

# Tumble Dryers

190 Liters (9 Kg) Capacity

195 Liters (9 Kg) Capacity

250 Liters (11 Kg) Capacity

285 Liters (13 Kg) Capacity

345 Liters (16 Kg) Capacity

530 Liters (24 Kg) Capacity

680 Liters (35 Kg) Capacity

285 Liters (13 Kg) Capacity Top Pocket Tumbler

285/285 Liters (13/13 Kg) Capacity Stacked Tumbler

Refer to Page 10 for Model Identification

## Original Instructions

Keep These Instructions for Future Reference.

**CAUTION:** Read the instructions before using the machine.

(If this machine changes ownership, this manual must accompany machine.)



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# Safety Information

## Safety Instructions

	<b>WARNING</b>
<p><b>To reduce the risk of fire, electric shock, serious injury or death to persons when using your tumble dryer, follow these basic precautions.</b></p>	
W776R1	

	<b>WARNING</b>
<p><b>Save these instructions for later use. Failure to comply with the instructions may lead to incorrect use of the appliance, and may result in risk of fire, bodily injuries or death and/or damage to the laundry and/or the appliance.</b></p>	
C003	

	<b>WARNING</b>
<p><b>Read the important safety instructions in this manual carefully before operating the appliance. Improper use of the appliance may cause risk of fire, electrical shock or serious body injuries or death as well as serious damage to the appliance.</b></p>	
C244	

- This English version is the original version. Without this version, the instructions are incomplete.
- Install the tumble dryer according to the INSTALLATION instructions. Refer to the EARTHING (grounding) instructions for the proper earthing (grounding) of the tumble dryer. All connections for electrical power, earthing (grounding) and gas supply must comply with local codes and be made by licensed personnel when required. It is recommended that the machine be installed by qualified technicians.
- Do not install or store the tumble dryer where it will be exposed to water and/or weather. The tumble dryer cannot be used in a closed room where the air supply is insufficient. If necessary, ventilation grids must be installed in the doors or the windows.
- This appliance must not be activated without lint/foam filter.
- When you perceive a gas odor, immediately shut off the gas supply and ventilate the room. Do not switch on electrical appliances and do not pull electrical switches. Do not use matches or lighters. Do not use a phone in the building. Warn the installer, and if so desired, the gas company, as soon as possible.
- To avoid fire and explosion, keep surrounding areas free of flammable and combustible products. Regularly clean the dryer drum and exhaust tube should be cleaned periodically by competent maintenance personnel. Daily remove piled up debris from filter and inside of filter compartment.
- Read all instructions before using the tumble dryer. Follow the instruction written in manuals and keep the manuals in a proper place by the machine for later use.
- Before installation, operation and maintenance of the machine read carefully the complete instructions, i.e. this "Installation/Operation/Maintenance Manual", "Programming manual" and "Spare parts manual".
- Install the tumble dryer according to the INSTALLATION instructions. Otherwise, the supplier and manufacturer are not responsible for potential injuries to operators or for any damages. Any changes concerning the installation, which are not described in Installation and maintenance manual, must be approved by the supplier or manufacturer.
- The machine is in line with standard EN 60204-1 Safety of mechanical machinery - Electrical devices of machines. The machine must be connected to the power, ground, ventilation, and gas/steam supply according to the installation manual, in compliance with the local standards and codes, done by qualified technicians with proper authorisation. It is recommended that the machine be installed by qualified technicians. The valid standards for connecting to the local power network (TT / TN / IT) must be followed.
- Do not bypass the instructions stated in the instruction manual, and warnings on the labels.
- Follow all basic and valid safety instructions and laws.
- Do not install the dryer, where it will be exposed to water and/or weather. Dryer must be exhausted outdoors and area around dryer must be free of lint because dryer produces combustible lint.
- Ensure minimal air vent of room recommended by manufacturer.
- Solvent vapours from dry-cleaning machines create acids when drawn through the heater of the drying unit. These acids are corrosive to the tumbler as well as to the laundry load being dried. Be sure that make-up inlet air is free of solvent vapours.
- Do not remove warning signs placed on the appliance. Observe signs and labels to avoid personal injuries.
- To avoid fire and explosion, keep surrounding areas free of flammable and combustible products. Always clean the lint filter daily. Keep the top of the machine clean, without the presence of flammable materials. Keep the area around the exhaust opening and its surrounding area free from lint, dust, and lint. Always clean the lint filter daily. The interior of the drum and the exhaust duct should be cleaned periodically by qualified service personnel.

- Do not dry articles that have been cleaned in, soaked in, washed in or spotted with gasoline, machine oils, vegetable or cooking oils, massage oils, cleaning waxes, dry cleaning solvents, thinner or other flammable/explosive substances as they give off vapours that could ignite, explode or cause fabric to catch on fire by itself.
- Chemical cleaned laundry with chemical vapour and evaporated gas could lead to toxic and rust danger. It is necessary to take maximal care to prevent such situation.
- Various chemicals used in laundries contain chlorine (some dry cleaning fluids, aerosols, bleaches). When decomposed in a flame, these materials may rapidly corrode and destroy this appliance.
- Do not dry fibreglass curtains and draperies unless the label says it is possible. If they are dried, wipe out the cylinder with a damp cloth to remove particles of fibreglass.
- Items such as foam rubber (latex foam), shower caps, waterproof textiles, plastics or articles containing foam rubber or similarly textured rubber like materials rubber backed articles and clothes or pillows filled with foam rubber pads should not be dried in the tumble dryer. Do not use the appliance to dry materials with a low melting temperature (PVC, rubber, etc.).
- Do not store flammable materials around the machine.
- Do not spray or store aerosols in the vicinity of this appliance while it is in operation.
- Children can not operate this machine. Before turning the machine "ON", make sure that there are no people or animals present in or around the machine. Do not allow children to play on, around or in the dryer. This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
- DO NOT reach into tumbler if tumbler is revolving.
- Use the dryer only for its intended purpose, drying water-washed fabrics. Always follow the fabric care instructions supplied with by the garment manufacturer. Only insert spin-dried linen in the dryer.
- Always follow the manufacturer's instructions on packages of laundry and cleaning aids. Heed all warnings or precautions. To reduce the risk of poisoning or chemical burns, keep them out of the reach of children at all times (preferably in a locked cabinet).
- Do not use fabric softeners or products to eliminate static electricity unless recommended by their manufacturer.
- Respect the correct filling ratio according the type of linen. Do never overload the machine.
- Remove laundry immediately after the dryer stops or the drying cycle was interrupted. Never leave the laundry inside the dryer even if the loading door is open.
- Do never stop the machine before the complete cooldown cycle is completed.
- Do not tamper with the machine's control. DO NOT bypass any safety devices. Do not operate the machine with broken / missing parts, opened covers, also do not operate a machine that was not installed and put in operation according to instructions stated in the "Installation and maintenance manual".
- The dryer will not operate with the loading door open. Do not bypass the door safety switch to permit the dryer to operate with the door opened or starts tumbling without pressing the START mechanism.
- The dryer will stop tumbling when the door is opened. Do not use the dryer if it does not stop rotating when the door is opened. Put the dryer out of service and call the service person.
- The dryer will not operate with lint screen panel open. Do not bypass front panel safety switch to permit the dryer to operate with the front panel open.
- Do not modify this appliance. Interventions into the machine functions are not allowed, and the manufacturer refuses any responsibility in such cases.
- Machine version OPL (without coin meter) is intended for qualified operator.
- The emergency stop device is omitted on machines design for coin, token, external payment system or similar operation for use in self-service situation. The owner-installer-user must provide a remote-located emergency stop device that is connected to each machine.
- Only qualified service personnel may open the appliance to carry out servicing.
- Always disconnect the electrical power before servicing.
- When the main switch is "OFF", the supply terminals are still under current.
- Do not repair or adjust the belt drives when the machine is in operation, turn off the main switch.
- Regularly check the proper function of ground, ventilation of the machine, and emergency stop.
- The dryer produces equivalent continuous (A-weighted) sound power level which doesn't exceed 70 dB (A).
- Follow all valid basic safety rules and laws. The instructions in this manual cannot cover every possible dangerous situation. They must be generally understood. Caution and care are factors which can not included in the design of the appliance and all persons who install, operate or maintain the appliance must be qualified and familiar with the operating instructions. It is up to the user to take proper care when operating the appliance.
- The manufacturer reserves the right to change the manuals without previous notice.
- If any problems or failures should arise, immediately contact your dealer, serviceman or manufacturer.
- At the end of each working day, close off all main supplies of gas, steam and current.
- Do not repair or replace any part of the tumble dryer, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that the user understands and has the skills to carry out. ALWAYS disconnect and lockout the electrical power to

the tumble dryer before servicing. Disconnect power by shutting off appropriate breaker or fuse.

- Before the tumble dryer is removed from service or discarded, remove the door to the drying compartment and the door to the lint compartment.
- Failure to install, maintain, and/or operate this tumble dryer according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.


#### Gas Heated Version


- Turn off the main gas supply when discovering a gas leak from the machine or if you smell gas. Ventilate the premises, do not turn on any electrical devices, do not smoke, do not use open flame and call the maintenance.
- Do not eliminate nor change settings of the underpressure switch, safety thermostat, primary air suction and all factory preset devices.


#### Steam Heated Version


- Turn off the main steam supply when discovering that steam is leaking from the machine, and call the maintenance.

**NOTE: The WARNINGS and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Observe and be aware of other labels and precautions that are located on the machine. They are intended to provide instruction for safe use of the machine. Common sense, caution and care must be exercised when installing, maintaining, or operating the tumble dryer.**

	<b>WARNING</b>
<p>Installation and repair can only be done by a technician with manufacturer's consent. If the instructions in this manual are not met, the warranty may be canceled.</p>	
C307	

	<b>WARNING</b>
<p>Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce serious injury and/or property damage.</p>	
C308	

	<b>WARNING</b>
<p><b>If the installed appliance operate with coin, token or similar operation for use in self-service situations, then the the owner-installer must provide a remote-located emergency stop device. This device must be placed in such a way that it is easy and safely accessible for the users. The emergency stop device takes care that at least the control circuit of the appliance is interrupted.</b></p>	
C309	

	<b>WARNING</b>
<p><b>Original or identical parts must be used for replacement in this machine. After servicing replace and secure all panels in the original way. Take these measures for continued protection against electrical shock, injury, fire and/or property damage.</b></p>	
C310	

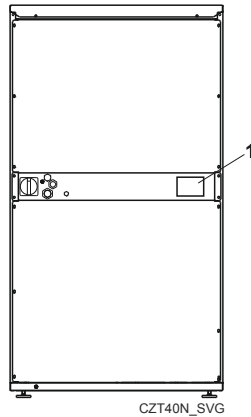
**NOTE: All appliances are produced according the EMC-directive (Electro-Magnetic-Compatibility). They can be used in restricted surroundings only (comply minimally with class A requirements). For safety reasons there must be kept the necessary precaution distances with sensitive electrical or electronic device(s). These machines are not intended for domestic use by private consumers in the home environment.**

# Introduction

## Serial Plate Location

The serial plate is located on the rear side of the machine.

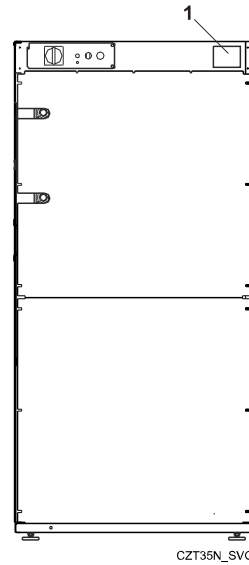
### Location of Serial Plate on Machine - 9 kg / 20 lb / 190 L



1. Machine Serial Plate Location

Figure 1

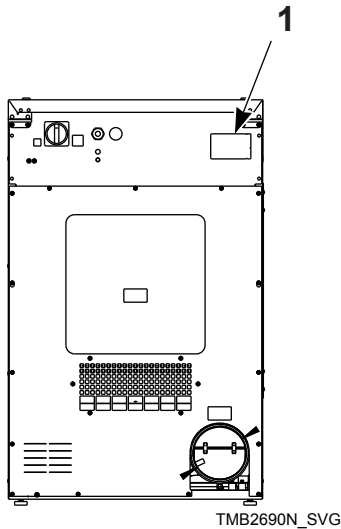
### Location of Serial Plate on Machine - 11-13-16 kg / 24-27-35 lb / 250-285-345 L



1. Machine Serial Plate Location

Figure 3

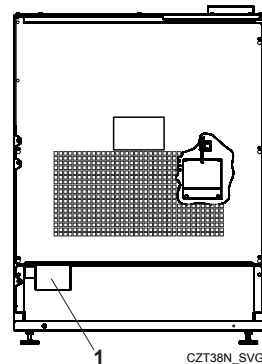
### Location of Serial Plate on Machine - 9 kg / 20 lb / 195 L



1. Machine Serial Plate Location

Figure 2

### Location of Serial Plate on Machine - 13 kg / 24 lb / 250 L - Top Pocket Tumbler



1. Machine Serial Plate Location

Figure 4

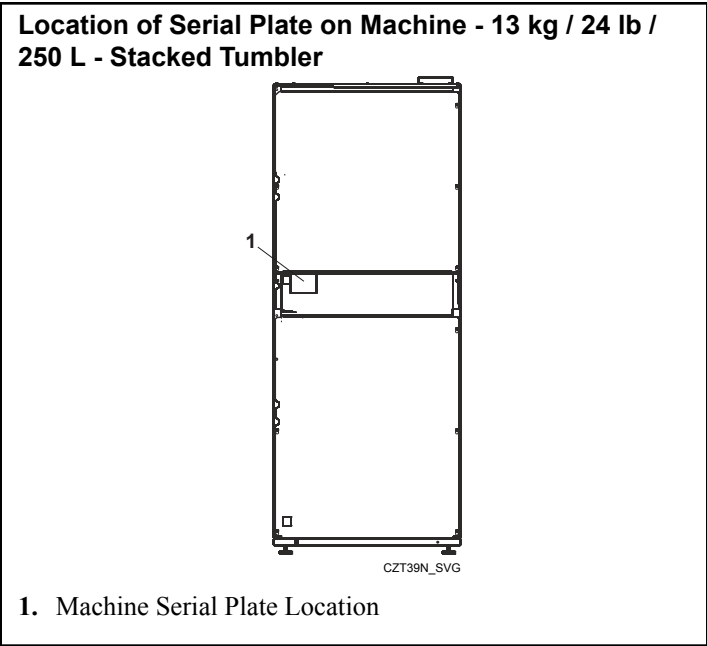


Figure 5

Manufacturing Date - Year	
Year	Serial Number Character
2020	Q
2021	S
2022	U
2023	W
2024	Y

Table 1

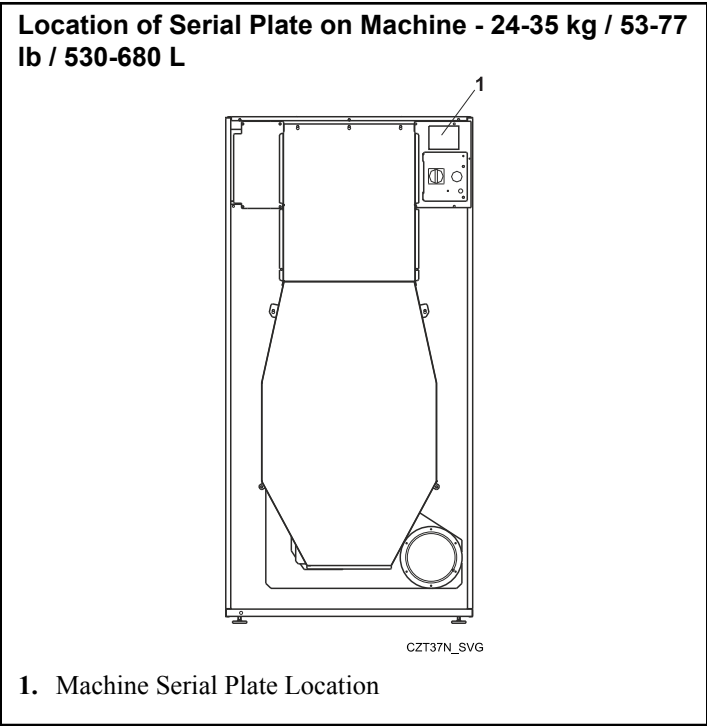


Figure 6

## Manufacturing Date

The manufacturing date for your unit can be found on the serial number. The last two characters indicate first the year and then the month. Refer to *Table 1* and *Table 2* . For example, a unit with serial number 520I000001QK was manufactured in May 2020.

<b>Manufacturing Date - Month</b>	
<b>Month</b>	<b>Serial Number Character</b>
January	A or B
February	C or D
March	E or F
April	G or H
May	J or K
June	L or M
July	N or Q
August	P or S
September	R or U
October	T or W
November	V or Y
December	X or Z

Table 2

## Replacement Parts

If literature or replacement parts are required, contact the source from which the machine was purchased or contact Alliance Laundry Systems at +1(920)748-3950 for the name and address of the nearest authorized parts distributor.

## Customer Service

For technical assistance, contact your local distributor or contact:

Alliance Laundry Systems

Shepard Street

P.O. Box 990

Ripon, Wisconsin 54971-0990

U.S.A.

[www.alliancelaundry.com](http://www.alliancelaundry.com)

Phone: +1(920)748-3121

Ripon, Wisconsin

or

Alliance Laundry CE s.r.o

Mistecka 1116

Přibor, 742 58

Czech Republic Europe

## Model Identification

Information in this manual is applicable to these models:

EC_HYDROS_ST11	LH530EF	PC285LE	PU345EE
EC_HYDROS_ST14	LH530LE	PC285LF	PU345EF
EC_HYDROS_ST16	LH530LF	PC285ME	PU345ME
EC_HYDROS_ST19	LH530ME	PC285MF	PU345MF
I195	LH530MF	PC285NE	PU345SE
I530_FLEX	LH530NE	PC285NF	PU345SF
I680_EASY	LH530NF	PC285SE	PU345WE
I680_FLEX	LH530SE	PC285SF	PU345WF
IC195EE	LH530SF	PC285TE	PU530EE
IC195ME	LH530TE	PC285TF	PU530EF
IC530EF	LH530TF	PC285WE	PU530ME
IC530LF	LH530WE	PC285WF	PU530MF
IC530MF	LH530WF	PC345EE	PU530SE
IC530NF	LH680EE	PC345EF	PU530SF
IC530SF	LH680EF	PC345LE	PU530WE
IC530TF	LH680LE	PC345LF	PU530WF
IC530WF	LH680LF	PC345ME	PU680EE
IC680EE	LH680ME	PC345MF	PU680EF
IC680EF	LH680MF	PC345NE	PU680ME
IC680LE	LH680NE	PC345NF	PU680MF
IC680LF	LH680NF	PC345SE	PU680SE
IC680ME	LH680SE	PC345SF	PU680SF
IC680MF	LH680SF	PC345TE	PU680WE
IC680NE	LH680TE	PC345TF	PU680WF
IC680NF	LH680TF	PC345WE	PUAE285E
IC680SE	LH680WE	PC345WF	PUAE285F
IC680SE	LH680WF	PC530EE	PUAG285E
IC680SF	LHD28EE	PC530EF	PUAG285F
IC680TE	LHD28EF	PC530LE	PUAL285E
IC680TF	LHD28LE	PC530LF	PUAL285F
IC680WE	LHD28LF	PC530ME	PUAS285E
IC680WF	LHD28NE	PC530MF	PUAS285E

*Table continues...*

IDR190	LHD28NE	PC530NE	PUAS285F
IDR250	LHD28NF	PC530NF	PUD28EE
IDR285	LHD28SE	PC530SE	PUD28EF
IDR345	LHD28SF	PC530SF	PUD28SE
IDR530	LHD28TE	PC530TE	PUD28SF
IDR680	LHD28TF	PC530TF	PUD28WE
IH530EF	LHD28WE	PC530WE	PUD28WF
IH530LF	LHD28WF	PC530WF	PUDE190E
IH530NF	LHS28EE	PC680EE	PUDE190F
IH530SF	LHS28EF	PC680EF	PUDE250E
IH530TF	LHS28LE	PC680LE	PUDE250F
IH530WF	LHS28LF	PC680LF	PUDE285E
IH680EE	LHS28NE	PC680ME	PUDE285F
IH680EF	LHS28NF	PC680MF	PUDE345E
IH680LE	LHS28TE	PC680NE	PUDE345F
IH680LF	LHS28TF	PC680NF	PUDE530E
IH680ME	LS195	PC680SE	PUDE530F
IH680MF	LS195_START- ING_MARCH_2015	PC680SF	PUDE680E
IH680NE	LS195_START- ING_MARCH_24_2015	PC680TE	PUDE680F
IH680NF	LS195_START- ING_MAY_2013	PC680TF	PUDG190E
IH680SE	LS250_EASY	PC680WE	PUDG190F
IH680SF	LS250_FULL	PC680WF	PUDG250E
IH680TE	LS300_EASY	PCD28EE	PUDG250F
IH680TF	LS300_FULL	PCD28EF	PUDG285E
IH680WE	LS300_START- ING_13T005139DF	PCD28LE	PUDG285F
IH680WF	LS300_START- ING_13T005186DH	PCD28LF	PUDG345E
IR530EF	LS300_THROUGH_JANU- ARY_2010	PCD28NE	PUDG345F
IR530LF	LS300_THROUGH_MAY_201 3	PCD28NF	PUDG530E
IR530MF	LS300_THROUGH_MAY_201 5	PCD28SE	PUDG530F

*Table continues...*



IR530NF	LS350_EASY	PCD28SF	PUDG680E
IR530SF	LS350_FULL	PCD28TE	PUDG680F
IR530TF	LS350_START- ING_16T008413DD	PCD28TF	PUDL190E
IR530WF	LS350_START- ING_16T008559DH	PCD28WE	PUDL190F
IR680EE	LS350_THROUGH_JANU- ARY_2010	PCD28WF	PUDL250E
IR680EF	LS350_THROUGH_MAY_201 3	PCS28EE	PUDL250F
IR680LE	LS530_EASY	PCS28EF	PUDL285E
IR680LF	LS530_FULL	PCS28LE	PUDL285F
IR680ME	LS680_EASY	PCS28LF	PUDL345E
IR680MF	LS680_FULL	PCS28NE	PUDL345F
IR680NE	LS680_START- ING_35T003218RE	PCS28NF	PUDL530E
IR680NF	LS680_START- ING_35T005504DQ	PCS28TE	PUDL530F
IR680SE	LSD300	PCS28TF	PUDL680E
IR680SF	LSMS13	PCT250T_FULL	PUDL680F
IR680TE	LU190EE	PGAE285E	PUDS250E
IR680TF	LU190EF	PGAE285F	PUDS250F
IR680WE	LU190FE	PGAG285E	PUDS285E
IR680WF	LU190FF	PGAG285F	PUDS285F
IU530EF	LU190LF	PGAL285E	PUDS345E
IU530MF	LU190ME	PGAL285F	PUDS345F
IU530SF	LU190MF	PGAS285E	PUDS530E
IU530WF	LU250EE	PGAS285F	PUDS530F
IU680EE	LU250EF	PGDE190E	PUDS680E
IU680EF	LU250FE	PGDE190F	PUDS680F
IU680ME	LU250FF	PGDE250E	PUS28EE
IU680MF	LU250ME	PGDE250F	PUS28EF
IU680SE	LU250MF	PGDE285E	PUSE285E
IU680SF	LU250SE	PGDE285F	PUSE285F
IU680WE	LU250SF	PGDE345E	PUSG285E
IU680WF	LU250WE	PGDE345F	PUSG285F

*Table continues...*

IUHP250E	LU250WF	PGDE530E	PUSL285E
IX530EF	LU285EE	PGDE530F	PUSL285F
IX530LF	LU285EF	PGDE680E	PUSS285E
IX530MF	LU285FE	PGDE680F	PUSS285F
IX530NF	LU285FF	PGDG190E	PX190EE
IX530SF	LU285ME	PGDG190F	PX190EF
IX530TF	LU285MF	PGDG250E	PX190FE
IX530WF	LU285SE	PGDG250F	PX190FF
IX680EE	LU285SF	PGDG285E	PX190LE
IX680EF	LU285WE	PGDG285F	PX190LF
IX680LE	LU285WF	PGDG345E	PX190ME
IX680LF	LU345EE	PGDG345F	PX190MF
IX680ME	LU345EE	PGDG530E	PX190NE
IX680MF	LU345EE	PGDG530F	PX190NF
IX680NE	LU345MF	PGDG680E	PX190TE
IX680NF	LU345SE	PGDG680F	PX190TF
IX680SE	LU345SF	PGDL190E	PX250EE
IX680SF	LU345WE	PGDL190F	PX250EF
IX680TE	LU345WF	PGDL250E	PX250FE
IX680TF	LU530EE	PGDL250F	PX250FF
IX680WE	LU530EF	PGDL285E	PX250LE
IX680WF	LU530ME	PGDL285F	PX250LF
IX9	LU530MF	PGDL345E	PX250ME
IX9HP	LU530SE	PGDL345F	PX250MF
LC190EE	LU530SF	PGDL530E	PX250NE
LC190EF	LU530WE	PGDL530F	PX250NF
LC190FE	LU530WF	PGDL680E	PX250SE
LC190FF	LU680EE	PGDL680F	PX250SF
LC190LE	LU680EF	PGDS250E	PX250TE
LC190LF	LU680ME	PGDS250F	PX250TF
LC190ME	LU680MF	PGDS285E	PX250WE
LC190MF	LU680SE	PGDS285F	PX250WF
LC190NE	LU680SF	PGDS345E	PX285EE
LC190NF	LU680WE	PGDS345F	PX285EF

*Table continues...*

LC190TE	LU680WF	PGDS530E	PX285FE
LC190TF	LUD26EF	PGDS530F	PX285FF
LC250EE	LUD28EE	PGDS680E	PX285LE
LC250EF	LUD28EF	PGDS680F	PX285LF
LC250FE	LUD28LF	PGSE285E	PX285ME
LC250FF	LUD28SE	PGSE285F	PX285MF
LC250LE	LUD28SF	PGSG285E	PX285NE
LC250LF	LUD28WE	PGSG285F	PX285NF
LC250ME	LUD28WF	PGSL285E	PX285SE
LC250MF	LUS28EE	PGSL285F	PX285SF
LC250NE	LUS28EF	PGSS285E	PX285TE
LC250NF	LX190EE	PGSS285F	PX285TF
LC250SE	LX190EF	PH190EE	PX285WE
LC250SF	LX190FE	PH190EF	PX285WF
LC250TE	LX190FF	PH190FE	PX345EE
LC250TF	LX190LE	PH190FF	PX345EF
LC250WE	LX190LF	PH190LE	PX345LE
LC250WF	LX190ME	PH190LF	PX345LF
LC285EE	LX190MF	PH190ME	PX345ME
LC285EF	LX190NE	PH190MF	PX345MF
LC285FE	LX190NF	PH190NE	PX345NE
LC285FF	LX190TE	PH190NF	PX345NF
LC285LE	LX190TF	PH190TE	PX345SE
LC285LF	LX250EE	PH190TF	PX345SF
LC285ME	LX250EF	PH250EE	PX345TE
LC285MF	LX250FE	PH250EF	PX345TF
LC285NE	LX250FF	PH250FE	PX345WE
LC285NF	LX250LE	PH250FF	PX345WF
LC285SE	LX250LF	PH250LE	PX530EE
LC285SF	LX250ME	PH250LF	PX530EF
LC285TE	LX250MF	PH250ME	PX530LE
LC285TF	LX250NE	PH250MF	PX530LF
LC285WE	LX250NF	PH250NE	PX530ME
LC285WF	LX250SE	PH250NF	PX530MF

*Table continues...*

LC345EE	LX250SF	PH250SE	PX530NE
LC345EF	LX250TE	PH250SF	PX530NF
LC345LE	LX250TF	PH250TE	PX530SE
LC345LF	LX250WE	PH250TF	PX530SF
LC345ME	LX250WF	PH250WE	PX530TE
LC345MF	LX285EE	PH250WF	PX530TF
LC345NE	LX285EF	PH285EE	PX530WE
LC345NF	LX285FE	PH285EF	PX530WF
LC345SE	LX285FF	PH285FE	PX680EE
LC345SF	LX285LE	PH285FF	PX680EF
LC345TE	LX285LF	PH285LE	PX680LE
LC345TF	LX285ME	PH285LF	PX680LF
LC345WE	LX285MF	PH285ME	PX680ME
LC345WF	LX285NE	PH285MF	PX680MF
LC530EE	LX285NF	PH285NE	PX680NE
LC530EF	LX285SE	PH285NF	PX680NF
LC530LE	LX285SF	PH285SE	PX680SE
LC530LF	LX285TE	PH285SF	PX680SF
LC530ME	LX285TF	PH285TE	PX680TE
LC530MF	LX285WE	PH285TF	PX680TF
LC530NE	LX285WF	PH285WE	PX680WE
LC530NF	LX345EE	PH285WF	PX680WF
LC530SE	LX345EF	PH345EE	PXD28EE
LC530SF	LX345LE	PH345EF	PXD28EF
LC530TE	LX345LF	PH345LE	PXD28LE
LC530TF	LX345ME	PH345LF	PXD28LF
LC530WE	LX345MF	PH345ME	PXD28NE
LC530WF	LX345NE	PH345MF	PXD28NF
LC680EE	LX345NF	PH345NE	PXD28SE
LC680EF	LX345SE	PH345NF	PXD28SF
LC680LE	LX345SF	PH345SE	PXD28TE
LC680LF	LX345TE	PH345SF	PXD28TF
LC680ME	LX345TF	PH345TE	PXD28WE
LC680MF	LX345WE	PH345TF	PXD28WF

*Table continues...*

LC680NE	LX345WF	PH345WE	PXS28EE
LC680NF	LX530EE	PH345WF	PXS28EF
LC680SE	LX530EF	PH530EE	PXS28LE
LC680SF	LX530LE	PH530EF	PXS28LF
LC680TE	LX530LF	PH530LE	PXS28NE
LC680TF	LX530ME	PH530LF	PXS28NF
LC680WE	LX530MF	PH530ME	PXS28TE
LC680WF	LX530NE	PH530MF	PXS28TF
LCD28EE	LX530NF	PH530NE	SQHP190F
LCD28EF	LX530SE	PH530NF	ST11
LCD28LE	LX530SF	PH530SE	ST14
LCD28LF	LX530TE	PH530SF	ST16
LCD28NE	LX530TF	PH530TE	ST19
LCD28NF	LX530WE	PH530TF	ST30
LCD28SE	LX530WF	PH530WE	ST30_EASY
LCD28SF	LX680EE	PH530WF	ST38
LCD28TE	LX680EF	PH680EE	SUHP190F
LCD28TF	LX680LE	PH680EF	T11_EASY
LCD28WE	LX680LF	PH680LE	T11_FULL
LCD28WF	LX680ME	PH680LF	T11_START- ING_11T004803DF
LCS28EE	LX680MF	PH680ME	T11_START- ING_11T004823DH
LCS28EF	LX680NE	PH680MF	T11_THROUGH_JANU- ARY_2010
LCS28LE	LX680NF	PH680NE	T11_THROUGH_MAY_2013
LCS28LF	LX680SE	PH680NF	T11E
LCS28NE	LX680SF	PH680SE	T11HP_START- ING_11T004803DF
LCS28NF	LX680TE	PH680SF	T11HP_START- ING_11T004823DH
LCS28TE	LX680TF	PH680TE	T11HP_THROUGH_JANU- ARY_2010
LCS28TF	LX680WE	PH680TF	T11HP_THROUGH_MAY_20 13
LH190EE	LX680WF	PH680WE	T13/13

Table continues...

LH190EF	LXD28EE	PH680WF	T13/13_START- ING_13TD002310RV
LH190FE	LXD28EF	PHD2828EF	T13/13_THROUGH_OCTO- BER_2010
LH190FF	LXD28LE	PHD28EE	T13_EASY
LH190LE	LXD28LF	PHD28EF	T13_FULL
LH190LF	LXD28NE	PHD28LE	T13_START- ING_13T005139DF
LH190ME	LXD28NF	PHD28LF	T13_START- ING_13T005186DH
LH190MF	LXD28SE	PHD28NE	T13_THROUGH_JANU- ARY_2010
LH190NE	LXD28SF	PHD28NF	T13_THROUGH_MAY_2013
LH190NF	LXD28TE	PHD28SE	T13_THROUGH_MAY_2015
LH190TE	LXD28TF	PHD28SF	T1313
LH190TF	LXD28WE	PHD28TE	T13E
LH250EE	LXD28WF	PHD28TF	T13HP_START- ING_13T005139DF
LH250EF	LXS2828EE	PHD28WE	T13HP_START- ING_13T005186DH
LH250FE	LXS28EE	PHD28WF	T13HP_THROUGH_JANU- ARY_2010
LH250FF	LXS28EF	PHS28EE	T13HP_THROUGH_MAY_20 13
LH250LE	LXS28LE	PHS28EF	T13HP_THROUGH_MAY_20 15
LH250LF	LXS28LF	PHS28LE	T16
LH250ME	LXS28NE	PHS28LF	T16_START- ING_16T008413DD
LH250MF	LXS28NF	PHS28NE	T16_START- ING_16T008559DH
LH250NE	LXS28TE	PHS28NF	T16_THROUGH_JANU- ARY_2010
LH250NF	LXS28TF	PHS28TE	T16_THROUGH_MAY_2013
LH250SE	PC190EE	PHS28TF	T16E
LH250SF	PC190EF	PU190EE	T16HP_START- ING_16T008413DD
LH250TE	PC190FE	PU190EF	T16HP_START- ING_16T008559DH

Table continues...

LH250TF	PC190FF	PU190FE	T16HP_THROUGH_JANU- ARY_2010
LH250WE	PC190LE	PU190FF	T16HP_THROUGH_MAY_20 13
LH250WF	PC190LF	PU190LE	T24_EASY
LH285EE	PC190ME	PU190LF	T24_FULL
LH285EF	PC190MF	PU190ME	T24_START- ING_24T003900RE
LH285FE	PC190NE	PU190MF	T24_START- ING_24T007059DQ
LH285FF	PC190NF	PU190NE	T35_EASY
LH285LE	PC190TE	PU190NF	T35_FULL
LH285LF	PC190TF	PU190SE	T35_START- ING_35T003218RE
LH285ME	PC195EE	PU190SF	T35_START- ING_35T005504DQ
LH285MF	PC195FE	PU190TE	T9_EASY
LH285NE	PC195ME	PU190TF	T9_FULL
LH285NF	PC250EE	PU190WE	T9_START- ING_MARCH_2015
LH285SE	PC250EF	PU190WF	T9_START- ING_MARCH_24_2015
LH285SF	PC250FE	PU250EE	T9_STARTING_MAY_2013
LH285TE	PC250FF	PU250EF	T9E
LH285TF	PC250LE	PU250FE	T9E_CURRENT
LH285WE	PC250LF	PU250FF	T9E_START- ING_MARCH_2015
LH285WF	PC250ME	PU250ME	T9E_START- ING_MARCH_24_2015
LH345EE	PC250MF	PU250MF	T9E_STARTING_MAY_2013
LH345EF	PC250NE	PU250SE	T9HP_START- ING_MARCH_2015
LH345LE	PC250NF	PU250SF	T9HP_START- ING_MARCH_24_2015
LH345LF	PC250SE	PU250WE	T9HP_START- ING_MAY_2013
LH345ME	PC250SF	PU250WF	T9-JESS
LH345MF	PC250T_EASY	PU285EE	T9-JESS_START- ING_MARCH_24_2015

Table continues...

