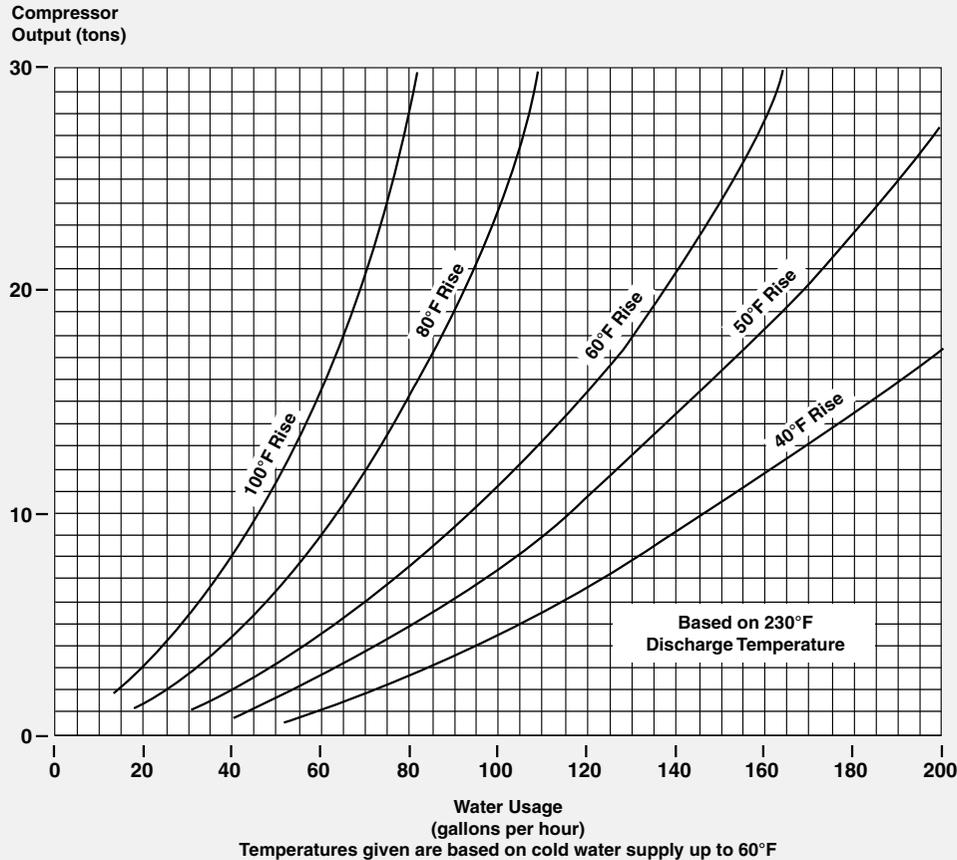




Therma-Stor Heat Reclaim Water Heating System Return On Investment Calculation Form

When you know the refrigerant tonnage and water rate, use the Therma-Stor Water Heating Chart below to calculate your Therma-Stor R.O.I. (See other side for example).



1. Calculate tonnage + draw horizontal line.
2. Calculate gallons/hr + draw vertical line.
3. Calculate degrees F rise from intersecting point.
4. _____ gals./hr. x 8.33 lbs./gal. x _____ °F rise (from chart) = _____ BTU's/hr. recovered
5. a. **Natural Gas:** (_____ BTU's recovered ÷ 60,000 (effective BTU's/therm when adjusted for 60% water heater efficiency) = _____ equivalent natural gas therms saved/hr. x \$ _____ (cost/therm) = \$ _____
- b. **Fuel Oil:** (_____ BTU's recovered ÷ 72,000 (effective BTU's/therm when adjusted for 50% water heater efficiency) = _____ equivalent gallons of fuel saved/hr. x \$ _____ (cost/gallon) = \$ _____ hourly savings.
- c. **LP:** (_____ BTU's recovered ÷ 55,000 (effective BTU's/therm when adjusted for 60% water heater efficiency) = _____ equivalent gallons of LP gas saved/hr. x \$ _____ (cost/gallon) = \$ _____ hourly savings.
- d. **Electric:** (_____ BTU's recovered ÷ 3,072 (effective BTU's/therm when adjusted for 90% water heater efficiency) = _____ equivalent kWh saved/hr. x \$ _____ (cost/kWh) = \$ _____ hourly savings.
6. \$ _____ hourly savings x _____ hrs. compressor run time/day = \$ _____ daily savings from Therma-Stor.
7. \$ _____ daily savings x _____ workdays/year = \$ _____ yearly savings from Therma-Stor.
8. \$ _____ yearly savings ÷ \$ _____ installed cost = \$ _____ % R.O.I. (simple pretax).

