

CALCULATION OF TOTAL DYNAMIC HEAD IN POOL AND SPA RECIRCULATION SYSTEMS

FACILITY NAME: _____

FACILITY ADDRESS: _____

1. Minimum turnover cycles (at dirty filter) are: (a) 6 hours for swimming pools, special purpose pools, and artificial swimming lagoons; (b) 4 hours for wave pools, watercourse rides, activity pools, and splash pools whose main use is other than as a splash pool (such as a large swimming pool with one slide); (c) 1 hour for splash pools and child amusement lagoons; (d) 30 minutes for spas and wading pools; (e) 4 turnover cycles between users for flotation tanks.
2. Head loss data is required for all system components.
3. Use head loss data provided in **HYDRAULICS CALCULATION GUIDE** provided by the Clark County Health District or submit manufacturer's engineering specifications.
4. Leaflets, catalogs, brochures, or other descriptive material, including pump performance curves, must be provided for all recirculation equipment.
5. Assemble the **CALCULATIONS OF TOTAL DYNAMIC HEAD** by using as many pages as required. Always include This Cover PAGE, **MINIMUM/DESIGN FLOW WORKSHEET, MAIN DRAIN PIPING, MAIN SKIMMER PIPING, INDIVIDUAL SKIMMER PIPING**, section A all skimmers, section B (the skimmer, or skimmers with the most restriction only), FACEPIPING, HEATER PIPING (if a heater will be installed), **MAIN INLET PIPING, INLET PIPING**, section A for all inlets, section B (the inlet, or inlets with the most restriction only) and/or **INLET PIPING** for (floor inlet, or inlets with the most restriction). Include sections A and B for the floor inlet with the most restriction and a Section A and B for the wall inlet with the most restriction, if both floor and wall inlets are used in the same recirculation system, it the main inlet or skimmer line is teed there will be more than one inlet section B to be calculated. If the inlets run from the main run in linear loop one section b is required. Include a **FINAL CALCULATIONS** page. Assemble the pages in order, number them in the spaces provided at the bottom of each page. Use the design flow calculations with the corresponding forms provided and the frictions losses and equations found in the **HYDRAULICS CALCULATIONS GUIDE** to complete these forms. (For Remodels assemble the forms as needed as an addendum to the original Hydraulic Analysis located in the Archived file.) As a bare minimum the final calculations page must be submitted with the new total dynamic head and flow rates. Pages for each change should also be included, such as, face piping page for the addition or change in multiport valves and filters and accompanying pipe. Skimmer or inlet pages as necessary during major remodeling must be submitted as per the above instructions. Heater pages for a change in model/manufacturer and BTU'S output. The head loss must be accounted for. Any change in pipe diameter, or equipment can have a affect on the total dynamic head and the pump capabilities.

POOL CONTRACTOR'S LICENSE NUMBER _____

Signature of architect, engineer or A-10 contractor

Seal

Print or type name

Date

CLARK COUNTY HEALTH DISTRICT APPROVAL BY: _____

DATE: _____

**APPROVAL IS NOT INTENDED TO CONVEY APPROVAL FOR ANY MISTAKE OR OMISSIONS CONTAINED
HEREIN. PROPER DEVELOPMENT IS THE RESPONSIBILITY OF THE VARIOUS PARTIES CONCERNED AND ALL
APPLICABLE LAWS, RULES, AND REGULATIONS SHALL BE STRICTLY ADHERED TO.**