

## **Special features:**

- Low water consumption of 71 gallons (268.8 liters) per hour, 0.29 gallons (1.11 liters) per rack.
- NSF rated 243 racks per hour.
- Glass touch screen control panel for fully automatic operation and advanced service diagnostics. Messages are displayed in plain text, with a selection of multiple languages including English, Spanish and French.
- Built-in "smart" booster heater ensures correct sanitizing temperature of 180°/82°C (incoming water temperature of 110°-140°F/43°- 60°C).
- "Blue cues" color coding of components to be touched during daily cleaning makes cleaning intuitive.
- Modular construction reduces lead times. Ships as a single unit.

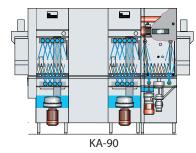
#### Standard features:

- 3 drive speeds: Wash 243, 202 or 162 racks/hour.
- 304-series stainless steel construction.
- Uniquely-designed center-drive pawl system eliminates water spray blockage from below the rack, while providing reliable operation.
- Double-wall insulated construction on front, top and back to improve operator safety, conserve heating energy, and reduce noise and heat loss into the dishroom.
- Standard vent cowls with collars.
- Sealed, hinged access door(s) are field-reversible by an Authorized Service Agent.
- Stainless steel wash arms are optimally positioned and easily removable for cleaning. Wash arm end caps are cooler to the touch for safety. Nozzles are slotted and concave to minimize clogging.
- Powerful 3hp (2.2 kW) wash pump provides outstanding cleaning results. Pump motor is vertically-mounted for easy servicing.
- Detergent and rinse aid access ports.
- Low-level heater protection.
- Potential-free contacts for external vent fan control.

#### **Specifications:**

**KA-90:** 54" (1372 mm) compartment with wash and final rinse zones. 36" (800 mm) prewash section. Table-to-table length 90" (2,286 mm). Length with hoods 113-3/8" (2,886 mm).





**TABLE-TO-TABLE DIMENSIONS:** 90"L x 76-1/8"H x 31-1/4"D (2,286 mm x 1,934 mm x 795 mm).

**DIMENSIONS WITH HOODS:** 113-3/8"L x 76-1/8"H x 31-1/4"D (2,886 mm x 1,934 mm x 795 mm).

## **Options:**

- Waste Air Heat Recovery System (WAHRS): Requires incoming water temperature less than 110°F (43°C). Cold water supply or below 68°F (20°C) recommended.
- Blower dryer improves drying of dishes, glassware, crockery and silverware. Adds 23 5/8" (600mm) to machine length.
- The industry's first 90° mechanical unloader/blower dryer module.
- 90° mechanical loader and unloader (unhooded).
- Single point electrical connection available.
  Contact factory for more information.
- Water hammer arrestor.
- Machine separations for ease of handling and installation, contact factory.
- Contact factory for drawings including options.

#### **Accessories:**

- Table limit switch.
- Drain water tempering kit.
- Open-ended sheet pan rack.
- Flanged feet.

This dishwasher is compliant with the Reduction of Lead in Drinking Water Act (2011) amendment to the Safe Drinking Water Act (SDWA).



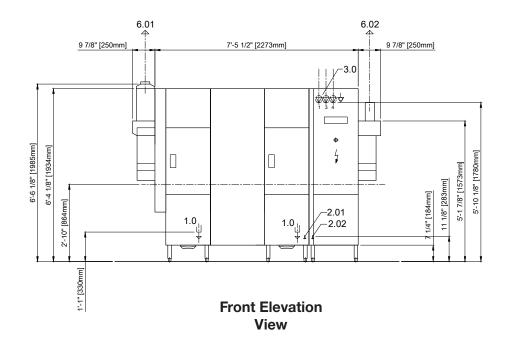


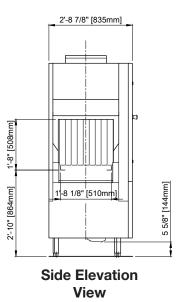


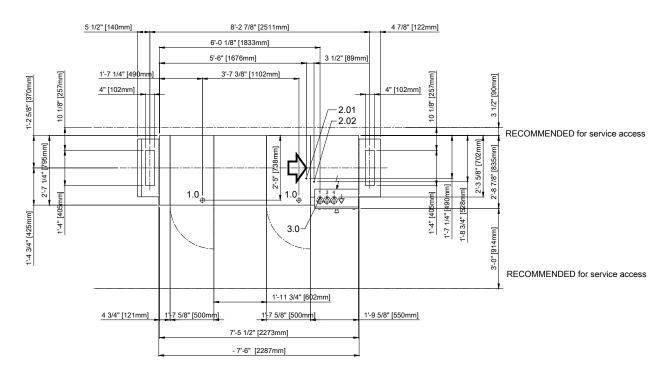
## KA-90, Left to right - electric heat

## Review the Utility Connections and Technical Specifications pages for additional details.

- 1.0 Drain
- 2.0 Warm water connection (without WAHRS)
- 2.01 Warm water connection (with WAHRS)
- 2.02 Cold water connection (with WAHRS option)
- 3.0 Electrical connections
- 6.01 Vent connection
- 6.02 Vent connection



