

Entropic ECKitchen Canopies incorporate the following components & features:



	CleanTEC + CaptureTEC + Supply air EKC/UV/SA	CleanTEC + CaptureTEC EKC/JV	Basic with UV Extract only EKB/JV	CaptureTEC + Supply air EKC/SA	CaptureTEC EKC	Basic Extract only EKB	Alternative
UV Grease & Odour Reduction, with Controls							
Dual frequency UV lamps to destroy grease molecules	✓	✓	✓				
UV frequencies are tailored for maximum grease destruction	✓	✓	✓				
The amount / quantity of UV lamps is engineered to provide the required level of radiation for maximum grease destruction (too much radiation generates unwanted smells and exceeds European emissions directives)	✓	✓	✓				
External UV ballast to each UV lamp	✓	✓	✓				
Constant UV lamp operation & performance monitoring (including power consumption monitoring)	✓	✓	✓				
Alarm on failure of any UV lamp	✓	✓	✓				
The monitoring and control safety system allows external BMS monitoring and fan interlocking.	✓	✓	✓				
All electrical components are CE certified	✓	✓	✓				
There are interlocks on all UV access points (UV cannot be accessed without the system automatically switching off).	✓	✓	✓				
The control panel shall be able to indicate total hours of operation, safety alarms, security control of exhaust fan failure, lamp failure	✓	✓	✓				
Integrated pressure switch to each canopy section - prevents operation of UV system unless extract air is proven	✓	✓	✓				
Integrated PLC digital control system for all operation, control and monitoring functions on each canopy	✓	✓					
Simple visual indication of system operation on each canopy	✓	✓					
UV system is pre-wired at each canopy section	✓	✓					
Filters							
CGF multi-cyclone filters	✓	✓	✓	✓	✓	✓	
CGF filters designed so they cannot be installed in incorrect orientation	✓	✓	✓	✓	✓	✓	
Independently tested grease removal efficiency	✓	✓	✓	✓	✓	✓	
Front filter functions as a flame arrestor	✓	✓	✓	✓	✓	✓	
The grease extraction efficiency is 75% for particles with a diameter of 5 microns and 93% for a diameter of 9 microns or larger	✓	✓	✓	✓	✓	✓	
MEF mesh flow equalising filters are installed behind all CGF multi-cyclone filters	✓	✓					
Construction							
1.0mm Stainless Steel AISI 304, super sheen finish	✓	✓	✓	✓	✓	✓	
Joints are bolted using hidden fixings; joints are ground and polished	✓	✓	✓	✓	✓	✓	
Canopy individual section panels can be removed on-site, to allow repair in the event of damage or if canopy is to be altered or extended in future; allows disassembled delivery for installation in areas with poor access	✓	✓		✓	✓		
Airflow balancing dampers are integrated on all extract ductwork connections, these are all adjustable from the room	✓	✓	✓	✓	✓	✓	
An access hatch is included to facilitate access through the roof of the canopy to the ceiling void	✓	✓	✓	✓	✓	✓	
A grease collection tray or tap is included for every 3m of canopy section	✓	✓	✓	✓	✓	✓	
Canopy tray width at back wall is just 50mm to minimise condensation risk while cooking	✓	✓	✓	✓	✓	✓	
Hanging brackets are included	✓	✓	✓	✓	✓	✓	
All canopy sections are pre-drilled and pre-tapped for ease of installation	✓	✓	✓	✓	✓	✓	
Integrated Unistrut rails for ease of installation	✓	✓	✓	✓	✓	✓	
Thermal insulation is installed to prevent condensation between the supply and extract air sections	✓			✓			
The low velocity displacement supply air diffuser part of the canopy is separated from the CaptureTEC capture air plenum (ensuring constant capture air function regardless of the supply air flow)	✓			✓			
CaptureTEC Containment System							
CaptureTEC capture air system to all canopy sides	✓	✓		✓	✓		
Integrated high efficiency variable speed CaptureTEC fan on each canopy section	✓	✓		✓	✓		
The side walls of the canopies have twin walls which act as supply air ducts for side CaptureTEC	✓	✓		✓	✓		
Other features							
All spigots on extract air are factory fitted	✓	✓	✓	✓	✓	✓	
LED low profile lighting panels integrated into canopy, IP65, flush fitting, to provide 500 lux on working plane	✓	✓	✓	✓	✓	✓	
Canopies are modular construction allowing easy transportation on-site regardless of canopy size	✓	✓	✓	✓	✓	✓	
Large canopies are assembled using a combination of separate modules without any beams between the modules, meaning that one long section is created, which is aesthetically preferable	✓	✓	✓	✓	✓	✓	
All spigots on supply air are factory fitted	✓			✓			
Individually adjustable personal supply air nozzles	✓			✓			
Low velocity displacement supply air diffusers are used for the fresh air supply (not just a single sheet of perforated steel with unknown airflow characteristics)	✓			✓			
The displacement diffuser shall incorporate a stratified pattern to ensure diffusion of supply air across the entire workplace, utilizing coanda principles	✓			✓			
Added benefits							
Kitchen climate & comfort improved	Yes	Yes	Yes	Yes	Yes	Yes	
100% capture & containment of all heat, smoke, steam and cooking vapours	Yes	Yes	Yes	Yes	Yes	Yes	
Grease separation	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	
Potential fire risk	Very low	Very low	Very low	Medium	Medium	Medium	Very High
Smells and odours are reduced	Yes	Yes	Yes	No	No	No	
Possibility of energy recovery from hot exhaust air	Yes	Yes	Yes	No	No	No	
Possibility to delete the duct and shaft up through a building (because of odour & grease reduction)	Yes	Yes	Yes	No	No	No	
Can future duct cleaning be eliminated	Yes	Yes	95%	No	No	No	
Can fire rated ductwork be eliminated (allowing use of fire dampers at zone boundaries)	Yes	Yes	Yes	No	No	No	No
Ductwork size is reduced	Yes	Yes	No	Yes	Yes	No	
Fan power is reduced by up to 75%	Yes	Yes	No	Yes	Yes	No	
Supply fan power reduced	Yes	Yes	No	Yes	Yes	No	
Extract fan power reduced	Yes	Yes	No	Yes	Yes	No	
Smaller boiler/heating system possible	Yes	Yes	No	Yes	Yes	No	
Smaller chiller/cooling system possible	Yes	Yes	No	Yes	Yes	No	
Possibility to delete the traditional supply air ductwork and diffusers in the kitchen	Yes	No	No	Yes	No	No	
Price comparison	Premium	Premium	Low	Standard	Standard	Low	