

# Certified Installation.



## Ensure optimal performance from your RATIONAL.

### Installation Includes

- |                                                       |                                                                                   |
|-------------------------------------------------------|-----------------------------------------------------------------------------------|
| › Professionally reviewed and managed install process | › Leveling of unit                                                                |
| › Assembly of purchased equipment                     | › Connection to existing utilities and network via LAN/WLAN within 5 feet of unit |
| › Stacking of purchased equipment                     | › Commissioning: the operational function test at time of installation**          |
| › Placement of unit                                   |                                                                                   |
| › One travel trip within 100 miles (200 round trip)   | **Commissioning may be purchased without installation (see below)                 |

### Installation Does Not Include

- |                                                                                                                                |                                                     |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| › Pre-Installation Site Consultation                                                                                           | › Overtime travel or labor                          |
| › Delivery to end user location: unit must be within 5 feet and have a clear and unobstructed path to final installed position | › Removal of packing material                       |
| › Special licensing security access delays or permits                                                                          | › Removal and scrapping of old equipment            |
|                                                                                                                                | › LAN Cables or Optional RATIONAL Installation Kits |

### Pre-Installation Site Consultation

|           |                                                                                                                                                                                                                                                                                             |                                                          |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 9999.2002 | Pre-Installation Site Consultation can be purchased with or without a RATIONAL Certified Installation. A Certified RATIONAL technician provides an installation consultation to ensure an efficient installation. The service includes 100 miles (200 miles round-trip) from the installer. | Visit (includes up to 4 cooking systems in one kitchen.) |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|

### Installation Article Numbers

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| 9999.2200 | Model XS                                                                   |
| 9999.2251 | Combi-Duo XS per unit                                                      |
| 9999.2201 | iCombi/iHexagon Table-top electric                                         |
| 9999.2211 | iCombi Table-top gas                                                       |
| 9999.2252 | Combi-Duo per unit                                                         |
| 9999.2202 | iCombi Floor electric                                                      |
| 9999.2212 | iCombi Floor gas                                                           |
| 9999.2220 | iVario Table-top standard                                                  |
| 9999.2221 | iVario Floor standard                                                      |
| 9999.2230 | iVario Table-top pressure                                                  |
| 9999.2231 | iVario Floor pressure                                                      |
| 9999.2240 | UltraVent                                                                  |
| 9999.2270 | Integrated fat drain per unit                                              |
| 9999.2271 | Water filtration per system                                                |
| 9999.2262 | Universal stacking kit                                                     |
| 9999.2003 | Second Installation Trip (includes up to 4 cooking systems in one kitchen) |

### Commissioning; the operational function test when not completed by a trained technician

|           |                               |
|-----------|-------------------------------|
| 9999.2100 | Commissioning iCombi electric |
| 9999.2110 | Commissioning iCombi gas      |
| 9999.2120 | Commissioning iVario          |

Prices are based on business conducted during normal business hours.

For mileage over 100 miles (200 miles round-trip) contact factory representative for Extended Travel Zone rates. In the event that the installation visit or Pre-Installation Site Consultation visit is aborted due to the site not being ready, the customer will be required to pay the RATIONAL Service Partner directly for any additional labor and travel charges for subsequent visits.

Consultation, Installation or Commissioning can also be purchased directly from your RATIONAL Service Partner (RSP).



## Power Supply Electric iCombi except model XS

### Electrical Junction Box



Single Unit  
Independently Fused Power Supply Line

### Combi-Duo Electrical Junction Boxes



Combi-Duo Unit  
Independently Fused Power Supply Line



### Model XS



NEMA 6-50R  
1 Ph XS



NEMA 15-30R  
3 Ph XS

## Power Supply Gas iCombi

### Receptacle for Single Unit



NEMA 5-15P for 120V  
for half-size



NEMA 6-15P\* for 120V  
for full-size

### Receptacles for Combi-Duo



NEMA 5-15P for 120V  
for half-size



NEMA 6-15P\* for 208/240V for full-size



### Gas Models 6-half and 6-full size & 10-half size



3/4 inch female NPT thread, 1 ea

### Gas Models 10-full size & 20-half size and 20-full size



1 inch female NPT thread, 1 ea

### Water Valve



3/4 inch male hose bib  
(1 ea recommended)



Y splitter for Combi-Duo\*

### Floor Drain



Floor Drain  
Can handle 2.1 to 5.3 gal/min

\*included with RATIONAL installation kits or water filters

# RATIONAL Certified Installation Program.

## Installation Requirements.

**RATIONAL Certified Installation includes final connection to existing electrical, water, gas, and drain connection types as outlined below.**

