



Alto-Shaam® Combitherm® COMPARATIVE MATRIX

	FEATURE	ES SERIES (CT CONTROL)	CT PROformance SERIES	BENEFITS
MODELS	Nomenclature changes	6-10, 6-10I, 6-10I(N), 10-10, 10-10I, 10-10I(N), 7-14, 7-14I, 10-18, 10-18I, 12-20, 12-20I, 20-20, 20-20I	CTP6-10, CTP10-10, CTP7-20, CTP10-20, CTP20-10, CTP20-20	<ul style="list-style-type: none"> Simplified nomenclature for specification consistency and pan configurations Model number determined by shelves and pans per shelf Elimination of 12-20, 12-18, and 10-20esG models 10-20 is now a counter model unit (in lieu of roll-in) Introduction of new slimline roll-in combi oven model 20-10 (compatible with QC-100 and 20-20MW) Common footprint between gas and electric
DESIGN FEATURES	Clearance Requirements (Control Side)	18" (457mm) for service clearance and 20" (508mm) from heat producing equipment (control panel side)	ZERO clearance requirement from heat producing equipment (18" (457mm) service clearance still required unless units are mobile)	<ul style="list-style-type: none"> Reduced overall hood space requirement Greater flexibility with location placement on the cooking line Redesigned side panel with air flow channel and enhanced ventilation to the control compartment and components Enhanced protection of control components and reduced overall service costs through life of equipment Air flow below unit must be unobstructed Service clearance of 18" required unless unit is on casters. No clearance required from adjacent heat producing equipment 4"-6" (102mm-152mm) required in rear of unit for plumbing connections
	Boiler / Steam Generator	Electric - Steam Generator or Boiler-Free Gas Boiler-Free	All Models - Boiler-Free Standard, Steam Generator Option on Electric	<ul style="list-style-type: none"> Boiler-Free configuration is standard on all models, gas and electric Steam generator is optional on electric models Daily automatic flushing of steam generator. Control displayed maintenance reminder standard with steam generator units
	Core Temperature Probe	Removable Core Temperature Probe	Removable Core Temperature Probe	<ul style="list-style-type: none"> Reinforced design for greater reliability at cord connection points Longer component life, reduced part replacement cost Modified diagonal connection point in the oven for reduced stress on connection points Optional multi-point (hard-wired) and sous vide probe (removable) Redesigned retaining clip to secure and protect probe when not in use Probe can be calibrated manually through control panel Interchangeable with probe from Series Quick Chillers Increased temperature rating to 575°F (302°C) Removable probe has a temperature tolerance of +/-1°F (+/-0.6°C) for sous vide application
	Door Window	2-Pane Glass Door	Cooltouch3 Triple Pane Glass Door	<ul style="list-style-type: none"> Reduced exterior door temperature to protect operators from hot contact surfaces [100°F (38°C)] 15% greater thermal retention to oven cavity to improve cooking performance and results Improved efficiency and supports operating cost reduction through thermal enhancement High efficiency inner door mounted LED lighting to illuminate cooking cavity
	Oven Lighting	Quartz Halogen Interior Cavity Lighting	Integrated Door LED Lighting	<ul style="list-style-type: none"> Greater energy efficiency Increased durability of lighting fixture Enhanced cooking cavity illumination Longer life components with reduced service and maintenance requirements Integral with the oven door for simplification of service access



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DESIGN FEATURES	Fan Speed	2-speed reversing fan	5-speed reversing fan	<ul style="list-style-type: none"> Precise control over air flow and distribution Ability to achieve consistent product finish and more even cooking and browning results from top to bottom and side to side of oven cavity Eliminates need for turning of pans to achieve consistent results Provides greater ability to cook/bake more delicate food items Achieves better food texture Higher product yields on low fan speed settings Fan speed RPM range includes 450, 700, 900, 1450 and 1800
	Rinse Hose	Side Mounted Rinse Hose	PROrinse	<ul style="list-style-type: none"> Front mounted to eliminate side clearance Accessible during cooking (does not require door to be in open position). Retractable to keep hose contained when not in use Integrated backflow prevention in spray handle Reduced repair and maintenance costs associated with damage to hose/spray head "Auto-shut off feature" when hose is in state of retraction [Patent Pending] Recessed placement of rinse handle protects handle Heavy-duty, high efficiency spray head with high volume water flow for effective rinsing
	Cleaning System	CombiClean	CombiClean PLUS	<ul style="list-style-type: none"> Five (5) automatic cleaning cycles, including rinse mode and 4 levels of effective and efficient oven cavity cleaning New "Extra Heavy" cleaning level Reduced water consumption Enhanced CombiTab packaging (1 ounce vs. 1/2 ounce and heavier mil plastic) Packaging is biodegradable Manual cleaning with spray cleaner can be done Reduced chemical cost Standard shipping and storage Control notification for cleaning reminder based upon usage
	Door handle	Multi-position to allow door to manually vent	Lighted door handle with visual communication system	<ul style="list-style-type: none"> Simple hands free opening and closing design Illuminated "cool touch" door handle Provides visible alert signals to indicate in-use (solid on), end of cycle (slow flash) or error (rapid flash) Single handle with dual latch system for larger roll-in units with improved door seal to prevent steam and water leakage during operation.
	USB Port	Single port, side mounted	Single port, front mounted	<ul style="list-style-type: none"> Free software upgrades via website Improved and simplified HACCP reporting format Self closing hinged watertight cover Front accessible for easier access (located behind EcoSmart logo)