LH345NE	PC250TE	PU285EF	T9-JESS_START- ING_MAY_2013
LH345NF	PC250TF	PU285FE	T9VP_START- ING_MARCH_2015
LH345SE	PC250WE	PU285FF	T9VP_START- ING_MARCH_24_2015
LH345SF	PC250WF	PU285ME	T9VP_START- ING_MAY_2013
LH345TE	PC285EE	PU285MF	TAMS13
LH345TF	PC285EF	PU285SE	TX9
LH345WE	PC285FE	PU285SF	T10E
LH345WF	PC285FF	PU285WE	
LH530EE	PC285HF	PU285WF	

e.g.: \*\* can be character IC, SU, PU, UC, IH....etc.

**190EE	**190EF	**190FE	**190FF	**190LE	**190LF	**190ME
**190MF	**190NE	**190NF	**190TE	**190TF	I190	SDR190
UDR190	**195EE	**195FE	**195ME	**250EE	**250EF	**250FE
**250FF	**250LE	**250LF	**250ME	**250MF	**250NE	**250NF
**250SE	**250SF	**250TE	**250TF	**250WE	**250WF	I250
SDR250	UDR250	UDS250	**285EE	**285EF	**285FE	**285FF
**285LE	**285LF	**285ME	**285MF	**285NE	**285NF	**285SE
**285SF	**285TE	**285TF	**285WE	**285WF	SDR285	UDR285
**D28EE	**D28EF	**D28LE	**D28LF	**D28ME	**D28MF	**D28NE
**D28NF	**D28SE	**D28SF	**D28TE	**D28TF	**D28WE	**D28WF
I285	IDD285	SDD285	UDD285	IDS285	SDS285	UDS285
**345EE	**345EF	**345LE	**345LF	**345FE	**345FF	**345ME
**345MF	**345NE	**345NF	**345SE	**345SF	**345TE	**345TF
**345WE	**345WF	I345	SDR345	UDR345	**530EE	**530EF
**530LE	**530LF	**530ME	**530MF	**530NE	**530NF	**530SE
**530SF	**530TE	**530TF	**530WE	**530WF	SDR530	UDR530
**680EE	**680EF	**680LE	**680LF	**680ME	**680MF	**680NE
**680NF	**680SE	**680SF	**680TE	**680TF	**680WE	**680WF
SDR680	UDR680					



# Specification and Dimensions

## General Specification

**Tumble Dryers 9-11-13 kg / 20-24-27 lb / 190-250-285 L**

Machine kg / lb / L	9 / 20 / 190	9 / 20 / 195	11 / 24 / 250	13 / 27 / 285
<b>Weight and Shipping Dimensions</b>				
Net weight, lb [kg]	375 [170]	275.6 [125]	497 [225]	497 [225]
Shipping weight, lb [kg]	397 [180]	297.6 [135]	541 [245]	552 [250]
Shipping width, in [mm]	34.64 [880]	29.61 [752]	33.66 [855]	33.66 [855]
Shipping depth, in [mm]	34.84 [885]	38.19 [970]	43.30 [1100]	46.85 [1190]
Shipping height, in [mm]	61.81 [1570]	49.33 [1253]	70.28 [1785]	70.28 [1785]
<b>Dimensions (Standard) - maximum dimensions including protruding parts</b>				
Width in [mm]	31.30 [795]	27.95 [710]	31.30 [795]	31.30 [795]
Depth in [mm]	32.08 [815]	37.20 [945]	42.12 [1070]	45.66 [1160]
Height in [mm]	57.68 [1465]	45.28 [1150]	66.14 [1680]	66.14 [1680]
<b>Drum Dimensions</b>				
Diameter, in [mm]	29.92 [760]	26.38 [670]	29.92 [760]	29.92 [760]
Depth, in [mm]	16.54 [420]	21.85 [555]	21.26 [540]	24.8 [630]
Drum capacity, cu.ft [dm <sup>3</sup> ]	6.71 [190]	6.89 [195]	8.83 [250]	10.06 [285]
Door opening, in [mm]	23.62 [600]	19.69 [500]	23.62 [600]	23.62 [600]
Electrical Data – Refer to <i>Table 11</i>				
Motor Powers - Refer to <i>Table 11</i>				
Electrical System - Refer to <i>Table 11</i>				
Consumption - Refer to <i>Evacuation System</i>				
<b>Electrical Heating</b>				
Heating element, kW	Refer to <i>Table 11</i>			
Noise Level (ISO 3744) - drying sequence, db	55	55	51	53
<b>Steam Heating</b>				
Steam output, pressure 43.5 - 87 PSI [3 - 6 bar] , HP [kW]	N/A	N/A	22.26 - 26 [16.6 - 19.4]	34.19 - 40 [25.5 - 29.9]

Table 3 continues...

Machine kg / lb / L	9 / 20 / 190	9 / 20 / 195	11 / 24 / 250	13 / 27 / 285
Steam output, pressure 101.5 - 145 PSI [7 - 10 bar] , HP [kW]	N/A	N/A	26.82 - 31.24 [20 - 23.3]	28.83 - 32.18 [21.5 - 24]
Steam plumbing, in.	N/A	N/A	G $\frac{3}{4}$	
Condensate drain	N/A	N/A	G $\frac{3}{4}$	
Noise Level (ISO 3744) - drying sequence, db	N/A	N/A	51	53
<b>Gas Heating</b>				
Gas connection, in.	G $\frac{3}{4}$ - Models through Serial No.: 9T011519QD  G $\frac{1}{2}$ - Models starting Serial No.: 9T011520QD	N/A	G $\frac{3}{4}$ - Models through Serial No.: 11T006658QB, 13T006723QB  G $\frac{1}{2}$ - Models starting Serial No.: 11T006659QB, 13T006724QB	
Gas heating output, HP [kW] (based on net calo- rific value)	16.76 [12.5]	N/A	22.12 [16.5]	26.15 [19.5]
Noise Level (ISO 3744) - drying sequence, db	58	N/A	51	53
<b>General Data</b>				
Ambient temperature, °F [°C]	40-104 [15-59]			
Average ambient tem- perature in 24 hours °F [°C]	up 95 [35]			
Relative humidity	30% to 90% without condensation			
Height above sea level, ft [m]	to 3280 [1000]			
Ingress protection	IP 43			

Table 3

**Tumble Dryers 13 kg / 27 lb / 285 L Top Pocket Tumbler and Stacked Tumbler**

Machine kg / lb / L	13 / 27 / 285 Top Pocket Tumbler	13 / 27 / 285 Stacked Tumbler
<b>Weight and Shipping Dimensions</b>		
Net weight, lb [kg]	408 [185]	816 [370]
Shipping weight, lb [kg]	441 [200]	849 [385]
Shipping width, in [mm]	34.64 [880]	34.64 [880]

Table 4 continues...

Machine kg / lb / L	13 / 27 / 285 Top Pocket Tumbler	13 / 27 / 285 Stacked Tumbler
Shipping depth, in [mm]	52.16 [1325]	52.16 [1325]
Shipping height, in [mm]	45.66 [1160]	83.46 [2120]
<b>Dimensions (Standard) - maximum dimensions including protruding parts</b>		
Width in [mm]	31.30 [795]	31.30 [795]
Depth in [mm]	48.81 [1240]	48.81 [1240]
Height in [mm]	42.32 [1075]	79.92 [2030]
<b>Drum Dimensions</b>		
Diameter, in [mm]	29.92 [760]	2x 29.92 [760]
Depth, in [mm]	24.80 [630]	2x 24.80 [630]
Drum capacity, cu.ft [dm <sup>3</sup> ]	10.64 [285]	2 x 10.64 [285]
Door opening, in [mm]	23.62 [600]	2 x 23.62 [600]
Electrical Data – Refer to <i>Table 11</i>		
Motor Powers - Refer to <i>Table 11</i>		
Electrical System - Refer to <i>Table 11</i>		
Electrical Heating - Refer to <i>Table 11</i>		
Gas Heating - Refer to <i>Table 11</i>		
Steam Heating - Refer to <i>Table 11</i>		
Consumption - Refer to <i>Evacuation System</i>		
<b>Electrical Heating</b>		
Heating element, kW	18	2x 18
Noise Level (ISO 3744) - drying sequence, db	< 70	55
<b>Steam Heating</b>		
Steam output, pressure 43.5 - 87 PSI [3 - 6 bar] , HP [kW]	N/A	2 x 22.26 - 26 [25.5 - 29.9]
Steam output, pressure 101.5 - 145 PSI [7 - 10 bar] , HP [kW]	N/A	2 x 28.83 - 32.18 [21.5 - 24]
Steam plumbing, in.	N/A	2 x G <sup>3</sup> / <sub>4</sub>
Condensate drain	N/A	2 x G <sup>3</sup> / <sub>4</sub>
Noise Level (ISO 3744) - drying sequence, db	<70	55
<b>Gas Heating</b>		

Table 4 continues...

Machine kg / lb / L	13 / 27 / 285 Top Pocket Tumbler	13 / 27 / 285 Stacked Tumbler
Gas connection, in.	G <sup>3</sup> / <sub>4</sub> - Models through Serial No.: 13TA000340QB  G <sup>1</sup> / <sub>2</sub> - Models starting Serial No.: 13TA000341QF	2 x G <sup>3</sup> / <sub>4</sub> - Models through Serial No.: 13TD005312QB  2 x G <sup>1</sup> / <sub>2</sub> - Models starting Serial No.: 13TD005313QB
Gas heating output, HP [kW] (based on net calorific value)	26.15 [19.5]	2 x 22.12/25.15 [16.5/19.5]
Noise Level (ISO 3744) - drying sequence, db	<70	55
<b>General Data</b>		
Ambient temperature, °F [°C]	41-104 [5-40]	
Average ambient temperature in 24 hours °F [°C]	up 95 [35]	
Relative humidity	30% to 90% without condensation	
Height above sea level, ft [m]	to 3280 [1000]	
Ingress protection	IP 43	

Table 4

**Tumble Dryers 16-24-35 kg / 35-53-77 lb / 345-530-680 L**

Machine kg / lb / L	16 / 35 / 345	24 / 53/ 530	35 / 77 / 680
<b>Weight and Shipping Dimensions</b>			
Net weight, lb [kg]	530 [240]	606 [275]	673 [305]
Shipping weight, lb [kg]	574 [260]	661 [300]	728 [330]
Shipping width, in [mm]	33.66 [855]	40.9 [1040]	40.94 [1040]
Shipping depth, in [mm]	51.60 [1310]	51.96 [1320]	60.62 [1540]
Shipping height, in [mm]	70.27 [1785]	81.69 [2075]	81.69 [2075]
<b>Dimensions (Standard) - maximum dimensions including protruding parts</b>			
Width in [mm]	31.30 [795]	37.99 [965]	37.99 [965]
Depth in [mm]	50.39 [1280]	49.99 [1270]	58.66 [1490]
Height in [mm]	66.14 [1680]	77.75 [1975]	77.75 [1975]
<b>Drum Dimensions</b>			
Diameter, in [mm]	29.92 [760]	36.61 [930]	36.61 [930]
Depth, in [mm]	29.53 [750]	30.70 [780]	39.36 [1000]
Drum capacity, cu.ft [dm <sup>3</sup> ]	91 [345]	140 [530]	180 [680]
Door opening, in [mm]	23.62 [600]	31.88 [810]	31.88 [810]

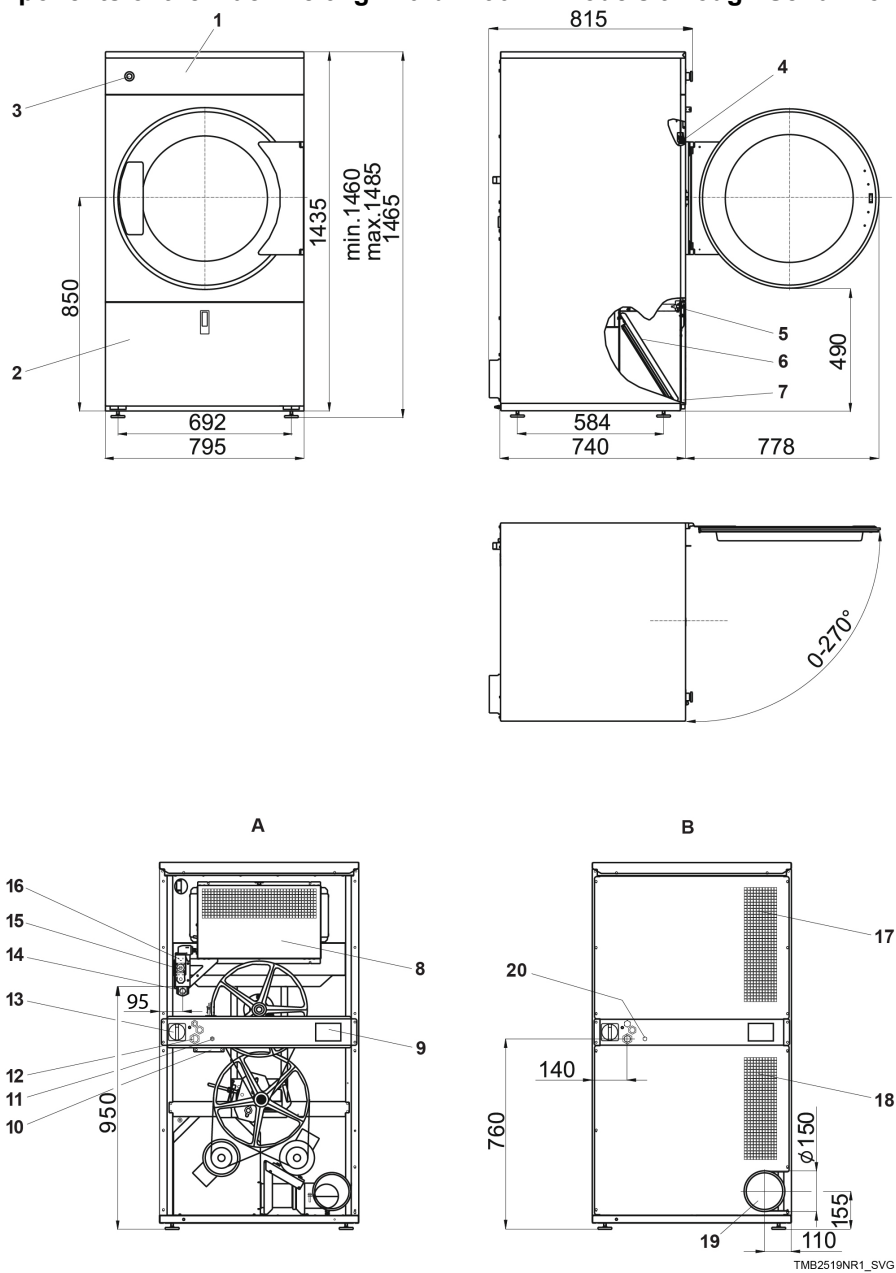
Table 5 *continues...*

Machine kg / lb / L	16 / 35 / 345	24 / 53/ 530	35 / 77 / 680
Electrical Data – Refer to <i>Table 11</i>			
Motor Powers - Refer to <i>Table 11</i>			
Electrical System - Refer to <i>Table 11</i>			
Consumption - Refer to <i>Evacuation System</i>			
<b>Electrical Heating</b>			
Heating element, kW	Refer to <i>Table 11</i>		
Noise Level (ISO 3744) - drying sequence, db	53	60	60
<b>Steam Heating</b>			
Steam output, pressure 43.5 - 87 PSI [3 - 6 bar] , HP [kW]	34.19 - 47.74 [25.5 - 35.6]	34.59 - 42.24 [25.8 - 31.5]	56.45 - 69.19 [42.1 - 51.6]
Steam output, pressure 101.5 - 145 PSI [7 - 10 bar] , kW	33.25 - 37.14 [24.8 - 27.7]	44.11 - 38.94 [32.9 - 36.5]	72.14 - 80.32 [53.8 - 59.9]
Steam plumbing, in.	G <sup>3</sup> / <sub>4</sub>		
Condensate drain	G <sup>3</sup> / <sub>4</sub>		
Noise Level (ISO 3744) - drying sequence, db	53	60	60
<b>Gas Heating</b>			
Gas connection, in.	G <sup>3</sup> / <sub>4</sub> - Models through Serial No.: 16T014291QB G <sup>1</sup> / <sub>2</sub> - Models starting Serial No.: 16T014292QB	G <sup>3</sup> / <sub>4</sub>	
Gas heating output, HP [kW] (based on net calorific value)	33.52 [25] (G110 - 22.5)	44.25/52.29 [33/39] (G110-33)	61.68/67 [46/50] (G110-46)
Noise Level (ISO 3744) - drying sequence, db	53	60	60
<b>General Data</b>			
Ambient temperature, °F [°C]	40-104 [15-59]		
Average ambient temperature in 24 hours °F [°C]	up 95 [35]		
Relative humidity	30% to 90% without condensation		
Height above sea level, ft [m]	to 3280 [1000]		
Ingress protection	IP 43		

Table 5

## Machine Dimensions and Components

### Dimensions and Components of the Machine 9kg / 20lb / 190 L - Models through Serial No.: 9T011519QD



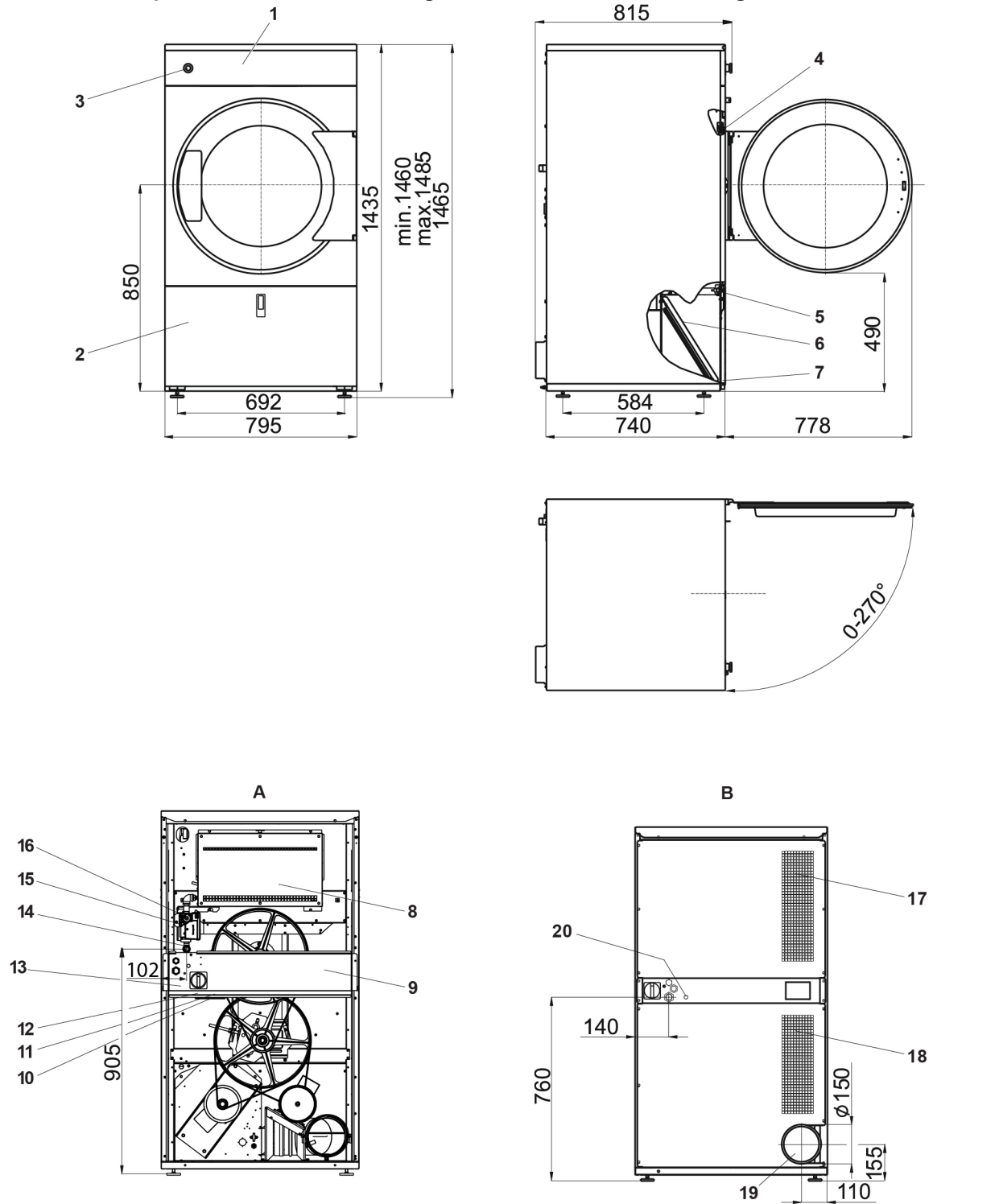
A - Gas Heating

B - Electrical Heating

**NOTE:** For callout descriptions, refer to the following legend.

Figure 7

**Dimensions and Components of the Machine 9kg / 20lb / 190 L - Models starting Serial No.: 9T011520QD**



TMB2700N\_SVG

**NOTE: For callout descriptions, refer to the following legend.**

**Legend**

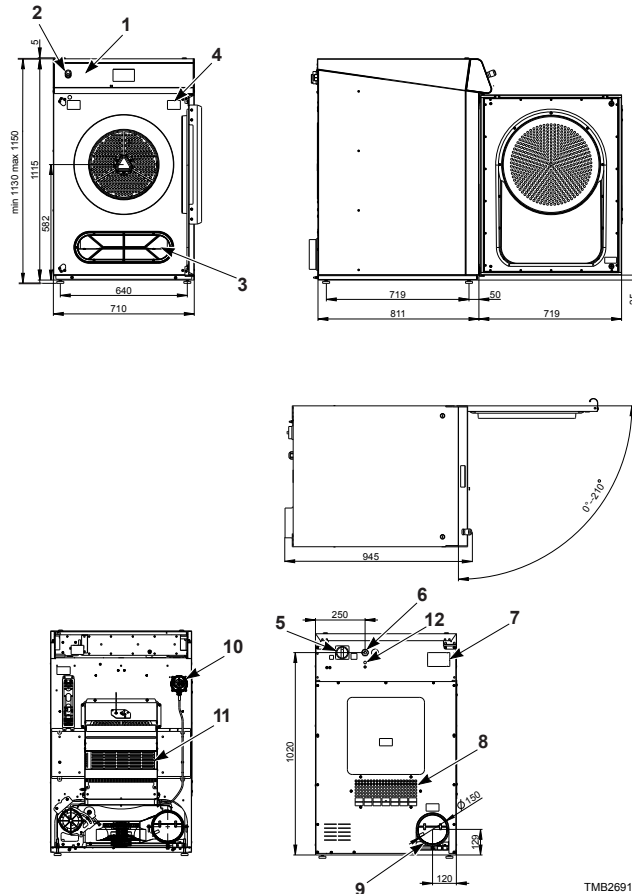
- 1. Control panel
- 2. Lint screen cover

Figure 8

## Specification and Dimensions

- |   |  |
|---|--|
| 3. Emergency stop button (not applicable for version with coin meter) | 12. Main power supply                  |
| 4. Door lock microswitch  | 13. Main switch                        |
| 5. Lint cover microswitch   | 14. Gas supply (G models only)         |
| 6. Lint screen  | 15. Pressure regulator (G models only) |
| 7. Serial plate   | 16. Gas valve (G models only)          |
| 8. Heating chamber  | 17. Suction                            |
| 9. Serial plate   | 18. Suction                            |
| 10. Airflow switch  | 19. Exhaust piping                     |
| 11. External payment system connection                                | 20. External payment system connection |

### Dimensions and Components of the Machine 9kg / 20lb / 195 L



TMB2691N

**NOTE: Optional Base Frame with height 135 mm or 200 mm (on request only).**

**NOTE: For callout descriptions, refer to the following legend.**

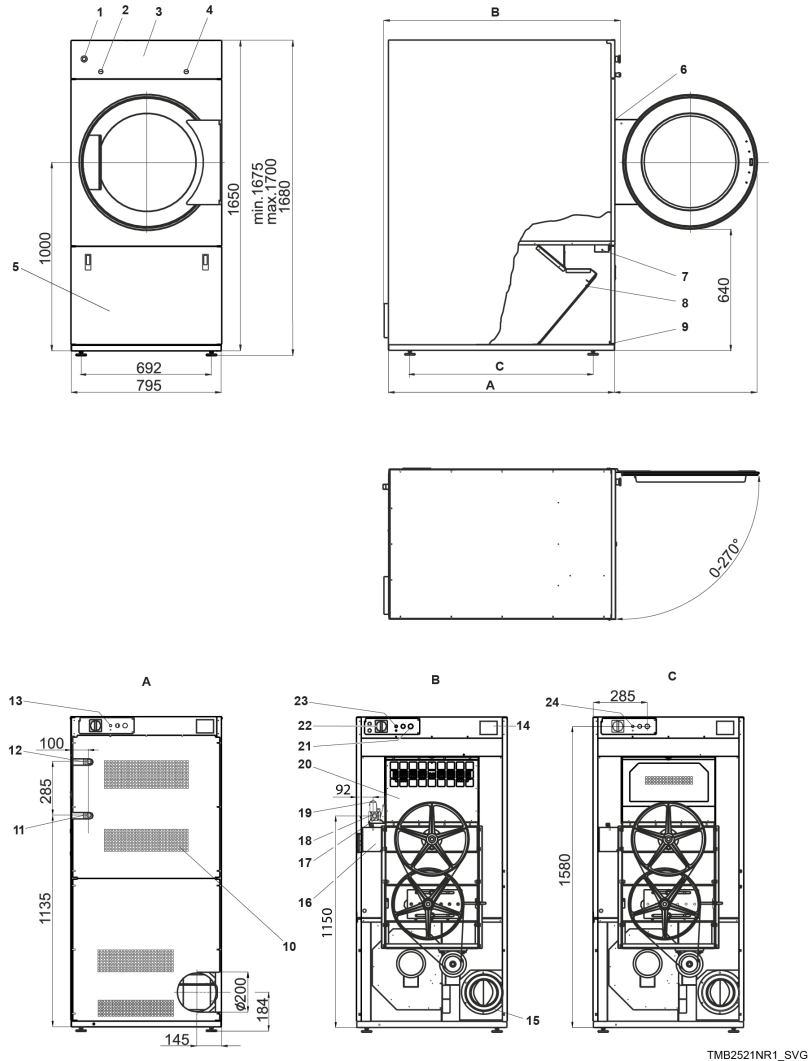
### Legend

- |   |  |
|---|--|
| 1. Control panel  | 6. Main power supply                   |
| 2. Emergency stop button (not applicable for version with coin meter) | 7. Serial plate                        |
| 3. Lint screen  | 8. Suction                             |
| 4. Door switch  | 9. Exhaust piping                      |
| 5. Main switch  | 10. Airflow switch                     |
|   | 11. Heating chamber                    |
|   | 12. External payment system connection |

Figure 9



**Dimensions and Components of the Machine 11 - 13 - 16 kg / 24 - 27 - 35 lb / 250 - 285 - 345 L - Models through Serial No.: 11T006658QB; 13T006723QB, 16T014291QB**



A - Steam Heating

B - Gas Heating

C - Electrical Heating

**NOTE: For callout descriptions, refer to the following legend.**

Figure 10

**Dimensions and Components of the Machine 11 - 13 - 16 kg / 24 - 27 - 35 lb / 250 - 285 - 345 L - Models starting Serial No.: 11T006659QB; 13T006724QB, 16T014292QB**

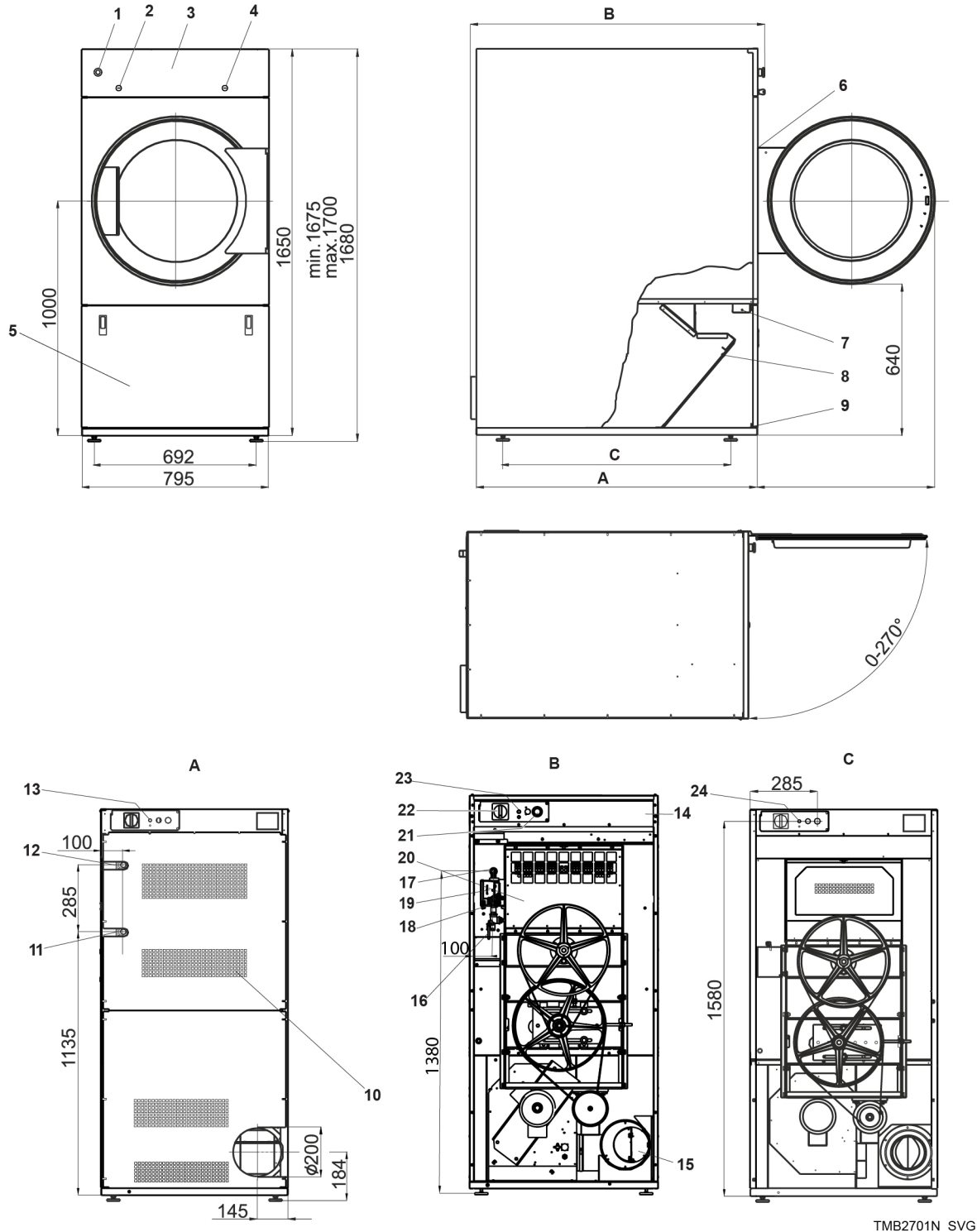


Figure 11

**Legend**

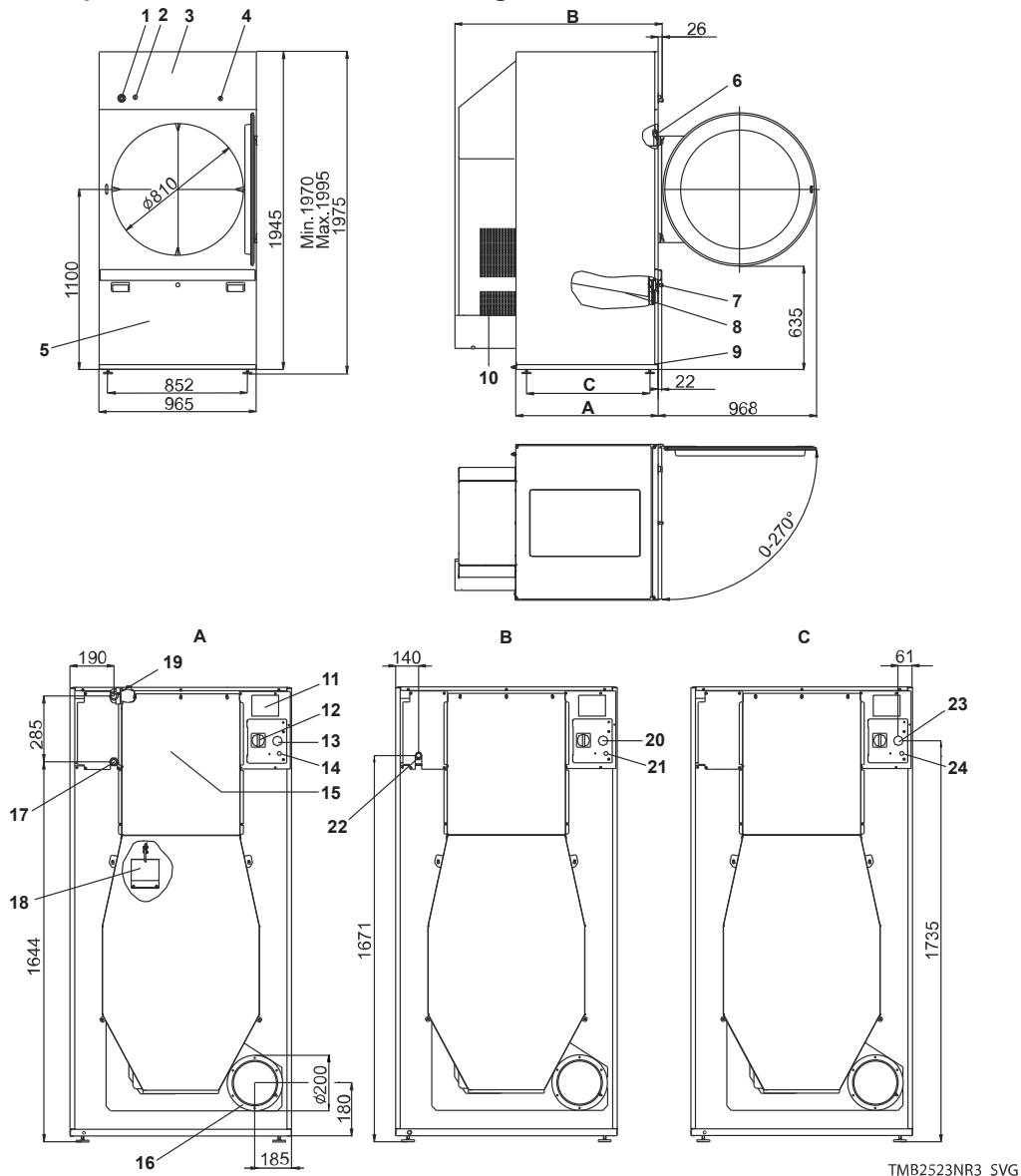
1. Emergency stop button (not applicable for version with coin meter)
2. Lock of the control panel
3. Emergency stop button (not applicable for version with coin meter)
4. Lock of the control panel

