

**COMBITHERM®**  
**COMBIoven™**

**12•20<sup>Esi</sup>**  
**COMBITouch™**



• Intuitive CombiTouch control is fully operable from the touch screen.



MODEL 12•20ESI WITH COMBITOUCH CONTROL  
ROLL-IN PAN CART INCLUDED  
CAPACITY OF TWENTY-FOUR (24) FULL-SIZE OR GN 1/1 PANS,  
TWELVE (12) FULL-SIZE SHEET OR GN 2/1 PANS

- Store up to 250 recipes, each with up to 9 steps. CombiTouch comes standard with more than 100 preprogrammed recipes and photos.
- Multi-shelf Timers track cooking time of ten different food items in the same oven.
- Gold-n-Brown™ — Six precise and consistent browning levels are available with the CombiTouch. The exclusive Gold-n-Brown feature gives the operator the ability to achieve the ideal cooking environment for the ideal finish.
- EcoSmart™ design uses less electricity and water than competitive models. CombiTouch features a Reduced Energy setting, which further minimizes electricity use.
- The CombiTouch advanced reversing fan design provides excellent baking results and prevents excessive water and power consumption.
- Cook with the included product temperature probe or by time.
- Cooks with variable steam, convection heat, or a combination of both to roast, steam, bake, or oven-fry. Cooking speeds are increased by as much as 70% compared to conventional cooking methods.
- CombiClean™ feature uses scrubbing jets of water for fully automated cleaning. Use either commercial-strength CombiClean Tablets or Combitherm Cleaning Liquid Spray.
- Boiler-free flash-steam generation increases reliability by eliminating boiler maintenance and boiler heating element burnout. Steam levels are maintained without a water reservoir.
- Optional, patented CombiSmoke™ smoking technology (U.S. Pat. 7,157,668; EU Pat. 1659911) smokes any product, hot or cold.

#### SHORT FORM SPECIFICATIONS:

Provide Alto-Shaam Combitherm® floor standing Model 12•20Esi flash-steam electric CombiOven™ designed with EcoSmart™ technology for reduced energy and water usage and include operational modes for steam, convection, and a combination of steam and convection heat. Standard features to include patented automatic steam venting; Gold-n-Brown™ browning function with a choice of six different levels; two-speed reversing fan with coordinated venting system, two individual USB ports for data access, and a self-adjusting, flush-mounted rotary door handle. Oven is to be constructed of 18 gauge stainless steel, include an attached spray hose with backflow preventer, quick-connect single-point internal product temperature probe in the oven interior, cool-down function, and automatic cleaning function. Each oven is to accommodate up to 12 full-size sheet pans or 24 full-size hotel pans, include standard right-hand door hinging, and Roll-in pan cart with removable drip tray and cart handle. The oven is to include the patented CombiSmoke™ smoking function (*only if requested with order*).

**CombiTouch™ Control:** Touch sensitive, graphics based control to include more than 100 preprogrammed recipes and photos, programming capability for up to 250 recipes - each with up to 9 steps, ten multi-shelf timers, and on-board diagnostics.



