Project:	Quantity:	Item No:	FCSI Section:	Approval:	Date:

RATIONAL

Specification

Thu Apr 26 10:39:31 CEST 2018

CombiMaster® Plus CMP XS E (4 x 13 x 18 inch) UltraVent XS

2 years RATIONAL warranty

5 years warranty on steam generator

- Individual programming of at least 100 cooking programs with up to 6 steps transferable via USB
- High-performance fresh steam generator, pressureless
- 5 programmable fan speeds
- Integral, maintenance-free grease extraction system with no additional grease filter
- Turbo fan cool down function
- Dynamic air mixing
- Automatic adaptation to the installation location (elevation)
- 304 (DIN 1.4301) stainless steel material inside and out
- Seamless interior and with rounded corners
- Temperature units can be set in °F/(°C)
- Digital temperature display
- Digital timer, 0-24 hours with permanent setting
- USB Interface
- Unit base with surrounding seal
- Demand-related energy supply
- Factory installed UltraVent with 2 speed fan motor. The condensation technology in the UltraVent captures and dissipates steam in the form of condensate. There is no need for complicated and expensive installations to remove exhaust air. There is no need for a connection to the outside.
- UL listed as Commercial Cooking Appliance with Integral Systems for Limiting the Emission of Grease-laden Air

Capacity
- Three (3) GN 2/3 (1 1/2") or GN 2/3 (2 1/2 ") or four (4) 1/2 size sheet pans
- Removable, swivel hinging rack with flexible rack options on 7 levels

Standard Features
- Electrically heated table device for cooking of meat, poultry, fish, side dishes, vegetables, egg dishes, desserts, bakery products and for automatic rethermalization
- Combi-steamer according to DIN 18866, DIN 10535 for selective use of steam and hot air, separately, sequentially, or combined
- 2-Year parts and labor warranty
- 5-Year steam generator warranty
- LED cooking cabinet lighting - energy-saving, durable and low-maintenance
- Rear-ventilated triple-pane cooking cabinet door, two hinged inside panes (for easy cleaning) with a special heat-reflecting coating
- No-charge 4-hour RATIONAL certified chef assistance program
- Probe for core temperature measurement
- ClimaPlus® – humidity measurement, 5 stage setting and regulation
- Combi-steamer mode °F/(°C): steam: 85 to 265/(30 to 130), hot air: 85 to 575/(30 to 300), combination: 85 to 575/(30 to 300)
- Lengthwise loading for 2/3, 1/2, 1/3 GN (12" x 14", 12'' x 10'', 12" x 7") accessories, 1/2 size sheet pans and steam pans

Operation
- Mode selector for cooking modes, separate controls for temperature, core temperature and time settings
- LED illuminated display, visible from a distance
- Clear control panel

Safety features
- Detergent and rinse tabs (solid detergents) for optimum working safety
- VDE approved for unsupervised operation
- HACCP data output and software update via integral USB port
- Safety temperature limiter for steam generator and hot-air heating
- Maximum rack height 5 ¼ ft./1.60 m when original stand is used
- Integral fan impeller brake
- Door handle with right/left and slam function
- Splash an hose-proof to IPX5

Cleaning & care
- 3 automatic cleaning programs
- Service Diagnostic system (SDS) with automatic service notices displayed
- Menu-guided user descaling program
- Hand shower with automatic retracting system

Ventilation approvals
- This appliance conforms to the EPA 202 test in accordance to the ANSI/NFPA 96 "Ventilation Control and Fire Protection of Commercial Cooking Operations" Refer to UL Listing KNLZ.E148536 (America) or KNLZ7.E148536 (Canada).

