

# Technical Manual

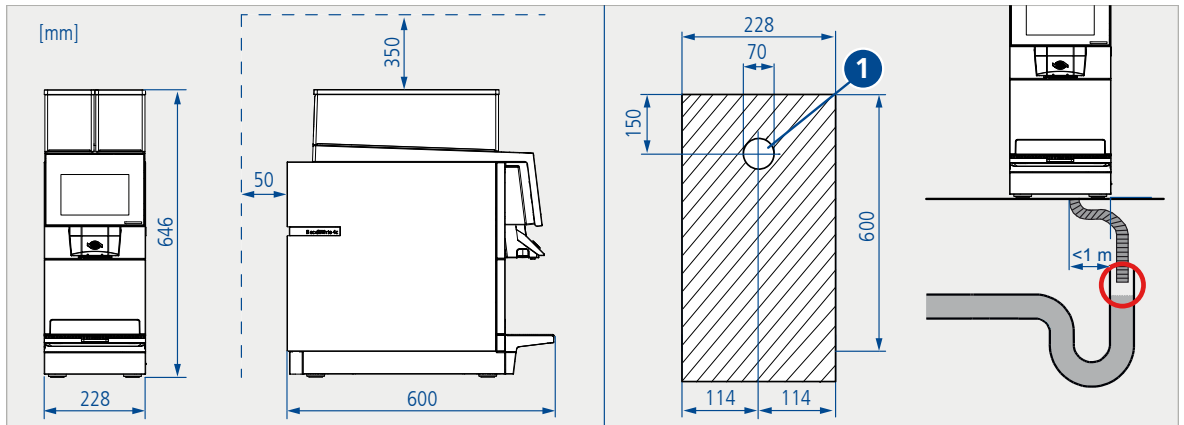
## CUTSHEETS



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# 1 BW4c-CTM



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

### Drain

- Distance of machine to drain < 1 m.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

### Refrigerator milk suction tube

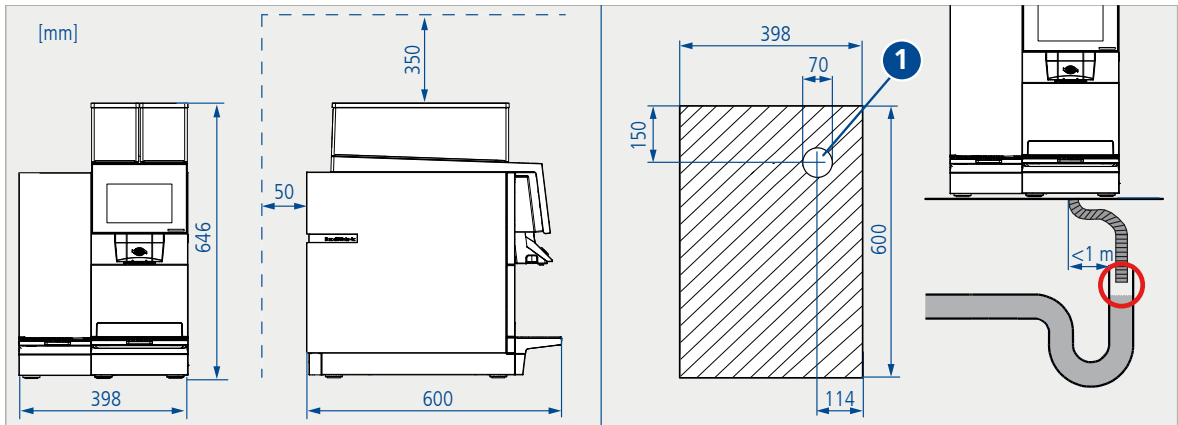
- Max. length of refrigerator milk suction tube = 1200 mm. Position the refrigerator close enough to the coffee machine.

