

Capacitive Key

Technical Manual

Art. No. : 1003563-002
Date : 2017/10
Author : SLE

Aequator AG
St. Gallerstrasse 229
CH-9320 Arbon

www.aequator.ch
sales@aequator.ch

Certificate:



Norm:

EN 50581:2012
EN 55014-1:2015
EN 55014-2:2015
EN 55022:2010



EN 60335-1:2012
EN 60335-75:2012
EN 61000-3-2:2014
EN 61000-3-3:2014



*Vending Verband Schweiz
Vending Association Suisse
Vending Associazione Svizzera*



*Bundesverband der Deutschen
Vending-Automatenwirtschaft e. V.*



European Vending Association



Speciality Coffee Association of Europe

© AEQUATOR AG

Technical changes are possible at any time without previous notice.

There is a copyright on these instructions. Reproductions and translations are only possible with written permission of the manufacturer, AEQUATOR AG.

Contents

| | | |
|-----------|---|-----------|
| 1 | INTRODUCTION | 4 |
| 1.1 | Safety Instructions | 4 |
| 2. | VENEZUELA..... | 6 |
| 2.1 | Machine View | 6 |
| 2.2 | Dimension | 7 |
| 2.3 | Branding Dimension..... | 8 |
| 2.4 | Technical Data..... | 8 |
| 3 | SALVADOR..... | 9 |
| 3.1 | Machine View | 9 |
| 3.2 | Dimension | 10 |
| 3.3 | Technical Data..... | 11 |
| 4. | SAO PAULO | 12 |
| 4.1 | Machine View | 12 |
| 4.2 | Dimension | 13 |
| 4.3 | Technical Data..... | 14 |
| 5 | MEXICO | 15 |
| 5.1 | Machine View | 15 |
| 5.2 | Dimension | 16 |
| 5.3 | Branding Dimension..... | 17 |
| 5.4 | Technical Data..... | 17 |
| 6 | SOUND PRESSURE MEASUREMENT | 18 |
| 7 | ENERGY CONSUMPTION INFORMATION | 19 |
| 8 | ELECTRICAL CONSOLE DIAGRAM | 20 |
| 9 | DISPLAY BOARD TOP VIEW | 21 |
| 10 | DECLARATION OF CONFORMITY | 22 |
| 11 | YOUR SERVICE PARTNER..... | 23 |

1 Introduction

Congratulations! You purchased a premium fully automatic Aequator coffee machine.

Please read the instructions carefully and get familiar with safety instructions before installing and operating the machine. Keep the manual at hand in the transparent envelope fixed inside the front door of your machine.

The instructions tell you how to operate and maintain your machine. We do not assume any liability for damages caused by non-observance of the instructions or by improper handling of the machine.

Operation and maintenance of machines are to be made in compliance with the instructions in this manual. For damage caused by non-observance of this information or from inappropriate operation, we assume no liability

It is impossible to treat all possibilities in this short operator manual. Your service partner is glad to help you with any problem you cannot solve yourself, and to give you additional information.



Warning Danger



Warning High Voltage

1.1 Safety Instructions



For safety purposes, unplug the power connector for any operation inside the unit, e.g. cleaning!

To avoid the risk of electric shock, you must not remove or open the cover of the



The machine complies with IP20 and must be operated in dry rooms only!

This table top machine must not be operated on the floor!

The machine must be placed on a horizontal surface, not exceeding 2 degrees inclination. Adjust the position with the adjustable feet.

This machine is **FOR PROFESSIONAL USE IN BUSINESS ESTABLISHMENTS ONLY**, e.g. in restaurants, hotels, motels, cafeterias, shops, offices etc.

The machine is **NOT FOR OPEN-AIR USE**.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given initial supervision or instruction concerning use of the appliance by a person responsible for their safety.

The machine is constructed for safe operation, meeting advanced engineering standards.
The machine is produced in accordance with the valid CE regulations, ISO 9001 and ISO 14001.

However, the use of the vending machine may be dangerous if ...

- you do not follow the present operator manual carefully.
- unauthorised staff installs, maintains or repairs the machine.
- there is improper use of the machine, not according to the original purpose thereof.

The above may cause:

- danger to correct, efficient and reliable working of the machine.
- danger to the machine and to further assets of the operator and the user.
- danger to life and limb.

Concerning transport, installation, maintenance and repair please consult the latest edition of the following regulations and guidelines of your country:

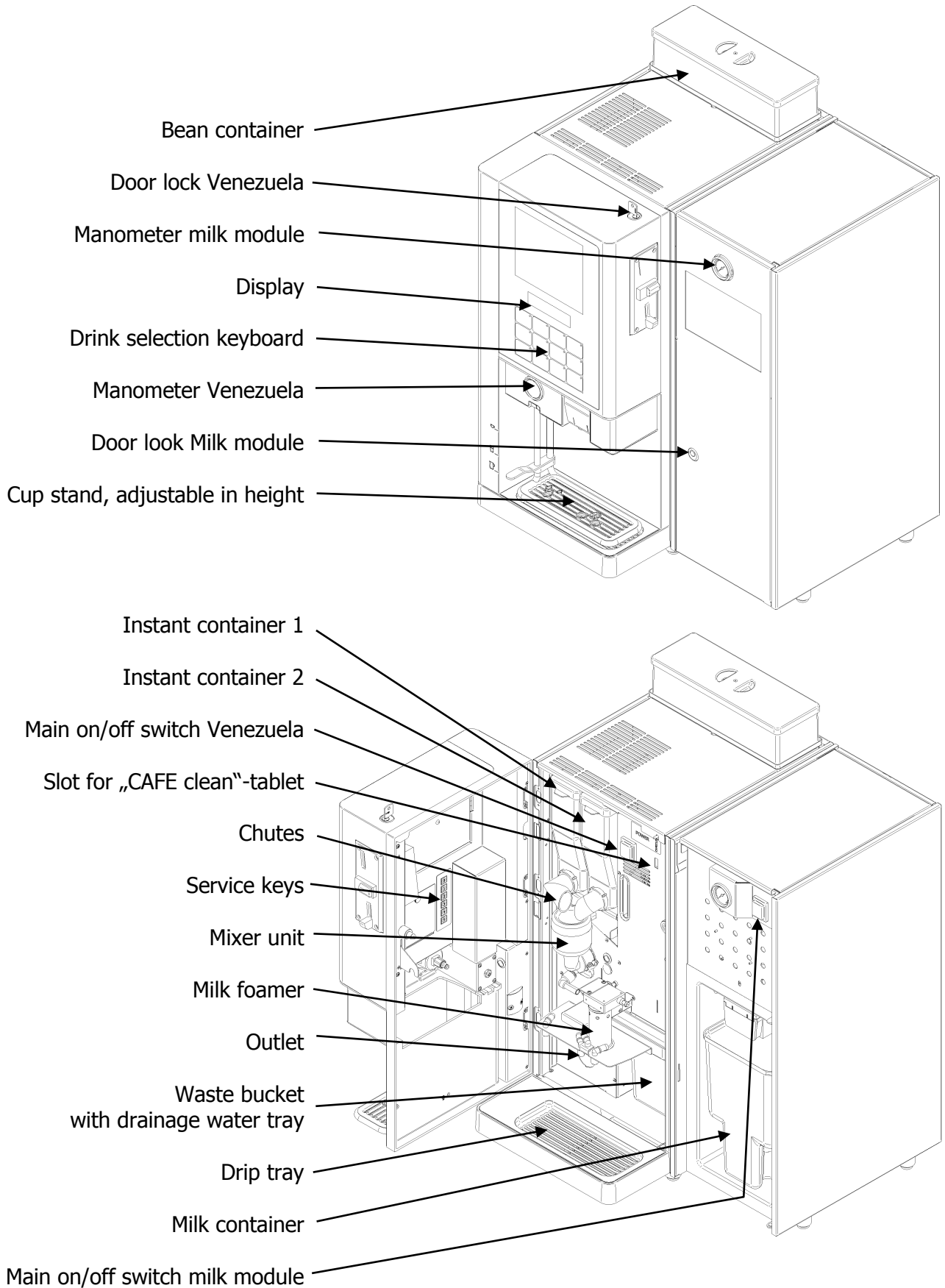
- Regulations of the federation of electro-technology.
- EU guidelines. (in EU countries)
- Regulations concerning the prevention of accidents.
- Guidelines of the professional union.
- Trade regulations.