- |  |  |
|--|--|
| 5. Lint screen cover                   | 16. Airflow switch                     |
| 6. Door lock microswitch               | 17. Gas supply (G models only)         |
| 7. Lint cover microswitch              | 18. Pressure regulator (G models only) |
| 8. Lint screen                         | 19. Gas valve (G models only)          |
| 9. Serial plate                        | 20. Heating chamber                    |
| 10. Suction                            | 21. Main power supply                  |
| 11. Condensate drain                   | 22. Main switch                        |
| 12. Steam supply                       | 23. External payment system connection |
| 13. External payment system connection | 24. External payment system connection |
| 14. Serial plate                       |  |
| 15. Exhaust piping                     |  |

Machine Dimensions and Components, in. [mm]			
Specification	Machine kg / lb / L		
	11 / 24 / 250	13 / 27 / 285	16 / 35 / 345
<b>A</b>	38.97 [990]	42.51 [1080]	47.24 [1200]
<b>B</b>	42.12 [1070]	45.66 [1160]	50.39 [1280]
<b>C</b>	30 [762]	33.54 [852]	38.26 [972]

Table 6

## Dimensions and Components of the Machine 24 - 35 kg / 53 - 77 lb / 530 - 680 L



A - Steam Heating

B - Gas Heating

C - Electrical Heating

**NOTE: For callout descriptions, refer to the following legend.**

### Legend

1. Emergency stop button (not applicable for version with coin meter)
2. Lock of the control panel
3. Emergency stop button (not applicable for version with coin meter)
4. Lock of the control panel

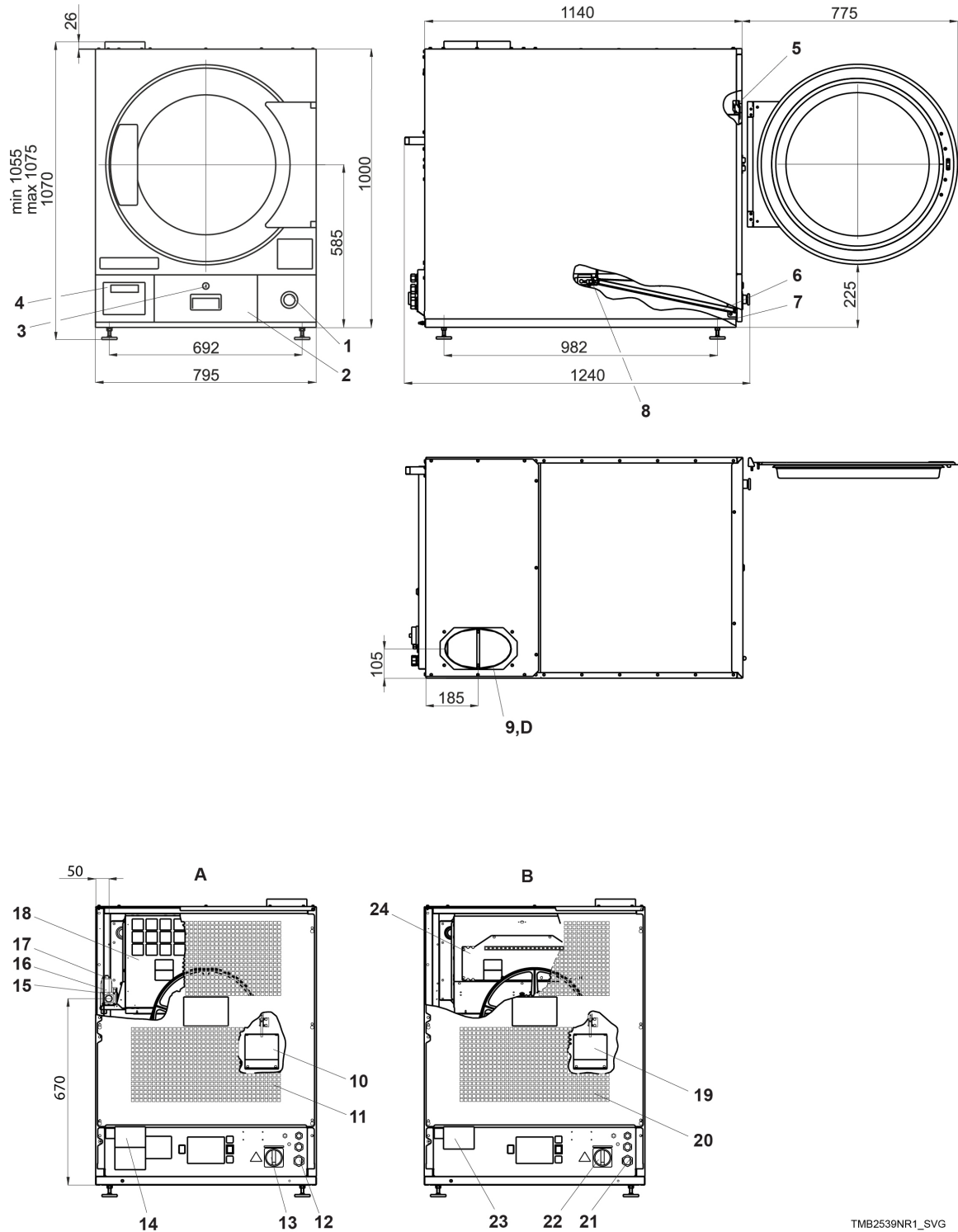
5. Lint screen cover
6. Door lock microswitch
7. Lint cover microswitch
8. Lint screen
9. Serial plate
10. Suction
11. Serial plate
12. Main switch

- 13. Main power supply
- 14. External payment system connection
- 15. Heating chamber
- 16. Exhaust piping
- 17. Condensate drain
- 18. Airflow switch
- 19. Steam supply
- 20. Main power supply
- 21. External payment system connection
- 22. Gas supply (G models only)
- 23. Main power supply
- 24. External payment system connection

<b>Machine Dimensions and Components, in. [mm]</b>		
<b>Specification</b>	<b>Machine kg / lb / L</b>	
	<b>24 / 53 / 530</b>	<b>35 / 77 / 680</b>
A	34.17 [868]	42.83 [1088]
B	50 [1270]	58.66 [1490]
C	29.64 [753]	38.30 [973]

Table 7

**Dimensions and Components of the Machine 13kg / 27lb / 285 L - Top Pocket Tumbler - Models through Serial No.: 13TA000340QB**



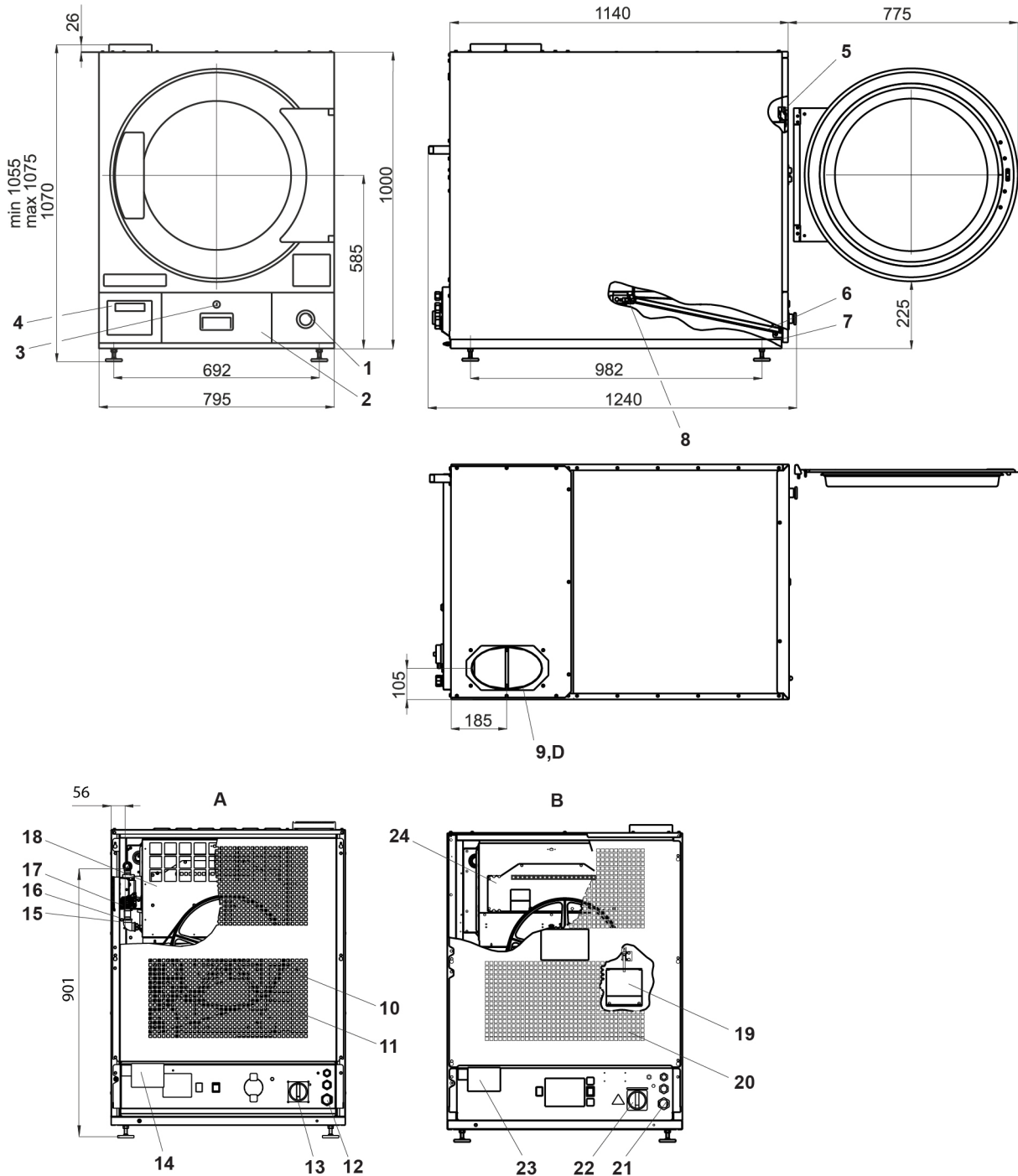
A - Gas Heating

B - Electrical Heating

**NOTE: For callout descriptions, refer to the following legend.**

Figure 13

**Dimensions and Components of the Machine 13kg / 27lb / 285 L - Top Pocket Tumbler - Models starting Serial No.: 13TA000341QF**



TMB2702N\_SVG

Figure 14

**Legend**

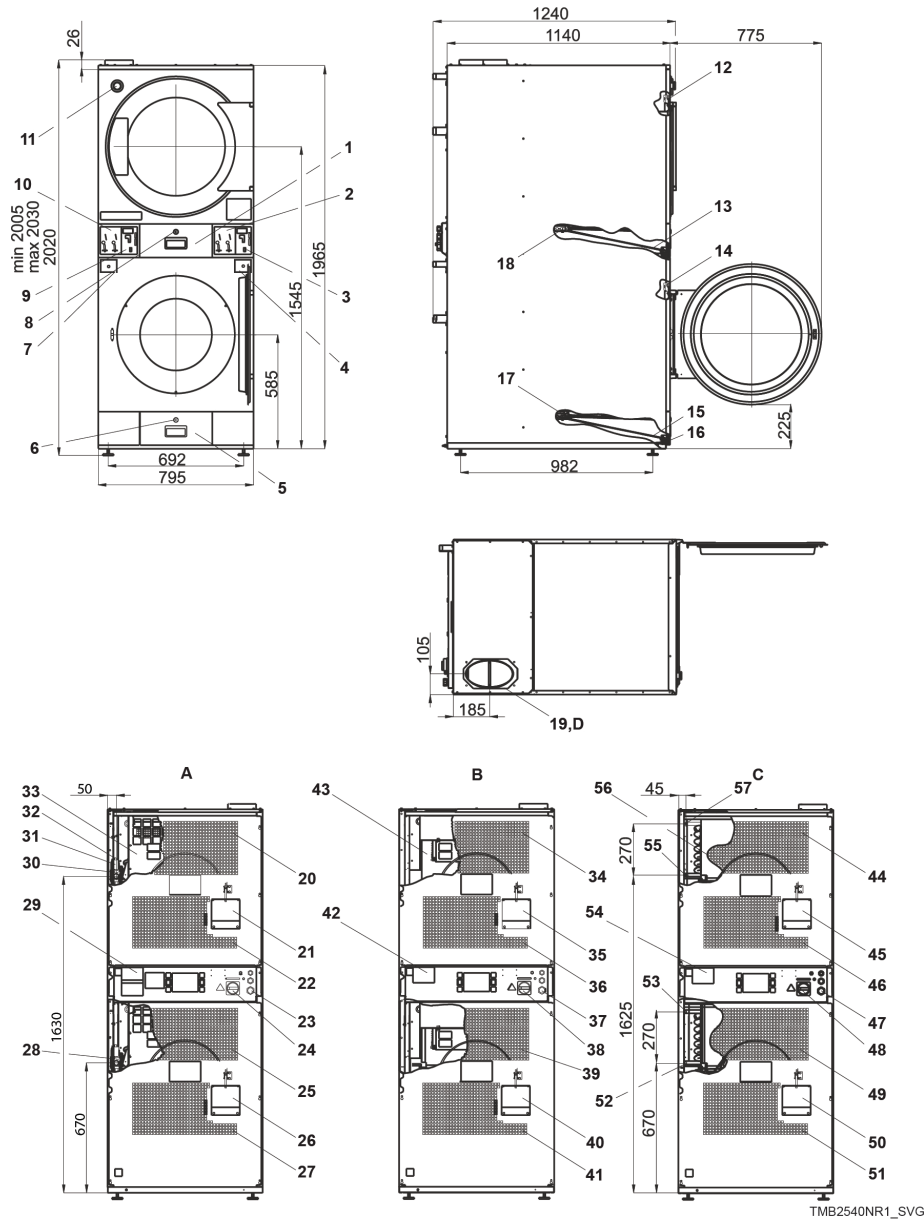
- |   |                              |
|---|------------------------------|
| 1. Emergency stop button (not applicable for version with coin meter) | 3. Lock of the control panel |
| 2. Lint screen cover  | 4. Programmer                |
|   | 5. Door lock microswitch     |
|   | 6. Lint screen               |
|   | 7. Serial plate              |

## Specification and Dimensions

- |  |                               |
|--|-------------------------------|
| 8. Lint cover microswitch              | 17. Gas valve (G models only) |
| 9. Exhaust piping                      | 18. Heating chamber           |
| 10. Airflow switch                     | 19. Airflow switch            |
| 11. Suction                            | 20. Suction                   |
| 12. Main power supply                  | 21. Main power supply         |
| 13. Main switch                        | 22. Main switch               |
| 14. Serial plate                       | 23. Serial plate              |
| 15. Gas supply (G models only)         | 24. Heating chamber           |
| 16. Pressure regulator (G models only) |                               |



**Dimensions and Components of the Machine 13kg/13kg / 27lb/27lb / 285L/285L- Stacked Tumbler; Models through Serial No. 13TD005312QB**



A - Gas Heating

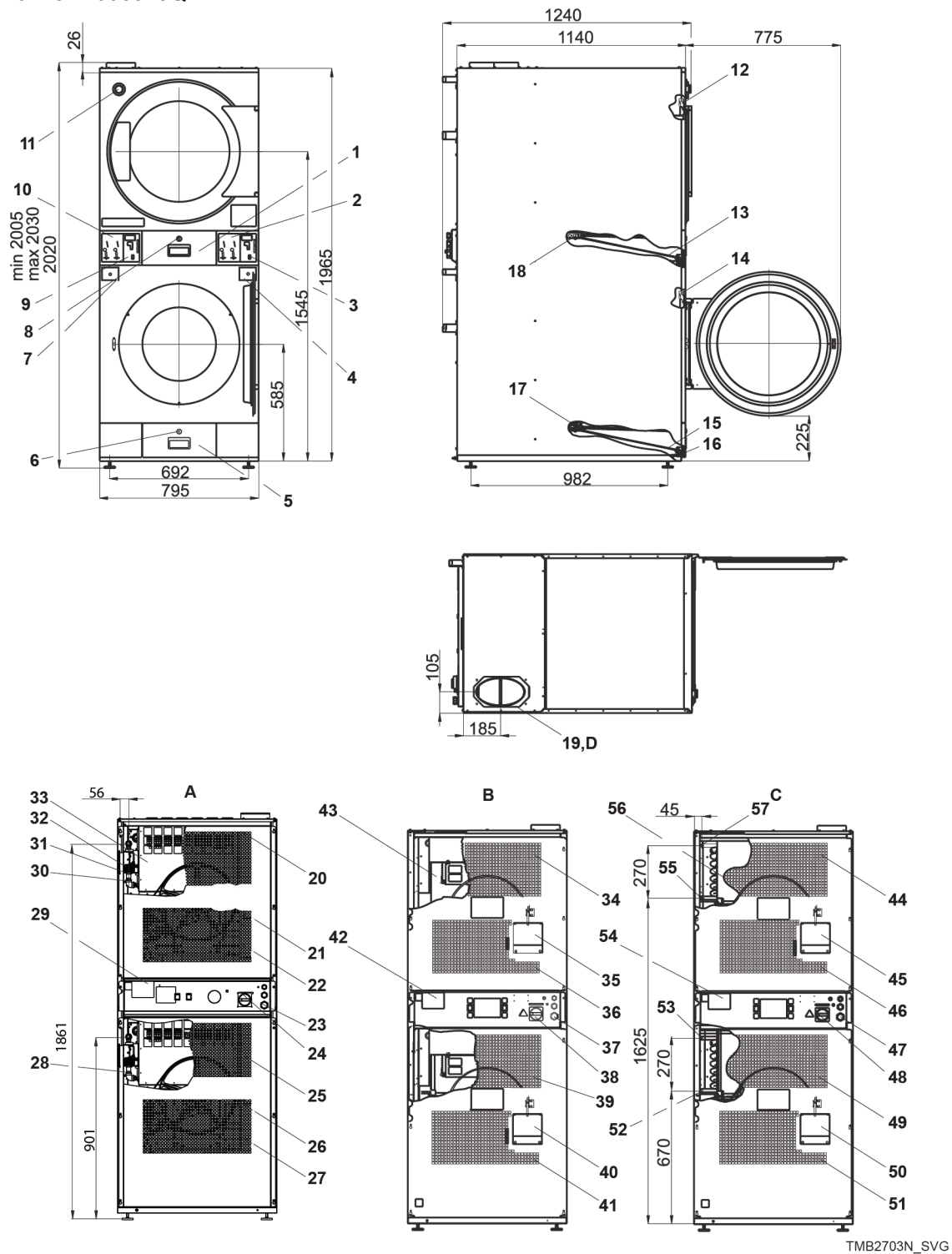
B - Electrical Heating

C - Steam Heating

**NOTE: For callout descriptions, refer to the following legend.**

Figure 15

**Dimensions and Components of the Machine 13kg/13kg / 27lb/27lb / 285L/285L- Stacked Tumbler; Models starting Serial No. 13TD005313QB**



**NOTE:** For callout descriptions, refer to the following legend.

Figure 16

**Legend**

1. Lint screen cover
2. Coin meter (version with coin meter)

3. Programmer
4. Coin box (version with coin meter)
5. Lint screen cover
6. Lock of the control panel
7. Coin box (version with coin meter)
8. Lock of the control panel
9. Programmer
10. Coin meter (version with coin meter)
11. Emergency stop button (not applicable for version with coin meter)
12. Door lock microswitch
13. Lint screen
14. Door lock microswitch
15. Lint screen
16. Serial plate
17. Lint cover microswitch
18. Lint cover microswitch
19. Exhaust piping
20. Suction
21. Airflow switch
22. Suction
23. Main power supply
24. Main switch
25. Suction
26. Airflow switch
27. Suction
28. Gas supply (G models only)
29. Serial plate
30. Gas supply (G models only)
31. Pressure regulator (G models only)
32. Gas valve (G models only)
33. Heating chamber
34. Suction
35. Airflow switch
36. Suction
37. Main power supply
38. Main switch
39. Suction
40. Airflow switch

41. Suction
42. Serial plate
43. Heating chamber
44. Suction
45. Airflow switch
46. Suction
47. Main power supply
48. Main switch
49. Suction
50. Airflow switch
51. Suction
52. Condensate drain
53. Steam supply
54. Serial plate
55. Condensate drain
56. Heating chamber
57. Steam supply

## Space Requirements

Total space requirements for the system installation are usually determined by a detailed plan of the building.

Leave at least 1.9 ft [0.6 m] (3 ft [0.9 m] recommended) of space between the dryer rear and the wall for the maintenance access. Between the lateral sides of each machine leave a minimum space of 0.07 ft [0.02 m]. A minimum 1.6 ft [0.5 m] of free space must be above the machine for maintenance access. Be aware that there may be local codes and safety precautions, which the installation must be complied with. To reduce the risk of serious injury in laundromats, install lockable door(s) to prevent public access to rear of dryers.

**IMPORTANT: Keep dryer area clear and free from gasoline, combustible materials and other flammable vapours and liquids.**

**IMPORTANT: Do not block the airflow at the rear part of the dryer to prevent adequate air supply to the combustion chamber of the dryer.**

**IMPORTANT: Do not block the exhaust airflow at the rear of the dryer.**

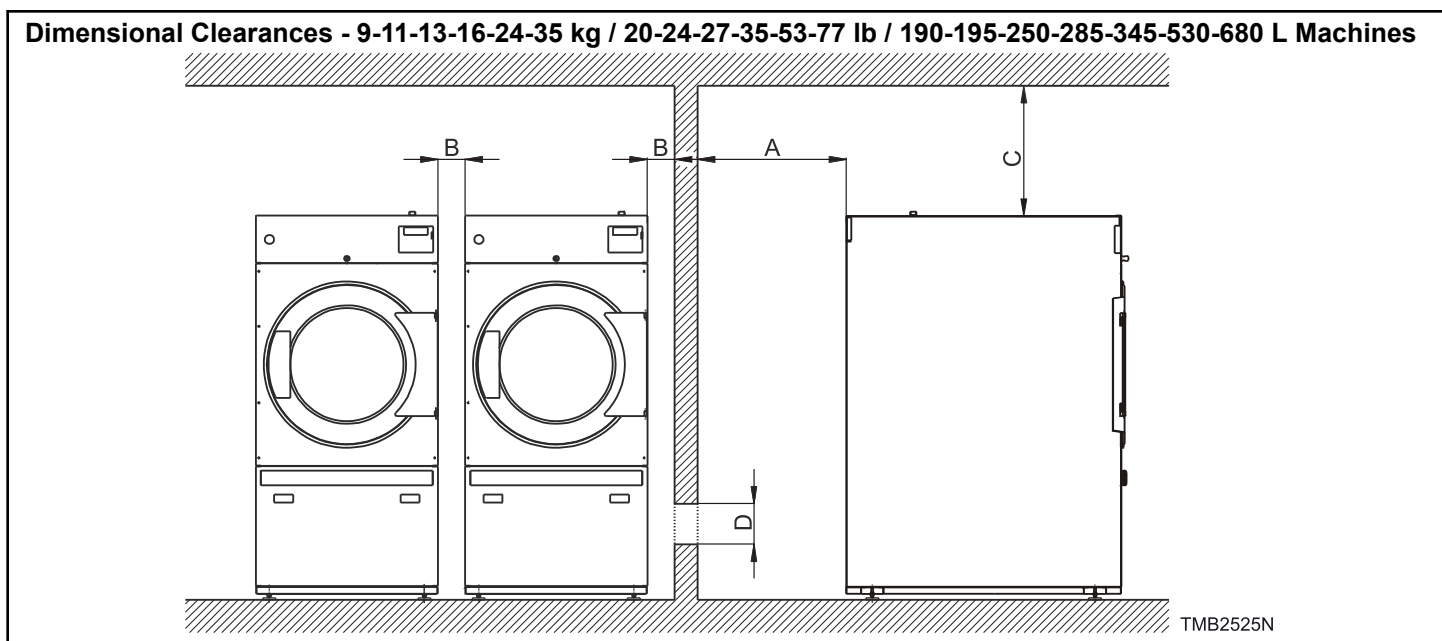


Figure 17

<b>Minimum Dimensional Clearances - 9-11-13-16-24-35 kg / 20-24-27-35-53-77 lb / 190-250-285-345-530-680 L Machines</b>							
<b>Specifica- tion</b>	<b>Machine kg / lb / L</b>						
	<b>9 / 20 / 190</b>	<b>9 / 20 / 195</b>	<b>11 / 24 250</b>	<b>13 / 27 / 285</b>	<b>16 / 35 / 345</b>	<b>24 / 53 / 530</b>	<b>35 / 77 / 680</b>
A*, in. [mm]	23.62 [600]						
B, in. [mm]	0.79 [20]						
C, in. [mm]	19.68 [500]						
D**, ft² [m²]	0.65 [0.06]	0.65 [0.06]	0.75 [0.07]	0.97 [0.09]	1.18 [0.11]	1.51 [0.14]	1.72 [0.16]
* Recommended 35.42 in. [900 mm]							
** Minimum opening area needed for make-up air for one dryer. If it is not feasible to provide the required opening, forced air access must be arranged in appropriate amount (refer to chapter <i>Evacuation System</i> ).							

Table 8

**Dimensional Clearances - 13 kg / 27 lb / 285 L Top Pocket Tumbler, 13/13 kg / 27/27 lb / 285/285 L Stacked Tumbler**

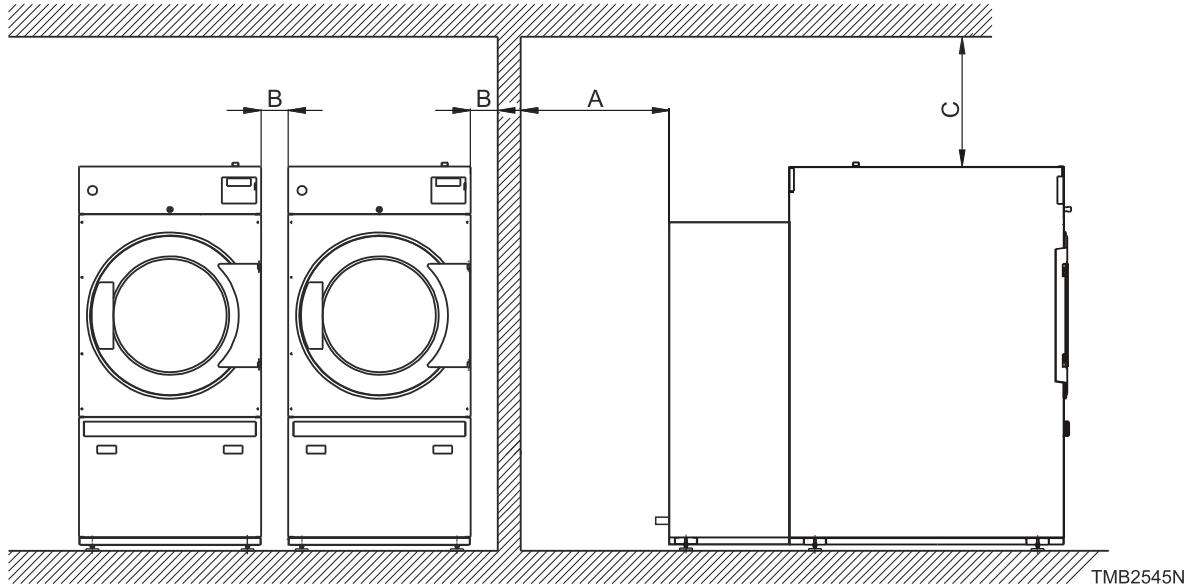


Figure 18

**Required Room Dimensions - 285 Liters / 13kg (27lb) - Top Pocket Tumbler, 285 Liters / 13kg/13kg (27lb/27lb) - Stacked Tumbler**

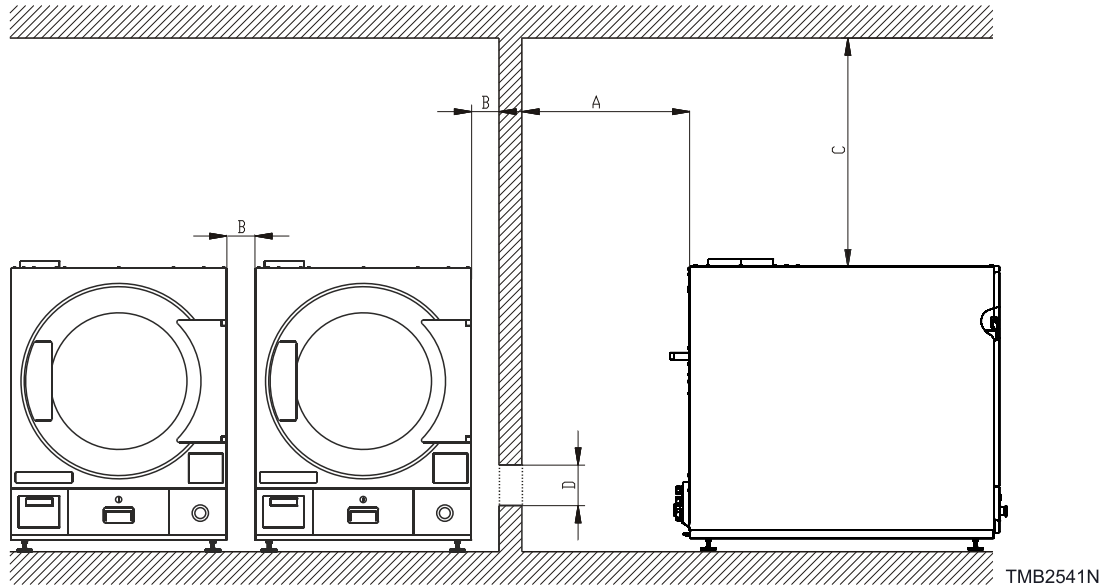


Figure 19

<b>Minimum Dimensional Clearances, 13 kg / 27 lb / 285 L Top Pocket Tumbler, 13/13 kg / 27/27 lb / 285/285 L Stacked Tumbler</b>		
<b>Specification</b>	<b>Machine kg / lb / L</b>	
	<b>13 / 27 / 285 Top Pocket Tumbler</b>	<b>13/13 / 27/27 / 285/285 Stacked Tumbler</b>
A*, in. [mm]	23.62 [600]	
B, in. [mm]	0.78 [20]	
C, in. [mm]	19.68 [500]	
D**, ft <sup>2</sup> [m <sup>2</sup> ]	1.076 [0.1]	2.045 [0.19]
* Recommended 35.42 in. [900 mm]		
** Minimum opening area needed for make-up air for one dryer. If it is not feasible to provide the required opening, forced air access must be arranged in appropriate amount (refer to chapter <i>Evacuation System</i> ).		

Table 9

# Installation

## Important Information Before Installation


### For Transportation, Storage and Installation

**IMPORTANT:** In case of transportation and storage, watch components protruding from the contour line of machine (door locks etc.), to avoid injuries.

- Never push, pull or exert pressure on components protruding from the machine contour line (controls, door locks etc.).
- Make sure that these components are secured so as to avoid damages during machine manipulation and installation.
- In case of the machine transportation by the customer, follow the manufacturer's instructions for transportation, handling and storage of the product. In case of transportation of machine by the customer the manufacturer is not responsible for possible damage of the machine in course of transportation.
- In case of storage the machine in a free area, it must be protected against mechanical damage, water, and weather condition factors.
- The ambient temperature of transportation and storage must be between -13°F [-25°C] to 131°F [55°C] . Relative humidity must be among 30 to 80% without condensation.
- The machine is not designed to be placed in an environment where it can come into contact with splashing or spraying water. Do not store the machine where it can be subject to environmental conditions (rain, wind) or extreme humidity. When moisture condensates on the machine due to a sudden temperature change, water must not run over the walls and covers of the machine nor to cover the floor under and around it.
- The manufacturer is not responsible for machine corrosion caused by non-fulfilment of determined air ventilation in the room (for example: vapours, invasive chemical elements or dry cleaning process).

### Check before Installation

1. Upon delivery, visually inspect crate and parts for any visible shipping damage.
2. If the crate, cover is damaged or signs of possible damage are evident, have the carrier note the condition on the shipping papers before the shipping receipt is signed, or advise the carrier of the condition as soon as it is discovered.

	<b>WARNING</b>
<p><b>TO ACHIEVE A FAILURE-FREE OPERATION, THE DRYER MUST BE CORRECTLY BUILT IN ACCORDING TO THIS INSTALLATION MANUAL. ANY CHANGES IN THE INSTALLATION NOT DESCRIBED IN THIS INSTALLATION MANUAL MUST BE APPROVED BY THE SUPPLIER OR MANUFACTURER OF THE DRYER.</b></p>	
C320	

### Machine Type

#### All Models:

1. Before you start the installation, check the type of your dryer and electrical connection according to the serial plate. Refer to *Serial Plate Location*.

#### Gas Models :

1. Check the following information on the serial plate: country of destination, pressure and kind of gas. Refer to *Serial Plate Location*.

#### IMPORTANT:

**Before installation of the appliance make sure that local conditions of gas supply, properties of gas, its overpressure and setting of the appliance are compatible.**

#### IMPORTANT:

**For upper and lower part of double dryer Stacked Tumbler 13/13kg / 27/27lb / 285/285Lit is necessary to use the same category of gas, pressure and type gas.**

#### Steam Models :

#### IMPORTANT:

**Before machine installation make sure, that the steam pressure is in accordance with the value mentioned on the serial plate and does not exceed maximum permitted steam pressure in any case.**

### Material Required (Obtain Locally)

#### All Models :

- One fused disconnect switch or circuit breaker.

