

# metos

## BRATT PAN

PRINCE

TYPE: 500, 660

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### Installation and Operation Manual

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Dear Customer,

Congratulations on deciding to choose our appliance for your kitchen activities. You made an excellent choice. We will do our best to make you a satisfied customer like thousands of customers we have around the world.

Please read this manual carefully. You will learn correct, safe and efficient working methods in order to get the best possible benefit from the appliance. The instructions and hints in this manual will give you a quick and easy start, and you will soon note how nice it is to use this equipment.

All rights are reserved for technical changes.

You will find the main technical data on the rating plate fixed to the equipment. When you need service or technical help, please let us know the serial number shown on the rating plate. This will make it easier to provide you with correct service.

For your convenience, space is provided below for you to record your local service contact information.

Service phone number:.....

Contact person:.....



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<b>1. General .....</b>	<b>1</b>
1.1 Symbols used in the manual .....	1
1.2 Symbols used on the appliance .....	1
1.3 Checking the relationship of the appliance and the manual .....	1
<b>2. Safety .....</b>	<b>2</b>
2.1 Safe use of the appliance .....	2
2.2 Safety instructions in case of malfunction .....	2
2.3 Disposal of the appliance .....	2
<b>3. Functional description .....</b>	<b>3</b>
3.1 Intended use of the appliance .....	3
3.1.1 Use for other purposes .....	3
3.2 Operating principle .....	3
<b>4. Operation instructions .....</b>	<b>4</b>
4.1 Before use .....	4
4.1.1 Preparing the use .....	4
4.2 Operation .....	4
4.2.1 Switching on the bratt pan .....	4
4.2.2 Setting of the frying temperature .....	5
4.2.3 Frying temperature .....	5
4.2.4 Tilting .....	6
4.3 After use .....	6
4.3.1 Cleaning .....	6
4.3.2 Service .....	7
<b>5. Installation .....</b>	<b>8</b>
5.1 Transporting and unpacking the bratt pan .....	8
5.2 Positioning the bratt pan .....	8
5.3 Electrical connections .....	8
5.4 Test-run .....	8
<b>6. Troubleshooting .....</b>	<b>10</b>

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**8. Technical specifications ..... 19**

# 1. General

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the appliance.

Keep this manual in a safe place for eventual use by other operators of the appliance.

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and following local regulations. The connection of the appliance to the electric and water supply must be carried out by qualified persons only.

Persons using this appliance should be specifically trained in its operation.

Switch off the appliance in case of failure or malfunction. The periodical function checks requested in the manual must be carried out according to the instructions. Have the appliance serviced by a technically qualified person authorized by the manufacturer and using original spare parts.

Not complying with the above may put the safety of the appliance in danger.

## 1.1 Symbols used in the manual



This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.



This symbol informs about the right way to perform in order to prevent bad results, appliance damage or hazardous situations.



This symbol informs about recommendations and hints that help to get the best performance out of the appliance.

## 1.2 Symbols used on the appliance



This symbol on a part informs about electrical terminals behind the part. The removal of the part must be carried out by qualified persons only.

## 1.3 Checking the relationship of the appliance and the manual

The rating plate of the appliance indicates the serial number of the appliance. If the manuals are missing, it is possible to order new ones from the manufacturer or the local representative. When ordering new manuals it is essential to quote the serial number shown on the rating plate.

## 2. Safety

### 2.1 Safe use of the appliance



Because the bratt pan is a heated appliance that has hot surfaces during normal use, the following warnings and instructions must be followed to avoid burns.

- During long-time operation even the sides of the frying surfaces, the pouring lip and the lid get hot.
- For safe frying, always use heat protective gloves and appropriate accessories.
- Look out for discharging steam when opening the lid, especially when simmering or stewing.
- Do not leave the bratt pan on for long periods totally without supervision.

### 2.2 Safety instructions in case of malfunction



Switch off the appliance if it is damaged or malfunctioning. Contact authorised service personnel using original spare parts for service of the appliance.

### 2.3 Disposal of the appliance

The destroying of the appliance when the end of its economical lifetime has been reached must be carried out in accordance with local rules and regulations. Taking care of substances that might be harmful to the environment, if not properly handled, and utilization of reusable materials is best done by using professional personnel specializing in recycling.



## 3. Functional description

### 3.1 Intended use of the appliance

The Prince bratt pan is intended for heating and frying of food.

#### 3.1.1 Use for other purposes



Use of the appliance for other purposes than stated above is prohibited.