The following points are to be considered:

- The prepared drinks are hot.
- Some parts of the machine are hot.
- Some parts of the machine are under high pressure (hot water).
- The water flowing out during the cleaning process is hot.
- Any change or modification of the machine is prohibited.
- **AEQUATOR AG does not assume any liability in such a case.**
- Store the machine in dry rooms and never in frosty environment.
- Transport it only in the original packing.

2. Venezuela

2.1 Machine View



2.2 Dimension

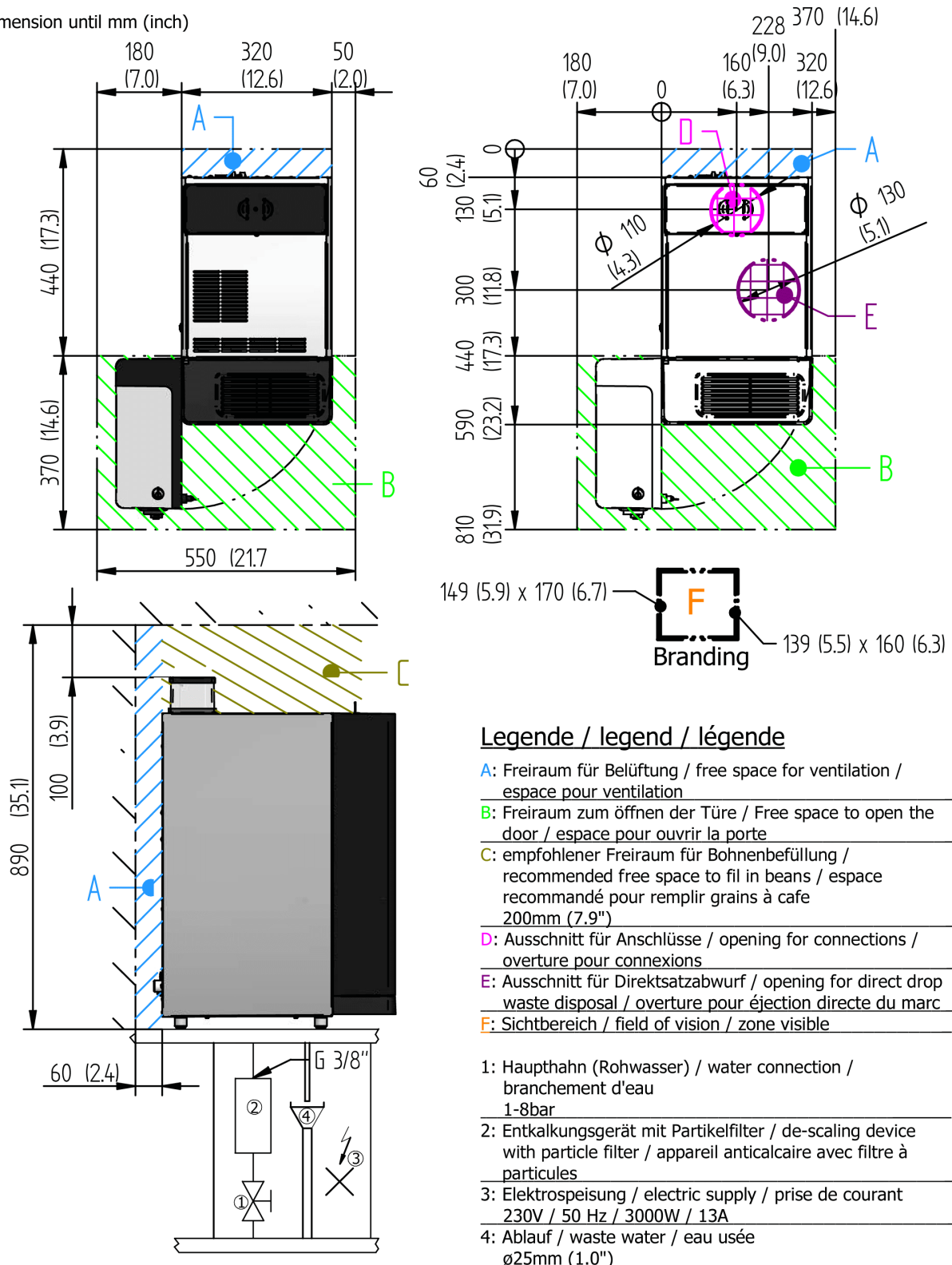
Aequator AG
St.Gallerstrasse 229
CH-9320 Arbon
www.aequator.ch

Massblatt / Dimension / Mesures

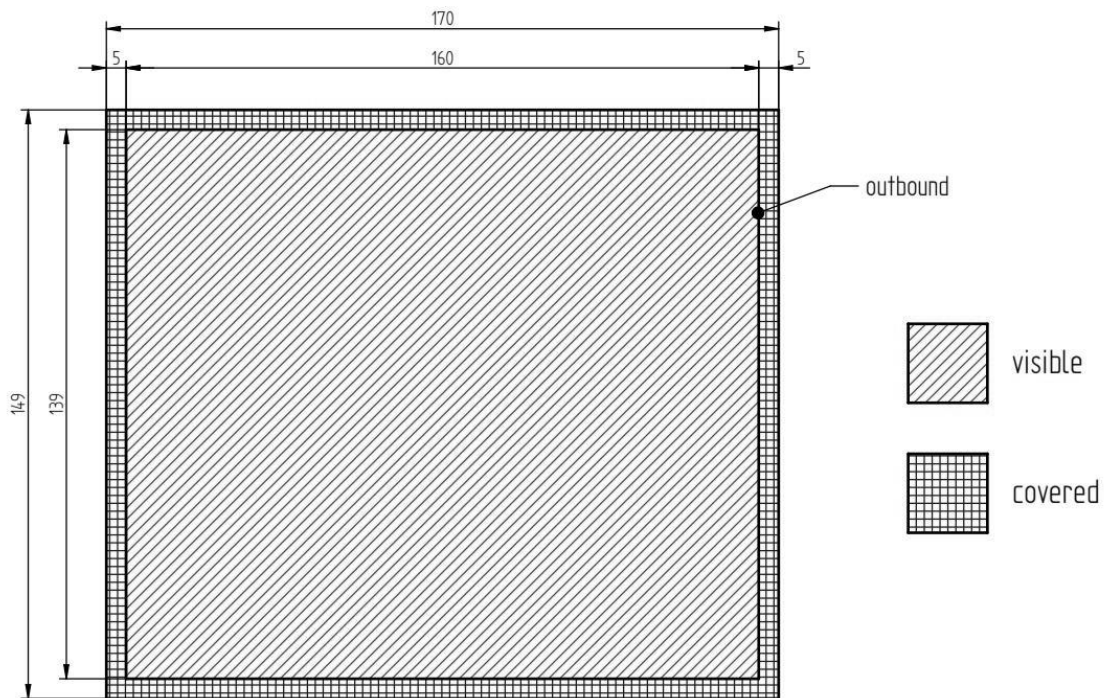
Aequator
Swiss made coffee machines 

Venezuela

Dimension until mm (inch)



2.3 Branding Dimension



2.4 Technical Data

Dimensions:

| | Venezuela | Milk module |
|---------|------------------|--------------------|
| Width: | 320 mm | 250 mm |
| Depth: | 530 mm | 390 mm |
| Height: | 790 mm | 710 mm |

Weight:

| | | |
|---------------|-------|-------|
| Total weight: | 50 kg | 37 kg |
|---------------|-------|-------|