#### Gas Models:

- One gas shut-off valve for gas service line to each dryer.

#### Steam Models:

## Installation

- Three steam shut-off valves (one for service line to be connected upstream of solenoid steam valve, two for each condensate return line).
- Two flexible steam hoses for connecting steam coils.
- Two steam traps for steam coil outlet to condensate return line.
- Two vacuum breakers for condensate return lines.
- Two check valves for each return line.

If possible, leave the machine in the transporting package or at least let it set on the transporting wooden skid until the time of final installation on the foundation according to instructions.

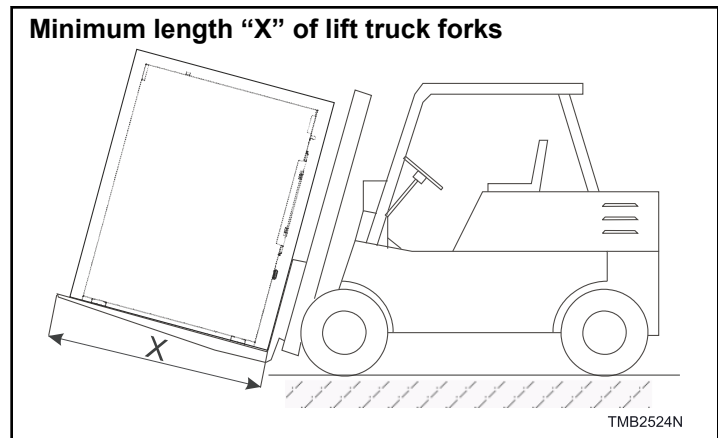


Figure 20

## Handling, Transport and Storage

### Transport and Storage

	<b>WARNING</b>
<b>Forks of lift truck must have sufficient length.</b>	
<small>W920</small>	

Use a lift truck or a manual skid cart for handling with the machine in transporting package.

Minimum Length of Lift Truck Forks	
Machine kg / lb / L	Dimension, in. [mm]
9 / 20 / 190	33.46 [850]
9 / 20 / 195	39.37 [1000]
11 / 24 / 250	47.24 [1200]
13 / 27 / 285	49.21 [1250]
13 / 27 / 285 Top Pocket Tumbler, Stacked Tumbler	55.12 [1400]
16 / 35 / 345	55.12 [1400]
24 / 53 / 530	51.18 [1300]
35 / 77 / 680	55.12 [1400]

Table 10

### Handling During Installation

All activities can be done only by a worker, which knows all information about the machine. Machine is delivered to the customer on a wooden palette and protected with polyethylene film. The machine is attached to the skid by means of four bolts (M10). 9 kg / 20 lb / 190-195 L machines are attached to the skid by means of two bolts (M10).

To remove the machines to its final location follow these precautions:

1. All passages and spaces the machine has to be transported through at installation should be reasonably dimensioned to

meet the height and width of the machine including the package.

2. Make sure that the filling door is secured to avoid its opening during the handling.
3. Lift the machine up by the fork-lift or by pallet trucks using a transport skid to which the machine has been attached.

### Unpacking

1. After unpacking, check if the machine has not been damaged and if all the accessories are included according to your order. The accessories and the manuals are located inside the drum.
2. Remove the packaging.



3. Handle the machine carefully with a forklift or with a hand pallet truck.

## Machine Positioning

### Carrying Capacity of the Floor

The dryer must be installed on a level floor capable of supporting 992 lbs/ft<sup>2</sup> [450 kg/m<sup>2</sup>]. Floor covering materials such as carpeting must be removed. To assure compliance, consult local building code requirements.

### Position and Level the Machine

1. Machines 9 kg / 20 lb / 190 L and 9 kg / 20 lb / 195 L: Unscrew the two shipping bolts (one at each corner).
  2. Machines 11-35 kg / 24-77 lb / 250-680 L: Unscrew the four shipping bolts (one at each corner).
  3. Machines 13kg / 27 lb / 385 L, 13/13kg / 27/27lb / 385/385 L: Unscrew the three shipping bolts (one at each corner).
  4. Pull the dryer out of the skid on two canned lengthwise timbers such way, that a pair of front and rear levelling legs can be mounted on the dryer bottom.
  5. Mount the levelling legs including safety nut.
  6. Blind the holes of shipping bolts by the plug.
  7. The dryer can be slightly tilted forward or backwards for easy mounting.
  8. Use the lift truck for locating the dryer to its position.
  9. Place the dryer on two canned lengthwise timbers again.
  10. Remove timbers from underneath the machine by lifting/tilting one side of the machine first and removing them. Then do the same on the other side of the machine.
  11. Place the machine on the floor.
  12. Adjust the levelling legs so as the dryer was in horizontal position as close to floor as possible.
- IMPORTANT: Keep the dryer as close to floor as possible. Dryer must rest firmly on floor so weight of dryer is evenly distributed.**
13. Check the correct positioning with a water level placed on a machine top. The dryer must not sway.

### Leveling Leg

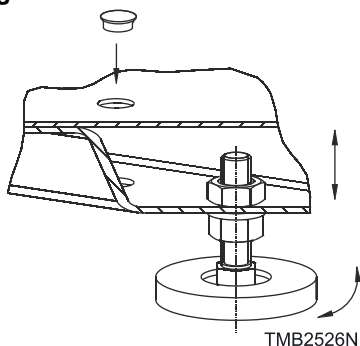


Figure 21

## Placement of the 9kg /20 lb/ 195 L on the Base Frame

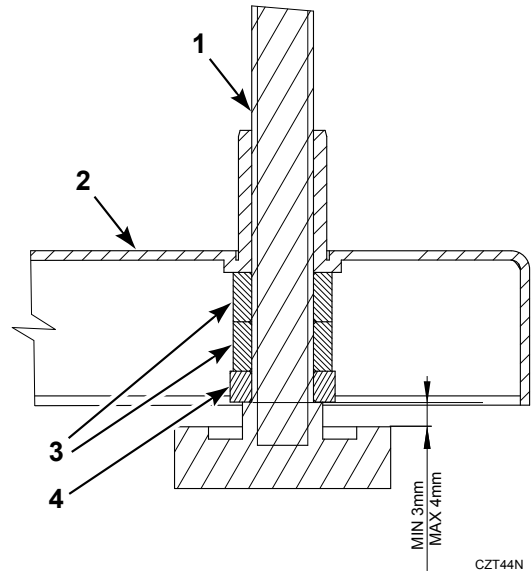
### Carrying Capacity of the Floor

The dryer must be installed on a level floor capable of supporting 992 lbs/ft<sup>2</sup> [450 kg/m<sup>2</sup>]. Floor covering materials such as carpeting must be removed. To assure compliance, consult local building code requirements.

### Placement of the Machine on the Base Frame

1. Loosen the two transport bolts (one in each corner).
2. Pull the dryer from the pallet to two prepared longitudinal planks in such a manner that the front and rear feet can be mounted on the bottom part of the dryer in the correct position.
3. To simplify the assembly of the feet, the dryer can be lightly tipped forwards and backwards.
4. Dismount the front feet from the machine (unscrew them). Screw one low nut M10 and two standard nuts M10 on the foot. Tighten the nuts fully. Screw the front feet assembled in such a way back into the machine. Tighten the feet fully. The assembled front foot in the machine is shown in Figure 22.

### Front Feet



1. Foot
2. Machine Bottom Plate
3. Nut M10 DIN 934
4. Nut M10 DIN 439

Figure 22

5. Dismount the rear feet of the machine (unscrew them). Screw on standard nut M10 on the foot. Tighten the nuts fully. Screw the rear feet assembled in such a way back into the machine. Tighten the feet fully. The assembled rear foot in the machine is shown in Figure 23.

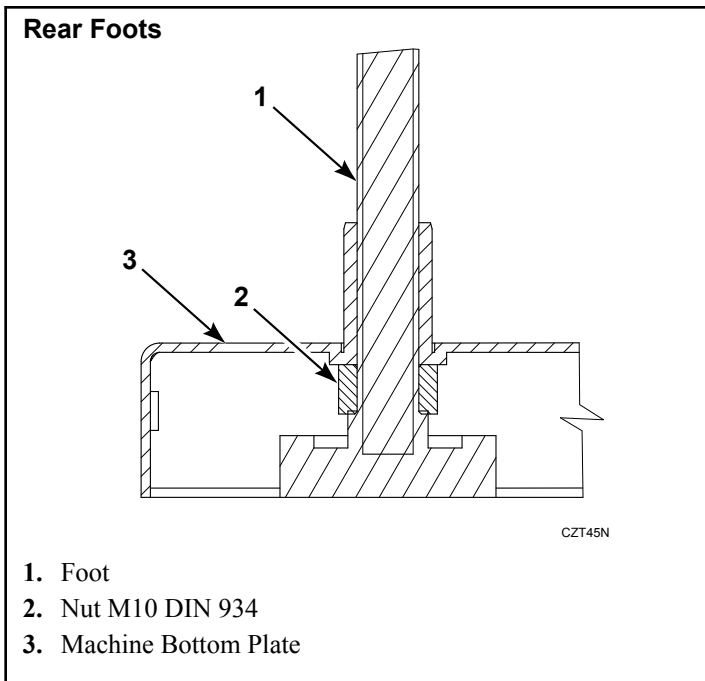


Figure 23

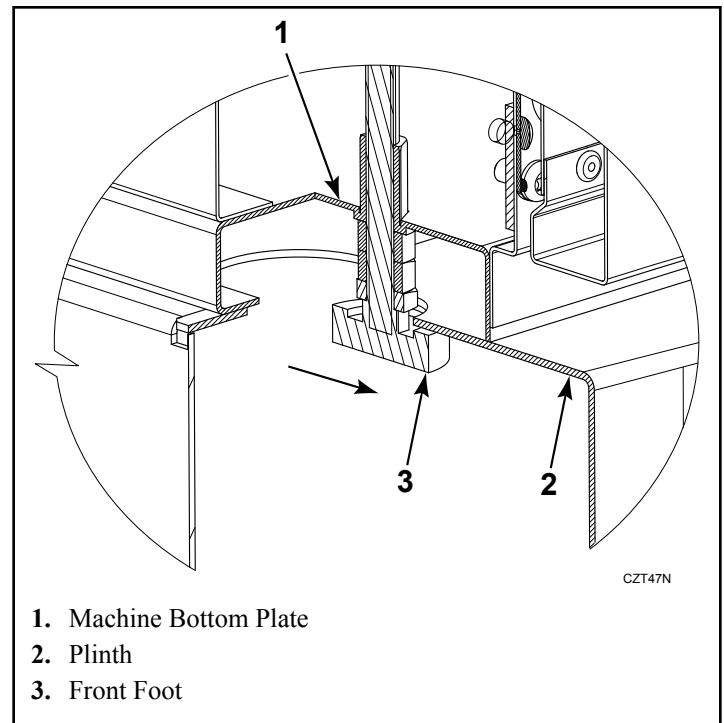


Figure 25

6. Blind the openings after the transport bolts with plugs.
7. Move the dryer on the base frame carefully. Keep in mind that the front feet protrude below the machine base. Refer to *Figure 22*.
8. Carefully shift the dryer into the correct position on the base frame. The front feet must fit into the round openings in the base frame, refer to *Figure 24*.

10. Screw the dryer to the base frame with two bolts M10x40, refer to *Figure 26*.

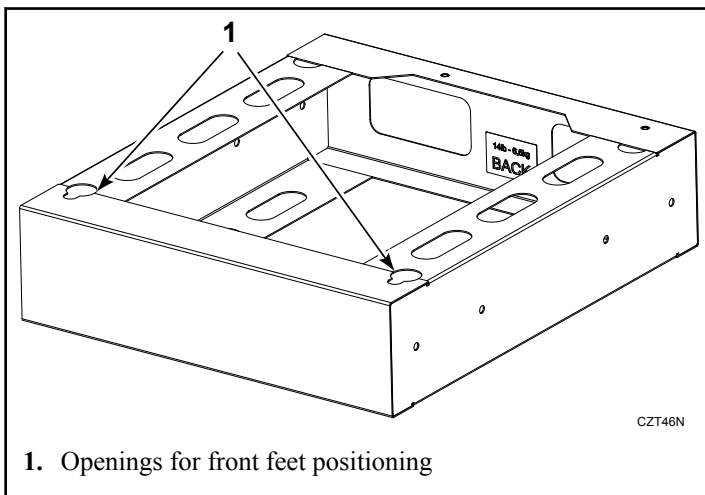


Figure 24

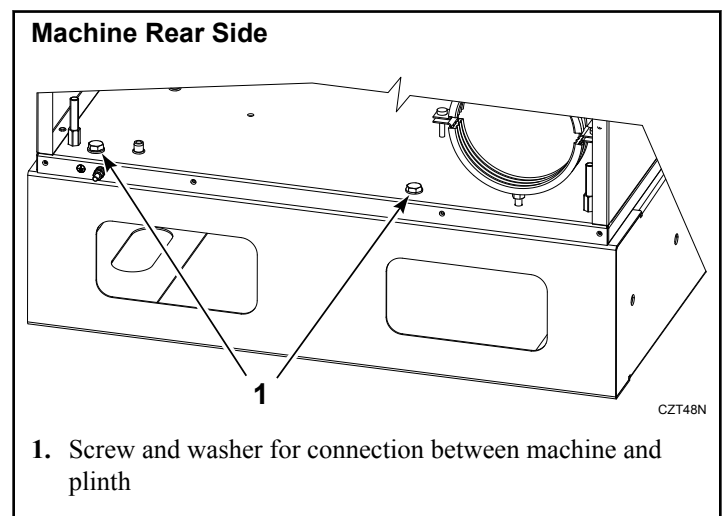



Figure 26

9. Then push the dryer forward in order to lock the front feet, refer to *Figure 25*.

11. Check the correct placement using a water level put on the upper part of the machine. The dryer must not wobble.

**IMPORTANT: Make sure the dryer is established on the base frame firmly so that its weight is evenly distributed.**

# Electrical Connection

	<b>WARNING</b>
<p><b>THE MACHINE MUST BE CONNECTED TO THE POWER, GROUND, VENTILATION AND STEAM, GAS SUPPLY ACCORDING TO THE INSTALLATION MANUAL, IN COMPLIANCE WITH THE VALID LOCAL STANDARDS DONE BY QUALIFIED TECHNICIANS WITH PROPER AUTHORIZATION. THE VALID STANDARDS FOR CONNECTING TO THE LOCAL POWER NETWORK (TT / TN / IT...) MUST BE FOLLOWED. THE DRYER IS INTENDED TO BE PERMANENTLY CONNECTED TO THE ELECTRICAL SUPPLY.</b></p>	
<p>C330</p>	

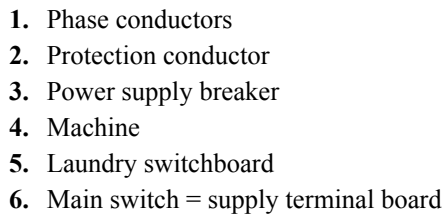
## Connection to Electrical Network

**IMPORTANT:** The machines have been designed for connecting to the electrical network according to the specifications of your order. Before connection check if the electrical values stated on the serial plate of the machine correspond to your electrical network.

**IMPORTANT:** If the machine is not equipped with a supply disconnecting device, like a main switch then a supply disconnecting device needs to be provided in the installation for all electrical supplies connected to the machine, in accordance with EN 60204-1 standard, point 5.3. This device shall disconnect the electrical equipment of the machine from the supply when required for example maintenance.

## Emergency Stop Device

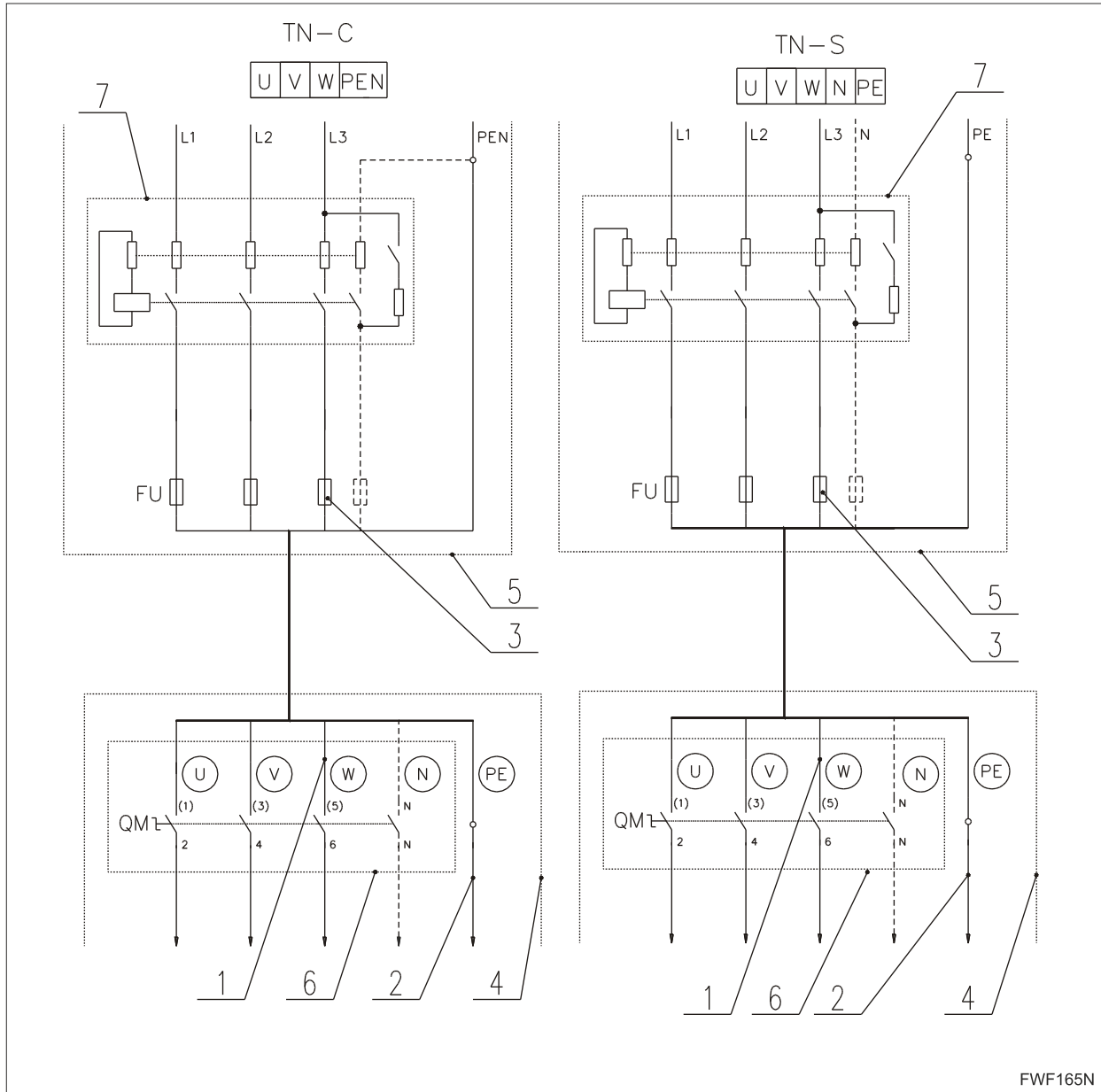
The machines are equipped with an emergency stop device in accordance with ISO13850 - category 0 stop function. Nevertheless, the emergency stop device is omitted on machines design for coin, token, external payment system or similar operation for use in self-service situation. The owner-installer-user must provide remote-located emergency stop device(s). This emergency stop device(s) needs to stop each machine in accordance with ISO13850 - category 0. There are made provisions in the wiring harness, were immediate removal of power to the actuators can be accomplished. Refer to the electrical schematic of the machine for correct connection of the device.



### Connection of Machine with a Laundry Room Earth Leakage Trip

room's switchboard (with an equipped current 30 mA). Main contacts of the earth leakage trip must correspond to the stated power supply. Refer to Chapter *Electrical Specifications*. The earth leakage trip connection and machine connection to such a network is shown on *Figure 28*.

### 3-phase Machine Connection to Electrical Network



1. Phase conductors
2. Protection conductor
3. Power supply protection
4. Machine
5. Laundry switchboard
6. Main switch = supply terminal board
7. Earth leakage trip

Figure 28



## WARNING

**IF IN THE PLACE OF INSTALLATION THE STANDARD EN 60519 OBSERVANCE IS REQUIRED, THE MACHINE MUST BE CONNECTED VIA AN EARTH LEAKAGE TRIP.**

C331

**IMPORTANT: Check the sense of impeller motor revolutions.**

The motor must revolve in indicated direction. Refer to the arrow above the motor. Should the motor turn in opposite direction the machine will not work properly. The impeller can not create the required airflow in such a case. In case of wrong motor revolutions replace the phases L1-L2.

**IMPORTANT: Machines with Gas heating: Check if phase -L and neutral conductor -N were not switched over. In case it was switched over the spark automatics will not work!**

### Supply Cable and Protection

Use a cable or cord with copper conductors to connect the machine to the electrical network. Supply cable cross section depends on the dryer's type of heating and total power consumption. Protection of the cable against a short circuit or over load must be done with fuses or breakers in the laundry room switchboard. Recommended cross sections of supply cables and fuse values for their guarding for various types of machines are stated in Chapter *Electrical Specifications*.

### Cable Preparation



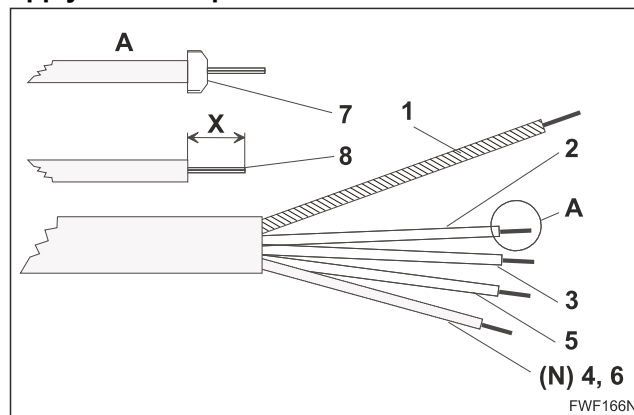
## WARNING

**THE PROTECTIVE CONDUCTOR MUST BE LONGER SO THAT WHEN THE CABLE IS PULLED OUT ACCIDENTALLY, THIS CONDUCTOR IS DISCONNECTED AS THE LAST ONE!**

C099

When using the cable (hard copper conductors), strip the individual cores in such a way to avoid the protrusion of a stripped part from the terminal when the conductor is connected into the device (*Figure 29*, (8) - dimension X). When using a cord (stranded copper conductors) the individual cores can be stripped in a similar way as in the case of a cable, or moulded tubes (7) can be used. In this case use tubes with an insulated neck to avoid any contact to a part under current after the conductor connection.

### Supply Cable Preparation



1. Green-yellow protection conductor
2. Black-phase conductor
3. Brown-phase conductor (3 phase execution)
4. Blue-neutral conductor (single phase execution)
5. Black-phase conductor (3 phase execution)
6. Blue-neutral conductor (3 phase gas heating execution)
7. The neck of the moulded tube must be insulated to avoid any contact to a part under current (conductor) when the main switch is disconnected
8. The stripped length of the conductors must not protrude from the main switch terminal (supply switchboard)

Figure 29

### Supply Cable Attachment

The cable can be attached to the machine in two ways:

1. From a cable channel (from below).
2. From a cable grate (from above).
  - a. If the cable is attached from above it is recommended to ensure the cable sagging in front of the entry into the cable bushing (refer to *Figure 30*). In this way any running condensed water into the bushing and/or machine can be avoided.

Connection of the machine with aid of a plug for connection to power supply plug-in distribution network is also possible.

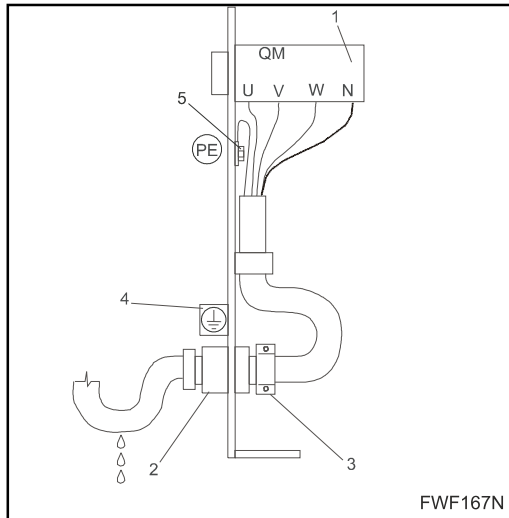
### Mechanical Cable Securing and Connection Point

Refer to *Figure 30*.

When the cable is threaded through the bushing (2), tighten the sealing nut of the bushing. In this way the rubber ring in the bushing is pressed, thus securing the cable mechanically and against the water. Provided that this mechanical sealing is insufficient, use the securing clamp (3).

The supply cable is connected to the main switch of the machine (1). The phase terminals are identified by U, V, W or L(L1) and A(L2). Connect the protection conductor directly to the protection terminal located on the internal side of the left stand of the machine. The terminal is identified by PE.

### Main Power Supply Connection



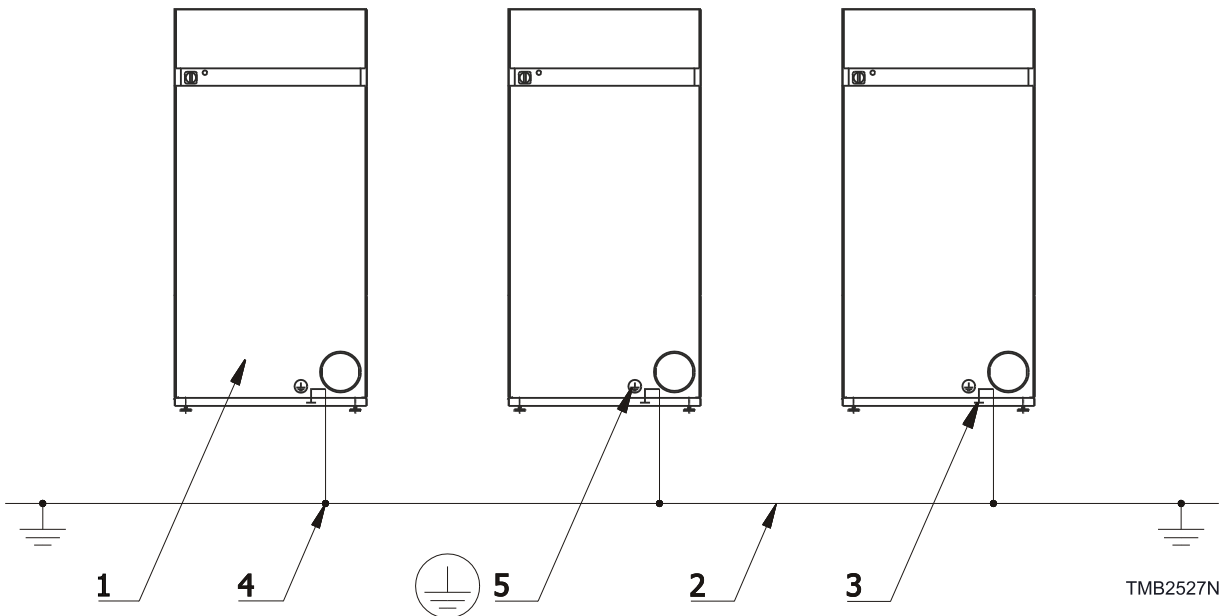
1. Main switch
2. Cable bushing
3. Securing clamp
4. External protective terminal
5. Internal protective terminal

### Laundry Room Protective Machine Connection

For safety reasons it is necessary to connect the machine to the laundry protection system. The external protective terminal of the machine (M6) located on the rear part of the machine bottom (*Figure 31* - pos.4) serves for this purpose and it is marked with an earthing mark. The protection conductor enabling this connection is not part of the delivery with the machine. The protection conductor cross section must at least correspond to the figures described in Chapter *Electrical Specifications*. However, for protection purposes, with a supply cable cross section below 0.004 in<sup>2</sup> [2.5 mm<sup>2</sup>] we recommend to select a larger conductor cross-section at least 0.006 in<sup>2</sup> [4 mm<sup>2</sup>]. The protective connection and earthing of machines prevents unfavourable effects of static electricity which may adversely affect the machine operation.

Figure 30

### Protective Machine Connection



1. Machine (rear view)
2. Room protective connection
3. Machine external protective terminal
4. Protective conductor – machine connection
5. Earthing mark

Figure 31

**IMPORTANT:** If the machine protective connection is not allowed by your national (local) standards, you must earth the machines according to your valid standards.

## Electrical Specifications

**NOTE:** For voltage marked 50/60Hz, the machines are produced in 50Hz or 60Hz. They are not universal for both frequency systems.

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Reversing Model							
9kg (20lb)	380-415V, 50/60Hz	0.75 / 0.18	6	7.1	12.6A	16A	4 x 2.5
	380-415V, 50/60Hz		9	10.1	17A	20A	4 x 2.5
	208-240V, 50/60Hz				30.2A	32A	4 x 6
	440V, 60Hz				15.2A	20A	4 x 2.5
	480V, 50/60Hz				16.7A	20A	4 x 2.5
	380-415V, 50/60Hz		12	13.1	22.2A	25A	4 x 4
	208-240V, 50/60Hz				35.7A	40A	4 x 6
	440V, 60Hz				19.4A	25A	4 x 4
	480V, 50/60Hz				21.2A	25A	4 x 4
9kg (20lb)	380-415V, 50/60Hz	0.37 / 0.18	6	6.8	13A	16A	4 x 2.5
	208-240V, 50/60Hz				21.5A	25A	4 x 4

Table 11 continues...



Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Reversing Model							
9kg (20lb) 195L	380-415V +N	0.25/0.25	6	6.4	10.1A	16A	4 x 2.5
	380-415V, 50/60Hz				10.1A	16A	4 x 2.5
	220-230V, 50/60Hz				17.5A	25A	4 x 4
	240V, 50/60Hz				17.6A	25A	4 x 4
	440V 60Hz				13.3A	20A	4 x 2.5
	380-415V +N, 50/60Hz	0.25/0.25	9	9.4	14.4A	20A	4 x 2.5
	380-415V, 50/60Hz				14.4A	20A	4 x 2.5
	220-230V, 50/60Hz				24.9A	32A	4 x 6
	240V, 50/60Hz				25.1A	32A	4 x 6
	440V 60Hz				13.5A	20A	4 x 2.5
	380-415V +N, 50/60Hz	0.25/0.25	12	12.4	18.9A	25A	4 x 4
	380-415V, 50/60Hz				18.9A	25A	4 x 4
	220-230V, 50/60Hz				32.5A	40A	4 x 6
	240V, 50/60Hz				32.7A	40A	4 x 6
	440V, 60Hz				17.2A	25A	4 x 4

Table 11 continues...

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Reversing Model							
11kg (24lb)	380-415V, 50/60Hz	0.55 / 0.25	9	10.1	15.9A	16A	4 x 2.5
	208-240V, 50/60Hz				31.8A	32A	4 x 6
	440V, 60Hz				15.3A	16A	4 x 2.5
11kg-13kg (24lb-27lb)	380-415V, 50/60Hz		13.5	14.2	23A	25A	4 x 4
	208-240V, 50/60Hz		13.5	14.2	42A	50A	4 x 10
	440V, 60Hz		13	13.7	24A	32A	4 x 6
	480V, 50/60Hz		13	13.7	26.2A	32A	4 x 6
13kg-16kg (27lb-35lb)	380-415V, 50/60Hz	0.55/0.25	12	12.7	21.3A	25A	4 x 4
	440V, 60Hz				20.9A	25A	4 x 4
13kg-16kg (27lb-35lb)	380-415V, 50/60Hz	0.55 / 0.25	18	18.7	30A	32A	4 x 6
	208-240V, 50/60Hz				55A	63A	4 x 16
	440V, 60Hz				31A	32A	4 x 6
	480V, 50/60Hz				34A	40A	4 x 6
16kg (35lb)	380-415V, 50/60Hz	0.55 / 0.25	24	24.7	39A	40A	4 x 6
	208-240V, 50/60Hz				72A	80A	4 x 16
	440V, 60Hz				35A	40A	4 x 6
	480V, 50/60Hz				38A	40A	4 x 6
24kg (53lb)	380-415V, 50/60Hz	0.55 / 0.25	30	30.7	47A	50A	4 x 10
	208-240V, 50/60Hz				80A	100A	4 x 25
	440V, 60Hz				43A	50A	4 x 10
	480V, 50/60Hz				47A	50A	4 x 10

Table 11 continues...

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Reversing Model							
24kg-35kg (53lb-77lb)	380-415V, 50/60Hz	0.55 / 0.25	36	36.9	57A	63A	4 x 16
	208-240V, 50/60Hz				97A	100A	4 x 25
	440V, 60Hz				51A	63A	4 x 16
	480V, 50/60Hz				56A	63A	4 x 16
35kg (77lb)	380-415V, 50/60Hz	0.55 / 0.25	48	48.7	73A	80A	4 x 16
	440V, 60Hz				66A	80A	4 x 16
	480V, 50/60Hz				72A	80A	4 x 16
9kg (20lb)	380-415V, 50/60Hz	0.75 / 0.18	Gas	1.28	4.4A	6A	5 x 1.5
	208-240V, 50/60Hz				6.6A	10A	4 x 1.5
	440V, 60Hz, 480V, 50/60Hz				5.4A	10A	4 x 1.5
11kg-35kg (24lb-77lb)	380-415V, 50/60Hz	0.55 / 0.25	Gas	1.2	5A	6A	5 x 1.5
	208-240V, 50/60Hz				7A	10A	4 x 1.5
	440V, 60Hz, 480V, 50/60Hz				5A	6A	4 x 1.5
11kg-16kg, 35kg (24lb-35lb), (77lb)	380-415V, 50/60Hz	0.55 / 0.25	Steam	0.9	3.5A	6A	4 x 1.5
	208-240V, 50/60Hz				5A	6A	4 x 1.5
	440V, 60Hz, 480V, 50/60Hz				3.5A	6A	4 x 1.5
24kg-35kg (53lb-77lb)	380-415V, 50/60Hz	0.55 / 0.25	Steam	1	3.6A	6A	4 x 1.5
	208-240V, 50/60Hz				5.2A	6A	4 x 1.5
	440V, 60Hz				4.1A	6A	4 x 1.5

Table 11 continues...

