

# Data sheet



## iHexagon® 6-1/1 + 6-1/1 + Stand



### Capacity

- > 6+6 longitudinal shelves for 1/1 GN accessories
- > Handle holder for rack trolley
- > Large selection of accessories for various cooking methods such as grilling, braising or baking
- > For use with 1/1, 1/2, 2/3, 1/3 GN accessories

### Manual combi steamer mode

- > Controlled steaming from 30 °C to 100 °C
- > Steaming at 100 °C
- > Traditional steaming above 100 °C
- > Hot air 30 °C – 300 °C
- > Combination of steam and hot air 30 °C – 300 °C
- > Optionally accelerated with microwaves in the range 30 °C – 260 °C

### Description

Intelligent, networkable 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, boiling, baking and grilling.

- > Combi steamer in accordance with DIN 18866 (in manual mode).
- > For most cooking methods used in commercial kitchens.
- > For the use of steam and hot air, individually, consecutively or in combination, optionally accelerated with microwaves.

The following intelligent assistants are available to you:

### Intelligent assistants

iClimateBoost  iCookingSuite  iProductionManager  iCareSystem   
AutoDose

#### iClimateBoost

iClimateBoost is the intelligent climate management system of the iHexagon. The interaction of sensors, a high-performance heating system, a fresh steam generator, active dehumidification and an intelligently controlled microwave ensures that the cooking chamber always has the right climate. Intelligent air circulation and even microwave distribution across all 6 levels ensure the best possible energy input into the food. This guarantees exceptional productivity with high food quality, consistency and minimal energy consumption.

#### iCookingSuite

The iCookingSuite is the cooking intelligence in the iHexagon. At the start, the user selects the cooking path from 7 operating modes and/or 4 cooking methods to suit the food. The desired cooking result is also specified by the user. The appliance suggests browning and cooking level settings. Intelligent sensors detect the size, quantity and condition of the food. Depending on the cooking progress, all important cooking parameters such as temperature, cooking chamber climate, air speed, microwave energy and cooking time are adjusted to the second. The selected desired result is achieved in the best possible quality and in the shortest possible time. If desired, the cooking process can be interrupted and the cooking result adjusted. The user can switch to iProductionManager or manual mode at any time. With the iCookingSuite of the iHexagon, significant time savings can be achieved easily and without any monitoring effort, while maintaining a high, standardised food quality.

#### iProductionManager

The iProductionManager organises the production process intelligently and flexibly. This includes determining which products can be prepared together on different shelves, the optimal sequence of dishes and monitoring the cooking process. The iProductionManager provides support with instructions for loading or removing food. Depending on the kitchen workflow, orders can be placed freely or aligned to a specific target time. The iProductionManager arranges the sequence of dishes accordingly and automatically makes the correct settings. In addition, portion-sized dishes can be brought to serving temperature in the shortest possible time and in quick succession. Simple monitoring tasks are eliminated, working time is saved, and productivity easily covers peak times.

#### iCareSystem

The iCareSystem is the intelligent cleaning and descaling system of the iHexagon. It detects the current degree of soiling and calcification and suggests the ideal cleaning level and amount of chemicals from 9 cleaning programmes. The ultra-fast intermediate cleaning cleans the cooking system in just 12 minutes. All cleaning programmes can also run unattended overnight. If desired, the device switches off automatically afterwards. With low consumption of phosphate-free and microplastic-free care products, water and energy, the iCareSystem is particularly economical and environmentally friendly. This means that the cooking system is always hygienically clean without any manual effort and at minimal cost. The iCareSystem Autodose cleaning system also enables completely autonomous cleaning with minimal contact with cleaning substances.