Machine parameters		Water connection specifications		Milk connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"	<b>Milk suction tube length</b>	1200 mm
<b>Power</b>	2700-3100 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi	<b>Milk suction tube diameter</b>	8.5/4 mm
<b>Dimensions</b>	228 x 600 x 646 mm (W / D / H)	<b>Chlorine</b>	None		
<b>Coffee outlet height</b>	85-175 mm	<b>TDS</b>	70-200 ppm		
<b>Weight</b>	40 kg	<b>Total hardness</b>	5-8 °dH (8-14 °fH)		
		<b>pH</b>	6.8-7.4		
		<b>Alkalinity</b>	<100 ppm		
		<b>Iron</b>	<0.25 ppm		

### Water hardness conversion table

Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0

## 2 BW4c-CTM-RS



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

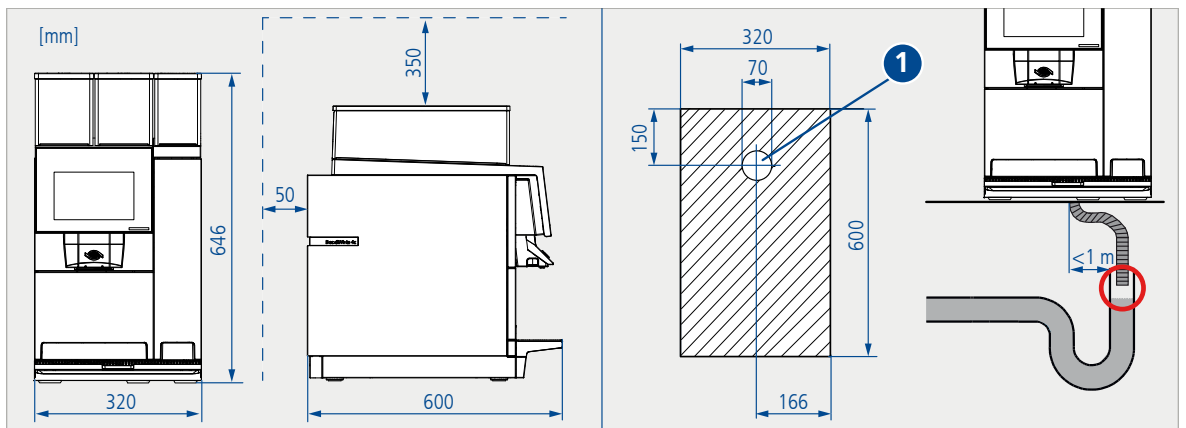
### Drain

- Distance of machine to drain < 1 m.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

Machine parameters		Water connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"
<b>Power</b>	2700-3100 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi
<b>Power RS</b>	50 W	<b>Chlorine</b>	None
<b>Dimensions</b>	398 x 600 x 646 mm (W / D / H)	<b>TDS</b>	70-200 ppm
<b>Coffee outlet height</b>	85-175 mm	<b>Total hardness</b>	5-8 °dH (8-14 °fH)
<b>Weight</b>	56 kg	<b>pH</b>	6.8-7.4
		<b>Alkalinity</b>	<100 ppm
		<b>Iron</b>	<0.25 ppm

Water hardness conversion table					
Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0

### 3 BW4c-CTM-P



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

#### Drain

- Distance of machine to drain < 1 m.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

#### Refrigerator milk suction tube

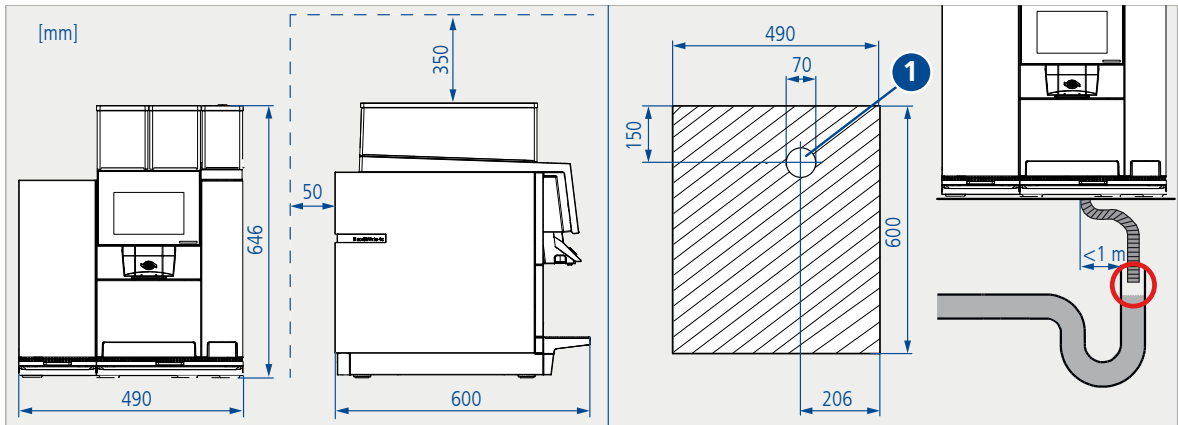
- Max. length of refrigerator milk suction tube = 1200 mm. Position the refrigerator close enough to the coffee machine.