Water connection:

| | | |
|-------------------------|-----------------------|-------|
| Fresh water connection: | ¾"Gas | ¾"Gas |
| Water pressure: | 0.1–0.8 MPa (1-8 bar) | |

Electricity:

| | | |
|--------------------|----------------|----------------|
| Operating voltage: | 230 V 50/60 Hz | 230 V 50/60 Hz |
| Fuse protection: | 13A | 13A |
| Power connection: | 3000 W | 2800 W |

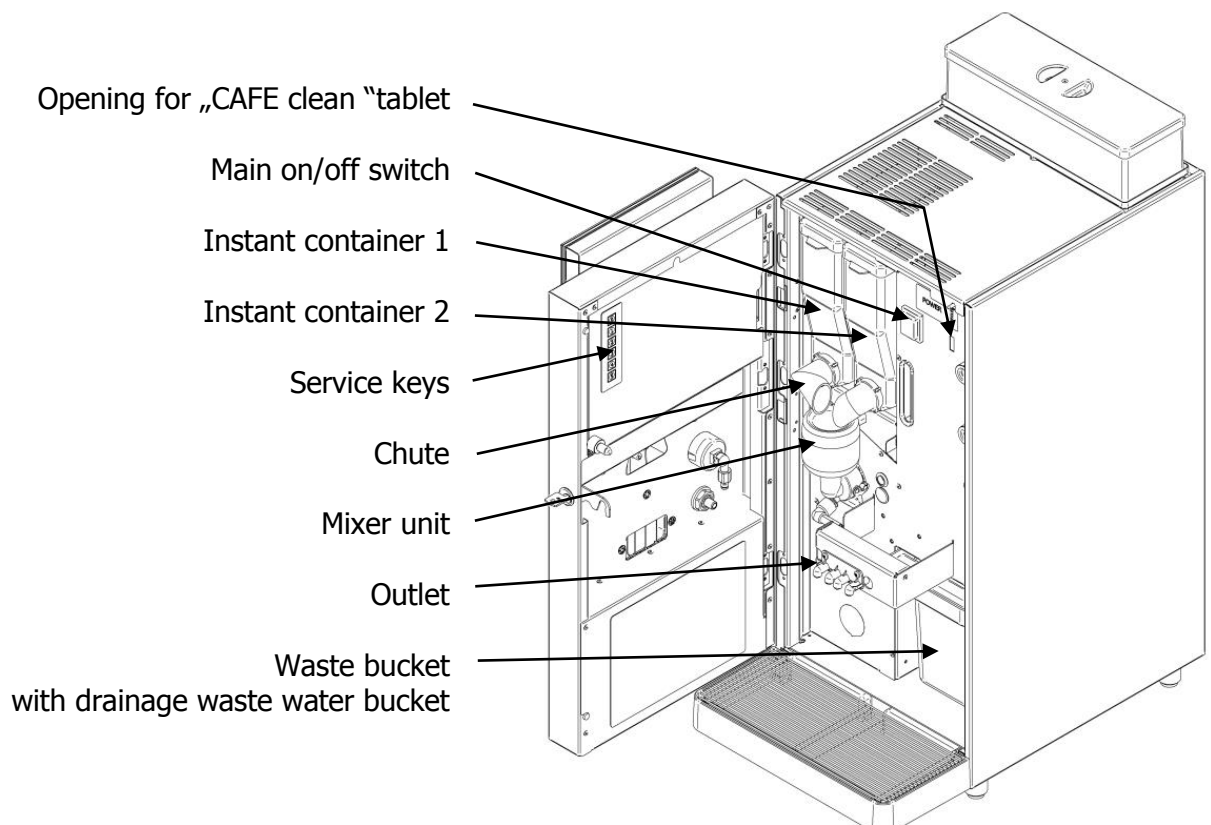
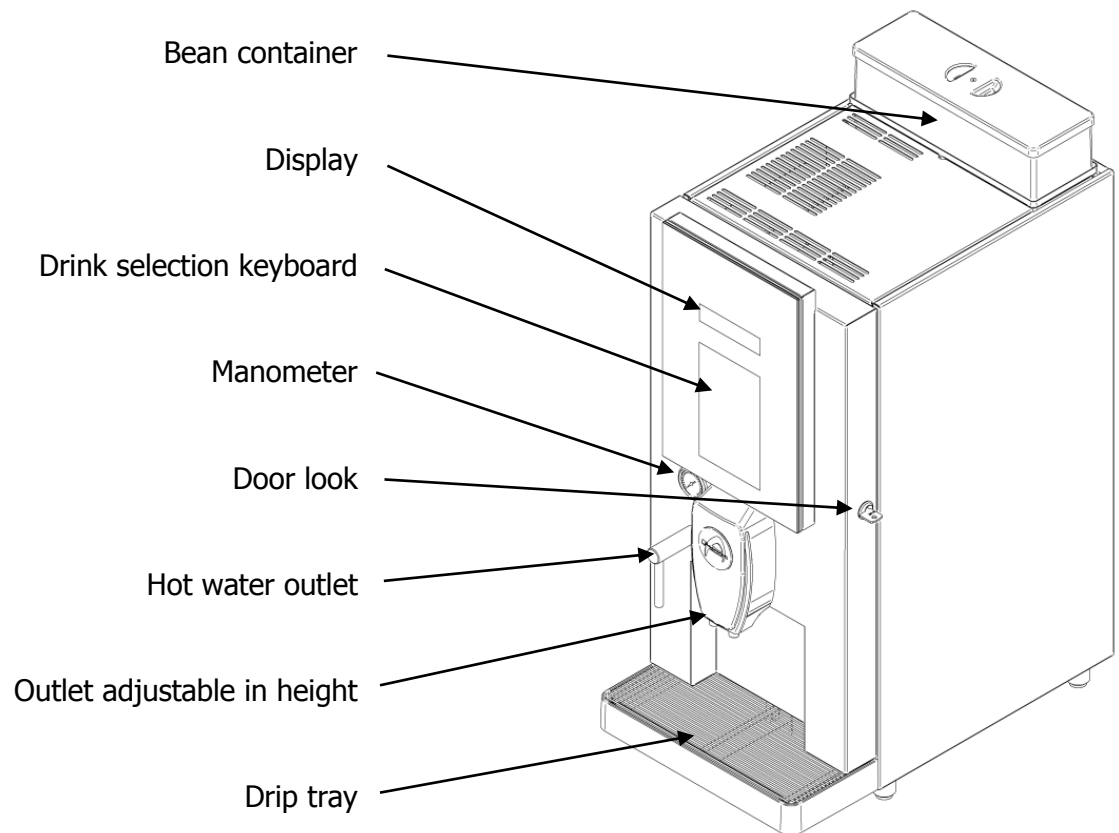
Conditions:

| | | |
|----------------------|---------|---------|
| Working temperature: | 5-40° C | 5-40° C |
|----------------------|---------|---------|

Never expose your machines to temperatures below freezing.

