ALTO·SHAAM.
COMBITHERM®

ecosmart™

12•18ESG
GAS COMBINATION OVEN/STEAMER

Boiler-FREE

- Flash-steam generation makes conventional steam generator obsolete:
  — Eliminates steam generating boiler maintenance
  — Ends boiler heating element burn-out
  — Maintains steam levels without a water reservoir

- Cook by internal product temperature or time with temperature variable steam, convection heat, or a combination of both to roast, steam, bake, or oven-fry in a single piece of equipment.

- Provides increased food quality and expands menu options while increasing production efficiency and speed by as much as 70-percent compared to conventional cooking methods.

- EcoSmart™ technology reduces energy cost by using less electricity and water during both normal operation and the cleaning function.

- Gold-n-Brown™ feature provides the operator with the ability to add additional product color.

- AutoClean™ feature simplifies the cleaning process to a single oven function.

- Standard and Deluxe control offers 2-speed fan, a cool-down feature, additional moisture injection, Delta-T cooking, multiple language display, and other control features.

- Enhanced safety feature includes automatic steam venting immediately before cooking time expires. (U.S Patent 7,282,674)

MODEL 12•18ESG DELUXE
CAPACITY OF TWENTY-FOUR (24) FULL-SIZE OR GN 1/1 PANS,
TWELVE (12) FULL-SIZE SHEET OR GN 2/1 PANS

SHORT FORM SPECIFICATIONS:

Provide Alto-Shaam Combitherm® counter-top Model 12•18ESG flash-steam combination oven/steamer 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 energy efficient forced-air power burner, patented heat exchange system, electronic ignition, patented automatic steam venting; Gold-n-Brown™ browning function; and a self-adjusting, flush-mounted rotary door handle with a steam venting safety stop. Control to include 2-speed fan and cool-down function. Oven is to be constructed of 18 gauge stainless steel, include an attached spray hose with backflow preventer, and automatic cleaning function. The oven is to accommodate up to 12 full-size sheet pans or 24 full-size hotel pans, include a removable door gasket for easy replacement, and standard right-hand door hinging.

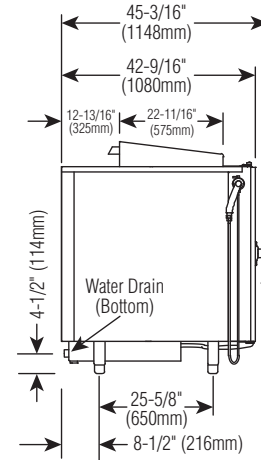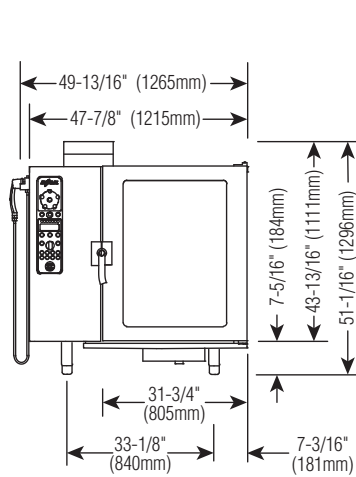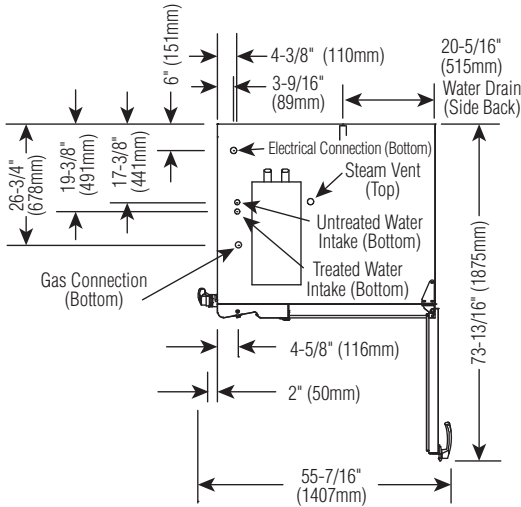|	
STANDARD CONTROL:	To include removable quick-connect internal product temperature probe in the oven interior.
DELUXE CONTROL:	To include removable quick-connect internal product temperature probe in the oven interior and programming capability with Rapid-Touch™ operational quick-keys.
S-CONTROL:	To include removable quick-connect internal product temperature probe in the oven interior as an option.

