



Specification

Thu Apr 26 16:07:56 CEST 2018

CombiMaster® Plus CMP 102 E (10 x 18 x 26 inch/20 x 12 x 20 inch)



Capacity

- Ten (10) full-size sheet pans (18"x26") or Twenty (20) Steam table pans (12"x20"x2.5") GN1/1
- Removable, swivelling hinging rack
- Vertical distance between rails 2 5/8" (68 mm)

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
- 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)
- 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
- Single water connection as shipped, can be split connection for treated and untreated water
- Turbo fan cool down function
- Dynamic air mixing
- Automatic adaptation to the installation location (elevation)
- Unit door with rear-ventilated double-glass panel and hinged inner panel
- Height adjustable feet +- 3/8" (10 mm)
- 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
- Demand-related energy supply
- UL listed as Commercial Cooking Appliance with Integral Systems for Limiting the Emission of Grease-laden Air

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 1/4 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



Project:	Quantity:	Item No:	FCSI Section:	Approval:	Date:
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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	42 1/8" (1,069 mm)	38 3/8" (976 mm)	41" (1,042 mm)
Incl. Vent/Handle	-	40 7/8" (1,038 mm)	43 1/8" (1,096 mm)
Shipping	45 5/8" (1,160 mm)	44 1/8" (1,120 mm)	49 5/8" (1,260 mm)

Weight	
Max Per Shelf	66 lbs
Max Load Size	198 lbs
Net	401 lbs
Shipping	409 lbs

Size	Electric. 60 hz	Breaker	Cable connection	Running Amps
102	208V 3 PH	125A	#2	102.7 amps
102	240V 3 PH	150A	#2	119 amps
102	480V 3 PH	70A	#4	52.6 amps
102	440V 3 PH	60A	#4	48.6 amps

Not supplied with cable connection. 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. Special voltages available upon request. Do not use fuses.

Thermal load and airflow requirements

Latent	1852 W
Sensible	2632 W
Unit free standing	44391 ft²/h
One side against a wall	27969 ft²/h
Noise values	65 dBA

Connected load electric

Hot air connection:	36 kW
Steam connection:	36 kW
Connected load electric:	37 kW

Water Requirements

Connection	3/4"
Supply	Minimum 1/2" ID Drinking Quality Cold
Pressure	21-87 psi (1.5-6 bar)
Average Water Consumption	2.9 gal/h
Min/Max Flow Rate	3 gpm/6.59 gpm
Water Drain	2" OD (50 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. test test test

RATIONAL USA Inc.

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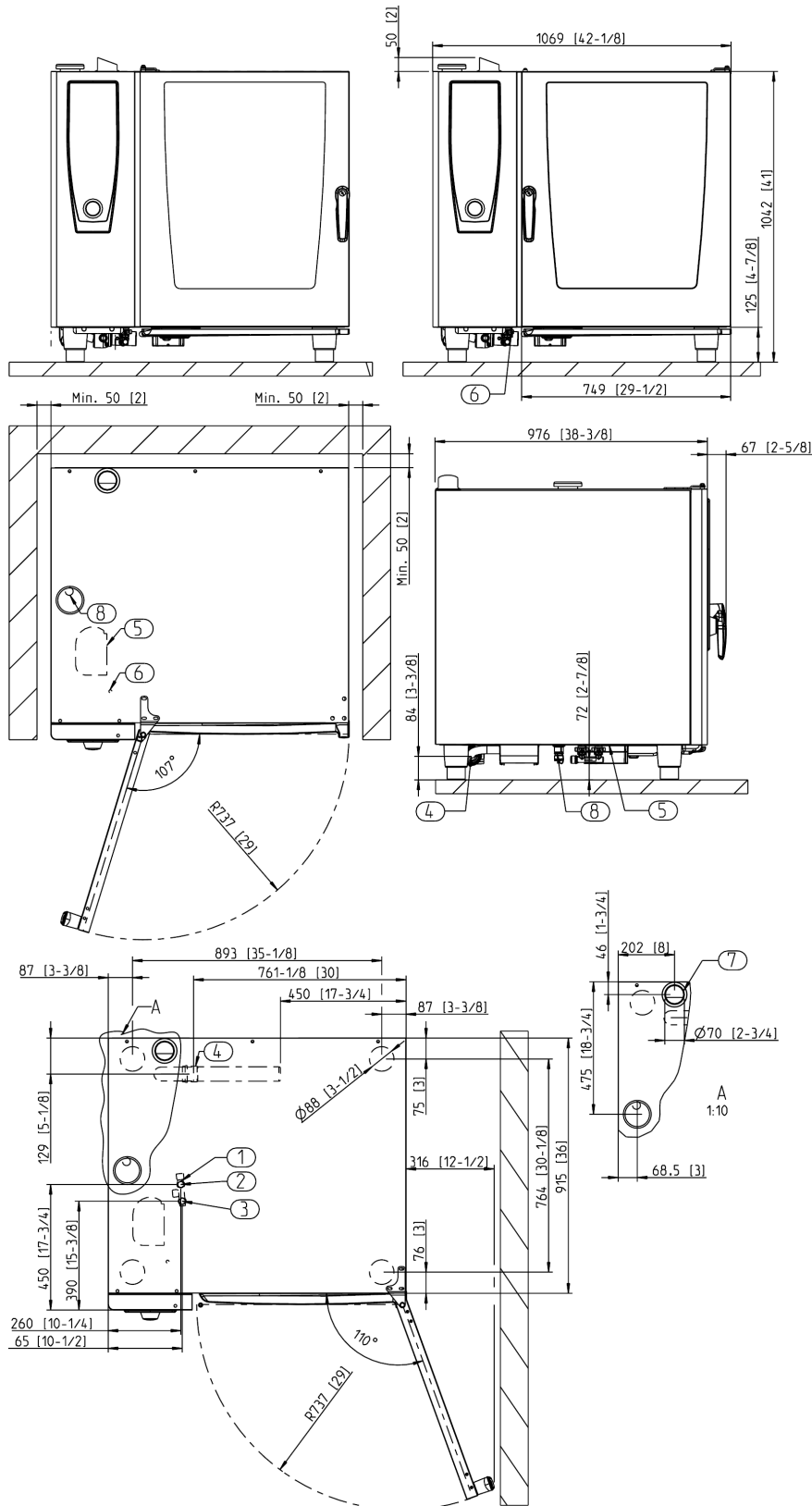
We reserve the right to make technical improvements