Machine parameters		Water connection specifications		Milk connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"	<b>Milk suction tube length</b>	1200 mm
<b>Power</b>	2700-3100 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi	<b>Milk suction tube diameter</b>	8.5/4 mm
<b>Dimensions</b>	320 x 600 x 646 mm (W / D / H)	<b>Chlorine</b>	None		
<b>Coffee outlet height</b>	85-175 mm	<b>TDS</b>	70-200 ppm		
<b>Weight</b>	52 kg	<b>Total hardness</b>	5-8 °dH (8-14 °fH)		
		<b>pH</b>	6.8-7.4		
		<b>Alkalinity</b>	<100 ppm		
		<b>Iron</b>	<0.25 ppm		

#### Water hardness conversion table

Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0

# 4 BW4c-CTM-P-RS



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

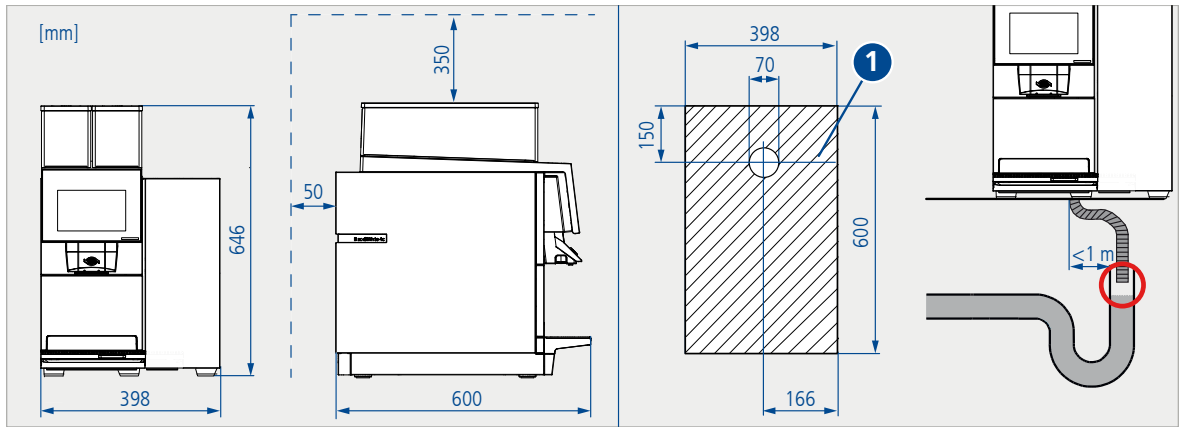
### Drain

- Distance of machine to drain < 1 m.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

Machine parameters		Water connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"
<b>Power</b>	2700-3100 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi
<b>Power RS</b>	50 W	<b>Chlorine</b>	None
<b>Dimensions</b>	490 x 600 x 646 mm (W / D / H)	<b>TDS</b>	70-200 ppm
<b>Coffee outlet height</b>	85-175 mm	<b>Total hardness</b>	5-8 °dH (8-14 °fH)
<b>Weight</b>	68 kg	<b>pH</b>	6.8-7.4
		<b>Alkalinity</b>	<100 ppm
		<b>Iron</b>	<0.25 ppm

Water hardness conversion table					
Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0

