RATIONAL AG

Model iCombi 6 & 10 Half Size Exhaust Hood Exemption Information

Datasheet

iCombi® Pro 6-half size E/G

Capacity
> Six (6) Half-size sheet pans or Six (6) Steam table pans or Six (6) 1/1 GN accessories
> Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
> Large selection of accessories for various cooking procedures, such as grilling, braising or baking
> For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode
> Steaming 86 °F - 266 °F
> Convection 86 °F – 572 °F
> Combination of steam and convection 86 °F – 572 °F

Description

Intelligent, connectable cooking system with the operating modes poultry, meat, fish, egg dishes/desserts, side dishes/vegetables, baked goods and finishing as well as the cooking methods roasting, cooking, baking and grilling.
> Combi steamer as per DIN 18866 (in manual mode).
> For most cooking processes used in commercial kitchens.
> For using steam and convection, individually, one after the other, or combined.

Ventilation approvals: The electrical appliance conforms to the EPA 202 test in accordance with ANSI/NFPA 96 "Ventilation Control and Fire Protection of Commercial Cooking Operations" Refer to UL Listing KNLZ.E148536 (America) or KNLZ7.E148536 (Canada).
The following intelligent assistants are available:

Intelligent assistant

iDensityControl iProductionManager iCookingSuite iCareSystem

iDensityControl
iDensityControl is the iCombi Pro's intelligent climate management. The interaction among intelligent sensors, a high-performance heating system and fresh steam generator, and active dehumidification ensures that the right cooking cabinet climate is always available. Intelligent air circulation ensures the best possible energy input into the food. Consequently, this ensures extraordinary productivity while maintaining high levels of food quality, even cooking and minimum energy consumption.

iCookingSuite
The iCookingSuite is the iCombi Pro's cooking intelligence. The user starts by selecting the right cooking path for the food, choosing from among 6 operating modes and / or 5 cooking methods. Users also specify the desired cooking result. The unit suggests settings for browning and degree of doneness. Intelligent sensors detect the size, quantity and condition of the food. While the cooking path is in progress, the system adjusts key parameters like cooking cabinet temperature, airspeed, and cooking time accurately to the second. The selected desired results are achieved, yielding the best possible quality in the shortest possible time. It is possible to optionally influence the cooking sequence and adapt the cooking result. Users can change to iProductionManager or manual mode at any time. Thanks to iCookingSuite you can simply save time, raw materials, and energy while maintaining a standardized food quality without having to check the procedure.

iProductionManager
iProductionManager intelligently and flexibly organizes the production process. This includes which products can be prepared together on different trays, the ideal sequence of dishes, and monitoring the cooking sequence. iProductionManager supports users with prompts to load or unload dishes. Depending on kitchen processes you can freely position orders (up to two per level) or schedule them on the basis of a certain target time. iProductionManager arranges the sequence of dishes accordingly and automatically specifies the correct settings. Users decide whether dishes are cooked based on optimum energy consumption or a certain target time. Simple monitoring activities are no longer required, saving you working time and energy.

iCareSystem
The iCareSystem is the intelligent iCombi Pro cleaning and descaling system. It recommends the amount of chemicals and ideal cleaning stage from the nine available programs based on usage and any limescale in the steam generator. Ultra-fast interim cleaning cleans iCombi Pro in only 12 minutes, all cleaning programs can also run overnight without the need for supervision. The iCareSystem is particularly efficient and environmentally friendly, consuming small quantities of phosphate-free care products, water, and energy. This means that the iCombi Pro is always hygienically clean without manual work and at minimal costs.

Datenblatt, Version 14 - 9/11/2020 8:17 AM - We reserve the right to make technical changes.

Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Cooking system (body)	33 1/2 x 29 5/8 x 30 1/2 inches
Cooking system (total)	33 1/2 x 31 5/8 x 33 1/8 inches
Cooking system with packaging	36 3/4 x 37 3/4 x 37 5/8 inches
Maximum working height of top level*	≤ 5 ft. 2 7/8 inches

*When using an original RATIONAL stand

Weights	
Maximum load size per level	33 lb
Maximum total load capacity	66 lb
Weight - electric unit without packaging	218 lb
Weight - electric unit with packaging	257 lb

Electrical connection conditions

Voltage 3 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	35 A
RCD type	B
Cable diameter	AWG 8 140°F
Voltage 3 AC 440 V / 480 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	20 A
RCD type	B
Cable diameter	AWG 14 140°F
Voltage 2 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	60 A
RCD type	B
Cable diameter	AWG 14 140°F

Connected loads - gas

Natural gas G20	
Nominal heat load, total	49500 BTU
Nominal heat load, Steam mode	45500 BTU
Nominal heat load, Hot Air mode	49500 BTU
Required connection flow pressure	6.5 – 10 inch w.c.
Liquid gas	
Nominal heat load, total	48500 BTU
Nominal heat load, Steam mode	44500 BTU
Nominal heat load, Hot Air mode	48500 BTU
Required connection flow pressure	10 – 15 inch w.c.

3/4" NPT with 3/4" gas shut off
Additional gas types and voltages available on request

Connected loads - gas

Voltage 2 AC 208 V	
Connected loads - gas	0.6 kW
Breaker	15 A
RCD Type	B
Voltage 1 NAC 120 V	
Connected loads - gas	0.6 kW
Breaker	15 A
RCD Type	F

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connected loads - exhaust air and thermal load

Latent heat load	1943 BTU
Sensible heat emission	2391 BTU
Sound level (electric)	55 dBA
Sound level (gas)	60 dBA

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

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Datasheet

iCombi® Pro 10-half size E/G

Description

Intelligent, connectable cooking system with the operating modes poultry, meat, fish, egg dishes/desserts, side dishes/vegetables, baked goods and finishing as well as the cooking methods roasting, cooking, baking and grilling.

> Combi steamer as per DIN 18866 (in manual mode).
> For most cooking processes used in commercial kitchens.
> For using steam and convection, individually, one after the other, or combined.

Ventilation approvals: The electrical appliance conforms to the EPA 202 test in accordance with ANSI/NFPA 96 "Ventilation Control and Fire Protection of Commercial Cooking Operations" Refer to UL Listing KNLZ.E148536 (America) or KNLZ7.E148536 (Canada).
The following intelligent assistants are available:

Intelligent assistant

iDensityControl iProductionManager iCookingSuite iCareSystem

iDensityControl
iDensityControl is the iCombi Pro's intelligent climate management. The interaction among intelligent sensors, a high-performance heating system and fresh steam generator, and active dehumidification ensures that the right cooking cabinet climate is always available. Intelligent air circulation ensures the best possible energy input into the food. Consequently, this ensures extraordinary productivity while maintaining high levels of food quality, even cooking and minimum energy consumption.

iCookingSuite
The iCookingSuite is the iCombi Pro's cooking intelligence. The user starts by selecting the right cooking path for the food, choosing from among 6 operating modes and / or 5 cooking methods. Users also specify the desired cooking result. The unit suggests settings for browning and degree of doneness. Intelligent sensors detect the size, quantity and condition of the food. While the cooking path is in progress, the system adjusts key parameters like cooking cabinet temperature, airspeed, and cooking time accurately to the second. The selected desired results are achieved, yielding the best possible quality in the shortest possible time. It is possible to optionally influence the cooking sequence and adapt the cooking result. Users can change to iProductionManager or manual mode at any time. Thanks to iCookingSuite you can simply save time, raw materials, and energy while maintaining a standardized food quality without having to check the procedure.

iProductionManager
iProductionManager intelligently and flexibly organizes the production process. This includes which products can be prepared together on different trays, the ideal sequence of dishes, and monitoring the cooking sequence. iProductionManager supports users with prompts to load or unload dishes. Depending on kitchen processes you can freely position orders (up to two per level) or schedule them on the basis of a certain target time. iProductionManager arranges the sequence of dishes accordingly and automatically specifies the correct settings. Users decide whether dishes are cooked based on optimum energy consumption or a certain target time. Simple monitoring activities are no longer required, saving you working time and energy.

iCareSystem
The iCareSystem is the intelligent iCombi Pro cleaning and descaling system. It recommends the amount of chemicals and ideal cleaning stage from the nine available programs based on usage and any limescale in the steam generator. Ultra-fast interim cleaning cleans iCombi Pro in only 12 minutes, all cleaning programs can also run overnight without the need for supervision. The iCareSystem is particularly efficient and environmentally friendly, consuming small quantities of phosphate-free care products, water, and energy. This means that the iCombi Pro is always hygienically clean without manual work and at minimal costs.

Capacity
> Ten (10) Half-size sheet pans or Ten (10) Steam table pans or Ten (10) 1/1 GN accessories
> Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
> Large selection of accessories for various cooking procedures, such as grilling, braising or baking
> For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode
> Steaming 86 °F - 266 °F
> Convection 86 °F – 572 °F
> Combination of steam and convection 86 °F – 572 °F

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Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Cooking system (body)	33 1/2 x 39 7/8 x 30 1/2 inches
Cooking system (total)	33 1/2 x 41 7/8 x 33 1/8 inches
Cooking system with packaging	36 3/4 x 49 1/4 x 37 5/8 inches
Maximum working height of top level*	≤ 5 ft. 2 7/8 inches

*when using a corresponding RATIONAL stand

Weights	
Maximum load size per level	33 lb
Maximum total load capacity	99 lb
Weight - electric unit without packaging	279 lb
Weight - electric unit with packaging	324 lb
Weight - gas unit without packaging	341 lb
Weight - gas unit with packaging	385 lb

Electrical connection conditions

Voltage 3 AC 208 V /240V	
Connected loads - electric	18.9 kW
Steam power	18 kW
Convection power	18 kW
Breaker	60 A
RCD type	B
Cable diameter	AWG 4 140°F
Voltage 3 AC 440 V / 480 V	
Connected loads - electric	18.9 kW
Steam power	18 kW
Convection power	18 kW
Breaker	30 A
RCD type	B
Cable diameter	AWG 8 140°F

Connected loads - gas

Natural gas G20	
Nominal heat load, total	83500 BTU
Nominal heat load, Steam mode	76000 BTU
Nominal heat load, Hot Air mode	83500 BTU
Required connection flow pressure	6.5 – 10 inch w.c.
Liquid gas	
Nominal heat load, total	82000 BTU
Nominal heat load, Steam mode	74500 BTU
Nominal heat load, Hot Air mode	82000 BTU
Required connection flow pressure	10 – 15 inch w.c.

3/4" NPT with 3/4" gas shut off
Additional gas types and voltages available on request

Connected loads - gas

Voltage 2 AC 208 V	
Connected loads - gas	0.9 kW
Breaker	15 A
RCD Type	B
Voltage 1 NAC 120 V	
Connected loads - gas	0.9 kW
Breaker	15 A
RCD Type	B

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connected loads - exhaust air and thermal load

Latent heat load	3269 BTU
Sensible heat emission	4344 BTU
Sound level (electric)	55 dBA
Sound level (gas)	60 dBA

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

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Datasheet

iCombi® Classic 6-half size E/G

Capacity
- Six (6) Half-size sheet pans or Six (6) Steam table pans or Six (6) 1/1 GN accessories
- Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
- Large selection of accessories for various cooking procedures, such as grilling, braising or baking
- For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode
- Steaming 86 °F - 266 °F
- Convection 86 °F - 572 °F
- Combination of steam and convection 86 °F - 572 °F

ClimaPlus
- Climate management – humidity measurement and control
- Humidity setting in 10-% increments

Description
- Combi-steamer in accordance with DIN 18866 for most cooking methods used in commercial kitchens for optional use of steam and convection, individually, one after the other, or combined.

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

Unit description and functions

Cooking functions
- ClimaPlus: The active climate management in the cooking cabinet, which constantly measures and controls the humidity and guarantees effective dehumidification, combined with high productivity, cooking quality and low energy consumption. Humidity can be adjusted in increments of 10% and monitored via the digital display for precise manual cooking
- Dynamic air circulation in the cooking cabinet through reversing high-performance fan propeller with five fan speeds that can be programmed manually. The optimal energy yield results in excellent uniformity and short cooking times.
- High-performance steam generator for optimal steaming performance even at low temperatures below 212°F
- Integrated, maintenance-free fat separation system without an additional fat filter
- Cool-down function for quick cooling of the cooking cabinet via a fan propeller
- Core temperature measurement via core temperature probe and optional positioning aid (accessories)
- Delta-T cooking for extremely gentle preparation with minimal cooking losses
- Digital temperature display, can be set to °C or °F, displays target and actual values
- Cooking cabinet humidity and time displayed digitally; displays target and actual values
- Individual programming of up to 100 single or multi-stage cooking programs with up to 12 steps
- Individual adjustment of the cooking parameters time, temperature and humidity for a program step during ongoing operation
- Easy transfer of cooking programs to other cooking systems via USB stick.
- Integrated hand shower with automatic retraction and switchable spray/jet function
- Energy-saving, long-lasting LED lighting in the cooking cabinet, with excellent color fidelity to allow quick determination of cooking progress
- No-charge 4-hour RATIONAL certified chef assistance program

Occupational and operating safety
- Electronic safety temperature limiter for steam generator and convection heating
- Integrated fan wheel brake
- Use of Active Green cleaning tabs and Care tabs (solid cleaning agent) for ideal occupational safety levels
- HACCP data memory and output via USB
- Tested according to national and international standards for unsupervised operation
- Maximum tray height must not exceed 63 inch when using a RATIONAL stand
- Ergonomic door handle with right- / left-handed door opening and swing-shut function

Networking
- Integrated, IP-protected USB interface for local data exchange
- Optional integrated IP-protected Ethernet interface
- Optional integrated Wi-Fi interface (incl. Ethernet interface)

Cleaning and care
- Automatic, water pressure-independent cleaning and maintenance system for cooking cabinet and steam generator
- Care system: Automatic cleaning and descaling of the steam generator
- 4 cleaning programs of varying degrees for unsupervised cleaning, including overnight
- Easy and intuitive operation of the cleaning programs: Display of the selected cleaning program, the recommended quantity of tabs and the remaining cleaning time
- Safe ending of the cleaning in the event of a power failure with no cleaning agent left in the cooking cabinet
- Use of phosphate and phosphorous-free Active Green cleaner tabs and care tabs
- Hygienic setup flush with the counter without feet for easy and safe cleaning
- Unit door with rear-ventilated double glass panel and hinged inner pane for easy cleaning

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Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Cooking system (body)	33 1/2 x 29 5/8 x 30 1/2 inches
Cooking system (total)	33 1/2 x 31 5/8 x 33 1/8 inches
Cooking system with packaging	36 3/4 x 37 3/4 x 37 5/8 inches
Top rack maximum working height*	≤ 5 ft. 2 7/8 inches

*When using an original RATIONAL stand

Weights	
Maximum load size per tray	33 lb
Maximum total load capacity	66 lb
Weight - electric unit without packaging	205 lb
Weight - electric unit with packaging	244 lb
Weight - gas unit without packaging	222 lb
Weight - gas unit with packaging	262 lb

Electrical connection conditions

Voltage 3 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	35 A
RCD type	B
Cable diameter	AWG 8 140°F
Voltage 3 AC 440 V / 480 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	20 A
RCD type	B
Cable diameter	AWG 14 140°F
Voltage 2 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	60 A
RCD type	B
Cable diameter	AWG 14 140°F

Connected loads - gas

Natural gas G20	
Nominal heat load, total	49500 BTU
Nominal heat load, Steam mode	45500 BTU
Nominal heat load, Hot Air mode	49500 BTU
Required connection flow pressure	6.5 – 10 inch w.c.
Liquid gas	
Nominal heat load, total	48500 BTU
Nominal heat load, Steam mode	44500 BTU
Nominal heat load, Hot Air mode	48500 BTU
Required connection flow pressure	10 – 15 inch w.c.