## Device description and functional features

### Intelligent functions

- > Intelligent climate management with percentage-accurate humidity measurement, setting and control
- > The actual measured humidity in the cooking cabinet can be set and called up
- > Dynamic air circulation in the cooking chamber thanks to an intelligent reversible high-performance fan wheel with 5 fan speeds, intelligently controlled and manually programmable
- > Intelligent control of cooking paths to achieve the desired result defined by the user, e.g. browning and degree of cooking, safely, efficiently and as quickly as possible – regardless of the operator, size of the food and load quantity. Automatic adjustment of cooking steps and cooking parameters such as temperature, time, air speed and microwave power
- > Intelligent, percentage-accurate control of microwave power
- > Dynamic microwave distribution in the cooking chamber with two microwave generators and intelligent power supplies
- > Monitoring and calculation of browning based on the Maillard reaction and internal cooking to the second in order to achieve optimal, reproducible cooking results
- > Intervention in intelligent cooking paths or switching from iCookingSuite to iProductionManager for maximum flexibility
- > Intelligent cooking path for proofing baked goods
- > Individual, intuitive programming via drag-and-drop of up to 1,200 cooking programmes with up to 30 steps.
- > Automated, intelligent iProductionManager planning and control tool for the optimum organisation of multiple cooking processes and mixed loads. Automatic closure of planning gaps. Automatic time or energy optimisation of planning and target time cooking to start or finish cooking food at the same time. Full microwave power mode can be activated to minimise preparation times during peak periods.
- > Visual signalling of loading and unloading prompts using energy-saving LED lighting
- > Automatic resumption and optimum completion of a cooking process after power failures lasting less than 15 minutes
- > Intelligent cleaning system suggests cleaning programmes and the required amount of care products based on the degree of soiling of the cooking system
- > Display of the current cleaning status and descaling status
- > Easy creation and transfer of programmes (cooking programmes and cleaning programmes for iCareSystem AutoDose) and shopping baskets to and from other RATIONAL cooking systems via secure cloud connection with ConnectedCooking or via USB stick
- > Condensation hoods (accessories) with situational adjustment of extraction power and transfer of service messages

### Cooking functions

- > Powerful steam generator for optimum steam output even at low temperatures below 100°C
- > Fastest possible cooking thanks to the combination of high thermal heating power, microwave power and steam
- > Accelerated, manual hot air cooking, steaming or combi-steaming with microwave support, selectable in 5 stages
- > Power steam function: increased, continuous steam output selectable for regional applications such as dim sum
- > Integrated, maintenance-free grease separation system without additional grease filter
- > Cool-down function for rapid cooling of the cooking chamber with optional additional rapid cooling via water injection
- > Core temperature sensor with 6 measuring points and automatic error correction in case of incorrect placement.
- > Delta-T cooking for particularly gentle preparation with minimal cooking losses
- > Precise steam injection, water quantity adjustable in 4 stages in the temperature range from 30 °C to 260 °C for hot air or a combination of steam and hot air
- > Digital temperature display adjustable in °C or °F, display of target and actual values
- > Digital display of cooking chamber humidity and time, display of target and actual values
- > Time format adjustable in 24-hour format or am/pm
- > 24-hour real-time clock with automatic changeover from summer to winter time when connected to ConnectedCooking
- > Automatic start time preselection with date and time adjustable
- > Integrated hand sprayer with automatic return and switchable spray and single jet function
- > Energy-saving, long-life LED lighting in the cooking chamber with high colour rendering for quick recognition of the cooking status

### Operation

- > High-resolution 10.1" TFT colour display and capacitive touchscreen with self-explanatory symbols for simple, intuitive operation with control via swipe or wipe gestures
- > Acoustic prompt and visual display when user intervention is required
- > Central control dial with push function for intuitive selection and confirmation of entries
- > More than 55 languages can be set for the user interface and help function
- > Basic cooking preferences for country-specific cuisine can be selected independently of the device language setting. It is possible to select another country-specific cuisine
- > Specially adapted cooking parameters for international or country-specific dishes can be selected and started independently of the device language setting
- > Search assistant for quickly finding cooking functions, application examples, programmes, plans and settings
- > Easy selection of cooking paths via 7 operating modes and/or 4 cooking methods
- > Remote control of the cooking systems (also via app) through the cloud-based ConnectedCooking networking solution
- > Cockpit function for displaying information about the processes within a cooking path
- > Customisation and control of user profiles and access rights via MyDisplay for simple and secure operation without application errors
- > Interactive messages on cooking paths, calls to action, intelligent functions and warnings with Messenger
- > Simple, ergonomic control of the lower appliance by the upper appliance

