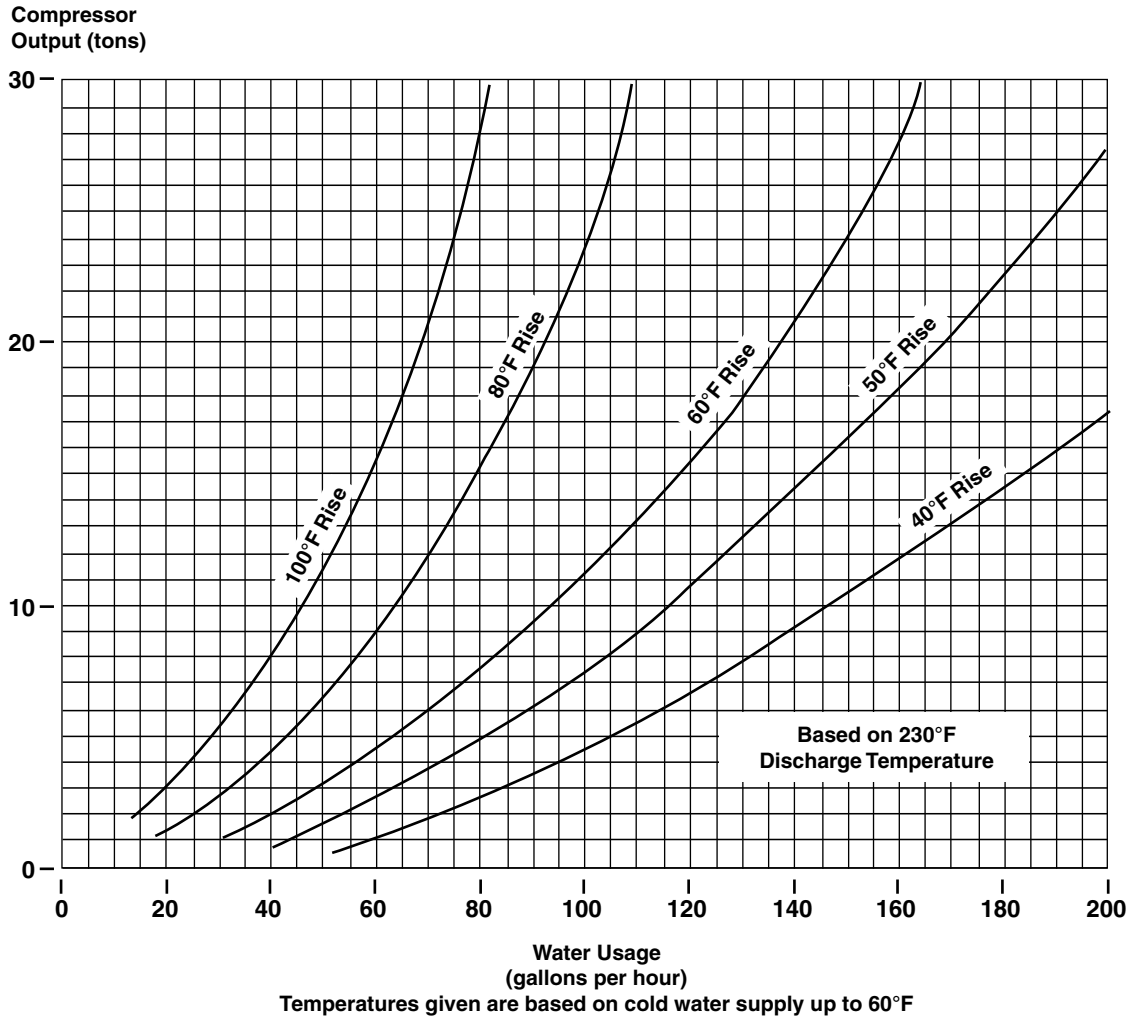
Therma-Stor Return On Investment Calculation Form

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 oil saved/hr. x $ _____ (cost/gallon) = $_____ hourly savings.