Approval/Labels

c UL us LISTED | NSF | NSF/ANSI 4 | IPX5 | NSF HCV-EU | IPX5 | VDE EMC | P AE44 | SVGW SSIGE | V S | CE | WRAS | DEKRA | NSF HCV-EU

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CombiMaster® Plus CMP XS E (4 x 13 x 18 inch) UltraVent XS

Combi-Steamer mode

Steam between 85-265 °F (30-130 °C)

Hot-air from 85-575 °F (30-300 °C)

Combination of steam and hot-air 85-575 °F (30-300° C)

ClimaPlus

Climate management - humidity measurement, 5-stage setting and regulation

Technical Specification

Dimensions	Width	Depth	Height
Exterior	25 7/8'' (657 mm)	22 1/2'' (566 mm)	31 3/4'' (808 mm)
Shipping	35 7/8'' (910 mm)	37 1/4'' (945 mm)	38 7/8'' (986 mm)

Weight	
Max Per Shelf	22 lbs
Max Load Size	44 lbs
Net	225 lbs
Shipping	252 lbs

Size	Electric. 60 hz	Breaker	Cable connection	Running Amps
XS	208V 3 PH	30A*	15-30P	16.5 amps
XS	240V 3 PH	30A	15-30P	19.0 amps
XS*	208V 1 PH	50A	6-50P	27.5 amps
XS*	240V 1 PH	50A	6-50P	31.5 amps

EACH XS unit is supplied with 8 ft 14-3 AWG cord and plug. *Rated for 30 amp breaker due to plug size, 20 amp breaker is adequate. Use copper wire only. 3Ph 4-wire system (3 wire w/ ground)-dedicated 3 pole circuit breaker required. 1 Ph L1, L2, G-dedicated 2 pole circuit breaker required. 208 v is field retrofittable to 240v, 480v is field retrofittable to 440v. Do not use fuses. *Not available for Canada.

Thermal load and airflow requirements

Latent	283 W
Sensible	375 W
Unit free standing	13314 ft²/h
One side against a wall	8405 ft²/h
Noise values	65 dBA
Extraction power	9,900-20,000 ft3/h

Water Requirements

Connection	3/4''
Supply	Minimum 1/2" ID Drinking Quality Cold
Pressure	21-87 psi (1.5-6 bar)
Average Water Consumption	1 gal/h
Min/Max Flow Rate	3 gpm/5.3 gpm
Water Drain	11/2" OD (40 mm) hub

Connect only to 2" (XS = 1 5/8") high-temperature resistant pipe. Water discharge temperature can be field adjusted to meet section 701.7 of the International Plumbing Code. Contact RATIONAL for back flow recommendation.

Water Quality

Untreated water can be 0 to 24.5 gr/gal (0 to 420ppm) hardness. We do not recommend treated water hardness < 5 gr/gal (86ppm) because the water could be corrosive. Sodium ion exchangers are not recommended; H+ Ion exchange systems are recommended. Water that does not meet the following minimum standards will require the proper conditioning.

Contaminant	Water Requirements	If > than recommended
Sand/Particles	< 15 µm	Particle filter
Chlorine (Cl2)	< 0.12 gr/gal (0.2 ppm)	Active carbon filter
Chloride (Cl-)	< 4.68 gr/gal (80 ppm)	RO or deionization

Clearance Requirements

To facilitate servicing, we recommend leaving a 18"-20" (450-500 mm) gap on the left-hand side of the unit. If there is not 18"-20" (450-500 mm) left side clearance available, provisions for moving the unit or appliance to the left for service access must be made. These include, but are not limited to, having quick connections (water, gas, etc.) and lengthened electrical connections with flexible cords. If there are no external heat sources acting on the unit, there should be a minimum gap of 2" (50 mm) to the left, right, and back of unit. If a high temperature heat source is on the left side of the unit, the left-hand gap must be a minimum of 14" (350 mm). This gap may be reduced to 2" (50 mm) by using a heat shield (see options). Recommended clearance from unobstructed rear exhaust pipes and any surface collecting grease or flammable material; 16" (400 mm) gas, 10" (254 mm) electric. It is recommended to have a hood overhang of 6" (150 mm) to 18" (450 mm) at the front of the unit and 6" (150 mm) on the side if installed at the end of the cooking line. Please refer to the Installation Manual for further technical data and for instructions on installation and setup. Installations must comply with all local electrical, plumbing, and ventilation codes. The local standards and regulations for ventilation systems must be adhered to.