The manufacturer of the appliance takes no responsibility for situations that may occur if warnings and instructions in this manual are neglected.

### 3.2 Operating principle

The frying surface of the bratt pan is heated by heating elements that are controlled by a thermostat. The yellow pilot light goes off when the preset frying temperature is reached.

The bratt pan is fitted with handwheel tilting. The tilting is controlled by means of a tilting wheel on the right-hand side of the pan.

## 4. Operation instructions

### 4.1 Before use

#### 4.1.1 Preparing the use



The frying surface of the bratt pan is protected with a thin layer of grease during storage and transportation. Before first-time use the grease must be removed by using hot water and detergent.

After the cleaning, the frying surface must be burned in with salt-free grease. Heat up the pan to 200°C keeping the lid closed. Burn the grease for 5-10 minutes, let the pan cool down and wipe off excessive grease. Repeat when necessary. Do not use oil for burning. Heated oil would create a tough surface, which is difficult to clean. A well greased pan reduces fat consumption in frying and minimises burning of foodstuffs.

### 4.2 Operation

#### 4.2.1 Switching on the bratt pan

During the installation, a mains switch may have been fitted near the bratt pan, often on a wall nearby. Check that the mains switch is in the ON position.

The bratt pan is switched on by turning the thermostat knob to the desired temperature.



## Operation instructions

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### Operating devices

1. Green pilot light PAN SWITCHED ON
2. Yellow pilot light TEMPERATURE
3. Thermostat
4. Lever for the lid
5. Handwheel for tilting

Heating up to the frying temperature (+200°C) takes about 11 minutes. When the preset frying temperature is reached, the yellow pilot light goes off.



If there are longer interruptions in the electricity distribution, the thermostat should be set to the 0 position. This should be done in order to prevent unexpected start-up of the pan when the electricity distribution is restored.



Due to the very short preheating time of the bratt pan, energy can be saved by not switching the pan on until the frying is started. If there is a longer pause during the frying, the bratt pan can be switched off or the temperature can be set to a lower value. Energy can also be saved by keeping the lid closed always when possible, for instance when simmering or stewing.

## 4.2.2 Setting of the frying temperature

The frying temperature can be changed by turning the thermostat knob to the desired temperature. When lowering the temperature, some time will be needed for the frying surface to cool down. Increasing of the temperature turns on the green pilot light. The new temperature is reached when the light goes off.

## 4.2.3 Frying temperature

Guiding temperatures for various products:

Fried eggs	180°C
Omelette	190°C
Fried fish fillet	200°C
Bacon	175°C
Meat cubes	200°C
Meat balls, depending on size	150°C - 200°C
Hamburgers, depending on size	150°C - 200°C
Veal fillet	200°C
Wiennasteak	200°C
Thin steak of veal	250°C
Broiler, whole	175°C
Floured slices of liver	200°C
Chops	200°C
Sausage cubes	150°C - 175°C
Frankfurters	150°C
Fried potatoes	175°C - 200°C
Mushrooms	150°C - 160°C
Onions	160°C
Small pancakes	200°C

If meat and fish are required well done, proceed as follows:

Set the frying temperature according to the above instructions. After quick frying, set the thermostat at 100°C and let the food cook in the pan covered by lid.

When stewing the thermostat is always set at 90-100°C to control boiling and to prevent drying of the food.

### **Less fumes with the thermostat**

Most fats begin to smoke at a temperature of 200°C. With the thermostat the temperature can be adjusted to the degree where only a little of smoke occurs.

### **Thermostat as an aid in heating convenience food**

If the kitchen is not equipped with a pressure cooker or a convection oven, small quantities of convenience food can be heated up as follows:

A thin layer of water is poured into the pan. The food in aluminium foil or GN containers is put on the frying surface. The thermostat is set at 100°C and the lid is closed.

Correct temperature is best maintained by loading the frying surface evenly. The pan should not be overloaded. This gives a more even frying result and fat is mixed evenly with the foodstuff.

## **4.2.4 Tilting**



Before tilting or returning the bratt pan to the working position, check that nothing is in the movement area or leaning against the moving part of the bratt pan

Tilting is effected with a shelf-locking worm-gear by rotating the handwheel. When tilting is interrupted, the pan is immediately locked. The pan cannot be tilted while the lid is closed.

## **4.3 After use**

### **4.3.1 Cleaning**

Burned deposits on the frying surface of the pan form an isolating layer which slows up the frying and creates poor frying results. A clean frying surface is a must for good-quality results.

