AXEMAN-ANDERSON’S
ELECTRIC THERMAL STORAGE SYSTEM

STORE ENERGY AT NIGHT USING LOW COST “OFF-PEAK” ELECTRICITY FOR NIGHT AND NEXT DAY HEATING.

Heating with an ENERSTOR will save you money not only for heating, but many utilities offer the “off-peak” rate for all your household electric use.

Many utilities offer cash grants for the installation of electric thermal storage systems.

The ENERSTOR can be used with a central hot water system, a forced warm air system, or as a supplemental heat source for a heat pump.

The ENERSTOR is ideal for new or existing buildings.

FEATURES

- Uses low cost “off-peak” electricity
- Fully insulated R-17 value
- Vertical design means high stratification maximizing storage capacity yield low operating costs
- Only 0.6”/HR standby loss
- Low voltage controls
- Lifetime limited warranty
- A.S.M.E. constructed boiler using 5/16” and 3/16” code steel
- Modular concept saves space
- Requires no chimney
- Designed for solar addition
- Standard, available stock components

AXEMAN-ANDERSON COMPANY
ENGINEERS AND MANUFACTURERS OF HEATING EQUIPMENT SINCE 1944
THE ENERSTOR SYSTEM
by Axeman Anderson

The ENERSTOR system consists of an A.S.M.E. code boiler or series of boilers (modules) that store energy by heating the water in the boiler(s) only during nighttime hours at "off-peak" rates when the cost of electricity is lowest (as much as 50% savings). This low cost stored heat from the "charged" boiler(s) is then released to the heating system as needed during the night and for the next day. The ENERSTOR's control system assures that only the amount of heat needed for that night and the next day is stored. The ENERSTOR system is ideal for use with a central hot water system, a central forced warm air system or as a supplemental heat source for a heat pump.

The amount of storage capacity needed is calculated based on the B.T.U. heat loss of the building and with the storage capacity known, the number of ENERSTOR modules required can be determined. As a supplement to some heat pump systems only one (1) module might be required while the average central hot water system could require three (3) or four (4) modules.

DIMENSIONS

QUICK STORAGE SIZING CHART

<table>
<thead>
<tr>
<th>Model No.</th>
<th>No. of</th>
<th>Capacity</th>
<th>Shipping Weight</th>
<th>HOURS OF &quot;ON-PEAK&quot; OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES150-1</td>
<td>1</td>
<td>150</td>
<td>663</td>
<td>9,773 11,170 12,029 13,031 14,216 15,638 17,375 19,547</td>
</tr>
<tr>
<td>ES150-2</td>
<td>2</td>
<td>300</td>
<td>1,316</td>
<td>19,546 22,340 24,058 26,062 28,432 31,276 34,750 39,094</td>
</tr>
<tr>
<td>ES150-3</td>
<td>3</td>
<td>450</td>
<td>1,989</td>
<td>25,110 30,100 33,510 36,087 39,093 42,648 46,914 52,125 58,641</td>
</tr>
<tr>
<td>ES150-4</td>
<td>4</td>
<td>600</td>
<td>2,652</td>
<td>35,090 39,922 42,146 46,864 52,124 56,864 62,552 69,500 78,188</td>
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<tr>
<td>ES150-5</td>
<td>5</td>
<td>750</td>
<td>3,335</td>
<td>45,604 52,135 55,850 60,145 65,155 71,080 78,190 86,875 97,735</td>
</tr>
<tr>
<td>ES150-7</td>
<td>7</td>
<td>1050</td>
<td>4,621</td>
<td>68,411 72,975 78,190 84,203 91,217 99,512 109,466 121,625 136,829</td>
</tr>
<tr>
<td>ES150-8</td>
<td>8</td>
<td>1200</td>
<td>5,264</td>
<td>78,184 83,400 89,360 96,232 104,248 113,728 125,104 139,000 156,376</td>
</tr>
</tbody>
</table>

FOR BUILDINGS WITH HIGHER HEAT LOSS, ADD MODULES

1. Calculations based on maximum tank temperature of 225°F. No correction factors were used for solar gain and or home internal gains. If correction factor was used, the above storage requirements would be reduced 10 to 20%.

2. KW requirements for the system are determined by the following formula:
   (100% design heat loss per hour) x (24 hrs.) + (number of off-peak hours) + (3413) = KW requirement

   **STANDARD EQUIPMENT**
   1. A.S.M.E. boiler module(s)
   2. Electrical control panel(s)
   3. High limit aquastat (one per module)
   4. Operating aquastat(s)
   5. Pressure temperature gauge
   6. Automatic brass air vent (one per module)
   7. Brass boiler drain
   8. A.S.M.E. 30 P.S.I. relief valve
   9. Heating elements (up to 22 KW per module). 2-4.5 KW per module standard.
   10. Heavy gauge baked enameled jacket
   11. Insulation package
   12. Unionized manifold (multiple modules)
   13. Wiring harness(s)

   **OPTIONAL EQUIPMENT**
   1. Domestic hot water interface
   2. Heat pump / circulator interface
   3. Outdoor thermostat
   4. Indoor / outdoor reset operating aquastat
   5. Additional elements

The Axeman-Anderson ENERSTOR boiler is finely engineered and built to meet the requirements of the A.S.M.E. Boiler and Pressure Vessel Code. Every unit is factory inspected by an inspector of a nationally recognized steam boiler inspection and insurance company and carries this stamp of approval. Axeman-Anderson is also listed as a manufacturer with the National Board of Boiler and Pressure Vessel Inspectors. The Axeman-Anderson Company devote their efforts toward the development, perfection, design and manufacture of heating equipment. The Company holds an enviable position in the heating industry for manufacturing outstanding heating units of extremely high quality and efficiency. Its many dealers and thousands of satisfied owners will attest to its high degree of business integrity and reputation for fair dealing.