Cylinder Ironers

320 mm Diameter

Insertion width 1664 mm, 2080 mm

Refer to Page 15 for Model Identification

Installation/Operation/Maintenance

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.)

Alliance™ Laundry Systems

www.alliancelaundry.com

Part No. D1587ENR12

April 2025

Table of Contents

Basic Instructions and Information

WARNING

For safety the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or death.

C357

Gas Heated Version

These notices must be posted in a prominent location

WARNING

For your safety the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or death.

- **Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**
- WHAT TO DO IF YOU SMELL GAS:
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Clear the room, building or area of all occupants.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- **Installation and service must be performed by a qualified installer, service agency or the gas supplier.**
- **FIRE OR EXPLOSION: Failure to follow safety warnings exactly could result in serious injury, death, or property damage.**

C366

For your safety

WARNING

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

C367

- The information to be posted shall be obtained by consulting with the local gas supplier.
- For further information on gas heated machines refer to Gas Heating (Only Applicable to Machine with Gas Heating).

Purpose of Machine

- The machine is only designed for the ironing of flat linens (bed linens, tablecloths, towels, handkerchiefs, etc.) made from linen, cotton, wool, silk, polyacrylic and polyester fibres.
- Place linen (with optimal residual humidity of 50% ± 10%) into the ironer. The ironer will execute final drying. Linens with higher residual humidity must be tumble dried / predried first. To prevent overlydry linens from getting stuck on the ironing belts at the output trough, and to prevent the production of static electricity, moisten them prior to insertion in the ironer.
- Linen must be properly rinsed off. Failure to observe this instruction will lead to the linen turning yellow, or to laundry detergent and deposits staining the ironing cylinder.
- Linens must be sorted according to type and appropriate ironing temperature. Pockets must be empty and any objects that could damage the linen, as well as the machine, must be removed.
- Pay extra attention when ironing synthetic and printed fabrics so that the fabric does not adhere to the ironing cylinder.
- We do not recommend ironing covers and duvets.
- Check that the linen is suitable for ironing and if so, what its appropriate ironing temperature is.
- The producer of the machine bears no liability for damage incurred to the fabric due to failure to observe these instructions.

Incorrect Use of Machine

WARNING

This machine is designed for the industrial ironing and drying of flat linens washed in water. Uses that differ from what is intended (without written permission from the produced) is considered to be incorrect.

C010

- Do not iron linens with materials designed to retain moisture.
- The machine is not intended for ironing linens that contain metal, plastic, fiberglass or foam rubber elements.
- The machine is not intended for ironing linens that contain hard components which could damage the ironing belts or the ironing cylinder´s surface.
- The machine is not intended for ironing linen with buttons.
- Do not iron linen that is damaged (torn, with holes, with loose fibers). Such linen may jam inside the ironer and damaged it.

- Do not leave linen(s) in the machine!
- If the width of the linen does not match the width of the machine, alternate inserting the linen on the right and on the left to keep a balanced use of the machine.
- Do not disconnect the power supply if the temperature of the machine is above 176°F [80°C] , except in extraordinary cases.
- Do not put the machine in operation at maximum speed during the heating and cooling phase.
- Do not turn off the machine unless the ironing belts are dry.
- Do not iron at temperatures below 176°F [80°C] , as it can cause oxidization of the ironing cylinder.
- Do not iron synthetic fabrics at high temperatures.

User Recommendations

- The machines described in this manual have the following ironing capabilities:
  - Linen width: 5.46 ft [1.664 m] (model 1664).
  - Linen width: 6.82 ft [2.080 m] (model 2080).
- The ironing speed can be set to 3.3 - 19.7 ft/min [1 - 6 m/min] according to the type of linen and its humidity.
- The temperature of the ironing cylinder can be set up to 356°F [180°C] according to the type of linen; to iron the aforementioned types of linen, set the temperature to 320°F [160°C] at the most.
- The ironing parameters are displayed on the control panel.
- The machines are supplied in the following versions:
  - OPL Version: Control panel with the possibility to change all optional parameters; designed for qualified operators.
  - COIN Version: The machine is equipped with an incorporated payment system, with partially accessible control panel (start, stop, indication of remaining time prepaid cycle) with preset ironing parameters; the optional parameters may only be changed by an authorized person.
  - CPS Version: Coin version with an external payment system, with partially accessible control panel (start, stop, indication of remaining time in prepaid cycle) with preset ironing parameters; the optional parameters may only be changed by an authorized person.
- Machines are supplied with the following heating options:
  - E: Electric heating
  - G: Gas heating
- The minimum temperature oscillation can be adjusted by well-trained operators who can change the set temperature and ironing speed on the control panel according to linen-type and its residual humidity.
- To obtain the maximum capacity of the ironer:
  - Prevent drops in temperature by selecting the lowest possible ironing speed.
  - Start ironing when the set temperature is reached.
  - The distance between the individual pieces of inserted linen should not be greater than the length of the input conveyor to ensure smoothness of ironing.
  - Do not abandon the ironer in run mode if you are not ironing.
  - Group linens according to their fabric composition or to their residual humidity.
  - Adjust the speed and temperature to suit the specific needs of particular linen-types.
  - In order to decrease energy consumption turn off the ironer (cooling mode) before inserting the last piece of linen. The ironer will use the accumulated heat in the ironing cylinder and the cooling time of the machine will be shorter.
- Insert linen onto the input conveyor from the right and left sides alternately (if the linen is wider than half the inserting width of the machine) or gradually from left to the right, so that the load of transferring heat to the ironed linen is evenly distributed on the entire ironing cylinder.
- Carefully insert the linen in the ironer. Failure to do so may lead to issues with release of the linen once ironing completes.
- To obtain the best results, we recommend ironing flat pieces of linen first (towels, bed sheets etc.).
- If the linen has to be ironed twice to dry, there is risk that it will turn yellow. The same applies if the roller slows down too much.
- If the linen is not dry after the first ironing, it may be caused by the following:
  - The washer has a low spinning capacity: in this case we recommend short flash drying (5-10 minutes) in a tumble dryer.
  - The linen is too thick.
  - The speed is too high.
- Check that the pieces to be ironed are not wider than the maximum insertion width.
  - Do not iron folded pieces of linen. It is not possible to obtain the expected quality of drying / ironing in this manner.
  - If possible, use the entire width of the ironing cylinder.
- If the linen comes out damp from the ironer, decrease the ironing speed until you reach the desired result.
  - 8% dampness after ironing is considered optimal.
- If linen is starched, there is risk of staining the ironing cylinder or of the linen sticking to the cylinder.
- The productivity and quality of ironing heavily depends on washing. Make sure all conditions are met.

Safety Instructions

Important Safety Instructions

WARNING

To reduce the risk of fire, electric shock, serious injury or death to persons when using your finisher, follow these basic precautions.

W803

- Read all instructions before using the finisher.
- Install the finisher according to the INSTALLATION instructions. Refer to the EARTHING (grounding) instructions for the proper earthing (grounding) of the finisher. 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 finisher where it will be exposed to water and/or weather. The finisher 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.
- Emergency shut-offs such as finger bars and emergency stop switches, should be painted red and clearly labeled.
- When you perceive a gas odor, immediately switch 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 fitter, 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 exhaust tube should be cleaned periodically by competent maintenance personnel.
- Do not iron articles that have been previously cleaned in, washed in, soaked in or spotted with gasoline or machine oils, vegetable or cooking oils, cleaning waxes or chemicals, dry-cleaning solvents, thinner or other flammable or explosive substances as they give off vapors that could ignite, explode or cause fabric to catch on fire by itself.
- Items such as foam rubber (latex foam), shower caps, waterproof textiles, rubber backed articles and clothes or pillows filled with foam rubber pads should not be ironed in the finisher. Do not use the appliance to iron materials with a low melting temperature (PVC, rubber, etc.).
- Check the operation of the safety finger guard at the beginning of every shift. Operating the safety guard should stop the finisher immediately. If this safety feature is not working properly, employees must shut off the finisher and notify the supervisor. Do not operate the finisher until the safety finger guard is repaired and working properly. Be sure that all other safety features, including guards and panels, are in place before operating the finisher.
- Do not allow children on or around the finisher. 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.
- Never try to remove, adjust, or straighten jammed or misfed linen while the finisher is running. Attempting to clear the jammed linen item can result in the user being caught in the linen and pulled into the finisher. If something is jammed in the finisher, turn off the power before attempting to correct the problem. Avoid contact with heated parts.
- Use finisher only for its intended purpose, ironing fabrics. Always follow the fabric care instructions supplied by the textile manufacturer and only use the dryer drum to dry textiles that have been washed in water.
- Always read and follow 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 unless recommended by the manufacturer of the fabric softener or product.
- Protect yourself and fellow workers by making sure that everyone follows all the rules. Read and follow all safety labels and warnings. Learn all aspects of the equipment such as what is hot, which parts move, all safety shut-offs, and all emergency procedures. Do not come close to moving or heated parts. Do not wear loose clothing, sweaters, jewelry, or neck ties when near the finisher.
- DO NOT operate the finisher if it is smoking, grinding or has missing or broken parts or removed guards or panels. DO NOT tamper with the controls or bypass any safety devices.
- Frequent scheduled safety meetings are a must to review and update rules. If anyone is observed breaking the rules, the supervisor or manager should be notified immediately. Reporting people for rule breaking could save their lives or limbs.
- Keep area around the exhaust opening and adjacent surrounding area free from the accumulation of lint, dust and dirt. The interior of the finisher and the exhaust duct should be cleaned periodically by qualified service personnel.
- At the end of each working day, close off all main supplies of gas and current.
- Never service the finisher while it is running. Never reach over, under, or behind the safety finger guard or into any area near hot surfaces or moving parts without first shutting off the finisher at the switch and power source. Follow this rule whenever working on the finisher to avoid serious injury from the finisher's heat and/or pressure.
- Maintenance personnel should work in a buddy system for mutual protection when working on a finisher.
- Do not repair or replace any part of the finisher, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instruc-

tions that the user understands and has the skills to carry out. ALWAYS disconnect and lockout the electrical power to the finisher before servicing. Disconnect power by shutting off appropriate breaker or fuse.

- If in doubt, do not do anything until the supervisor or service-maintenance department has been contacted. Only qualified personnel should service the finisher.
- Failure to install, maintain, and/or operate this finisher according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

NOTE: The WARNINGS and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining, or operating the finisher.

Always contact your dealer, distributor, service agent or the manufacturer on any problems or conditions you do not understand.

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.

Operation Warnings

WARNING

TO MINIMIZE THE RISK OF FIRE, ELECTRIC SHOCK, SERIOUS INJURIES TO PEOPLE OR DAMAGE TO PROPERTY, PLEASE READ AND OBSERVE THE FOLLOWING INSTRUCTIONS:

C011

- Study the complete instructions, i.e. this "Original installation, maintenance and user's manual", thoroughly prior to the installation, operation and maintenance of the machine.
- The manual also includes the Spare Parts Catalogue, which is not standardly supplied with the machine. Contact your distributor for the Spare Parts Catalogue.
- Proceed according to the instructions provided in the manuals and always keep them near the machine for later use.
- Always contact your supplier, service worker or producer in case of any problems you do not understand.
- Always adhere to the safety instructions provided in the manual and the warnings and notices on the labels of the machine.
- Observe all valid and basic security measures and regulations.
- The machine must not be operated by children. Make sure there are not any people (children) or animals near the machine prior to its activation.
- When ironing, fasten up your clothing, ties, pendants, bracelets and long hair.
- Do not operate the machine with broken or missing parts or open covers. The machine may only be turned on when all the covers are in place.
- Do not insert fabrics that contain flammable or combustible agents into the machine. Do not store any combustibles near the machine. Keep the surface of the machine clean and free from flammable materials.
- The machine produces steam that must be efficiently exhausted out of the room.
- Do not store and spray any combustibles near the machine.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Prevent unauthorized manipulation of the control panel.
- The OPL version (without the coin slot) is only intended for qualified operators.
- Use protective gloves when manipulating the hot ironed linen.
- The high temperature of the ironing cylinder may cause serious burns. Avoid touching the hot parts of the machine.
- The machine must be connected to the power supply via a fixed feed.
- The machine must be connected to the power supply, earthing, ventilation or gas in accordance with the Installation Manual pursuant to the local standards and the connection must be executed by qualified persons with a relevant valid permit. All regulations valid for the connection to the local electrical supply system (TT / TN / IT etc.) must be observed.
- The machine is equipped with a frequency converter. Do not change the converter parameters settings. Unauthorized changes may cause a serious injury, fire, damage to the machine etc.
- Check the condition of earthing, evacuation functionality of the machine and the safety bar regularly.
- Do not use the ironer when the safety bar for finger protection is damaged!
- Any changes in the installation of the machine contrary to the manual must be approved by the producer. Otherwise the producer/supplier is not liable for any potential injuries or damages caused to people and property.
- Any interference in the functions of the machine is not permissible and the producer rejects any and all liability in such cases.

WARNING

ALWAYS DISCONNECT THE MACHINE FROM THE POWER SUPPLY AND ALL OTHER POTENTIAL ENERGY SUPPLIES BEFORE INTERFERING WITH THE MACHINE. THE IRONING CYLINDER MUST BE COOLED DOWN. THE MAIN SWITCH CIRCUIT TERMINALS ARE LIVE EVEN WHEN THE MAIN SWITCH IS OFF!

C012

GAS HEATED VERSION (SUMMARY)

- In case of gas leakage, shut the main gas supply, air out the room, avoid manipulating any electric switches and turning on any electric appliances, smoking, using open fire and call the service.
- The evacuation of the gas heated ironer must not be connected with the evacuation of a dry cleaning machine or dry cleaning presses under any circumstances.
- Do not disable or change the factory settings of any gas heating components and devices.
- The parameters of the adjustment, type of gas, permissible gas pressure and gas appliance category are stated on the serial plate of the machine. Any adjustment to another type of gas or pressure may only be executed with the producer's consent and by authorized service staff.
- Observe the minimal room ventilation recommended by the producer.
- All potential gas heating components are subject to a special permit. They may only be replaced with original spare parts supplied by the producer in case of damage.

ALL VERSIONS (SUMMARY)

- Installation and repairs may only be provided by an authorized service organization with the relevant permit from the producer.
- The guarantee may be annulled in case of failure to observe the instructions stated in this manual.
- Original or identical parts must be used as spare parts for this machine.
- Return all the panels to their original position and secure them by the original method after a repair. This is a protective measure against electric shock, injury, fire and/or damage to the property.
- The instructions and warnings described in this manual do not include all the possible conditions and situations that may occur during the installation of the machine. They shall be understood in the general sense. Caution and carefulness are factors that cannot be solved by the structure of the machine. These factors must be ensured by the qualification of persons who install, operate or maintain the machine.

NOTE:

- **The equivalent noise level at the place of operation is lower than dB (A).**
- **This machine does not contain parts with asbestos.**

Warnings for Transport and Storage

WARNING

WHEN TRANSPORTING AND STORING THE MACHINE, DO NOT PUSH, PULL OR PUT A STRAIN ON THE COMPONENTS PROTRUDING FROM THE MACHINE (OPERATING ELEMENTS, BUTTONS, SWITCHES, CRANK, POWER SUPPLY SCREW FITTING, GAS SUPPLY SCREW FITTING ETC.). MAKE SURE THAT THESE COMPONENTS ARE PROTECTED TO PREVENT DAMAGE DURING MANIPULATION AND INSTALLATION OF THE MACHINE.

C013

- The consumer must observe the instructions of the producer concerning transport, manipulation and storage of the products when providing the shipment. The producer is not liable for any potential damages to the machine during transport in this case.
- The ambient temperature for transport and storage must not exceed -13°F [-25°C] and +131°F [+55°C] . The relative humidity during transport and storage must not exceed 50%. The product must be protected from mechanical damages and weather effects when stored in an open area.
- If possible, leave the machine in the transport packaging or at least on a wooden transport pallet until the final installation of the machine in the structural foundation in the laundry room. The installation method is described in chapter INSTALLATION.