3/4" NPT with 3/4" gas shut off
Additional gas types and voltages available on request

Connected loads - gas

Voltage 2 AC 208 V	
Connected loads - gas	0.6 kW
Breaker	15 A
RCD Type	B
Voltage 1 NAC 120 V	
Connected loads - gas	0.6 kW
Breaker	15 A
RCD Type	F

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connected loads - exhaust air and thermal load

Latent heat load	1943 BTU
Sensible heat emission	2391 BTU
Sound level (electric)	55 dBA
Sound level (gas)	60 dBA

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

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Datasheet

iCombi® Classic 10-half size E/G

Capacity
- Ten (10) Half-size sheet pans or Ten (10) Steam table pans or Ten (10) 1/1 GN accessories
- Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
- Large selection of accessories for various cooking procedures, such as grilling, braising or baking
- For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode
- Steaming 86 °F - 266 °F
- Convection 86 °F - 572 °F
- Combination of steam and convection 86 °F - 572 °F

ClimaPlus
- Climate management – humidity measurement and control
- Humidity setting in 10-% increments

Description
- Combi-steamer in accordance with DIN 18866 for most cooking methods used in commercial kitchens for optional use of steam and convection, individually, one after the other, or combined.

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

Unit description and functions

Cooking functions
- ClimaPlus: The active climate management in the cooking cabinet, which constantly measures and controls the humidity and guarantees effective dehumidification, combined with high productivity, cooking quality and low energy consumption. Humidity can be adjusted in increments of 10% and monitored via the digital display for precise manual cooking
- Dynamic air circulation in the cooking cabinet through 2 reversing high-performance fan propellers with five fan speeds that can be programmed manually. The optimal energy yield results in excellent uniformity and short cooking times.
- High-performance steam generator for optimal steaming performance even at low temperatures below 212°F
- Integrated, maintenance-free fat separation system without an additional fat filter
- Cool-down function for quick cooling of the cooking cabinet via a fan propeller
- Core temperature measurement via core temperature probe and optional positioning aid (accessories)
- Delta-T cooking for extremely gentle preparation with minimal cooking losses
- Digital temperature display, can be set to °C or °F, displays target and actual values
- Cooking cabinet humidity and time displayed digitally; displays target and actual values
- Individual programming of up to 100 single or multi-stage cooking programs with up to 12 steps
- Individual adjustment of the cooking parameters time, temperature and humidity for a program step during ongoing operation
- Easy transfer of cooking programs to other cooking systems via USB stick.
- Integrated hand shower with automatic retraction and switchable spray/jet function
- Energy-saving, long-lasting LED lighting in the cooking cabinet, with excellent color fidelity to allow quick determination of cooking progress
- No-charge 4-hour RATIONAL certified chef assistance program

Occupational and operating safety
- Electronic safety temperature limiter for steam generator and convection heating
- Integrated fan wheel brake
- Use of Active Green cleaning tabs and Care tabs (solid cleaning agent) for ideal occupational safety levels
- HACCP data memory and output via USB
- Tested according to national and international standards for unsupervised operation
- Maximum tray height must not exceed 63 inch when using a RATIONAL stand
- Ergonomic door handle with right- / left-handed door opening and swing-shut function

Networking
- Integrated, IP-protected USB interface for local data exchange
- Optional integrated IP-protected Ethernet interface
- Optional integrated Wi-Fi interface (incl. Ethernet interface)

Cleaning and care
- Automatic, water pressure-independent cleaning and maintenance system for cooking cabinet and steam generator
- Care system: Automatic cleaning and descaling of the steam generator
- 4 cleaning programs of varying degrees for unsupervised cleaning, including overnight
- Easy and intuitive operation of the cleaning programs: Display of the selected cleaning program, the recommended quantity of tabs and the remaining cleaning time
- Safe ending of the cleaning in the event of a power failure with no cleaning agent left in the cooking cabinet
- Use of phosphate and phosphorous-free Active Green cleaner tabs and care tabs
- Hygienic setup flush with the counter without feet for easy and safe cleaning
- Unit door with rear-ventilated double glass panel and hinged inner pane for easy cleaning

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Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Cooking system (body)	33 1/2 x 39 7/8 x 30 1/2 inches
Cooking system (total)	33 1/2 x 41 7/8 x 33 1/8 inches
Cooking system with packaging	36 3/4 x 49 1/4 x 37 5/8 inches
Maximum working height of top level*	≤ 5 ft. 2 7/8 inches

*when using a corresponding RATIONAL stand

Weights	
Maximum load size per level	33 lb
Maximum total load capacity	99 lb
Weight - electric unit without packaging	266 lb
Weight - electric unit with packaging	310 lb
Weight - gas unit without packaging	306 lb
Weight - gas unit with packaging	350 lb

Electrical connection conditions

Voltage 3 AC 208 V /240V	
Connected loads - electric	18.9 kW
Steam power	18 kW
Convection power	18 kW
Breaker	60 A
RCD type	B
Cable diameter	AWG 4 140°F
Voltage 3 AC 440 V / 480 V	
Connected loads - electric	18.9 kW
Steam power	18 kW
Convection power	18 kW
Breaker	30 A
RCD type	B
Cable diameter	AWG 8 140°F

Connected loads - gas

Natural gas G20	
Nominal heat load, total	83500 BTU
Nominal heat load, Steam mode	76000 BTU
Nominal heat load, Hot Air mode	83500 BTU
Required connection flow pressure	6.5 – 10 inch w.c.
Liquid gas	
Nominal heat load, total	82000 BTU
Nominal heat load, Steam mode	74500 BTU
Nominal heat load, Hot Air mode	82000 BTU
Required connection flow pressure	10 – 15 inch w.c.

3/4" NPT with 3/4" gas shut off
Additional gas types and voltages available on request

Connected loads - gas

Voltage 2 AC 208 V	
Connected loads - gas	0.9 kW
Breaker	15 A
RCD Type	B
Voltage 1 NAC 120 V	
Connected loads - gas	0.9 kW
Breaker	15 A
RCD Type	B

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connected loads - exhaust air and thermal load

Latent heat load	3269 BTU
Sensible heat emission	4344 BTU
Sound level (electric)	55 dBA
Sound level (gas)	60 dBA

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

Installation conditions

> Observe all local and country-specific standards and regulations regarding the installation and operation of industrial cooking appliances. The local standards and regulations for interior ventilation systems must also be taken into account.

Datenblatt, Version 13 - 9/11/2020 8:25 AM - We reserve the right to make technical changes.

Datasheet

iCombi® Pro 6-half size + 6-half size E

Description

Two intelligent, network-compatible cooking systems with poultry, meat, fish, egg-based dishes/desserts, side dishes/vegetables, baked goods modes as well as pan frying, grilling, steaming, baking, and finishing cooking methods.

> Combi steamer as per DIN 18866 (in manual mode).
> For most cooking processes used in commercial kitchens.
> For using steam and convection, individually, one after the other, or combined.

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

Intelligent assistant

iDensityControl iProductionManager iCookingSuite iCareSystem

iDensityControl
iDensityControl is the iCombi Pro's intelligent climate management. The interaction among intelligent sensors, a high-performance heating system and fresh steam generator, and active dehumidification ensures that the right cooking cabinet climate is always available. Intelligent air circulation ensures the best possible energy input into the food. Consequently, this ensures extraordinary productivity while maintaining high levels of food quality, even cooking and minimum energy consumption.

iCookingSuite
The iCookingSuite is the iCombi Pro's cooking intelligence. The user starts by selecting the right cooking path for the food, choosing from among 6 operating modes and / or 5 cooking methods. Users also specify the desired cooking result. The unit suggests settings for browning and degree of doneness. Intelligent sensors detect the size, quantity and condition of the food. While the cooking path is in progress, the system adjusts key parameters like cooking cabinet temperature, airspeed, and cooking time accurately to the second. The selected desired results are achieved, yielding the best possible quality in the shortest possible time. It is possible to optionally influence the cooking sequence and adapt the cooking result. Users can change to iProductionManager or manual mode at any time. Thanks to iCookingSuite you can simply save time, raw materials, and energy while maintaining a standardized food quality without having to check the procedure.

iProductionManager
iProductionManager intelligently and flexibly organizes the production process. This includes which products can be prepared together on different trays, the ideal sequence of dishes, and monitoring the cooking sequence. iProductionManager supports users with prompts to load or unload dishes. Depending on kitchen processes you can freely position orders (up to two per level) or schedule them on the basis of a certain target time. iProductionManager arranges the sequence of dishes accordingly and automatically specifies the correct settings. Users decide whether dishes are cooked based on optimum energy consumption or a certain target time. Simple monitoring activities are no longer required, saving you working time and energy.

iCareSystem
The iCareSystem is the intelligent iCombi Pro cleaning and descaling system. It recommends the amount of chemicals and ideal cleaning stage from the nine available programs based on usage and any limescale in the steam generator. Ultra-fast interim cleaning cleans iCombi Pro in only 12 minutes, all cleaning programs can also run overnight without the need for supervision. The iCareSystem is particularly efficient and environmentally friendly, consuming small quantities of phosphate-free care products, water, and energy. This means that the iCombi Pro is always hygienically clean without manual work and at minimal costs.

Capacity
> Twelve (12) Half-size sheet pans or Twelve (12) Steam table pans / GN 1/1
> Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
> Large selection of accessories for various cooking procedures, such as grilling, braising or baking
> For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode
> Steaming 86 °F - 266 °F
> Convection 86 °F – 572 °F
> Combination of steam and convection 86 °F – 572 °F

Datenblatt, Version 13 - 8/12/2020 8:52 AM - We reserve the right to make technical changes.

Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Cooking system electric (total)	33 1/2 x 63 3/4 x 36 7/8 inches
Maximum working height of top level*	55 1/2 inches

* when installed on floor

Weights	
Net weight cooking system incl. Combi-Duo kit	463 lb
Maximum load size per level	33/33 lb
Maximum total load capacity	66/66 lb

Each cooking system is individually

Electrical connection conditions

Voltage 3 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	35 A
RCD type	B
Cable diameter	AWG 8 140°F
Voltage 3 AC 440 V / 480 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	20 A
RCD type	B
Cable diameter	AWG 14 140°F
Voltage 2 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	60 A
RCD type	B
Cable diameter	AWG 14 140°F

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connected loads - exhaust air and thermal load

Latent heat load	3886 BTU
Sensible heat emission	4782 BTU
Sound level	55 dBA

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

Terms and conditions of installation

> Observe all local and country-specific standards and regulations regarding the installation and operation of industrial cooking appliances. The local standards and regulations for interior ventilation systems must also be taken into account.
> To use ConnectedCooking, an RJ45 network socket or a WLAN connection option (IEEE 802.11 a/g/n) must be in place on-site. For optimal performance, a data rate of at least 100 MB/s is required.

Approvals

Datenblatt, Version 13 - 8/12/2020 8:52 AM - We reserve the right to make technical changes.

Datasheet

iCombi® Pro CombiDuo 6-half size + 10-half size E

Description

Two intelligent, network-compatible cooking systems with poultry, meat, fish, egg-based dishes/desserts, side dishes/vegetables, baked goods modes as well as pan frying, grilling, steaming, baking, and finishing cooking methods.

> Combi steamer as per DIN 18866 (in manual mode).
> For most cooking processes used in commercial kitchens.
> For using steam and convection, individually, one after the other, or combined.