MODELS:

☐ **12•18ESG: STANDARD**

☐ **12•18ESG: DELUXE**

☐ **12•18ESG: S-CONTROL**

GAS-FIRED

c(UL)us LISTED 4S53
ANS Z83.11-CSA 1.8-2002

(UL) EPH
ANSI/NSF 4

STANDARD FEATURES AND ACCESSORIES

- Six (6) stainless steel shelves

- Two (2) stainless steel side racks with
  Twelve (12) non-tilt pan support rails
  21-1/16" (535mm) horizontal width between rails
  2-5/8" (65mm) vertical spacing between rails

- Four (4) 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 (OPTIONAL ON S-CONTROL MODELS)

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GAS COMBINATION OVEN/STEAMER 12•18ESG

Left view dimensions:
- 6" (151mm)
- 4-3/8" (110mm)
- 3-9/16" (89mm)
- 20-5/16" (515mm) Water Drain (Side Back)
- 26-3/4" (678mm)
- 19-3/8" (491mm)
- 17-3/8" (441mm)
- Electrical Connection (Bottom)
- Steam Vent (Top)
- Untreated Water Intake (Bottom)
- Treated Water Intake (Bottom)
- Gas Connection (Bottom)
- 4-5/8" (116mm)
- 2" (50mm)
- 73-13/16" (1875mm)
- 55-7/16" (1407mm)

Front view dimensions:
- 49-13/16" (1265mm)
- 47-7/8" (1215mm)
- 7-5/16" (184mm)
- 43-13/16" (1111mm)
- 51-1/16" (1296mm)
- 31-3/4" (805mm)
- 33-1/8" (840mm)
- 7-3/16" (181mm)

Right view dimensions:
- 45-3/16" (1148mm)
- 42-9/16" (1080mm)
- 12-13/16" (325mm)
- 22-11/16" (575mm)
- 4-1/2" (114mm)
- Water Drain (Bottom)
- 25-5/8" (650mm)
- 8-1/2" (216mm)

DIMENSIONS: H x W x D

EXTERIOR:
51-1/16" x 49-13/16" x 45-3/16" (1296mm x 1265mm x 1148mm)

EXTERIOR WITH RETRACTABLE DOOR:
51-1/16" x 53-13/16" x 45-3/16" (1296mm x 1367mm x 1148mm)

INTERIOR:
33-7/8" x 25-1/4" x 33-7/8" (860mm x 640mm x 860mm)

CLEARANCE REQUIREMENTS

LEFT: 6" (152mm) **PLUS SERVICE ACCESS: 18" (457mm) RECOMMENDED**
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

WATER REQUIREMENTS

TWO (2) COLD WATER INLETS - DRINKING QUALITY

ONE (1) TREATED WATER INLET: 3/4" NPT
ONE (1) UNTREATED WATER INLET: 3/4" NPT
LINE PRESSURE: 30 to 90 psi   2.8 to 6.2 bar

WATER DRAIN: 1-1/2" FERNCO CONNECTION WITH AIR GAP

INSTALLATION REQUIREMENTS

Oven must be installed level. Hood installation. Water supply shut-off valve and back-flow preventer. Alternate burner orifice is required for installation sites at elevations of 3,000 feet (914m) above sea level.

GAS REQUIREMENTS

CONNECTED ENERGY LOAD: 105,000 Btu/hr
HOOK-UP: 3/4" NPT
MINIMUM CONNECTED PRESSURE: 5.5" W.C. (Natural Gas)
9" W.C. (Propane)
MAXIMUM CONNECTED PRESSURE: 14" W.C.
GAS TYPE MUST BE SPECIFIED ON ORDER.