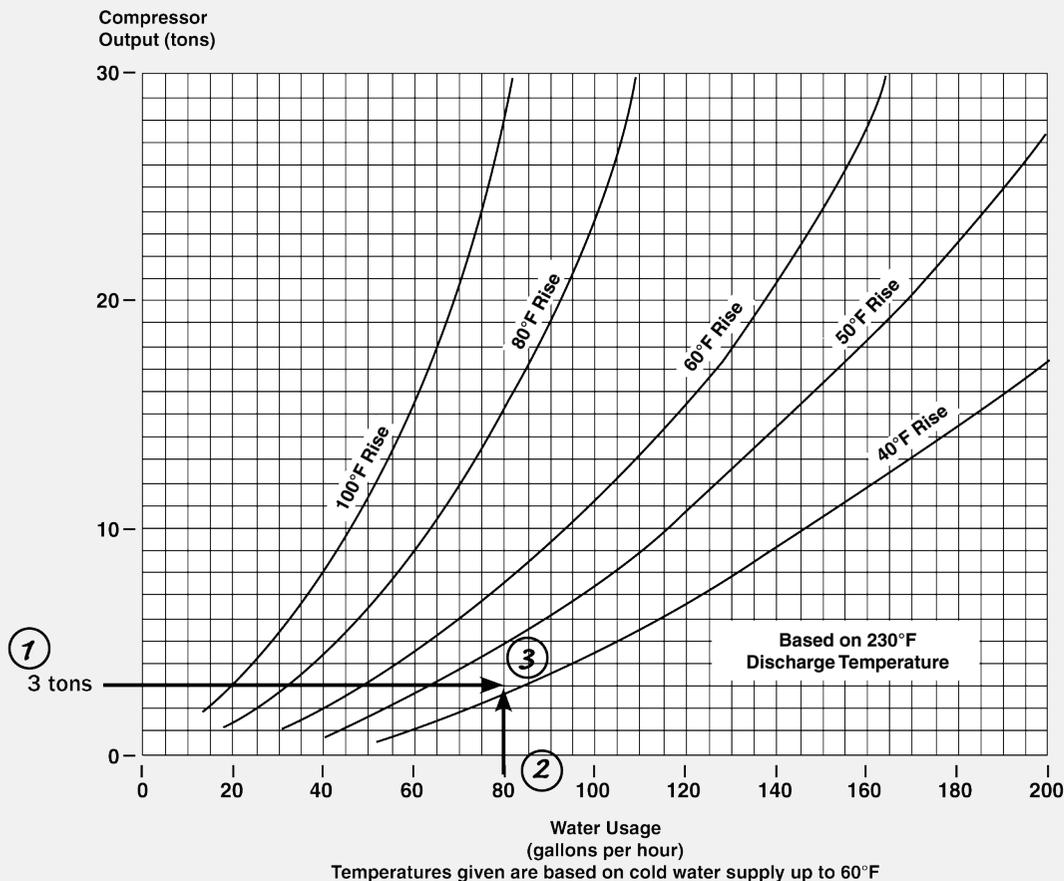
Therma-Stor is eligible for energy credit, investment credit, and capital equipment depreciation.

Therma-Stor Heat Reclaim Water Heating System

Return On Investment Calculation Form EXAMPLE

A restaurant has an average hourly hot water usage of 80 gallons per hour, has 3 tons of refrigeration and uses natural gas to heat water at a rate of .98¢ per therm.

Under these conditions, the incoming water temperature would be raised 40F. This is equivalent to saving .444 therms of natural gas per hour. If the compressors operate 16 hours per day, while the hot water is 80 gallons/hour, the daily savings would be \$7.04. If the restaurant were open 360 days per year, the savings would be \$2534.40. Based on an installed cost of \$4800.00, the return on investment would be 52.8%.



1. Calculate tonnage + draw horizontal line.
2. Calculate gallons/hr + draw vertical line.
3. Calculate degrees F rise from intersecting point.
4. 80 gals./hr. x 8.33 lbs./gal. x 40 °F rise (from chart) = 26,656 BTU's/hr. recovered
5. a. **Natural Gas:** (26,656 BTU's recovered ÷ 60,000 (effective BTU's/therm when adjusted for 60% water heater efficiency) = .444 equivalent natural gas therms saved/hr. x \$.98 (cost/therm) = \$.44
- b. **Fuel Oil:** (_____ BTU's recovered ÷ 72,000 (effective BTU's/therm when adjusted for 50% water heater efficiency) = _____ equivalent gallons of fuel saved/hr. x \$ _____ (cost/gallon) = \$ _____ hourly savings.
- c. **LP:** (_____ BTU's recovered ÷ 55,000 (effective BTU's/therm when adjusted for 60% water heater efficiency) = _____ equivalent gallons of LP gas saved/hr. x \$ _____ (cost/gallon) = \$ _____ hourly savings.
- d. **Electric:** (_____ BTU's recovered ÷ 3,072 (effective BTU's/therm when adjusted for 90% water heater efficiency) = _____ equivalent kWh saved/hr. x \$ _____ (cost/kWh) = \$ _____ hourly savings.
6. \$.44 hourly savings x 16 hrs. compressor run time/day = \$ 7.04 daily savings from Therma-Stor.
7. \$ 7.04 daily savings x 360 workdays/year = \$ 2534.40 yearly savings from Therma-Stor.
8. \$ 2534.40 yearly savings ÷ \$ 4800.00 installed cost = \$ 52.8 % R.O.I. (simple pretax).

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