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

Intelligent assistant

iDensityControl iProductionManager iCookingSuite iCareSystem

iDensityControl
iDensityControl is the iCombi Pro's intelligent climate management. The interaction among intelligent sensors, a high-performance heating system and fresh steam generator, and active dehumidification ensures that the right cooking cabinet climate is always available. Intelligent air circulation ensures the best possible energy input into the food. Consequently, this ensures extraordinary productivity while maintaining high levels of food quality, even cooking and minimum energy consumption.

iCookingSuite
The iCookingSuite is the iCombi Pro's cooking intelligence. The user starts by selecting the right cooking path for the food, choosing from among 6 operating modes and / or 5 cooking methods. Users also specify the desired cooking result. The unit suggests settings for browning and degree of doneness. Intelligent sensors detect the size, quantity and condition of the food. While the cooking path is in progress, the system adjusts key parameters like cooking cabinet temperature, airspeed, and cooking time accurately to the second. The selected desired results are achieved, yielding the best possible quality in the shortest possible time. It is possible to optionally influence the cooking sequence and adapt the cooking result. Users can change to iProductionManager or manual mode at any time. Thanks to iCookingSuite you can simply save time, raw materials, and energy while maintaining a standardized food quality without having to check the procedure.

iProductionManager
iProductionManager intelligently and flexibly organizes the production process. This includes which products can be prepared together on different trays, the ideal sequence of dishes, and monitoring the cooking sequence. iProductionManager supports users with prompts to load or unload dishes. Depending on kitchen processes you can freely position orders (up to two per level) or schedule them on the basis of a certain target time. iProductionManager arranges the sequence of dishes accordingly and automatically specifies the correct settings. Users decide whether dishes are cooked based on optimum energy consumption or a certain target time. Simple monitoring activities are no longer required, saving you working time and energy.

iCareSystem
The iCareSystem is the intelligent iCombi Pro cleaning and descaling system. It recommends the amount of chemicals and ideal cleaning stage from the nine available programs based on usage and any limescale in the steam generator. Ultra-fast interim cleaning cleans iCombi Pro in only 12 minutes, all cleaning programs can also run overnight without the need for supervision. The iCareSystem is particularly efficient and environmentally friendly, consuming small quantities of phosphate-free care products, water, and energy. This means that the iCombi Pro is always hygienically clean without manual work and at minimal costs.

Capacity
> Sixteen (16) Half-size sheet pans or Sixteen (16) Steam table pans / GN 1/1
> Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
> Large selection of accessories for various cooking procedures, such as grilling, braising or baking
> For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode
> Steaming 86 °F - 266 °F
> Convection 86 °F – 572 °F
> Combination of steam and convection 86 °F – 572 °F

Datenblatt, Version 11 - 8/12/2020 8:52 AM - We reserve the right to make technical changes.

Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Cooking system electric (total)	33 1/2 x 74 x 36 7/8 inches

Weights	
Net weight cooking system incl. Combi-Duo kit	525 lb
Maximum load size per level	33/33 lb
Maximum total load capacity	66/99 lb

Each cooking system is individually

Electrical connection conditions

Voltage 3 AC 208 V /240V	6-half size	10-half size
Connected loads - electric	11.7 kW	18.9 kW
Steam power	9.8 kW	18 kW
Convection power	11.16 kW	18 kW
Breaker	35 A	60 A
RCD type	B	B
Cable diameter	AWG 8 140°F	AWG 4 140°F
Voltage 3 AC 440 V / 480 V	**6-half size**	**10-half size**
Connected loads - electric	10.8 kW	18.9 kW
Steam power	9 kW	18 kW
Convection power	10.25 kW	18 kW
Breaker	20 A	30 A
RCD type	B	B
Cable diameter	AWG 14 140°F	AWG 8 140°F

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

Terms and conditions of installation

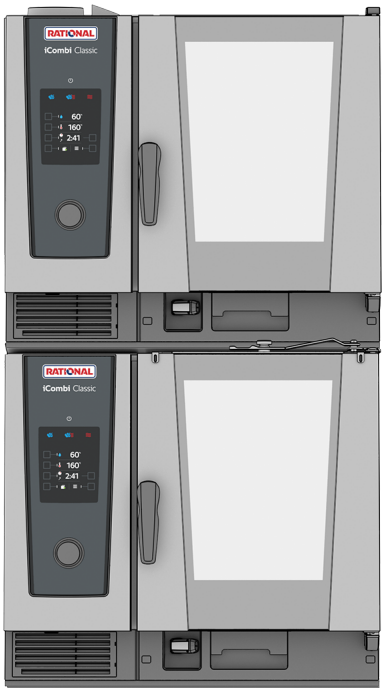
> Observe all local and country-specific standards and regulations regarding the installation and operation of industrial cooking appliances. The local standards and regulations for interior ventilation systems must also be taken into account.
> To use ConnectedCooking, an RJ45 network socket or a WLAN connection option (IEEE 802.11 a/g/n) must be in place on-site. For optimal performance, a data rate of at least 100 MB/s is required.

Approvals

Datenblatt, Version 11 - 8/12/2020 8:52 AM - We reserve the right to make technical changes.

Datasheet

iCombi® Classic CombiDuo 6-half size + 6-half size E



Description

> 2 individual combi-steamers in accordance with DIN 18866 for most cooking methods used in commercial kitchens, allowing use steam and convection either individually, consecutively, or simultaneously.

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

Unit description and functions

Cooking functions

> ClimaPlus: The active climate management in the cooking cabinet, which constantly measures and controls the humidity and guarantees effective dehumidification, combined with high productivity, cooking quality and low energy consumption. Humidity can be adjusted in increments of 10% and monitored via the digital display for precise manual cooking
> Dynamic air circulation in both cooking cabinets through reversing high-performance fan propellers with five fan speeds that can be programmed manually. The optimal energy yield results in excellent uniformity and short cooking times.
> High-performance steam generator for optimal steaming performance even at low temperatures below 212°F
> Integrated, maintenance-free fat separation system without an additional fat filter
> Cool-down function for quick cooling of the cooking cabinet via a fan propeller
> Core temperature measurement via core temperature probe and optional positioning aid (accessories)
> Delta-T cooking for extremely gentle preparation with minimal cooking losses
> Digital temperature display, can be set to °C or °F, displays target and actual values
> Cooking cabinet humidity and time displayed digitally; displays target and actual values
> Individual programming of up to 100 single or multi-stage cooking programs with up to 12 steps
> Individual adjustment of the cooking parameters time, temperature and humidity for a program step during ongoing operation
> Easy transfer of cooking programs to other cooking systems via USB stick.
> Integrated hand shower with automatic retraction and switchable spray/jet function
> Energy-saving, long-lasting LED lighting in the cooking cabinet, with excellent color fidelity to allow quick determination of cooking progress
> No-charge 4-hour RATIONAL certified chef assistance program

Occupational and operating safety

> Electronic safety temperature limiter for steam generator and convection heating
> Integrated fan wheel brake
> Use of Active Green cleaning tabs and Care tabs (solid cleaning agent) for ideal occupational safety levels
> HACCP data memory and output via USB
> Tested according to national and international standards for unsupervised operation
> Maximum tray height must not exceed 63 inch when using a RATIONAL stand
> Ergonomic door handle with right- / left-handed door opening and swing-shut function

Networking

> Integrated, IP-protected USB interface for local data exchange
> Optional integrated IP-protected Ethernet interface
> Optional integrated Wi-Fi interface (incl. Ethernet interface)

Cleaning and care

> Automatic, water pressure-independent cleaning and maintenance system for cooking cabinet and steam generator
> Care system: Automatic cleaning and descaling of the steam generator
> 4 cleaning programs of varying degrees for unsupervised cleaning, including overnight
> Easy and intuitive operation of the cleaning programs: Display of the selected cleaning program, the recommended quantity of tabs and the remaining cleaning time
> Safe ending of the cleaning in the event of a power failure with no cleaning agent left in the cooking cabinet
> Use of phosphate and phosphorous-free Active Green cleaner tabs and care tabs
> Hygienic setup flush with the counter without feet for easy and safe cleaning
> Unit door with rear-ventilated double glass panel and hinged inner pane for easy cleaning

Capacity

> Twelve (12) Half-size sheet pans or Twelve (12) Steam table pans / GN 1/1
> Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
> Large selection of accessories for various cooking procedures, such as grilling, braising or baking
> For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode

> Steaming 86 °F - 266 °F
> Convection 86 °F - 572 °F
> Combination of steam and convection 86 °F - 572 °F

ClimaPlus

> Climate management – humidity measurement and control
> Humidity setting in 10-% increments

Datenblatt, Version 12 - 8/12/2020 7:50 AM - We reserve the right to make technical changes.

Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Electric cooking system (total, with Combi-Duo kit)	33 1/2 x 63 3/4 x 36 7/8 inches
Maximum working height of top level*	55 1/2 inches

* when installed on floor

Weights	
Net weight cooking system incl. Combi-Duo kit	437 lb
Maximum load size per level	33/33 lb
Maximum total load capacity	66/66 lb

Each cooking system is individually

Electrical connection conditions

Voltage 3 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	35 A
RCD type	B
Cable diameter	AWG 8 140°F
Voltage 3 AC 440 V / 480 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	20 A
RCD type	B
Cable diameter	AWG 14 140°F
Voltage 2 AC 208 V / 240 V	
Connected loads - electric	10.8 kW
Steam power	9 kW
Convection power	10.25 kW
Breaker	60 A
RCD type	B
Cable diameter	AWG 14 140°F

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connected loads - exhaust air and thermal load

Latent heat load	3886 BTU
Sensible heat emission	4782 BTU
Sound level	55 dBA

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

Installation conditions

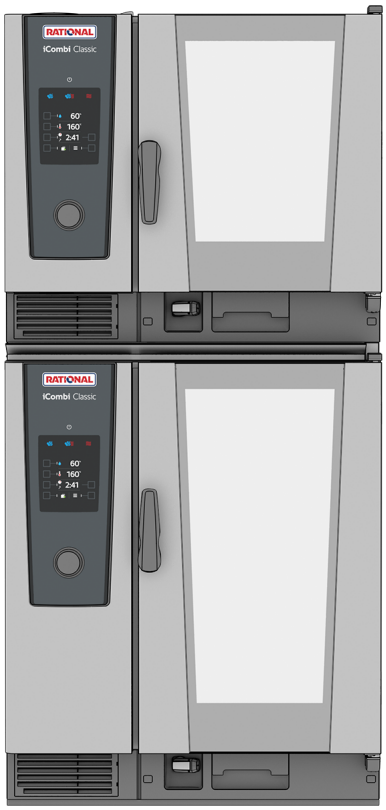
> Observe all local and country-specific standards and regulations regarding the installation and operation of industrial cooking appliances. The local standards and regulations for interior ventilation systems must also be taken into account.

Approvals

Datenblatt, Version 12 - 8/12/2020 7:50 AM - We reserve the right to make technical changes.

Datasheet

iCombi® Classic CombiDuo 6-half size + 10-half size E



Capacity
> Sixteen (16) Half-size sheet pans or Sixteen (16) Steam table pans / GN 1/1
> Removable standard hinging rack with 2 5/8 inch rack spacing (68 mm)
> Large selection of accessories for various cooking procedures, such as grilling, braising or baking
> For use with 1/1, 1/2, 2/3, 1/3 GN accessories

Combi-steamer mode
> Steaming 86 °F - 266 °F
> Convection 86 °F - 572 °F
> Combination of steam and convection 86 °F - 572 °F

ClimaPlus
> Climate management – humidity measurement and control
> Humidity setting in 10-% increments

Description
> 2 individual combi-steamers in accordance with DIN 18866 for most cooking methods used in commercial kitchens, allowing use steam and convection either individually, consecutively, or simultaneously.

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

Unit description and functions

Cooking functions
> ClimaPlus: The active climate management in the cooking cabinet, which constantly measures and controls the humidity and guarantees effective dehumidification, combined with high productivity, cooking quality and low energy consumption. Humidity can be adjusted in increments of 10% and monitored via the digital display for precise manual cooking
> Dynamic air circulation in both cooking cabinets through reversing high-performance fan propellers with five fan speeds that can be programmed manually. The optimal energy yield results in excellent uniformity and short cooking times.
> High-performance steam generator for optimal steaming performance even at low temperatures below 212°F
> Integrated, maintenance-free fat separation system without an additional fat filter
> Cool-down function for quick cooling of the cooking cabinet via a fan propeller
> Core temperature measurement via core temperature probe and optional positioning aid (accessories)
> Delta-T cooking for extremely gentle preparation with minimal cooking losses
> Digital temperature display, can be set to °C or °F, displays target and actual values
> Cooking cabinet humidity and time displayed digitally; displays target and actual values
> Individual programming of up to 100 single or multi-stage cooking programs with up to 12 steps
> Individual adjustment of the cooking parameters time, temperature and humidity for a program step during ongoing operation
> Easy transfer of cooking programs to other cooking systems via USB stick.
> Integrated hand shower with automatic retraction and switchable spray/jet function
> Energy-saving, long-lasting LED lighting in the cooking cabinet, with excellent color fidelity to allow quick determination of cooking progress
> No-charge 4-hour RATIONAL certified chef assistance program

Occupational and operating safety
> Electronic safety temperature limiter for steam generator and convection heating
> Integrated fan wheel brake
> Use of Active Green cleaning tabs and Care tabs (solid cleaning agent) for ideal occupational safety levels
> HACCP data memory and output via USB
> Tested according to national and international standards for unsupervised operation
> Ergonomic door handle with right- / left-handed door opening and swing-shut function

Networking
> Integrated, IP-protected USB interface for local data exchange
> Optional integrated IP-protected Ethernet interface
> Optional integrated Wi-Fi interface (incl. Ethernet interface)

Cleaning and care
> Automatic, water pressure-independent cleaning and maintenance system for cooking cabinet and steam generator
> Care system: Automatic cleaning and descaling of the steam generator
> 4 cleaning programs of varying degrees for unsupervised cleaning, including overnight
> Easy and intuitive operation of the cleaning programs: Display of the selected cleaning program, the recommended quantity of tabs and the remaining cleaning time
> Safe ending of the cleaning in the event of a power failure with no cleaning agent left in the cooking cabinet
> Use of phosphate and phosphorous-free Active Green cleaner tabs and care tabs
> Hygienic setup flush with the counter without feet for easy and safe cleaning
> Unit door with rear-ventilated double glass panel and hinged inner pane for easy cleaning

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Technical specifications

Dimensions and weights

Dimensions (W x H x D)	
Electric cooking system (total, with Combi-Duo kit)	33 1/2 x 74 x 36 7/8 inches

Weights	
Net weight cooking system incl. Combi-Duo kit	498 lb
Maximum load size per level	33/33 lb
Maximum total load capacity	66/99 lb

Each cooking system is individually

Electrical connection conditions

Voltage 3 AC 208 V /240V	6-half size	10-half size
Connected loads - electric	11.7 kW	18.9 kW
Steam power	9.8 kW	18 kW
Convection power	11.16 kW	18 kW
Breaker	35 A	60 A
RCD type	B	B
Cable diameter	AWG 8 140°F	AWG 4 140°F
Voltage 3 AC 440 V / 480 V	**6-half size**	**10-half size**
Connected loads - electric	10.8 kW	18.9 kW
Steam power	9 kW	18 kW
Convection power	10.25 kW	18 kW
Breaker	20 A	30 A
RCD type	B	B
Cable diameter	AWG 14 140°F	AWG 8 140°F

Connection conditions water

Water inlet (pressure hose), each	3/4"
Water pressure (flow pressure), each	14.5-87.0 psi
Water drain, each	2" OD
Maximum flow rate per cooking system	3.17 gal/min

Water quality requirements

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

Connection loads - data

LAN data interface	RJ45
WiFi data interface	IEEE 802.11 a/g/n

Minimum distances at installation

Clearance Requirements
To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions 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 at least 2" (50 mm) of clearance on either side of the unit. The back of the unit can be mounted flush with the wall.
If a high temperature heat source is on the left side of the unit, clearance of at least 14" (350 mm) must be maintained on the left-hand side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).
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 sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

Installation conditions

> Observe all local and country-specific standards and regulations regarding the installation and operation of industrial cooking appliances. The local standards and regulations for interior ventilation systems must also be taken into account.