# 5 BW4c-CTM-F



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

### Drain

- Distance of machine to drain <math>< 1\text{ m}</math>.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

### Refrigerator milk suction tube

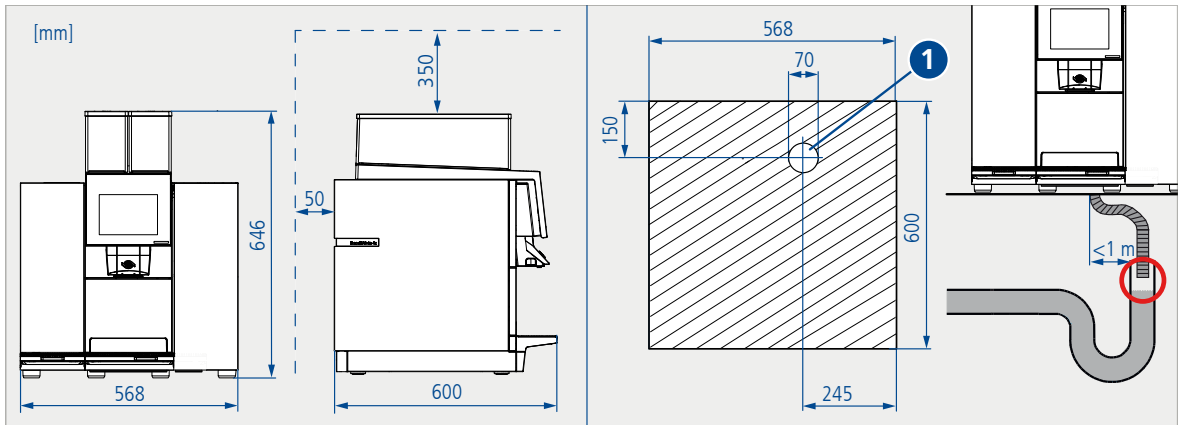
- Max. length of refrigerator milk suction tube = 1200 mm. Position the refrigerator close enough to the coffee machine.

Machine parameters		Water connection specifications		Milk connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"	<b>Milk suction tube length</b>	1200 mm
<b>Power</b>	2700-3100 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi	<b>Milk suction tube diameter</b>	8.5/4 mm
<b>Dimensions</b>	398 x 600 x 646 mm (W / D / H)	<b>Chlorine</b>	None		
<b>Coffee outlet height</b>	85-175 mm	<b>TDS</b>	70-200 ppm		
<b>Weight</b>	50 kg	<b>Total hardness</b>	5-8 °dH (8-14 °fH)		
		<b>pH</b>	6.8-7.4		
		<b>Alkalinity</b>	<math>< 100\text{ ppm}</math>		
		<b>Iron</b>	<math>< 0.25\text{ ppm}</math>		

### Water hardness conversion table

Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0

# 6 BW4c-CTM-F-RS



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

### Drain

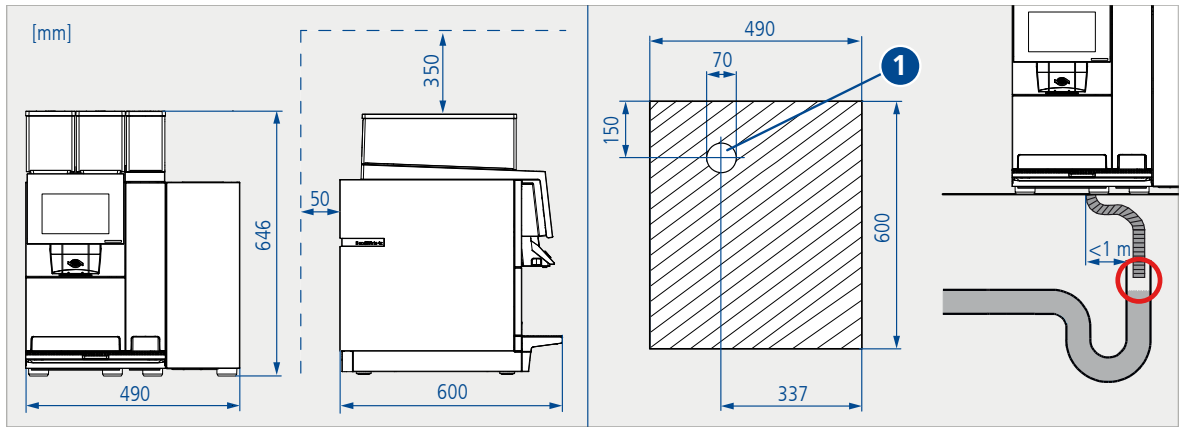
- Distance of machine to drain < 1 m.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