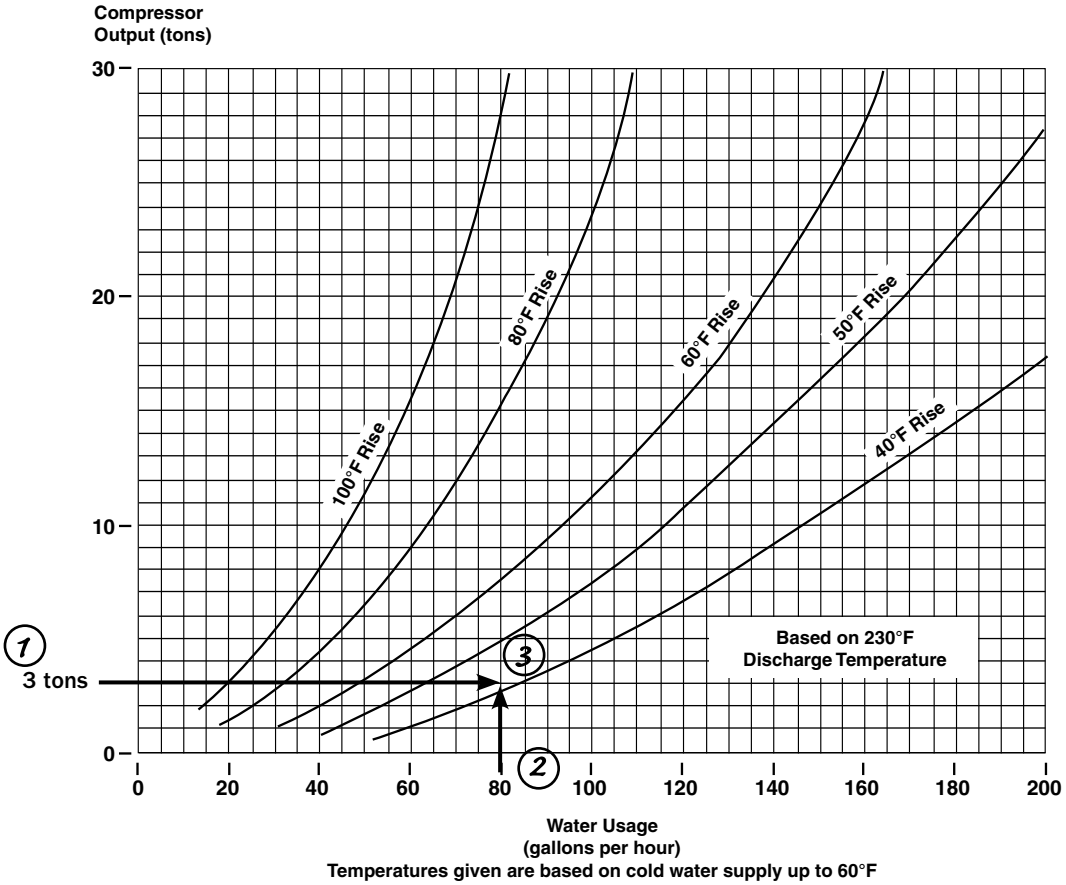
   C. **LP:** (_____BTU's recovered ÷ 55,200 (effective BTU's/therm when adjusted for 60% water heater efficiency) = _____ equivalent gallons LP gas saved/hr. x $ _____ (cost/gallon) = $_____ hourly savings.

   C. **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 R.O.I. Calculation Form EXAMPLE

A restaurant has an average hourly hot water usage of 80 gallons per hour. The store 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 40°F. 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 oil saved/hr. x $ _____ (cost/gallon) = $_____ hourly savings.

   C. **LP:** (_____ BTU's recovered ÷ 55,200 (effective BTU's/therm when adjusted for 60% water heater efficiency) = _____ equivalent gallons LP gas saved/hr. x $ _____ (cost/gallon) = $_____ hourly savings.

   C. **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).

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