WHILE TRANSPORTING THE IRONER ON SKIDS, USE CAUTION AS THE MACHINE COULD SLIDE OUT OF PLACE OR FALL OFF. THE SUPPORTS OF THE IRONER AND THE SKIDS ARE STEEL (SMOOTH) AND THEREFORE THEY HAVE A LOW FRICTION COEFFICIENT.

BE CAREFUL WHEN MOVING MACHINE TO AVOID DAMAGING THE ADJUSTABLE FEET.

Introduction

Symbols on the Machine

Symbol - Execution (N, C, U, H)

- The main switch
  - OPL Version: Located on the front left side; is also used as the emergency stop button. In case of emergency, turn to the “off” position.
  - COIN/CPS Version: Located on the rear wall of the left stand

- Warning, dangerous voltage, electric appliance.

- Hot surfaces. Do not touch the labelled areas after the machine has been heated.

- Risk of contact with moving parts on the machine. Do not touch the labelled areas while manipulating the linen.

Correct Insertion of Linens into the Ironer

- Instruction label for inserting linen. Information about incorrect and correct insertion of linen into the ironer.
- If you frequently iron pieces of linen that are narrower than the inserting width of the machine, we recommend every five minutes to skip the centre of the ironing cylinder a few times and alternate between the right and left edge of the insert table. This will cool down the ironing cylinder edges overheated by the ironed linen. Refer to *Figure 54.*

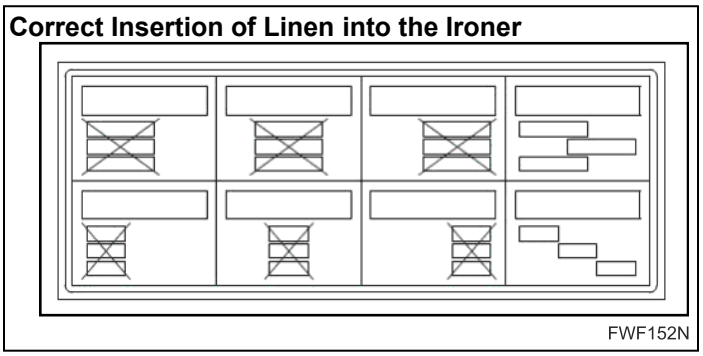
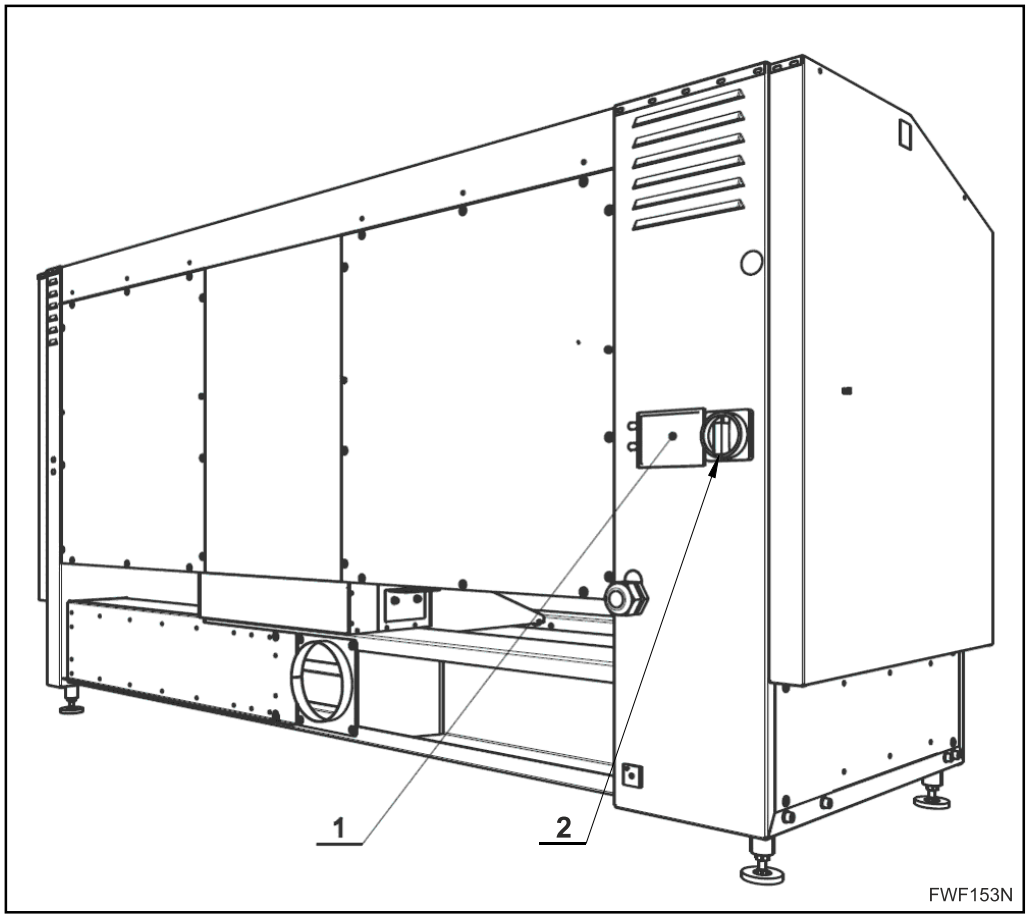


Figure 1

Serial Plate Information

Location of Serial Plate on Machine



1. Machine Serial Plate Location
2. Main Switch Location for COIN/CPS (Vended) Models

NOTE: Serial plate for gas versions includes data, adjustment and gas-type information.

NOTE: Main Switch for OPL models is located on the front left side.

Figure 2

Serial Plate of the Machine for Gas Heating

Models with "N", "C", "U", "H" in the 10th Position in Model No.

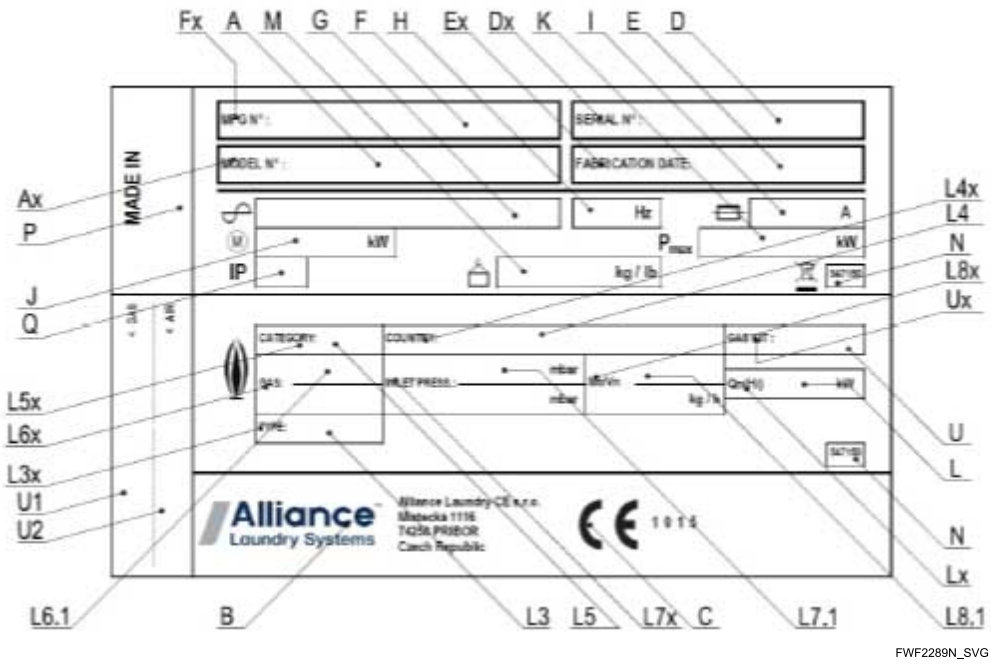


Figure 3

Pos.	Description	Pos.	Description
A	Model N°	L3x	"Type" in customer language (CE)
Ax	"Model N°" in customer language	L4	Country / Countries of install
B	Manufactured responsible + address	L4x	"Country" in customer language (CE)
C	Approval / Marks of conformity	L5	Category
D	Serial number of machine	L5x	"Category" in customer language (CE)
E	Production year / Fabrication date	L6.1	Gas type
F	MFG N° > Producer IPN code	L6x	"Gas" in customer language (CE)
Fx	"MFG N°" in customer language (CE)	L7.1	Inlet Gas pressure (mbar)
G	Supply voltage (V) / Phases	L7x	"Inlet pressure" in customer language (CE)
H	Frequency (Hz)	L8.1	Gas consumption + units (m3/h v kg/h)
I	Branch Circuit Fuse / Supply protection device / Fuse (I)	L8x	Gas consumption symbol Mn(Vn)
J	Main motor output / Largest motor (kW)	M	Net weight (lb. [kg])
K	Total input power (kW)	N	Code of sticker drawing
P	Made in	U	Gas kit Nr., Gas set code

continues...

Table 1

Pos.	Description	Pos.	Description
Q	IP - internal protection execution	Ux	"Gas kit" in customer language (CE)
L	Heat input power (kW)	U1	Gas kit Nr., Gas set code
Lx	Heat input power symbol Qn(Hi)	U2	Gas kit Nr., Gas set code
L3	Type - acc. CEN/TR 1749:2005		

Table 1

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 2* and *Table 3*. For example, a unit with serial number 520I000001DK was manufactured in May 2015.

Manufacturing Date - Year	
Year	Serial Number Character
2020	Q
2021	S
2022	U
2023	W
2024	Y
2025	Z
2026	A

Table 2

Manufacturing Date - Month	
Month	Serial Number Character
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 3

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

Phone: +1(920)748-3121

Ripon, Wisconsin
or
Alliance Laundry CE s.r.o

Mistecka 1116
Pribor, 742 58
Czech Republic Europe

Model Identification

Information in this manual is applicable to these models:

IIC316A	PIC316A	SIC316A	UIC316A	NIC316A
IIC320A	PIC320A	SIC320A	UIC320A	NIC320A
IIH316A	PIH316A	SIH316A	UIH316A	NIH316A
IIH320A	PIH320A	SIH320A	UIH320A	NIH320A
IIU316A	PIU316A	SIU316A	UIU316A	NIU316A
IIU320A	PIU320A	SIU320A	UIU320A	NIU320A

FCI032166C	FCS032166C	FCP032208N
FCI032166N	FCS032166N	FCP032208U
FCI032166U	FCS032166U	I32166X
FCI032208C	FCS030208C	I32280X
FCI032208N	FCS030208N	I33-160
FCI032208U	FCS030208U	I33-200
FCI1664/320	FCS1664/320	LSR3316
FCI2080/320	FCS2080/320	LSR3320
FCI3216	FCS3216	FCI032166H
FCI3220	FCS3220	FCI032208H
FCU032166C	FCL032166C	FCU032166H
FCU032166N	FCL032166N	FCU032208H
FCU032166U	FCL032166U	FCS032166H
FCU032208C	FCL032208C	FCS032208H
FCU032208N	FCL032208N	FCP032166H
FCU032208U	FCL032208U	FCP032208H
FCU1664/320	FCP032166C	FCL032166H
FCU2080/320	FCP032166N	FCL032208H
FCU3216	FCP032166U	
FCU3220	FCP032208C	

Specifications and Dimensions

General Specifications

Heat Type	Note	Electric Heat		Gas Heat	
Machine Model		1600	2000	1600	2000
Machine Size, in. [mm]		65.51 [1664]	81.89 [2080]	65.51 [1664]	81.89 [2080]
Ironing Cylinder Diameter, in. [mm]		12.60 [320]			
Ironing Speed, ft./min. [m/min.]		3.3 - 19.7 [1.0 - 6.0]			
Electric Supply System		380-415V 3AC +N 50/60 Hz			
		208-240V 3AC 50/60 Hz			
		380-415V 3AC-N 50/60 Hz			
		440V 3AC 60 Hz(1)		440V 3AC 60 Hz	
		-		208-240V 1AC 50/60 Hz	
Nominal Current (IN), (A)	(19)	38	43	2.9	2.9
	(20)	64	73	2.9	2.9
	(21)	41	46	2.9	2.9
Branch Circuit Fuse	(19)	50	50	10	10
	(20)	80	80	10	10
	(21)	50	50	10	10
Drive motor output X, HP [kW]		0.24 [0.18]			
Electrical systems outputs Y, HP [kW]	(10)	X + 0.09		X + 0.19	
Fan Motor Output (50 / 60 Hz), HP [kW]		0.13 / 0.17 [0.095 / 0.125]			
Heating Power (Electric), HP [kW]	(2)	32.6 [24.3]	37.4 [27.9]	-	-
Heating Power (Gas), Btu/h [kW]	(2) (3)	-	-	83600 [24.5]	104100 [30.5]
Total electric input power Y, kW	(10)	24.7	28.3	0.5	0.5
Maximum Air Flow Without the Pressure Loss, m^3 /h	(4)	605	650	605	650
Permitted loss of pressure on the exhaust side, Pa (50Hz)	(4)	130-170		130-150	
Permitted loss of pressure on the exhaust side, Pa (60Hz)	(4)			220-240	
Min. necessary fresh air flow into the installation area, m^3 /h	(4)	420	450	470	510

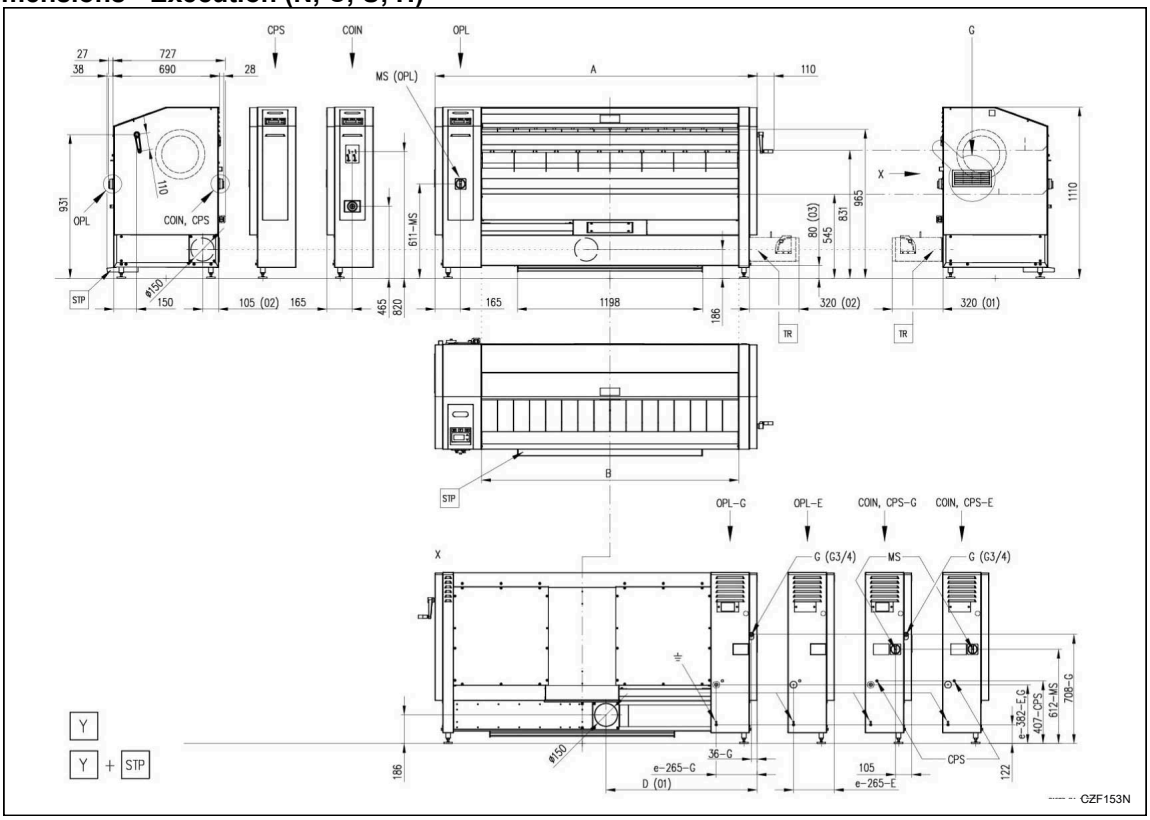
continues...