Machine parameters		Water connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"
<b>Power</b>	2700-3050 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi
<b>Power RS</b>	50 W	<b>Chlorine</b>	None
<b>Dimensions</b>	568 x 600 x 646 mm (W / D / H)	<b>TDS</b>	70-200 ppm
<b>Coffee outlet height</b>	85-175 mm	<b>Total hardness</b>	5-8 °dH (8-14 °fH)
<b>Weight</b>	66 kg	<b>pH</b>	6.8-7.4
		<b>Alkalinity</b>	<100 ppm
		<b>Iron</b>	<0.25 ppm

Water hardness conversion table					
Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0



# 7 BW4c-CTM-P-F



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

### Drain

- Distance of machine to drain < 1 m.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

### Refrigerator milk suction tube

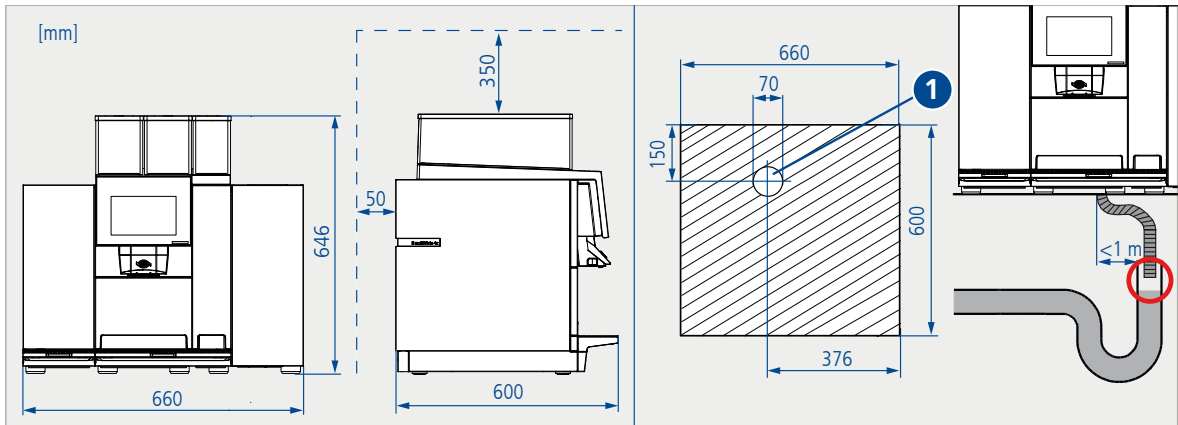
- Max. length of refrigerator milk suction tube = 1200 mm. Position the refrigerator close enough to the coffee machine.

Machine parameters		Water connection specifications		Milk connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"	<b>Milk suction tube length</b>	1200 mm
<b>Power</b>	2700-3100 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi	<b>Milk suction tube diameter</b>	8.5/4 mm
<b>Dimensions</b>	490 x 600 x 646 mm (W / D / H)	<b>Chlorine</b>	None		
<b>Coffee outlet height</b>	85-175 mm	<b>TDS</b>	70-200 ppm		
<b>Weight</b>	62 kg	<b>Total hardness</b>	5-8 °dH (8-14 °fH)		
		<b>pH</b>	6.8-7.4		
		<b>Alkalinity</b>	<100 ppm		
		<b>Iron</b>	<0.25 ppm		

