Swimming Pool Energy Efficiency Compliance Information
NOTE: These Requirements Apply ONLY to the Filtration Pump

ANSI/SPSP/ICC-15 2011

Flow Calculations
Pool water volume ______ + 360 ______ gpm - this is the calculated flow rate.
Note: for pools under 13,000 gals. The calculated flow rate or 36 gpm whichever is greater = the filtration flow rate
If there is an Auxiliary load on the filtration pump? Yes ______ No ______
If so, what is the calculated auxiliary flow rate ______ gpm

Flow Rate (low speed) ______ gpm @ ______ rpm.

Minimum suction side pipe size @ 6 fps ______ in. Minimum suction side branch pipe size @ 6 fps ______ in.
Minimum suction side pipe size @ 6 fps ______ in. Minimum suction side branch pipe size @ 6 fps ______ in.

Determine Filter Size:

Filter Factors (GPM/SF) Cartridge (0.375) DE (2.0) Sand (15)

Filter Size:

\[
\frac{\text{Flow Rate}}{\text{Filter Fact}} = \frac{\text{Filter Size}}{\text{Filter Make and Model}}
\]

Pump Controls
Filtration pump has no auxiliary load – standard time clock ______
Filtration pump with auxiliary load – Control model for low speed default within 24 hr. ______

Heater Model
Gas Heater efficiency rating ______ (No Pilot Light)
Heat Pump efficiency C.O.P. ______

ANSI 5 & ANSI 7 Compliance Work Sheet

Determine Simplified TDH:
1. Distance from pool to pump in feet ______
2. Friction loss (in suction pipe) in ______ inch pipe per 1 ft. @ ______ gpm = ______ (from pipe flow/friction loss chart)
3. Friction loss (in suction pipe) in ______ inch pipe per 1 ft. @ ______ gpm = ______ (from pipe flow/friction loss chart)

TDH in Piping ______

Determine Simplified TDH:

\[
\frac{x}{\text{ft of head/1 ft of Pipe}} = \frac{\text{Filter/Heater loss in TDH}}{\text{TDH Suct. Pipe}}
\]

All other losses ______

Total Dynamic Head (TDH): ______

Determine Pipe Sizes:
Branch Piping to be ______ inch to keep velocity @ 6 fps max. at ______ gpm System Flow Rate.
Trunk, Skimmer &
Suction Piping to be ______ inch to keep velocity @ ______ fps max. at ______ gpm System Flow Rate.
Return Piping to be ______ inch to keep velocity @ ______ fps max. at ______ gpm System Flow Rate.
Pump Selection as Listed on Curve A or C (circle one)

Filtration pump ________________ Maximum Flow Rate ______ gpm

Main Drain Cover (Make and Model)

Determine the Number and Type of Required In-Floor Suction Outlets:

Check all that apply.

☐ 3'-0'' __________ suction outlets @ _______ gpm max. flow
☐ 3'' __________ suction outlets @ _______ gpm max. flow
☐ __________ channel drain @ _______ gpm w/ _______ ports

Flow and Friction Loss Per Foot
Schedule 40 PVC Pipe

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>6 fps</th>
<th>8 fps</th>
<th>10 fps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1''</td>
<td>16 gpm</td>
<td>0.14'</td>
<td>21 gpm</td>
</tr>
<tr>
<td>1.5''</td>
<td>37 gpm</td>
<td>0.08'</td>
<td>50 gpm</td>
</tr>
<tr>
<td>2''</td>
<td>62 gpm</td>
<td>0.06'</td>
<td>82 gpm</td>
</tr>
<tr>
<td>2.5''</td>
<td>88 gpm</td>
<td>0.05'</td>
<td>117 gpm</td>
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<tr>
<td>3''</td>
<td>136 gpm</td>
<td>0.04'</td>
<td>181 gpm</td>
</tr>
<tr>
<td>4''</td>
<td>234 gpm</td>
<td>0.03'</td>
<td>313 gpm</td>
</tr>
<tr>
<td>6''</td>
<td>534 gpm</td>
<td>0.02'</td>
<td>712 gpm</td>
</tr>
</tbody>
</table>

TDH Calculation Options
For each pump

☐ Simplified Total Dynamic Head (STDH)
  Complete STDH Worksheet – Fill in all blanks

☐ Total Dynamic Head (TDH)
  Complete Program or other calcs. Fill in required
  blanks on worksheet & attach calculations.

☐ Maximum Flow Capacity
  Of the new or replacement pump.

Date ________________________________

Contractor Signature ________________________________

Contractor Cert. No. ________________________________

Contractor Telephone No. _____________________________

OWNER ________________________________

Scale: None