### Work and operational safety

- > Electronic safety temperature limiter for steam generator and hot air heating
- > Safety door lock with slam function and manual locking for ergonomic, safe operation
- > Integrated fan wheel brake
- > Maximum touch temperature of the cooking chamber door: 73 °C
- > iCareSystem Autodose cleaning system: use of cartridges for cleaning and care functions. No contact with cleaning and care substances during daily use
- > HACCP data storage and output via USB or optional storage and management in the cloud-based ConnectedCooking networking solution

- > Tested in accordance with national and international standards for unattended operation
- > Maximum insertion height no higher than 1.6 m when using a RATIONAL base frame

### Networking

- > Integrierte, IP-geschützte Ethernet-Schnittstelle zum kabelgebundenen Anschluss an die cloud-basierte Vernetzungslösung ConnectedCooking
- > Integrierte WLAN-Schnittstelle zum drahtlosen Anschluss an die cloud-basierte Vernetzungslösung ConnectedCooking
- > Integrated USB interface for local data exchange
- > Central appliance management, recipe, shopping basket and programme management, HACCP data management, maintenance management via the cloud-based ConnectedCooking networking solution
- > Cyber security validated in accordance with EN18031-1

### Installation, maintenance and environment

- > Professional installation by RATIONAL-certified technicians recommended
- > Permanent waste water connection in accordance with relevant standards (SVGW, WRAS)
- > Adaptation to the installation location (height above sea level) through automatic calibration
- > Operation possible without water softener and without additional manual descaling
- > Floor-level installation thanks to connection in the base area
- > Service diagnosis system with automatic display of service messages, self-test function for active checking of appliance functions
- > Remote diagnosis via ConnectedCooking by certified RATIONAL service partners
- > 2-year RATIONAL warranty including parts, labour and travel \*\*
- > Regular maintenance is recommended. Maintenance according to manufacturer's recommendations by RATIONAL service partners

\* For details, see the installation and planner documentation

\*\* Conditions apply, see manufacturer's warranty statement at [www.rational-online.com](http://www.rational-online.com)

### Cleaning and care

- > Automatic cleaning and maintenance system for the cooking chamber and steam generator, independent of mains pressure
- > 9 cleaning programmes for unattended cleaning, even overnight, with automatic cleaning and descaling of the steam generator
- > Ultra-fast cleaning in just 12 minutes for virtually uninterrupted, hygienic production
- > Automatic safety routine after power failure ensures a cleaning agent-free cooking chamber even after cleaning has been interrupted
- > Hygienic, flush-to-floor installation without feet for easy, safe cleaning
- > 3-pane cooking chamber door with rear ventilation, heat-reflective special coating and swivelling inner pane package for easy cleaning
- > Stainless steel DIN 1.4301 material inside and outside, seamless hygienic cooking chamber with rounded corners and optimised air flow
- > Easy and safe external cleaning thanks to glass and stainless steel surfaces and protection against water jets from all directions thanks to IPX5 protection class
- > Automatic cleaning can be monitored via the cloud-based ConnectedCooking networking solution
- > iCareSystem AutoDose cleaning system with up to four cartridges for autonomous cleaning with minimal contact with cleaning substances

### Options

- > Connection to energy optimisation system
- > Connection to operating monitoring (potential-free contacts)
- > Protection for control panel
- > Lockable control panel
- > No hand shower