WATER QUALITY MINIMUM STANDARDS

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.

Contaminant	Inlet Water Requirements (untreated water)
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

ELECTRICAL

VOLTAGE	PHASE	CYCLE/ HZ	AWG	AMPS	kW
110 - 120	1	50/60	2 Wire plus ground, AWG 12	7.8	.936

*OTHER VOLTAGES AVAILABLE*: Range 200 — 415V — 1 or 3 ph, 50 or 60 Hz

WEIGHT

NET	666 lb EST.	(302 kg) EST.
SHIP	865 lb EST.	(392 kg) EST.
CRATE	56" X 55" X 50" EST.	
DIMENSIONS:	(1422 x 1397 x 1270mm)	

CAPACITY

FULL-SIZE PANS:	20" x 12" x 2-1/2"	Twenty-four (24)
GN 1/1:	530 x 325 x 65mm	Twenty-four (24)
GN 2/1:	650 x 530 x 65mm	Twelve (12)
FULL-SIZE SHEET PANS:* ON WIRE SHELVES ONLY	18" x 26" x 1"	Twelve (12)

288 lb (131 kg) MAXIMUM

VOLUME MAXIMUM: 180 QUARTS (228 LITERS)

*ADDITIONAL WIRE SHELVES REQUIRED FOR MAXIMUM CAPACITY

Deluxe Control

(PICTURED)

The Combitherm deluxe control includes all the operational functions of the standard control and adds a programming function. Program memory can accept up to 250 procedures, each with up to 20 steps in any combination of cooking modes. The deluxe control also features a set of 8 Rapid-Touch™ keys to assign frequently used programs to cook at the touch of a single button.
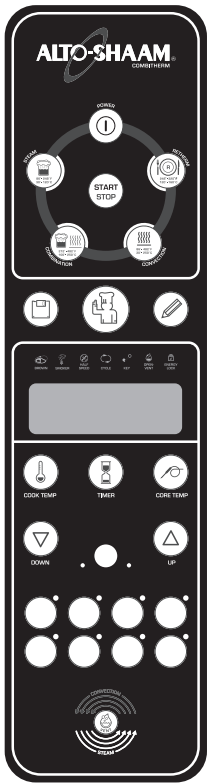
Standard Control

The Combitherm standard control includes all operational functions shown to steam, bake, and roast by time or internal product temperature. The control features the Gold-n-Brown™ automatic browning function, a Retherm Mode for plate regeneration, plus a wide variety of auxiliary functions and operational settings. This control is offered for operators that do not require programming capability.

S-Control

The Combitherm S-Control includes all basic combination oven operational modes with the use of rotary dials. The S-Control also features the Gold-n-Brown™ automatic browning function, an automatic cleaning setting, an oven cool-down function, and a half-speed fan position.
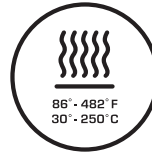
Steam Mode
Automatic steaming at 212°F (100°C)
Quick steaming between 213°F and 248°F (101°C and 120°C)
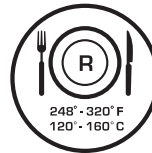Low temp steaming between 86°F and 211°F (30°C and 99°C)

Combination Mode
Steam and convection cooking with a temperature range of 212°F to 482°F (100°C to 250°C)

Convection Mode
Cooking without steam at a temperature range of 86°F to 482°F (30°C to 250°C)

Retherm Mode
Food or plated meal reheating with automatic steam injection at a temperature range of 248°F to 320°F (120°C to 160°C)

Core Temperature Mode
Cooking by sensing internal product temperature in any selected cooking mode

Gold-n-Brown™
An automatic browning function to be set or programmed as needed to add additional product color in the combination or convection mode of operation.