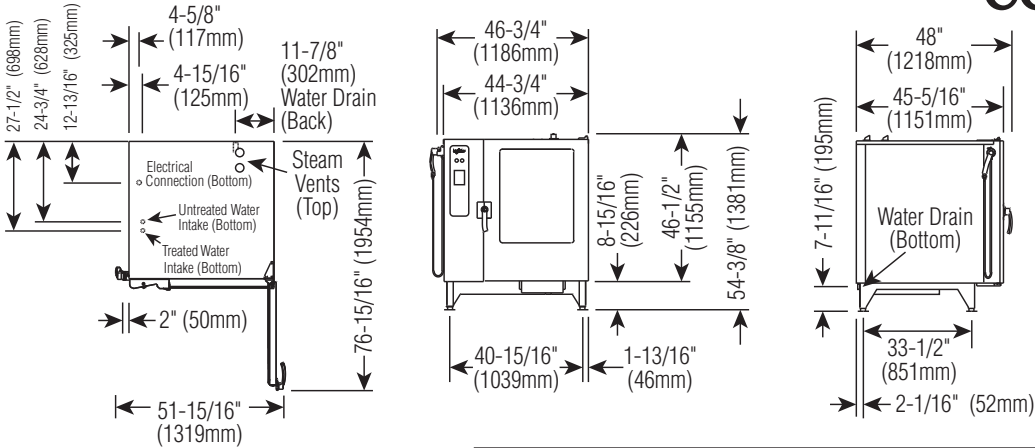
#### STANDARD FEATURES AND ACCESSORIES

- Roll-in pan cart completely interchangeable with QC-50 QuickChiller™ and 12•20 CombiMate® companion holding cabinet with:  
Twelve (12) non-tilt pan support rails  
21-1/16" (535mm) horizontal width between rails  
2-5/8" (65mm) vertical spacing between rails  
Six (6) stainless steel wire shelves  
Removable drip tray and cart handle
- Four (4) 6" (152mm) removable adjustable legs
- One (1) hand-held shower with backflow preventer PATENT PENDING
- One (1) flush-mounted rotary door latch with steam venting position
- Single-point detachable temperature probe



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<b>DIMENSIONS: H x W x D</b>	
<b>EXTERIOR:</b>	54-3/8" x 46-3/4" x 48" (1381mm x 1186mm x 1218mm)
<b>EXTERIOR WITH RECESSED DOOR:</b>	54-3/8" x 50-3/4" x 48" (1381mm x 1288mm x 1218mm)
<b>INTERIOR:</b>	38-11/16" x 26-1/4" x 32-11/16" (983mm x 667mm x 830mm)

<b>INSTALLATION REQUIREMENTS</b>	
Oven must be installed level.	
Hood installation is required.	
Water supply shut-off valve and back-flow preventer.	

<b>WATER REQUIREMENTS</b>	
<b>TWO (2) COLD WATER INLETS - DRINKING QUALITY</b>	
ONE (1) TREATED WATER INLET:	3/4" NPT* * Can manifold off of one 3/4" line.
ONE (1) UNTREATED WATER INLET:	3/4" NPT*
LINE PRESSURE:	30 to 90 psi 2.8 to 6.2 bar
<b>WATER DRAIN:</b> 1-1/2" CONNECTION WITH A 2" MINIMUM AIR GAP INSTALLED AS CLOSE TO THE OVEN AS POSSIBLE	

<b>WATER QUALITY MINIMUM STANDARDS</b>	
USING A WATER SUPPLY NOT MEETING ALTO-SHAAM'S MINIMUM WATER QUALITY STANDARDS WILL VOID THIS WARRANTY. It is the responsibility of the purchaser to ensure that incoming water supply is compliant with the specifications listed through adequate treatment measures. Installation of the CombiGuard™ Water Filtration System is recommended, but this system may not address all water quality issues present.	
<b>Contaminant</b>	<b>Inlet Water Requirements (untreated water)</b>
Free Chlorine	Less than 0.1 ppm (mg/L)
Hardness	Less than 3 gpg (52 ppm)
Chloride	Less than 30 ppm (mg/L)
pH	7.0 to 8.5
Alkalinity	Less than 50 ppm (mg/L)
Silica	Less than 12 ppm (mg/L)
Total Dissolved Solids (tds)	Less than 60 ppm

<b>CLEARANCE REQUIREMENTS</b>	
LEFT: 6" (152mm)	RECOMMENDED SERVICE ACCESS: 18" (457mm) 20" (508mm) FROM HEAT PRODUCING EQUIPMENT
RIGHT: 4" (102mm)	TOP: 20" (508mm) FOR AIR MOVEMENT
BACK: 4" (102mm)	BOTTOM: 5-1/8" (130mm) FOR LEGS

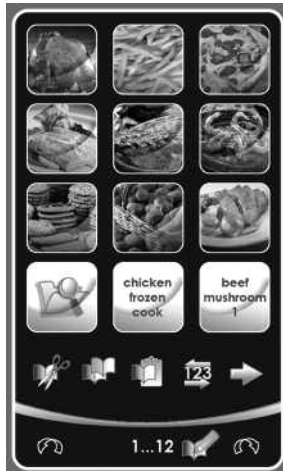
<b>ELECTRICAL (DEDICATED CIRCUIT REQUIRED)</b>					<b>12•20Esi</b>		<b>12•20Esi/sk</b>	
	VOLTAGE	PHASE	CYCLE/HZ	AWG	AMPS	kW	AMPS	kW
208-240	at 208	3	60	3 Wire plus ground	75.6/ph	27.2	77.0/ph	27.7
	at 240			AWG 2	87.0/ph	36.1	88.2/ph	36.6
380-415	at 380	3	50	4 Wire plus ground	41.4/ph	27.2	42.1/ph	27.7
	at 415			AWG 6	50.0/ph	35.7	51.0/ph	36.6
440-480	at 440	3*	60	3 Wire plus ground	36.0/ph	27.2	36.4/ph	27.7
	at 480			AWG 6	43.5/ph	36.1	44.0/ph	36.6