## Technical specifications

### Dimensions and weights

| Cooking system dimensions (total)      |         |
|----------------------------------------|---------|
| Width                                  | 974 mm  |
| Height (including pipe tip)            | 2006 mm |
| Depth (including door handle and pipe) | 1094 mm |
| Maximum working height of top shelf*   | 1,60 m  |

\*When using an original RATIONAL base frame

| Weights                       |        |
|-------------------------------|--------|
| Maximum load capacity / shelf | 15 kg  |
| Maximum total load capacity   | 60 kg  |
| Cooking system incl. Stand    | 345 kg |

### Electrical connection requirements (per cooking system)

| Voltage 3 AC 208 V           |         |
|------------------------------|---------|
| Electrical connection values | 20.4 kW |
| Steam operation power        | 9 kW    |
| Hot air output               | 17.3 kW |
| Microwave power              | 2.6 kW  |
| Fuse protection              | 60 A    |
| RCD type                     | B       |
| Voltage 3 AC 220 V           |         |
| Electrical connection values | 20.1 kW |
| Steam operation output       | 9.8 kW  |
| Hot air output               | 17 kW   |
| Microwave power              | 2.6 kW  |
| Fuse protection              | 63 A    |
| RCD type                     | B       |
| Voltage 3 NAC 400 V          |         |
| Electrical connection values | 20.1 kW |
| Steam operation output       | 9 kW    |
| Hot air output               | 17 kW   |
| Microwave power              | 2.6 kW  |
| Fuse protection              | 32 A    |
| RCD type                     | B       |

| Voltage 3 NAC 415 V          |         |
|------------------------------|---------|
| Electrical connection values | 21.1 kW |
| Steam operation output       | 9.6 kW  |
| Hot air output               | 18.2 kW |
| Microwave power              | 2.6 kW  |
| Fuse protection              | 32 A    |
| RCD type                     | B       |

### Water connection requirements

|                                       |            |
|---------------------------------------|------------|
| Water inlet (pressure hose)           | G 3/4      |
| Water pressure (flow pressure)        | 1.0 - 6.0  |
| Maximum flow rate                     | 12.0 l/min |
| Water drainage                        | DN 50      |
| Maximum short-term waste water volume | 0.4 l/sec  |

Only use temperature-resistant waste pipes

### Exhaust air and thermal load connection requirements (per cooking system)

|                         |           |
|-------------------------|-----------|
| Latent heat load        | 3420 kJ/h |
| Sensitive heat emission | 3580 kJ/h |
| Noise level (electric)  | 63 dBA    |

### Data connection requirements

|                     |                             |
|---------------------|-----------------------------|
| Data interface LAN  | Ethernet RJ45, CAT6         |
| Data interface WiFi | WiFi 802.11 b/g/n (2.4 GHz) |

### Minimum distances during installation

| Minimum distance | Left | Rear | Right |
|------------------|------|------|-------|
| Standard         | 50   | 0 mm | 0 mm  |

## Installation requirements

- > If heat sources affect the left side of the device, the minimum distance on the left must be 14 inches.
- > If heat sources affect the left side of the appliance, the distance must be at least 350 mm. If heat sources affect the right side of the appliance, the distance must be at least 100 mm.
- > Country-specific and local standards and regulations governing the installation and operation of commercial cooking appliances must be observed. Local standards and regulations for ventilation and air conditioning systems must also be taken into account.
- > To use ConnectedCooking, an RJ45 network socket or the option of connecting to a WLAN (IEEE 802.11 a/g/n) must be provided on site. For optimum performance, a data rate of at least 100 MB/s must be provided.