Table 4

Heat Type	Note	Electric Heat		Gas Heat	
Machine Model		**1600**	**2000**	**1600**	**2000**
Machine Size, in. [mm]		**65.51 [1664]**	**81.89 [2080]**	**65.51 [1664]**	**81.89 [2080]**
Power Consumption Y, kWh	(5) (10)	21.4	27.3	0.5	0.5
Gas Consumption, m^3 /h	(2) (6)	-	-	2.55	3.18
Utilizable Gas Types	(7)	-	-	G20, G25, G30, G31, G110	
Maximum Connecting Gas Pressure, mbar	(7)	-	-	50	
Gas Connection	-	-	-	G ¾	
Ironer Capacity, lb/h [kg/h]	(5)	137 [62]	154 [70]	128 [58]	159 [72]
Noise Level, dB (A)		< 57			
Ingress Protection		IP 42			
Machine Execution According to CEN/ TR 1749:2005 (Gas)		B 22			
Net Weight Y, lb [kg]	(10)	959 [435]	1080 [490]	904 [410]	1025 [465]
Shipping Weight, lb [kg]	(8)	1069 [485]	1235 [560]	1025 [465]	1191 [540]
(1)	Maximum 456 V.				
(2)	Nominal permanent heating input determined from gas consumption – without regulation				
(3)	Qn(Hi): Valid for gas G20, 20mbar; for other parameters refer to *Table 13.*				
(4)	For related parameters, refer to *Connection to Steam Exhaust.*				
(5)	Valid for a test according to ISO 9398-1.				
(6)	Mn/Vn: Valid for gas G20, 20mbar, for other parameters refer to *Table 13.*				
(7)	For the specification of possible options, refer to *Table 13.*				
(8)	Valid for packing: cardboard on the pallet.				
(9)	Refer to *Figure 4.*				
(10)	Y - basic machine with front output.				
(19)	Valid for 380-415V 3AC 50/60 Hz.				
(20)	Valid for 208-240V 3AC 50/60 Hz.				
(21)	Valid for 440V 3AC 60 Hz .				

Table 4

Machine Dimensions - Execution (N, C, U, H)



NOTE: Refer to *Table 18* for explanation of diagram symbols and abbreviations.

Figure 4

Diagram Explanations (Refer to *Figure 4*)	
E: Electric heating	CPS: Operation with a Central Payment System
G: Gas heating	STP: Start/Stop pedal of the insert table – OPL - on request, COIN / CPS - standard
MS: Main switch	TR: Adjustable exhaust flap valve
e: Supply for E, G	(01): Steam exhaust system oriented backwards
OPL: Standard control – Full version	(02): Steam exhaust system oriented to the right
COIN: Coin operated	(03): Basic set-up, can be changed

Table 5

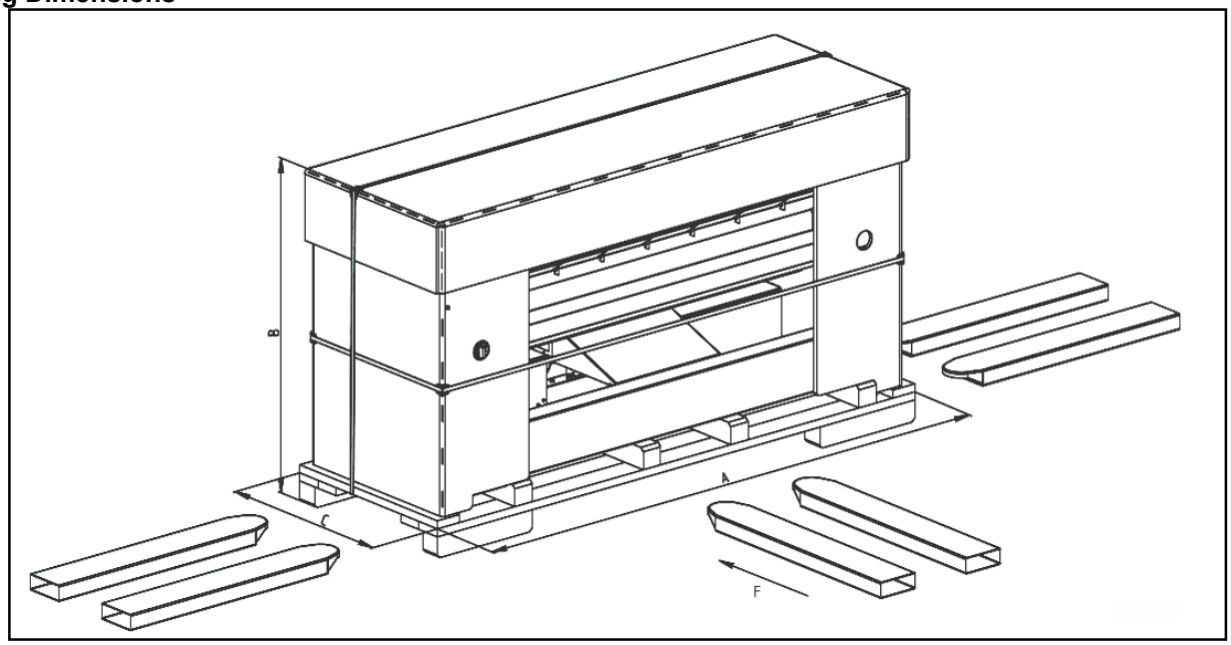
Machine Dimensions (Refer to *Figure 4*)					
Specification	**Heat Type**	**Electric Heat**		**Gas Heat**	
	Machine Model	**66 [1600]**	**82 [2000]**	**66 [1600]**	**82 [2000]**
	Ironing Cylinder Diameter, in. [mm]	**12.60 [320]**			
A	Machine Width, in. [mm]	82.05 [2084]	98.42 [2500]	82.05 [2084]	98.42 [2500]
B	Maximum Inserting Width, in. [mm]	65.51 [1664]	81.89 [2080]	65.51 [1664]	81.89 [2080]
D	Exhaust Position, in. [mm]	38.50 [978]	46.69 [1186]	38.50 [978]	46.69 [1186]

Table 6

Installation

Handling, Transport and Storage

Shipping Dimensions



FWF155N

Figure 5

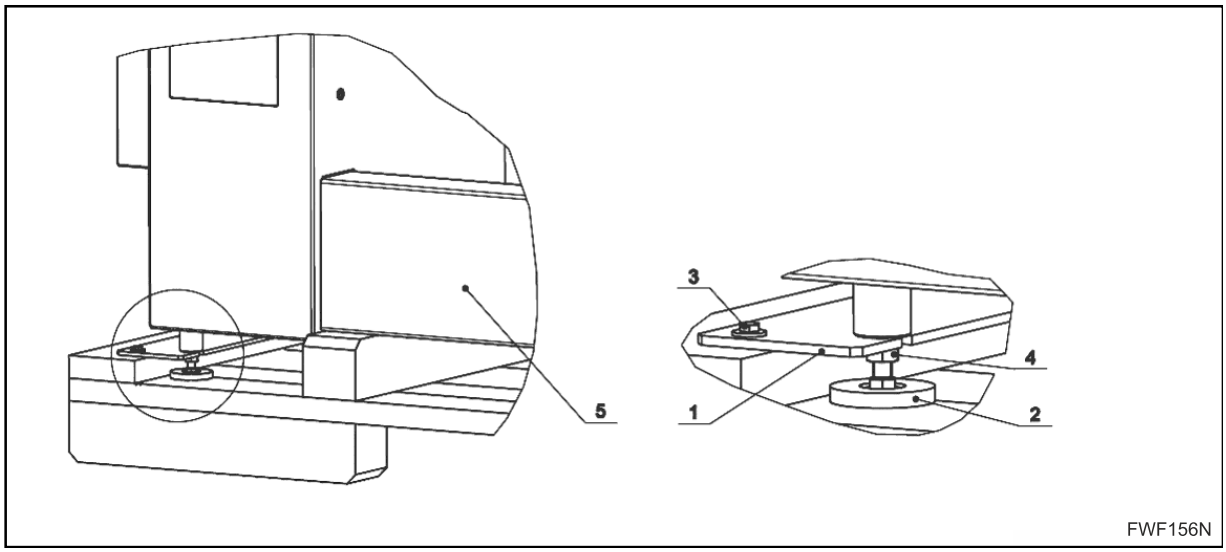
Shipping Dimensions *					
Specification	Heat Type	Electric Heat		Gas Heat	
	Machine Model	1600	2000	1600	2000
	Machine Size, in. [mm]	65.51 [1664]	81.89 [2080]	65.51 [1664]	81.89 [2080]
A	Width, in. [mm]	86.22 [2190]	102.76 [2610]	86.22 [2190]	102.76 [2610]
B	Height, in. [mm]	49.61 [1260]			
C	Depth, in. [mm]	31.50 [800]			
* Valid for packing: cardboard on the pallet.					

Table 7

- The total requirements for the space for system installation may only be usually determined through the project based on the detail plans of the object.
- All passages and gaps through which the machine must be transported during installation must have sufficient dimensions that comply with the dimensions of the packed machine. Refer to *Table 7* .
- All operations must be executed by a qualified individuals.
- The packed machine may be transported with the use of the skids from a fork-lift or manual pallet jack Refer to *Figure 16* . For weight information refer to *Table 7.*
- The skids must be inserted into the center of the pallet if transporting from the front side (F). Refer to *Figure 16* .
- Alternatively, the machine can be packed in an enclosed wooden heat-treated crate.

Pallet Removal

Pallet Removal



1. Fixation Console
2. Support Legs
3. Anchoring Bolts
4. Safety Nuts
5. Supports

Figure 6

To dismantle the machine from the pallet you must disassemble the fixation console (1) from both sides of the machine. Put the four supporting legs (2)-4x into the basic transport position.

- Disassemble the four anchoring bolts (3)-4x, release the four safety nuts (4)-4x and remove the two fixation console (1).
- Put the supporting four legs (2)-4x into the basic transport position so that the height between the bottom surface of the supports (5) and the bottom surface of the supporting legs (2) is about 3.15 in. [80 mm] (or corresponds to the height of the fork-lift´s skids).
- Tighten the four safety nuts (4) and fix the position of the four supporting legs (2) at the same time.

Insertion of Pallet Jack or Fork Lift Under Front of Machine for Transport

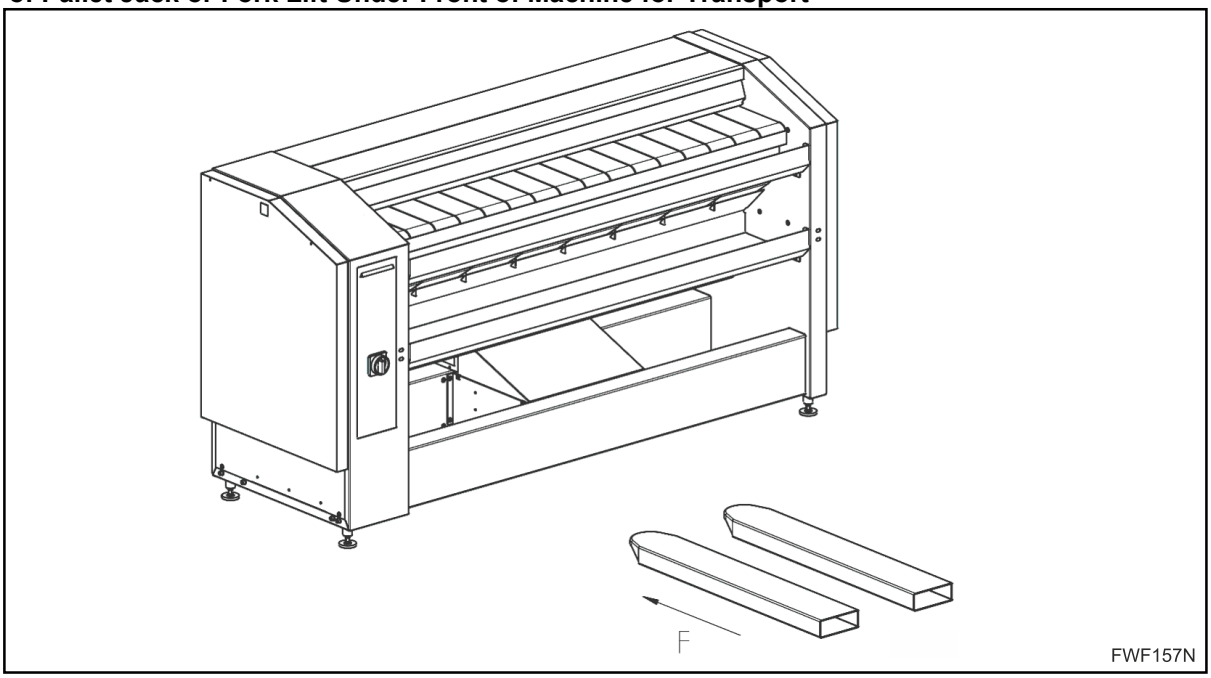


Figure 7

You can use a fork-lift to remove the ironer from the pallet. Insert the skids from the front side (F) in the center of the machine, under both main supports.

- This operation must be executed by a qualified for lift operator.
- Position the machine in the desired location (in accordance with installation conditions). Refer to *Levelling the Machine on the Floor.*

WARNING

WHILE TRANSPORTING THE IRONER ON SKIDS, USE CAUTION AS THE MACHINE COULD SLIDE OUT OF PLACE, OR FALL OFF. THE SUPPORTS OF THE IRONER AND THE SKIDS ARE STEEL (SMOOTH) AND THEREFORE THEY HAVE A LOW FRICTION COEFFICIENT.

C024

Moving the Ironer on the Ground

- Since the pedestal of the machine is a solid unit, you may also use rollers, sliding bars or a truck to move the machine on the ground in addition to the fork-lift.
- The external dimensions and weight values of the machine are shown in chapter *General Specifications* .

Installation Requirements

Working Conditions of the Machine

- Ambient temperature: +59°F [+15°C] to +104°F [+40°C] ; the average ambient temperature must not exceed 95°F [+35°C] for a period of 24 hours.
- Gas heated versions: Altitude: up to 3280 ft. [1000 m] . Relative humidity: from 30% to 70% without condensation.
- The machine is not designed for environments where it may be directly hit with splashing water. Do not store or install the machine in places where it could be exposed to the effect of weather or excessive humidity. In case of moisture condensation on the machine, water must not run down the walls and covers of the machine, nor it is safe for water to cover the floor.
- The producer is not liable for corrosion of the machine caused by failure to establish the specified ventilation in the room (i.e. vapours, aggressive chemical elements or cleaning process).

WARNING

IF THE FUMES OF SOLVENTS FROM DRY-CLEANING MACHINES COME IN CONTACT WITH HOT SURFACES, THEY CREATE ACIDS. THESE ACIDS ARE CORROSIVE. MAKE SURE THAT THE AIR IN THE ROOM WHERE THE IRONER IS USED IS FREE OF SUCH FUMES.

C029

- If there are several machines and/or boilers in the same room with forced ventilation or conventional ventilation, the total cross-section of the outwards opening must be at least the sum of the cross-sections for each machine.
- In order to prevent draught, do not place a machine with conventional ventilation between machines with forced evacuation system and ventilation openings.

Spacing Requirements

WARNING

FAILURE TO OBSERVE THE REQUIRED DIMENSIONS AND SPACING OF THE MACHINE FROM THE WALLS MAY IMPEDE OR PREVENT SERVICE MAINTENANCE OF THE MACHINE.

