

MINIMUM/DESIGN FLOW WORKSHEET**MINIMUM FLOWS**

1. Minimum turnover = _____ hours (see page 1, item 1)
2. Minimum gpm = $\frac{\text{pool capacity in gallons}}{\text{turnover in hours} \times \frac{60 \text{ min}}{\text{hour}}} = \text{_____} = \text{_____ gpm}$
3. Minimum main drain gpm = answer from step 2 x .5 = _____ x .5 = _____ gpm
4. Minimum main gutter gpm = answer from step 2 x .5 = _____ x .5 = _____ gpm
5. Minimum gpm per gutter drain = $\frac{\text{answer from step 4}}{\text{\# of gutter drains}} = \text{_____} = \text{_____ gpm}$
6. Minimum main skimmer gpm = answer from step 2 x .8 (pools) .67 (spas) = _____ x _____ = _____ gpm
7. Minimum gpm per skimmer = $\frac{\text{answer from step 6}}{\text{\# of skimmers}} = \text{_____} \times \text{_____ gpm}$
8. Minimum flow per inlet = $\frac{\text{answer from step 2}}{\text{\# of inlets}} = \text{_____} = \text{_____ gpm}$

MAXIMUM FLOW THROUGH FILTER

9. Maximum gpm through filter = filter area in sq. feet x max. gpm per sq. feet approved by NSF = _____ x _____ = _____ gpm

DESIGN FLOWS

10. Design turnover = $\frac{\text{pool capacity in gallons}}{\text{flow in gpm} \times \frac{60 \text{ min.}}{\text{hour}}} = \text{_____} = \text{_____ hours}$
11. Design gpm = $\frac{\text{pool capacity in gallons}}{\text{turnover in hours} \times \frac{60 \text{ min}}{\text{hour}}} = \text{_____} = \text{_____ gpm}$
12. Design main drain gpm = answer from step 11 x .5 = _____ x .5 = _____ gpm
13. Design main gutter gpm = answer from step 11 x .5 = _____ x .5 = _____
14. Design gpm per gutter drain = $\frac{\text{answer from step 13}}{\text{\# of gutter drains}} = \text{_____} = \text{_____ gpm}$
15. Design main skimmer gpm = answer from step 11 x .8 (pools) .67 (spas) = _____ x _____ = _____ gpm
16. Design gpm per skimmer = $\frac{\text{answer from step 15}}{\text{\# of skimmers}} = \text{_____} = \text{_____ gpm}$
17. Design flow per inlet = $\frac{\text{answer from step 11}}{\text{\# of inlets}} = \text{_____} = \text{_____ gpm}$

NOTES

1. Minimum turnover cycle requirement is to be met at dirty filter. Design flows are to be at clean filter and should provide a flow in excess of the minimum in order to provide an acceptable filter run.
2. Use the answers from steps 11-17 in filling out the rest of the form.