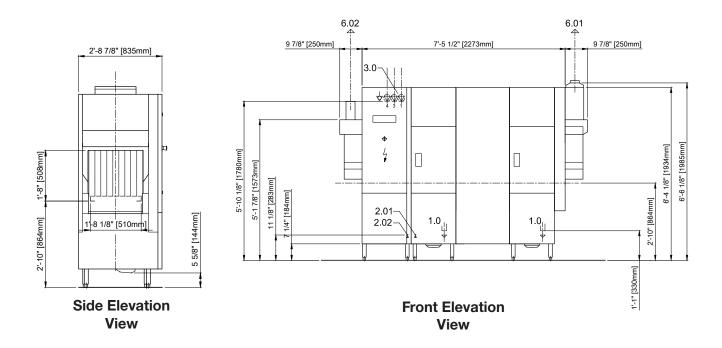


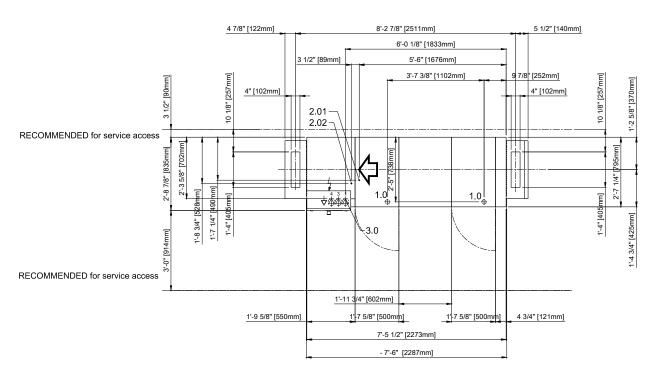


## KA-90, Right to left - electric heat

# Review the Utility Connections and Technical Specifications pages for additional details.

- 1.0 Drain
- 2.0 Warm water connection (without WAHRS)
- 2.01 Warm water connection (with WAHRS)
- 2.02 Cold water connection (with WAHRS option)
- 3.0 Electrical connections
- 6.01 Vent connection
- 6.02 Vent connection





## **KA-90 Utility Connections Detail Page**

#### 1.0 Drain

- Vertical, gravity-fed drain outlet (HDPE piping). 2" OD or 1½" pipe via no-hub required for connection.
- Connection pipe work and P-trap to be provided by others (HDPE piping).
- Additional piping to drain (if required) to be provided by others.
- Connection is 13" (330 mm) AFF.
- NOTE: Drain locations may vary.

## 2.0 Warm water connection (fill and rinse); machines without WAHRS option:

- 34" NPT pipe connection.
- Temperature: 110° 140°F (43° 63°C).
- Initial fill: KA-90 = 42.2 gallons (160 liters)
- Consumption = 71 gallons (268.8 liters) per hour.
- Recommended hardness = 1-3 grains/gallon.
- Connection = 11" (279 mm) AFF.

## 2.01 Warm water connection (fill and rinse); machines with WAHRS option:

- 1/2" NPT pipe connection.
- Temperature: 110° 140°F (43° 60°C).
- Initial fill: KA-90 = 42.2 gallons (160 liters)
- Recommended hardness = 1-3 grains/gallon.
- Connection = 11" (279 mm) AFF.

## 2.02 Cold water connection (final rinse); machines with WAHRS option:

- 1/2" NPT pipe connection.
- Temperature as cold as available: 53°- 68°F (12°- 20°C) recommended.
- Consumption = 71 gallons (268.8 liters) per hour.
- Recommended hardness = 1-3 grains/gallon.
- Connection = 11" (279 mm) AFF.



#### **Equipotential ground lug**



#### 3.0 Electrical connections

| Values in Amps: 208V/60Hz/3Ph |      |     |      |      |       |
|-------------------------------|------|-----|------|------|-------|
| Model                         | TB1  | TB2 | ТВ3  | TB4  | TOTAL |
| KA-90                         | 57.3 |     | 50.0 | 3.9  | 111.2 |
| Breaker                       | 80.0 |     | 70.0 | 15.0 |       |
| with dryer added              |      |     |      | 16.2 | 123.5 |
| Breaker                       |      |     |      | 25.0 |       |
| with WAHRS added              |      |     | 70.0 |      | 140.7 |
| Breaker                       |      |     | 90.0 |      |       |
| with both added               |      |     |      |      | 143.5 |

| Values in Amps: 230V/60Hz/3Ph |      |     |      |      |       |
|-------------------------------|------|-----|------|------|-------|
| Model                         | TB1  | TB2 | ТВЗ  | TB4  | TOTAL |
| KA-90                         | 55.1 |     | 45.2 | 13.4 | 113.7 |
| Breaker                       | 70.0 |     | 60.0 | 20.0 |       |
| with dryer added              |      |     |      | 17.3 | 117.6 |
| Breaker                       |      |     |      | 25.0 |       |
| with WAHRS added              |      |     | 63.3 |      | 131.8 |
| Breaker                       |      |     | 80.0 |      |       |
| with both added               |      |     |      |      | 135.7 |