C031

Machine Placement - Refer to *Table 8*

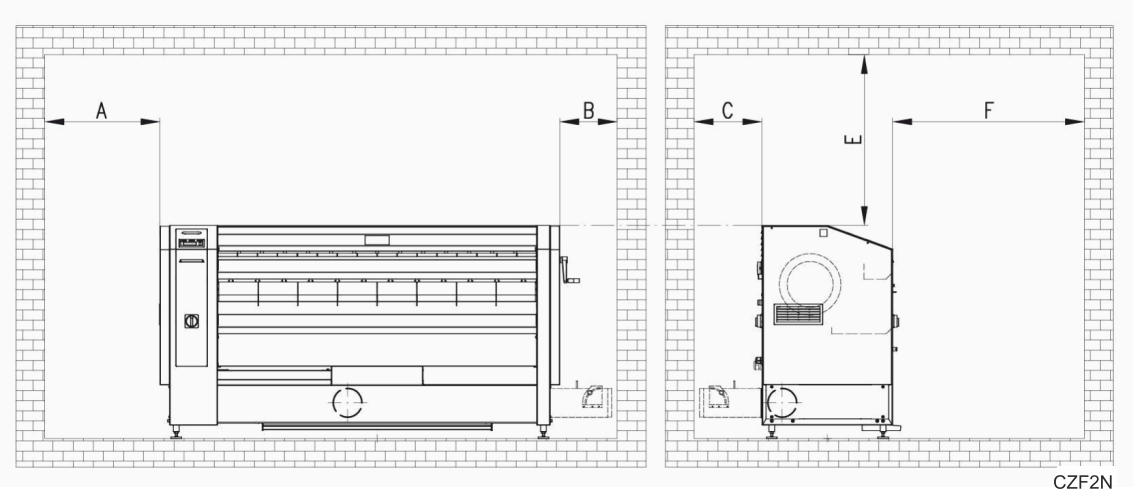


Figure 8

Parameters, in. [mm] (Refer to *Figure 8*)					
DIMENSION	**UNITS**	**MODEL**			
		65.51 in. [1664 mm]		**81.89 in. [2080 mm]**	
		RECOMM.	**MINIMAL**	**RECOMM.**	**MINIMAL**
A	mm	≥ 1200	460	≥ 1600	460
	in	≥ 47.2	18.0	≥ 63.0	18.0
B	mm	≥ 700	460	≥ 700	460
	in	≥ 27.6	18.0	≥ 27.6	18.0
C (1)	mm	≥ 600	460	≥ 600	460
	in	≥ 23.6	18.0	≥ 23.6	18.0
C (2)	mm	≥ 200	-	≥ 200	-
	in	≥ 7.9	-	≥ 7.9	-
E	mm	≥ 1200	460	≥ 1200	460
	in	≥ 47.2	18.0	≥ 47.2	18.0

continues...

Table 8

Parameters, in. [mm] (Refer to *Figure 8*)					
DIMENSION	**UNITS**	**MODEL**			
		65.51 in. [1664 mm]		**81.89 in. [2080 mm]**	
		RECOMM.	**MINIMAL**	**RECOMM.**	**MINIMAL**
F	mm	≥ 1220	1220	≥ 1220	1220
	in	≥ 48.0	48.0	≥ 48.0	48.0
(1) : minimum value providing access for maintenance and servicing interventions					
(2) : in case that it is possible to push/slide the machine into the C (1) position					

Table 8

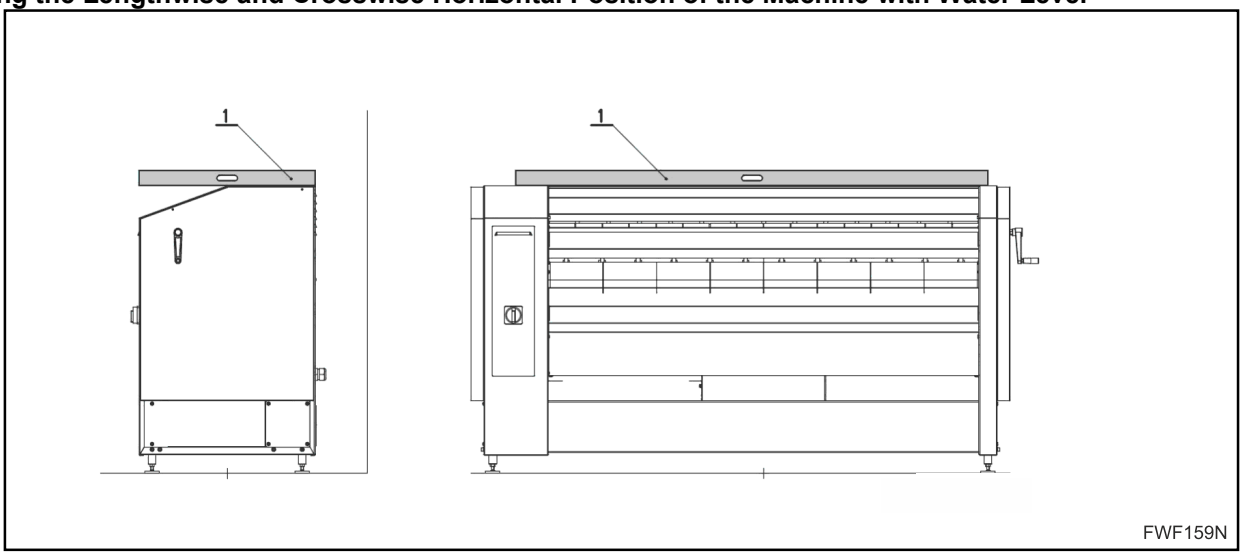
Levelling the Machine on the Floor

WARNING

THE MACHINE MUST BE PLACED ON A FLAT, SMOOTH AND DUST-FREE SURFACE WITH DOWNSLOPE BELOW 0.5%.

C032

Checking the Lengthwise and Crosswise Horizontal Position of the Machine with Water Level

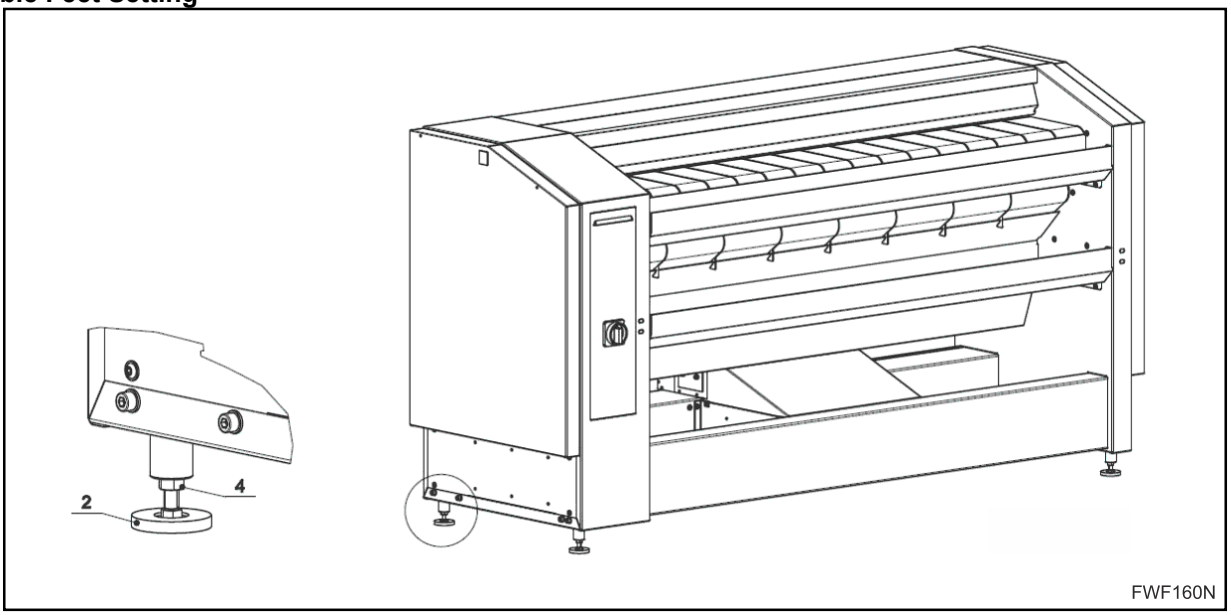


1. Water Level

Figure 9

- The machine is levelled by adjusting the four supporting legs (2)-4x, *Figure 10.*
- Release the safety nuts (4) and turn the supporting legs in the required direction, if needed (tightening will cause the machine to go down at the place of the leg) to put the machine in the position shown in *Figure 9.*
- Tighten the safety nuts (4) at fix the position of the supporting leg (2) at the same time.

Adjustable Feet Setting



2. Supporting Legs

4. Safety Nuts

Figure 10

- It is possible that the front supporting legs will have to be adjusted again after the test run to eliminate the potential axial movement of the ironing cylinder.
  - Refer to - *Preparing the Machine for Operation* section.

Connection to Steam Exhaust

WARNING

THE MACHINE MUST BE CONNECTED TO THE EXHAUST LINE IN COMPLIANCE WITH ALL VALID STANDARDS AND REGULATIONS AND IT MUST BE LOCATED IN A WELL-VENTILATED ROOM.

C033

Venting Through the Back (Version A) - Execution (N, C, U, H), Gas or Electrical Heated

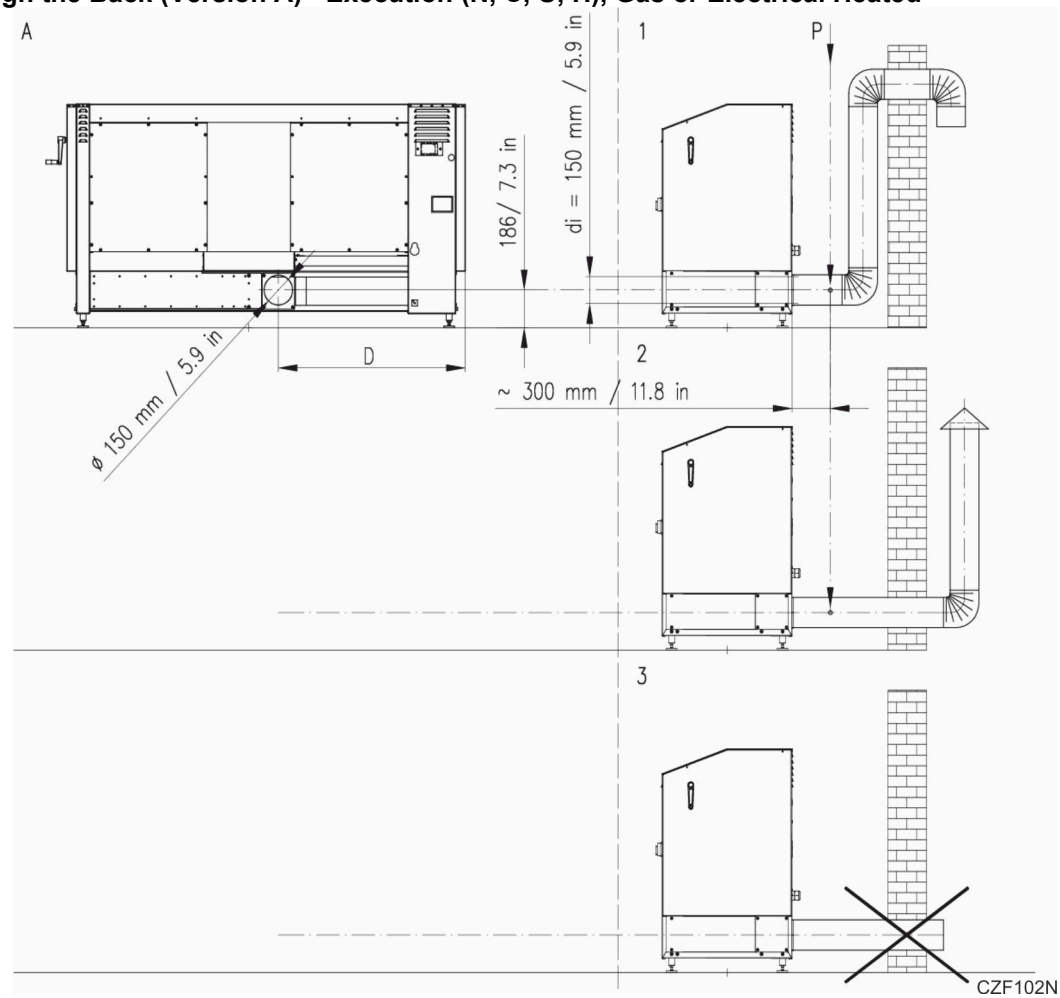


Figure 11

Venting Through the Rightside (Version B) - Execution (N, C, U, H), Gas or Electrical Heated

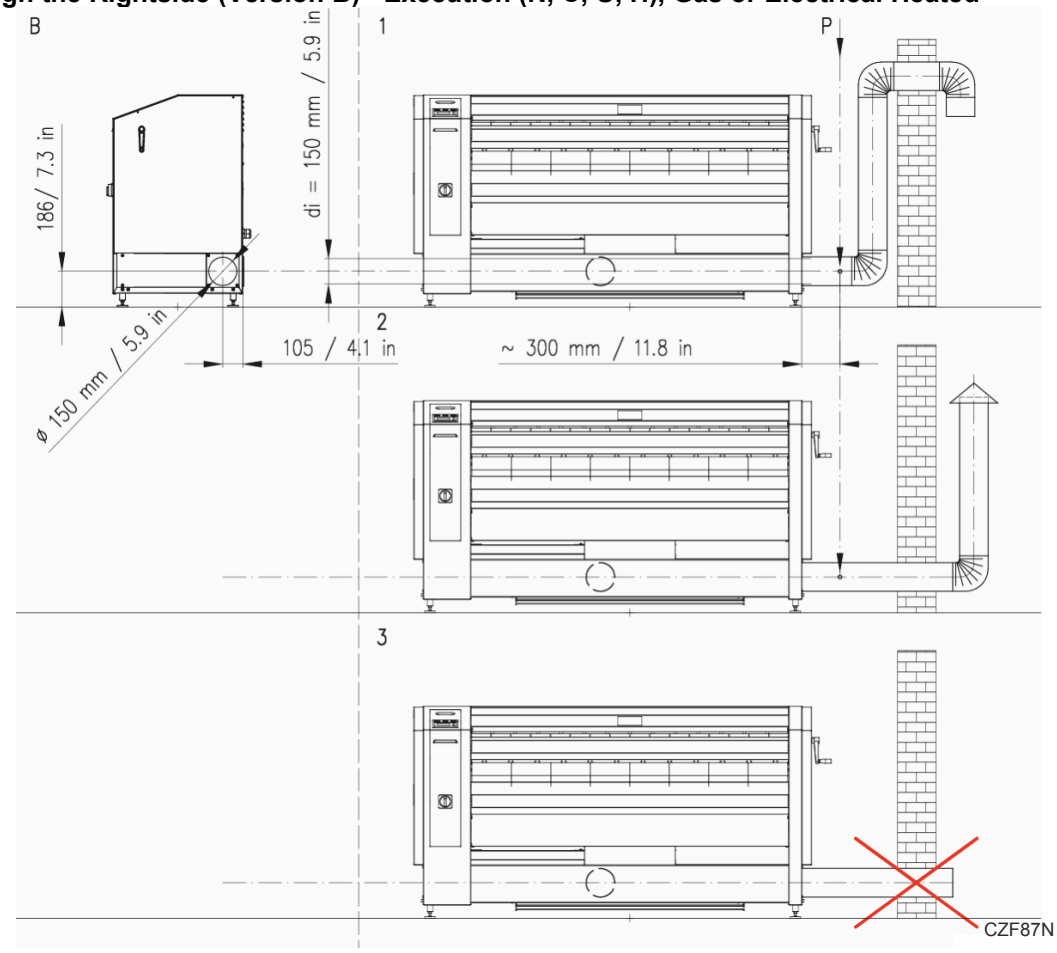


Figure 12

Parameters to *Figure 11* and *Figure 12*					
Heat Type	**Note**	**Electric Heat**		**Gas Heat**	
Machine Model		**1600**	**2000**	**1600**	**2000**
Machine Size, in. [mm]		**65.51 [1664]**	**81.89 [2080]**	**65.51 [1664]**	**81.89 [2080]**
m1 - Maximum flow without the loss of pressure, m^3 /h		605	650	605	650
Pz - Permitted loss of pressure on the exhaust side, Pa	(1) (4)	130-170		130-150(2)	
				220-240(3)	
m2 - Flow at the maximum permitted loss of pressure on the exhaust side Pz max, m^3 /h	(4)	420	450	420	450
m0 - Minimum necessary fresh air flow into the installation area at Pz max., m^3 /h	(5)	420	450	470	510
S0 - Minimum necessary net cross-section for m0, cm^2	(6)	1250	1350	1420	1530
P2 max - Maximum pressure at zero flow, Pa		320			
T2 - Maximum steam exhaust temperature, °F [°C]		140 [60]		185 [85]	
(1) Static pressure measured at P.					
(2) Valid for the 50 Hz version; refer to *Exhaust System Connection (For Gas-Heated Machines).*					
(3) Valid for the 60 Hz version (not CSA vesion); refer to *Exhaust System Connection (For Gas-Heated Machines).*					
(4) Valid for a cold machine in operating stage which does not include pre-heating.					
(5) The value reflects the air capacity requirement for version G: 2 m^3/h to 1 kW of power.					
(6) Valid for dp = 4 Pa (outdoor temperature) (room temperature).					