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1. Common water supply (cold water) "Single" water connection as shipped 2. Water supply cold water / condensate "Split" water connection 3. Water supply cold / Treated "Split" water connection 4. Water drain 5. Electrical connection wire entrance 6. Chassis Ground connection 7. Steam Vent pipe DN 2 3/4" / 70 mm minimum distance 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	Voltage / breaker / running amps / AWG
<input type="checkbox"/> 208V 3 Ph / 125 / 102.7 / #2-- field retrofittable to 240 V	<input type="checkbox"/> 240V 3 Ph / 150 / 118.6 / #2
<input type="checkbox"/> 480V 3 Ph / 70 / 52.6 / #4 – field retrofittable to 440 V	<input type="checkbox"/> 440V 3 Ph / 60 / 48.6 / #4

ACCESSORIES

<input type="checkbox"/> Installation Kits – include electrical, water and drainage connection	
<input type="checkbox"/> 208 or 240/60/3Ph	8720.1554US
<input type="checkbox"/> 480 or 440/60/3Ph	8720.1551US
<input type="checkbox"/> RATIONAL Cleaner Tabs without phosphorous – guarantee maximum cleaning power	56.00.210A
<input type="checkbox"/> RATIONAL Rinse Tabs	56.00.211
<input type="checkbox"/> Electric descaler pump	60.40.497
<input type="checkbox"/> Descaler, 4x 1 gallon case	6006.0110US
<input type="checkbox"/> Certified installation by RATIONAL SERVICE-PARTNERS	See document
<input type="checkbox"/> Preventative Maintenance Kits – door gaskets, air filters, interior light gasket, and light bulbs	87.00.523US
<input type="checkbox"/> Available stands – standard (stationary) and mobile (open or closed)	See accessories brochure
<input type="checkbox"/> Mobile catering stand – especially for heavy mobile catering usage	60.30.891
<input type="checkbox"/> Catering kit for mobile catering stand – support frame and feet	60.73.141
<input type="checkbox"/> Mobile oven racks and Finishing® plate racks – easier operation of full loads	See accessories brochure
<input type="checkbox"/> Run-in rail for mobile oven and plate racks	60.62.094
<input type="checkbox"/> Transport trolley for mobile oven and plate racks – standard and height adjustable	See accessories brochure
<input type="checkbox"/> Stackable Combi-Duo kit, – for stacking with 61 gas or electric - options: mobile or feet	See accessories brochure
<input type="checkbox"/> Heat shield – for installation next to heat source (e.g. range, grill)	60.70.393
<input type="checkbox"/> Condensation breaker – to divert steam from the unit into existing hood system	60.72.592
<input type="checkbox"/> UltraVent recirculating hood	60.74.972
<input type="checkbox"/> UltraVent Plus recirculating hood	60.74.976
<input type="checkbox"/> RATIONAL USB data-memory stick – for transferring cooking programs and HACCP data	42.00.162
<input type="checkbox"/> VarioSmoker – for a large variety of smoked products	60.73.010
<input type="checkbox"/> For ideal grilling, baking, roasting, frying, rotisserie, steaming, Finishing®, and much more	See accessories brochure

FACTORY INSTALLED OPTIONS (special order)

- ☐ Left-hinged door 208V / 240V
- ☐ Left-hinged door 480V / 440V
- ☐ 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
- ☐ Sous-Vide core temperature probe (externally attached)
- ☐ Externally attached standard core temperature probe
- ☐ Lockable control panel cover
- ☐ Control panel protection
- ☐ Mobile oven rack package (mobile oven rack + run-in rail)
- ☐ Unit with special hinging racks for bakeries and supermarkets
- ☐ Integrated fat drain (only in conjunction with UG II or US IV stands)
- ☐ Marine version (electric units only)
- ☐ Security and prison version

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