3 Salvador

3.1 Machine View



3.2 Dimension

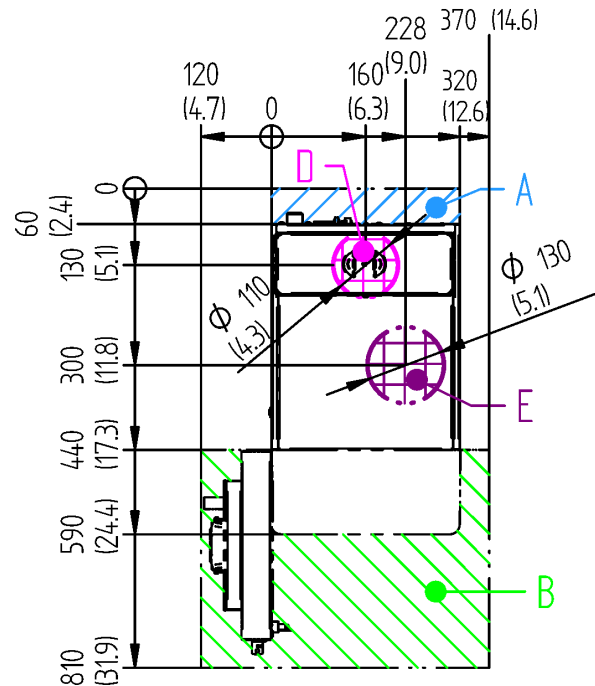
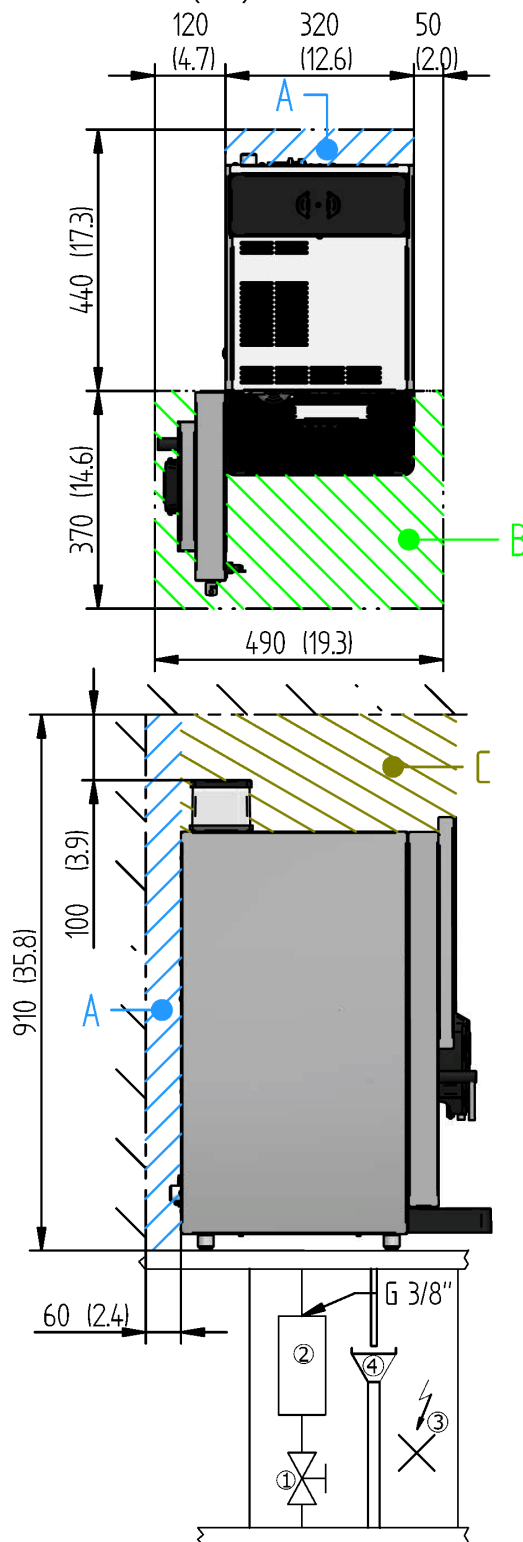
Aequator AG
St.Gallerstrasse 229
CH-9320 Arbon
www.aequator.ch

Massblatt / Dimension / Mesures

Aequator
Swiss made coffee machines 

Sao Paulo / Salvador

Dimension until mm (inch)



Legende / legend / légende

- A: Freiraum für Belüftung / free space for ventilation / espace pour ventilation
- B: Freiraum zum öffnen der Türe / Free space to open the door / espace pour ouvrir la porte
- C: empfohlener Freiraum für Bohnenbefüllung / recommended free space to fill in beans / espace recommandé pour remplir grains à café 200mm (7.9")
- D: Ausschnitt für Anschlüsse / opening for connections / ouverture pour connexions
- E: Ausschnitt für Direktsatzabwurf / opening for direct drop waste disposal / ouverture pour éjection directe du marc

- 1: Haupthahn (Rohwasser) / water connection / branchement d'eau 1-8bar
- 2: Entkalkungsgerät mit Partikelfilter / de-scaling device with particle filter / appareil anticalcaire avec filtre à particules
- 3: Elektrospeisung / electric supply / prise de courant 230V / 50 Hz / 3000W / 13A
- 4: Ablauf / waste water / eau usée ø25mm (1.0")

3.3 Technical Data

Dimensions:

| | |
|---------|--------|
| Width: | 320 mm |
| Depth: | 530 mm |
| Height: | 810 mm |

Weight:

| | |
|---------------|-------|
| Total weight: | 50 kg |
|---------------|-------|

Water connection:

| | |
|-------------------------|-----------------------|
| Fresh water connection: | ¾"Gas |
| Water pressure | 0.1–0.8 MPa (1-8 bar) |

Electricity:

| | |
|--------------------|----------------|
| Operating voltage: | 230 V 50/60 Hz |
| Fuse protection: | 13A |
| Power connection: | 3000 W |