Approvals

Datenblatt, Version 11 - 8/12/2020 7:50 AM - We reserve the right to make technical changes.

CERTIFICATE OF COMPLIANCE

Certificate Number	UL-US-L148536-31-62304002-1
Report Reference	E148536-20040326
Date	10-Aug-2020
Issued to:	RATIONAL AG Siegfried-Meister-Strasse 1 Landsberg am Lech Germany 86899
This is to certify that representative samples of	KNLZ - Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air See Addendum Page for Product Designation(s). Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L148536-31-62304002-1
Report Reference E148536-20040326
Date 10-Aug-2020

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
CM101	Convection/pressureless steam ovens
CM202	Convection/pressureless steam ovens
CM102	Convection/pressureless steam ovens
SCC61 (&)	Convection/pressureless steam ovens
SCC201	Convection/pressureless steam ovens
SCC202	Convection/pressureless steam ovens
SCC62 (&)	Convection/pressureless steam ovens
CM201	Convection/pressureless steam ovens
CM62	Convection/pressureless steam ovens
SCC101 (&)	Convection/pressureless steam ovens
SCC102 (&)	Convection/pressureless steam ovens
CM61	Convection/pressureless steam ovens
LM100BE (&)	Convection/pressureless steam ovens
LM100CE (&)	Convection/pressureless steam ovens
LM100DE (&)	Convection/pressureless steam ovens
LM100EE (&)	Convection/pressureless steam ovens
LM100FE	Convection/pressureless steam ovens
LM100GE	Convection/pressureless steam ovens
iCombi Pro 10-Full Size (&)	Convection/pressureless steam ovens
iCombi Pro 10-Half Size (&)	Convection/pressureless steam ovens
iCombi Pro 20-Full Size	Convection/pressureless steam ovens
iCombi Pro 20-Half Size	Convection/pressureless steam ovens
iCombi Pro 6-Full Size (&)	Convection/pressureless steam ovens
iCombi Pro 6-Half Size (&)	Convection/pressureless steam ovens

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CERTIFICATE OF COMPLIANCE

Certificate Number	UL-CA-L148536-21-62304002-1
Report Reference	E148536-20040326
Date	10-Aug-2020
Issued to:	RATIONAL AG Siegfried-Meister-Strasse 1 Landsberg am Lech Germany 86899
This is to certify that representative samples of	KNLZ7 - Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air Certified for Canada See Addendum Page for Product Designation(s).
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Standard(s) for Safety:	
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CERTIFICATE OF COMPLIANCE

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Report Reference E148536-20040326
Date 10-Aug-2020

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
CM61	Convection/pressureless steam ovens
CM101	Convection/pressureless steam ovens
CM202	Convection/pressureless steam ovens
CM102	Convection/pressureless steam ovens
SCC61 (&)	Convection/pressureless steam ovens
SCC201	Convection/pressureless steam ovens
SCC202	Convection/pressureless steam ovens
SCC62 (&)	Convection/pressureless steam ovens
CM201	Convection/pressureless steam ovens
CM62	Convection/pressureless steam ovens
SCC101 (&)	Convection/pressureless steam ovens
SCC102 (&)	Convection/pressureless steam ovens
LM100BE (&)	Convection/pressureless steam ovens
LM100CE (&)	Convection/pressureless steam ovens
LM100DE (&)	Convection/pressureless steam ovens
LM100EE (&)	Convection/pressureless steam ovens
LM100FE	Convection/pressureless steam ovens
LM100GE	Convection/pressureless steam ovens
iCombi Pro 10-Full Size (&)	Convection/pressureless steam ovens
iCombi Pro 10-Half Size (&)	Convection/pressureless steam ovens
iCombi Pro 20-Full Size	Convection/pressureless steam ovens
iCombi Pro 20-Half Size	Convection/pressureless steam ovens
iCombi Pro 6-Full Size (&)	Convection/pressureless steam ovens
iCombi Pro 6-Half Size (&)	Convection/pressureless steam ovens

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Certificate Number	UL-US-L148536-11-62304002-1
Report Reference	E148536-20040326
Date	10-Aug-2020
Issued to:	RATIONAL AG Siegfried-Meister-Strasse 1 Landsberg am Lech Germany 86899
This is to certify that representative samples of	KNGT - Commercial Cooking Appliances See Addendum Page for Product Designation(s).
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Standard(s) for Safety:	
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Report Reference E148536-20040326
Date 10-Aug-2020

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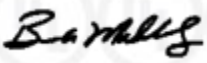
Model	Category Description
SCC62	Convection/pressureless steam ovens
SCC201	Convection/pressureless steam ovens
CM101	Convection/pressureless steam ovens
SCC61	Convection/pressureless steam ovens
CM201	Convection/pressureless steam ovens
SCC101	Convection/pressureless steam ovens
CM61	Convection/pressureless steam ovens
CM202	Convection/pressureless steam ovens
CM62	Convection/pressureless steam ovens
SCC102	Convection/pressureless steam ovens
CM102	Convection/pressureless steam ovens
SCC202	Convection/pressureless steam ovens
iCombi Pro 6-Full Size	Convection/pressureless steam ovens
iCombi Pro 6-Half Size	Convection/pressureless steam ovens
LM100GE	Convection/pressureless steam ovens
LM100BE	Convection/pressureless steam ovens
LM100CE	Convection/pressureless steam ovens
LM100DE	Convection/pressureless steam ovens
LM100EE	Convection/pressureless steam ovens
LM100FE	Convection/pressureless steam ovens
iCombi Pro 10-Half Size	Convection/pressureless steam ovens
iCombi Pro 10-Full Size	Convection/pressureless steam ovens
iCombi Pro 20-Half Size	Convection/pressureless steam ovens
iCombi Pro 20-Full Size	Convection/pressureless steam ovens



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CERTIFICATE OF COMPLIANCE

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Report Reference	E148536-20040326
Date	10-Aug-2020
Issued to:	RATIONAL AG Siegfried-Meister-Strasse 1 Landsberg am Lech Germany 86899
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Standard(s) for Safety:	
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Report Reference E148536-20040326
Date 10-Aug-2020

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Model	Category Description
SCC201	Convection/pressureless steam ovens
CM101	Convection/pressureless steam ovens
SCC61	Convection/pressureless steam ovens
CM201	Convection/pressureless steam ovens
SCC101	Convection/pressureless steam ovens
CM61	Convection/pressureless steam ovens
CM202	Convection/pressureless steam ovens
CM62	Convection/pressureless steam ovens
SCC102	Convection/pressureless steam ovens
CM102	Convection/pressureless steam ovens
SCC202	Convection/pressureless steam ovens
SCC62	Convection/pressureless steam ovens
iCombi Pro 6-Full Size	Convection/pressureless steam ovens
iCombi Pro 6-Half Size	Convection/pressureless steam ovens
LM100GE	Convection/pressureless steam ovens
LM100BE	Convection/pressureless steam ovens
LM100CE	Convection/pressureless steam ovens
LM100DE	Convection/pressureless steam ovens
LM100EE	Convection/pressureless steam ovens
LM100FE	Convection/pressureless steam ovens
iCombi Pro 10-Half Size	Convection/pressureless steam ovens
iCombi Pro 10-Full Size	Convection/pressureless steam ovens
iCombi Pro 20-Half Size	Convection/pressureless steam ovens
iCombi Pro 20-Full Size	Convection/pressureless steam ovens

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UL Product iQ™

KNLZ.E148536 - Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air

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Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air

RATIONAL AG E148536
Siegfried-Meister-Strasse 1
Landsberg am Lech, 86899 Germany

Convection / Pressure less Steam Combination Ovens, Model(s): CMP XS 6 2/3 E (&), SCC XS 6 2/3 (&)

Convection/pressureless steam ovens, Model(s): CM 101 (without cleaning system), CM 61(without cleaning system), CM101, CM102, CM201, CM202, CM61, CM62, CMP XS (&), CMP101 (&), CMP102 (&), CMP201, CMP202, CMP61 (&), CMP62 (&), CombiMaster® Plus XS (&), iCombi Classic® 10-Full Size (&), iCombi Classic® 10-Half Size (&), iCombi Classic® 20-Full Size, iCombi Classic® 20-Half Size, iCombi Classic® 6-Full Size (&), iCombi Classic® 6-Half Size (&), iCombi Pro 10-Full Size (&), iCombi Pro 10-Half Size (&), iCombi Pro 20-Full Size, iCombi Pro 20-Half Size, iCombi Pro 6-Full Size (&), iCombi Pro 6-Half Size (&), iCombi Pro® XS (&), LM100AE (&), LM100BE (&), LM100CE (&), LM100DE (&), LM100EE (&), LM100FE, LM100GE, LM200BE (&), LM200CE (&), LM200DE (&), LM200EE (&), LM200FE, LM200GE, SCC WE101 (&), SCC WE102(&), SCC WE201, SCC WE202, SCC WE61(&), SCC WE62(&), SCC101 (&), SCC102 (&), SCC201, SCC202, SCC61 (&), SCC62 (&)

& - Stack Combination Option

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Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air Certified for Canada

RATIONAL AG E148536
Siegfried-Meister-Strasse 1
Landsberg am Lech, 86899 Germany

Convection / Pressure less Steam Combination Ovens, Model(s): CMP XS 6 2/3 E (&), SCC XS 6 2/3 (&)

Convection/pressureless steam ovens, Model(s): CM 101 (without cleaning system), CM 61(without cleaning system), CM101, CM102, CM201, CM202, CM61, CM62, CMP XS (&), CMP101 (&), CMP102 (&), CMP201, CMP202, CMP61 (&), CMP62 (&), CombiMaster® Plus XS (&), iCombi Classic® 10-Full Size (&), iCombi Classic® 10-Half Size (&), iCombi Classic® 20-Full Size, iCombi Classic® 20-Half Size, iCombi Classic® 6-Full Size (&), iCombi Classic® 6-Half Size (&), iCombi Pro 10-Full Size (&), iCombi Pro 10-Half Size (&), iCombi Pro 20-Full Size, iCombi Pro 20-Half Size, iCombi Pro 6-Full Size (&), iCombi Pro 6-Half Size (&), iCombi Pro® XS (&), LM100AE (&), LM100BE (&), LM100CE (&), LM100DE (&), LM100EE (&), LM100FE, LM100GE, LM200BE (&), LM200CE (&), LM200DE (&), LM200EE (&), LM200FE, LM200GE, SCC WE101 (&), SCC WE102(&), SCC WE201, SCC WE202, SCC WE61(&), SCC WE62(&), SCC101 (&), SCC102 (&), SCC201, SCC202, SCC61 (&), SCC62 (&)

& - Stack Combination Option

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2020-08-14

Mr. Roland Hegmann
Rational AG
Iglinger Str 62
Landsberg, 86899
DE

Dear Mr. Hegmann,

This letter supersedes the letters dated March 15, 2019 and August 13, 2019 relating to models evaluated and represented by the previously conducted Grease Emissions Test (EPA202).

Per your request, project was opened for the evaluation of grease-laden vapors produced from the Model XS 6 2/3, model SCC 102 and model SCC 102/SCC 62 stacked.

The scope of this project was to determine the total grease emissions from cooking quartered roasting chickens weighing 2-1/2 to 3-1/2 lb. skin-on and bone-in as the specified food load as noted in Appendix A of our letter dated August 13, 2019. Testing was conducted in accordance with EPA Method 202 test guidelines to determine ultimate results. Results are used to determine compliance with Section 59 of UL710B, the Standard for Recirculating Systems, formerly Section 14 of UL 197, Eighth Edition, Supplement SB, and paragraph 4.1.1.2 of NFPA96, the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

For the record, the test was conducted using the Rational Appliances Model SCC-102, rated 208 V, 37 KW also Model SCC-102, rated 208 / 440 V, 37 KW and Model SCC-62, rated 208 / 440 V, 22.1 KW stacked. The test media, food load and oven programming were taken from UL 710B, section 59. The results are considered to comply with UL710B, Section 59, formerly Section 14 of UL 197, Eighth Edition, Supplement SB, and NFPA96, paragraph 4.1.1.2 when tested with the specified food load and maximum cook times since the total amount of grease-laden effluents collected was less than 5 mg/m^3 limit. No evaluation was conducted in regards to fire protection.

The ovens tested were considered representative of oven models CMP XS 6 2/3, SCC XS 6 2/3, CM101, CM102, CM61, CM62, CMP101, CMP102, CMP61, CMP62, SCC WE101, SCC WE102, SCC WE61, SCC WE62, SCC101, SCC61, SCC62, and any combination of stacked version from the models noted above, which are rated less than the tested unit and are smaller in size and have less food throughput than the model tested.