Table 9

- The machines are delivered in two steam exhaust versions:
  - A – steam exhaust backwards: *Figure 11*
  - B – steam exhaust to the right side: *Figure 12*
  - The dimension and other parameters that concern the installation of the exhaust system are shown in the figures above, in *Figure 11* , *Figure 12* , *Figure 13* and in *Table 10* , *Table 4* , *Table 9*.
- If the machine version does not correspond with your requirements for the output pipeline, either version (A or B) can be rebuilt to become the other.
  - The change of exhaust version from one to the other is described in *Rebuilding the Steam-Exhaust Outlet.*
  - The machine should only be rebuilt by an authorized service technician with a relevant permit from the manufacturer.
- The steam exhaust must be led separately from any other piping and it must be installed according to *Figure 11* or *Figure 12* by the shortest way outside the building.
- The diameter of the exhaust piping must not be smaller than the outlet from the machine, i.e. 5.9 in. [150 mm] . For E versions – use galvanised sheet metal as a minimum requirement. For G versions stainless sheet metal (a smooth internal surface is advisable).
- The permitted static pressure (Pz) within the range stated in *Table 9* must be measured at the measuring point, P; it represents the permitted resistance (loss of pressure) of the entire exhaust system.
  - If the required pressure loss Pz of the exhaust system is low, the ironer can be fitted with an additional exhaust flap valve (length 11.8 in. [300 mm]) with measuring

point P, (code: SP547192) – special accessories, supplied with the machine from 1 Jan 2016.

- If the required pressure loss Pz of the exhaust system is high, the system must be fitted with an auxiliary exhaust fan, for further information refer to *Exhaust System Connection (For Gas-Heated Machines)*.
- Parameter Pz (Static Pressure) is valid for a cold run of the machine (measured and installed without the intervention of heating).

Installation of Multiple Ironers

Joint Exhaust System for Several Ironers

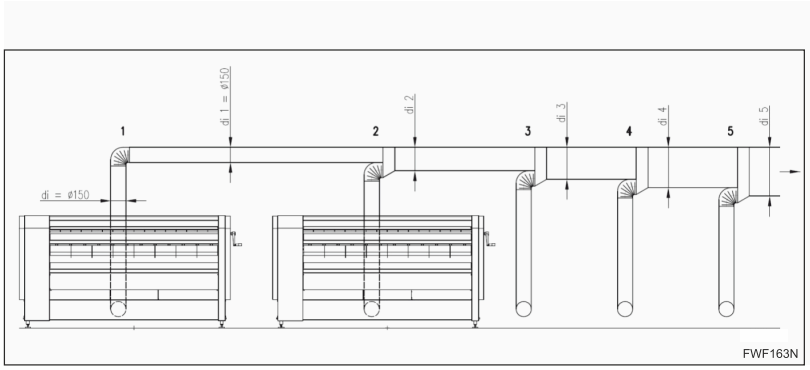


Figure 13

Parameters to *Figure 13*					
Number of Ironers (Steam Exhaust)	1	2	3	4	5
Minimum Internal Diameter - in. [mm]	5.91 [150]	8.66 [220]	11.02 [180]	13.78 [350]	15.75 [400]

Table 10

- If several ironers are installed for one joint exhaust pipeline, the pipeline has to be executed in such a way so that each machine works with the same (the lowest, if possible) value of air resistance.
- For any installation of multiple ironers, the following condition must be met: the specified operating range of pressure loss (Pz) must be complied for each individual branch of the exhaust system (measured at the P points).
- Manifold duct must be tapered, refer to *Figure 14*. Individual ironer duct must enter manifold duct at a 45°angle in the direction of airflow.

  NOTE: Never connect ironer duct at a 90°angle to a collector duct. Refer to *Figure 14*. Doing so will cause excessive back pressure, resulting in poor performance. Never connect two ironer exhaust duct directly across from each other at the point of entry to manifold duct.

Manifold Duct

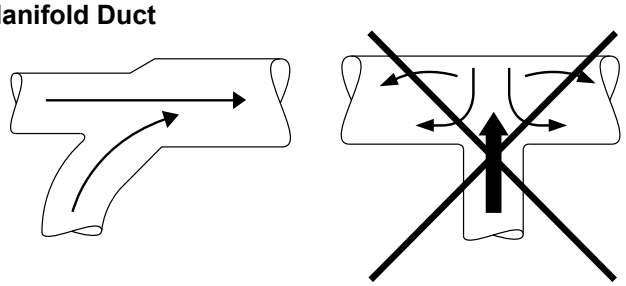


Figure 14

- Exhaust system must be designed so static back pressure measured 11.8 in. [300 mm] from exhaust thimble does not exceed maximum allowable pressure. This must be measured with all ironers running that are vented into collector.

WARNING

CHECK FOR LEAKAGE BETWEEN THE INDIVIUDAL JOINTS OF THE EXHAUST SYSTEM.

C040

Electric Connection

WARNING

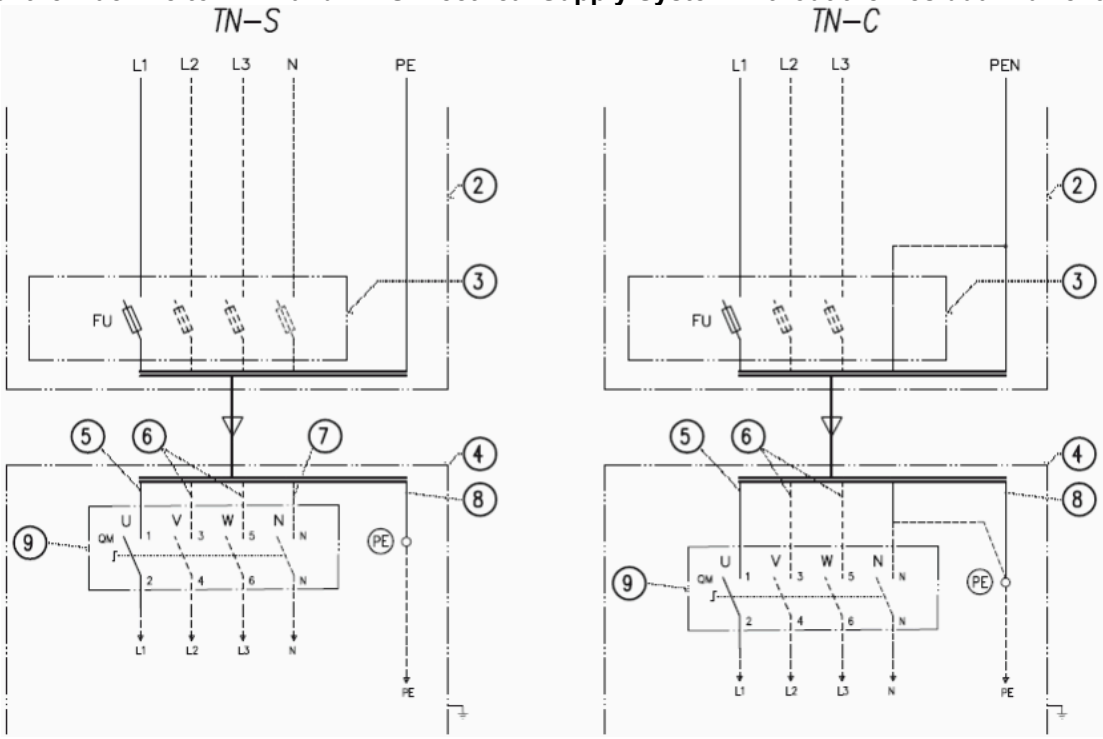
The machine must be connected to the power supply, earthing (ground), and ventilation / gas supply according to the installation manual and local standards. The connection must be executed by qualified person(s). The regulations valid for the connection to the local electrical supply system (TT / TN / IT etc.) Must be observed.

C041

Connection of Machine (Without Residual Current Device) - Execution (N, C, U, H)

- The machine is designed for the connection to electric distribution network according to the specifications in the order.
- It is connected to four-conductor (TN-C) and five-conductor (TN-S) three-phase electric distribution networks with voltages of :
  - 380-415V 50/60Hz
  - 440V 60Hz
  - 208-240V/50-60Hz
- There is a one-phase version for gas heated machines for systems of 208-240V/50-60Hz.
- The connection to individual electrical supply system is shown in *Figure 16*.
- If the machine is not equipped with the main switch, all electric feeds from the power supply must be equipped with a disconnecting device according to standard EN 60204-1, refer to Operating Supplements.

Connection of the Machine to TN-C and TN-S Electrical Supply System without the Residual Current Device



2. Laundry electrical switchboard
3. Fusing of power supply
4. Ironer
5. Phase conductor
6. Phase conductors
7. Neutral conductor
8. Protection conductor
9. Main switch = inlet teminal

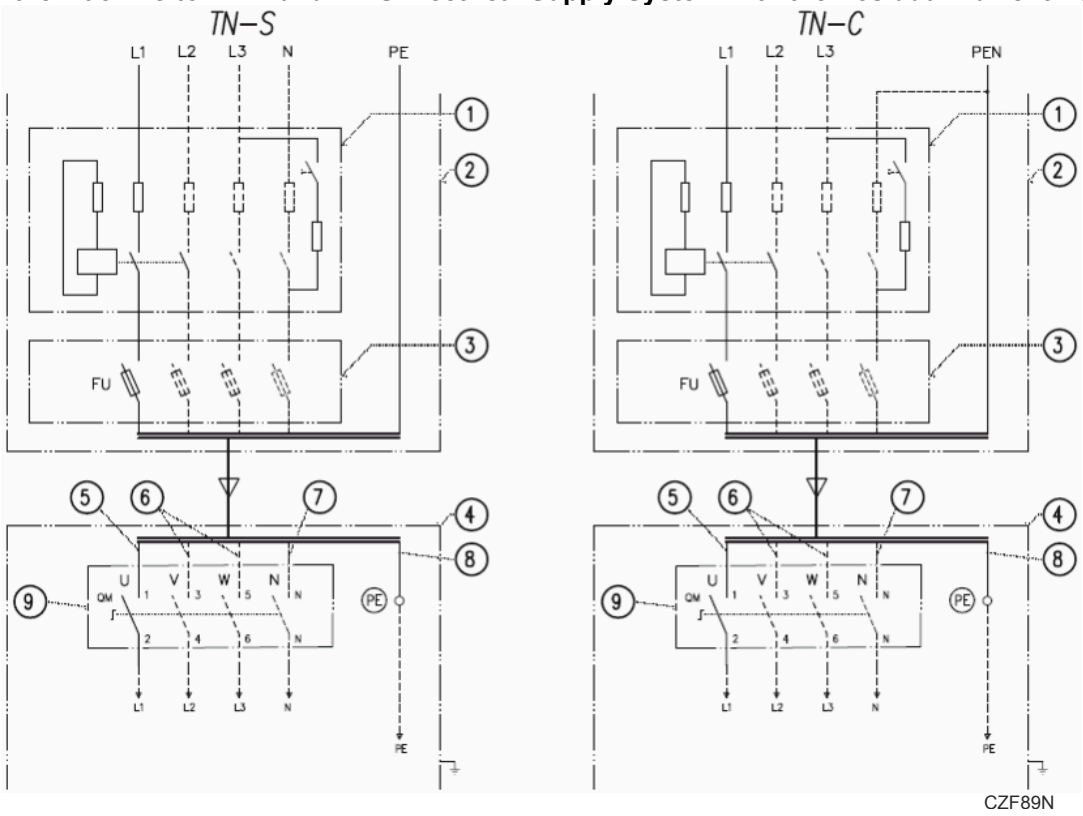
Figure 15

- Before you connect the machine, check that the voltage and frequency values on the serial plate of the machine correspond with your network.
- Make sure that the supply voltage is always and under any circumstances within the acceptable range of the limits (refer to *Table 4*).
- If there are large distances in your electric installation, you will probably have to use cables with larger crosssections to reduce any voltage loss.
- If the machine is connected to the network near a high-performance transformer (500 kVA and more within the distance of up to 32.81 ft [10 m]) or near a capacitive phase shift compensator, it is necessary to connect an induction step-back relay into the supply feed otherwise the frequency convertor may be damaged. Contact your distributor for more information.

Connection of Machine (With Residual Current Device) - Execution (N, C, U, H)

- We recommend installing a residual current device in the laundry room in order to increase the safety of operators or service workers during maintenance and work on the electric devices of the machine.
- The main contacts of the protector must correspond with the specified input of the machine. The connection of the residual current device and connection of the machine to such an electrical supply system is shown in *Figure 16*.

Connection of the Machine to TN-C and TN-S Electrical Supply System with the Residual Current Device



1. Residual Current Device (RDC)
2. Laundry electrical switchboard
3. Fusing of power supply
4. Ironer
5. Phase conductor
6. Phase conductors
7. Neutral conductor
8. Protection conductor
9. Main switch = inlet terminal

Figure 16

WARNING

IF THE NATIONAL STANDARD OR DIRECTIVE (EN 60519) MUST BE OBSERVED AT THE PLACE OF INSTALLATION, THE OPERATION OF THE MACHINE MUST BE PROTECTED WITH A PRELIMINARY RESIDUAL CURRENT DEVICE.

C368

Residual Current Device (RCD) (Ground / Earth Leakage Trips)

- Parameters:
  - Maximum Current (A)
  - Residual current device, minimum rated current (A) are shown in *Table 4* as:
  - Nominal Current IN (A)
  - Branch Circuit Fuse (A)

In some countries, an RCD is known as an Earth Leakage Trip, Ground Fault Circuit Interrupter (GFCI), Appliance Leakage Current Interrupter (ALCI) or Earth (Ground) Leakage Current Breaker.

- Specifications:
  - Actuating current: 100mA (if not available/permitted, use 30mA current, preferably a selective type with a time lag.
  - Do not install more than two machines per 1 RCD (only 1 machine in case of 30mA).
  - Type B. There are components inside the machine that use DC voltage and thus “Type B” RCD is required. (Type B has a better output than Type A and Type A is better than Type AC).
- RCD must be installed if local regulations or standards require so.
- RCD might not be permitted in certain electrical network systems (IT, TN-C, etc.) – refer to also the IEC 60364 standard.
- Some washer control circuits are supplied with a separating transformer. Therefore, the RCD may not detect faults in the control circuits (but the fuse(s) on the separating transformer will).

WARNING

Grounding: In event of malfunction, breakdown or leakage current, grounding will reduce the risk of electrical shock and serve as a protecting device by providing a path of least resistance of electrical current. Therefore, it is very important and the responsibility of the installer to assure the washer is adequately grounded at installation, following all national and local requirements.