- › All connections must be within 5 feet of unit placement or additional charges may be incurred
- › It is the responsibility of the customer to ensure that all existing utility connections meet local codes and are sized correctly
- › It is recommended that the customer purchase a RATIONAL Installation Kit, which includes most items required for a typical installation
- › Some installation locations will require additional materials to be purchased by the customer

### Installation Area

- › Gas units must be installed under a externally exhausted hood in accordance with local regulations and standards
- › Electric units may require installation under a hood depending on local regulations and standards
- › Deep fryers cannot be installed on the left side or at the rear of the units
- › Units must only be installed in frost-free rooms
- › Minimum clearance of 14" when there is a heat source on the left-hand side of the unit in order to protect components; a 2" RATIONAL heat shield accessory can be added if the distance is not achievable
- › Recommended distance of 20" on left-hand side of unit for carrying out service work
- › Table models – if on mobile stand with flexible connections that allow unit to be moved forward while still connected to gas, electric, and water; must maintain a minimum clearance of 2" to the left/right of unit (for Model XS maintain a 1/2" clearance)
- › Floor models – must have minimum clearance of approximately 20" on the left-hand side of the unit

### Electric iCombi

- › Installer will connect to an existing electrical junction box or disconnect; except Model XS
- › Each unit requires an independently fused power supply line. The Maximum Breaker Size listed below is at 125% overprotection is not required. Devices will operate on circuit breakers at 110% overprotection.
- › Model XS is delivered with 5' power cable and angled plug: 1 Ph 208–240V 6–50P; 3 Ph 208–240V 15–30P
- › Power cable is not included with unit except XS (flexible steel conduit and wiring is included with optional installation kit)
- › 1 Ph is 3 wires (L1, L2, Ground); 3 Ph is 4 wires (L1, L2, L3, Ground)

| Maximum Circuit Breaker (A) |           |             |             |              |              |              |              | Wire Size (AWG)          |                |               |               |               |               |                 |
|-----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|--------------------------|----------------|---------------|---------------|---------------|---------------|-----------------|
| Pro/Classic                 | XS        | 6-half size | 6-full size | 10-half size | 10-full size | 20-half size | 20-full size | Pro/Classic              | 6-half size    | 6-full size   | 10-half size  | 10-full size  | 20-half size  | 20-full size    |
| 1 Ph 208V /<br>1 Ph 240V    | 50/<br>50 | 70/<br>60   |             |              |              |              |              | 1 Ph 208V /<br>1 Ph 240V | #4<br>(140°F)  |               |               |               |               |                 |
| 3 Ph 208V /<br>3 Ph 240V    | 30/<br>30 | 40/<br>35   | 80/<br>70   | 70/<br>60    | 150/<br>125  | 150/<br>125  | 250/<br>225  | 3 Ph 208V /<br>3 Ph 240V | #8<br>(140°F)  | #3<br>(140°F) | #4<br>(140°F) | #2<br>(194°F) | #1<br>(194°F) | #4/0<br>(194°F) |
| 3 Ph 440V /<br>3 Ph 480V    |           | 20/<br>20   | 40/<br>35   | 35/<br>30    | 70/<br>60    | 70/<br>60    | 125/<br>125  | 3 Ph 440V /<br>3 Ph 480V | #12<br>(140°F) | #8<br>(140°F) | #8<br>(140°F) | #4<br>(140°F) | #4<br>(140°F) | #3<br>(194°F)   |

Use copper wire only for power supply connections.

### Gas iCombi

- › If local code does not require a GFCI receptacle or breaker than a plug can be field wired to the supplied cord (NEMA 5-15 & NEMA 6-15 included with optional installation kit). To avoid nuisance tripping if a GFCI is required; then this device is approved for field hard wiring to applicable Local and National Electrical Codes and utility requirements.

| Single Phase  | 6-half size | 6-full size | 10-half size | 10-full size | 20-half size | 20-full size         |
|---------------|-------------|-------------|--------------|--------------|--------------|----------------------|
| 1 Ph 120V     | x           |             | x            |              | x            | Comes with 6' Cord   |
| 1 Ph 208/240V | Optional    | x           | Optional     | x            | Optional     | x Comes with 6' Cord |

### Gas Models 6-half and -full size & 10-half size

- › Gas shut-off valve with 3/4" female NPT pipe thread connection required

### Gas Models 10-full size & 20-half and -full size

- › Gas shut-off valve with 1" female NPT pipe thread connection required

### Water

- › One (1) cold water shut-off valve with 3/4" male garden hose thread connection per unit recommended (adapter to GHT included)

### Drain

- › All units have a 2" OD hub connection and are supplied with a banded seal coupling for 2" OD copper drain pipe; position of the floor drain should not be under the unit
- › Model XS has a 1 1/2" OD hub connection
- › Preferred floor drain placement: all models – right/rear of unit

For complete installation requirements, please see the current version of the RATIONAL Installation Manual and/or contact RATIONAL USA Technical Support at (866) 891-3528.