Recently new models were added which were considered identical to previously evaluated models except for model designation. Please see below for the table showing the details for the new model numbers:

Model No.	Model Name	Original Designation
LM100BE	iCombi Pro 6-Half Size	SCC 61
LM100CE	iCombi Pro 6-Full Size	SCC 62
LM100DE	iCombi Pro 10-Half Size	SCC 101
LM100EE	iCombi Pro 10-Full Size	SCC 102
LM100AE	iCombi Pro® XS	SCC XS
CMP XS	CombiMaster® Plus XS	CMP XS
LM200BE	iCombi Classic® 6-Half Size	CMP 61
LM200CE	iCombi Classic® 6-Full Size	CMP 62
LM200DE	iCombi Classic® 10-Half Size	CMP 101
LM200EE	iCombi Classic® 10-Full Size	CMP 102

References to models SCC and CMP series were retained in this letter since it was the specific model tested.

Thank you for the opportunity to provide your company with these services. Please do not hesitate to contact us if you should have any questions or comments.

Very truly yours,

Smit Thakkar
Associate Project Engineer
E-mail: Smit.Thakkar@ul.com

Reviewed by:

Fred Zaplatosch
Sr. Staff Engineer
E-mail: Fred.Zaplatosch@ul.com

2019-08-13

Mr. Michael Huith
Rational AG
Siegfried-Meister-Straße 1
Landsberg, 86899, DE

E-mail: m.huith@rational-online.com

Reference: Project : 4788991316

Product: EPA 202 TEST METHOD: USING THE RATIONAL MODEL SCC 62 E (LM100CEXXXXX) AND MODEL SCC 102 E (LM100EEXXXXX) STACKED COOKING THE BELOW FOOD PRODUCT AS MEDIA.

Dear Mr. Huith,

Per your request, project 4788991316 was opened for the evaluation of grease-laden vapors produced from the Model SCC 62 E (LM100CEXXXXX) and Model SCC 102 E (LM100EEXXXXX) stacked.

The scope of this project was to determine the total grease emissions from cooking quartered chickens weighing 2-1/2 to 3-1/2 lb. skin-on and bone-in as the specified food load as noted in Appendix A. Testing is conducted in accordance with EPA Method 202 test guidelines to determine ultimate results. Results are used to determine compliance with Section 59 of UL710B, the Standard for Recirculating Systems, formerly Section 14 of UL 197, Eighth Edition, Supplement SB, and paragraph 4.1.1.2 of NFPA96, the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. The test was conducted at our facility in Northbrook, IL on July 30th, 2019. This letter will report the results of the EPA202 test.

For the record, the test was conducted using the Rational Model SCC 62 E (LM100CEXXXXX), rated 440 V, 22.4 kW, 3 ph and model SCC 102 E (LM100EEXXXXX), rated 440 V, 37.4 kW, 3 ph stacked. The test media, food load and oven programming as shown in Appendix A were taken from UL 710B, Section 59. The results are considered to comply with UL710B, Section 59, formerly Section 14 of UL 197, Eighth Edition, Supplement SB, and NFPA96, paragraph 4.1.1.2 when tested with the specified food load and maximum cook times since the total amount of grease-laden effluents collected was 1.15 mg/m^3, which is less than 5 mg/m^3 limit. No evaluation was conducted in regards to fire protection.

UL LLC did not select the samples, determine whether the samples were representative of production samples or witness the production of the test samples, nor were we provided with information relative to the formulation or identification of component materials used in the test samples. The test results apply only to the actual samples tested.

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This letter will serve to report that all tests on the subject product have been completed. All information generated will be retained for future use. This concludes all work associated with Project 4788991316 and we are therefore closing this project. Our Accounting Department has been instructed to bill you for all charges incurred.

Thank you for the opportunity to provide your company with these services. Please do not hesitate to contact us if you should have any questions or comments.

Very truly yours,

Smit Thakkar
Associate Project Engineer
E-mail: Smit.Thakkar@ul.com

Reviewed by:

Fred Zaplatosch
Senior Staff Engineer
E-mail: Fred.Zaplatosch@ul.com

A P P E N D I X: A

CLIENT INFORMATION	
Company Name	Rational Ag
Address	Iglinger Str 62 86899 Landsberg Germany

AUDIT INFORMATION:				
Description of Tests	Per Standard No.	UL 197	Edition/ Revision Date	10th 2018-01-26
		CSA C22.2 No. 109-17		3rd May 2017
		UL 710B		2nd 8/14/2014
[x] Tests Conducted by[1] KRZYSZTOF SROKA				
[X] UL Staff supervising UL Staff in training Leo Carrillo				

TESTS TO BE CONDUCTED:			
Test No.	Done[3]	Test Name	**[ ]** Comments/Parameters **[ ]** Tests Conducted by[2] **[ ]** Link to separate data files[4]
1	2019-07-19	POWER INPUT TEST (THREE PHASE): RATING (CSA 22.2 109-M1981):	
2	2019-07-30	CAPTURE TEST:	
3	2019-08-05	EMISSION TEST:	

Special Instructions -

[ ] Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be recorded at the time the test is conducted.

Ambient Temperature, C	±	Relative Humidity, %	±	Barometric Pressure, mBar	±

[x] No general environmental conditions are specified in the Standard(s) or have been identified that could affect the test results or measurements.

RISK ANALYSIS RELATED TO TESTING PERFORMANCE:

The following types of risks have been identified. Take necessary precautions. This list is not all inclusive.

[x] Electric shock	**[ ]** Radiation
[x] Energy related hazards	**[ ]** Chemical hazards
[x] Fire	**[ ]** Noise
[x] Heat related hazards	**[ ]** Vibration
[x] Mechanical	**[ ]** Other (Specify)__

GENERAL TEST CONSIDERATIONS – ALL TESTS:

[Power Supply Connections**]**
Unless otherwise specified in the individual test methods, the appliance was connected to a **[440]** volt source of supply at **[**60**]** Hz.

This supply connection was based on
[x] The marked voltage rating

TEST LOCATION: (To be completed by Staff Conducting the Testing)					
[x]UL or Affiliate	**[]**WTDP	**[]**CTDP	**[]**TPTDP	**[]**TCP	**[]**PPP
Company Name: UL LLC					
Address: 333 PFINGSTEN RD, NORTHBROOK IL 60062					

TEST EQUIPMENT INFORMATION

[x] UL test equipment information is recorded on Meter Use.

TEST SAMPLE IDENTIFICATION:

The table below is provided to establish correlation of sample numbers to specific product related information. Refer to this table when a test identifies a test sample by "Sample No." only.

Sample Card No.	Date Received	**[]** Test No.+	Sample No.	Manufacturer, Product Identification and Ratings
2281572	2019-07-17	All	1	Rational AG, Combi oven, Model SCC 062 E (LM100CEXXXXX), rated 440 V, 60 Hz, 3 ph, 22.4 kW stacked on top of Model SCC 102 E (LM100EEXXXXX), rated 440 V, 60 Hz, 3 Ph, 37.4 kW.

POWER INPUT TEST (THREE PHASE): UL 197 Sec. 47
RATING (CSA 22.2 109-17): (6.2)

METHOD FOR MODEL SCC 102 E (LM100EEXXXXX)

[x] The supply voltage was adjusted to voltage and frequency as noted in "General Test Considerations", **[440** V**]**, **[**60 Hz**]**.

PARAMETERS

Appliance Ratings:

Volts: __440___; Current: _____ A; Power: __37.4___ (kW)

RESULTS

Operating Conditions	Specified					Measured						
		Amps			Power,	Volts			Amps			Power,
	Volts	L1	L2	L3	(kW)	L1-L2	L2-L3	L1-L3	L1	L2	L3	(W)(~~kw~~)
Full power operation, rated voltage	440	---	---	---	---	440	440	441	48.8	48.0	49.0	37050
[x] Full power operation, rated power	---	---	---	---	37.4	442	441	442	49.2	48.3	49.3	37413
Full power operation, highest voltage in range	480	---	---	---	---	480	480	481	52.9	52.5	52.9	43856

[x] The input power **[**was**]** **[**~~was not~~**]** between 90% and 105% of the rated input power when the appliance was energized at rated voltage.

POWER INPUT TEST (THREE PHASE): UL 197 Sec. 47
RATING (CSA 22.2 109-17): (6.2)

METHOD FOR MODEL SCC 62 E (LM100CEXXXXX)

[x] The supply voltage was adjusted to voltage and frequency as noted in "General Test Considerations", **[440** V**]**, **[**60 Hz**]**.

PARAMETERS

Appliance Ratings:

Volts: __440___; Current: _____ A; Power: __22.4___ (kW)

RESULTS

Operating Conditions	Specified					Measured						
		Amps			Power,	Volts			Amps			Power,
	Volts	L1	L2	L3	(kW)	L1-L2	L2-L3	L1-L3	L1	L2	L3	(W)(~~kW~~)
Full power operation, rated voltage	440	---	---	---	---	440	440	441	24.6	24.3	24.5	18666
[x] Full power operation, rated power	---	---	---	---	22.4	485	484	486	26.9	26.5	26.7	22437
Full power operation, highest voltage in range	480	---	---	---	---	481	480	482	32.3	32.3	32.6	26972

[x] The input power **[**~~was~~**]** **[**was not**]** between 90% and 105% of the rated input power when the appliance was energized at rated voltage.

CAPTURE TEST: UL 710B Sec. 58
UL 710 Sec. 31

METHOD

The model SCC 62 E (LM100CEXXXXX) and SCC 102 E (LM100EEXXXXX) stacked cooking appliance was placed under a hood operating at 500 CFM. Food product as specified below was then used for testing, see Emission Testing for specific details. The cooking area is to be observed for the presence of visible smoke and grease-laden air, and the hood assembly shall completely capture all of the emission as determined by observation.

COOKING PRODUCT

[x] Other – As described in the Emission Test.

COOKING METHOD

[Other**]**
Quartered chickens weighing 2.5 – 3.5 lbs. The oven cavity was filled to the maximum capacity of 48 quartered chickens, and was cooked at 375°F with 75% humidity and 100% fan for 0 hrs. 30 minutes.

RESULTS

Their **[**~~was~~**]** **[**was not**]** the presence of visible smoke and grease-laden air from the appliance during testing.

The sample **[**did**]** **[**~~did not~~**]** capture all of the emissions from the cooking appliance.

EMISSION TEST: UL 710B Sec. 59

METHOD

TEST FOR EVOLUTION OF SMOKE OR GREASE-LADEN AIR (375°F):

The model SCC 62 E (LM100CEXXXXX) and SCC 102 E (LM100EEXXXXX) stacked cooking appliance was placed under a hood operating at 500 CFM, and was tested using a method derived from EPA Method 202. The Underwriters Laboratories provided the food load for the test.

A _12_ in. by _6_ in. rectangular, _108_ in. tall sheet metal stack was constructed on top of the hood. A sampling port was located approximately 80 in. downstream from the hood exhaust, at which point it was determined there was laminar flow. The sampler was assembled and an out of stack filter was used. A pre-leak check was conducted and determined to be < 0.02 ft/min. Sampling was determined to be done at 8 traverse points.

The oven was operated normally by cooking the following foods:

[Other]

Quartered chickens weighing 2.5 – 3.5 lbs. The oven cavity was filled to the maximum capacity of 48 quartered chickens, and was cooked at 375°F with 75% humidity and 100% fan for 0 hrs. 30 minutes. Total loads cooked 14.

The cooking cycle was repeated for 8 hours of continuous cooking.

During the cooking operation, it was noted whether or not visible effluents evolved from the air exhaust of the hood. Gauge, meter and temperature readings were taken and recorded every 10 min. After cooking, the condition of the duct was noted and a post-leak check was conducted and determined to be < 0.02 ft^3/min.

After being allowed to cool, the sampling equipment was disassembled. The glass-filter is to be removed using a pair of forceps and placed in a clean petri dish. The dish is to be sealed and labeled "SAMPLE 1".

A sample of the acetone of the same volume that will be used to rinse-out the nozzle and probe is to be placed into a clean sample bottle, sealed, and labeled "SAMPLE 2". The level of the liquid in the sample bottle is to be recorded.

The inside of the nozzle and probe is to be rinsed with acetone taking care to collect all the rinse material in a clean sample bottle. The sample bottle is to be sealed, labeled "SAMPLE 3", and the level of the liquid in the bottle is to be recorded.

The liquid in the first three impingers is to be measured and the total volume is to be recorded which will be compared to the original volume. The liquid is to be quantitatively transferred to a clean sample bottle. Each impinger and the connecting glassware including the probe extension are to be rinsed twice with water. The rinse water is to be collected and added to the same sample bottle. The sample bottle is to be sealed, labeled "SAMPLE 4" and the level of the liquid in the bottle is to be recorded.

EMISSION TEST (CONT'D): UL 710B Sec. 59

This rinse process is to be repeated with two rinses of methylene chloride ($MeCl_2$). The rinses are to be recovered in a clean sample bottle. The sample bottle is to be sealed, labeled "SAMPLE 5" and the level of the liquid in the bottle is to be recorded.

A volume of water approximately equivalent to the volume of water used to rinse and a volume of $MeCl_2$ approximately equivalent to the volume of $MeCl_2$ used to rinse is to be placed in two clean sample bottles. The sample bottles are to be sealed, labeled "SAMPLE 6" and "SAMPLE 7" respectively, and the level of the liquid in the bottles is to be recorded.

The weight of the fourth impinger containing the silica gel is to be recorded and then the silica gel can be discarded.

The analysis phase was done in accordance with EPA Method 202, using the out of stack filter.

RESULTS

The results **[**are**]** **[**~~are not~~**]** considered acceptable because there **[**~~was~~**]** **[**was no**]** visible smoke emitted from the exhaust of the hood during the normal cooking operation. There **[**~~was~~**]** **[**was no**]** noticeable amounts of smoke accumulated in the test room after 8 hours of continuous cooking.

The total amount of grease-laden effluents collected by the sampling equipment was found to be 1.15 mg/m^3, which is [less] [~~more~~] than 5 mg/m^3.

The total grease emissions (per clause 78.2 of 710B) in pounds per hour per linear food of hood was 0.000551 lb/hr/ft.