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DESIGN FEATURES	EcoSmart System	Closed System	EcoSmart PLUS Open/0% Humidity System	<ul style="list-style-type: none"> • Maintains oven efficiency during "closed mode" of operation • Cost of operation reduction (utility consumption) • Ability to operate in "TRUE 0% humidity" to gain greater control over product browning and texture humidity from cavity • Precise humidity control from 0% to 100%
	Door Hinging	Standard right hinge, optional left hinge or recessed (right side)	Standard right hinge, optional recessed (all models)	<ul style="list-style-type: none"> • Enhanced line placement flexibility • Competitive specification compliance • Left hinged no longer offered based on "zero clearance" design
	Ventless Hood	CombiHood	CombiHood PLUS	<ul style="list-style-type: none"> • Available on all counter-top electric models, including 6-10, 10-10, 7-20 and 10-20 Series • Lift up front panel for filter cartridge access • Auto-venting feature cycles on and off during cooking process to minimize load at conclusion of cooking cycle • Low profile height design to minimize additional ceiling clearances • Not compatible with CombiSmoke feature • Compatible with automated grease collection system • Not available on stacked models
	Grease Collection System	Optional to 7-14 Series only	Available on all models	<ul style="list-style-type: none"> • Extended application for ALL model configurations
	Smoker Feature	CombiSmoke	CombiSmoke	<ul style="list-style-type: none"> • Newly designed smoke chip box and mounting system allows maximum pan capacity in oven cavity (previous design resulted in loss of 1 pan space on lower shelf rail/rear position) • Hot or cold smoke with real wood. • Residual smoke odor and flavor completely removed through the short, automatic CombiClean Plus clean cycle. • Not compatible with ventless hood • Patented design on electric with steam generator • Hot & cold smoke easily activated through control panel
	Venting System	Auto-Venting	SafeVent	<ul style="list-style-type: none"> • Automatic evacuation of oven cavity (heat and steam) during last 60 seconds of timer sequence countdown • Vents during last 10 degrees of probe cooking sequence. Safeguards operator from potential exposure to excessive heat and steam when opening the oven door. • Exception to feature is low temperature steam and shelf timer function usage
	Exterior Dimensions	Standard and Narrow	Singular Width	<ul style="list-style-type: none"> • Width reduction (standard configuration) • Height increase (impact some stacking configurations) • Common platform for both gas and electric ovens
	Stacking Options	6-10/6-10 6-10/10-10 6-10/7-14 7-14/7-14	6-10/6-10 6-10/10-10 6-10/7-20 7-20/7-20	<ul style="list-style-type: none"> • See stacking configuration chart for complete listing of stacking configurations; combi, convection, halo, chiller and other