The effect of burned deposits on the surface temperature: 2 mm of deposits lower the surface temperature with 24 %.



180°C



about 135°C

Cleaning equipment: scraper, hard brush, scouring plate, towel, kitchen paper

Cleaning detergent: slightly alkaline detergent (pH 8-10)

Cleaning method: scraping, dry, wet, damp

Precleaning:

Scrape out frying remains and wipe out grease and loose remains with paper. When necessary, pour hot water into the pan and let soak.

Cleaning:

The inside of the pan is cleaned with a brush and hot water. Spots are removed with a scouring plate. Cleaning detergent should be used only for frying surfaces extremely covered with burned deposits, because it removes grease from the frying surface.

Inner and outer surfaces of the lid are cleaned with a brush and cleaning detergent solution. Pay special attention to the edges and hinges of the lid. The base and outer surfaces of the pan are cleaned with a brush and cleaning detergent solution and rinsed with water. The frying surface of the pan is rinsed with hot water, dried by heating up and greased with salt-free grease. All other surfaces are rinsed and wiped dry.



Water usage on the control panel and the electric box must be avoided.

Use of a water hose or pressure cleaning jet is strictly forbidden.

In order to remain in good condition, the frying surface must be burned with salt-free grease when the pan is taken into use for the first time, and after that at intervals during use. This is especially necessary in connection with thorough cleaning.

#### 4.3.2 Service



Switch the appliance off if it is damaged or is malfunctioning. Contact authorised service personnel using original spare parts for service of the appliance.



The appliance does not include any user serviceable parts inside. Service must be left to authorised service personnel.

## 5. Installation

### 5.1 Transporting and unpacking the bratt pan

The best way to move the bratt pan is to keep it in its own package as long as possible while it also protects the pan from outer damage. If it is necessary to unpack the pan, possible lifting must thereafter be done from the bottom frame of the base by using suitable spacers of wood. In order to avoid damage, it is not allowed to use the lid as a workbench during installation.

### 5.2 Positioning the bratt pan

The installation is started by mounting the installation frame by bolts to the floor considering a possible floor drain. The recommended distances needed for full service are shown in the installation drawing. After this, lift the pan onto the installation frame.

Thereafter the pan is adjusted into a horizontal position by fixing bolts. The correct position is checked from the frying surface, not from the outer edges of the pan.

### 5.3 Electrical connections



In order to make eventual future service easier and to increase safety, a mains switch must be installed near the appliance. This switch must disconnect the appliance completely from the electrical supply network.

The feedthrough grommet for the connection cable is located on the bottom of the base as shown in the installation drawing. In order to make the connection, the lower front siding must be removed by loosening the four screws that are located on the lower and upper edge of the siding and then lifting the siding away.

### 5.4 Test-run



Besides the live electrical parts, also look out for possible moving mechanisms in the lower part of the appliance, if there is a need for testing the appliance during installation while the guards or cover plates are detached.



Make sure that the protective grease has been removed from the frying surface before taking the pan into use. See "Preparing the use".

## Installation

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After connecting the cable check the function of the bratt pan.

Check that

- when turning the thermostat knob both green and yellow pilot light goes on
- the yellow pilot light goes off after a few minutes when the frying surface has reached the set temperature.

Before refitting the front siding check that no wires in the base interfere with moving parts.

Refit the lower front siding.

## 6. Troubleshooting

If the appliance does not function, check the following:

- Has the appliance been used according to the instructions?
- Are all possibly removable parts refitted?
- Are the mains switch on the appliance or nearby - often on the wall - in the ON position?

If even this does not help, figure out in advance how to briefly describe the break-down and contact an authorized service person.



