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746
KWh/hr	3.73	3.73	3.73	3.73	7.46	7.46	7.46	7.46	11.19	11.19	11.19	11.19
% Utilization	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Avg Kwh/hr	2.238	2.238	2.238	2.238	4.476	4.476	4.476	4.476	6.714	6.714	6.714	6.714
KWh/day	17.90	15.91	17.90	15.91	35.81	31.83	35.81	31.83	53.71	47.74	53.71	47.74
\$/KWh	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10
<b>Electricity, \$/day</b>	<b>\$ 1.79</b>	<b>\$ 1.59</b>	<b>\$ 1.79</b>	<b>\$ 1.59</b>	<b>\$ 3.58</b>	<b>\$ 3.18</b>	<b>\$ 3.58</b>	<b>\$ 3.18</b>	<b>\$ 5.37</b>	<b>\$ 4.77</b>	<b>\$ 5.37</b>	<b>\$ 4.77</b>
<b>\$/year, Electricity</b>	<b>\$ 653</b>	<b>\$ 581</b>	<b>\$ 653</b>	<b>\$ 581</b>	<b>\$ 1,307</b>	<b>\$ 1,162</b>	<b>\$ 1,307</b>	<b>\$ 1,162</b>	<b>\$ 1,960</b>	<b>\$ 1,743</b>	<b>\$ 1,960</b>	<b>\$ 1,743</b>
<b>Total UTILITIES, \$/year</b>	<b>\$ 5,268</b>	<b>\$ 4,542</b>	<b>\$ 7,576</b>	<b>\$ 6,523</b>	<b>\$ 10,537</b>	<b>\$ 9,084</b>	<b>\$ 12,844</b>	<b>\$ 11,065</b>	<b>\$ 18,112</b>	<b>\$ 15,607</b>	<b>\$ 20,420</b>	<b>\$ 17,588</b>
Machines/op-hr	4	4	4	4	4	4	4	4	4	4	4	4
Op-Hrs/day/unit	2.00	1.78	2.00	1.78	2.00	1.78	2.00	1.78	2.00	1.78	2.00	1.78
Wage, \$/hr	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35	\$ 12.35
<b>Labor \$/day</b>	<b>\$ 24.70</b>	<b>\$ 21.96</b>	<b>\$ 24.70</b>	<b>\$ 21.96</b>	<b>\$ 24.70</b>	<b>\$ 21.96</b>	<b>\$ 24.70</b>	<b>\$ 21.96</b>	<b>\$ 24.70</b>	<b>\$ 21.96</b>	<b>\$ 24.70</b>	<b>\$ 21.96</b>
<b>\$/year, Labor</b>	<b>\$ 9,016</b>	<b>\$ 8,014</b>	<b>\$ 9,016</b>	<b>\$ 8,014</b>	<b>\$ 9,016</b>	<b>\$ 8,014</b>	<b>\$ 9,016</b>	<b>\$ 8,014</b>	<b>\$ 9,016</b>	<b>\$ 8,014</b>	<b>\$ 9,016</b>	<b>\$ 8,014</b>
<b>Total Cost, \$/day</b>	<b>\$ 39.13</b>	<b>\$ 34.40</b>	<b>\$ 45.46</b>	<b>\$ 39.83</b>	<b>\$ 53.57</b>	<b>\$ 46.84</b>	<b>\$ 59.89</b>	<b>\$ 52.27</b>	<b>\$ 74.32</b>	<b>\$ 64.71</b>	<b>\$ 80.64</b>	<b>\$ 70.14</b>
<b>TOTAL COST, \$/year</b>	<b>\$ 14,284</b>	<b>\$ 12,556</b>	<b>\$ 16,591</b>	<b>\$ 14,536</b>	<b>\$ 19,552</b>	<b>\$ 17,098</b>	<b>\$ 21,860</b>	<b>\$ 19,079</b>	<b>\$ 27,128</b>	<b>\$ 23,621</b>	<b>\$ 29,435</b>	<b>\$ 25,601</b>
<b>ANNUAL SAVINGS WITH Milnor RinSave®, \$/year</b>		<b>\$ 1,728</b>		<b>\$ 2,055</b>		<b>\$ 2,454</b>		<b>\$ 2,781</b>		<b>\$ 3,507</b>		<b>\$ 3,834</b>

**TYPICAL COST OF FUEL TO HEAT WATER**

	Electricity	Propane	Nat. Gas	Fuel Oil
Units	Kwh/hr	Gallons	Therm	Gallons
PRICE \$/Unit	\$ 0.15	\$ 2.35	\$ 0.85	\$ 2.30
BTU/Unit	3413	93,000	100,000	129,000
Th/Unit	0.034	0.930	1.000	1.290
\$/th bought	\$ 4.39	\$ 2.53	\$ 0.85	\$ 1.78
Efficiency	95%	85%	85%	75%
\$/Therm Used	\$ 4.63	\$ 2.97	\$ 1.00	\$ 2.38