### Water hardness conversion table

Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0

# 8 BW4c-CTM-P-F-RS



1 Hole diameter of 70 mm for water/milk inlet and water drain. Also possible for power cord.

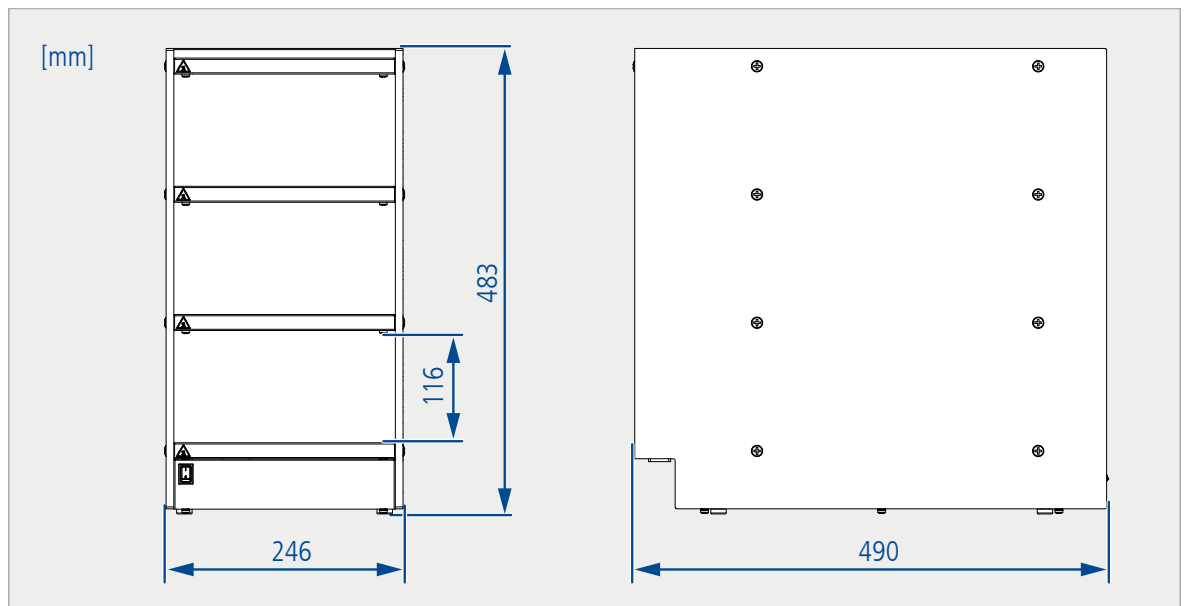
### Drain

- Distance of machine to drain < 1 m.
- The drain line (hose) must not sag.
- No back pressure in the water line.
- The end of the line must not be submerged in water.

Machine parameters		Water connection specifications	
<b>Connection</b>	220-240 VAC 12-13 A 50/60 Hz	<b>Water supply</b>	3/8"
<b>Power</b>	2700-3100 W	<b>Dynamic water pressure</b>	2-4 bar / 30-60 psi
<b>Power RS</b>	50 W	<b>Chlorine</b>	None
<b>Dimensions</b>	660 x 600 x 646 mm (W / D / H)	<b>TDS</b>	70-200 ppm
<b>Coffee outlet height</b>	85-175 mm	<b>Total hardness</b>	5-8 °dH (8-14 °fH)
<b>Weight</b>	78 kg	<b>pH</b>	6.8-7.4
		<b>Alkalinity</b>	<100 ppm
		<b>Iron</b>	<0.25 ppm

Water hardness conversion table					
Hardness	German	French	English	Ppm	Mval/l
1° dH	1.0	1.79	1.25	17.8	0.357
1° fH	0.56	1.0	0.7	10.0	0.2
1° e	0.8	1.43	1.0	14.3	0.86
1° ppm	0.056	0.1	0.07	1.0	0.02
1 mval/l	2.8	5.0	3.5	50.0	1.0

## 9 BW4c-CH



### Machine parameters

<b>Capacity</b>	Storage from 100 to 150 cups
<b>Connection</b>	220-240 VAC 50/60 Hz
<b>Power</b>	90-110 W
<b>Dimension</b>	246 x 490 x 483 mm (B / T / H)
<b>Weight</b>	19 kg

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