# RATIONAL Certified Installation Program.

## Installation Requirements iVario.

### Installation Area

- Units require installation under a commercial ventilation hood that meets the thermal load and exhaust requirements per local code.
- Floor condition.  
The area needs to be level for L and XL units on casters.
- Service Requirements  
20" space to the rear of all units is recommended for servicing for 2-S and 2-XS (additionally for L and XL models, 20" to the right side of the unit). If that's not available, ensure provisions for moving the unit or the adjacent appliance on the right side. Another option is having quick connections for water, gas, drain, and lengthening the electrical connections with flexible cords/conduits.
- Nearby heat sources. Is there a heat source to the left of the unit, such as a griddle, fryer, etc.  
A minimum clearance of 14" is required on left, right and rear sides to the heat source.  
If there are open flames (broiler, range, wok etc) 20" on left, right and rear sides.  
During deep fry mode, water faucets/sources must be a minimum of 36" or a physical wall/barrier be installed. Likewise no deep fryers should be placed immediately next to the iVario.
- Drainage. A drain trough in front of the unit is not required, please contact a factory representative with questions.  
A floor sink in the rear/side of the unit is best.

### Electric iVario

- Voltage is three (3) phase 208V/240V or 440V/480V (L1, L2, L3, Ground).
- 2-XS and 2-S units are supplied with a rear mounted junction box. A connection from this box is required. L and XL units do not include a cord and must be wired too are not supplied with a power cable.
- Installation kits are available and include flexible conduit and hard wiring supplies. Using a pin and sleeve connector for the iVario is acceptable.  
Current – reference spec sheet for additional information.

| Circuit breaker (A)      |             |                |              |               | Wire Size* (AWG)         |             |                |              |               |
|--------------------------|-------------|----------------|--------------|---------------|--------------------------|-------------|----------------|--------------|---------------|
| Model                    | iVario 2-XS | iVario Pro 2-S | iVario Pro L | iVario Pro XL | Model                    | iVario 2-XS | iVario Pro 2-S | iVario Pro L | iVario Pro XL |
| 3 Ph 208V /<br>3 Ph 240V | 60 / 45     | 70             | 70           | 125           | 3 Ph 208V /<br>3 Ph 240V | 6 / 8       | 6              | 6            | 2             |
| 3 Ph 440V /<br>3 Ph 480V | 25          | 35             | 45           | 70            | 3 Ph 440V /<br>3 Ph 480V | 14          | 10             | 8            | 6             |

Use copper wire only for power supply connections.

\* The specified values apply for a maximum cable length of 6 ft (2 m). Adjust the values according to the cable length used and the local conditions and regulations.

### Water

- One cold water shut-off valve with ¾" male garden hose thread connection per unit recommended. (adapter to GHT included)
- Units are supplied with a water hose 5'
- Connect to potable drinking water
- Water pressure must be between 22 psi and 87 psi. Recommended pressure of 44 psi.

### Drain

- Appliances are not supplied with drain pipes. Optional installation kits are available. A drain must be connected and drain to a floor sink.
- Drain pipes need to be 2" high-temperature resistant pipe with constant gradient of 3° minimum, and handle maximum drainage rates of:  
2-XS & 2-S ~ 4.8 gal/min, L & XL – 10.6 gal/min
- All units are supplied with a banded sealing coupling to connect with 2" drain.
- Preferred drain/floor sink placement viewed from the front: All models: In the rear of unit to the center or outside leg.
- Floor drains must maintain an air gap per local code.
- A front floor trough is not required with the iVario due to the integrated, rear exiting drain line.

For complete installation requirements, please see the current version of the RATIONAL Installation Manual and/or contact RATIONAL USA Technical Support at (866) 891-3528.

## Electrical Junction Box



Single Unit  
Independently Fused Power Supply Line

## Pin and Sleeve Connector



Sizing dependent on unit model

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## Water Valve



3/4 inch male hose bib

## Floor Drain



Floor Drain  
Can handle 4.8 gal/min for 2-XS & 2-S;  
10.6 gal/min for L & XL