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Reversing Model							
13kg (27lb) Top Pocket Tumbler	380-415V, 50/60Hz	0.75 / 0.25	18	19.1	31A	32A	4 x 6
	208-240V, 50/60Hz				54A	63A	4 x 16
	440V, 60Hz				31.5A	32A	4 x 6
13/13kg (27/27lb) Stacked Tumbler	380-415V, 50/60Hz	2 x (0.75 / 0.25)	2 x 12	26.3	44.6A	50A	4 x 10
	208-240V, 50/60Hz				77.9A	100A	4 x 25
	440V, 60Hz				41.3A	50A	4 x 10
13/13kg (27/27lb) Stacked Tumbler	380-415V, 50/60Hz	2 x (0.75 / 0.25)	2 x 18	38.3	62A	63A	4 x 16
	440V, 60Hz				57A	63A	4 x 16
13kg (27lb) Top Pocket Tumbler	380-415V, 50/60Hz	0.75 / 0.25	Gas	1.6	5.4A	6A	5 x 1.5
	208-240V, 50/60Hz				7.7A	10A	4 x 1.5
	440V, 60Hz				5.5A	6A	4 x 1.5
13/13kg (27/27lb) Stacked Tumbler	380-415V+N, 50/60Hz	2 x (0.75 / 0.25)	Gas	3.2	12.1A	16A	5 x 1.5
	208-240V, 50/60Hz				17.8A	20A	4 x 2.5
13kg (27lb) Top Pocket Tumbler	380-415V, 50/60Hz	0.75 / 0.25	Steam	1.1	4A	6A	4 x 1.5
	208-240V, 50/60Hz				6A	10A	4 x 1.5
	440V, 60Hz				4.5A	6A	4 x 1.5
13/13kg (27/27lb) Stacked Tumbler	380-415V, 50/60Hz	2 x (0.75 / 0.25)	Steam	2.2	7.7A	10A	4 x 1.5
	208-240V, 50/60Hz				13.1A	16A	4 x 1.5
	440V, 60Hz				7.5A	16A	4 x 1.5

Table 11

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Non-Reversing Model							
9kg (20lb)	380-415V, 50/60Hz	1.1	6	7.3	12.5A	16A	4 x 2.5
	380-415V, 50/60Hz	1.1	9	10.3	16.9A	20A	4 x 2.5
	208-240V, 50/60Hz				31A	40A	4 x 6
	440V, 60Hz				15.5A	20A	4 x 2.5
	480V, 50/60Hz				17A	20A	4 x 2.5
	380-415V, 50/60Hz	1.1	12	13.3	21A	25A	4 x 4
	208-240V, 50/60Hz				36A	40A	4 x 6
	440V, 60Hz				20A	25A	4 x 4
	480V, 50/60Hz				21.9A	25A	4 x 4
9kg (20lb)	380-415V, 50/60Hz	0.55	6	6.8	12A	16A	4 x 2.5
	208-240V, 50/60Hz				20.5A	25A	4 x 4

Table 12 continues...

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Non-Reversing Model							
9kg (20lb) 195L	380-415V +N	0.25/0.25	6	6.4	10.1A	16A	4 x 2.5
	380-415V, 50/60Hz				10.1A	16A	4 x 2.5
	220-230V, 50/60Hz				17.5A	25A	4 x 4
	240V, 50/60Hz				17.6A	25A	4 x 4
	440V 60Hz				13.3A	20A	4 x 2.5
	380-415V +N, 50/60Hz	0.25/0.25	9	9.4	14.4A	20A	4 x 2.5
	380-415V, 50/60Hz				14.4A	20A	4 x 2.5
	220-230V, 50/60Hz				24.9A	32A	4 x 6
	240V, 50/60Hz				25.1A	32A	4 x 6
	440V 60Hz				13.5A	20A	4 x 2.5
	380-415V +N, 50/60Hz	0.25/0.25	12	12.4	18.9A	25A	4 x 4
	380-415V, 50/60Hz				18.9A	25A	4 x 4
	220-230V, 50/60Hz				32.5A	40A	4 x 6
	240V, 50/60Hz				32.7A	40A	4 x 6
	440V 60Hz				17.2A	25A	4 x 4

Table 12 continues...

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Non-Reversing Model							
11kg (24lb)	380-415V, 50/60Hz	1.1	9	10.3	15.8A	16A	4 x 2.5
	208-240V 50/60Hz				31.2A	32A	4 x 6
	440V, 60Hz				15.2A	16A	4 x 2.5
	380-415V, 50/60Hz	0.55	13.5	14.2	23A	25A	4 x 4
	208-240V, 50/60Hz		13.5	14.2	41A	50A	4 x 10
	440V, 60Hz		13	13.7	24A	25A	4 x 4
	480V, 50/60Hz		13	13.7	26.1A	25A	4 x 4
13kg-16kg (27lb-35lb)	380-415V, 50/60Hz	0.55	12	12.7	21.3A	25A	4 x 4
	440V, 60Hz				20.9A	25A	4 x 4
13kg-16kg (27lb-35lb)	380-415V, 50/60Hz	0.55	18	18.7	30A	32A	4 x 6
	208-240V, 50/60Hz				54A	63A	4 x 16
	440V, 60Hz				31A	32A	4 x 6
	480V, 50/60Hz				33.9A	40A	4 x 6
16kg (35lb)	380-415V, 50/60Hz	0.55	24	24.7	39A	40A	4 x 6
	208-240V, 50/60Hz				70A	80A	4 x 16
	440V, 60Hz				35A	40A	4 x 6
	480V, 50/60Hz				38A	40A	4 x 6
24kg (53lb)	380-415V, 50/60Hz	0.55	30	30.7	46A	50A	4 x 10
	208-240V, 50/60Hz				80A	100A	4 x 25
	440V, 60Hz				43A	50A	4 x 10
	480V, 50/60Hz				46.8A	50A	4 x 10

Table 12 continues...

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Non-Reversing Model							
24kg-35kg (53lb-77lb)	380-415V, 50/60Hz	0.55	36	36.7	56A	63A	4 x 16
	208-240V, 50/60Hz				96A	100A	4 x 25
	440V, 60Hz				50A	63A	4 x 16
	480V, 50/60Hz				55A	63A	4 x 16
35kg (77lb)	380-415V, 50/60Hz	0.55	48	48.7	71A	80A	4 x 16
	440V, 60Hz				66A	80A	4 x 16
	480V, 50/60Hz				72A	80A	4 x 16
9kg (20lb)	380-415V, 50/60Hz	1.1	Gas	1.45	4.9A	10A	5 x 1.5
	208-240V, 50/60Hz				7.7A	10A	4 x 1.5
	440V, 60Hz, 480V, 50/60Hz				5.4A	10A	4 x 1.5
11kg-35kg (24lb-77lb)	380-415V, 50/60Hz	0.55	Gas	0.9	4A	6A	5 x 1.5
	208-240V, 50/60Hz				6A	10A	4 x 1.5
	440V, 60Hz, 480V, 50/60Hz				4.5A	6A	4 x 1.5
11kg-16kg, 35kg (24lb-35lb), (77lb)	380-415V, 50/60Hz	0.55	Steam	0.7	3.5A	6A	4 x 1.5
	208-240V, 50/60Hz				5A	6A	4 x 1.5
	440V, 60Hz, 480V, 50/60Hz				3.5A	6A	4 x 1.5
24kg-35kg (53lb-77lb)	380-415V, 50/60Hz	0.55	Steam	0.8	3.1A	6A	4 x 1.5
	208-240V, 50/60Hz				4.7A	6A	4 x 1.5
	440V, 60Hz				3.4A	6A	4 x 1.5

Table 12 continues...



Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
3 Phase – Non-Reversing Model							
13kg (27lb) Top Pocket Tumbler	380-415V, 50/60Hz	0.75 / 0.25	18	19.1	31A	32A	4 x 6
	208-240V, 50/60Hz				54A	63A	4 x 16
	440V, 60Hz				31.5A	32A	4 x 6
13/13kg (27/27lb) Stacked Tumbler	380-415V, 50/60Hz	2 x (0.75 / 0.25)	2 x 12	26.3	44.6A	50A	4 x 10
	208-240V, 50/60Hz				77.9A	100A	4 x 25
	440V, 60Hz				41.3A	50A	4 x 10
13/13 kg (27/27lb) Stacked Tumbler	380-415V, 50/60Hz	2 x (0.75 / 0.25)	2 x 18	38.3	62A	63A	4 x 16
	440V, 60Hz				57A	63A	4 x 16
13kg (27lb) Top Pocket Tumbler	380-415V, 50/60Hz	0.75 / 0.25	Gas	1.6	5.4A	6A	5 x 1.5
	208-240V, 50/60Hz				7.7A	10A	4 x 1.5
	440V, 60Hz				5.5A	6A	4 x 1.5
13/13kg (27/27lb) Stacked Tumbler	380-415V+N, 50/60Hz	2 x (0.75 / 0.25)	Gas	3.2	12.1A	16A	5 x 1.5
	208-240V, 50/60Hz				17.8A	20A	4 x 2.5
13kg (27lb) Top Pocket Tumbler	380-415V, 50/60Hz	0.75 / 0.25	Steam	1.1	4A	6A	4 x 1.5
	208-240V, 50/60Hz				6A	10A	4 x 1.5
	440V, 60Hz				4.5A	6A	4 x 1.5
13/13kg (27/27lb) Stacked Tumbler	380-415V, 50/60Hz	2 x (0.75 / 0.25)	Steam	2.2	7.7A	10A	4 x 1.5
	208-240V, 50/60Hz				13.1A	16A	4 x 1.5
	440V, 60Hz				7.5A	16A	4 x 1.5

Table 12

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
1 Phase – Reversing Model							
9kg (20lb)	208-240V/ 50Hz	0.75 / 0.25	Gas	1.35	8.5A	16A	3 x 1.5
	208-240V/ 60Hz				8.5A	16A	3 x 1.5
11kg-35kg (24lb-77lb)	208-240V/ 50Hz	0.55 / 0.25	Gas	1.2	9.5A	16A	3 x 1.5
	208-240V/ 60Hz				9.4A	16A	3 x 1.5
11kg-16kg, 35kg (24lb-35lb), (77lb)	208-240V/ 50Hz	0.55 / 0.25	Steam	0.9	7.5A	10A	3 x 1.5
	208-240V/ 60Hz				7.4A	10A	3 x 1.5
24kg-35kg (53lb-77lb)	208-240V/ 50Hz	0.55 / 0.25	Steam	1	7.7A	10A	3 x 1.5
	208-240V/ 60Hz				7.6A	10A	3 x 1.5
13kg (27lb) Top Pocket Tumbler	208-240V/ 50Hz	0.75 / 0.25	Gas	1.6	11.4A	16A	3 x 1.5
	208-240V/ 60Hz				11.3A	16A	3 x 1.5
13/13kg (27/27lb) Stacked Tumbler	208-240V/ 50Hz	2 x (0.75 / 0.25)	Gas	3.2	21.8A	25A	3 x 4
	208-240V/ 60Hz				21.8A	25A	3 x 4
13kg (27lb) Top Pocket Tumbler	208-240V/ 50Hz	0.75 / 0.25	Steam	1.1	9.6A	10A	3 x 1.5
	208-240V/ 60Hz				9.5A	10A	3 x 1.5
13/13kg (27/27lb) Stacked Tumbler	208-240V/ 50Hz	2 x (0.75 / 0.25)	Steam	2.2	16.8A	20A	3 x 2.5
	208-240V/ 60Hz				16.6A	20A	3 x 2.5

Table 13

Electrical Values							
Dryer	Voltage	Motor power (kW) fan / drive	Heating elements power (kW)	Total power supply (kW)	Nominal current	Fuse	Cable cross section
1 Phase – Non-Reversing Model							
9kg (20lb)	208-240V/ 50Hz	0.55	Gas	0.9	7A	10A	3 x 1.5
	208-240V/ 60Hz				6.8A	10A	3 x 1.5
11kg-35kg (24lb-77lb)	208-240V/ 50Hz	0.55	Gas	0.9	7A	10A	3 x 1.5
	208-240V/ 60Hz				6.8A	10A	3 x 1.5
11kg-16kg, 35kg (24lb-35lb), (77lb)	208-240V/ 50Hz	0.55	Steam	0.7	5A	6A	3 x 1.5
	208-240V/ 60Hz				4.8A	6A	3 x 1.5
24kg-35kg (53lb-77lb)	208-240V/ 50Hz	0.55	Steam	0.8	5.2A	6A	3 x 1.5
	208-240V/ 60Hz				5A	6A	3 x 1.5
13kg (27lb) Top Pocket Tumbler	208-240V/ 50Hz	0.75 / 0.25	Gas	1.6	11.4A	16A	3 x 1.5
	208-240V/ 60Hz				11.3A	16A	3 x 1.5
13/13kg (27/27lb) Stacked Tumbler	208-240V/ 50Hz	2 x (0.75 / 0.25)	Gas	3.2	21.8A	25A	3 x 4
	208-240V/ 60Hz				21.8A	25A	3 x 4
13kg (27lb) Top Pocket Tumbler	208-240V/ 50Hz	0.75 / 0.25	Steam	1.1	9.6A	6A	3 x 1.5
	208-240V/ 60Hz				9.5A	6A	3 x 1.5
13/13kg (27/27lb) Stacked Tumbler	208-240V/ 50Hz	2 x (0.75 / 0.25)	Steam	2.2	16.8A	20A	3 x 2.5
	208-240V/ 60Hz				16.8A	20A	3 x 2.5

Table 14

## Gas Connection for Gas Heating



### WARNING

**BEFORE INSTALLATION, CHECK THAT THE LOCAL DISTRIBUTION CONDITIONS, QUALITY OF GAS AND PRESSURE AND THE ADJUSTMENT, ARE COMPATIBLE. IT IS OBLIGATORY, THAT THE GAS INSTALLATION AND ITS LATER REPAIRS MUST BE DONE BY AN AUTHORIZED ORGANIZATION. ALL USED INSTALLATION MATERIAL (PRESSURE REDUCING VALVE, HAND OPERATED VALVE, ETC.) MUST COMPLY WITH THE STANDARDS VALID IN THE COUNTRY WHERE THE MACHINE IS BEING USED.**

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**IMPORTANT:** For the machines 13/13 kg / 27/27 lb / 285/285 L it is necessary to multiply the gas consumption two times.

The dryers are designed to use the following gas, which is indicated on the serial plate. It is not allowed to use other kinds of gas. For each type of machine and corresponding gas corresponding nozzle and gas pressure must be used. The scheme showing these parameters is a part of *Gas Connection Specifications*. Generally it is not allowed to install gas machines in cellars (basements) as well as in rooms, which cannot be ventilated properly. Refer to Chapter *Space Requirements*. It is necessary to consult it with the gas supplier. The machine has to be installed in compliance with the appropriate country's standards. To increase gas appliance safety, it is necessary to install a gas escape detector near the machine.

**NOTE:** It is obligatory to place in room an easily accessible and easily visible powder fire extinguisher of 26.45 lb [12 kg] at least.

The installing company must carry out the machine connection to the gas source. Leading for the gas connection is located on the backside of the each dryer. For the dimensions of this connection refer to *Machine Dimensions and Components*.



### WARNING

**NEVER CHANGE THE USED PRESSURES, TYPE OF NOZZLES, NOZZLE'S DIAMETERS OR THE TYPE OF GAS BY YOURSELF. YOU COULD CAUSE SERIOUS DAMAGES. THE MANUFACTURER DECLINES ALL RESPONSIBILITY IN SUCH CASES.**

C335

#### Machines with Gas Valve without Pressure Regulator

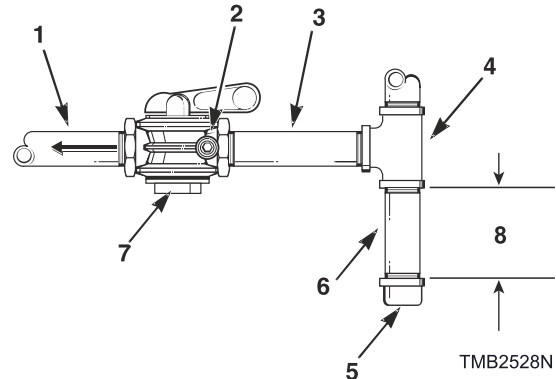
1. For ensuring these correct pressures, install an outer pressure reduction valve near each machine, which adapts the pressure in the pipe to an operating pressure.

2. The machine is not provided with this valve. It is important to keep equal pressure at all dryer gas connections.

#### All Machines

1. Install upstream of each dryer a manually operated gas shut-off valve on an easily accessible place, so that the guiding length from the valve to the machine connecting is less than 78.74 in. [2000 mm] .
2. Install a dirt and water vapour pipe trap per each dryer gas supply. Refer to *Figure 32* .

#### Dirt and Vapour Pipe Trap Installation



1. Gas line to dryer controls
2. Plug
3. Gas supply piping system
4. Gas "T" fitting
5. Gas pipe cap
6. Dirt and water vapour trap
7. Shut-off valve
8. 6 in. [152.4 mm] minimum gas pipe

Figure 32

3. Install a pressure gauge between the pressure reduction valve and the manual valve to verify the used gas or a valve with a pressure gauge and a protecting push button for subtracting.
4. The conduit between the manual valve and the machine must be solid with sufficient gas flow needed for each machine and must always be provided with leak proof sealing material which is resistant against used gases.



### WARNING

**IT IS NECESSARY TO VERIFY AIR-TIGHTNESS ON ALREADY EXECUTED JOINTS. DO NOT START THE MACHINE IF THE SUPPLIED GAS OR USED PRESSURE DOES NOT COMPLY WITH THE TECHNICAL DATA ON THE MACHINE LABEL. TO ENSURE GAS EXHAUST AIR OUT, VERIFY THE TURNING DIRECTION OF THE VENTILATOR.**

C267

## Gas Connection Specifications

20 lb [9 kg] (12.5 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517252	310	9.5	1.35	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP525465	165	29	-	0.95
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517252	310	9.5	1.35	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP525466	130	50	-	0.96

Table 15 *contin-  
ues...*

20 lb [9 kg] (12.5 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP517252	310	9.5	1.35	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP525465	165	29	-	0.95
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517252	310	9.5	1.35	-
			G31	37	Y	SP525465	165	37	-	0.97
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517246	260	20	1.50	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP525465	165	29	-	0.95
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517246	260	20	1.50	-
			G30+G31	28-30/37	D	SP525465	165	29	-	0.95
FRANCE	FR	II 2E +3B/P	G20+G25	20/25	D	SP517246	260	20	1.50	-
			G30-G31	50	D	SP525466	130	50	-	0.96
GERMANY	DE	II 2ELL3B/ P	G20	20	Y	SP517252	310	9.5	1.35	-
			G25	20	Y	SP517252	310	13.5	1.52	-
			G30-G31	50	Y	SP525466	130	50	-	0.96

Table 15 *contin-  
ues...*

20 lb [9 kg] (12.5 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517252	310	9.5	1.35	-
LUXEMBOURG	LU		G30-G31	50	Y	SP525466	130	50	-	0.96
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP525465	165	29	-	0.95
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL									
		II 2L3B/P	G25	25	Y	SP517252	310	13.5	1.52	-
			G30-G31	30	Y	SP525465	165	29	-	0.95
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517252	310	9.5	1.36	-
			G25.1	25	Y	SP517252	310	14.5	1.55	-
			G30-G31	30	Y	SP525465	165	29	-	0.95
			G30-G31	30	Y	SP525466	130	50	-	0.96
POLAND	PL	II 2E3B/P	G20	20	Y	SP517252	310	9.5	1.35	-
			G30-G31	36	Y	SP525465	165	29	-	0.95
ESTONIA	EE	I2H	G20	20	Y	SP517252	310	9.5	1.35	-
DENMARK	DK	II1a2H	G20	20	Y	SP517252	310	9.5	1.34	-
			G110	8	Y	SP517337	530	5.0	3.25	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517252	310	9.5	1.34	-
			G110	8	Y	SP517337	530	5.0	3.25	-
			G30-G31	30	Y	SP525465	165	29	-	0.95

Table 15

24 lb [11 kg] (16.5 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517225	350	9.5	1.72	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP517222	200	29	-	1.28
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517225	350	9.5	1.72	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517327	175	50	-	1.34

Table 16 *contin-  
ues...*



24 lb [11 kg] (16.5 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP517225	350	9.5	1.72	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP517222	200	29	-	1.27
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517225	350	9.5	1.72	-
			G31	37	Y	SP517222	200	37	-	1.23
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517250	290	20	1.77	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP517222	200	29	-	1.27
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517250	290	20	1.77	-
			G30+G31	28-30/37	D	SP517327	200	29	-	1.27
FRANCE	FR	II 2E +3B/P	G20+G25	20/25	D	SP517246	290	20	1.77	-
			G30-G31	50	D	SP525466	175	50	-	1.34
GERMANY	DE	II 2ELL3B/ P	G20	20	Y	SP517225	350	9.5	1.72	-
			G25	20	Y	SP517225	350	13.5	2.07	-
			G30-G31	50	Y	SP517327	175	50	-	1.34

Table 16 *contin-  
ues...*

24 lb [11 kg] (16.5 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517225	350	9.5	1.72	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517327	130	50	-	1.34
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP517222	200	29	-	1.28
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL									
		II 2L3B/P	G25	25	Y	SP517225	350	13.5	2.07	-
			G30-G31	30	Y	SP517222	200	29	-	1.28
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517225	350	9.5	1.72	-
			G25.1	25	Y	SP517257	360	14.5	2.17	-
			G30-G31	30	Y	SP517222	200	29	-	1.28
			G30-G31	30	Y	SP517327	175	50	-	1.34
POLAND	PL	II 2E3B/P	G20	20	Y	SP517225	350	9.5	1.72	-
			G30-G31	36	Y	SP517222	200	29	-	1.28
ESTONIA	EE	I2H	G20	20	Y	SP517225	350	9.5	1,72	-
DENMARK	DK	II1a2H	G20	20	Y	SP517225	350	9.5	1.72	-
			G110	8	Y	SP520237	650	4.2	4.17	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517225	350	9.5	1.72	-
			G110	8	Y	SP520237	650	4.2	4.17	-
			G30-G31	30	Y	SP517222	200	29	-	1.28

Table 16

27 lb [13 kg] (19.5 kW*); 27 lb/27 lb [13 kg/13 kg] (2x19.5 kW*) CE Models with One Injector										
For the machine of capacity 27 lb/27 lb [13 kg/13 kg] it is necessary to multiply the gas consumption 2 times.										
*based on net calorific value										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517226	380	9.5	2.03	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP517223	215	29	-	1.48
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									

Table 17 *contin-  
ues...*

**27 lb [13 kg] (19.5 kW\*); 27 lb/27 lb [13 kg/13 kg] (2x19.5 kW\*) CE Models with One Injector**  
**For the machine of capacity 27 lb/27 lb [13 kg/13 kg] it is necessary to multiply the gas consumption 2 times.**

**\*based on net calorific value**

Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517226	380	9.5	2.03	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517328	185	49	-	1.50
IRELAND	IE	II 2H3+	G20	20	Y	SP517226	380	9.5	2.03	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT									
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517226	380	9.5	2.03	-
			G31	37	Y	SP517329	220	36	-	1.49
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517252	310	19/24	2.03/2.44	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP517223	215	29/36	-	1.47/1.49
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517252	310	19/24	2.03/2.44	-
			G30+G31	28-30/37	D	SP517223	215	29/36	-	1.47/1.49

Table 17 *contin-  
ues...*

<b>27 lb [13 kg] (19.5 kW*); 27 lb/27 lb [13 kg/13 kg] (2x19.5 kW*) CE Models with One Injector</b> <b>For the machine of capacity 27 lb/27 lb [13 kg/13 kg] it is necessary to multiply the gas consumption 2 times.</b> <b>*based on net calorific value</b>										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
FRANCE	FR	II 2E +3B/P	G20+G25	20/25	D	SP517252	310	19/24	2.03/2.44	-
			G30-G31	50	D	SP517328	185	49	-	1.50
GERMANY	DE	II 2ELL3B/ P	G20	20	Y	SP517226	380	9.5	2.03	-
			G25	20	Y	SP517226	380	13.5	2.44	-
			G30-G31	50	Y	SP517328	185	49	-	1.50
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517226	380	9.5	2.03	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517328	185	49	-	1.50
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP517223	215	29	-	1.48
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL	II 2L3B/P	G25	25	Y	SP517226	380	13.5	2.44	-
			G30-G31	30	Y	SP517223	215	29	-	1.48
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517226	380	9.5	2.03	-
			G25.1	25	Y	SP517226	380	14.5	2.42	-
			G30-G31	30	Y	SP517223	215	29	-	1.48
			G30-G31	50	Y	SP517328	185	49	-	1.50

Table 17 *contin-  
ues...*

**27 lb [13 kg] (19.5 kW\*); 27 lb/27 lb [13 kg/13 kg] (2x19.5 kW\*) CE Models with One Injector**  
**For the machine of capacity 27 lb/27 lb [13 kg/13 kg] it is necessary to multiply the gas consumption 2 times.**

**\*based on net calorific value**

Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
POLAND	PL	II 2E3B/P	G20	20	Y	SP517226	380	9.5	2.03	-
			G30-G31	36	Y	SP517223	215	29	-	1.48
ESTONIA	EE	I2H	G20	20	Y	SP517226	380	9.5	2.03	-
DENMARK	DK	II1a2H	G20	20	Y	SP517226	380	9.5	2.03	-
			G110	8	Y	SP520236	700	4.2	4.84	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517226	380	9.5	2.03	-
			G110	8	Y	SP520236	700	4.2	4.84	-
			G30-G31	30	Y	SP517223	215	29	-	1.48

Table 17

35 lb [16 kg] (25 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517330	435	9.5	2.66	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP517245	245	29	-	1.92
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517330	435	9.5	2.66	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517223	215	50	-	2.03

Table 18 *contin-  
ues...*

35 lb [16 kg] (25 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP517245	245	9.5	2.66	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP517223	245	29	-	1.91
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517330	435	9.5	2.66	-
			G31	37	Y	SP517245	245	37	-	1.85
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517257	360	20	2.73	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP517245	245	29	-	1.91
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517257	360	20	2.73	-
			G30+G31	28-30/37	D	SP517245	245	29	-	1.91
FRANCE	FR	II 2E +3B/P	G20+G25	20/25	D	SP517257	360	20	2.73	-
			G30-G31	50	D	SP517223	215	50	-	2.03
GERMANY	DE	II 2ELL3B/ P	G20	20	Y	SP517330	435	9.5	2.66	-
			G25	20	Y	SP517330	435	13.5	3.19	-
			G30-G31	50	Y	SP517223	215	50	-	2.03

Table 18 *contin-  
ues...*



35 lb [16 kg] (25 kW - based on net calorific value) CE Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517330	435	9.5	2.66	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517223	215	50	-	2.03
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP517245	245	29	-	1.92
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL									
		II 2L3B/P	G25	25	Y	SP517330	435	13.5	3.19	-
			G30-G31	30	Y	SP517245	245	29	-	1.92
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517330	435	9.5	2.66	-
			G25.1	25	Y	SP517331	445	14.5	3.32	-
			G30-G31	30	Y	SP517245	245	29	-	1.92
			G30-G31	50	Y	SP517223	215	50	-	2.03
POLAND	PL	II 2E3B/P	G20	20	Y	SP517330	435	9.5	2.66	-
			G30-G31	36	Y	SP517245	245	29	-	1.92
ESTONIA	EE	I2H	G20	20	Y	SP517330	435	9.5	2.66	-
DENMARK	DK	II1a2H	G20	20	Y	SP517330	435	9.5	2.66	-
			G110	8	Y	SP520236	700	5.5	5.66	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517330	435	9.5	2.66	-
			G110	8	Y	SP520236	700	5.5	5.66	-
			G30-G31	30	Y	SP517245	245	29	-	1.92

Table 18

53 lb [24 kg] (33 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517257	360	9.5	3.57	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP517222	200	29	-	2.54
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517257	360	9.5	3.57	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517327	175	48	-	2.68

Table 19 *contin-  
ues...*

53 lb [24 kg] (33 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP517257	360	9.5	3.57	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP517222	200	29/36	-	2.54/2.47
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517257	360	9.5	3.57	-
			G31	37	Y	SP520399	210	36	-	2.47
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517251	300	19/24	3.57/4.14	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP517222	200	29/36	-	2.54/2.47
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517251	300	19/24	3.57/4.14	-
			G30+G31	28-30/37	D	SP517222	200	29/36	-	2.54/2.47
FRANCE	FR	II 2E+3B/P	G20+G25	20/25	D	SP517251	300	19/24	3.57/4.14	-
			G30-G31	50	D	SP517327	175	48	-	2.68
GERMANY	DE	II 2ELL3B/P	G20	20	Y	SP517257	360	9.5	3.57	-
			G25	20	Y	SP517257	360	13.5	4.14	-
			G30-G31	50	Y	SP517327	175	48	-	2.68

Table 19 *contin-  
ues...*

53 lb [24 kg] (33 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517257	360	9.5	3.57	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517327	175	48	-	2.68
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP517222	200	29	-	2.54
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL									
		II 2L3B/P	G25	25	Y	SP517257	360	13.5	4.14	-
			G30-G31	30	Y	SP517222	200	29	-	2.54
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517257	360	9.5	3.57	-
			G25.1	25	Y	SP517257	360	14.5	4.34	-
			G30-G31	30	Y	SP517222	200	29	-	2.54
			G30-G31	50	Y	SP517327	175	48	-	2.68
POLAND	PL	II 2E3B/P	G20	20	Y	SP517257	360	9.5	3.57	-
			G30-G31	36	Y	SP517222	200	29	-	2.54
ESTONIA	EE	I2H	G20	20	Y	SP517257	360	9.5	3.57	-
DENMARK	DK	II1a2H	G20	20	Y	SP517257	360	9.5	3.57	-
			G110	8	Y	SP520237	650	4.2	8.34	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517257	360	9.5	3.57	-
			G110	8	Y	SP520237	650	4.2	8.34	-
			G30-G31	30	Y	SP517222	200	29	-	2.54

Table 19

53 lb [24 kg] (39 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP530820	385	9.5	4.14	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP517329	220	29	-	2.99
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP530820	385	9.5	4.14	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517243	190	48	-	2.88

Table 20 *contin-  
ues...*

53 lb [24 kg] (39 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP530820	385	9.5	4.14	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP517329	220	29/36	-	2.99/2.87
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP530820	385	9.5	4.14	-
			G31	37	Y	SP517329	220	36	-	2.87
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP575530	330	19/24	4.21/4.56	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP517329	220	29/36	-	2.99/2.87
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP575530	330	19/24	4.21/4.56	-
			G30+G31	28-30/37	D	SP517329	220	29/36	-	2.99/2.87
FRANCE	FR	II 2E+3B/P	G20+G25	20/25	D	SP575530	330	19/24	4.21/4.56	-
			G30-G31	50	D	SP517243	190	48	-	2.88
GERMANY	DE	II 2ELL3B/P	G20	20	Y	SP530820	385	9.5	4.14	-
			G25	20	Y	SP530820	385	13,5	4.87	-
			G30-G31	50	Y	SP517243	190	48	-	2.88

Table 20 *contin-  
ues...*

53 lb [24 kg] (39 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2E3B/P	G20	20	Y	SP530820	385	9.5	4.14	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517243	190	48	-	2.88
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP517329	220	29	-	2.99
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL									
		II 2L3B/P	G25	25	Y	SP530820	385	13.5	4.87	-
			G30-G31	30	Y	SP517329	220	29	-	2.99
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP530820	385	9.5	4.14	-
			G25.1	25	Y	SP530820	385	14.5	4.75	-
			G30-G31	30	Y	SP517329	220	29	-	2.99
			G30-G31	50	Y	SP517243	190	48	-	2.88
POLAND	PL	II 2E3B/P	G20	20	Y	SP530820	385	9.5	4.14	-
			G30-G31	36	Y	SP517329	220	29	-	2.99
ESTONIA	EE	I2H	G20	20	Y	SP530820	385	9.5	4.14	-
DENMARK	DK	II1a2H	G20	20	Y	SP530820	385	9.5	4.14	-
			G110	8	Y	-	-	-	-	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP530820	385	9.5	4.14	-
			G110	8	Y	-	-	-	-	-
			G30-G31	30	Y	SP517329	220	29	-	2.99

Table 20

77 lb [35 kg] (46 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517227	420	9.5	4.83	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP517224	235	29	-	3.43
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517227	420	9.5	4.83	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517223	215	48	-	3.60

Table 21 *contin-  
ues...*



77 lb [35 kg] (46 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP517227	420	9.5	4.83	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP517224	235	29/36	-	3.43/3.59
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517227	420	9.5	4.83	-
			G31	37	Y	SP517245	245	36	-	3.59
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517225	350	19/24	4.84/5.52	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP517224	235	29/36	-	3.43/3.59
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517225	350	19/24	4.84/5.52	-
			G30+G31	28-30/37	D	SP517224	235	29/36	-	3.43/3.59
FRANCE	FR	II 2E+3B/P	G20+G25	20/25	D	SP517225	350	19/24	4.84/5.52	-
			G30-G31	50	D	SP517223	215	48	-	3.60
GERMANY	DE	II 2ELL3B/P	G20	20	Y	SP517227	420	9.5	4.83	-
			G25	20	Y	SP517227	420	13.5	5.52	-
			G30-G31	50	Y	SP517223	215	48	-	3.60

Table 21 *contin-  
ues...*

77 lb [35 kg] (46 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517227	420	9.5	4.83	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517223	215	48	-	3.60
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP517224	235	29	-	3.43
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL									
		II 2L3B/P	G25	25	Y	SP517227	420	13.5	5.52	-
			G30-G31	30	Y	SP517224	235	29	-	3.43
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517227	420	9.5	4.83	-
			G25.1	25	Y	SP517227	420	14.5	5.51	-
			G30-G31	30	Y	SP517224	235	29	-	3.43
			G30-G31	50	Y	SP517223	215	48	-	3.60
POLAND	PL	II 2E3B/P	G20	20	Y	SP517227	420	9.5	4.83	-
			G30-G31	36	Y	SP517224	235	29	-	3.43
ESTONIA	EE	I2H	G20	20	Y	SP517227	420	9.5	4.83	-
DENMARK	DK	II1a2H	G20	20	Y	SP517227	420	9.5	4.83	-
			G110	8	Y	SP520236	700	5.5	11.36	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517227	420	9.5	4.83	-
			G110	8	Y	SP520236	700	5.5	11.36	-
			G30-G31	30	Y	SP517224	235	29	-	3.43

Table 21

77 lb [35 kg] (50 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517330	435	9.5	5.22	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP530819	250	29	-	3.80
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517330	435	9.5	5.22	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517329	220	48	-	3.87