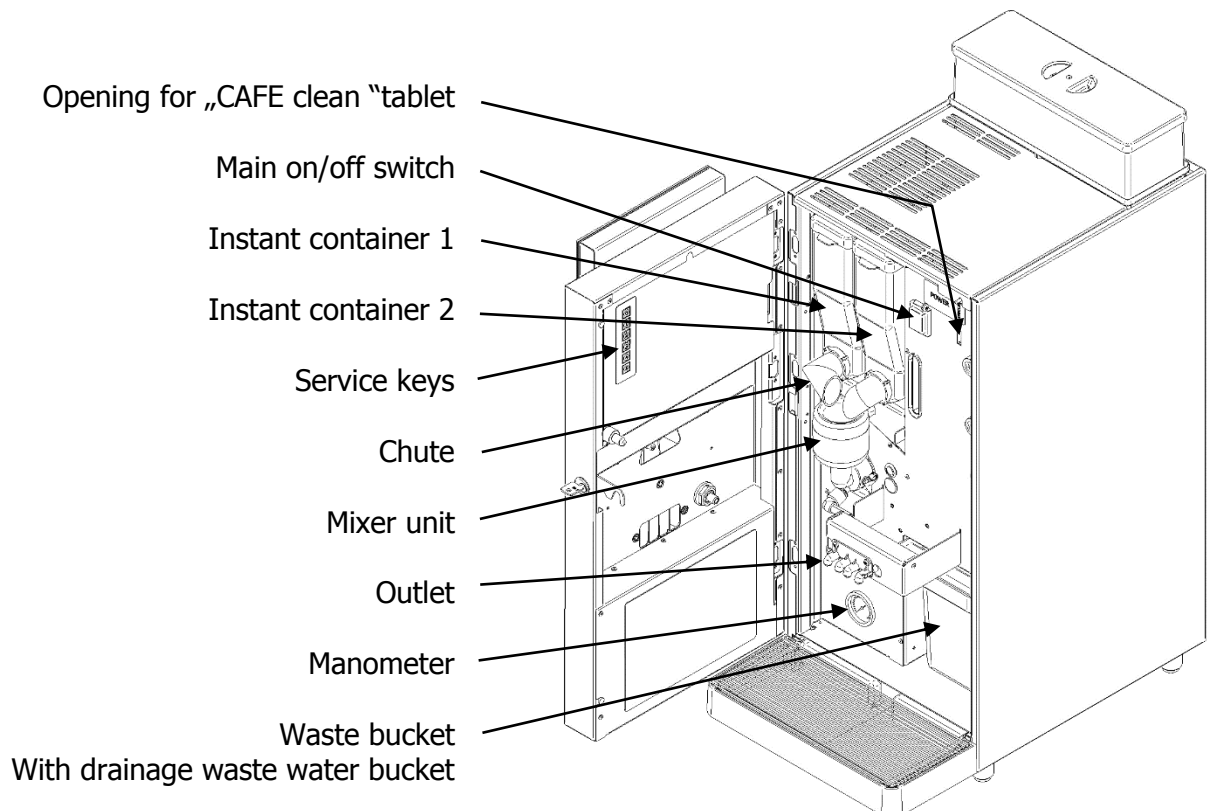
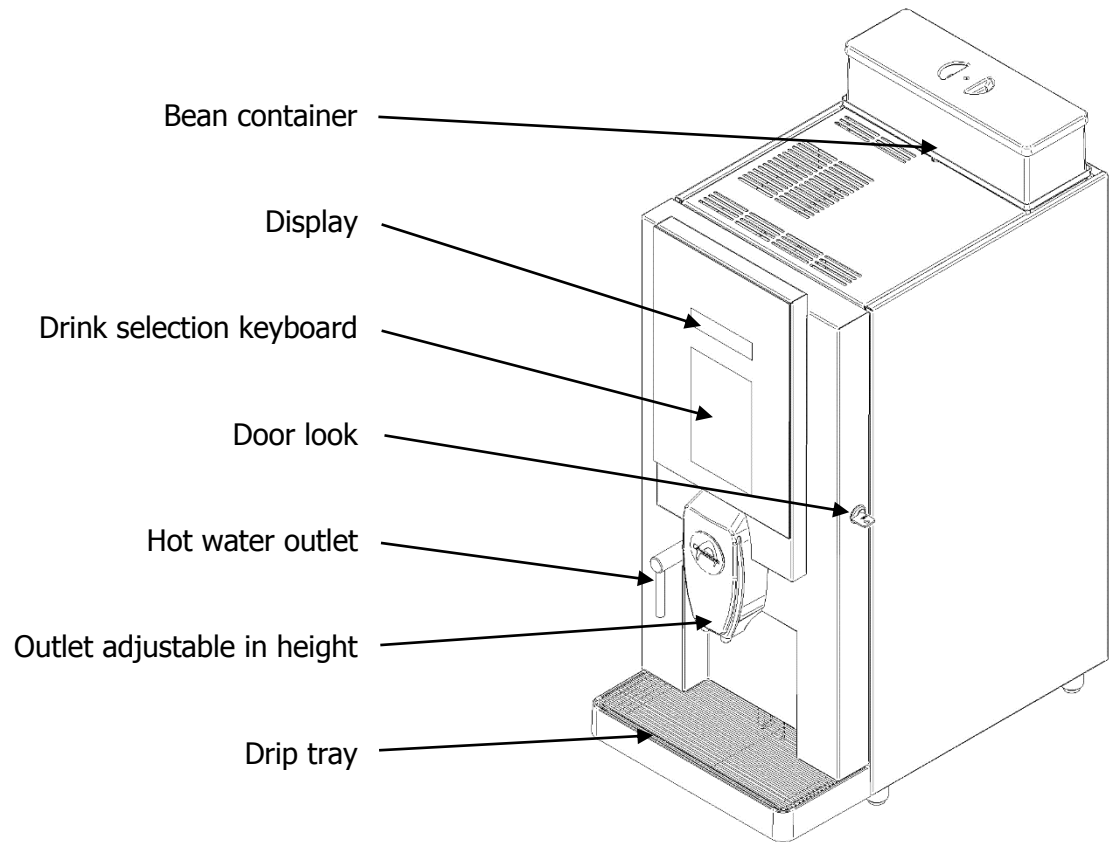
Conditions:

| | |
|----------------------|---------|
| Working temperature: | 5-40° C |
|----------------------|---------|

Never expose your machines to temperatures below freezing.

4. Sao Paulo

4.1 Machine View



4.3 Technical Data

Dimensions:

| | |
|---------|--------|
| Width: | 320 mm |
| Depth: | 530 mm |
| Height: | 790 mm |

Weight:

| | |
|---------------|-------|
| Total weight: | 50 kg |
|---------------|-------|

Water connection:

| | |
|-------------------------|-----------------------|
| Fresh water connection: | ¾"Gas |
| Water pressure | 0.1–0.8 MPa (1-8 bar) |

Electricity:

| | |
|--------------------|----------------|
| Operating voltage: | 230 V 50/60 Hz |
| Fuse protection: | 13A |
| Power connection: | 3000 W |

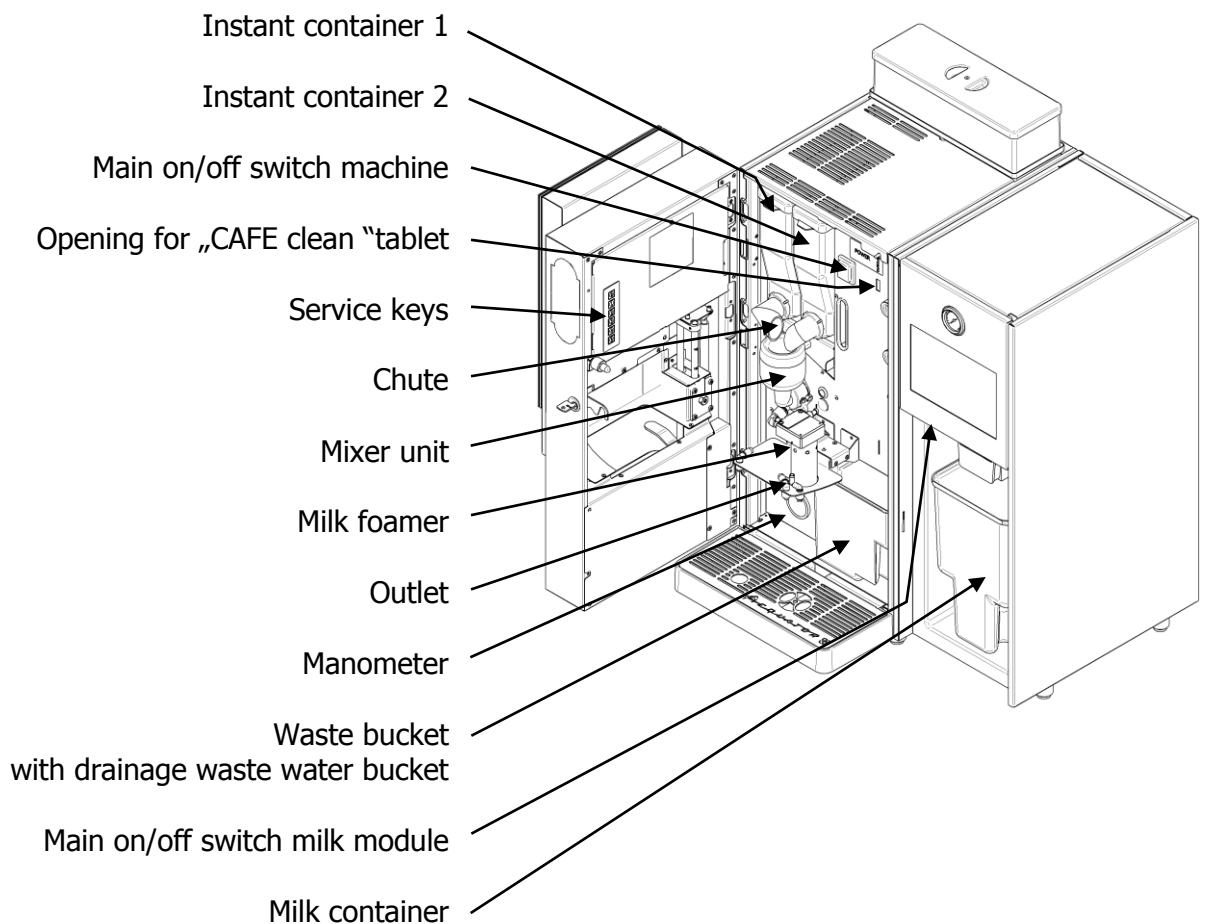
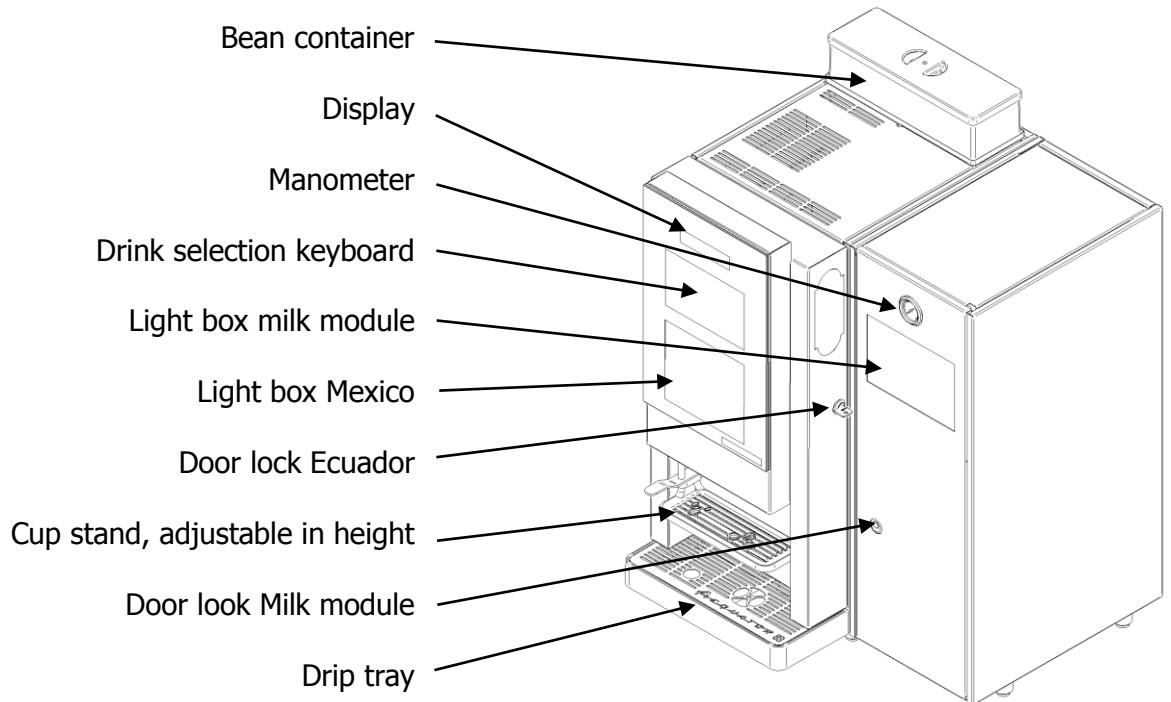
Conditions:

| | |
|----------------------|---------|
| Working temperature: | 5-40° C |
|----------------------|---------|

Never expose your machines to temperatures below freezing.

5 Mexico

5.1 Machine View



5.2 Dimension

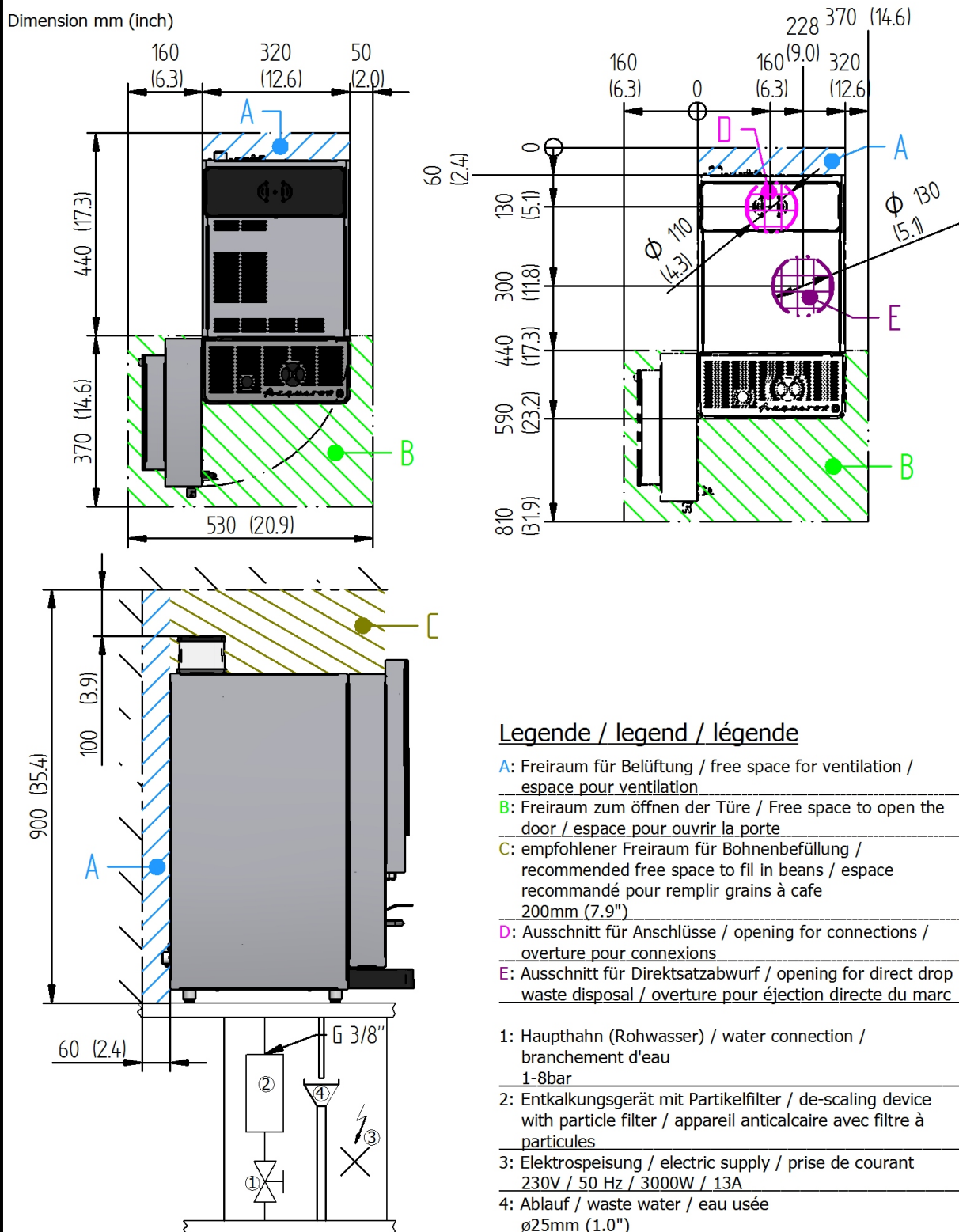
Aequator AG
St.Gallerstrasse 229
CH-9320 Arbon
www.aequator.ch

Massblatt / Dimension / Mesures

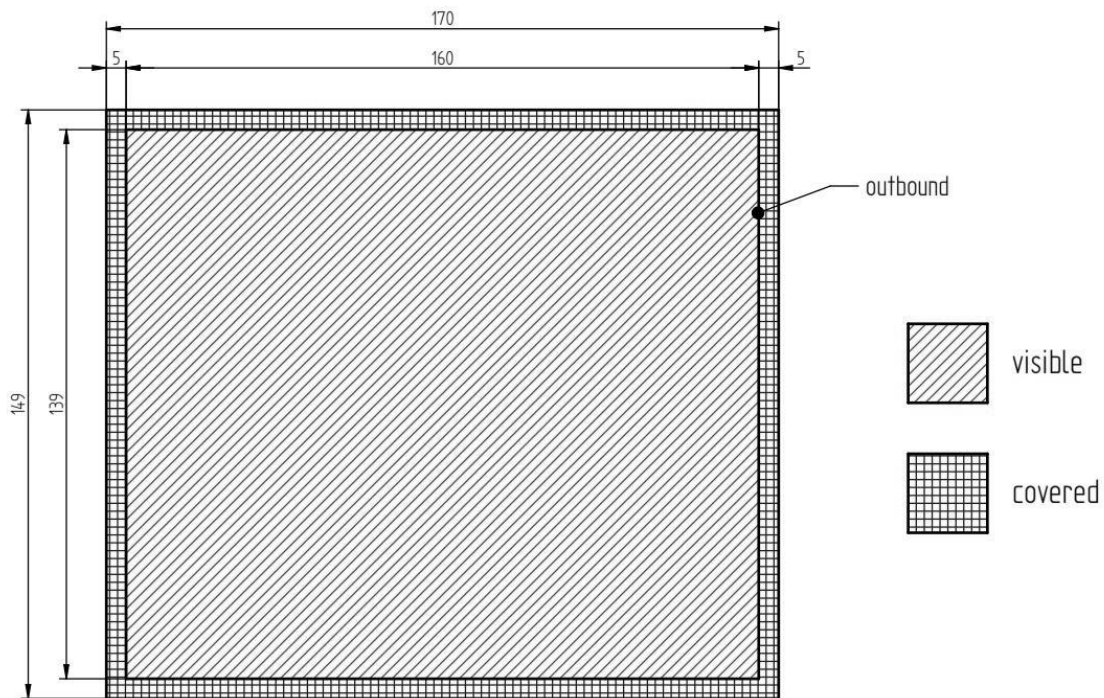
Aequator
Swiss made coffee machines 

Mexico

Dimension mm (inch)