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# **RATIONAL**

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CombiMaster® Plus CMP XS E (4 x 13 x 18 inch) UltraVent XS
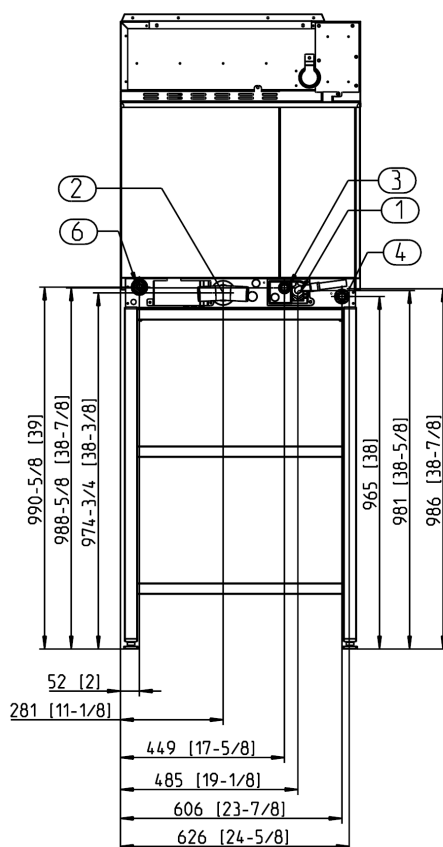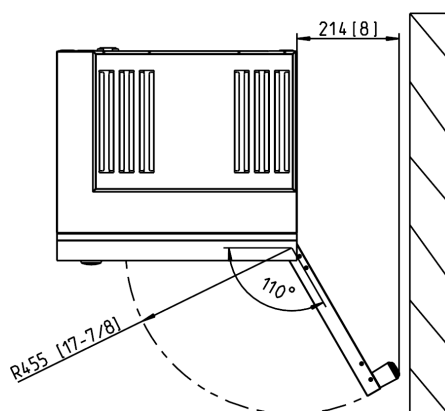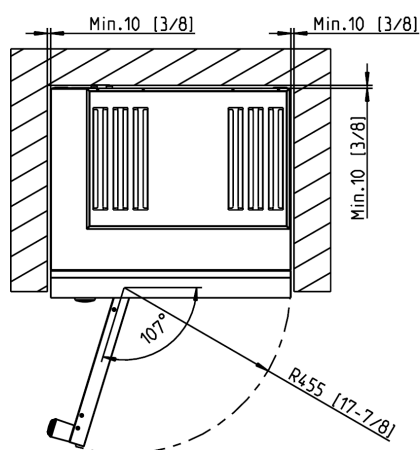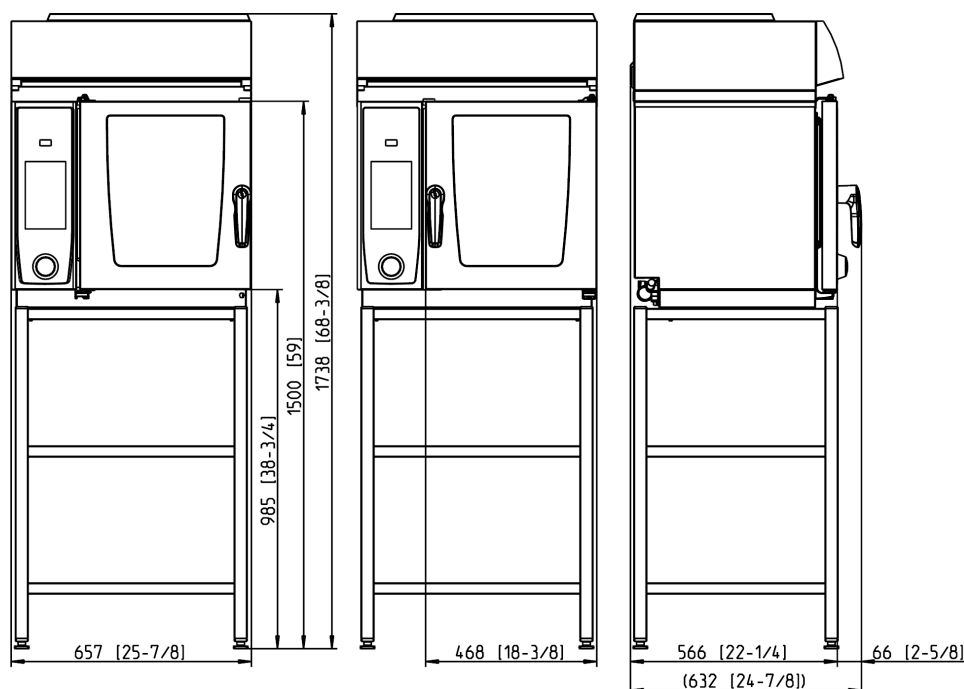
1. Common water supply (cold water) "Single" water connection as shipped 2. Drain 2" OD 3. Electrical connection wire entrance 4. Chassis Ground connection 5. Steam Vent pipe 1/2" / 60mm Minimum Clearance 1/2" / 50 mm Left side clearance 20" recommended for servicing of unit without the ability to move unit while connected. Measurements in mm (inch)