Table 22 *contin-  
ues...*

77 lb [35 kg] (50 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP517330	435	9.5	5.22	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP530819	250	29/36	-	3.80/3.85
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517330	435	9.5	5.22	-
			G31	37	Y	SP530819	250	36	-	3.85
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517258	365	19/24	5.32/6.09	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP530819	250	29/36	-	3.80/3.85
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517258	360	19/24	5.32/6.09	-
			G30+G31	28-30/37	D	SP517245	250	29/36	-	3.80/3.85
FRANCE	FR	II 2E+3B/P	G20+G25	20/25	D	SP517258	365	19/24	5.32/6.09	-
			G30-G31	50	D	SP517329	220	48	-	3.87
GERMANY	DE	II 2ELL3B/P	G20	20	Y	SP517330	435	9.5	5.22	-
			G25	20	Y	SP517330	435	13.5	6.09	-
			G30-G31	50	Y	SP517329	220	48	-	3.87

Table 22 *contin-  
ues...*

77 lb [35 kg] (50 kW - based on net calorific value) CE Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517330	435	9.5	5.22	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517329	220	48	-	3.87
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP530819	250	29	-	3,80
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL									
		II 2L3B/P	G25	25	Y	SP517330	435	13.5	6.12	-
			G30-G31	30	Y	SP530819	250	29	-	3.80
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517330	435	9.5	5.22	-
			G25.1	25	Y	SP517330	445	14.5	6.12	-
			G30-G31	30	Y	SP530819	250	29	-	3.80
			G30-G31	50	Y	SP517329	220	48	-	3.87
POLAND	PL	II 2E3B/P	G20	20	Y	SP517330	435	9.5	5.22	-
			G30-G31	36	Y	SP530819	250	29	-	3.80
ESTONIA	EE	I2H	G20	20	Y	SP517330	435	9.5	5.22	-
DENMARK	DK	II1a2H	G20	20	Y	SP517330	435	9.5	5.22	-
			G110	8	Y	-	-	-	-	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517330	435	9.5	5.22	-
			G110	8	Y	-	-	-	-	-
			G30-G31	30	Y	SP530819	250	29	-	3.80

Table 22

27 lb/27 lb [13 kg/13 kg] (2x16.5 kW - based on net calorific value) CE Models with One Injector										
For total consumption is necessary to multiply the gas consumption 2 times.										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II2H3B/P	G20	20	Y	SP517225	350	9.5	1.69	-
FINLAND	FI									
SWEDEN	SE									
GREECE	GR									
CZECH REPUBLIC	CZ									
SLOVAKIA	SK									
SLOVENIA	SI									
NORWAY (NO)			G30-G31	30	Y	SP517222	200	29	-	1.22
ITALY	IT									
LATVIA	LV									
LITHUANIA	LT									
ESTONIA	EE									
CROATIA	HR									
BULGARIA	BG									
ROMANIA	RO									
AUSTRIA	AT	II 2H3B/P	G20	20	Y	SP517225	350	9.5	1.69	-
SWITZERLAND	CH									
			G30-G31	50	Y	SP517327	175	49	-	1.21

Table 23 *contin-  
ues...*

<b>27 lb/27 lb [13 kg/13 kg] (2x16.5 kW - based on net calorific value) CE Models with One Injector</b> <b>For total consumption is necessary to multiply the gas consumption 2 times.</b>										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
IRELAND	IE	II 2H3+	G20	20	Y	SP517225	350	9.5	1.69	-
SPAIN	ES									
PORTUGAL	PT									
GREAT BRITAIN	GB									
ITALY	IT		G30+G31	28-30/37	D	SP517222	200	29/36	-	1.22/1.24
SWITZERLAND	CH									
LATVIA	LV									
GREAT BRITAIN	GB	II 2H3P	G20	20	Y	SP517225	350	9.5	1.69	-
			G31	37	Y	SP517222	200	36	-	1.24
BELGIUM	BE	I 2E+	G20+G25	20/25	D	SP517250	300	19/24	1.77/1.89	-
BELGIUM	BE	I 3+	G30+G31	28-30/37	D	SP517222	200	29/36	-	1.22/1.24
CYPRUS	CY									
FRANCE	FR	II 2E3+	G20+G25	20/25	D	SP517250	300	19/24	1.77/1.89	-
			G30+G31	28-30/37	D	SP517222	200	29/36	-	1.22/1.24
FRANCE	FR	II 2E+3B/P	G20+G25	20/25	D	SP517250	300	19/24	1.77/1.89	-
			G30-G31	50	D	SP517327	175	49	-	1.21

Table 23 *contin-  
ues...*

<b>27 lb/27 lb [13 kg/13 kg] (2x16.5 kW - based on net calorific value) CE Models with One Injector</b> <b>For total consumption is necessary to multiply the gas consumption 2 times.</b>										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
GERMANY	DE	II 2ELL3B/P	G20	20	Y	SP517225	350	9.5	1.69	-
			G25	20	Y	SP517225	350	13.5	1.95	-
			G30-G31	50	Y	SP517327	175	49	-	1.21
GERMANY	DE	II 2E3B/P	G20	20	Y	SP517225	350	9.5	1.69	-
LUXEMBOURG	LU		G30-G31	50	Y	SP517327	175	49	-	1.21
ICELAND	IS	I 3B/P	G30-G31	30	Y	SP517222	200	29	-	1.22
CYPRUS	CY									
MALTA	MT									
LITHUANIA	LT									
NETHERLAND	NL	II 2L3B/P	G25	25	Y	SP517225	350	13.5	1.95	-
			G30-G31	30	Y	SP517222	200	29	-	1.22
HUNGARY	HU	II 2H3B/P	G20	25	Y	SP517225	350	9.5	1.69	-
			G25.1	25	Y	SP517257	360	14.5	2.07	-
			G30-G31	30	Y	SP517222	200	29	-	1.22
			G30-G31	50	Y	SP517327	175	49	-	1.21
POLAND	PL	II 2E3B/P	G20	20	Y	SP517225	350	9.5	1.69	-
			G30-G31	36	Y	SP517222	200	29	-	1.22
ESTONIA	EE	I2H	G20	20	Y	SP517225	350	9.5	1.69	-

Table 23 *contin-  
ues...*



<b>27 lb/27 lb [13 kg/13 kg] (2x16.5 kW - based on net calorific value) CE Models with One Injector</b> <b>For total consumption is necessary to multiply the gas consumption 2 times.</b>										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
DENMARK	DK	II1a2H	G20	20	Y	SP517225	350	9.5	1.69	-
			G110	8	Y	SP520237	650	4.2	4.09	-
DENMARK	DK	III1a2H3 B/P	G20	20	Y	SP517225	350	9.5	1.69	-
			G110	8	Y	SP520237	650	4.2	4.09	-
			G30-G31	30	Y	SP517222	200	29	-	1.22

Table 23

20 lb [9 kg] (12.5 kW - based on net calorific value) (Excluding EU) Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP517252	310	9.5	1.35	-
Non EU		-	G25	G20 (25)	Y	SP517252	310	13.5	1.52	-
Non EU		-	G20+G25	20/25	Y	SP517246	260	20	1.50	-
Non EU		-	G30+G31	28-30 /37	Y	SP525465	165	29	-	0.95
Non EU		-	G30-G31	30	Y	SP525465	165	29	-	0.95
Non EU		-	G31	37	Y	SP525465	165	37	-	0.97
Non EU		-	G30-G31	50	Y	SP525466	130	50	-	0.96
Non EU		-	G110	8	Y	SP517337	530	5.0	3.25	-

Table 24

24 lb [11 kg] (16.5 kW - based on net calorific value) (Excluding EU) Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP517225	350	9.5	1.72	-
Non EU		-	G25	G20 (25)	Y	SP517225	350	13.5	2.07	-
Non EU		-	G20+G25	20/25	Y	SP517250	290	20	1.77	-
Non EU		-	G30+G31	28-30 /37	Y	SP517222	200	29	-	1.27
Non EU		-	G30-G31	30	Y	SP517222	200	29	-	1.28
Non EU		-	G31	37	Y	SP517222	200	37	-	1.23
Non EU		-	G30-G31	50	Y	SP517327	175	50	-	1.34
Non EU		-	G110	8	Y	SP520237	650	4.2	4.17	-

Table 25

**27 lb [13 kg] (19.5 kW\*); 27 lb/27 lb [13 kg/13 kg] (2x19.5 kW\*) (Excluding EU) Models with One Injector**  
**For the machine of capacity 27 lb/27 lb [13 kg/13 kg] it is necessary to multiply the gas consumption 2 times.**

**\*based on net calorific value**

Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP517226	380	9.5	2.03	-
Non EU		-	G25	G20 (25)	Y	SP517226	380	13.5	2.44	-
Non EU		-	G20+G25	20/25	Y	SP517252	310	19/24	2.03/2.44	-
Non EU		-	G30+G31	28-30 /37	Y	SP517223	215	29/36	-	1.47/1.49
Non EU		-	G30-G31	30	Y	SP517223	215	29	-	1.48
Non EU		-	G31	37	Y	SP517329	200	36	-	1.49
Non EU		-	G30-G31	50	Y	SP517328	185	49	-	1.50
Non EU		-	G110	8	Y	SP520236	700	4.2	4.84	-

Table 26

<b>27 lb/27 lb [13 kg/13 kg] (2x16.5 kW - based on net calorific value) (Excluding EU) Models with One Injector</b> <b>For total consumption is necessary to multiply the gas consumption 2 times.</b>										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP517225	350	9.5	1.69	-
Non EU		-	G25	G20 (25)	Y	SP517225	350	13.5	1.95	-
Non EU		-	G20+G25	20/25	Y	SP517250	300	19/24	1.77/1.89	-
Non EU		-	G30+G31	28-30 /37	Y	SP517222	200	29/36	-	1.22/1, 24
Non EU		-	G30-G31	30	Y	SP517222	200	29	-	1.22
Non EU		-	G31	37	Y	SP517222	200	36	-	1.24
Non EU		-	G30-G31	50	Y	SP517327	175	49	-	1.21
Non EU		-	G110	8	Y	SP520237	650	4.2	4.09	-

Table 27

35 lb [16 kg] (25 kW - based on net calorific value) (Excluding EU) Models with One Injector										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP517330	435	9.5	2.66	-
Non EU		-	G25	G20 (25)	Y	SP517330	435	13.5	3.19	-
Non EU		-	G20+G25	20/25	Y	SP517257	360	20	2.73	-
Non EU		-	G30+G31	28-30 /37	Y	SP517245	245	29	-	1.91
Non EU		-	G30-G31	30	Y	SP517245	245	29	-	1.92
Non EU		-	G31	37	Y	SP517245	245	37	-	1.85
Non EU		-	G30-G31	50	Y	SP517223	215	50	-	2.03
Non EU		-	G110	8	Y	SP520236	700	5.5	5.66	-

Table 28

53 lb [24 kg] (33 kW - based on net calorific value) (Excluding EU) Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP517257	360	9.5	3.57	-
Non EU		-	G25	G20 (25)	Y	SP517257	360	13.5	4.14	-
Non EU		-	G20+G25	20/25	Y	SP517251	300	19/24	3.57/4.14	-
Non EU		-	G30+G31	28-30 /37	Y	SP517222	200	29/36	-	2.54/2. 47
Non EU		-	G30-G31	30	Y	SP517222	200	29	-	2.54
Non EU		-	G31	37	Y	SP520399	210	37	-	2.47
Non EU		-	G30-G31	50	Y	SP517327	175	48	-	2.68
Non EU		-	G110	8	Y	SP520237	650	4.2	8.34	-

Table 29

53 lb [24 kg] (39 kW - based on net calorific value) (Excluding EU) Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP530820	385	9.5	4.14	-
Non EU		-	G25	G20 (25)	Y	SP530820	385	13.5	4.87	-
Non EU		-	G20+G25	20/25	Y	SP575530	330	19/24	4.21/4.56	-
Non EU		-	G30+G31	28-30 /37	Y	SP517329	220	29/36	-	2.99/2.87
Non EU		-	G30-G31	30	Y	SP517329	220	29	-	2.99
Non EU		-	G31	37	Y	SP517329	220	36	-	2.87
Non EU		-	G30-G31	50	Y	SP517243	190	48	-	2.88
Non EU		-	G110	8	Y	-	-	-	-	-

Table 30



<b>77 lb [35 kg] (46 kW - based on net calorific value) (Excluding EU) Models with Two Injectors</b>										
<b>Country of destination _(state)</b>	<b>Country code</b>	<b>Category</b>	<b>Gas</b>	<b>Inlet pressure _(mbar)</b>	<b>Pressure regulator Y - YES D - Deactivated</b>	<b>INJECTOR CODE</b>	<b>"d" (mm x 100)</b>	<b>Injector pressure (mbar)</b>	<b>Gas consumption (m3/h) (conditions 15°C, 101,325 kPa)</b>	<b>Gas consumption (kg/h)</b>
Non EU		-	G20	G20 (25)	Y	SP517227	420	9.5	4.83	-
Non EU		-	G25	G20 (25)	Y	SP517227	420	13.5	5.52	-
Non EU		-	G20+G25	20/25	Y	SP517225	350	19/24	4.84/5.52	-
Non EU		-	G30+G31	28-30 /37	Y	SP517224	235	29/36	-	3.43/3.59
Non EU		-	G30-G31	30	Y	SP517224	235	29	-	3.43
Non EU		-	G31	37	Y	SP517245	245	37	-	3.59
Non EU		-	G30-G31	50	Y	SP517223	215	48	-	3.60
Non EU		-	G110	8	Y	SP520236	700	5.5	11.36	-

Table 31

77 lb [35 kg] (50 kW - based on net calorific value) (Excluding EU) Models with Two Injectors										
Country of destination _(state)	Country code	Category	Gas	Inlet pressure _(mbar)	Pressure regulator Y - YES D - Deactivated	INJECTOR CODE	"d" (mm x 100)	Injector pressure (mbar)	Gas consumption (m <sup>3</sup> /h) (conditions 15°C, 101,325 kPa)	Gas consumption (kg/h)
Non EU		-	G20	G20 (25)	Y	SP517330	435	9.5	5.22	-
Non EU		-	G25	G20 (25)	Y	SP517330	435	13.5	6.09	-
Non EU		-	G20+G25	20/25	Y	SP517258	365	19/24	5.32/6.09	-
Non EU		-	G30+G31	28-30 /37	Y	SP530819	250	29/36	-	3.80/3.85
Non EU		-	G30-G31	30	Y	SP530819	250	29	-	3.80
Non EU		-	G31	37	Y	SP530819	250	37	-	3.85
Non EU		-	G30-G31	50	Y	SP517329	220	48	-	3.87
Non EU		-	G110	8	Y	-	-	-	-	-

Table 32

## Conversion to Another Gas

Models through Serial No.: 9T011519QD, 11T006658QB, 13T006723QB, 13TA000340QB, 13TD005312QB, 16T014291QB, 24T009766QB, 35T007384QB



### WARNING

**Gas installations and any repairs must be carried out by authorized personnel only. All installation materials utilized (ex. reduction valves, manual valves, and the executed gas installation) must correspond to regulations of the country in which the machine operates. Before doing any conversion, close the shut-off valve. Do not smoke or have other electrical appliances working nearby. Provide as much ventilation to the room as possible. Any other gas classifications, types, gas pressures, or different gas combinations not mentioned in *Gas Connection Specifications* are not allowed. The manufacturer refuses all responsibility in such cases.**

C337

**For the conversion of 24 kg / 53 lb / 530 L natural gas (G20, G25) to LPG (G30-31), kit 575476 must be installed.**

1. Check with the gas supplier which type of gas is supplied and under which pressure.
2. Check the gas pressure in front of the machine.
3. Check if the gas type and pressure match with the data mentioned on the serial plate.
4. Gas appliances are approved (CE approval). Refer to *Serial Plate Location* for gas information.
5. If the data are identical, there is no need to execute any action.
6. If not, proceed according Chapter *Options for Conversion to Another Gas*.

### Options for Conversion to Another Gas

**Required Category and Country of Appliance (for use in EU countries governed by the gas appliance directive, refer to *Gas Connection Specifications*):**

1. **Corresponds** with category and country mentioned on the Serial Plate.
2. **Does not correspond** with category and country mentioned on the Serial Plate.

To make this change you will need a correct nozzle, a covering plug and a label for the gas conversion:

1. Find out a correct nozzle, refer to *Gas Connection Specifications* :
  - According to capacity and power of dryer, country of destination, your requested category and gas find out which nozzle diameter and which nozzle pressure you need to use.

2. Find out a necessity to use a covering plug, refer to *Gas Connection Specifications* :
  - According to capacity and power of dryer, country of destination, your requested category and gas find out if a pressure regulator is allowed.
  - If not, you have to remove the pressure regulator in the gas valve and replace it by a covering plug.
3. Find out a right label for conversion, refer to *Gas Connection Specifications* :
  - According to the language of the country in which the machine is installed, find out a needed code label.
  - Language of the label has to correspond to a spoken language in the country of destination.

Using non-corrosive liquid for testing the conduit:

1. Check if the conduit is in order and leakproof after every adjustment.
2. Check the pressure with all other gas appliances running.
3. Stick a new label for the gas conversion in the relevant language next to the serial plate and fill it in according to *Gas Connection Specifications*. The values mentioned in line for your requested country of destination, category, gas and pressure gas.

### IMPORTANT:

**Cross out items on the serial plate related to category, type of gas, gas pressure and gas consumption!**

**Required Category and Country of Appliance (not for use in EU countries governed by the gas appliance directive, refer to *Gas Connection Specifications* :**

1. Is not mentioned in the Chapter *Gas Connection Specifications*.

To make this change you will need correct nozzle and label for the gas conversion:

1. Find out a right nozzle, refer to *Gas Connection Specifications* :
  - According to capacity, power of dryer and gas, find out which nozzle diameter and which nozzle pressure you need to use.
2. Find out a right label for conversion, refer to *Gas Connection Specifications* :
  - According to the language of the country in which the machine is installed, find out a needed code label.
  - If the language corresponding to the country of destination is not mentioned, use a label with English text.

Using non-corrosive liquid for testing the conduit,

1. Check if the conduit is in order and leakproof after every adjustment.
2. Check the pressure with all other gas appliances running.
3. Stick a label for the gas conversion in the relevant language next to the serial plate and fill it in according to *Gas Connection Specifications*.

*tion Specifications.* The values mentioned in the line for your requested gas and gas pressure.

### IMPORTANT:

**Cross out items on the serial plate related to category, type of gas, gas pressure and gas consumption!**

**IMPORTANT:** In case of any ambiguity contact your dealer, service technician or the manufacturer.

### Procedure for the Gas Conversion

**IMPORTANT:** Always use only those items which result from options mentioned in Chapter *Options for Conversion to Another Gas*.

Below you will find procedure for version with replacement of regulator, nozzle, setting of pressure on the nozzle:

1. Turn off the main switch.
2. Close inlet shut off valve. Refer to *Figure 32*, (7).
3. Remove rear upper cover from the machine.
4. Replace the nozzle. Refer to *Figure 33* :
  - Disconnect inlet pipeline from the machine.
  - Unscrew the bolts fixing the gas valve to the holder (3).
  - Remove the valve out of machine. Replace the nozzle (5).
  - Refer to *Gas Connection Specifications* for size of nozzle.
  - Install the valve back.
  - Connect gas inlet pipeline.
5. Replacement of the gas regulator, or possibly covering plug (Part Number SP102019 - in case of requirement of *Gas Connection Specifications*). Refer to *Figure 33* .
  - Unscrew the regulator from the gas valve (7) or covering plug (10) and install the plug (or regulator - part of the machine supply).
  - When the plug is installed, the inlet gas pressure and nozzle must correspond with the value mentioned in *Gas Connection Specifications* for the given type of gas.
  - When the gas regulator is installed, set required pressure on the nozzle with the machine running, using manometer (8 and 9) according to *Gas Connection Specifications*.



## WARNING

**IF THERE ARE TWO GAS VALVES ON THE MACHINE, THE REQUIRED PRESSURE WILL BE SET ON BOTH VALVES. REQUIRED PRESSURE MUST BE EQUAL!**

C339



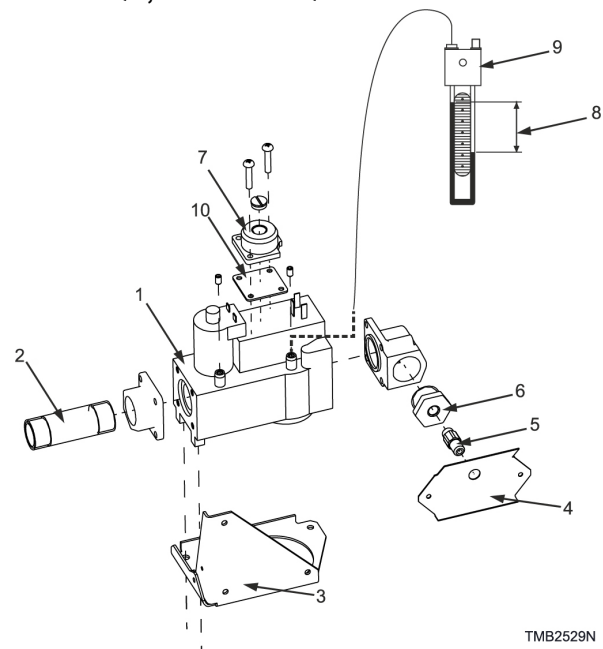
## WARNING

**AFTER ANY INTERVENTION INTO THE GAS PIPELINE OF THE MACHINE, NEVER FORGET TO EXECUTE LEAKPROOF TESTING. NEVER USE OPEN FIRE FOR LEAKPROOF TESTING.**

C340

6. Install the rear upper cover back.
7. Turn on the main switch, open inlet shut off valve.
8. Start the machine and let it run one whole cycle.
9. Stick the label for conversion, fill it in, adapt the serial plate, refer to Chapter *Options for Conversion to Another Gas*.

**Gas Shut Off Valve - Models through Serial No.:**  
**9T011519QD, 11T006658QB, 13T006723QB,**  
**13TA000340QB, 13TD005312QB, 16T014291QB,**  
**24T009766QB, 35T007384QB**



1. Gas valve
2. Gas supply pipe line
3. Gas valve holder
4. Sheet metal with opening
5. Injector
6. Screw joint of injector
7. Pressure regulator
8. Required pressure as specified in Gas Connection Specifications
9. Manometer
10. Cover in case of non-regulated execution

Figure 33

## INFLUENCE OF HEIGHT

To ensure complete combustion at higher height, the power is decreased by 5% per each 1640.41 ft [500 m] above sea level. Injector (nozzle) has to be adapted according to this decreased power starting from above 3280.83 ft [1000 m] above sea level. Consult the problem with manufacturer in such a case.

## Conversion to Another Gas

Models starting Serial No.: 9T011520QD, 11T006659QB, 13T006724QB, 13TA000341QF, 13TD005313QB, 16T014292QB, 24T009767QD, 35T007385QB



### WARNING

**Gas installations and any repairs must be carried out by authorized personnel only. All installation materials utilized (ex. reduction valves, manual valves, and the executed gas installation) must correspond to regulations of the country in which the machine operates. Before doing any conversion, close the shut-off valve. Do not smoke or have other electrical appliances working nearby. Provide as much ventilation to the room as possible. Any other gas classifications, types, gas pressures, or different gas combinations not mentioned in *Gas Connection Specifications* are not allowed. The manufacturer refuses all responsibility in such cases.**

C337

**For the conversion of 24 kg / 53 lb / 530 L natural gas (G20, G25) to LPG (G30-31), kit 575476 must be installed.**

1. Check with the gas supplier which type of gas is supplied and under which pressure.
2. Check the gas pressure in front of the machine.
3. Check if the gas type and pressure match with the data mentioned on the serial plate.
4. Gas appliances are approved (CE approval). Refer to *Serial Plate Location* for gas information.
5. If the data are identical, there is no need to execute any action.
6. If not, proceed according Chapter *Options for Conversion to Another Gas*.

### Options for Conversion to Another Gas

**Required Category and Country of Appliance (for use in EU countries governed by the gas appliance directive, refer to *Gas Connection Specifications*):**

1. **Corresponds** with category and country mentioned on the Serial Plate.
2. **Does not correspond** with category and country mentioned on the Serial Plate.

To make this change you will need a correct nozzle and a label for the gas conversion:

1. Find out a correct nozzle, refer to *Gas Connection Specifications* :
  - According to capacity and power of dryer, country of destination, your requested category and gas find out which nozzle diameter and which nozzle pressure you need to use.
2. Find out a necessity of pressure regulator deactivation, refer to *Gas Connection Specifications* :
  - According to capacity and power of dryer, country of destination, your requested category and gas find out if the pressure regulator has to be active or not.
  - If not, you have to deactivate the pressure regulator in the gas valve by screwing in the regulating screw.
3. Find out a right label for conversion, refer to *Gas Connection Specifications* :
  - According to the language of the country in which the machine is installed, find out a needed code label.
  - Language of the label has to correspond to a spoken language in the country of destination.

Using non-corrosive liquid for testing the conduit:

1. Check if the conduit is in order and leakproof after every adjustment.
2. Check the pressure with all other gas appliances running.
3. Stick a new label for the gas conversion in the relevant language next to the serial plate and fill it in according to *Gas Connection Specifications*. The values mentioned in line for your requested country of destination, category, gas and pressure gas.

### IMPORTANT:

**Cross out items on the serial plate related to category, type of gas, gas pressure and gas consumption!**

**Required Category and Country of Appliance (not for use in EU countries governed by the gas appliance directive, refer to *Gas Connection Specifications* :**

1. Is not mentioned in the Chapter *Gas Connection Specifications*.

To make this change you will need correct nozzle and label for the gas conversion:

1. Find out a right nozzle, refer to *Gas Connection Specifications* :
  - According to capacity, power of dryer and gas, find out which nozzle diameter and which nozzle pressure you need to use.
2. Find out a right label for conversion, refer to *Gas Connection Specifications* :
  - According to the language of the country in which the machine is installed, find out a needed code label.

- If the language corresponding to the country of destination is not mentioned, use a label with English text.

Using non-corrosive liquid for testing the conduit,

1. Check if the conduit is in order and leakproof after every adjustment.
2. Check the pressure with all other gas appliances running.
3. Stick a label for the gas conversion in the relevant language next to the serial plate and fill it in according to *Gas Connection Specifications*. The values mentioned in the line for your requested gas and gas pressure.

**IMPORTANT:**

**Cross out items on the serial plate related to category, type of gas, gas pressure and gas consumption!**

**IMPORTANT: In case of any ambiguity contact your dealer, service technician or the manufacturer.**

*Procedure for the Gas Conversion*

**IMPORTANT: Always use only those items which result from options mentioned in Chapter *Options for Conversion to Another Gas*.**

Below you will find procedure for version with regulator deactivation, nozzle, setting of pressure on the nozzle:

1. Turn off the main switch.
2. Close inlet shut off valve. Refer to *Figure 32*, (7).
3. Remove rear upper cover from the machine.
4. Replace the nozzle. Refer to *Figure 34* :
  - Disconnect inlet pipeline from the machine.
  - Unscrew the bolt fixing the ignition unit to the gas valve.
  - Unscrew the bolts fixing the gas valve to the holder (2).
  - Remove the valve out of machine. Replace the nozzle (6). Refer to *Gas Connection Specifications* for size of nozzle.
  - Install the valve back.
  - Connect gas inlet pipeline.
5. Deactivation of the gas regulator in case of requirement of *Gas Connection Specifications*. Refer to *Figure 34* .
  - Unscrew the regulator top screw (9) from the gas valve regulator body (10) and screw the plastic screw inside the gas regulator.
  - When all is installed, the inlet gas pressure and nozzle must correspond with the value mentioned in *Gas Connection Specifications* for the given type of gas.
  - When the gas regulator is in operation, set required pressure on the nozzle with the machine running, using manometer (3 and 4) according to *Gas Connection Specifications*.



**WARNING**

**IF THERE ARE TWO GAS VALVES ON THE MACHINE, THE REQUIRED PRESSURE WILL BE SET ON BOTH VALVES. REQUIRED PRESSURE MUST BE EQUAL!**

C339



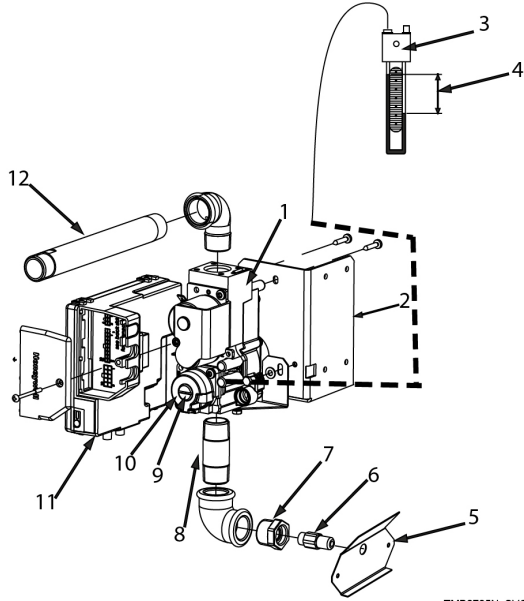
**WARNING**

**AFTER ANY INTERVENTION INTO THE GAS PIPELINE OF THE MACHINE, NEVER FORGET TO EXECUTE LEAKPROOF TESTING. NEVER USE OPEN FIRE FOR LEAKPROOF TESTING.**

C340

6. Install the rear upper cover back.
7. Turn on the main switch, open inlet shut off valve.
8. Start the machine and let it run one whole cycle.
9. Stick the label for conversion, fill it in, adapt the serial plate, refer to Chapter *Options for Conversion to Another Gas*.

**Gas Shut Off Valve - Models starting Serial No.:**  
**9T011520QD, 11T006659QB, 13T006724QB,**  
**13TA000341QF, 13TD005313QB, 16T014292QB,**  
**24T009767QD, 35T007385QB**



1. Gas Valve
2. Gas Valve Holder
3. Manometer
4. Required Pressure as Specified in Gas Connection Specifications
5. Sheet Metal with Opening
6. Injector
7. Screw Joint of Injector
8. Tube
9. Gas Valve Regulator Body Screw
10. Gas Valve Regulator Body
11. Control Unit
12. Gas Supply Pipe Line

Figure 34

## INFLUENCE OF HEIGHT

To ensure complete combustion at higher height, the power is decreased by 5% per each 1640.41 ft [500 m] above sea level. Injector (nozzle) has to be adapted according to this decreased power starting from above 3280.83 ft [1000 m] above sea level. Consult the problem with manufacturer in such a case.

## Steam Connection for Steam Heating

The dryer with a steam heating is equipped with two pipe connections for connecting the steam supply and steam return lines. For the position of connections refer to *Machine Dimensions and Components*.

Only the person with relevant authorization can carry out the installation of the steam supply. For the scheme of the steam supply and condensate return refer to *Figure 35*.

The value of inlet steam pressure must correspond to the range stated in Chapter *General Specification*. Any other pressure values may cause an improper or insufficient function of a dryer.



### WARNING

**BY EXCEEDING THE MAXIMUM PRESSURE ONE CAN BE SERIOUSLY WOUNDED OR EVEN KILLED! WHEN CONNECTING STEAM PIPE LINE, FOLLOW THE DIRECTIONS AND BE VERY CAREFUL TO AVOID DAMAGE OF THE MACHINE (STEAM EXCHANGER)!**

C341



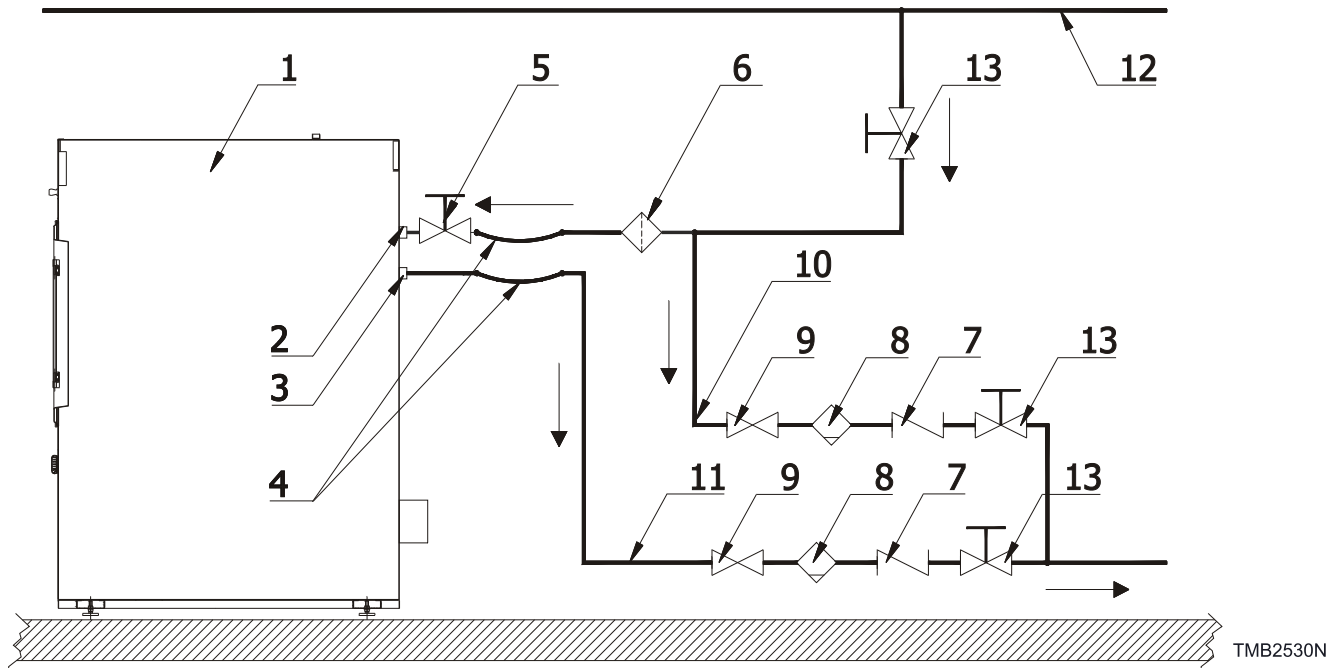
### WARNING

**It is necessary to insert a filter with permeability up to 300 micrometers before every steam valve. Dirt bigger than 300 micrometers might damage the steam valve and cause it to leak.**

C201

1. Connect the steam installation according to the scheme to pertinent connection points on the rear side of the machine. Refer to *Figure 35*.

### Scheme of Steam Lines



1. Dryer
2. Steam supply inlet
3. Steam outlet
4. Flexible hose for connecting the dryer to supply and return lines
5. Solenoid valve (part of delivery)
6. Filter (part of delivery)
7. Check valve
8. Trap with built-in strainer
9. Vacuum breaker
10. Condensate return line from steam supply line
11. Steam return line
12. Steam supply line
13. Manual steam shut-off valve

Figure 35

## Evacuation System

### Fresh Air

For maximum efficiency and the shortest possible drying time, it is important to ensure that fresh air is able to enter the room from the outside in the same volume as that blown out of the room.