W902

Supply Conductors and Protection

- The supply conductors or cords that connect the machine to the electrical supply system must have copper core conductors.
- The cross-section of the supply conductors depends on the method of heating and on the overall electric input of the machine.
- The short circuit or overload protection of the supply cable must be ensured by circuit breakers or fuses in the distributor of the laundry room.
- The recommended fuse values for the supply protection for the individual machine versions are shown in *Table 4* .
- The recommended cross-sections of the supply conductors are shown in *Table 11* .
  - Nominal Current IN (A)
  - Branch Circuit Fuse (A)

Recommended Cross-Sections

Recommended Cross-Sections			
Supply Protection (US)		Minimum cross-section of phase conductors (mm²) (AWG)	Minimum cross-section of the protective conductor (mm²) (AWG)
Circuit Breaker (A)	Fuses (A)		
16 (15)	10 (10)	1.5 (AWG 14)	1.5 (AWG 14)
20 (20)	16 (15)	2.5 (AWG 13)	2.5 (AWG 13)
25 (-)	20 (20)	4 (AWG 11)	4 (AWG 11)
40 (40)	32 (30)	6 (AWG 9)	6 (AWG 9)
63 (-)	50 (50)	10 (AWG 6)	10 (AWG 6)
80	63	16 (AWG 3)	16 (AWG 6)
100	80	25 (AWG 2)	16 (AWG 6)
125	100	35 (AWG 1)	25 (AWG 6)

Table 11

Cable Preparation - Execution (N, C, U, H)

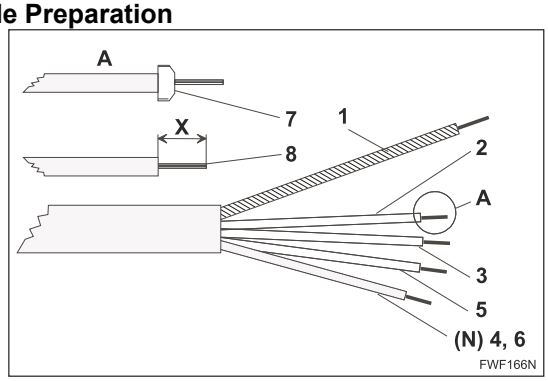
WARNING

THE MACHINE IS DESIGNED ONLY FOR A FIXED FEED POWER SUPPLY!

C046

- Use a cable or cord with copper conductors for the connection. Adjust the ends of the conductors as shown in the following figure (*Figure 17*).
- Always leave the green-yellow conductor (protective) a bit longer so that it is disconnected as the last one in case the cable is pulled out accidentally.
- If using a cable (solid copper conductors), strip the insulation of individual cores only to such a length so that the stripped parts do not protrude from the terminal after the conductor has been connected to the machine (8 - dimension “X”).
- When using a cord (stranded copper conductors), you can strip the insulation of the individual cores in the same way as in the cable or you can use pressing ferrules (7). If so, you must use ferrules with insulated necks so that contact with the live part is prevented after the connection of the conductor.

Cable Preparation



1. Green – yellow – protective conductor
2. Black – phase conductor
3. Brown – phase conductor (three-phase version)
4. Blue – neutral conductor (one-phase version)
5. Black (Grey) – phase conductor (three-phase version)
6. Blue – neutral conductor (three-phase version, 380-415V + N)
7. The neck of the pressing ferrule must be insulated so that contact with the live part (conductor) is prevented when the main switch is off.
8. Strip the insulation of the supply cable conductors so that the stripped parts do not protrude from the main switch clamp (supply terminal).

Figure 17

Tautness of the Supply Cable

- You can bring the cable to the machine in two ways:
  - From the cable channel (from below)
  - From the cable grid (from above)
- If you bring the cable from above, you should prevent the cable from slacking in front of the cable bushing inlet; refer to *Figure 18*. This will protect the bushing or the machine from condensed water running down.

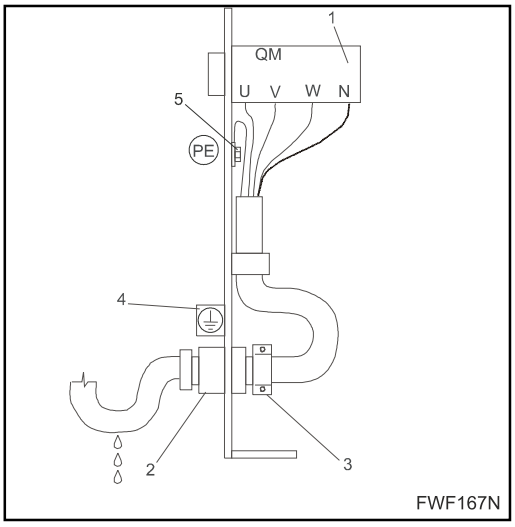
Mechanical Protection of the Cable

- When you run the cable through the bushing. Refer to *Figure 18*, tighten the bushing sealing nut. This will compress the rubber ring in the bushing which mechanically protects the cable and also serves as sealing against water.
- If the mechanical protection is not sufficient, use a safety cleat 3.

Point of Connection - Execution (N, C, U, H)

- The supply cable´s point of connection is located on the main switch of the machine. Refer to *Figure 18*. The phase terminals are marked "U", "V" and "W".
- Connect the protective conductor directly to the earthing terminal (ground), located on the inner left side of the machine. The terminal is marked "PE".

Supple Cable



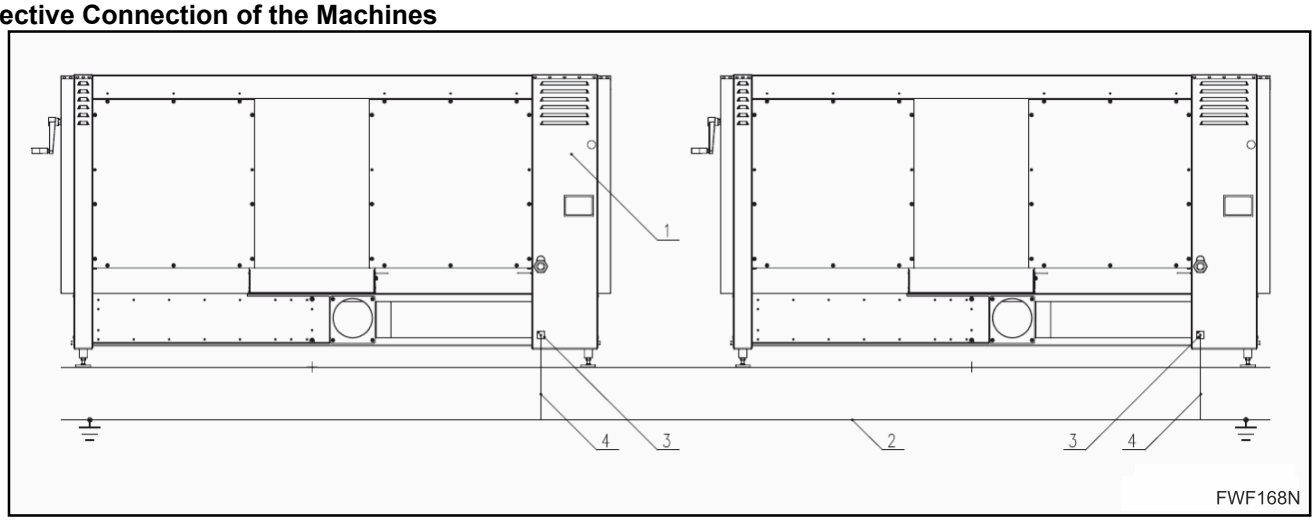
1. Main switch
2. Bushing
3. Safety Cleat
4. External earthing terminal (ground)
5. Internal earthing terminal (ground)

Figure 18

Protective Connection of Machine (Grounding)

- For security reasons, the machine has to be connected to the protective connection of the laundry room. For this purpose, use the external earthing terminal of the machine (4) in *Figure 19* located on the back bottom left side of the machine.
- The protective conductor for this connection is not included in the delivery of the machine.
- The cross-section of the protective conductor must correspond with the values in *Table 11* .
- If the cross-section of the supply cable is smaller than 0.004 sq in. [2.5 mm²] , we recommend selecting a conductor with a minimum cross-section of 0.006 sq in. [4 mm²] for the protective connection.
- The protective connection also eliminates the adverse effects of static electricity on the machine operation.

Protective Connection of the Machines



1. Machine, rear view
2. Protective connection of the laundry room
3. External earthing terminal of the machine
4. Protective conductor, connection of the machines

Figure 19

Gas Heating (Only Applicable to Machines with Gas Heating)

WARNING

IT IS MANDATORY THAT THE INSTALLATION OR REPAIRS OF THE GAS SYSTEM ARE DONE BY AN AUTHORIZED COMPANY ONLY. ALL USED MATERIALS AND THE GAS INSTALLATION OF THE MACHINE MUST BE IN COMPLIANCE WITH STANDARDS-VALID IN THE COUNTRY IN WHICH THE MACHINE IS USED.

C047

- Each machine is specified for use only with the type of gas stated on its serial plate (refer to *Serial Plate Information*).
- Never use different type of gas or different working connecting pressure of gas from what is stated on the serial plate (refer to chapter *Serial Plate Information*).
- Generally speaking, it is forbidden to install gas-heated machines in cellars or rooms that have insufficient air ventilation (refer to chapter *Connection to Steam Exhaust*). Please consult the company which provides the gas for further information.
- The machine must be installed in compliance with standards valid in the particular country.
- In order to increase safety of the gas equipment, it is important to install a gas-leak detector near the equipment.
- It is mandatory to place a dry-powder extinguisher in a visible place near the ironer. The extinguisher must be at least 26.455 lb [12 kg] in size.

Installation of Gas Connection

- The installation company must carry out the connection of the machine to the gas system according to the laundry room´s design.
- The machine is factory-set according to the type of gas stated in the purchase order. For possible options please refer to the following to *Table 12.*
  - The table shows basic overview. The manufacturer reserves the right to changes.
  - For complete information including configuration data for gas version of machine read instruction on gas configuration:
    - *Table 13*

Basic Permitted Types of Gases and Pressure Values			
HEATING →			
APPLIANCE CATEGORY (CE)	**GAS**	**GAS TYPE**	**GAS SUPPLY PRESSURE NOMINAL**
EN 437:2003+A1:2009		**EU GAS TYPE:**	**mbar**
I 1a	TG	G110	8
I 2E, I 2H	NG	G20	20
I 2H		G20	25
I 2L		G25	20, 25
I 2LL		G25	20
I 2S		G25.1	25
I 2E+		G20 ↔ G25	20 ↔ 25
I 3+	LPG	G30 ↔ G31	30 ↔ 37
I 3B/P		G30 - G31	50
I 3B/P		G30 - G31	30
I 3P		G31	50
I 3P		G31	37

Table 12

- The opening for gas connection is located in the rear wall of the left stand. Refer to the Technical Parameters table and the External Machine Dimensions Diagram *Figure 4* , *Table 4*.
- Before assembly / disassembly of the external connection pipe to / from the opening for gas connection G ¾, the left side cover must be removed first. Refer to *Putting the Machine into Operation*.
- The opening for gas connection is designed only for use with external connecting pipe with a cap nut G ¾ fitted with gasket that is resistant to the used gases.
- In order to assure correct working pressure, install an external gas pressure reducing valve-regulator near each machine. This will adjust the pressure inside the piping to the specified operating pressure. The valve is not supplied with the machine.
  - Installation of the reduction valve is necessary in case the gas connection pressure would ever exceed the permitted value.
  - Refer to *Table 12* for gas connecting operating pressure. This is the pressure of the gas at open gas valve and stable burning of the gas burner.
- Install a manual gas valve to an easily accessible place, making sure that the piping from the valve to the machine´s connecting point is no greater than 6.56 ft. [2 m] (max). (the valve is not supplied with the machine).
- Install a pressure gauge between the machine´s pressure-reducing valve and the manual valve. The pressure gauge serves the purpose of inspecting the pressure value.
- The piping between the manual valve and the machine must be fixed and of sufficient gas flow necessary for each machine. Make sure that the inner diameter of the incoming pipe connected to the machine is not smaller than ¾ in. [min. 19.0 mm] - which applies to the whole length of the pipe. The connections must always be fitted with a leak-proof sealant of material which is resistant to the utilized gas.

Installation for EU (CE)							
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Gas Settings Parameters**		
					CTRL Unit	**Venturi Unit**	**Orifice**
	-	**-**	**EN437+A1**	**PG1**	**ESYS data par.**	**ASP (5)**	**Diameter**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**Code (3)**	**Code (2)**	**Code**
					Code (4)	**mm/100 ± 0.05**	**in. [mm]**
DENMARK (DK), ITALY (IT), SWEDEN (SE)	1664	I 1a	G110	8	561025	561006	-
					561045	1448	-
	2080				561025	561006	-
					561045	1448	-

continues...

Table 13

Installation for EU (CE)							
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Gas Settings Parameters**		
					CTRL Unit	**Venturi Unit**	**Orifice**
	-	**-**	**EN437+A1**	**PG1**	**ESYS data par.**	**ASP (5)**	**Diameter**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**Code (3)**	**Code (2)**	**Code**
					Code (4)	**mm/100 ± 0.05**	**in. [mm]**
AUSTRIA (AT), BULGARIA (BG), SWITZERLAND (CH), CYPRUS (CY), CZECH REPUBLIC (CZ), DENMARK (DK), ESTONIA (EE), SPAIN (ES), FINLAND (FI), GREAT BRITAIN (GB), GREECE (GR), CROATIA (HR), IRELAND (IE), ITALY (IT), LITHUANIA (LT), LATVIA (LV), NORWAY (NO), PORTUGAL (PT), ROMANIA (RO), SWEDEN (SE), SLOVENIA (SI), SLOVAKIA (SK), TURKEY (TR)	1664	I 2H	G20	20	561020	561005	-
					561040	0507	-
	2080				561021	563607	-
					561041	0466	-
GERMANY (DE), LUXEMBOURG (LU), POLAND (PL)	1664	I 2E	G20	20	561020	561005	-
					561040	0507	-
	2080				561021	563607	-
					561041	0466	-
ROMANIA (RO)	1664	I 2E, 2H	G20	20	561020	561005	-
					561040	0507	-
	2080				561021	563607	-
					561041	0466	-
HUNGARY (HU)	1664	I 2H	G20	25	561020	561005	-
					561040	0507	-
	2080				561021	563607	-
					561041	0466	-

continues...

Table 13

Installation for EU (CE)							
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Gas Settings Parameters**		
					CTRL Unit	**Venturi Unit**	**Orifice**
	-	**-**	**EN437+A1**	**PG1**	**ESYS data par.**	**ASP (5)**	**Diameter**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**Code (3)**	**Code (2)**	**Code**
					Code (4)	**mm/100 ± 0.05**	**in. [mm]**
BELGIUM (BE), FRANCE (FR)	1664	I 2E+	G20↔G25	20↔25	561020	561005	-
					561040	0507	-
	2080				561021	563607	-
					561041	0466	-
ROMANIA (RO)	1664	I 2L	G25	20	561020	561000	-
					561040	0736	-
	2080				561021	561002	-
					561041	0706	-
NETHERLAND (NL)	1664	I 2L	G25	25	561020	561000	-
					561040	0736	-
	2080				561021	561002	-
					561041	0706	-
GERMANY (DE)	1664	I 2LL	G25	20	561020	561000	-
					561040	0736	-
	2080				561021	561002	-
					561041	0706	-
HUNGARY (HU)	1664	I 2S	G25.1	25	561020	561001	-
					561040	0835	-
	2080				561022	561000	-
					561042	0736	-

continues...

Table 13

Installation for EU (CE)							
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Gas Settings Parameters**		
					CTRL Unit	**Venturi Unit**	**Orifice**
	-	**-**	**EN437+A1**	**PG1**	**ESYS data par.**	**ASP (5)**	**Diameter**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**Code (3)**	**Code (2)**	**Code**
					Code (4)	**mm/100 ± 0.05**	**in. [mm]**
BELGIUM (BE), SWITZERLAND (CH), CZECH REPUBLIC (CZ), SPAIN (ES), GREAT BRITAIN (GB), GREEK (GR), CROATIA (HR), IRELAND (IE), ITALY (IT), LITHUANIA (LT), NETHERLAND (NL), POLAND (PL), PORTUGAL (PT), ROMANIA (RO), SLOVENIA (SI), SLOVAKIA (SK)	1664	I 3P	G31	37	561020	533607	579623
					561040	0466	5.2/
	2080				561023	563608	579623
					561043	0423	5.2/
AUSTRIA (AT), BELGIUM (BE), SWITZERLAND (CH), CZECH REPUBLIC (CZ), GERMANY (DE), SPAIN (ES), FRANCE (FR), GREAT BRITAIN (GB), GREEK (GR), NETHERLAND (NL), SLOVAKIA (SK)	1664	I 3P	G31	50	561020	563607	579623
					561040	0466	5.2/
	2080				561023	563608	579623
					561043	0423	5.2/

continues...

