## 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 Auxillary load on the filtration pump? Yes _____ No _____
If so, what is the calculated auxillary 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: _____ / _____ = _____ _____
(Flow Rate) (Filter Fact) Filter Size (Filter Make and Model)

Pump Controls
Filtration pump has no auxillary load – standard time clock _____
Filtration pump with auxillary 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. Fiction loss (in suction pipe) in _____ inch pipe per 1 ft. @ _____ gpm = _____ (from pipe flow/friction loss chart)
3. Fiction loss (in suction pipe) in _____ inch pipe per 1 ft. @ _____ gpm = _____ (from pipe flow/friction loss chart)

TDH in Piping _____

Determine Simplified TDH:
4. _____ x _____ = _____
(Length of Suct. Pipe) (Ft of head/1 ft. of Pipe) (TDH Suct. Pipe)

Filter/Heater loss in TDH _____

All other losses _____

5. _____ x _____ = _____
(Length of Return Pipe) (Ft of head/1 ft. of Pipe) (TDH Suct. Pipe)

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

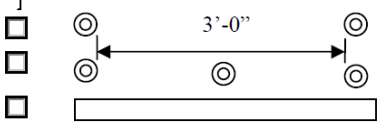
Pump Selection as Listed on Curve A or C (circle one)

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.




☐ 2 _____ suction outlets @ _____ gpm max. flow

☐ 3 _____ suction outlets @ _____ gpm max. flow

☐ _____ channel drain @ _____ gpm w/ _____ports

| Flow and Friction Loss Per Foot<br>Schedule 40 PVC Pipe | | | | | | |
|---|---|---|---|---|---|---|
| | Velocity - Feet Per Second | | | | | |
| Pipe Size | 6 fps | | 8 fps | | 10 fps | |
| 1" | 16 gpm | 0.14' | 21 gpm | 0.23' | 28 gpm | 0.35' |
| 1.5" | 37 gpm | 0.08' | 50 gpm | 0.14' | 62 gpm | 0.21' |
| 2" | 62 gpm | 0.06' | 82 gpm | 0.10' | 103 gpm | 0.16' |
| 2.5" | 88 gpm | 0.05' | 117 gpm | 0.09' | 146 gpm | 0.13' |
| 3" | 136 gpm | 0.04' | 181 gpm | 0.07' | 227 gpm | 0.10' |
| 4" | 234 gpm | 0.03' | 313 gpm | 0.05' | 392 gpm | 0.07' |
| 6" | 534 gpm | 0.02' | 712 gpm | 0.03' | | |

TDH Calculation Options
For each pump

Check one.

☐ 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