Refer to *Space Requirements* for the area of the required opening.

To avoid draught in the room it is recommended to place the air inlet behind the dryer. Note that gratings/slatted covers often block half of the total fresh area. Remember to take this into account.




### WARNING

**DO NOT OBSTRUCT THE FLOW OF COMBUSTION AND VENTILATION AIR! CONSULT AN ARCHITECT TO DETERMINE EXHAUST AND AIR SUPPLY POSITION ACCORDING THE LOCAL VALID STANDARD CODES.**

C342



## Exhaust Duct

	<h3>WARNING</h3>
<p><b>THE DIAMETER OF EXHAUST DUCT MUST NOT BE SMALLER THAN AN OUTLET OF THE DRYER AT ANY CASE.</b></p>	
<p>C343</p>	

The dryer produces combustible lint and in case of gas heating toxic gas. To reduce a risk of fire and health problems, the dryer must be exhausted to the outdoors by means of exhaust duct. Exhaust piping is on the rear part of dryer. Refer to *Machine Dimensions and Components*. The manufacturer recommends exhausting each dryer individually to the outdoors.

The design of the flue system shall be such that any condensate formed when operating the appliance from cold shall either be retained and subsequently re-evaporated or discharged. If possible, do not install dryers and gas fired hot water heaters or the other gravity vented appliances in the same room. In the spot, where exhaust duct goes through combustible wall or sealing, it is necessary to make an opening 3.28 in. [100 mm] bigger than the duct and place the exhaust duct in the middle of the opening. Gap between combustible wall and duct must be sealed with non-combustible material.

The exhaust duct must be smooth on the inside (low air resistance). Do not use sharply curved elbows of 90° for outlet piping. Use galvanized sheet metal plates for ventilation system. Before installation of a new dryer verify that the existing duct to be connected to the dryer is thoroughly cleaned. If not, do so.

For stacked tumbler 27 lb/27 lb [13 kg/13 kg] with non-standard exhaust connection (ellipse) a conversion to standard round exhaust exists (Part Number SP580220).

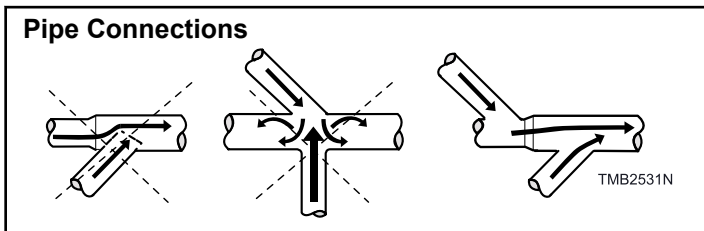


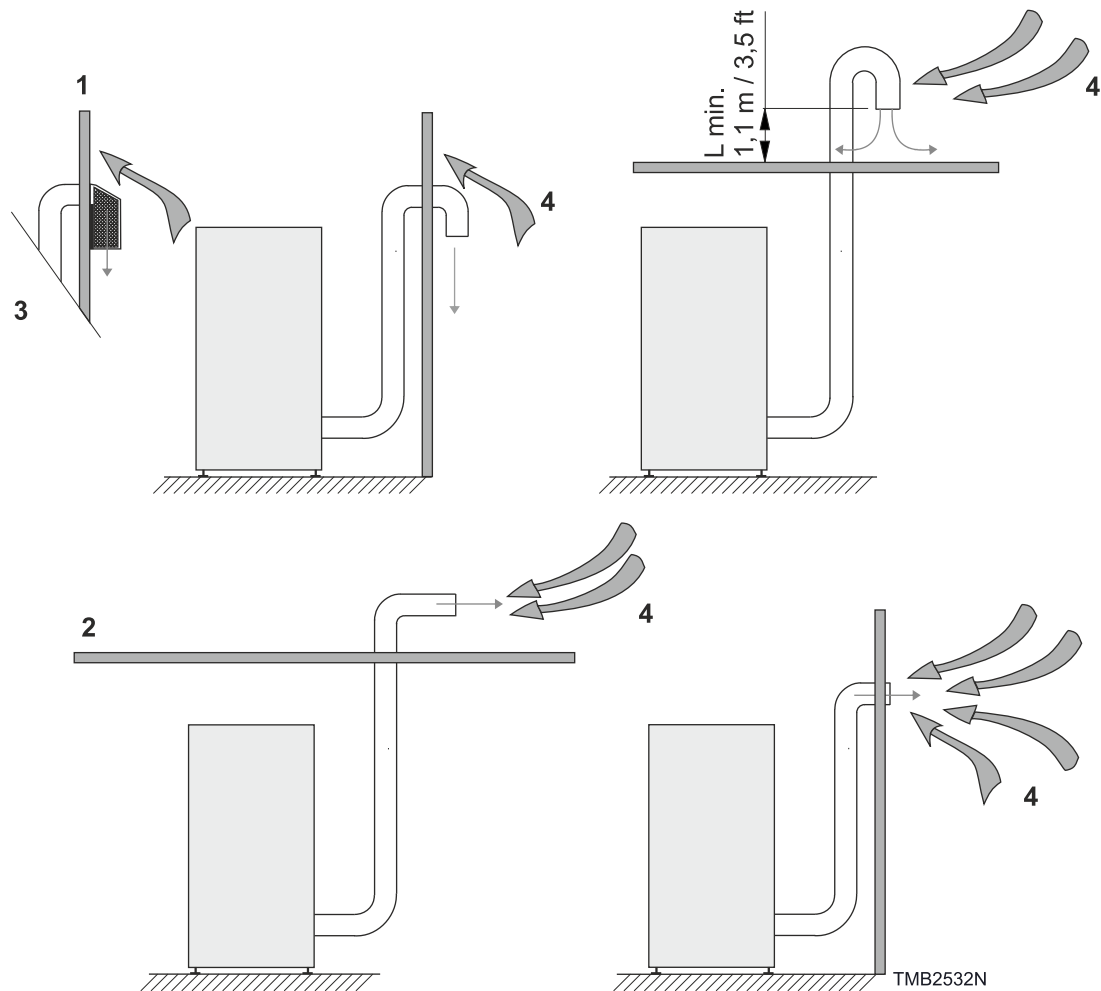
Figure 36

Maximum Back Static Pressure - Resistance of Exhaust System	
Machine kg / lb / L	p Maximum [Pa]
9 / 20 / 190 Electrical Heating	200
9 / 20 / 195 Electrical Heating	350
9 / 20 / 190 Gas Heating	125
11 / 24 / 250 Electrical, Gas and Steam Heating	220
13 / 27 / 285 Electrical, Gas and Steam Heating	240
13/13 / 27/27 / 285/285 Stacked Tumbler - Electrical, Gas and Steam Heating	320
13 / 27 / 285 Top Pocket Tumbler - Electrical, Gas and Steam Heating	320
16 / 35 / 345 Electrical, Gas and Steam Heating	260
24 / 53 / 530 Electrical, Gas and Steam Heating	260
35 / 77 / 680 Electrical, Gas and Steam Heating	300

Table 33

Leave distance of 3.28 ft [1 m] at least between the roof and the exhaust duct overfall. (Refer to *Figure 37*, dimension L min). Exhausting air should not point to wall, ceiling or other part of the building. The exhaust must be protected against wind, rain and foreign objects.

### Individual Exhaust Duct



1. Acceptable
2. Unacceptable
3. Or
4. Wind

Figure 37

**IMPORTANT:** The figures and distances above are for reference only. Local building codes concerning air supply and outlet of furnaces in buildings should be respected and consulted with an architect.

### Manifold Venting

Even though an individual exhausting for each dryer to the outdoors is preferred a common manifold venting can be used. In this case the minimum diameter of ventilation piping must comply with *Table 34*. If a combination of dryers with different outlet diameter is used, refer to it that speed is constant over the complete exhaust. You will gain such a condition by increasing the area of the common duct with the area of duct of each additional dryer.

Manifold Venting			
Number of Dryers	Specification	Minimum, in. [mm]	
1	D1	5.90 [150]	7.87 [200]
2	D2	7.87 [200]	11.14 [283]
3	D3	11.14 [283]	13.62 [346]
4	D4	13.62 [346]	15.75 [400]
5	D5	15.75 [400]	17.60 [447]
6	D6	17.60 [447]	19.29 [490]
7	D7	19.29 [490]	20.83 [529]

Table 34

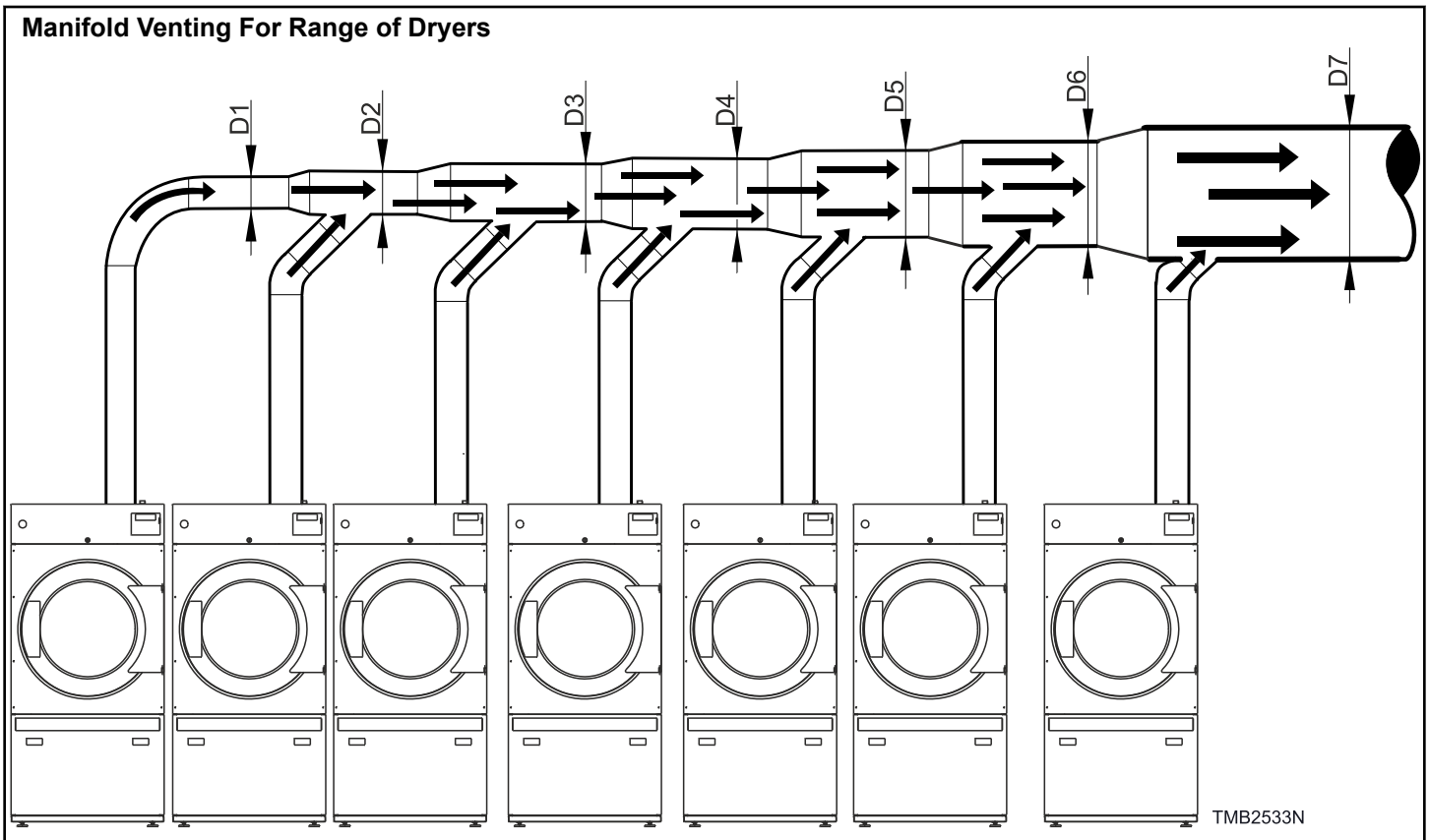


Figure 38

Manifold venting system requires provisions for lint removal and duct cleaning. Never connect the dryer duct at a 90° angle to the common manifold venting system otherwise the increase of back pressure is caused resulting in low performance.

Improperly sized or assembled exhaust ventilation system causes excess of back pressure which results in slower drying, lint accumulation in the duct and increased risk of fire.

Place the dryers according their required flow rate so that the pipe diameter increases according to this flow rate.

## Optimal Flow Rate Adjustment

Not valid for 9 kg / 20 lb / 195 L



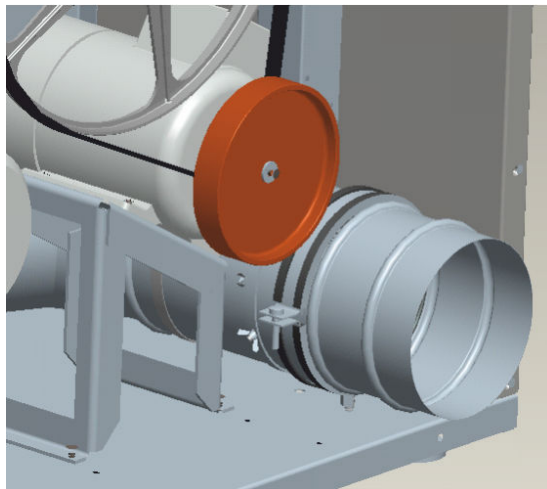
### WARNING

**RISK OF INJURY BY ELECTRIC SHOCK! TECHNICAL INTERVENTION ON THE DRYER IS ONLY FOR QUALIFIED TECHNICIANS WITH SUFFICIENT TECHNICAL KNOWLEDGE OF THE MACHINE.**

C344

1. Remove the rear cover. Flow rate adjustment is carried out by measuring the static pressure at the point of the underpressure clutch. Opening for static pressure measurement is covered by a tape. Refer to *Figure 40* and *Figure 41*.
2. During measuring use a program without heating and without linen in the drum.
3. Pressure is decreased or increased by opening or closing the restrictor. Refer to *Figure 39* and *Figure 41*.
4. The optimal airflow is reached when measured static pressure corresponds to the values in *Table 35* and *Table 36*.
5. Mount the rear cover back on the machine.

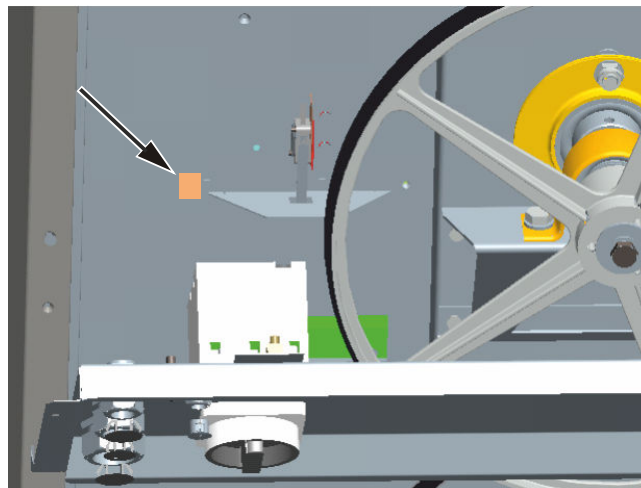
### Opening and Closing the Restrictor



TMB2534N

Figure 39

### Tape for Static Pressure Measurement



TMB2535N

Figure 40

### Airflow specification - 9-35 kg / 20-77 lb / 190-680 L

Machine kg / lb / L	QOPT Optimal Air Flow Quantity, m3/h	p Static pressure, Pa*
9 / 20 / 190 Electrical Heating	300	-45
9 / 20 / 190 Gas Heating	350	-40
11 / 24 / 250 Electrical, Steam and Gas Heating	520	-45
13 / 27 / 285 Electrical, Steam and Gas Heating	550	-40
16 / 35 / 345 Electrical, Steam and Gas Heating	600	-40
16 / 35 / 345 Gas Heating	600	-50
24 / 53 / 530 Electrical and Steam Heating	950	-20
24 / 53 / 530 Gas Heating	900	-30
35 / 77 / 680 Electrical and Steam Heating	1200	-20

Table 35 continues...

Airflow specification - 9-35 kg / 20-77 lb / 190-680 L		
Machine kg / lb / L	QOPT Optimal Air Flow Quantity, m3/h	p Static pressure, Pa*
35 / 77 / 680 Gas Heating	1100	-30

Table 35

**NOTE: \* Do not confuse the static pressure with the back static pressure of the exhaust system mentioned in Exhaust Duct.**

**Opening and Closing the Restrictor, Tape for Static Pressure Measurement - 13 kg / 27 lb / 285 L Top Pocket Tumbler, 13/13kg / 27/27lb / 285/285L Stacked Tumbler**

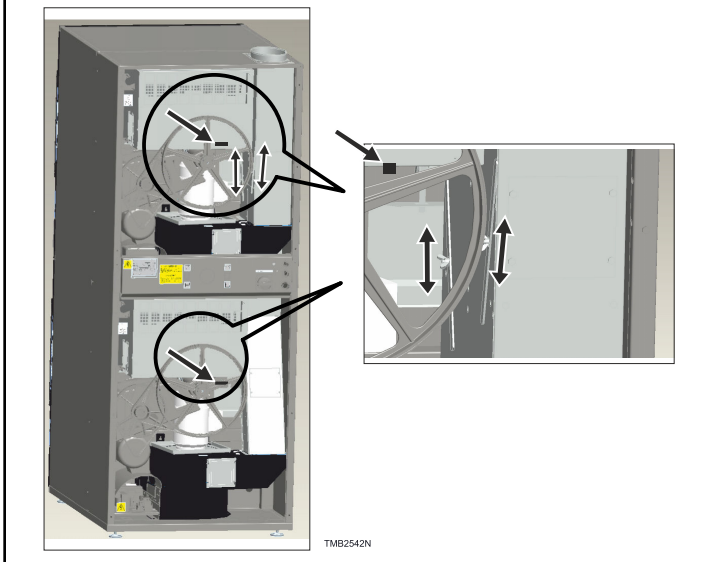


Figure 41

Airflow specification - 13 kg / 27 lb / 285 L Top Pocket Tumbler, 13/13kg / 27/27lb / 285/285L Stacked Tumbler		
Machine kg / lb / L	QOPT Optimal Airflow Quantity, m3/h	p Static Pressure, Pa*
13 / 27 / 285 Top Pocket Tumbler	550	- 75
13/13 / 27/27 / 285/285 Stacked Tumbler	1050	-75 / -75

Table 36

**NOTE: \* Do not confuse the static pressure with the back static pressure of the exhaust system mentioned in Exhaust Duct.**

## Putting the Machine into Service

**Valid to 9-35 kg / 20-77 lb / 190-680 L Tumble Dryers**

1. Remove the cabinet protective foil (stainless steel cabinet only).
2. Remove the front bottom cover and make sure the lint filter is fixed in proper position.
3. Put the front cover back.
4. Remove the rear cover and check accessible bolts, nuts, screws, and fittings for tightness.
5. Remove protective transport tape which secure position of underpressure clutch on the rear part of device and damper.
6. Fit the belts onto the pulleys. The belts are a part of the machine accessories.
7. Check the protective connection (earthing) - "PE" or "PEN".
8. Connect the dryer to a vent collector system or exhaust it individually (preferred connection).
9. Wipe out the drum using a non inflammable cleaning detergent.
10. Load the drum with a full load of clean rags and run to remove oil or dirt from drum without heating.

### Inner drum cleaning

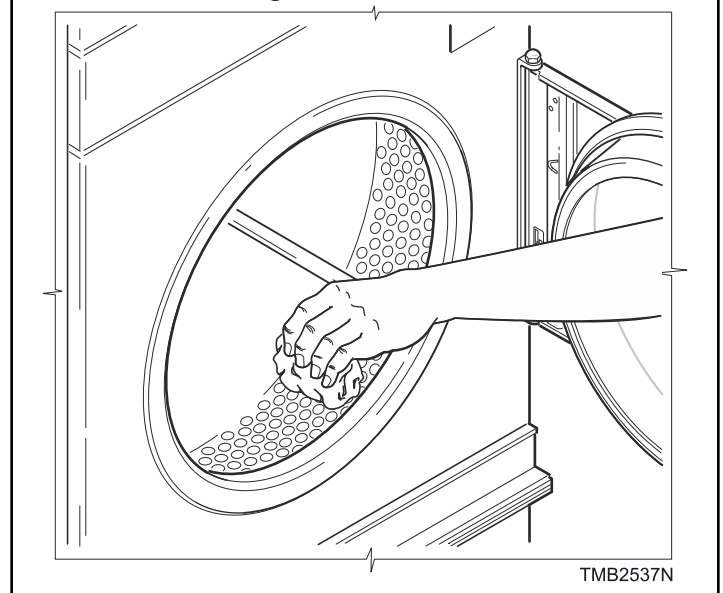




Figure 42

11. Check the flow rate adjustment, refer to chapter *Evacuation System*.
12. Connect the dryer to a steam or gas supply (gas or steam models only). Refer to chapters: *Gas Connection for Gas Heating* or *Steam Connection for Steam Heating*.
13. By adjusting the pressure regulator set proper pressure value matching to a nozzle pressure (gas models only).


14. Carefully read all manuals before and starting the machine. Carefully follow all instructions.

	<b>WARNING</b>
<p><b>BEFORE STARTING THE MACHINE, CHECK WHETHER MACHINE INSTALLATION (SUPPLY OF MEDIA, EVACUATION OF BURNT GAS, MACHINE LAYOUT, SUFFICIENTLY VENTILATED ROOMS ETC.) WAS CARRIED OUT ACCORDING TO THIS INSTALLATION MANUAL AND IN ACCORDANCE WITH THE RULES SPECIFIC FOR THE RESPECTIVE COUNTRY.</b></p>	
C173	

15. Turn on electrical supply to dryer.

	<b>WARNING</b>
<p><b>CHECK ALL PIPE CONNECTIONS, INTERNAL AND EXTERNAL FOR LEAKS. DO NOT OPERATE THE MACHINE WHEN ANY LEAKAGE IS DETECTED.</b></p>	
C175	

16. Open the supply valve for gas or steam heated dryer.

	<b>WARNING</b>
<p><b>CHECK ALL PIPE CONNECTIONS, INTERNAL AND EXTERNAL FOR GAS OR STEAM LEAKS. DO NOT OPERATE THE MACHINE WHEN ANY LEAKAGE IS DETECTED. CHECK THE GAS CONNECTION REGULARLY FOR LEAKAGE.</b></p>	
C174	

17. Turn the dryer on.

**Valid to 13kg / 27 lb / 345 L Top Pocket Tumbler, 13/13kg / 27/27 lb / 345/345 L Stacked Tumbler**

1. Remove the cabinet protective foil (stainless steel cabinet only).
2. Remove the rear cover and check accessible bolts, nuts, screws, and fittings for tightness.
3. Remove protective transport tape which secure position of underpressure clutch on the rear part of device.
4. Check the protective connection (earthing) - "PE" or "PEN".
5. Connect the dryer to a vent collector system or exhaust it individually (preferred connection).
6. Wipe out the drum using a non inflammable cleaning detergent.
7. Load the drum with a full load of clean rags and run to remove oil or dirt from drum without heating.

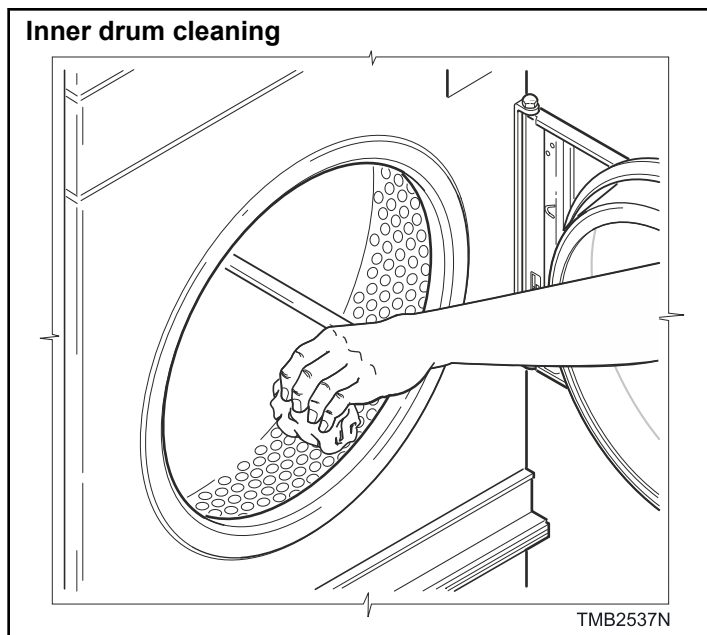




Figure 43


8. Check the flow rate adjustment, refer to chapter *Evacuation System*.
9. Connect the dryer to a steam or gas supply (gas or steam models only). Refer to chapters: *Gas Connection for Gas Heating* or *Steam Connection for Steam Heating*.
10. By adjusting the pressure regulator set proper pressure value matching to a nozzle pressure (gas models only).
11. Carefully read all manuals before and starting the machine. Carefully follow all instructions.


	<b>WARNING</b>
<p><b>BEFORE STARTING THE MACHINE, CHECK WHETHER MACHINE INSTALLATION (SUPPLY OF MEDIA, EVACUATION OF BURNT GAS, MACHINE LAYOUT, SUFFICIENTLY VENTILATED ROOMS ETC.) WAS CARRIED OUT ACCORDING TO THIS INSTALLATION MANUAL AND IN ACCORDANCE WITH THE RULES SPECIFIC FOR THE RESPECTIVE COUNTRY.</b></p>	
C173	

12. Turn on electrical supply to dryer.

	<b>WARNING</b>
<p><b>CHECK ALL PIPE CONNECTIONS, INTERNAL AND EXTERNAL FOR LEAKS. DO NOT OPERATE THE MACHINE WHEN ANY LEAKAGE IS DETECTED.</b></p>	
C175	

13. Open the supply valve for gas or steam heated dryer.

	<b>WARNING</b>
<p><b>CHECK ALL PIPE CONNECTIONS, INTERNAL AND EXTERNAL FOR GAS OR STEAM LEAKS. DO NOT OPERATE THE MACHINE WHEN ANY LEAKAGE IS DETECTED. CHECK THE GAS CONNECTION REGULARLY FOR LEAKAGE.</b></p>	
C174	


	<b>WARNING</b>
<p><b>WHEN WORKING WITH FLAMMABLE PRODUCT, DO NOT USE OPEN FLAME, VENTILATE, DO NOT SMOKE AND DO NOT EAT.</b></p>	
C176	

If the dryer does not meet any of the requirements mentioned above, put the dryer out of service.

14. Turn the dryer on.

Perform following checks during dryer run. Restart the dryer between each steps (if necessary):

1. Open the drum door. The drum should stop rotating within several seconds after the door is opened approximately 0.78 in. [20 mm] .
2. Check a proper function of main switch and emergency stop button.
3. Check a proper function of the airflow switch. Open the front cover of the dust filter and secure the safety switch. Turn the machine on by pushing the START button. The timer should declare error of the under-pressure switch. After testing of under-pressure switch function remove securing label from dust filter safety switch. Return the front cover to its original place.
4. The airflow switch operation may be affected by shipping tape still in place, lack of make-up air, or an obstruction in the exhaust duct. These should be checked and the required corrective action taken before attempting to adjust the airflow switch. For adjusting the airflow switch refer to chapter “UNDERPRESSURE CLUTCH”.

	<b>WARNING</b>
<p><b>THE DRYER MUST NOT BE OPERATED IF THE AIRFLOW SWITCH DOES NOT OPERATE PROPERLY OTHERWISE AN EXPLOSIVE GAS MIXTURE CAN BE COLLECTED IN THE DRYER.</b></p>	
C177	

5. Check the proper function of ignition system (gas models only). The electronic ignition system will attempt to light the gas by sparking three times. If gas does not ignite within this period, the ignition control will go into a safety lockout and the valve will no longer open until the control is reset. It may be necessary to retry several times to bleed air from the gas lines. For reset press the button START.
6. If lockout condition persists, check that the manual gas shut-off valve is in the “ON” position and that the gas service is properly connected. If condition still persists, put the dryer out of service.
7. Purge air in gas service line (gas models only) by operating the dryer in the drying mode.
8. Mount the rear covers back on the machine.



# Operation

## Symbols on the Machine







Used Symbols	
 CHM2439N_SVG	Warning, dangerous electrical current, electric device. Disconnect the power supply to the machine before doing any interventions into the machine. When the main switch is “OFF”, the supply terminals are still under current.
 CHM2523N	Warning, high temperature.
 BAR65N	Do not touch the area after the machine has been heated up.
 CHM2440N_SVG	Warning, read and keep written instructions.
 TMB2517N	Filter label.
 BAR111N	Main switch.

Table 37

## Instructions for Drying

- The machine is intended only for drying the flat linen (bed-linen, table-cloths, dish-towels, towels, handkerchiefs and other kinds of flat linen) and garments made of flax, wool, cotton, silk, polyacryl and polyester fibre. Before drying make sure whether manufacturer labelled the linen as possible to dry in the dryer. The manufacturer is not responsible for any fabric damage caused by improper drying action.
- The machine is not intended for drying the linen containing parts of plastics, glass fibres and foam rubber. Before starting the drying action, remove any articles from garments, as e.g. nails, pins, screws, etc. which could damage the garments as well as the machine. Linen must be rinsed and spin-dried properly. Recommended residual moisture of linen before drying should be 50 - 70% to get an optimal result.

To achieve optimal performance and correct function of the machine:

- Clean the lint filter once a day at least.
- Clean the filter after each drying cycle.
- Stop the machine before you clean the filter.
- Remove cover of lower panel.

**NOTE: 13/13 kg / 27/27 lb / 285/285 L Stacked Tumbler: Open both filter covers.**

- Remove the lint filter and clean it. Clean area in front of the lint filter. Pieces of lint on this area would pollute the lint filter and reduce effectiveness of drying process.
- Put the filter back and close the cover.
- Always finish the drying cycle by cooling down the linen.
- Remove the linen immediately after finishing the drying cycle.




Load Volume at Filling Ration	
Machine kg / lb / L	Load Volume (Approximately)
9 / 20 / 190	1:21
9 / 20 / 195	1:21
11 / 24 / 250	1:22
13 / 27 / 285	1:22
13 / 27 / 285 Top Pocket Tumbler	1:22
13/13 / 27/27 / 285 Stacked Tumbler	1:22
16 / 35 / 345	1:21
24 / 53 / 530	1:22
35 / 77 / 680	1:20

Table 38

**NOTE:** Higher filling ration such as 1:25 is recommended for better drying conditions.

## Incorrect Use of Machine

	<b>WARNING</b>
<p><b>This machine is designed for industrial drying of linen. It is not intended for household use. Any usage different than mentioned above, without written agreement of the supplier, will be considered as improper usage.</b></p>	
C311	

Drying Programs		
1. High	Easy Control	158°F [70°C]
1. Cold	Full Control	20 minutes
2. Medium	Easy Control	104°F [40°C]
2. Low	Full Control	86°F [30°C]
3. Low	Easy Control	86°F [30°C]
3. Low	Full Control	95°F [35°C]
4. Medium	Full Control	104°F [40°C]
5. Medium	Full Control	113°F [45°C]

Table 39 continues...

1. Do not load the machine with bigger amount of linen than it is designed for.
2. Do not forget to clean the lint filter regularly.
3. Do not stop the machine until the drying cycle including cooling down is finished, except of emergency events. Machines with a heat pump: Stopping the machine operation while the drying cycle is still in progress shortens the service life of the machine.
4. Do not dry synthetic fabrics at high temperature.
5. Do not leave the linen in the machine after the drying cycle is finished.

## Start the Machine

Before the first start-up, use this manual to make sure the machine is installed properly. Check the lint filter and other parts of the machine as well.

## Power Supply

Turn the main switch on the machine rear cover to position “on”. If the machine is equipped with emergency button, turn it slightly on the right. Display will light up. After few seconds it will fade - valid for Easy control version. The machine remains in stand-by mode.

## Starting the Drying Process

Drying Programs		
6. Medium	Full Control	122°F [50°C]
7. Hot	Full Control	140°F [60°C]
8. Hot	Full Control	149°F [65°C]
9. Hot	Full Control	158°F [70°C]
10. Hot	Full Control	158°F [70°C] 9-11-13-13/13-16 kg / 20-24-27-27/27-35 lb / 190-250-285-285/285-345 L 24-35 kg / 53-77 lb / 530-680 L Steam heating only
		167°F [75°C] 24-35 kg / 53-77 lb / 530-680 L Gas heating only
		176°F [80°C] 24-35 kg / 53-77 lb / 530-680 L Electrical heating only
11. Hot	Full Control	158°F [70°C] 9-11-13-13/13-16 kg / 20-24-27-27/27-35 lb / 190-250-285-285/285-345 L 24-35 kg / 53-77 lb / 530-680 L Steam heating only
		179.6°F [82°C] 24-35 kg / 53-77 lb / 530-680 L Gas and electrical heating only
12. - 20. Drying	Full Control	113°F [45°C]

Table 39

## Full Control Version

1. Open tumbler door, load with laundry and securely close door.
2. Press the Program Selection button.
3. Choose the desired drying program by pressing the Program Selection button repeatedly. The program number will light on the display.

**NOTE: For manual set-up of drying, press repeatedly the Program Selection button until you overstep program 20.**

- a. Press the Drying Time button to set the time of drying using the button arrow up or arrow down.
- b. Press the Drying Temperature button to set the desired temperature using the button arrow up or arrow down.

**IMPORTANT: Do not select temperature that is higher than the laundry maximum temperature. For details on pre-set drying temperatures and times refer to “Programming manual Full Control”.**

- c. Press the Cooldown Time to set the cooldown time using the button arrow up or arrow down.
  - d. Press the Moisture Level button to set the residual moisture level using the button arrow up or arrow down (depending on selected cycle and model).
  - e. Press Confirm the Selection to confirm the values.
4. Press the Start button to activate the drying program.
  5. Select the Reverse button to choose reversing or non-Reversing. This selection is optional. Not applicable for Non-Reversing model.
  6. To load or unload tumbler during drying cycle, follow these steps:
    - a. Stop tumbler by opening tumbler door or press the Stop button.

**NOTE: To interrupt program, press stop once. To cancel program, press stop twice.**

    - b. Load or unload tumbler.
    - c. Restarting dryer:
      - Close tumbler door.
      - Press Start.