Table 13

Installation for EU (CE)							
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Gas Settings Parameters**		
					CTRL Unit	**Venturi Unit**	**Orifice**
	-	**-**	**EN437+A1**	**PG1**	**ESYS data par.**	**ASP (5)**	**Diameter**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**Code (3)**	**Code (2)**	**Code**
					Code (4)	**mm/100 ± 0.05**	**in. [mm]**
BULGARIA (BG), CYPRUS (CY), CZECH REPUBLIC (CZ), DENMARK (DK), ESTONIA (EE), FINLAND (FI), FRANCE (FR), GREEK (GR), CROATIA (HR), HUNGARY (HU), ITALY (IT), LITHUANIA (LT), LATVIA (LV), MALTA (MT), NETHERLAND (NL), NORWEY (NO), ROMANIA (RO), SWEDEN (SE), SLOVENIA (SI), SLOVAKIA (SK), TURKEY (TR)	1664	I 3B/P	G30 - G31	30	561024	561004	579623
					561044	0212	5.2/
	2080				561022	561003	579623
					561042	0188	5.2/
POLAND (PL)	1664	I 3B/P	G30 - G31	37	561024	561004	579623
					561044	0212	5.2/
	2080				561022	561003	579623
					561042	0188	5.2/
AUSTRIA (AT), SWITZERLAND (CH), GERMANY (DE), FRANCE (FR), HUNGARY (HU)	1664	I 3B/P	G30 - G31	50	561024	561004	579623
					561044	0212	5.2/
	2080				561022	561003	579623
					561042	0188	5.2/

continues...

Table 13

Installation for EU (CE)							
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Gas Settings Parameters**		
					CTRL Unit	**Venturi Unit**	**Orifice**
	-	**-**	**EN437+A1**	**PG1**	**ESYS data par.**	**ASP (5)**	**Diameter**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**Code (3)**	**Code (2)**	**Code**
					Code (4)	**mm/100 ± 0.05**	**in. [mm]**
BELGIUM (BE), SWITZERLAND (CH), CYPRUS (CY), CZECH REPUBLIC (CZ), ESTONIA (EE), SPAIN (ES), FRANCE (FR), GREAT BRITAIN (GB), GREEK (GR), IRELAND (IE), ITALY (IT), LITHUANIA (LT), LATVIA (LV), PORTUGAL (PT), SLOVENIA (SI), SLOVAKIA (SK), TURKEY (TR)	1664	I 3+	G30 ↔ G31	30 ↔ 37	561024	561004	579623
					561044	0212	5.2/
	2080				561022	561003	579623
					561042	0188	5.2/

Table 13

Installation for EU (CE)								
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Consumption / Heating power**			**Gas kit No.**
					value + / - 5 %		**Rounded Value**	
	-	**-**	**EN437+A**	**PG1**	**Mn/Vn**		**Qn + tol.**	**Code**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**m3 / h**	**kg / h**	**Qn(Hi) - kW ± 5%**	**-**
DENMARK (DK), ITALY (IT), SWEDEN (SE)	1664	I 1a	G110	8	5.95	-	23.50	561070
							-	
	2080				6.25	-	24.50	561070
							-	

continues...

Table 14

Installation for EU (CE)								
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Consumption / Heating power**			**Gas kit No.**
					value + / - 5 %		**Rounded Value**	
	-	**-**	**EN437+A**	**PG1**	**Mn/Vn**		**Qn + tol.**	**Code**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**m3 / h**	**kg / h**	**Qn(Hi) - kW ± 5%**	**-**
AUSTRIA (AT), BULGARIA (BG), SWITZERLAND (CH), CYPRUS (CY), CZECH REPUBLIC (CZ), DENMARK (DK), ESTONIA (EE), SPAIN (ES), FINLAND (FI), GREAT BRITAIN (GB), GREECE (GR), CROATIA (HR), IRELAND (IE), ITALY (IT), LITHUANIA (LT), LATVIA (LV), NORWAY (NO), PORTUGAL (PT), SWEDEN (SE), SLOVENIA (SI), SLOVAKIA (SK), TURKEY (TR)	1664	I 2H	G20	20	2.55	-	24.50 -	561060
	2080				3.18	-	30.50 -	561061
GERMANY (DE), LUXEMBOURG (LU), POLAND (PL)	1664	I 2E	G20	20	2.55	-	24.50 -	561060
	2080				3.18	-	30.50 -	561061
ROMANIA (RO)	1664	I 2E, 2H	G20	20	2.55	-	24.50	561060
	2080				3.18	-	30.50	561061
HUNGARY (HU)	1664	I 2H	G20	25	2.55	-	24.50 -	561060
	2080				3.18	-	30.50 -	561061
BELGIUM (BE), FRANCE (FR)	1664	I 2E+	G20↔G25	20↔25	2.55/2.44 (7) ≤ 2.55	-	(7) ≤ 24.50 -	561060

continues...

Table 14

Installation for EU (CE)								
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Consumption / Heating power**			**Gas kit No.**
					value + / - 5 %		**Rounded Value**	
	-	**-**	**EN437+A**	**PG1**	**Mn/Vn**		**Qn + tol.**	**Code**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**m3 / h**	**kg / h**	**Qn(Hi) - kW ± 5%**	**-**
	2080				3.18/3.05 (7) ≤ 3.18	-	(7) ≤ 30.50 -	561061
ROMANIA (RO)	1664	I 2L	G25	20	3.01	-	24.50 -	561062
	2080				3.72	-	30.50 -	561063
NETHERLAND (NL)	1664	I 2L	G25	25	3.01	-	24.50 -	561062
	2080				3.72	-	30.50 -	561063
GERMANY (DE)	1664	I 2LL	G25	20	3.01	-	24.50 -	561062
	2080				3.72	-	30.50 -	561063
HUNGARY (HU)	1664	I 2S	G25.1	25	2.98	-	24.50 -	561064
	2080				3.75	-	30.50 -	561065

continues...

Table 14

Installation for EU (CE)								
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Consumption / Heating power**			**Gas kit No.**
					value + / - 5 %		**Rounded Value**	
	-	**-**	**EN437+A**	**PG1**	**Mn/Vn**		**Qn + tol.**	**Code**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**m3 / h**	**kg / h**	**Qn(Hi) - kW ± 5%**	**-**
BELGIUM (BE), SWITZERLAND (CH), CZECH REPUBLIC (CZ), SPAIN (ES), GREAT BRITAIN (GB), GREEK (GR), CROATIA (HR), IRELAND (IE), ITALY (IT), LITHUANIA (LT), NETHERLAND (NL), POLAND (PL), PORTUGAL (PT), ROMANIA (RO), SLOVENIA (SI), SLOVAKIA (SK)	1664	I 3P	G31	37	1.0	1.84	24.50	561066
							-	
	2080				1.24	2.28	30.50	561067
							-	
AUSTRIA (AT), BELGIUM (BE), SWITZERLAND (CH), CZECH REPUBLIC (CZ), GERMANY (DE), SPAIN (ES), FRANCE (FR), GREAT BRITAIN (GB), GREEK (GR), NETHERLAND (NL), SLOVAKIA (SK)	1664	I 3P	G31	50	1.01	1.86	24.50	561066
							-	
	2080				1.24	2.28	30.50	561067
							-	

continues...

Table 14

Installation for EU (CE)								
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Consumption / Heating power**			**Gas kit No.**
					value + / - 5 %		**Rounded Value**	
	-	**-**	**EN437+A**	**PG1**	**Mn/Vn**		**Qn + tol.**	**Code**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**m3 / h**	**kg / h**	**Qn(Hi) - kW ± 5%**	**-**
BULGARIA (BG), CYPRUS (CY), CZECH REPUBLIC (CZ), DENMARK (DK), ESTONIA (EE), FINLAND (FI), FRANCE (FR), GREEK (GR), CROATIA (HR), HUNGARY (HU), ITALY (IT), LITHUANIA (LT), LATVIA (LV), MALTA (MT), NETHERLAND (NL), NORWEY (NO), ROMANIA (RO), SWEDEN (SE), SLOVENIA (SI), SLOVAKIA (SK), TURKEY (TR)	1664	I 3B/P	G30 - G31	30	0.77	1.85	(7) < 24.50	561068
							-	
	2080				0.95	2.28	(7) < 30.50	561069
							-	
POLAND (PL)	1664	I 3B/P	G30 - G31	37	0.77	1.85	(7) < 24.50	561068
							-	
	2080				0.95	2.28	(7) < 30.50	561069
							-	
AUSTRIA (AT), SWITZERLAND (CH), GERMANY (DE), FRANCE (FR), HUNGARY (HU)	1664	I 3B/P	G30 - G31	50	0.77	1.85	(7) < 24.50	561068
							-	
	2080				0.95	2.28	(7) < 30.50	561069
							-	

continues...

Table 14

Installation for EU (CE)								
Countries	**Length**	**Category**	**Gas Type**	**Gas Pressure**	**Consumption / Heating power**			**Gas kit No.**
					value + / - 5 %		**Rounded Value**	
	-	**-**	**EN437+A**	**PG1**	**Mn/Vn**		**Qn + tol.**	**Code**
	mm	**EN 437+A1**	**Gx**	**mbar/in wc**	**m3 / h**	**kg / h**	**Qn(Hi) - kW ± 5%**	**-**
BELGIUM (BE), SWITZERLAND (CH), CYPRUS (CY), CZECH REPUBLIC (CZ), ESTONIA (EE), SPAIN (ES), FRANCE (FR), GREAT BRITAIN (GB), GREEK (GR), IRELAND (IE), ITALY (IT), LITHUANIA (LT), LATVIA (LV), PORTUGAL (PT), SLOVENIA (SI), SLOVAKIA (SK), TURKEY (TR)	1664	I 3+	G30 ↔ G31	30 ↔ 37	0.77/0.89 (7) ≥ 0.77	1.85/1.62 (7) ≤ 1.85	(7) ≤ 24.50 -	561068
	2080				0.95/1.07 (7) ≥ 0.95	2.28/1.96 (7) ≤ 2.28	(7) ≤ 30.50 -	561069

Table 14

Legend to *Table 13* and *Table 14*	
Note Position	**Description**
(1)	Adjusted at temperature of ironing cylinder 68°F [20°C] , without active heating system
(2)	Code of adjusted Venturi manifold according etalon sample
(3)	Code of parameterized Control unit with the relevant parameters of file: ESYS data.par (4)
(4)	Code of data file that is intended for installation to the Control unit (3)
(5)	ASP = Adjustment Screw Position of adjusted Venturi manifold (2)

continues...

Table 15

Legend to *Table 13* and *Table 14*	
Note Position	**Description**
(7)	Data refer to the gas with higher calorific value

Table 15

ASP = Adjustment Screw Position of Adjusted Venturi Manifold (2)

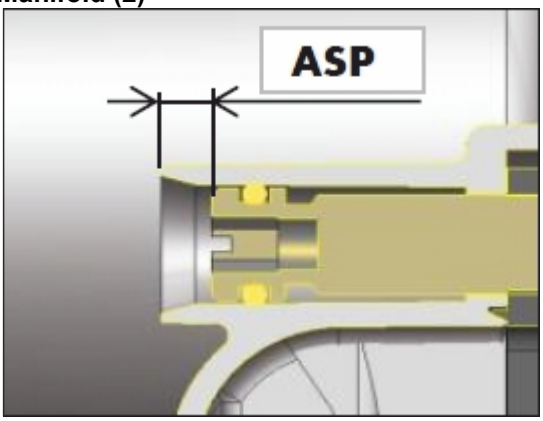


Figure 20

Exhaust System Connection (For Gas-Heated Machines)

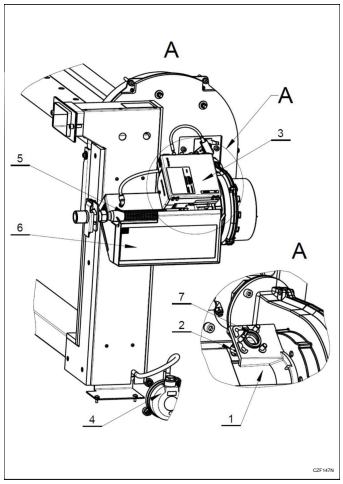
- Refer to *Connection to Steam Exhaust*, *Table 9*.
- In addition, for the gas heated machines the specified value of permitted loss of pressure on the side of the exhaust (pz) must be adhered to .
  - *Table 9* (2), (3) is a parameter that is valid for a cold run of the machine (measured and installed without the intervention of heating).
  - The whole gas heating system is set and type-approved at this permissive range of flue (exhaust) system resistance. At this range; the heating system shows optimal parameters as regards the gas consumption, performance, gas combustion emissions and operational safety.
  - If, after the installation and before the machine is started with heating for the first time, the loss of pressure is lower than the permitted value, then it is necessary to increase the flue (exhaust) system resistance (extend the length of the piping, install components with higher resistance, install a screen on the outlet of the flue piping etc.).
  - If, after the installation and before the machine is started with heating for the first time, the loss of pressure is higher than the permitted value, then it is necessary to decrease the flue (exhaust) system resistance (shorten the length of the piping, install components with lower resistance, install an auxiliary exhaust fan on the outlet of the flue piping etc.).
- The parameter pz is of a fundamental importance for the correct functionality of the gas heated machines:
  - In case that the flue (exhaust) system is outside the permissive pz range, a change of the machine emission and consumption parameters occur. It may lead to problems with ignition of the flame or, as a consequence of excessively high resistance of the flue (exhaust) system, the gas heating is altogether prevented through the actuation of the safety air-flow switch that automatically switches the heating system off.
    - The Safety air-flow switch is activated (shuts down the heating system) when the resistance on the exhaust side, measured at the "P" point (refer to chapter *Connection to Steam Exhaust*, *Figure 11* and *Figure 12*), exceeds the value of pz max. at the operating temperature.

Operating Instructions (Machines with Gas-Heating)

NOTE: Refer to *Figure 21* for the following callout descriptions.

- The machine is fitted with a pressure gas burner. This needs constant fresh air flow through the grille, which is located in the left stand´s side cover.
- Refer to chapter *Exhaust System Connection (For Gas-Heated Machines)* for the minimum air flow necessary for gas-heating.
- Each individual type of gas and its respective gas operating connection pressure always has one exact setting of the throttle valve (2) of the Venturi tube (1) and one data / parameter set of the ESYS control unit (3) – refer to *Figure 21*. At the same time, each machine has the safety air-flow switch (4) set individually. This safety valve prevents the operation of the gas heating system in case that the resistance – max. loss of pressure on the exhaust side pz max refer to (*Table 9*) exceeds the permitted limit, or if it is damaged.
- All versions (LPG) are fitted by throttle orifice (7).
- It is prohibited to tamper with or modify in any way the setting or programming of the components. Refer to *Transition to Other Gas Type*.

Gas Heating



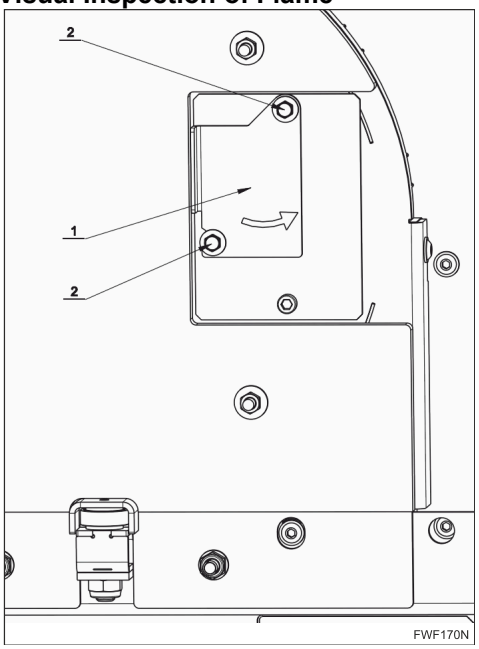
1. Venturi Tube
2. Throttle Valve
3. ESYS Control Unit
4. Safety Air-Flow Switch
5. Outgoing pipe
6. Suction Chamber
7. Throttle Orifice

Figure 21

- In the right front face of the heater - (*Figure 22*) - there is a lid for a short-term visual inspection of the flame.
  - After the right cover has been disassembled (*Figure 24*) and the two screws HEX8 (2) have been loosened, the lid (1), *Figure 22*, can be tilted.
  - It is prohibited to operate the machine with the tilted lid. Doing so would change machine emissions and efficiency in an essential manner.
  - For the purposes of servicing and inspections; the ordinary lid can be replaced by a special technological lid

with a probe for check measurements of gas combustion emissions.