Note: Stack avg humidity and temperature;
Stack temperature; 90.2°F
HUMIDITY INSIDE STACK; 56.2%

EMISSION TEST (CONT'D): UL 710B Sec. 59

CONDENSIBLE MATTER
(Lab Analysis)

Sample Bottle No.	Description	Volume, ml	Final Wt, mg
2	Acetone (Blank)	100.0	0.1
3	Acetone (Wash)	100.0	1.1
4&5	Solvent Phase(Wash)	190.0	3.5
4&5	Water Phase (Wash)	510.0+280.0=790.0	2.8
6&7	Solvent Phase (Blank)	200.0	0.1
6&7	Water Phase (Blank)	290.0	1.3

Filter paper weight before test- 638.1 mg
Filter paper weight after test- 642 mg

Analysis

1. The liquid level of all the sample bottles is to be measured.
2. The filter from sample ONE is to be removed and dried to constant weight by means of a desiccator or an oven. The weight of the filter is to be recorded.
3. The volume of sample TWO is to be determined. The liquid is then to be transferred to a beaker and evaporated to dryness. The volume of the liquid and the final weight of the condensable matter are to be recorded.
4. The volume of sample THREE is to be determined. The liquid is then to be transferred to a beaker and evaporated to dryness. The volume of the liquid and the final weight of the condensable matter are to be recorded.
5. The volumes of sample FOUR and FIVE are to be measured.
6. Samples FOUR and FIVE are to be combined. The solvent phase is to be mixed, separated, and then repeated with two $MeCl_2$ washes.
7. The solvent extracts obtained from the procedure in 6 are to be placed in a beaker and evaporated to a constant weight. The final weight is to be recorded.
8. The water phase is to be placed in a beaker and evaporated to dryness. The final weight is to be recorded.
9. The volumes of samples SIX and SEVEN are to be determined. Sample bottles SIX and SEVEN are to be analyzed according to procedures 8 and 7 respectively.

Specification/Data sheet

UltraVent models 6-half size, 10-half size US

Article number: 60.76.179

Description

The UltraVent gets rid of the steam emitted with its condensation technology. No connection to the outside or extension of an existing exhaust system is necessary with this air recirculation hood. Installation is simple, and the hood can be retrofitted at any time.

Features

- Intelligent power control with automatic, continuously variable adjustment of the extraction power to the quantity of steam emitted
- Automatically boosts extraction rate when cooking cabinet door is opened
- Connects to both iCombi cooking systems in a Combi-Duo
- Eliminates lingering steam and vapours. These are extracted and condensed in the hood
- Easy to install and retrofit
- Issue of service notifications on the display of the iCombi Pro and iCombi Classic
- Adjustment of maximum extraction power on the display
- Easy to clean baffle plate, dishwasher safe

Technical Specifications

- Connection: 120V - 1 NAC 50/60 Hz
- Connected load: 170 W
- Extraction capacity: 24900 ft³/h
- Operating noise level: min 50 dBA; max 65 dBA
- Width: 33 5/8 inches
- Height: 12 3/8 inches
- Depth: 38 2/8 inches
- Weight: 146 lbs

Material

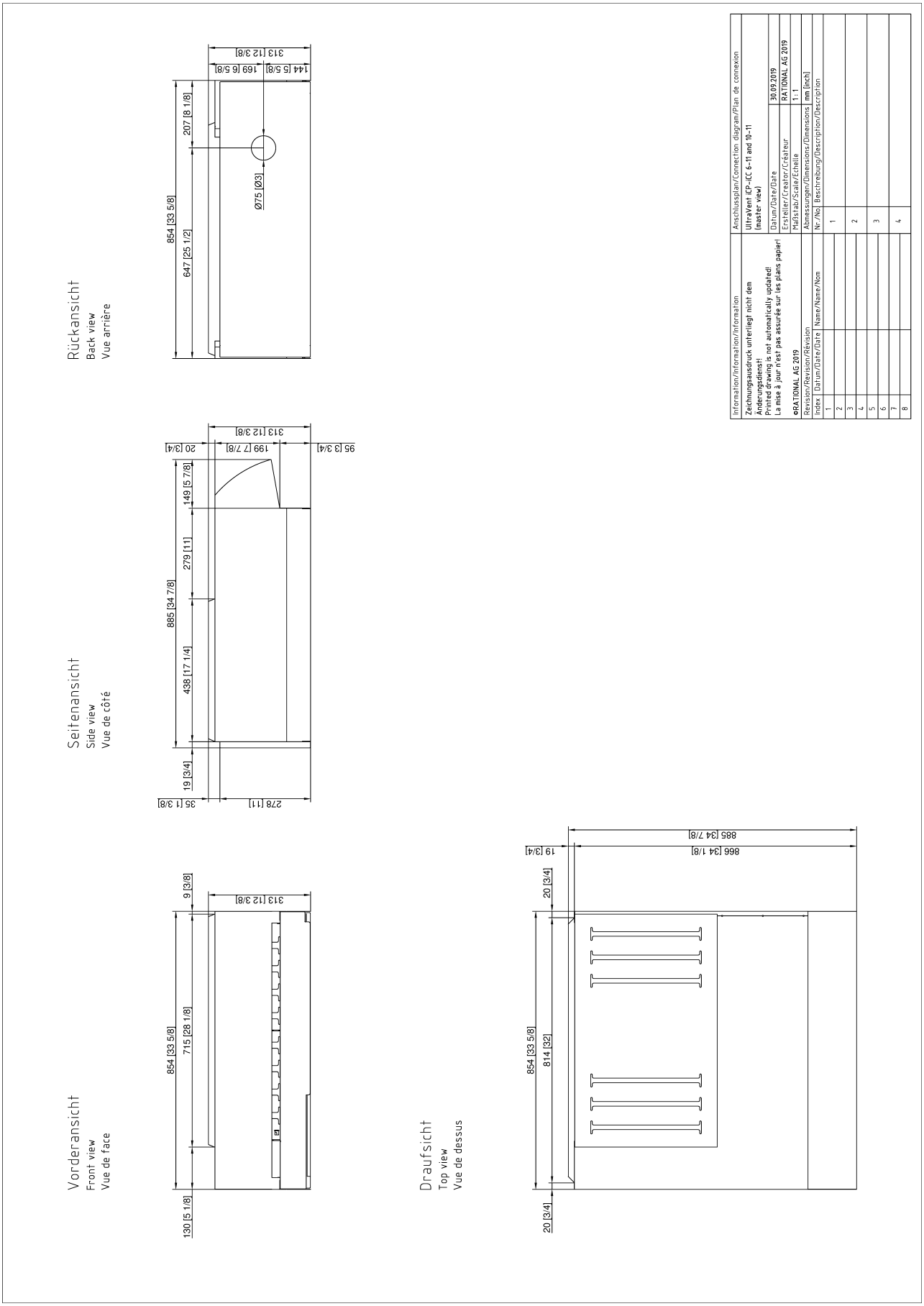
- Rust-free stainless steel (CNS 1.4301)

Note

- To install an UltraVent, UltraVent Plus or exhaust hood on a SelfCookingCenter (from 09/2011) or CombiMaster Plus, a corresponding adapter kit is required
- The local standards and regulations for ventilation systems must be adhered to
- Only permitted for installation on electrical units

Specification/Data sheet

UltraVent models 6-half size, 10-half size US



Specification/Data sheet

UltraVent Plus models 6-half size, 10-half size US

Article number: 60.76.177

Description

The UltraVent Plus gets rid of escaping steam with its condensation technology. It is also equipped with special filter technology which reduces lingering smoke, which can build up while grilling and frying. No connection to the outside or extension of an existing exhaust system is necessary with this air recirculation hood. Installation is simple, and the hood can be retrofitted at any time.

Features

- Intelligent power control with automatic, continuously variable adjustment of the extraction power to the quantity of steam emitted
- Automatically boosts extraction rate when cooking cabinet door is opened
- Connects to both iCombi cooking systems in a Combi-Duo
- Eliminates lingering steam and vapours. These are extracted and condensed in the hood
- Special filter technology with a prefilter and HEPA H13 main filter to reduce smoke
- Easy to install and retrofit
- Issue of service notifications on the display of the iCombi Pro and iCombi Classic
- Adjustment of maximum extraction power on the display
- Easy to clean baffle plate, dishwasher safe

Technical Specifications

- Connection: 120V - 1 NAC 50/60 Hz
- Connected load: 170 W
- Extraction capacity: 24900 ft³/h
- Operating noise level: min 50 dBA; max 65 dBA
- Width: 33 5/8 inches
- Height: 15 7/8 inches
- Depth: 38 3/8 inches
- Weight: 174 lbs

Material

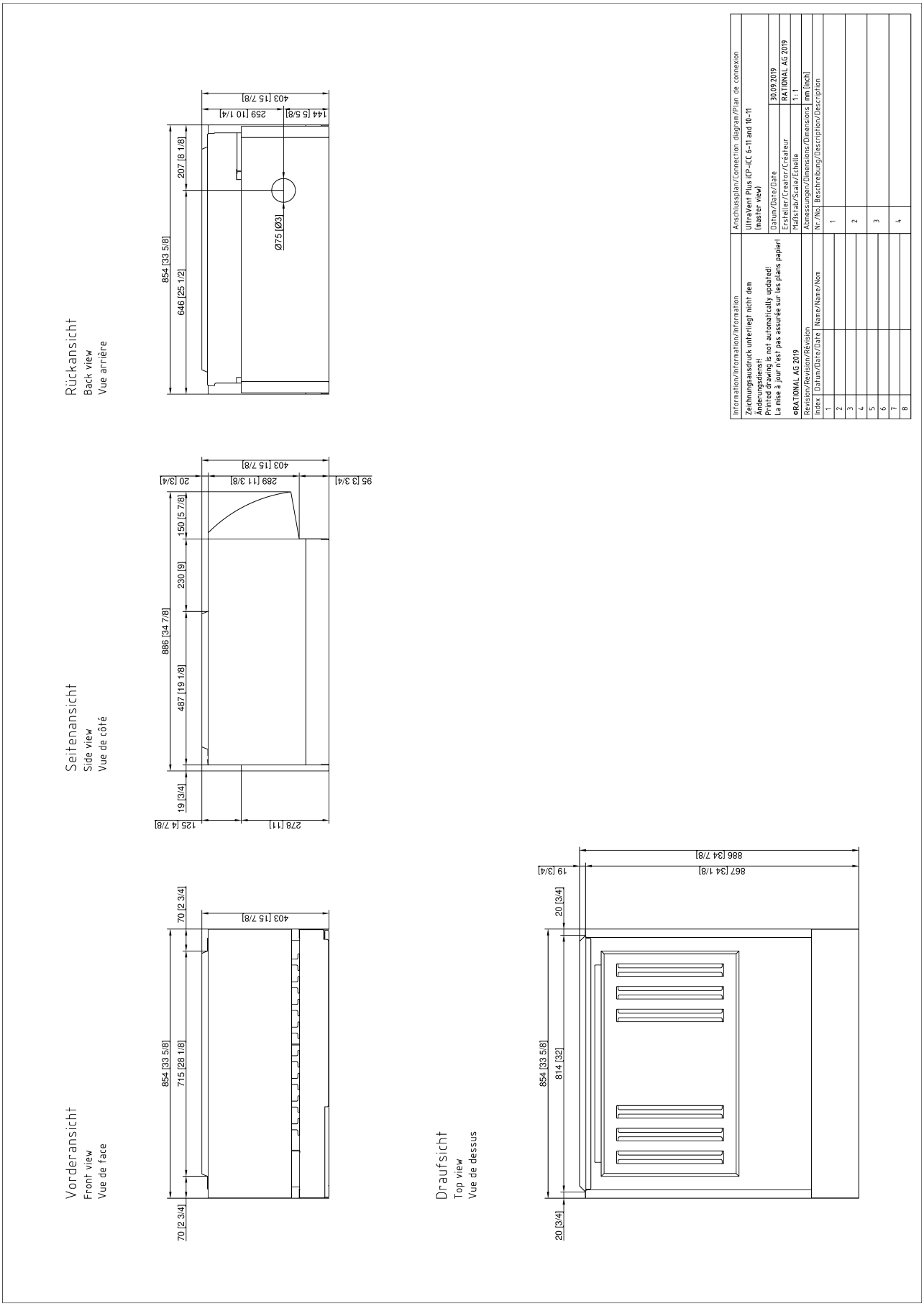
- Rust-free stainless steel (CNS 1.4301)

Note

- To install an UltraVent, UltraVent Plus or exhaust hood on a SelfCookingCenter (from 09/2011) or CombiMaster Plus, a corresponding adapter kit is required
- The local standards and regulations for ventilation systems must be adhered to
- Only permitted for installation on electrical units

Specification/Data sheet

UltraVent Plus models 6-half size, 10-half size US



1. Disconnect the dummy plug from the top fan motor of the lower unit and connect the bus cable from the condensation hood [Photo 24].
2. Check the cable routing to the fan motor. If there is still any cable length remaining, pull the bus cable straight and secure the rest of the cable in the electrical compartment with a cable tie. Screw the cable connection.
3. Fix the cable to the rear side of the unit with the self-adhesive cable holders supplied.
4. Connect this protective conductor to the steam generator housing with the ground connection [Photo 25].
5. Mount the left side panel of the unit.

Connect the condensation hood with the units (see ▸ Connecting the condensation hood with the unit).

5.2.4 Connecting condensation hoods to the power supply

Note the colour coding of wires:

Colour coding	Meaning
yellow/green	Protective conductor
blue	Neutral conductor (neutral wire)
black	Phase

1. Connect the mains plug of the condensation hood to the power supply.

5.2.5 Connecting the condensation hood with the unit

✔ The condensation hood is installed.

✔ The bus cable is connected in the unit.

✔ The condensation hood is connected to the power supply.

1. Turn the unit on (Combi-Duo: both units).

>> When starting up, the unit recognises the condensation hood and establishes the connection independently.

6 Maintenance

⚠ WARNING

Non-regular cleaning of the UltraVent condensation hood

Risk of fire due to dirty condensation hood.

Clean the condensation hood regularly according to the manufacturer's recommendations.

