

The following guidelines will help guide the choice of which fill to use as a function of total suspended solids, biological control, oil & grease content and whether waterborne fibers are present. For specific projects please contact Brentwood's cooling tower sales department for recommendations.

- **Use CF1200 when:**
  - TSS is less than 25 PPM with good microbiological control (less than 1 PPM where microbiological control is poor)
  - Make-up from potable or filtered water sources
  - Water treatment using oxidizing biocides & scale inhibitors
  - Low cycles of concentration
  - Minimal airborne dust
  - No potential for oil or grease contamination
- **Use CF1900 when:**
  - TSS is less than 100 PPM with good microbiological control (less than 25 PPM where microbiological control is poor)
  - Make-up from uncontaminated sources
  - Water treatment using oxidizing biocides & scale inhibitors
  - Low cycles of concentration
  - Minimal airborne dust
  - No potential for oil or grease contamination
- **Use OF21ma when:**
  - TSS is less than 200 PPM with good microbiological control (less than 50 PPM where microbiological control is poor)
  - Make-up from uncontaminated sources
  - Good scale control
  - Low cycles of concentration
  - Minimal airborne dust
- **Use VF19Plus or AFVF19 when:**
  - TSS is less than 500 ppm with good microbiological control (less than 200 ppm if oil or grease, or where microbiological control is poor)
  - Make-up from surface waters
  - Good scale control
  - Oils or grease in system up to 5 ppm
- **Use HPT25 when:**
  - TSS is less than 1000 ppm with good microbiological control (500 ppm limit if oil or grease or where microbiological control is poor)
  - Make-up from surface waters
  - Poor biological or scale control
  - Oils or grease up to 50 ppm
- **Use VF3800 when:**
  - TSS greater than 500 ppm and no upper limit with good microbiological control (1000 ppm limit if oil or grease or no biological control)
  - Make-up from surface waters
  - Poor biological or scale control
  - Oils or grease up to 25 ppm
- **Use TURBOsplash PAC when:**
  - TSS is greater than 500 ppm (no upper limit)
  - Make-up from surface waters
  - Little or no biological or scale control
  - Oils or grease up to 500 ppm
  - Fibers in process water
- **Minimal oils or grease (no more than 1 ppm)**

Summary Table

	CF1200	CF1900	OF21ma	VF19Plus or AFVF19	HTP25	VF3800	TURBO-Splash
Allowed TSS w/good microbial control (ppm):	<25	<100	<200	<500	<1000	No Limit	No Limit
Allowed TSS w/poor microbial control (ppm):	<1	<25	<50	<200	<500	<1000	No Limit
Allowed oil & grease concentration (ppm)	None	None	<1	<5	<50	<25	<500
Allowed fibers in Water	None	None	None	None	None	None	Some

'Good' biological control means oxidizing biocide supplied continuously with bactericidal residuals maintained, with total aerobic bacteria (TAB) maximum plate counts **not exceeding 100,000 cfu/ml** with minimal slime formation on heat transfer surfaces. 'Poor' microbiological control implies little or no microbiological control or control subject to severe disruption, with **average TAB plate counts consistently over 100,000 cfu/ml**. Other potential fouling risk factors must be considered also, such as water-borne cross-contamination with process fluids containing ammonia compounds, sugars or other nutrients. Other airborne contaminants should be considered also, such as fine dust, dirt & debris. **Circulating water must be free of fibers for any fill except TURBO splash.** For additional help on specific projects please contact Brentwood's Sales Department.