FILM FILL MEDIA CROSS-FLUTED CROSS FLOW Vertical ЭW

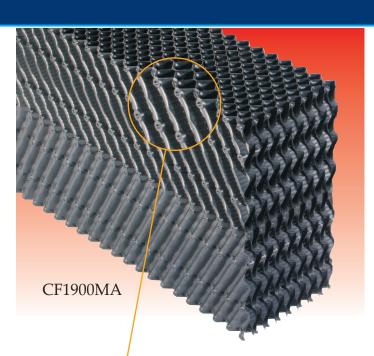
AccuPac[®] Film Fill Media Cooling tower fills with the highest thermal performance and product quality. Available in a broad selection of sheet spacings, flute designs, sheet thicknesses, and plastic compositions.



... FOR COUNTER FLOW TOWERS

CROSS-FLUTED





AccuPac[®] Cross-Fluted Fills improve water distribution by splitting the water stream as it descends through the fill pack. Brentwood's CF1900/CF1900MA design splits the water stream 8 times in a 12" (305 mm) vertical path. High thermal performance (high KaV/L) and low pressure drop are achieved through engineered flute/microstructure design and the highest manufacturing standards.

FEATURES & BENEFITS

- Bonded edge with dedicated bond points for added durability
- Engineered microstructure for improved water distribution and thermal mixing
- High thermal performance
- Improved water distribution
- Proprietary edge cutting technology produces square packs that efficiently direct water to both sides of sheet
- Material exceeds Cooling Technology Institute (CTI) Standard 136 (see below*)

APPLICATIONS CF1200 & CF1200MA:

For use in factory-assembled counterflow towers (HVAC

and general industrial applica-

tions) and as a distribution pad

(150 mm) depths. Beveled Tips

in 3.94" (100 mm) and 5.90"

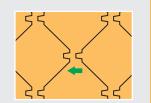
(left) promote drainage for lowest pressure drop.



Beveled Tips

"MA" <u>Technology</u>

Patent Numbers 6,544,628 and 6,640,427 U.S. and Int'l Patents



Male/Female attachment tabs align with and nest into the adjoining sheet's tabs.



Attachment tabs are pressure-sealed ...

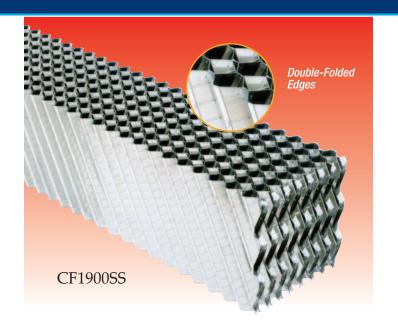


... creating a strong, permanent bond without glue, solvents, or adhesives!

CF1900 & CF1900MA: The popular choice for field-erected or factory-assembled counterflow cooling towers. Can also be used in crossflow towers. For use in Power, Refining, Chemical, Steel, and Food Processing applications where water quality is "good".

CFS3000: For the same applications as the CF1900 and CF1900MA, but the CFS3000's larger channels decrease fouling potential in low-quality water.





CF1900SS: The choice for ultimate heat sink towers and use in any critical-application counterflow or crossflow cooling tower (field-erected or factory-assembled).

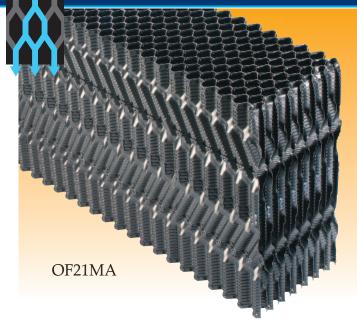
With the same exceptional thermal performance and strength of our PVC packs, Brentwood's stainless steel fills offer these additional advantages:

- Stainless steel provides the ultimate in performance, durability, and service life
- Rated to high temperatures up to $500^{\circ}F(260^{\circ}C)$
- Chemical and corrosion resistant ... lasts virtually forever
- Non-flammable
- Similar in weight to plastic fills, significantly lighter than ceramic fills
- Double-folded edge for durability & safety (above)
- Reinforcing rib microstructure for superior water distribution, thermal mixing, and high strength-to-weight ratio

TECHNICAL SUPPORT

Thermal (KaV/L) Curves and Pressure Drop Curves are available for all Brentwood Film Fills to assist in selecting the appropriate fill capacity for your design. Other Brentwood technical bulletins include Installation Recommendations, Product Selection for Specific Water Quality, Thermal Ratings, and Product Storage Recommendations.

