

**Fill Selection:**

Comparison between type of fills—performance

	Splash Fill	Film Fill	Low Clog Film Fill
Possible L/G Ratio	1.1-1.5	1.5-2.0	1.4-1.8
Effective Heat Exchange Area	30-45m <sup>2</sup> /m <sup>3</sup>	150m <sup>2</sup> /m <sup>3</sup>	85-100m <sup>2</sup> /m <sup>3</sup>
Required Fill Height	5-10m	1.2-1.5m	1.5-1.8m
Pumping Head Requirements	9-12m	5-8m	6-9m
Quantity of Air Required	High	Much Low	Low

Water Quality Requirements for different fills

	CF-1900	OF-21ma	VF-19Plus	VF-3800	TURBO Splash
TSS (ppm):	<100	<150	<500	No Limit	No Limit
w/high Bio:	<25	<50	<200	<1000	No Limit
Bio & Scale Control	Good	Good	Good	Poor	Poor to none
Oil & Grease (ppm)	None	<1	<5	<25	<500
Fibers	None	None	None	None	Some

**Distribution System and Nozzle Assembly:**

The distribution system of the cooling tower consists of distribution channel, PVC pipes coupled with the channel and nozzles attached in the PVC pipes. The function of this arrangement is to collect hot water from riser pipe to distribution channel from where water moves to PVC pipes. Nozzles attached in the pipes spray the water on fills by sprinkling on it. The key to good performance of distribution system is uniformity. Below the distribution system there are fills and above it Drift Eliminator.