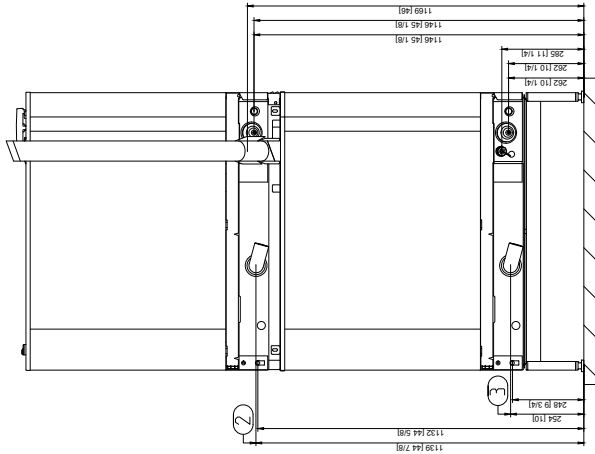
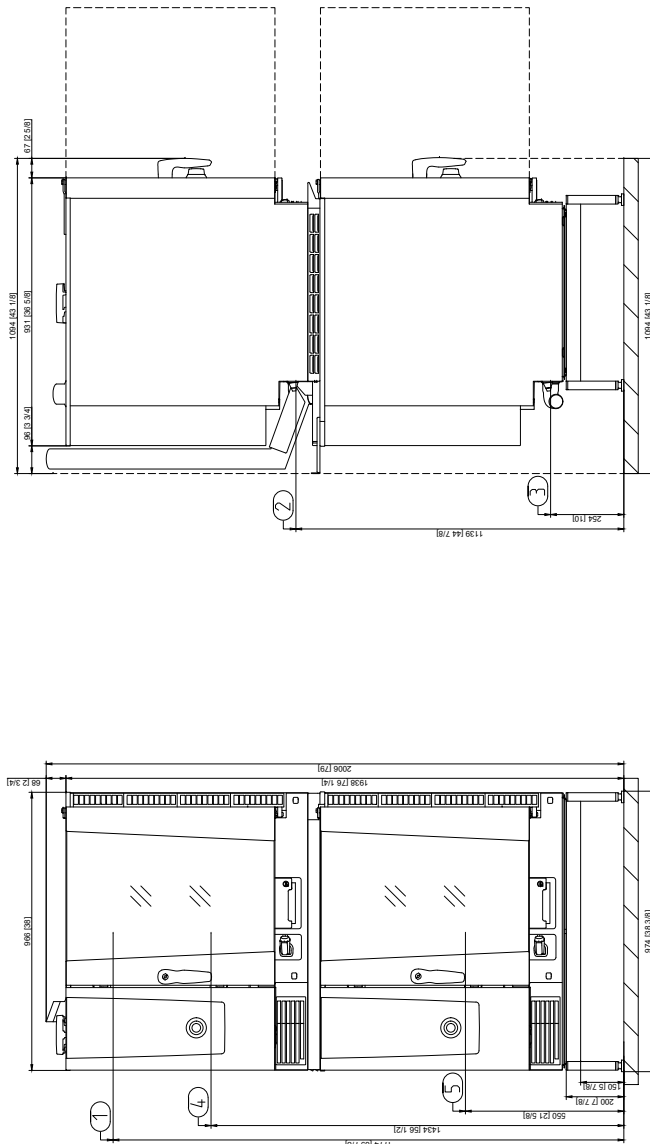
## Approvals/declarations



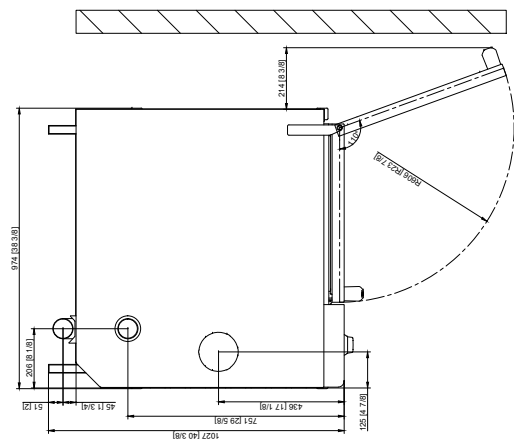
## NSF certification

iHexagon is NSF-certified, as shown on the NSF list.