OFFSET VERTICAL



AccuPac[®] Offset Vertical Fill combines the lowfouling characteristics of vertical flow with the enhanced water distribution of our cross-fluted designs. The OF21MA's high KaV/L thermal performance and low pressure drop are similar to the CF1900/CF1900MA design, but with lower potential for fouling.

FEATURES & BENEFITS

- High thermal performance
- Lower fouling potential
- Bonded edge with dedicated bond points for added durability
- Adhesive-free Mechanical Assembly (MA) technology is environmentally-friendly and allows fill packs to be assembled on-site without glue
- Proprietary edge cutting technology produces square packs that efficiently direct water to both sides of sheet
- Material exceeds Cooling Technology Institute (CTI) Standard 136 (see below*)

APPLICATIONS

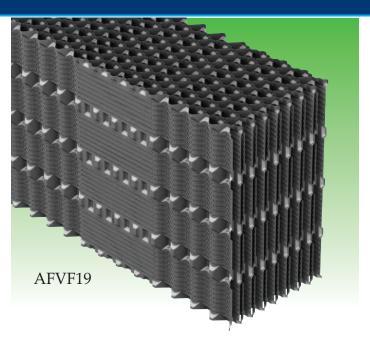
OF21MA: For use in counterflow cooling towers (field-erected and factory-assembled installations) in Power, Refining, Chemical, Steel, and Food Processing applications where water quality is "average". (See Brentwood Fill Selection/Water Quality Table)

* Brentwood sheet thicknesses are quoted in final gauges (as measured in field) of .008" (.203 mm), .010" (.254 mm), .015" (.381 mm), or your specific requirement. All Brentwood fill products are available in PVC and are UV stabilized. The PVC compounds used in Brentwood fills have outstanding resistance to weather exposure and are nearly impervious to chemical degradation by alkali, acids, greases, fats, oils, and biological attack. Brentwood PVC has excellent fire rating due to its self-extinguishing characteristics and meets or exceeds Cooling Technology Institute Standard 136. HPVC (high temperatures), PP (polypropylene), and ABS plastics are also available for special applications.

VERTICAL FLOW







AccuPac[®] Vertical Flow Fills feature vertical flow channels with large openings that allow the higher water velocities necessary to create an anti-fouling environment in the fill. In the VF19PLUS we've added an engineered micro-structure to the flutes to improve water distribution and thermal mixing.

FEATURES & BENEFITS

- Anti-fouling design
- Bonded edge with dedicated bond points for added durability
- Extensively tested by a third party in an operating natural draft cooling tower serving a large utility power plant
- Material exceeds Cooling Technology Institute (CTI) Standard 136 (see below*)

APPLICATIONS

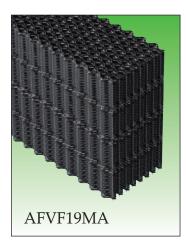
VF19PLUS**: For use in counterflow cooling towers where water quality is "poor" (poor make-up water or process contamination). Typical applications are Power, Refining, Chemical, Mining, and Food Processing.



VF3800: For the same counterflow applications as the VF19PLUS, the VF3800 has larger, 38 mm flute openings and no microstructure ... for conditions where fouling potential is greater.

AccuClean AFVF19**: For use in counterflow cooling towers for utility and industrial applications where surface waters are used for make-up. Typical applications are Power, Refining, Chemical, Mining, and Food Processing.