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Boiler-Free

FACTORY INSTALLED OPTIONS
(MAY REQUIRE ADDITIONAL LEAD TIME)

Gas Type
☐ NATURAL
☐ PROPANE

☐ **Alternate Burner Orifice**
REQUIRED FOR INSTALLATION SITES AT ELEVATIONS
OF 3,000 FEET (914m) ABOVE SEA LEVEL

☐ **Recessed Door** [5006555]
INCREASES OVEN WIDTH BY 4" (102mm)

☐ **Left-Hand Door Swing** [5006556]

Single-point removable temperature probe (PATENT PENDING)
INCLUDED ON STANDARD AND DELUXE OVENS
☐ OPTIONAL ON S-CONTROL OVENS [5005679]

☐ **Multi-point, hard-wired internal product temperature probe** [5005678]
NOT AVAILABLE ON S-CONTROL OVENS

☐ **Security Devices** [5006528]
FOR CORRECTIONAL FACILITY USE
INCLUDES CONTROL SECURITY PANEL, DOOR LOCK, TAMPER-PROOF SCREW PACKAGE,
FLANGED LEGS FOR FLOOR OR COUNTER BOLTING (PADLOCKS NOT INCLUDED)

☐ **Computer Software Options** [5005676]
Not available on S-Control Models.
REFER TO HACCP SPECIFICATION SHEET #9015
FOR APPLICABLE PART NUMBERS
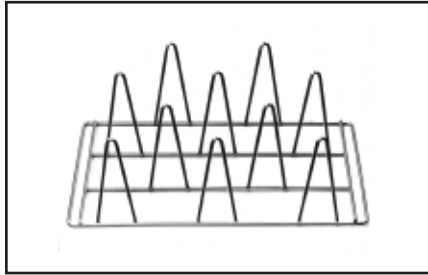☐ **HACCP Documentation**

☐ **HACCP Documentation with Kitchen Management**
NAFEM DATA PROTOCOL
C O M P L I A N T

☐ **Wireless HACCP Documentation with Kitchen Management**
NAFEM DATA PROTOCOL
C O M P L I A N T
IEEE 802.11b STANDARDS

Ten (10) Chicken Roasting Rack
SH-22634

Six (6) Chicken Roasting Rack
(PAN NOT INCLUDED)   SH-23000

Fry Basket BS-26730

Grilling Grate SH-26731

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OPTIONS & ACCESSORIES	
☐ **CHICKEN GREASE TRAY** WITH DRAIN: 1-1/2" (38mm) DEEP	4758
☐ **CHICKEN GREASE TRAY** WITH DRAIN: 2-3/4" (70mm) DEEP	14475
CHICKEN ROASTING RACKS:	
☐ 6 CHICKEN CAPACITY — FITS FULL-SIZE PAN: 6 RACKS PER OVEN	SH-23000
☐ 8 CHICKEN CAPACITY — FITS FULL-SIZE PAN: 8 RACKS PER OVEN	SH-23619
☐ 10 CHICKEN CAPACITY — FITS IN SIDE RACKS: 8 RACKS PER OVEN	SH-22634
☐ **COMBIGUARD™ TRIPLE-GUARD WATER FILTRATION SYSTEM** (INCLUDES 1 CARTRIDGE)	FI-23014
☐ **COMBIGUARD™ REPLACEMENT FILTER**	FI-26356
☐ **FRY BASKET,** 12" X 20" (325mm x 530mm)	BS-26730
☐ **GRILLING GRATE,** 12" X 20" (325mm x 530mm)	SH-26731
☐ **OVEN CLEANER** — SPECIALLY FORMULATED FOR COMBITHERM OVENS	
➥ TWELVE (12) CONTAINERS/CASE, 1 QUART (C. 1 LITER) EACH	CE-24750
☐ **QUICK DISCONNECT KIT**	CR-33543
☐ **SCALE FREE™** (CITRUS BASED, NON-CORROSIVE DELIMING PRODUCT)	CE-27889
☐ **SERVICE START-UP CHECK** AVAILABLE THROUGH AN ALTO-SHAAM FASTEAM CENTER	SPECIFY AS REQUIRED
☐ **SHELF, STAINLESS STEEL WIRE**	SH-22584