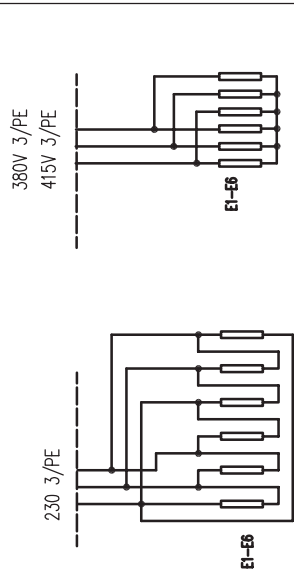
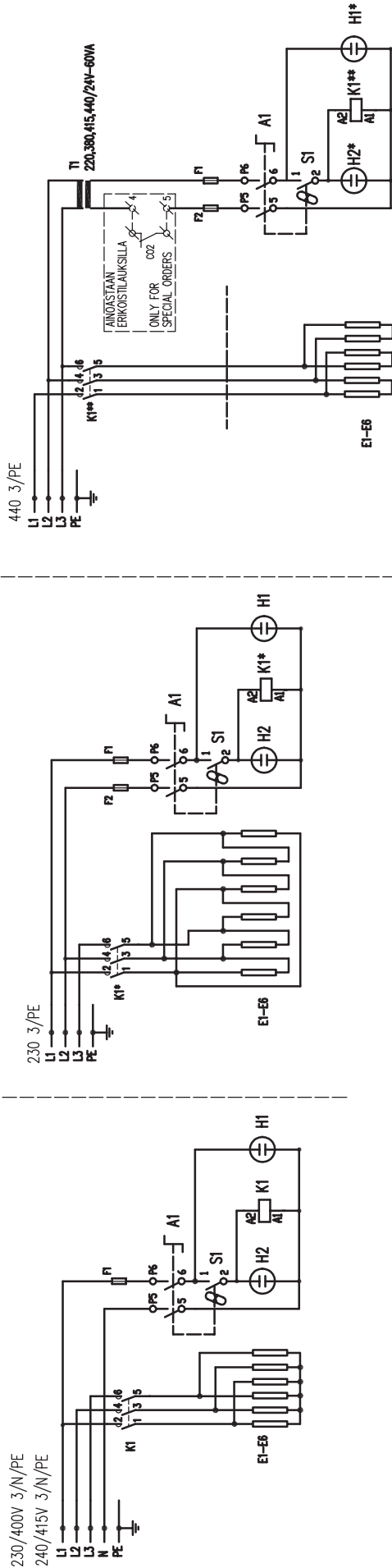
The appliance does not include any user serviceable parts inside. Service must be left to authorized service personnel.