## Technical drawing



Mindestabstand bei Wandaufstellung (rechts)  
Minimum distance for wall installation (right)  
Distance minimale pour l'installation murale (droite)



| Information / Informations / Informations                                                                                                                                                              |                                 | Anschlussplan / Connection diagram / Plan de connexion                                                     |                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <p>Zeichnungspauschale unterliegt nicht dem Urheberrechtsgesetz.<br/>           Printed drawing is not automatically updated!<br/>           La mise à jour n'est pas assurée sur les plans papier</p> |                                 | <p>Comb-Duo Com LM400 6-E in Comb LM400 6-E in on<br/>           Stand-UD (200mm - foot) (master view)</p> |                                                                                                                     |
| ©RATIONAL AG / Revision                                                                                                                                                                                |                                 | RATIONAL AG 2023                                                                                           |                                                                                                                     |
| Index                                                                                                                                                                                                  | Revisions / Revision / Révision | Datum / Date / Date                                                                                        | Bezeichnung / Description / Description                                                                             |
| 1                                                                                                                                                                                                      |                                 | 01.09.2023                                                                                                 | Erstellung / Creation / Création                                                                                    |
| 2                                                                                                                                                                                                      |                                 |                                                                                                            | Abmessungen / Dimensions / Dimensions                                                                               |
| 3                                                                                                                                                                                                      |                                 |                                                                                                            | Nr./No./No. Beschreibung / Description / Description                                                                |
| 4                                                                                                                                                                                                      |                                 |                                                                                                            | Abmessungen / Dimensions / Dimensions                                                                               |
| 5                                                                                                                                                                                                      |                                 |                                                                                                            | Höhe Wasserablauf oberes Gerät / Drain height upper unit / Hauteur d'écoulement des eaux des appareils supérieurs   |
| 6                                                                                                                                                                                                      |                                 |                                                                                                            | Höhe Wasserablauf unteres Gerät / Drain height lower unit / Hauteur d'écoulement des eaux des appareils inférieurs  |
| 7                                                                                                                                                                                                      |                                 |                                                                                                            | Einflughöhe oberes Gerät / Height of drive in upper unit / Hauteur du nivel de chargement des appareils supérieurs  |
| 8                                                                                                                                                                                                      |                                 |                                                                                                            | Einflughöhe unteres Gerät / Height of drive in lower unit / Hauteur du nivel de chargement des appareils inférieurs |
| 9                                                                                                                                                                                                      |                                 |                                                                                                            |                                                                                                                     |

## Accessories

| Accessories                                                                                                                 | Item number |
|-----------------------------------------------------------------------------------------------------------------------------|-------------|
| RATIONAL Active Green cartridges – guaranteed best cleaning performance                                                     |             |
| RATIONAL Care cartridges – effectively prevent limescale deposits                                                           |             |
| Appliance installation kit                                                                                                  |             |
| Base frames in various designs                                                                                              |             |
| Levelling kit for compensating for height differences and slopes when installing on the floor                               |             |
| Mobile kit with rollers and height compensation for floor installation                                                      |             |
| Heat shield – for installing an appliance next to a heat source such as a barbecue                                          |             |
| Condensation interrupter – for diverting steam and vapour into existing exhaust air systems                                 |             |
| Combi-Duo kit – for setting up a Combi-Duo consisting of 2 iHexagons or with an iCombi Pro or iCombi Classic cooking system |             |
| UltraVent condensation hood                                                                                                 |             |
| UltraVent Plus condensation hood                                                                                            |             |
| RATIONAL USB 3.0 stick – for the secure transfer of cooking programmes and HACCP data                                       |             |

To achieve ideal cooking results, you will find a wide range of cooking accessories and further accessory information in the accessory brochure available from your dealer or at [www.rational-online.com](http://www.rational-online.com)

|          |                                                                                                                                                                                                                                                                                                                               |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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