- Anti-fouling, 19 mm pitch vertical flow design with engineered microstructure for high water velocity, improved water distribution, and thermal mixing
- Produced in metric fill air travel depths and lengths
- Extensively tested by a third party in an operating natural draft cooling tower serving a large utility power plant
- Available in rigid PVC and high-temperature HPVC



AccuClean AFVF19MA**: All the features and performance of the AFVF19, *plus* these additional advantages:

- Brentwood's patented mechanical assembly ("MA") technology
- Greater flexibility for non-standard lengths
- Imperial pack dimensions (See back page)

** Because a cooling tower spray system's washing effect reduces the fouling potential of the top 12" (305 mm) of fills, a top layer of OF21MA or CF1900/CF1900MA can improve overall performance.

... FOR CROSS FLOW TOWERS



AccuPac[®] Cross Flow "Herringbone" Fill uses a proven "herringbone" surface design engineered to distribute water evenly over the entire fill area for high thermal performance. The fill packs have honeycomb bonded edges on the air inlets and outlets, plus interlocking offsets that space the sheets and form strong, stackable packs. "Herringbone" fills with integral inlet louvers (XF75IL) and drift eliminators (XF75ID) complete this efficient, high-performance, crossflow media system.

FEATURES & BENEFITS

- Superior air/water management for high thermal performance
- Engineered "herringbone" surface for even water distribution
- Bottom-supported for durability and ease of installation
- Integral inlet louvers eliminate "splash out"
- Integral drift eliminators reduce drift loss

APPLICATIONS

XF75: Designed on a 5° angle for easy installation in package crossflow towers (for HVAC and general industrial use).

XF75IL: Integral Inlet Louver with fill section for use with XF75 media.

XF75ID: Integral Drift Eliminator with fill section for use with XF75 media. Other drift eliminators can be added for ultra-low drift loss.

XF SUPPORT SYSTEM

Includes Base Supports, Fill Support Beams, and Front/Back Retainers. Available in a variety of sizes & configurations.

CROSS-FLUTED



Brentwood's XF125 has cross-corrugated sheets with a built-in internal slant. The sheets have alternating flute angles of 45° and 15°, which allow the fill to be installed vertically and without an angle cut. The XF125 provides for a simple installation that saves space in the tower, which means savings for both assembly and material costs.

FEATURES & BENEFITS

- Has an excellent internal water distribution at a wide range of air velocities
- Highest thermal performance per unit volume of any crossflow fill
 - Simple construction and assembly requirements
 - Available in PVC and HPVC
 - Proprietary edge cutting technology that directs water to both sides of sheet
- Material exceeds Cooling Technology Institute (CTI) Standard 136 (See inside*)

APPLICATIONS

The XF125 is designed for package crossflow cooling towers where the fill is to be installed without an external slant or in evaporative coolers and pre-coolers. Water quality must be "good" to "very good".