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DESIGN FEATURES	Rack Management	Available	Available	<ul style="list-style-type: none"> • Systems are NOT backward compatible with ES Series • Model 20-10 racking system compatible with QC2-100 Quickchiller and Model 20-20 Series companion holding unit • Pre-heat strip included in door design for 20-10 and 20-20 models. • Dual wheel casters for greater stability, maneuverability, safety and function
	Water Treatment	OEM through Alto-Shaam	Supplied by others	<ul style="list-style-type: none"> • Corporate relationship with OptiPure still in tact • Referral for water solutions to outside supply specialists
	Manufacturing	Electric - USA Gas - European Component Supply	All Models Made in USA	<ul style="list-style-type: none"> • Enhanced quality control over previously sourced components • Heat exchanger design [Patent Pending] • Tested highest energy efficiency rating in the industry • Cost reduction in gas series for more competitive pricing • No reliance upon foreign supply of primary components • Enhanced delivery capability • 40% recycled content
CONTROL FEATURES	Power Mode Options	Normal and Reduced Energy modes	PROpower	<ul style="list-style-type: none"> • Three (3) performance power levels provide greater control over recovery, cooking times and food quality. • PROpower Turbo mode for greater recovery and up to 20% speed efficiency compared to other combi ovens [Patent Pending] • Turbo 35% faster preheat • Eco-mode standard operating mode for regular operation • Reduced power mode for reduced energy and overnight production flexibility • Now 70-80% faster than conventional cooking methods. • Faster performance means enhanced production, kitchen efficiency and cost control.
	Browning/Humidity Control	Gold-n-Brown	Absolute Humidity Control (AHC)	<ul style="list-style-type: none"> • Precise control of cooking humidity from 0% to 100% to maximize food quality, texture and finish. • Greater food yields and shelf life through control over moisture retention. • Open system completely evacuates moisture from oven cavity to for greater control over product finish • Precise humidity control in increments of 1% • Patent pending design
	Multi Shelf Timer	Available	Available	<ul style="list-style-type: none"> • Simplified production by limiting control interaction for greater consistency and efficiency. • Timed items can be labeled by name • Reduces food waste by eliminating overcooking • Multiple shelf timers allow multiple pan production simultaneously to enhance production efficiency and quality control • Countdown timer includes seconds



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CONTROL FEATURES	Cooking Temperature Range	86°F to 482°F (30°C to 250°C)	85°F to 575°F (30°C to 302°C)	<ul style="list-style-type: none"> Expanded platform and cooking applications Greater preheating flexibility for load compensation thermal recovery More effective searing and grill marking of products Faster production capability
	Dehydration Mode	—	Available	<ul style="list-style-type: none"> Extended prep and menu application Eliminates redundancy with other equipment to serve same purpose Similar to smoker feature, additional value added feature, however at no additional cost Functions at low temperature convection with 0% humidity
	Delta T	Available	Available	<ul style="list-style-type: none"> Low temperature cook & hold process to support bulk protein production Enhances food yields by 10-15% compared to convection oven technology Greater menu application for larger bulk menu items Provides means for overnight cooking to reduce labor Food quality control and consistency Natural tenderization of food products
	Programmability	250 program capacity	Unlimited <i>(only memory restrictions)</i>	<ul style="list-style-type: none"> Greater memory capacity to store unlimited pre-programmed recipes based on available 2 GB memory capacity Recipe management allows file sorting by menu item, food category or by frequency of use. Professional mode and recipe library (1-touch) Multi-step programming up to 10 sequential steps Timer functions in hours, minutes and seconds for greater control over cooking process Complimentary recipes to be available for download from Alto-Shaam website
	HACCP	Available	Available	<ul style="list-style-type: none"> Data is stored until downloaded and deleted from memory (prior series was limited to 30 day onboard memory) Note that excessive storage will slow control Simplified reporting format On screen summary shows critical times and temperatures for recording at point of use. Easy to read detailed reporting downloadable to laptop or desktop system Front mounted USB port is easy to access and protected by a watertight self-closing hinged cover.
	Pre-Heat	Standard	Standard	<ul style="list-style-type: none"> Same functionality and benefit as prior series Temperature range increased to 575°F (302°C)
	Cool-Down	Standard	Standard	<ul style="list-style-type: none"> Same functionality and benefit as prior series
	Moisture Injection	Standard	Standard	<ul style="list-style-type: none"> Same functionality and benefit as prior series



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CONTROL FEATURES	Diagnostics	Standard	Standard	<ul style="list-style-type: none"> • Audit trail to document and record all oven activity as a toll for incident evaluation and root cause analysis • Sleep mode for energy reduction during periods of non-use and immediate start up in lieu of standard boot up process • Self test mode to support true self diagnostic capability • Manual test mode • Streamlined service mode screen for troubleshooting • Ability to navigate between service and operating mode to work on equipment without interrupting cooking cycles • Ability to see control command components on display board • Auto-correction of errors to eliminate need to reboot to clear error codes • Odometer records total run time of components, provides regular maintenance reminders and records component life and cycle data • Auto PM and maintenance reminders via control screen for cleaning, de-liming, change of filter (ventless hood), water filtration cartridge change and door gasket inspections