5.3 Branding Dimension



5.4 Technical Data

| <u>Dimensions:</u> | Mexico | Milk module |
|--------------------------|-----------------------|--------------------|
| Width: | 320 mm | 250 mm |
| Depth: | 530 mm | 390 mm |
| Height: | 810 mm | 710 mm |
| <u>Weight:</u> | | |
| Total weight: | 50 kg | 37 kg |
| <u>Water connection:</u> | | |
| Fresh water connections: | ¾"Gas | ¾"Gas |
| Water pressure: | 0.1–0.8 MPa (1-8 bar) | |
| <u>Electricity:</u> | | |
| Operating voltage: | 230 V 50/60 Hz | 230 V 50/60 Hz |
| Fuse protection: | 13A | 13A |
| Power connection: | 3000 W | 2800 W |
| <u>Conditions:</u> | | |
| Working temperature: | 5-40° C | 5-40° C |

Never expose your machines to temperatures below freezing.

6 Sound pressure measurement

Aequator Coffee Machines

Reference:

C-Chassis

Software Versions:

740 / 840

Measurement:

EN ISO 3746:2011-03

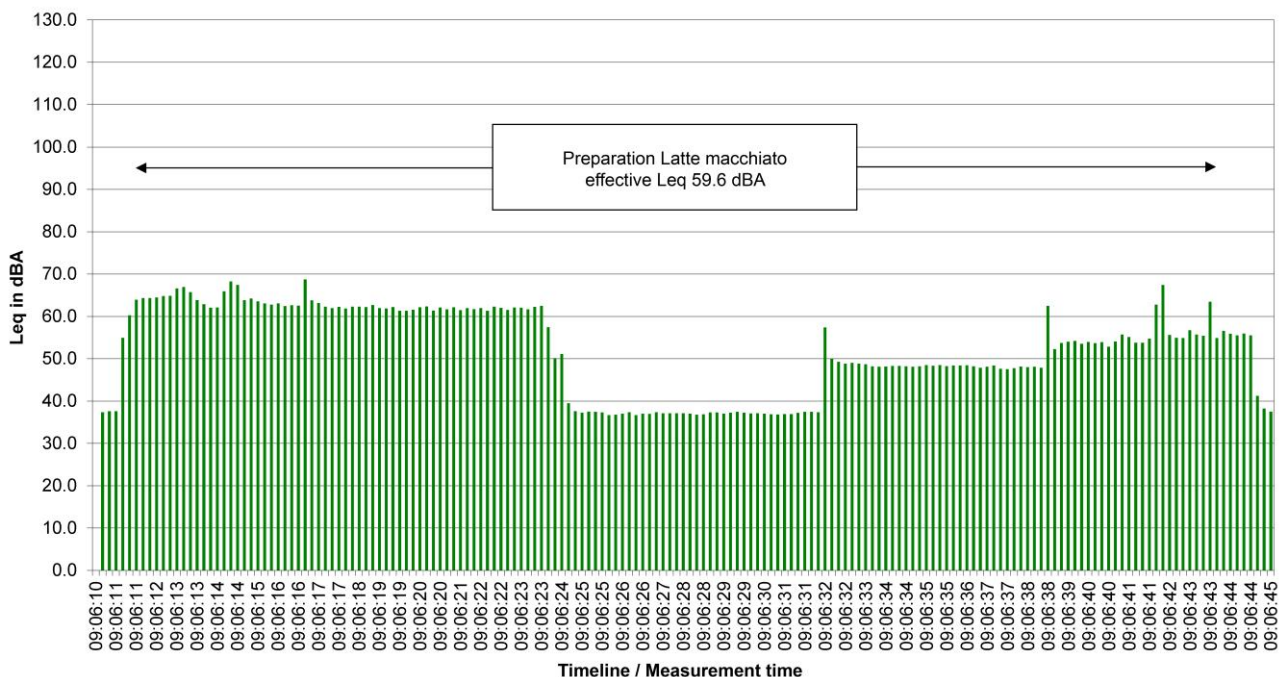


Sound pressure at operating area

Measuring distance = 0.5m / height = 1.55m

| | | |
|-----------------------------|-----|----------|
| Preparation Coffee | Leq | 56.0 dBA |
| Preparation Espresso | Leq | 56.1 dBA |
| Preparation Latte Macchiato | Leq | 59.6 dBA |
| Preparation Moccachino | Leq | 59.3 dBA |
| Preparation Hot Chocolate | Leq | 58.1 dBA |
| Preparation Hot Milk | Leq | 59.1 dBA |
| Preparation Hot Water | Leq | 52.7 dBA |

Latte Macchiato Leq 59.6 dBA



Conclusion

Sound pressure level [Leq] according to standard **EN 60335-1:2002/FprAF: 2009** of **<60dBA**.

7 Energy Consumption Information

Software 740/840:

The new software in combination with the modified components brings us to the new energy label A.
The main renewals of this software version are:

- ECO mode (Label A)
- Reduced noises of brewer unit
- Optimized grinder deblocking process

ECO Mode:

The ECO mode plays a very essential role in achieving the energy label A. The machine will activate the ECO mode as soon as a defined time slot is reached without any action on the machine in between. The ECO mode time default setting of the machine, is set on a 5 hours interval. This can be adjusted by the customer from 1 to 23 hours. The ECO mode can also be switched off.

As soon as the ECO mode is activated the following elements will turn off:

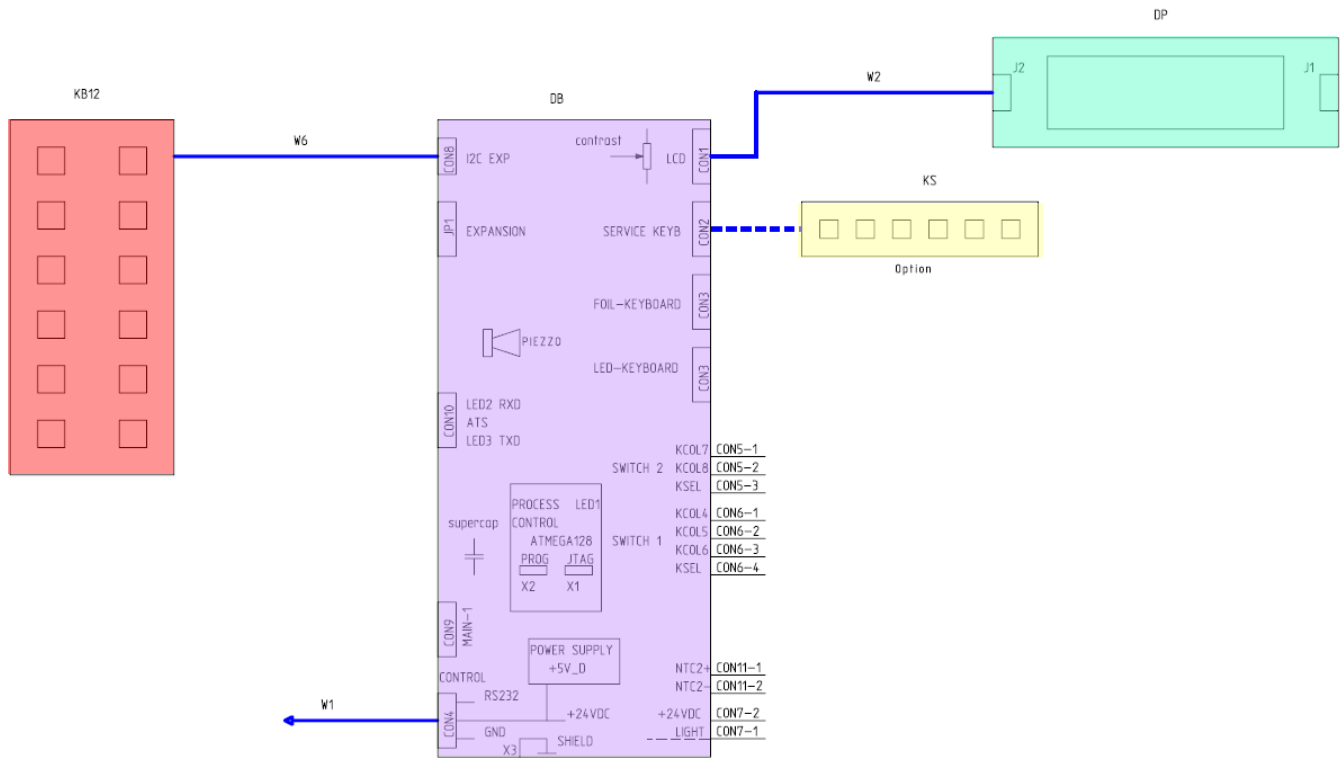
- Thermo block
- LED lighting

The ECO mode is at the moment not available for the ASD machines.

Energy Label A:

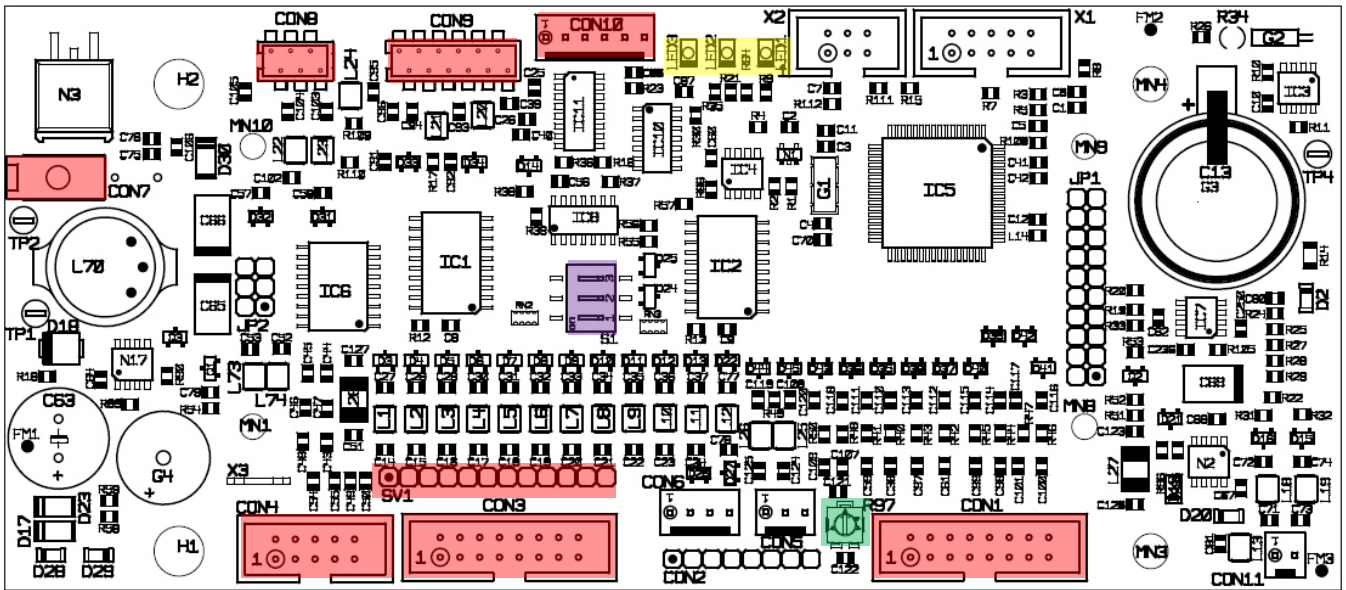


8 Electrical Console Diagram



| | | |
|------|---------------|--|
| DB | Display board | |
| DP | LCD-Display | |
| KB12 | Key board | |
| KS | Service keys | |

9 Display Board Top View



Key board selection switch

| Pos. | Name | Function | Colour |
|------|-------------------------|--------------------------|--------|
| S1 | selection switch binary | Selection key board type | |

For details see Technical Manual Software

After selecting a new key board type, a machine restart has to be done.

LED's

| Pos. | Name | Function | Colour |
|------|------|---------------------------------|--------|
| LED1 | RUN | Real time Process active | yellow |
| LED2 | RXD | Serial data receiving | yellow |
| LED3 | TXD | Serial data transmitting active | yellow |

Potentiometer

| Pos. | Name | Function | |
|------|----------|----------|--|
| R97 | Contrast | Display | |

Connection

| Pos. | Name | Function | |
|-------|---------------|--|--|
| Con1 | LCD | LCD-display | |
| Con3 | Keyboard | Matrix keyboard | |
| SV1 | Keyboard | Matrix foil keyboard | |
| Con4 | Control board | Connector to control board | |
| Con7 | Backlight | Back light 24VDC | |
| Con8 | Keyboard | I ² C keyboard | |
| Con9 | Main board | Connector to main board | |
| Con10 | ATS | Data connector, software update display and control board II | |

10 Declaration of Conformity



EU DECLARATION OF CONFORMITY EU KONFORMITÄTSERKLÄRUNG UE DÉCLARATION DE CONFORMITÉ

Product model/product:

Produktmodell/ Produkt:
Modèle de produit/produit:

COFFEE MACHINE F14

Brasil, Honduras, Guatemala, Venezuela, Rio, Costa Rica, Sao Paulo, Salvador, Ecuador, Mexico, Peru

Name and address of the manufacturer or his authorised representative:

Name und Anschrift des Herstellers oder seines Bevollmächtigten:
Nom et adresse du fabricant ou de son mandataire:

AEQUATOR AG
St. Gallerstrasse 229
CH-9320 Arbon
SWITZERLAND

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.

Object of the declaration:

Gegenstand der Erklärung:
Objet de la déclaration :

Machine for dispensing hot drinks

Maschine zur Ausgabe heisser Getränke

Machine pour la distribution de boissons chaudes

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:
L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union applicable:

EMC Directive 2014/30/EU
LVD Directive 2014/35/EU
RoHS Directive 2011/65/EU

References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:

Angabe der einschlägigen harmonisierten Normen, die zugrunde gelegt wurden, oder Angabe der anderen technischen Spezifikationen, in Bezug auf die die Konformität erklärt wird:

Références des normes harmonisées pertinentes appliquées ou des autres spécifications techniques par rapport auxquelles la conformité est déclarée:

| | |
|-----------------|-------------------|
| EN 50581:2012 | EN 60335-1:2012 |
| EN 55014-1:2015 | EN 60335-75:2012 |
| EN 55014-2:2015 | EN 61000-3-2:2014 |
| EN 55022:2010 | EN 61000-3-3:2014 |

Signed for and on behalf of:

Unterzeichnet für und im Namen von:
Signé par et au nom de:

Arbon, 14.04.2016

Marcel Lendenmann, CEO

11 Your Service Partner