⚠ CAUTION

Sharp-edged panels

Risk of cuts when taking off the UltraVent condensation hood lid.

Wear protective gloves during installation and maintenance.

Clean the lid and interior of the condensation hood

✔ The unit on which the condensation hood is to be installed is disconnected from the mains.

✔ The condensation hood is disconnected from the mains.

1. On the rear side of the condensation hood, remove the 4 screws attaching the heat shield, and remove the heat shield.
2. Remove the 2 screws on the top side of the condensation hood [Photo 33].

3. Lift up the lid of the condensation hood.
4. If the lid is dirty, clean the lid with a grease remover.
5. If the lid is very dirty, remove the screws in the lid and disassemble it [Photo 34], to clean the lid in the dishwasher.
6. Clean the interior of the condensation hood with a grease remover. [Photo 35].
7. Secure the lid of the condensation hood with the 2 screws.
8. Secure the heat shield on the rear side of the condensation hood with the 4 screws.

Cleaning the particle filter and interior of the condensation hood

✔ The unit on which the condensation hood is to be installed is disconnected from the mains.

✔ The condensation hood is disconnected from the mains.

1. Remove the particle filter and clean the filter in the dishwasher.
2. Spray the interior of the condensation hood with a mild cleaning agent [Photo 35].
3. Clean the interior of the unit with the hand shower.
4. Mount the particle filter on the front side.

7 Service parts

NOTICE

Availability of service parts

The service parts are available from the catalogue of service parts.

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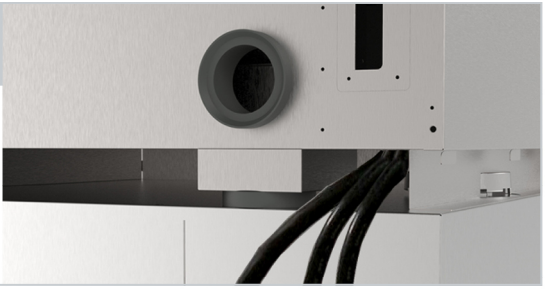

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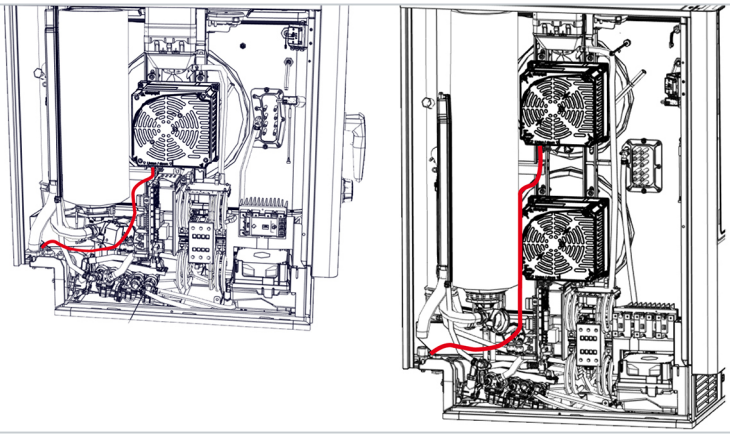

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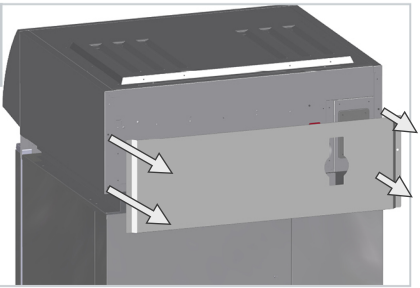

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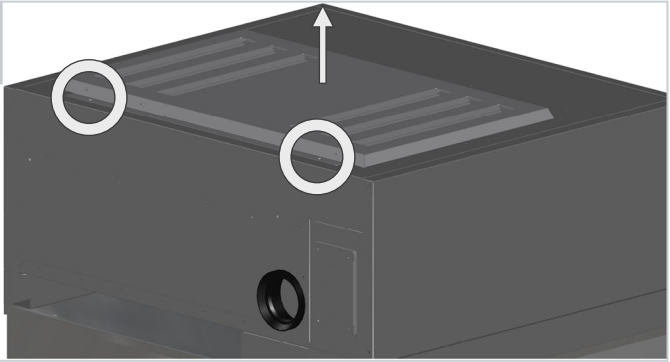

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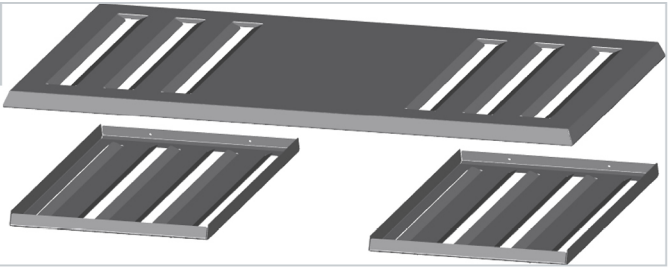

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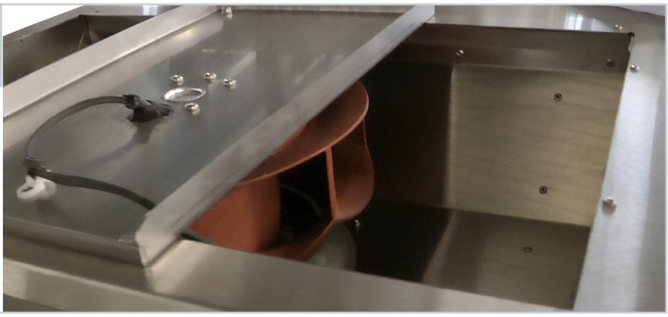

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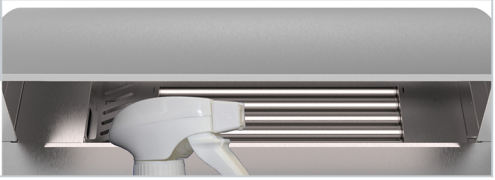

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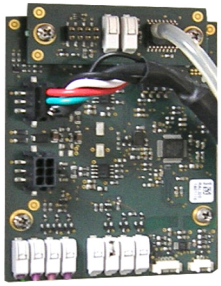

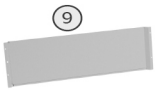

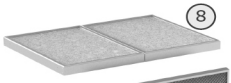

1. Turn the unit on (Combi-Duo: both units).

>> When starting up, the unit recognises the condensation hood and establishes the connection independently.

6 Maintenance

⚠ WARNING

Non-regular cleaning of the UltraVent condensation hood

Risk of fire due to dirty condensation hood.

Clean the condensation hood regularly according to the manufacturer's recommendations.

⚠ CAUTION

Sharp-edged panels

Risk of cuts when taking off the UltraVent condensation hood lid.

Wear protective gloves during installation and maintenance.

Clean the lid and interior of the condensation hood

✔ The unit on which the condensation hood is to be installed is disconnected from the mains.

✔ The condensation hood is disconnected from the mains.

1. On the rear side of the condensation hood, remove the 4 screws attaching the heat shield, and remove the heat shield.
2. Remove the 2 screws on the top side of the condensation hood [Photo 33].
3. Lift up the lid of the condensation hood.
4. If the lid is dirty, clean the lid with a grease remover.
5. If the lid is very dirty, remove the screws in the lid and disassemble it [Photo 34], to clean the lid in the dishwasher.
6. Remove the filter cassette from the interior of the condensation hood (see HEPA filter replacement).
7. Clean the interior of the condensation hood with a grease remover. [Photo 35].
8. Mount the filter cassette in the interior of the condensation hood (see HEPA filter replacement).
9. Secure the lid of the condensation hood with the 2 screws.
10. Secure the heat shield on the rear side of the condensation hood with the 4 screws.

Cleaning the particle filter and interior of the condensation hood

✔ The unit on which the condensation hood is to be installed is disconnected from the mains.

✔ The condensation hood is disconnected from the mains.

1. Remove the particle filter and clean the filter in the dishwasher.
2. On the front side, remove the prefilter [Photo 36] and clean the prefilter in the dishwasher.
3. Spray the interior of the condensation hood with a mild cleaning agent [Photo 35].
4. Clean the interior of the unit with the hand shower.

5. Replace the particle filter on the front side.
6. Mount the particle filter on the front side.

Replacing the HEPA filter

It is recommended that the HEPA filter on the condensation hood UltraVent be replaced annually.

✔ The unit on which the condensation hood is to be installed is disconnected from the mains.

✔ The condensation hood is disconnected from the mains.

1. Unlock the particle filter and remove the particle filter on the left and right [**Photo 38**].
2. On the front left, remove the cover of the electrical compartment [**Photo 39**].
3. Loosen the 2 screws on the left and right of the front side, which attach the front hood [**Photo 40**]. Remove the front section upwards.
4. Remove the 4 screws holding the filter holder [**Photo 41**].
5. Pull the filter holder out of the condensation hood [**Photo 42**], turn the filter holder over and place it on top of the condensation hood.
6. Remove the 3 screws holding the HEPA filter [**Photo 43**].
7. Replace the 2 HEPA filters [**Photo 44**].
8. Mount the HEPA filter, the filter cassette, the electrical compartment cover and the particle filter in reverse order.

7 Service parts

NOTICE

Availability of service parts

The service parts are available from the catalogue of service parts.

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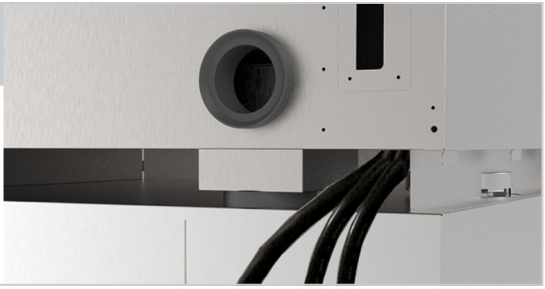

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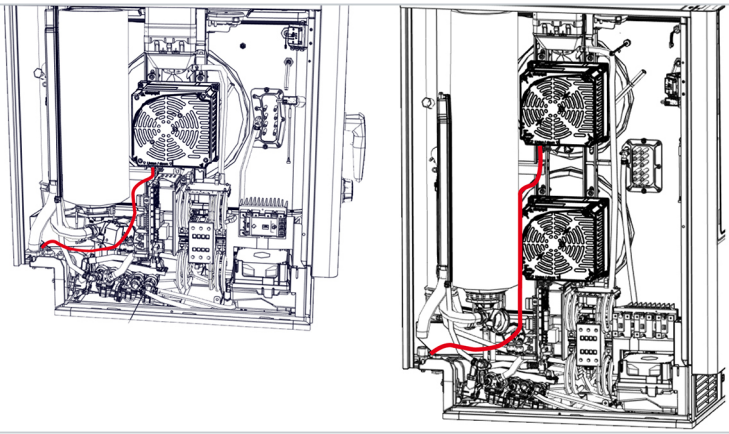

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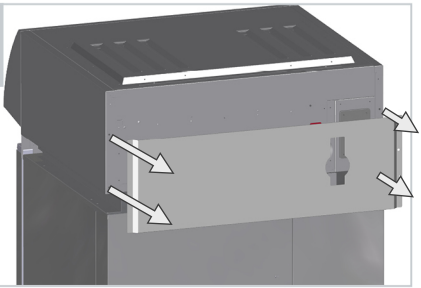

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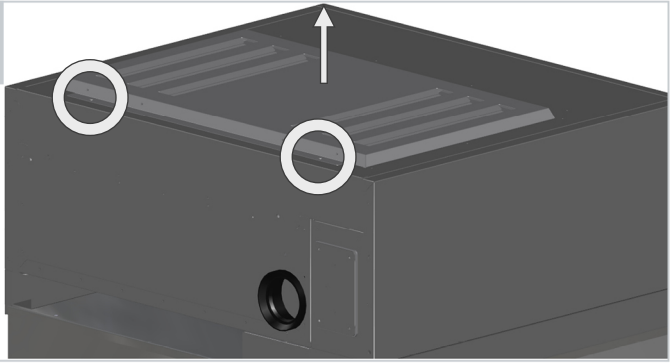

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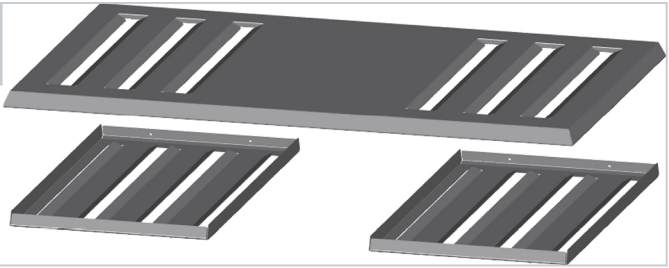

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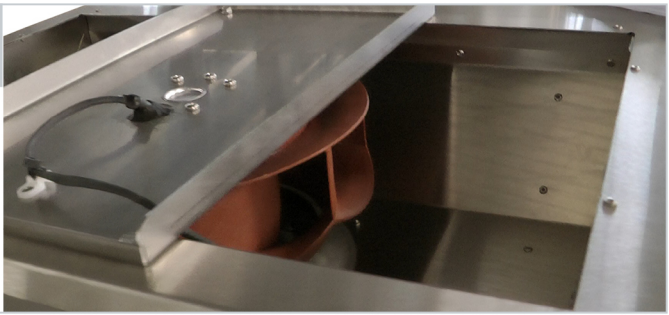

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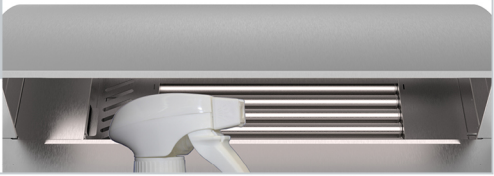