## **8. Technical specifications**

**Connection diagram 76803-83B**

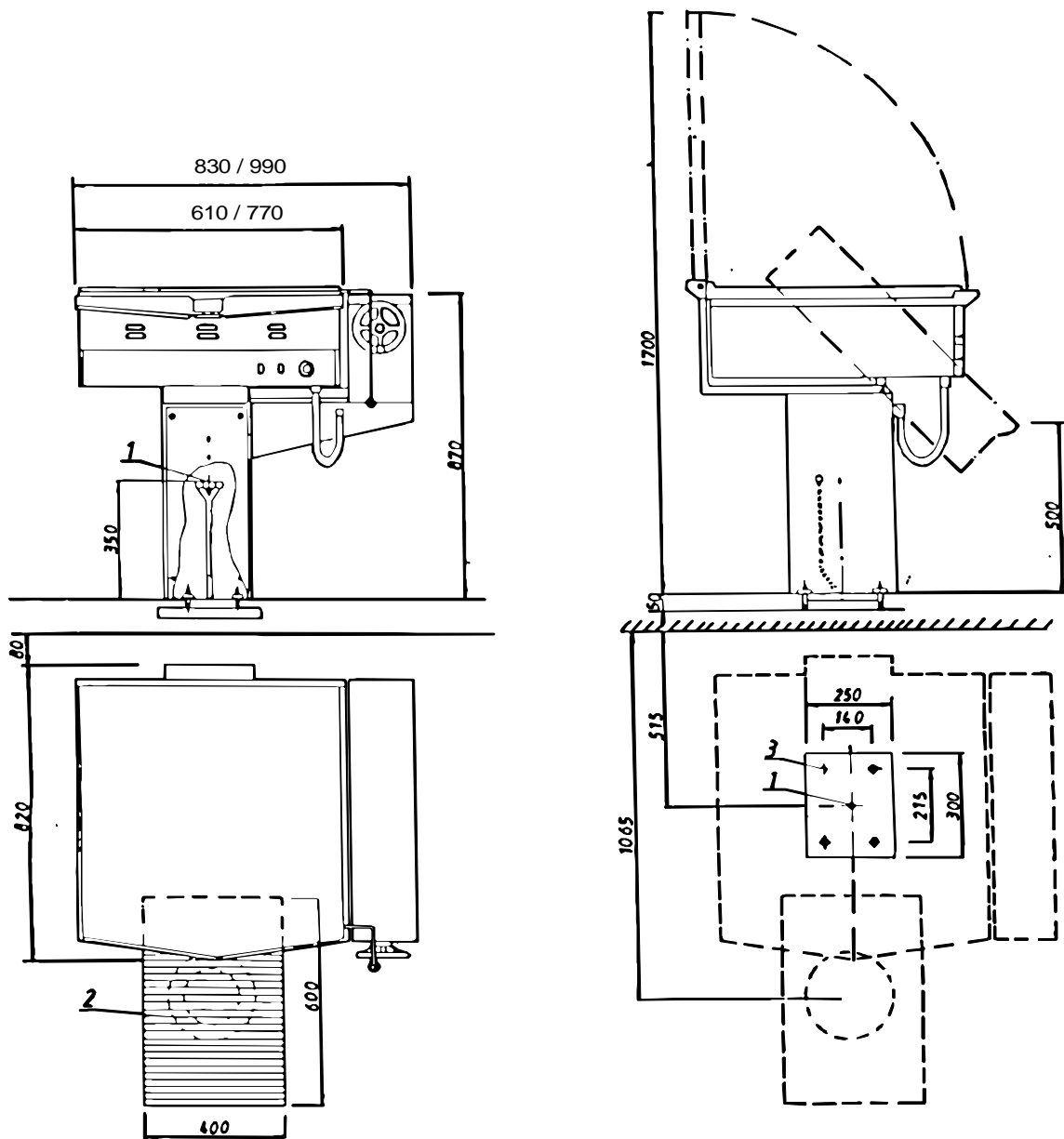
**Installation drawing 76708-62B**



LITÄNTÄTIEDOT/CONNECTION INFORMATION  
 Virta- ja tehotiedot uunille ja ryhmille  
 Supply current- and power

Pos.	Order No	TYYPPI	Nimitys	Name	PRINCE 500			PRINCE 660		
					P/kW	I/A	P/kW	I/A	P/kW	I/A
A1/S1	3016288	55.13662.01 0-300°C	Kytkintermostaatti	Switch/Thermostat						
F1,F2	3339916	33-160-36	Sulakepessa	Fuse holder						
F1,F2	3339916	5x20 2A	Sulake	Fuse						
H1	3198366	1.69 514.312/1502 (220V)	Merkkilamppu vihri.	Signal lamp,green						
H2	3075607	1.69 514.352/1402 (220V)	Merkkilamppu ket	Signal lamp,yellow						
H1*	3225531	1.69 514.307/1502 (24V)	Merkkilamppu vihri.	Signal lamp,green						
H2*	3225524	1.69 514.347/1402 (24V)	Merkkilamppu ket	Signal lamp,yellow						
K1	3438748	100-C09KF10 (230V)	Kontaktor	Contacto						
K1*	3240709	100-C30KF00 (230V)	Kontaktor	Contacto						
K1**	3438787	100-C09KJ10 (24V)	Kontaktor	Contacto						
T1	3106703	220,380,415,440V/24V 60VA	Muntaaja	Transformer						
S2,S3	3082296	V3+W C/O 1.0N	Mikrokytkin	Micro switch						
E1-E6	3083229	Prince 500 (1250W 220V)	Vastus	Heating element	7,5	11,0	10,5	16,0		
E1-E6	3083236	Prince 660 (1750W 220V)	Vastus	Heating element	8,2	12,0	11,5	16,0		
L1-L3	3015069	115 120-17 M10/10	Riviliitin	Terminal block	7,5	19,0	10,5	27,0		
N	3351776	125 120-11 M10/10N	Riviliitin	Terminal block	6,9	11,0	9,6	15,0		
PE	3347385	165 115-10 M10/10P	Riviliitin	Terminal block	8,2	12,0	11,5	16,0		
4-5	3015044	115 116-07 M4/6	Riviliitin	Terminal block	6,9	18,0	9,6	26,0		
	3240593	FEM 6 GRIS	Päätylevi	End barrier	6,9	9,0	9,6	13,0		
	3301697	BAM 2	Päättyristin	End stop						

Tiedot		08.07.2009/AJD		Kytentäkaavio		3/N/PE AC 230/415V 50Hz		Typ nro		76803-83B	
DIESING				Connection diagram		3/PE AC 230V 50Hz		PRINCE		Lehti	
Tark.				Kopplingsschema		3/PE AC 380-440V 50-60Hz		Tiedosto		SHEET	
CHKD								FILE		1/1	
HYV.								Pir. nro		76803-83B	
APPR								Dwg. nro		REV	
										76803-83B	



1. Sähköliitäntä 7,5 kW / 10,5 kW 400V 3N~50Hz.
2. Lattiakaivo min. 160/70 mm ei kuulu toimitukseen.
3. Kiinnitysruuvien reikä Ø 14 mm. Kiinnitysruuvien pituus ja tyyppi valittava lattiarakenteen mukaan riittävän kiinnityslujuuden saavuttamiseksi.