\* ELECTRICAL SERVICE CHARGE APPLIES

<b>WEIGHT</b>		<b>CAPACITY</b>	
NET	630 lb (286 kg)	FULL-SIZE PANS: 20" x 12" x 2-1/2" GN 1/1: 530 x 325 x 65mm GN 2/1: 650 x 530 x 65mm	Twenty-four (24) Twenty-four (24) Twelve (12) Twelve (12)
SHIP	750 lb (340 kg)		
CRATE DIMENSIONS: (L x W x H) EST 53" x 53" x 87" (1346 x 1346 x 2210mm)		FULL-SIZE SHEET PANS:* 18" x 26" x 1" ON WIRE SHELVES ONLY	
		288 lb (131 kg) MAXIMUM	
		VOLUME MAXIMUM: 180 quarts (228 liters)	



**Cooking**



**Recipe**



**Gold-n-Brown**



**Multi-Shelf Timer**



### Steam Mode

- Automatic steaming at 212°F (100°C).
- Quick steaming 213°F to 250°F (101°C to 121°C).
- Low temperature steaming between 85°F and 211°F (29°C and 99°C) – for poaching or proofing.



### Combination Mode

- Combines steam and convection modes for faster preparation and better moisture retention.
- Improves yield, quality and shelf life.
- Automatic humidity control.
- Temperature range of 212°F to 485°F (100°C to 252°C).



### Convection Mode

- Cooking, roasting, baking and finishing applications at a temperature range of 85°F to 485°F (29°C to 252°C).



### Retherm Mode

- Bulk food or plated meal reheating with automatic steam injection.
- Automatic humidity control.
- Temperature range of 245°F to 320°F (118°C to 160°C).

### Gold-n-Brown™

- Six levels of Gold-n-Brown are featured. Gold-n-Brown vents just the right amount of humidity in the oven cavity for perfect browning.



### Moisture Injection

- A quick burst of moisture can be added with a touch of a button at any time when cooking in the convection mode.



### HACCP Data Access

- CombiTouch models records cooking mode, time and temperature completed within a two week time period. The information is captured in a text format and can be downloaded to a USB device.



### CombiSmoke™ (option) (U.S. Pat. 7,157,668; EU Pat. 1659911)

- Smoke any product, hot or cold, utilizing real wood chips.
- Functions in both combination and convection mode.
- Function can be programmed into operating procedure.

### Factory Installed Options:

(may require additional lead time)

- Smoking Function** (U.S. Pat. 7,157,668; EU Pat. 1659911)  
Must be requested at the time of order.  
Sample bag of wood chips included.

- Recessed Door - Right Hinging**

Increases oven width by 4" (102mm)

- Multi-point, hard-wired internal product temperature probe** [5005678]

- Security Devices** for correctional facility use.

Excludes temperature probe.

### Additional Security Options

- Anti Entrapment Device [5011081]
- Control Panel Security Cover [5011080]
- Hasp Door Lock (padlocks not included) [5011079]
- Tamper-Proof Screw Package for oven [5011082]