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ELECTRICAL OPTIONS (all 60Hz) Special voltages available upon request

Voltage / breaker / running amps / AWG

❑ 208V 1 Ph / 50 / 28 / #8 -   field retrofittable to 240 V

❑ 208V 3 Ph / 30 / 16 / #12 -   field retrofittable to 240 V

Voltage / breaker / running amps / AWG

❑ 240V 1 Ph / 50 / 32 / #8

❑ 240V 3 Ph / 30 / 18 / #12

ACCESSORIES

❑ Installation Kits – include electrical, water and drainage connection

      ❑ 208 or 240/60/1Ph- copper drain   87.01.404US

      ❑ 208 or 240/60/1Ph- CPVC drain   87.01.403US

      ❑ 208 or 240/60/3Ph- copper drain   87.01.402US

      ❑ 208 or 240/60/3Ph- CPVC drain   87.01.201US

❑ RATIONAL Cleaner Tabs without phosphorous – guarantee maximum cleaning power   56.00.210A

❑ RATIONAL Rinse Tabs   56.00.211

❑ Descaler, 4x 1 gallon case   6006.0110US

❑ Certified installation by RATIONAL SERVICE-PARTNERS   See document

❑ UG I stationary stand   60.31.018

❑ UG I stationary stand for Combi Duo   60.31.020

❑ UG II stationary stand- 8 sets of support rails   60.31.044

❑ UG II stationary stand for Combi-Duo- 4 sets of support rails   60.31.046

❑ UG XS stand- adjustable by 1 ½" on uneven work surface   60.31.029

❑ Stackable Combi-Duo kit, – for stacking XS on XS, right-hinged doors   60.73.768

❑ Stackable Combi-Duo kit, – for stacking XS on XS, left-hinged doors   60.74.276

❑ Wall bracket- for space-saving wall assembly   60.30.968

❑ Combi-Duo UltraVent XS or UltraVent Plus XS adapter kit   60.73.945

❑ RATIONAL USB data-memory stick – for transferring cooking programs and HACCP data   42.00.162

❑ Hinging rack – 11 racks   60.73.724

❑ Hinging rack – 7 racks   60.74.331

❑ For a full list of ⅔ size accessories for ideal grilling, baking, roasting, frying, rotisserie,   See accessories

    steaming, Finishing®, and much more   brochure

FACTORY INSTALLED OPTIONS (special order)

❑ Left-hinged door 208V / 240V / 1PH | 208V / 240V / 3PH

❑ Ethernet card and port – for easy connection of LAN cable

❑ Door safety lock – handle is turned left then right before the door can be opened

❑ Marine Version