1. El.anlutning 7,5 kW / 10,5 kW 400V 3N~50Hz.
2. Rostfritt golvbrunn min. 160/70 mm ingår inte i leveransen.
3. Hål för skruv Ø 14 mm. Fästskruvarnas längd och typ bör väljas enligt golvkonstruktion för att uppnå tillräcklig hållfasthet.

1. El. connection 7,5 kW / 10,5 kW 400V 3N~50Hz.
2. Floor drain min. 160/70 mm not included.
3. Hole for fixing screw, dia 14 mm. Length and type of screws to be chosen according to floor construction to ensure sufficient durability.

## Technical specifications

Item	Model	Type	Voltage	Specification
Dimensions WxDxH	P	500		830x820x920 mm
Dimensions WxDxH	P	660		990x820x920 mm
Package dimensioner WxDxH	P	500		920x1000x1160 mm
Package dimensioner WxDxH	P	660		1080x1000x1160 mm
Frying zones	P			1 pc
Height of frying zone sides	P			130 mm
Frying surface WxD	P	500		500x540 mm
Frying surface WxD	P	660		660x540 mm
Temperature setting range	P			0 - 220 °C
Weight without package	P	500		105 kg
Weight without package	P	660		115 kg
Weight with package	P	500		125 kg
Weight with package	P	660		140 kg
Material of frying surface				steel
Material of frying zone sides	P			steel
Outer surface				stainless steel
Power	P	500	I,J,M	6,9 kW
Power	P	500	A,H	7,5 kW
Power	P	500	G,L,O	8,2 kW
Power	P	660	I,J,M	9,6 kW
Power	P	660	A,H	10,5 kW
Power	P	660	G,L,O	11,5 kW
Operating conditions				Normal commercial kitchen conditions, temperature over 0 °C

P=PRINCE

500=500, 660=660

A=3/N/PE~400/230V 50Hz, G=3/N/PE~415/240V 50Hz, H=3/PE~230V 50Hz, I=3/PE~220V 60Hz, J=3/PE~380 50Hz, L=3/PE~415V 50Hz, M=3/PE~440V 60Hz, O=3/PE~480V 60Hz

Päiväys / Datum / Date

10.04.2008

Valmistajan nimi / Tillverkarens namn / Manufacturer's name

METOS AS

Osoite / Adress / Address

VALUKOJA 16  
11415 TALLINN  
ESTONIA

vakuutamme yksinomaan omalla vastuullamme, että seuraava tuote:

försäkrar helt på eget ansvar att följande produkt:

declare under our sole responsibility that the product:

Nimi, tyyppi tai malli / Namn, typ eller modell / Name, type or model

Paistinpannu / Stekbord / Bratt pan  
PRINCE 500 / MARINEPRINCE 500 / FINNPRINCE 660 / MARINEPRINCE 660/  
SUPERPRINCE 20S / SUPERPRINCE 30S

johon tämä vakuutus liittyy, on (mikäli asiankuuluvaa) seuraavan standardin (seuraavien standardien) tai muun normatiivisen asiakirjan (muiden normatiivisten asiakirjojen) vaatimusten mukainen  
till vilken denna försäkran hör, uppfyller (vid behov) kraven i följande standard (standarder) eller annat (andra) normativa dokument

to which this declaration relates is in conformity with (if necessary) the following standard(s) or other normative document(s)

Tunnus; vuosiluku tai julkaisupäivä / Beteckning, årtal eller publiceringsdatum / Designation or number, year or date of issue

EN-SFS 292-1:1991 ; EN-SFS 292-2:1991  
EN-SFS 60204-1:1993 ; (osittain / delvis / partly)  
EN-SFS 60335-1:2003 ; EN-SFS 60335-2-36:2003

ja noudattaa (mikäli asiankuuluvaa) seuraavan direktiivin (seuraavien direktiivien) määräyksiä

och följer (vid krav) följande direktivs bestämmelser

and in conformity with (if necessary) orders of following directive(s)

LVD 73/23  
98/37/EC  
EMC 89/336/EEC

Vakuutuksen antopaikka ja päivä / Utfärdad på ort och datum / Place and date of issue

TALLINN 10.04.2008

Valtuutetun henkilön nimi, nimikirjotus ja asema / Bemyndigad persons namn, namnteckning och befattning / Name, signature and title of authorized person

  
Andres Kirstein, Managing Director

  
Jaan Muru, Production Manager