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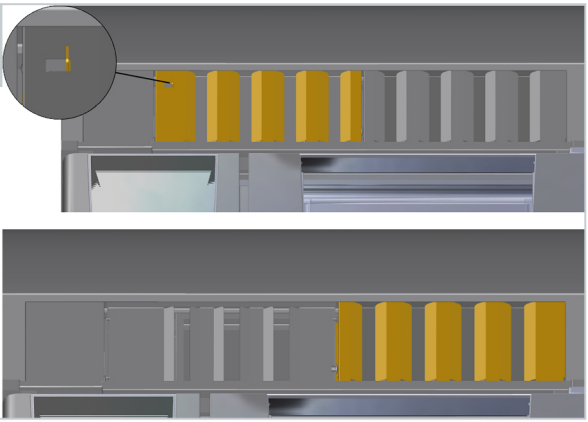

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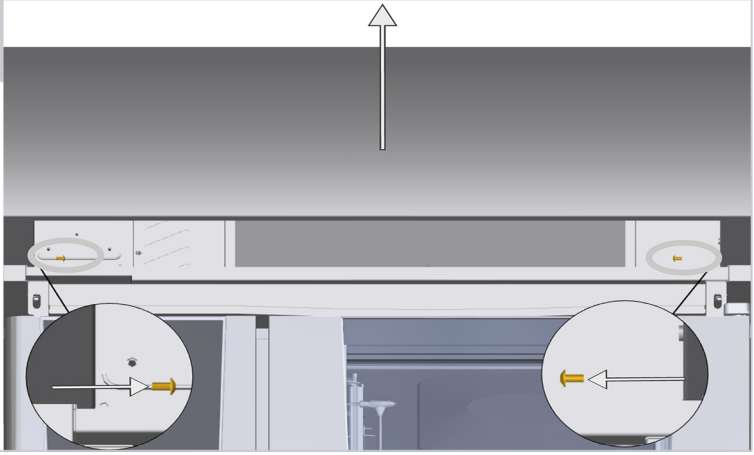

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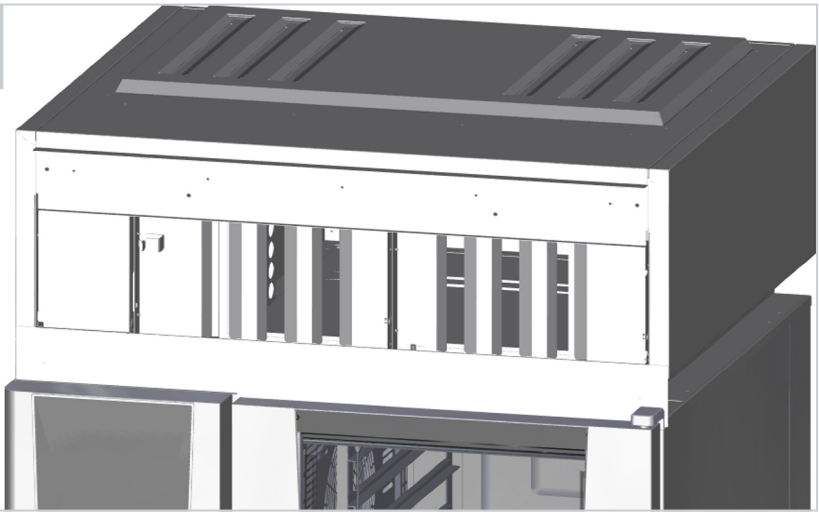

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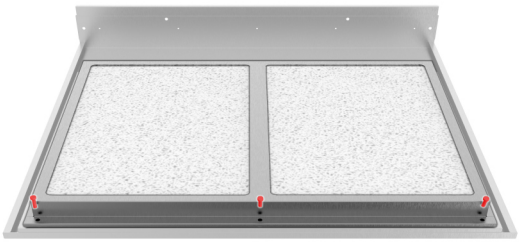

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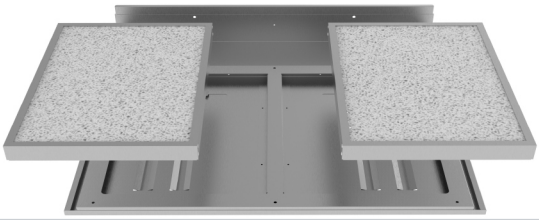

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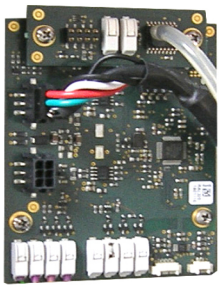

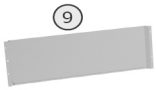

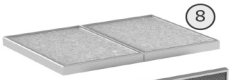

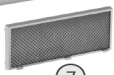

Ultravent Plus
Cleaning and maintenance schedule

Installation date: _____

RECOMMENDED TIME FRAMES			
Clean grease filter and metal housing			Particle filter replacement
WEEKLY Minimum every 2 weeks			MINIMUM every 3 months
WEEK 1	WEEK 2	WEEK 3	JANUARY
WEEK 4	WEEK 5	WEEK 6	FEBRUARY
WEEK 7	WEEK 8	WEEK 9	MARCH
WEEK 10	WEEK 11	WEEK 12	APRIL
WEEK 13	WEEK 14	WEEK 15	MAY
WEEK 16	WEEK 17	WEEK 18	JUNE
WEEK 19	WEEK 20	WEEK 21	JULY
WEEK 22	WEEK 23	WEEK 24	AUGUST
WEEK 25	WEEK 26	WEEK 27	SEPTEMBER
WEEK 28	WEEK 29	WEEK 30	OCTOBER
WEEK 31	WEEK 32	WEEK 33	NOVEMBER
WEEK 34	WEEK 35	WEEK 36	DECEMBER
WEEK 37	WEEK 38	WEEK 39	
WEEK 40	WEEK 41	WEEK 42	
WEEK 43	WEEK 44	WEEK 45	
WEEK 46	WEEK 47	WEEK 48	
WEEK 49	WEEK 50	WEEK 51	
WEEK 52			

3.2 Exhaust requirement

Control calculation exhaust requirement for combi steamers

› According to DIN 16282, a combi-steamer generates an average of 0.58 lbs (265 g) of water per hour and kilowatt of connected load (0.58 lbs/h × kW) (265 g/h × kW). The increase of the water content in the air should not be more than 0.013 lbs/ 2.2 lbs (6 g/kg) of dry air.

Example air requirement iCombi Pro 6-half size:

› Connected load 10.8 kW
Specific weight of dry air 2.65 lbs/35.35 ft³
Water output: 10.8 kW × 0.58 lbs/h × kW
(10.8 kW × 265 g/(h × kW) = 6.31 lbs/h (2862 g/h)
6.31 lbs/h / (0.013 lbs/2.2 lbs × 2.65 lbs / 35.35 ft³)
(2862 g/h / (6g/kg × 1.20 kg/m³) = 234 ft^3/min (398 m^3/h)
The extraction requirement is 234 ft^3/min (398 m^3/h).

Notes:

› In consideration of unfavorable flow conditions or an unsafe thermal lift (mixed airflow), it is recommended that the air requirement be increased to 25 %.
This means the extraction requirement is 234 ft^3/min (398 m^3/h) × 1.25 = 293.11 ft^3/min (498 m^3/h).
The value is reduced to 63% if one side of the appliance is against a wall.

› RATIONAL offers the UltraVent and UltraVent Plus recirculation hoods for the electric units. Using these recirculation hoods can reduce the air requirement of the units by up to 70%.

	XS	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
Connected load electrical units							
kW	5.7	10.8	22.4	18.9	37.4	37.2	67.9
Air requirement – free-standing in the space (100 %)							
ft³/min	124	234	485	410	810	806	1471
m³/h	210	398	824	696	1377	1369	2499
Air requirement with UltraVent recirculation hoods – free-standing in the space (100 %)							
ft³/min	37	70	145	123	243	242	441
m³/h	63	119	247	209	413	411	750
Air requirement – unit with one side against a wall (63 %)							
ft³/min	78	148	305	258	511	507	926
m³/h	132	251	519	438	868	862	1574
Air requirement with UltraVent recirculation hood – unit with one side against a wall (63 %)							
ft³/min	24	44	92	78	153	152	278
m³/h	40	75	156	132	260	259	473

3.3 RATIONAL recirculating hoods

RATIONAL offers the UltraVent and UltraVent Plus as accessories. Unit hoods without external exhaust.

UltraVent recirculation hood (without smoke filter)

- The main function of the UltraVent is to condense vapors and steams as early as during the cooking process using the integrated condensation technology. The steams are fed directly into the UltraVent through the standpipe, where they are bound and condensed. The condensate is then removed via the integrated drain. The dry air is guided out in a targeted way at the top of the UltraVent.
- The UltraVent also catches steam that escapes from the unit when the cooking cabinet door is opened.
- The UltraVent is not connected with a ventilation system via ducts. It is therefore not part of the ventilation system and is not covered under the regulations of VDI 2052 or other country-specific regulations relating to this.
- However, the condensation effect of the UltraVent can reduce the exhaust requirement to 30% of the nominal volume requirement (see chapter 3.2 - Air requirement with UltraVent recirculation hood).
- The UltraVent regulates the extraction capacity automatically, continuously and intelligently.
- Installation is simple and it can be retrofitted at any time.

UltraVent Plus recirculation hood with smoke filter

- The UltraVent Plus is additionally fitted with a special filter technology. This prevents both vapors containing grease and the lingering smoke that builds up while grilling and frying. This allows users to install RATIONAL units in more challenging locations, such as front-cooking areas.
- The UltraVent Plus has the same condensation technology and the same continuous and intelligent extraction capacity as the UltraVent (see above).
- The same specifications as for an UltraVent also apply with regard to the ventilation system and the nominal volume requirement.

3.3 RATIONAL recirculating hoods

Technical data for UltraVent/UltraVent Plus

› UltraVent and UltraVent Plus are available for electric individual units and Combi-Duo units (see table below).
› Electrical connection: 1 NAC 120V (supplied with 8 ft (2.5m) cable with plug). Socket required on-site!

› For units of model XS, the UltraVent/UltraVent Plus can be ordered already pre-assembled on the unit. In this case a socket must be provided on site. The power supply then takes place directly via the unit.
› Power with all variants: 170W
› Maximum extraction capacity: 415 ft^3/min (705 m^3/h)
› Operating noise level: Average: 50-65dB(A)
› For integrating a unit of model XS in a wall unit, an installation kit is available, complete with integrated UltraVent or UltraVent Plus and a hygienic trim kit.

UltraVent integration kit	N°: 60.74.063
UltraVent Plus integration kit	N°: 60.74.405

Available UltraVent/UltraVent Plus for the following unit variants:

Model	XS	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
UltraVent							
Single	●	●	●	●	●	–	–
Combi-Duo	●	●	●	●	●	–	–
UltraVent Plus							
Single	●	●	●	●	●	–	–
Combi-Duo	●	●	●	●	●	–	–

Article Number	Category	Model Number
CA2ERRA.0000247	CombiMaster Plus	CMP XS E 208/240V 3PH (LM200AE)
CA2ERRA.0000248	CombiMaster Plus	CMP XS E 208/240V 1PH (LM200AE)
CA1ERRA.0000210	iCombi Pro	ICP XS E 208/240V 3 PH (LM100AE)
CA1ERRA.0000211	iCombi Pro	ICP XS E 208/240V 1 PH (LM100AE)
CB1ERRA.0000212	iCombi Pro	ICP 6-HALF E 208/240V 3 PH (LM100BE)
CB1ERRA.0000213	iCombi Pro	ICP 6-HALF E 480V 3 PH (LM100BE)
CB1ERRA.0000214	iCombi Pro	ICP 6-HALF E 208/240V 1 PH (LM100BE)
CB2ERRA.0000249	iCombi Classic	ICC 6-HALF E 208/240V 3 PH (LM200BE)
CB2ERRA.0000250	iCombi Classic	ICC 6-HALF E 480V 3 PH (LM200BE)
CB2ERRA.0000251	iCombi Classic	ICC 6-HALF E 208/240V 1 PH (LM200BE)
CC1ERRA.0000218	iCombi Pro	ICP 6-FULL E 208/240V 3 PH (LM100CE)
CC1ERRA.0000219	iCombi Pro	ICP 6-FULL E 480V 3 PH (LM100CE)
CC2ERRA.0000255	iCombi Classic	ICC 6-FULL E 208/240V 3 PH (LM200CE)
CC2ERRA.0000256	iCombi Classic	ICC 6-FULL E 480V 3 PH(LM200CE)
CD1ERRA.0000215	iCombi Pro	ICP 10-HALF E 208/240V 3 PH (LM100DE)
CD1ERRA.0000216	iCombi Pro	ICP 10-HALF E 480V 3 PH (LM100DE)
CD2ERRA.0000252	iCombi Classic	ICC 10-HALF E 208/240V 3 PH (LM200DE)
CD2ERRA.0000253	iCombi Classic	ICC 10-HALF E 480V 3 PH (LM200DE)
CE1ERRA.0000221	iCombi Pro	ICP 10-FULL E 208/240V 3 PH (LM100EE)
CE1ERRA.0000222	iCombi Pro	ICP 10-FULL E 480V 3 PH (LM100EE)
CE2ERRA.0000258	iCombi Classic	ICC 10-FULL E 208/240V 3 PH (LM200EE)
CE2ERRA.0000259	iCombi Classic	ICC 10-FULL E 480V 3 PH (LM200EE)
CF1ERRA.0000224	iCombi Pro	ICP 20-HALF E 208/240V 3 PH (LM100FE)
CF1ERRA.0000225	iCombi Pro	ICP 20-HALF E 480V 3 PH (LM100FE)
CF2ERRA.0000261	iCombi Classic	ICC 20-HALF E 208/240V 3 PH (LM200FE)
CF2ERRA.0000262	iCombi Classic	ICC 20-HALF E 480V 3 PH (LM200FE)
CG1ERRA.0000227	iCombi Pro	ICP 20-FULL E 208/240V 3 PH (LM100GE)
CG1ERRA.0000228	iCombi Pro	ICP 20-FULL E 480V 3 PH (LM100GE)
CG2ERRA.0000264	iCombi Classic	ICC 20-FULL E 208/240V 3 PH (LM200GE)
CG2ERRA.0000265	iCombi Classic	ICC 20-FULL E 480V 3 PH (LM200GE)