7. Cycle is finished as soon as the sign “!UNLOAD!” is displayed.
8. Remove load immediately after cycle is finished.

## Easy Control Version

### Models without Coin Meter

**IMPORTANT: All manually operated dryers are factory equipped with an emergency stop button located on the front panel.**

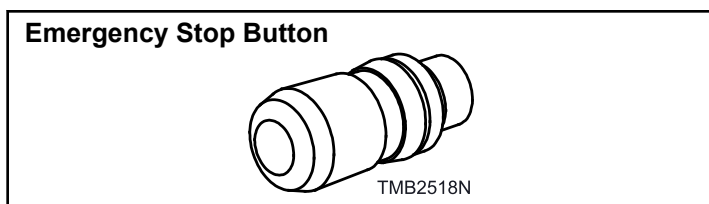


Figure 44

1. Open the door and load the laundry into the drum.
2. Close the door.
3. Select the drying program by pressing the temperature button. The program number will light on the display.

**NOTE: Do not select temperature that is higher than the laundry maximum temperature. (For details on pre-set drying temperatures and times revert to “Programming manual Easy Control”).**

4. Press the flashing LED Start button to start the drying program.
5. Changing the drying programs while drying process:
  - a. Select another program by pressing the relevant temperature button. The program will increase or decrease the drying temperature. The drying time remains unchanged.
6. Increasing the drying temperature:
  - a. Press the active temperature button. The dot on the display will stop flashing.
  - b. Press the button again to increase the drying time.
7. Advancing the drying program:
  - a. Press the START button while the machine is working. The program will be advanced to further step.
8. Loading and unloading the machine during drying process:
  - a. Stop the dryer by opening the door.
  - b. Load or unload the linen in or from the dryer. Be careful since the linen load can be significantly hot.
  - c. Close the door.
  - d. Press the START button.
9. Interrupting of the drying process:
  - a. Advance the drying program into next step by pressing the START button.
  - b. Repeat the sequence until the end of the program is reached.
10. Program end:

- a. The time on the display will count down until “0”. When “0” is reached, the drying cycle is finished.
- b. Open the door.
- c. Remove the load immediately after the drying process is finished to avoid risk of linen burning.

### Models with Coin Meter

1. Open the door and load the laundry into the drum.
2. Close the door.
3. Select the drying program by pressing the temperature button.

**NOTE: Do not select temperature that is higher than the laundry maximum temperature.**

4. Insert a coin. The pre-paid time value will be displayed.
5. Insert further coins until the required drying time is reached.
6. Press the flashing LED Start button to start the drying program.
7. Changing the drying programs while drying process:
  - a. Select another program by pressing the relevant temperature button. The program will increase or decrease the drying temperature. The program will recalculate the remaining amount of money. The drying time will be adapted accordingly.
8. Loading and unloading the machine during drying process:
  - a. Stop the dryer by opening the door.
  - b. Load or unload the linen in or from the dryer. Be careful since the linen load can be significantly hot.
  - c. Close the door.
  - d. Press the START button.
9. Program end:
  - a. The time on the display will count down until “0”. When “0” is reached, the drying cycle is finished.
  - b. Open the door.
  - c. Remove the load immediately after the drying process is finished to avoid risk of linen burning.


**NOTE: Increasing of the drying temperature is not possible.**

**NOTE: Advancing the program is not possible.**

**NOTE: Interrupting of the drying process is not possible in operation mode.**

## Finishing the Drying Cycle

After the drying cycle is finished, the machine is prepared for another cycle. If you want to switch the machine off, press emergency stop button (not valid for Easy Control with coin meter). To switch off the machine completely, turn the main switch on the machine rear panel to position “OFF”.

	<b>WARNING</b>
<p><b>Do not interrupt drying program and do not skip the step "cool down" at the end of drying cycle.</b></p>	
C313	


## Emergency Stop of the Machine

### Versions - Full Control and Easy Control without coin meter:

- If operator's safety or health is endangered, it is possible to stop the machine by pressing the button of emergency stop. Emergency stop button is located on the machine upper front panel.

### Version - Easy Control with coin meter:

- The machine is not equipped with central stop button. The laundry owner must be make arrangements for remote-located emergency stop device.

	<b>WARNING</b>
<p><b>As soon as the reason for the machine stoppage is eliminated, unload the linen from the drum immediately. Risk of fire!</b></p>	
C347	


When the power supply interruption occurs and the power is restored the machine will be in stand-by mode. The display is counting down. Once the display reaches 0 the machine will be waiting for further instruction.

- Close the door in case it is open. On the display the program number will be shown.
- Press the START button to continue on the program.
- Press the STOP button to end the drying cycle.

### Version - Easy Control without Coin meter and with Coin Meter

When the power supply interruption occurs and the power is restored the machine will be in stand-by mode. The display is counting down. Once the display reaches 0 the machine will be waiting for further instruction.

- Close the door in case it is open. On the display the program number will be shown and the LED on START button is flashing.
- Press the Start button to continue on the program.

	<b>WARNING</b>
<p><b>Unload the linen from drying drum. Risk of fire at high temperature of drying!</b></p>	
C314	

## How to Proceed On Error Messages

### Version - Full Control:

- Error message occurs on the machine display in the form of Er: and no. of failure (001 - 999). In some cases the programmer buzzer sounds. In some cases the drum goes on turning but the heating is off. The machine cools down and stops itself after it has reached safety temperature. After the machine has been stopped, the error message is possible to delete by opening and closing the door, possibly by pressing the button of emergency stop. If failure state continues, the error message is displayed again. For detailed information concerning error messages. Refer to Programming Manual.

### Version - Easy Control without coin meter and with coin meter:

- When there is an error the fault LED lights on. The number on the display corresponds with specific fault. In some cases the drum goes on turning but the heating is off. The machine cools down and stops itself after it has reached safety temperature. For detailed information concerning error messages. Refer to Programming Manual.

## Power Supply Interruption

### Version - Full Control


## Interruption of Gas Supply

### Version: Full Control

- When gas supply is interrupted there is displayed the message "HEATING FAILURE" or "NO HEAT" when the temperature is not reached. The drum goes on turning but with heating off. As soon as it reaches the safety temperature it will stop. Error message is possible to delete - refer to chapter *How to Proceed On Error Messages*. When gas supply is recovered, it is possible to start the machine again.

### Version: Easy Control without coin meter and with coin meter:

- When gas supply is interrupted the display will show the gas error messages number 22, 23 or 24, refer to "Programming manual". The drum goes on turning but with heating off. As soon as the machine reaches safety temperature it will stop. For details on error messages revert to Programming Manual.

	<b>WARNING</b>
<p><b>Unload the linen from drying drum. Risk of fire at high temperature of drying!</b></p>	
C314	

## Reset of Gas Heating

After you start the machine, an electronic system of the machine will try three times the gas ignition. If the gas ignition does not occur during this time, the control unit of ignition will come over to safety block and the valve will not open until it is reset.

### Version - Full Control

If the display shows the “GAS IGNITION RESET/STOP” message:

1. Check the gas supply.
2. Check whether the manual shut off valve of gas is open.  
When you press the button “START”, an electronic system of ignition will reset and the machine will repeat ignition sequence. Probably, it will be necessary to try several times to push out an air from the gas pipeline.
3. If an error message is still displayed, put the machine out of operation and contact the manufacturer or your dealer.
4. When you press the STOP button, the machine will stop. On the display there occurs an error message “ignition failure”.  
The error message is possible to delete. Refer to Chapter *How to Proceed On Error Messages*.


### Version: Easy Control without Coin Meter and with Coin Meter

Refer to "Programming Manual".

1. Check the gas supply.
2. Check whether the manual shut off valve of gas is open.
3. Turn off and on the machine by emergency stop button (valid for Easy control without coin meter) or by main switch. The machine ignition unit will reset. Probably, it will be necessary to try several times to push out an air from the gas pipeline.
4. If the error message is still displayed put the machine out of operation and contact the manufacturer or your dealer.

# Maintenance and Adjustments

## Safety Instructions for Maintenance


	<b>WARNING</b>
<p><b>ONLY WELL-TRAINED PERSONNEL CAN EXECUTE MACHINE MAINTENANCE. BEFORE MAKING ANY MANIPULATION WITH THE MACHINE'S MECHANISM, MAKE SURE:</b></p>	
C274	

Before performing any maintenance procedures, please make sure of the following:


1. That the main machine switch is in "off" position.
2. That the section switch of electric distributor in laundry is off, and mechanically blocked.
3. That some of the components are not in motion due to delayed action.
4. That the machine is completely cooled down.
5. That there is a sign hung on the machine or electrical box which reads "DEVICE UNDER REPAIR!" and that all other operators and workers are informed about it.

### Drum Ribs Cleaning

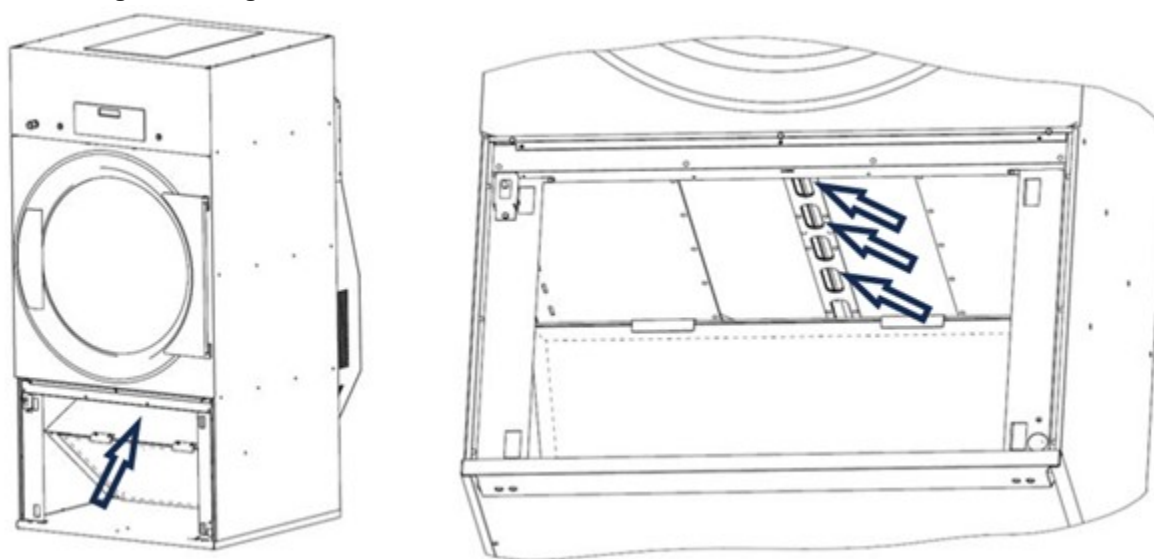
24-35 kg / 53-77 lb / 530-680 L Models

	<b>WARNING</b>
<p><b>DUE TO THE DANGER OF SERIOUS INJURY DO NOT OPEN THE LINT SCREEN COVER DURING MACHINE OPERATION. OPEN THE LOADING DOOR AND WAIT UNTIL THE DRYER COMPLETELY STOPS BEFORE LINT SCREEN CLEANING.</b></p>	
C155	

The frequency of cleaning of the drum ribs depends on the dryer operation mode and the linen that is dried. It may vary between several days and several months. Adapt the cleaning period to your particular situation.

	<b>WARNING</b>
<p><b>FAILURE TO REMOVE THE DUST, WHICH IS HIGHLY FLAMMABLE, CAN CAUSE IT TO IGNITE AND CAUSE EQUIPMENT FIRE.</b></p>	
W1071	

1. Remove the lint screen cover.
2. Check the space inside all ribs of the drying drum (above the lint screen). Refer to *Figure 45*.
3. Clean the dust sediments and fiber residues with slotted nozzle vacuum cleaner.
4. Return the lint screen cover to its original place.

**Drum Ribs Cleaning - 24-35 kg / 53-77 lb / 530-680 L Models**

CZT63N

Figure 45

**Daily****WARNING**

**DUE TO THE DANGER OF SERIOUS INJURY DO NOT OPEN THE LINT SCREEN COVER DURING MACHINE OPERATION. OPEN THE LOADING DOOR AND WAIT UNTIL THE DRYER COMPLETELY STOPS BEFORE LINT SCREEN CLEANING.**

C155

1. Open the lint screen cover. Take away the dust lint screen.
2. Remove all dust in the dust chamber. Gently clean the lint screen with the brush from the sediment dust. Models with a heat pump are fitted with two lint screens. Gently clean both lint screens. The dust left in this area would be sucked back on the lint screen which would worsen the air circulation.
3. If the lint screen is torn, replace it immediately. A torn lint screen will allow the dust to reach the pipe line which would worsen air circulation.
4. The lint screen must cover the panel hole. Possible gaps between the frame and the filter would allow the dust to get into the pipe line.
5. Position the lint screen back and secure it. The machine must not be operated without lint screen.

**Monthly or After 200 Working Hours****Lubrication**

Motor and shaft bearings, sealed and self lubricated. They do not require additional lubrication.

1. Disassemble the exhaust pipe line from the machine exhaust and remove the dust.
2. Should there be bigger amount of dust, dismantle further pipe line parts and clean them.
3. Remove dust from all openings in rear panels of the machine.
4. If the openings are clogged with bigger amount of dust, remove the rear panels and clean the whole rear space of the machine from dust.

**Every Three Months or After 500 Working Hours****Dust Removal****WARNING**

**IN ORDER TO REDUCE DANGER OF SERIOUS OR FATAL INJURIES, DISCONNECT THE CURRENT SUPPLY IN THE MACHINE BEFORE EXECUTING THE FOLLOWING ACTIVITIES.**

C199

**9-35 kg / 20-77 lb / 190-680 L Models**

1. Remove dust and other articles from the air impeller as well as from the motor cooling fans. The motors are cooled by air and accumulation of dust on the cooling fans would cause motor overheating. In this case, motor protection will shut down the machine.

2. Gas and steam models:
  - a. Check the steam coils.
  - b. Remove dust sediments and/or replace the lint filter.
  - c. Check heating chamber, nozzle, heater and remove dust sediments.
3. It is necessary to check the exhaust pipe lines regularly and to remove possible dust sediments which obstruct air circulation.
4. It is necessary to check the dryer surroundings to find out possible airflow obstacles.
5. Remove the front panel and clean the dust sediments.
6. Remove the lint filter cover.
7. Remove the cover below the drying drum. Refer to *Figure 46* . Not valid for 9 kg / 20 lb / 195 L.
8. Clean the inner space with vacuum cleaner.
9. Return the lint filter cover to its original place. Not valid for 24-35 kg / 53-77 lb / 530-680 L.

#### Removing the Cover - 9-35 kg / 20-77 lb / 190-680 L Models

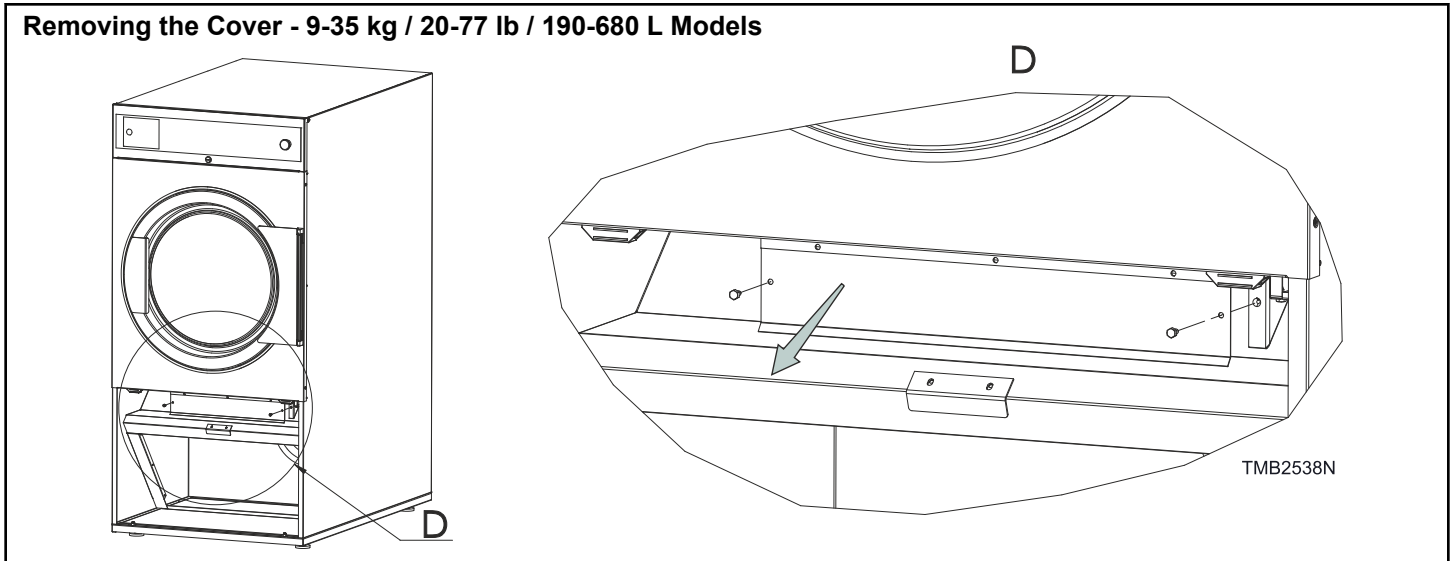


Figure 46

#### 13/13 kg / 27/27lb / 345/345 L Stacked Tumbler, 13 kg / 27 lb / 345 L Top Pocket Tumbler

1. Remove dust and other articles from the air impeller as well as from the motor cooling fans. The motors are cooled by air and accumulation of dust on the cooling fans would cause motor overheating. In this case, motor protection will shut down the machine.
2. Gas models:
  - a. Check heating chamber, nozzle, heater and remove dust sediments.
3. It is necessary to check the exhaust pipe lines regularly and to remove possible dust sediments which obstruct air circulation.
4. It is necessary to check the dryer surroundings to find out possible airflow obstacles.
5. Remove the front panel and clean the dust sediments.
6. Remove the cover below the drying drum.
7. Clean the inner space with vacuum cleaner.

#### Belts Tightening

1. Check the belts tension. If necessary, tighten them according to relevant instructions.

**Underpressure Clutch Control** - Not valid for 9 kg / 20 lb / 195 L

1. Check the underpressure clutch functionality. In case of improper function adjust the underpressure clutch position.

### Every Six Months or After 3000 Working Hours

#### Overall Inspection

	<h2>WARNING</h2>
<p><b>IN ORDER TO REDUCE DANGER OF SERIOUS OR FATAL INJURIES, DISCONNECT THE CURRENT SUPPLY IN THE MACHINE BEFORE EXECUTING THE FOLLOWING ACTIVITIES.</b></p>	
<p>C199</p>	

1. Clean the machine properly from the dust and any articles according to chapters mentioned above.
2. Check the bolts, nuts, gas and steam pipeline and electrical connections. Tighten them in case of need.
3. Check the gas pipe line leaks with soap dilution. The leaks might occur due to the machine vibrations.

**IMPORTANT: Never use open flame for gas leaks detection!**



4. It is necessary to inspect electrical and grounding connections. Tighten them in case of need.
5. Inspect all safety switches (door, lint screen panel and air switch) functionality. Adjust the position in case of need.
6. Check the flow rate adjustment. Refer to chapter *Evacuation System*.

## Underpressure Clutch


Not valid for 9 kg / 20 lb / 195 L

The proper underpressure clutch function is set up in the factory.

**IMPORTANT: During the machine operation the underpressure clutch disk must remain closed to the rear side of dryer.**

It means that there is insufficient air flow through the dryer if it opens during the machine service. If the underpressure clutch opens and closes or remains open during the machine operation, the machine control logic will stop the heating automatically and cool the machine down to 122°F [50°C] and stop the machine after it reaches this temperature. Error message occurs on the display.

**NOTE: The underpressure clutch function can be influenced by dust sediments on the lint screen or by insufficient airflow caused by external air blocking on the machine inlet or by obstacles in exhaust pipe lines. Make sure that there is no such obstacle before changing the underpressure clutch setting.**

	<h3>WARNING</h3>
<p><b>THE SWITCH OF UNDERPRESSURE CLUTCH MUST NOT BE BYPASSED. THE MACHINE MUST NOT BE OPERATED IF THE SWITCH DOES NOT FUNCTION PROPERLY.</b></p>	
<small>C346</small>	

## Door Switch

Not valid for 9 kg / 20 lb / 195 L

The door switch is set up in the factory. The machine drum will stop during opening of the door at approximately 0.78 in. [20 mm] .

If there is a need to set up the position, follow the below procedure:

1. Disassemble the door hinges.
2. Remove the door.
3. Remove the front panel.
4. Hang the door on the side wall.
5. Close slowly the door and inspect the micro switch action.
6. To set up the microswitch position release slightly the fixing bolts.

7. Tilt the micro switch body until it switches on/off properly.
8. Disassemble the door.
9. Assemble the front panel and fix the door to its original position.

## Gas Valves

Not valid for 9 kg / 20 lb / 195 L

On top of the regular inspection of the gas system, replace the gas valve(s) after 15000 cycles.

## Belts Tightening



### WARNING

**IN ORDER TO REDUCE DANGER OF SERIOUS OR FATAL INJURIES, DISCONNECT THE CURRENT SUPPLY IN THE MACHINE BEFORE EXECUTING THE FOLLOWING ACTIVITIES.**

C199

To tighten the belts, follow the below procedure:

1. Remove the back covers.
2. Release securing bolts on the middle pulley holding plate.
3. Release the nuts on the tightening bolt.
4. Shift the middle holding plate by the tightening bolt at the side of the drive.
5. Tighten the belts.
6. Fix the position by fixation bolts.
7. Secure the tightening bolts by nuts.
8. Tighten securing bolts on the middle pulley holding plate.

Force of Belt Tightness				
Tensioning	9 - 35 kg / 20-77 lb/ 190 - 680 L	13/13 kg / 27/27 lb / 285/28 5 L Stack ed Tum- bler	13 kg / 27 lb / 285 L Top Pock- et Tum- bler	9 kg / 20 lb / 195 L
Drum / tensioning	200 - 220 N	370 - 335N		65 N
Tension- ing / motor	180 - 200 N	223 - 210N		-

Table 40

# Troubleshooting

## Humidity Control

The analogue value humidity sensor can be watched while drying the linen. This can be helpful for diagnostic purposes. While dryer is running, key switch in Program mode, press High Temperature Button and the analogue value humidity sensor is shown for 2 seconds.

**NOTE: The humidity control system is not made to run without load or with a very small load. The system can only function in a normal way when there is sufficient evaporation to be measured by the air humidity sensor. Check correct dryer operation with a normal amount of wet linen.**

### Humidity Control Problems:

1. Check dust filter cap.
  - When humidity control doesn't work at all, probably the dust filter cap is missing. The dust filter cap is a white cover that must not be removed from the sensor device. Nevertheless it doesn't look in this way, the dust filter cap allows to pass the air.
2. Check door lock system.
  - When the dryer door is not completely closed, air from the room is sucked in the dryer. This causes a wrong air humidity measurement. Make sure that the dryer can only run when the door is in it's closed (locked) position. When door is still 0.39 in. [10 mm] open, it should not be possible to start a dryer program.
3. Check heating and airflow.
  - The air humidity measurement can only function when there is sufficient water evaporation from the linen. Evaporation can only happen when the air and indirectly the linen is sufficiently heated. Suppose that the dryer has to run with reduced heating power, the airflow must be sufficiently reduced so that there is still evaporation.

Example:

- There is not sufficient Electrical Current available at the building.
  - The dryer works with only 50% of it's electrical heating power.
  - The airflow must be sufficiently reduced so that there is still enough evaporation inside the dryer to allow optimal humidity control.
4. Check final drying temperature.
    - At a normal drying process the outlet air temperature reaches it's programmed target value when the linen gets dry. For a correct drying process: when humidity control stops the dryer the dryer must have reached, before the end of the drying cycle, the programmed target temperature value. If this is not the case, probably there will not

have occurred sufficient evaporation at the drying process because of reduced heating power. And the air humidity measurement will not have been accurate to allow optimal humidity control.

5. Sort the linen: Cotton and Synthetic.
  - A mixture of linen in the dryer can not result in an equal drying result. It is a good practice that the same kind of linen is sorted and dried together. In case of Humidity Control a mixture of all kinds of linen will not give a good overall drying result.
6. Thin and thick fabrics.
  - Thick fabrics like jeans trousers need a long drying time. Dryer program will probably be stopped when fabrics is mostly dry, but inside pockets it will still feel humid. In case of thin fabrics it can happen that were the linen is sewed together there are a few humid spots. This will dry overnight. Humidity Control stops the dryer when the linen is dry based on the measured air humidity.
7. Correct load in drum.
  - Some fabrics need more space in dryer then others. It is important to choose the right size of dryer to obtain a good airflow. If the linen is strenghtled this will restrict the air flow and the linen will not be dried equally.

## Occured Problems

### Display does not Light after Start of Machine

1. Check external link of power supply.
2. Switch on the main switch.
3. Deactivate the button of emergency switch (Central stop).
4. Check the machine electrical fuses.
5. Check, if the voltage is in accordance with the machine type. Voltage must not exceed +/- 10% of nominal value. In case of discrepancy, it is possible to switch the voltage input over to transformer primary.

### Text on Display is Difficult to Read

1. Open the machine upper cover.
2. Switch over an option button "Programming / Operational mode" to programming mode.
3. Set the display brightness on required value in the menu for configuration. Refer to Programming manual.

### Machine does not Start

Program menu is not displayed.

1. Open the machine upper cover.
2. Switch over an option button "Programming / Operational mode" to operational position.

### Machine Behaves Differently than Expected

The reason could be that the machine type was selected incorrectly, for example 16 kg / 35 lb / 345 L gas heating instead of 13 kg / 27 lb / 285 L electrical heating.

1. Open the machine upper cover.
2. Switch over an option button "Programming / Operational mode" to programming mode.
3. Check the type of machine and type of heating or further settings in configuration menu. Refer to Programming Manual.

#### **Machine does not Heat Up to the Highest Temperature**

The machine is equipped with powerful ventilator with high capacity. If the exhaust duct is executed incorrectly, then flow of air through the machine could be higher than it's determined for individual machine types. Refer to Chapter *Putting the Machine into Service*. In this case the heating elements are cooled down too intensively and temperature of air on the machine input does not reach required level.

1. Check if installation of exhaust duct is executed correctly.
2. Check the flow rate adjustment. Refer to Chapter *Evacuation System*.

#### **Mode of Waiting Occurs and the Counter Counts OFF**

This is a situation when the power supply was interrupted or it is safety sequence of the machine.

1. Wait until the counter reaches the value 0.
2. Do not switch power supply off and on again because the counter would reset.

#### **Error Message "Unload" and "Door is Open"**

If the door is closed and there is a message on display "Door is open" or the door is open and there is a message on display "Unload". It is probably a defect on the door microswitch.

1. Check function of the door microswitch.
2. Push pointer of the door microswitch using a screwdriver.
3. If the message "Door is open" disappears, it is necessary to adjust the microswitch position. Refer to Chapter *Door Switch*.
4. If the microswitch does not react, it is necessary to replace it. Procedure for the following adjustment is the same.

#### **Error Message "Door Filter"**

1. Check, if the door of lint filter is closed correctly.
2. Push the microswitch button and check if the microswitch is functional.
3. If so, remove the frontal panel and adjust the microswitch box to the correct position.
4. If the microswitch is not functional, replace it.

#### **Warning "Lint Filter"**

For the machine correct function it is necessary to clean the lint filter every day. The machine is equipped with the cycle counter, after 15 cycles an error message "Lint filter" is displayed. If the lint filter is not cleaned even after the following 40 cycles, the

machine is disabled. Operator must open the panel of lint filter and clean the filter.

1. Stop the machine.
2. Open the lint filter panel.
3. Clean the filter.
4. Close the panel of lint filter.
5. Press the button "Service".
6. Pressing the right arrow, skip the service message and check if the counter of cycles for cleaning the lint filter was reset. In case of the counter failure proceed according to Programming Manual, Failure 28.

#### **Machine Drum does not Rotate**

1. Check if the belts are not damaged and if they are tight properly. Refer to Chapter *Belts Tightening*.
2. Check the motor voltage.
3. Check the motor function. Possibly thermal protection of the motor was damaged.

#### **Machine does not Reverse (Valid for Machines with Reverse)**

1. Check if reverse is ON. Button "Reverse cycle".

#### **Underpressure Clutch does not React when the Machine is started - Error 8**

The machine controls a correct function of underpressure clutch. After the machine is started, the flap must brace. Cause of malfunction is probably insufficient airflow through the machine, incorrect adjustment of underpressure clutch, damage of microswitch of underpressure clutch.

1. Remove the machine back cover.
2. Check if ventilator motor rotates. If not, check whether motor installation is correct or whether there is some failure. You can check the state of motor in Service Menu.
3. Check whether the ventilator motor rotates in correct direction. Refer to "Direction of rotation" above motor. If not, then individual phases of supply are connected incorrectly. Repair the machine connection according to electrical schema enclosed.
4. Check whether there is false suction of air. The drum door and the lint filter door must be closed properly.
5. Check the filter whether there is any dust and whether there is dust on the rotating wheel of ventilator. Clean if needed.
6. Check whether there is any obstruction in output pipeline and whether the maximal allowed static pressure in pipeline is kept. Clean it in case of need or take preventive action to reduce pressure loss in the pipeline.
7. Check the function of microswitch of under-pressure flap. Lift up the coil of under-pressure flap. Microswitch must disconnect in upper position. If it does not work, replace it. If it is functional, adjust tilting of microswitch in such a way so that the coil would brace in lower position and unbrace at moment, when you press under-pressure flap to rear face of the machine.

## Underpressure Clutch is Opening in Course of Drying - Error 9

Cause of malfunction is probably insufficient airflow through the machine, incorrect adjustment of underpressure clutch, damage of microswitch of underpressure clutch or linen load bigger than the machine capacity.

1. Check the load of linen - it may exceed the limit recommended for the machine.
2. Check, whether there is false suction of air. The drum door and the lint filter door must be closed properly.
3. Check whether there are any obstructions behind the machine, which could impede suction of fresh air into the machine.
4. Check the filter whether there is any dust and whether there is dust on the rotating wheel of ventilator. Clean if needed.
5. Check whether there is no obstruction in output pipeline and whether the maximal allowed static pressure in pipeline is kept. Clean it in case of need or take preventive action to reduce pressure loss in the pipeline.

## Recommended Spare Parts

- Steam valve
- Steam valve coil
- Gas valve
- Nozzle
- Gas heater
- Heating element
- Thermostat
- Microswitch
- V-belts
- Contactor
- Fuses
- Door gasket
- Ventilator

Find more detailed information and order codes, refer to your machine's Parts Manual.

# Disposal of Unit


## Disconnecting the Machine

1. Switch off the external electric power inlet to the machine.
2. Turn off the main switch on the machine.
3. Shut the external steam or gas inlet to the machine.
4. Make sure that the external electric power, steam or gas inlets are shut off. Disconnect all electric power, steam or gas inlets.
5. Insulate the external electric power inlet conductors.
6. Equip the machine with a sign "OUT OF SERVICE".
7. During transportation follow the instructions stated in chapters: *Important Information Before Installation*, paragraph "For transportation and storage", *Handling, Transport and Storage*.

In case the machine will never be used again, secure it so that injury of persons, damage to health, property, and nature is avoided. Make sure enclosing of persons or animals inside the machine cannot occur, injury of persons by moving or sharp parts of the machine, possibly operating fills, (for example remove the door, secure the drum against turning, ... and similar.)

**BE CAREFUL, FALLING DOOR AND GLASS CAN CAUSE INJURIES!**


## Machine Disposal

	<b>WARNING</b>
<p><b>TAKE ALL NECESSARY ACTION AND PRECAUTIONS WHEN DOING DISASSEMBLY OF THE MACHINE TO AVOID INJURIES BY GLASS OR SHARP METAL EDGES.</b></p>	
C144	


### POSSIBILITY OF THE MACHINE DISPOSAL BY THE SPECIALIZED COMPANY

Information concerning the WEEE-directive (Waste Electrical and Electronic Equipment, for European Union member states only):

- For the production of the machine that you have purchased, natural resources are being reclaimed and used. The machine can contain substances which are dangerous for health and environment.
- When you dispose of your machine, to avoid spreading of these substances in our environment and to reduce the pressure on our natural resources, we encourage you to use the collection, reuse and recycle system of your region or country. These systems reuse or recycle most of the components.

-  The symbol "crossed out bin on wheels" invites you to make use of these systems.

- If you wish more information concerning the systems for collection, reuse or recycling of disposed machines, you can take contact with the competent administration of your region or country (waste management).
- You can also take contact with us for more information concerning the environmental performances of our products.
- Please, consider that the WEEE directive is generally only valid for household machines. In some countries professional

machines are added, in others not. Therefore the symbol  may not be present.

- Info for dealers: Due to the diversity of the national legislations, manufacturer can not take all the measures to be in accordance with all national legislations of each member state. We expect that each dealer who imports our appliances into a member state (and puts it on the market) takes the necessary steps to be in rule with the national legislation (as the directive requires).

### POSSIBILITY OF THE MACHINE DISPOSAL BY OWN POTENTIAL

It is necessary to sort out the parts for metal, non-metal, glass, plastics etc., and bring them to recycle places. The sorted out materials has to be classified in waste groups.

Offer the sorted waste to the company which is competent for further treatment.

# China Restriction of Hazardous Substances (RoHS)

The Table of Hazardous Substances/Elements and their Content. As required by China's Management Methods for Restricted Use of Hazardous Substances in Electrical and Electronic Products.

Hazardous substances						
Part Name	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR[VI])	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Motor	O	O	O	O	O	O
Pump	O	O	O	O	O	O
Heater	O	O	O	O	O	O
Door lock	O	O	O	O	O	O
Power cord	O	O	O	O	O	O
Control panel	O	O	O	O	O	O
Cabinet	O	O	O	O	O	O
Belt	O	O	O	O	O	O
Chassis	O	O	O	O	O	O
Fastener component	O	O	O	O	O	O
Other metal	O	O	O	O	O	O
Other plastic	O	O	O	O	O	O

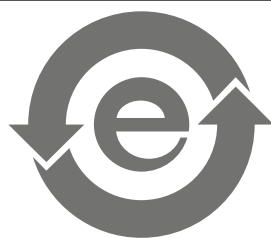
This table is prepared in accordance with the provisions of SJ/T-11364.

O: Indicates that the content of said hazardous substance in all of the homogenous materials in the component is within the limits required by GB/T 26572.

X: Indicates that the content of said hazardous substance exceeds the limits required by GB/T 26572 in at least one homogenous material in the component.

All parts named in this table with an "X" are in compliance with the European Union's RoHS Legislation.

**NOTE: The referenced Environmental Protection Use Period Marking was determined according to normal operating use conditions of the product such as temperature and humidity.**



CZW34N