| Values in Amps: 460V/60Hz/3Ph |      |     |     |      |       |
|-------------------------------|------|-----|-----|------|-------|
| Model                         | TB1  | TB2 | ТВ3 | TB4  | TOTAL |
| KA-90                         | 34.3 |     |     | 22.6 | 56.9  |
| Breaker                       | 45.0 |     |     | 30.0 |       |
| with dryer added              | 43.7 |     |     |      | 66.3  |
| Breaker                       | 50.0 |     |     |      |       |
| with WAHRS added              |      |     |     | 31.6 | 65.9  |
| Breaker                       |      |     |     | 40.0 |       |
| with both added               |      |     |     |      | 75.3  |

| Heat values in kW        |     |     |  |
|--------------------------|-----|-----|--|
| Latent Perceptible Total |     |     |  |
| 3.4                      | 2.8 | 6.2 |  |

### 6.01 Load-end vent connection:

- See Detail View on Technical Specifications page
- 200 CFM [340 m<sup>3</sup>/hr]



## 6.01 Load-end vent connection with WAHRS option:

- See Detail View on Technical Specifications page
- 200 CFM [340 m³/hr]
- Connection must be corrosion-resistant and frost-free. In particular, provisions must be made to prevent air temperatures of 32°F (0°C) or colder from reaching the machine at any time. A provision for draining moisture from the waste air pipe (condensate return) is strongly recommended.

#### 6.02 Unload vent connection:

- See Detail View on Technical Specifications page
- 400 CFM [680 m<sup>3</sup>/hr]

#### Note:

- Relative humidity: approximately 98%.
- Machine exhaust (pant leg connection) recommended as per values listed above.
- Machine exhaust hood connection (by others): recommended 100 CFM [170 m³/hr] per lineal foot of hood. Length of hood contingent on machine model and local site conditions at time of installation. MEIKO assumes no responsibility.
  - 18" hood overhang to front of machine.
  - 36" hood overhang on load and unload ends.

## **KA-90 Technical Specifications Detail Page**

Specified dishwasher will be KA-90 high-temp rack conveyor. Low water consumption of 0.29 gallons/rack. NSF rated 243 racks/hour. Blue cues help operators locate important components for cleaning. Touchscreen control panel with advanced diagnostics. 3 conveyor speeds. Stainless steel construction with double wall insulation, plus a built-in booster heater. 20" chamber height accommodates standard-sized sheet pans with an open-ended dish rack. NSF/UL/ES rated.

| Performance                 |                            |
|-----------------------------|----------------------------|
| Maximum rack capacity/hour  | 243/202/162                |
| Water consumption (maximum) | 71 gal/hr (268.8 liters)   |
| Water consumption/rack      | 0.29 gal/rack (1.1 liters) |

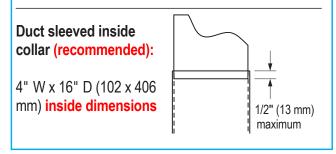
| Dimensions                           |                   |
|--------------------------------------|-------------------|
| KA-90 length, table-to-table         | 90" (2,286 mm)    |
| Length, blower dryer (option)        | + 23%" (600 mm)   |
| Height                               | 761/8" (1,934 mm) |
| Depth                                | 31¼" (795 mm)     |
| Clearance height inside wash chamber | 20" (508 mm)      |

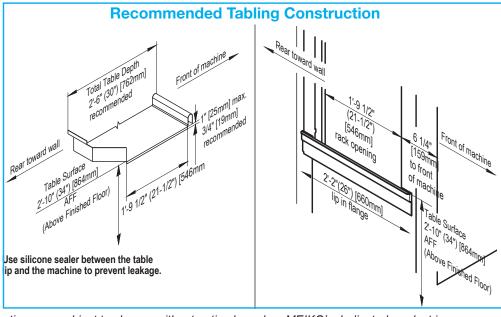
| Component data                                |                   |
|---|-------------------|
| Wash pump motor                               | 3.0 hp (2.2 kW)   |
| Prewash pump motor                            | 3.0 hp (2.2 kW)   |
| Conveyor drive motor                          | 0.13 hp (0.12 kW) |
| Vent motor (WAHRS option only)                | 0.17 hp (0.13 kW) |
| Blower dryer motor (blower dryer option only) | 0.67 hp (0.48 kW) |

| Venting data pant leg        |                                 |  |  |
|------------------------------|---------------------------------|--|--|
| Load end:                    | 200 CFM/340m <sup>3</sup> /h    |  |  |
| Unload end:                  | 400 CFM/680m <sup>3</sup> /h    |  |  |
| Total:                       | 600 CFM /1,020m <sup>3</sup> /h |  |  |
| Relative humidity (approx.): | 98%                             |  |  |

## **Recommended Pant Leg Connection**

Machines that are not placed underneath a ventilation hood require "pant leg" ventilation ducts. To determine the dimensions of the duct, first determine how they will be installed.





Note: All specifications are subject to change without notice based on MEIKO's dedicated product improvement program.