OPTIONS & ACCESSORIES	
<input type="checkbox"/> CHICKEN GREASE TRAY WITH DRAIN: 1-1/2" (38mm) DEEP	4758
<input type="checkbox"/> CHICKEN GREASE TRAY WITH DRAIN: 2-3/4" (70mm) DEEP	14475
<b>CHICKEN ROASTING RACKS:</b>	
<input type="checkbox"/> 6 CHICKEN CAPACITY — FITS FULL-SIZE PAN: 6 RACKS PER OVEN	SH-23000
<input type="checkbox"/> 8 CHICKEN CAPACITY — FITS FULL-SIZE PAN: 8 RACKS PER OVEN	SH-23619
<input type="checkbox"/> 10 CHICKEN CAPACITY — FITS IN SIDE RACKS: 8 RACKS PER OVEN	SH-22634
<input type="checkbox"/> COMBIGUARD™ BWS BLENDED WATER SYSTEM (INCLUDES 50 GALLON TANK, 1 MEMBRANE & 3 FILTERS)	FI-28727
<input type="checkbox"/> COMBIGUARD™ BWS REPLACEMENT FILTER CARTRIDGE AMS-QT	FI-29316
<input type="checkbox"/> COMBIGUARD™ BWS REPLACEMENT FILTER CARTRIDGE SCLX2-Q	FI-29317
<input type="checkbox"/> COMBIGUARD™ BWS REPLACEMENT PREFILTER FILTER CARTRIDGE CTO-Q	FI-29318
<input type="checkbox"/> COMBIGUARD™ 20 TRIPLE-GUARD WATER FILTRATION SYSTEM (INCLUDES 1 CARTRIDGE)	FI-28728
<input type="checkbox"/> COMBIGUARD™ 20 TRIPLE-GUARD REPLACEMENT FILTER	FI-28744
<input type="checkbox"/> COMBITHERM CLEANING LIQUID — SPECIALLY FORMULATED FOR COMBITHERM OVENS ➔ TWELVE (12) CONTAINERS/ CASE, 1 QUART (C. 1 LITER) EACH [SPECIAL HANDLING REQUIRED]	CE-24750
<input type="checkbox"/> COMBICLEAN™ TABLETS — SPECIALLY FORMULATED FOR COMBITHERM OVENS ➔ 90 PACKETS EACH CONTAINER - MUST BE ORDERED IN EVEN QUANTITIES OF TWO (2)	CE-28892
<input type="checkbox"/> EXTENDED ONE-YEAR WARRANTY	CONTACT FACTORY
<input type="checkbox"/> FRY BASKET, 12" x 20" (325mm x 530mm)	BS-26730
<input type="checkbox"/> GRILLING GRATE, 12" x 20" (325mm x 530mm)	SH-26731
<input type="checkbox"/> PREHEAT SEALING STRIP (TO PREHEAT RIGHT HAND UNITS WITHOUT ROLL-IN TROLLEY)	1010739
<input type="checkbox"/> PREHEAT SEALING STRIP (TO PREHEAT RECESSED DOOR UNITS WITHOUT ROLL-IN TROLLEY)	1010752
<input type="checkbox"/> PROBE, SOUS VIDE	PR-34747
<input type="checkbox"/> ROLL-IN PAN CART: (H x W x D): 48-13/16" x 28-15/16" x 35-3/16" (1240mm x 734mm x 892mm) INTERCHANGEABLE WITH 12•20 COMBIMATE HOLDING CABINET AND QC-50 QUICKCHILLER	UN-27968
<input type="checkbox"/> ROLL-IN PAN CART — SECURITY OPTION: INCLUDES TAMPER-PROOF SCREWS AND WELDED HANDLE (H x W x D): 48-13/16" x 28-15/16" x 35-3/16" (1240mm x 734mm x 892mm) INTERCHANGEABLE WITH 12•20 COMBIMATE HOLDING CABINET AND QC-50 QUICKCHILLER	5010365
<b>ROLL-IN PLATE CART:</b> (H x W x D): 48-3/4" x 28-15/16" x 36-7/8" (1238mm x 734mm x 937mm) INTERCHANGEABLE WITH 12•20 COMBIMATE HOLDING CABINET AND QC-50 QUICKCHILLER	
<input type="checkbox"/> 52 PLATE CAPACITY – PLATE SIZE 10" TO 12" DIAMETER (254mm TO 305mm) PLATES; 3-3/4" (95mm) SPACING	UN-28456
<input type="checkbox"/> 70 PLATE CAPACITY – PLATE SIZE 10" TO 12" DIAMETER (254mm TO 305mm) PLATES; 2-3/4" (70mm) SPACING	UN-27969
<input type="checkbox"/> SCALE FREE™ (CITRUS BASED, NON-CORROSIVE DELIMING PRODUCT)	CE-27889
<input type="checkbox"/> SERVICE START-UP CHECK AVAILABLE THROUGH AN ALTO-SHAAM FASTEAM CENTER	SPECIFY AS REQUIRED
<input type="checkbox"/> SHELF, STAINLESS STEEL WIRE	SH-22473
<b>WOOD CHIPS — BULK PACK 20 lb (9 kg)</b>	
<input type="checkbox"/> ➔ Apple . . .WC-22543 <input type="checkbox"/> ➔ Cherry . . .WC-22541 <input type="checkbox"/> ➔ Hickory . . .WC-2829 <input type="checkbox"/> ➔ Maple . . .WC-22545	