ACCI-PAG. COOLING TOWER FILM FILL MEDIA

	PART	SURFACE	SHEET	FLUTE	MEDIA PACK SIZES: Depth (D), Width (W), Length (L) - inches (mm)		
	NO.	AREA	SPACING	ANGLE	MINIMUM	MAXIMUM	STANDARD
	COUN	TER FLOW (CROSS-F	LUTED	FILLS		WATER 🛧
	CF1200MA & CF1200	69 ft²/ft³ (226 m²/m³)	11.7 mm	30°	D: 3.9" (100)* W: 6" (153) L: 1' (305)	D: 11.8" (300) W: 12" (305) L: 10' (3048)	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	CF1900	48 ft²/ft³ (157.5 m²/m³)	19 mm	30°	D: 6" (153) W: 6" (153) L: 1' (305)	D: 24" (610) W: 24" (610) L: 12' (3658)	D: 12" (305) or 24" (610) W: 12" (305) or 24" (610) L: 4' (1220), 6' (1829), 8' (2439), or 10' (3048)
	CF1900MA	48 ft²/ft³ (157.5 m²/m³)	19 mm	30°	D: 12" (305) W: 6" (153) L: 1' (305)	D: 24" (610) W: 24" (610) L: 10' (3048)	D: 12" (305) or 24" (610) W: 12" (305) or 24" (610) L: 4' (1220), 6' (1829), 8' (2439), or 10' (3048)
	CF1900SS	48 ft²/ft³ (157.5 m²/m³)	19 mm	27°	D: 12" (305) W: 6" (153) L: 2' (610)	D: 12" (305) W: 12" (305) L: 6' (1829)	D: 12" (305) W: 12" (305) L: 4' (1220) or 6' (1829)
	CFS3000	31 ft²/ft³ (102 m²/m³)	30.5 mm	30°	D: 12" (305) W: 6" (153) L: 1' (305)	D: 24" (610) W: 24" (610) L: 12' (3658)	D: 24" (610) W: 12" (305) or 24" (610) L: 4' (1220), 6' (1829), 8' (2439), or 10' (3048)
	COUN	TER FLOW	OFFSET ⁻	VERTIC	AL FILL		
	OF21MA	45 ft²/ft³ (147.8 m²/m³)	20.8 mm	NA	D: 11.8" (300) W: 5" (127) L: 1' (305)	D: 23.6" (600) W: 18" (458) L: 10' (3048)	D: 11.8" (300) or 23.6" (600) W: 18" (458) L: 4' (1220), 6' (1829), 8' (2439), or 10' (3048)
н	COUN	TER FLOW	VERTICA	L FLOV	V FILLS		
	VF19PLUS	47 ft²/ft³ (154 m²/m³)	19 mm	0°	D: 11.8" (300) W: 6" (153) L: 1' (305)	D: 35.4" (900) W: 24" (610) L: 12' (3658)	D: 23.6" (600) W: 12" (305) or 24" (610) L: 4' (1220), 6' (1829), 8' (2439), or 10' (3048)
-	AFVF19	42 ft²/ft³ (138 m²/m³)	19.4 mm	0°	D: 9.8" (250) W: 3.1" (79) L: 20.1" (510)	D: 39.4" (1000) W: 23.3" (592) L: 120.4" (3058)	D: 19.7" (500) W: 12.4" (315) L: 80.3" (2038), 120.4" (3058)
	AFVF19MA	44 ft²/ft³ (144 m²/m³)	19 mm	0°	D: 11.8" (300) W: 6" (153) L: 1' (305)	D: 23.6" (600) W: 24" (610) L: 10' (3048)	D: 23.6" (600) W: 12" (305) L: 4' (1220), 6' (1829), 8' (2439), or 10' (3048)
	VF3800	40 ft²/ft³ (131 m²/m³)	38 mm	0°	D: 24" (610) W: 6" (153) L: 1' (305)	D: 24" (610) W: 24" (610) L: 12' (3658)	D: 24" (610) W: 12" (305) or 24" (610) L: 4' (1220), 6' (1829), 8' (2439), or 10' (3048)
	CROSS	FLOW "HE	RRINGB	ONE″ F	ILLS	·	
	XF75 XF75IL XF75ID	51 ft²/ft³ (167.4 m²/m³)	19 mm	NA	D: 12" (305) W: 6" (153) L: 2' (610)	D: 24" (610) W: 12" (305) L: 12' (3658)	$\begin{array}{c c} D: 24'' (610) \\ W: 12'' (305) \\ L: 4' (1220), 6' (1829), \\ 8' (2439), \text{ or } 10' (3048) \end{array} \xrightarrow{L} \\ \end{array}$
	XF SUPP	ORT SYSTEM (I	Base Support	ts; Fill Supp	oort Beams; and Fro	ont/Back Retainers)	See Brentwood System Support drawings.
2		FLOW CRC					0
	XF125	64 ft²/ft³ (210 m²/m³)	12.5 mm	15°/45°	D: 6" (153) W: 6" (153) L: 1' (305)	D: 12" (305) W: 12" (305) L: 12' (3658)	D: 12" (305) W: 12" (305) L: 6' (1829), 9' (2743), or 12' (3658)

 * This depth applies to the CF1200 only. Minimum depth for the CF1200MA is 11.8 $^{\prime\prime}$ (300 mm).



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