Lid for Visual Inspection of Flame



1. Lid
2. Screw HEX8
3. Screw HEX8

Figure 22

- In the rear wall of the right stand, there is an outlet of residual waste heat (1) - (*Figure 23*).

WARNING

DO NOT COVER THE OUTLET. DOING SO WILL CAUSE RISK OF OVERHEATING.

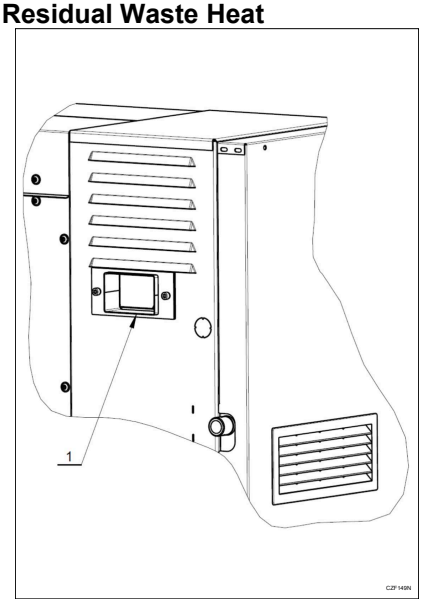
C171

WARNING

HOT AIR. THE TEMPERATURE OF THE OUTGOING AIR ON THE OUTLET MAY LOCALLY REACH 212°F [100°C] . DANGER OF BURNING!

C172

Outlet of Residual Waste Heat



1. Outlet of Residual Waste Heat

Figure 23

Transition to Other Gas Type

WARNING

IT IS MANDATORY THAT THE INSTALLATION OR REPAIRS OF THE GAS SYSTEM ARE DONE BY AN AUTHORIZED COMPANY ONLY. ALL USED MATERIALS AND THE GAS INSTALLATION OF THE MACHINE MUST BE IN COMPLIANCE WITH STANDARDS-VALID IN THE COUNTRY IN WHICH THE MACHINE IS USED.

C047

WARNING

IT IS PROHIBITED TO CHANGE THE TYPE OF GAS USED UNLESS THIS GAS IS AUTHORIZED BY THE MANUFACTURER AS SUITABLE FOR SUCH CONVERSION. THE CONVERSION MUST BE DONE BY A COMPANY THAT IS AUTHORIZED FOR THIS PURPOSE BY THE MANUFACTURER. CONVERSIONS TO ANY OTHER CATEGORIES, TYPES AND PRESSURES OF GAS OTHER THAN THOSE WHICH ARE SPECIFIED AND APPROVED BY THE MANUFACTURER, OR CONVERSIONS CARRIED OUT BY PERSONS/COMPANIES THAT ARE NOT AUTHORIZED TO DO SO BY THE MANUFACTURER ARE NOT ALLOWED. IN SUCH CASES THE MANUFACTURER WAIVES ALL RESPONSIBILITY FOR POTENTIAL DAMAGES.

C052

- Only a professionally qualified servicing company which holds the manufacturer's permission is allowed to carry out the machine conversion to a different gas type.
- The conversion method depends on the type of Premix head, refer to *Figure 21*, i.e: execution (N, C, U, H).
- The machine conversion is only allowed to be done by the replacement of so called Conversion kit which contains: (refer to *Figure 21*)
  - Set-up / Adjusted and sealed Venturi tube (1)
  - Coded control unit ESYS (3) with correctly set parameters
  - Throttle orifice (7) – i tis not included in all conversion kits
  - Correctly filled-in serial plate for conversion kit – refer to *Figure 3* - bottom part of label (parameters of gas kit).
- For complete information with data for verification of correct conversion kit components and information on possible configurations of gas version of the machine please refer to *Table 13*.
  - ASP = Adjustment Screw Position of Adjusted Venturi Manifold (2), refer to *Figure 21*.

TRANSITION TO OTHER GAS TYPE – EXECUTION (N, C, U, H), *Figure 21*, *Figure 3* :

- The machine is approved as a Category I machine, i.e. the customer/user is not allowed to convert it to a different category.
- Refer to Kit Instruction for gas transition, part no. 4-19-39.

Preparing the Machine for Operation

Removal of Side Covers

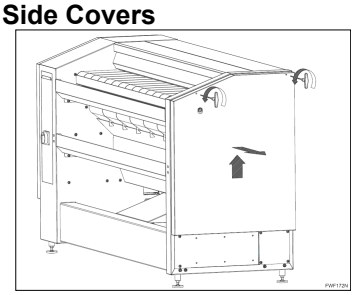


Figure 24

- Before starting the machine make sure that it has been installed (media supplies, steam exhaust, location of the machine, sufficient ventilation of the room etc.) according to the specified installation instructions. Make sure it follows the standards valid in the relevant country.
- Before putting the machine into operation, remove both side covers. Refer to *Figure 24*.

Putting the Machine into Operation

1. Remove the protective paper from the area between the ironing cylinder and ironing belts before the first activation of the machine. Use the hand crank to remove the protective paper. Refer to Operating Supplement.
   - Slowly turn the crank (refer to Operating Supplement) so that the ironing cylinder turns. The protective paper will come out in the space above the output trough. Remove the entire sheet of protective paper.
2. If the machine comes with a stop pedal, install it.

   NOTE: For the COIN / CPS (vended) versions refer to Operating Supplement.
3. Before the first activation of the ironer, manually run several pieces of dry linen through the machine. Impurities from the ironing cylinder may stick to the linen. The same recommendation applies to the first "hot" start of the machine.

WARNING

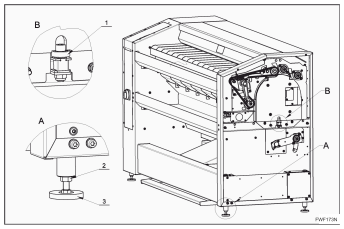
WHILE WORKING WITH COMBUSTIBLES DO NOT USE OPEN FIRE, DO NOT SMOKE AND DO NOT EAT. VENTILATE THE ROOM.

C055

4. Gradually insert the spanner (IMBUS HEX 4) into the two openings in the upper part of the side covers, so that it fits in the hidden screw inside the stand. Loosen each screw about 3 threads.
5. First the cover in the direction of the arrows and then slide it out of the machine.

6. Screw the hand crank on the pin as described in Operating Supplement. Push the crank pin into the mesh (direction P) and screw the crank with the right thread on the pin thread until it is tightened. Turning the crank to the right drives the entire machine.
7. Watch both pulleys of the axial control (1) of the ironing cylinder by slowly turning the crank, refer to *Figure 25*.

Supporting Pulleys and Front Adjustable Legs



1. Supporting Pulley
2. Nut
3. Adjustable Leg

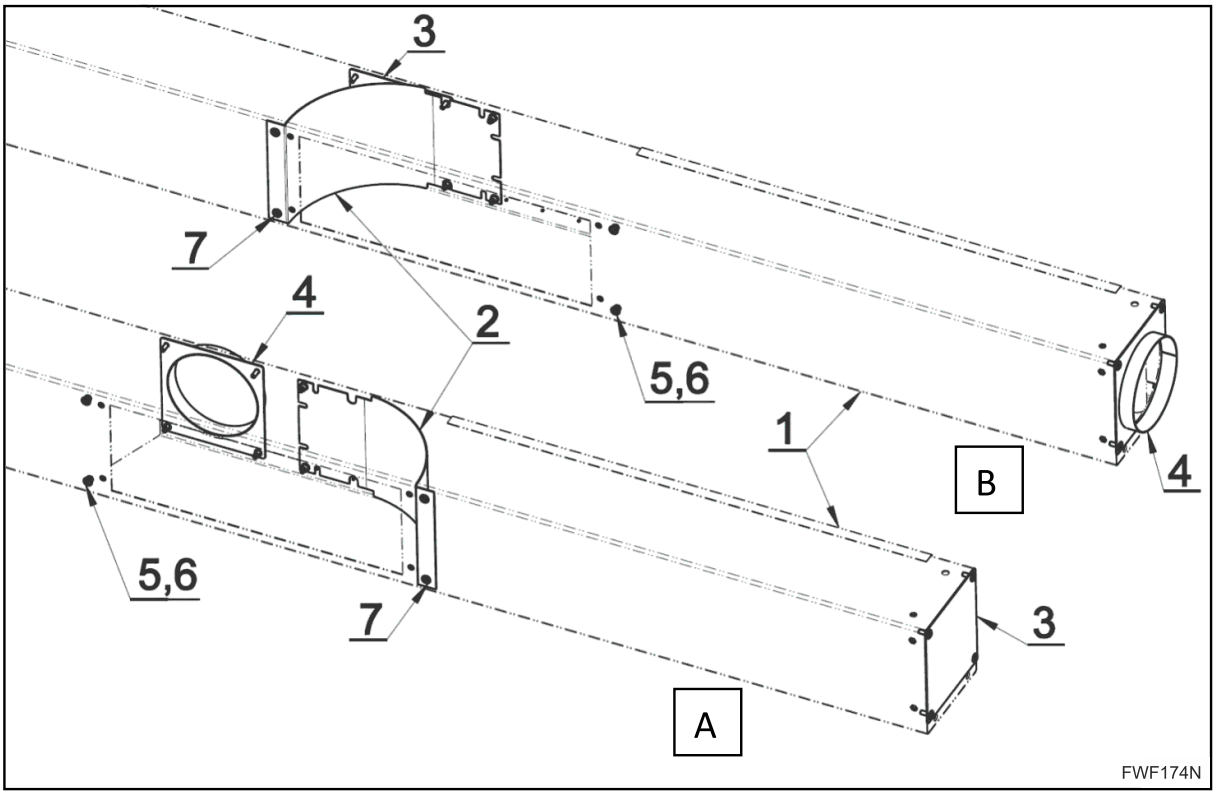
Figure 25

8. If the ironing cylinder quickly moves to one side of the machine so that bearing of the supporting pulley (1) starts turning, slowly execute (1/4 thread) a correction by the front adjustable leg:
   - loosen = unscrew = turn left lift the supporting leg on the side of the machine where the ironing cylinder touches the bearing of the supporting pulley or:
   - tighten = screw = turn right = lower the supporting leg on the other side of the machine than the side where the ironing cylinder touches the bearing of the supporting pulley.
9. The machine can be fitted (based on request - special accessories) by a set for fixing it to the floor. (Code of the set: SP549405). Installation and adjustment of the adjustable feet is obvious from the drawing that is supplied with the set.
10. When you find a neutral position of the ironing cylinder by adjusting the position of the front supporting legs (i.e. the ironing cylinder is not touching the bearing of the supporting pulley), secure the position of the front supporting legs by the nut (2).
11. With highest caution and with the side covers removed (without touching the internal parts of the machine) and to verify the function for a necessary period of time during the mode without heating, turn on the machine and:
    - Check visually, or by listening, that the machine is running without any obvious defects.
12. Put the covers back in a reverse way.

Rebuilding the Steam-Exhaust Outlet

- valid for execution (N, C, U, H), Gas and Electric heated
- The machines are supplied in two versions as far as the steam exhaust system is concerned. Refer to *Figure 26* and chapter *Connection to Steam Exhaust*.
  - A – steam exhaust backwards: *Figure 26* – version A and *Figure 1*.
  - B – steam exhaust to the right: *Figure 26* – version B and *Figure 12*.
  - The dimensions and other parameters related to installation of the exhaust system are described in chapter *Connection to Steam Exhaust*.
- In case that the version of machine does not meet your requirements as far as the outlet pipeline is concerned, it is possible to rebuild the machine from version A into version B or vice versa.
  - Change of the guide screen (2) position
  - Interchange of the screw plugs positions (5), (6) – 2 pcs
  - Interchange of the components (3) and (4)

Steam Exhaust



1. Steam Exhaust
2. Guide Screen
3. Cover
4. Lower Exhaust
5. Screw Plugs
6. Screw Plugs
7. Screw M6x16

Figure 26

- This rebuild can only be carried out by authorized service professionals with respective manufacturer authorization.

Operation

Control Keypad

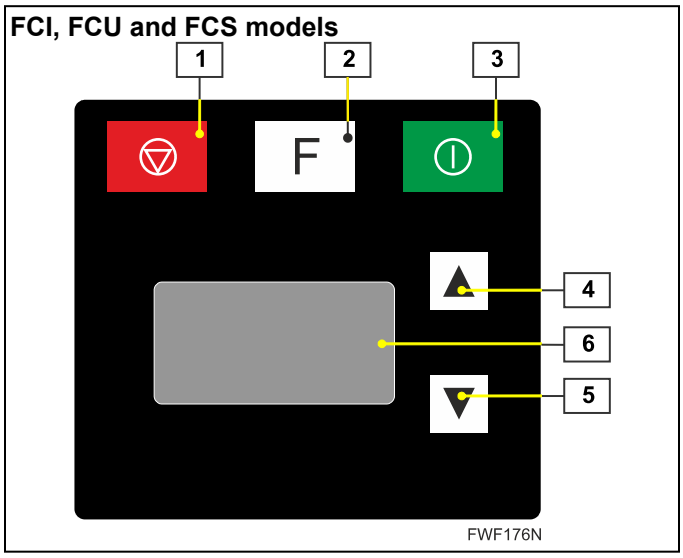


Figure 27

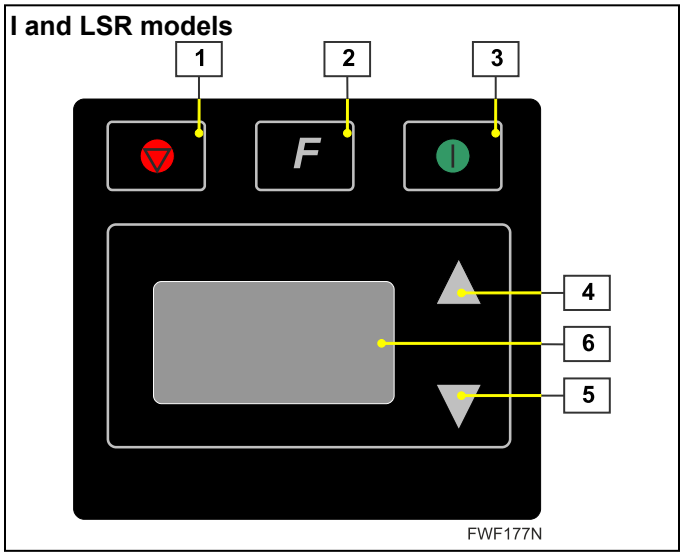


Figure 28

1. Stop Keypad
   - Switches machine off.
   - Puts machine into automatic cool-down mode.
   - Deletes error messages.
2. Function Keypad
   - Switches between operational displays.
   - Opens and confirms menu items.
3. Start Keypad
   - Starts machine and ironing process.
4. Up Keypad
   - Sets ironing parameters on current operational screen.
   - Navigates within menus and changes values within menus.
5. Down Keypad
   - Sets ironing parameters on current operational screen.
   - Navigates within menus and changes values within menus.
6. Multifunction Display
   - Displays machine information, current state, parameters, and warning/error messages.

Multifunction Display – Operating Mode

Position	Symbol	State	Description
1	P	Program	Displays programmed heat and speed values.
	T	Temperature Selection	Displays programmed and actual temperatures
	S	Speed Selection	Displays programmed speed
	D	Diagnostic	Current machine information viewable during operation.
2	▶	Run	The machine is operating in accordance with the currently selected program's speed and temperature.
	■	Stop	The machine is stopped. Heating is switched off.
	✱	Cool-Down	The machine is operating at minimum speed, without heat. The exhaust fan is operating. Automatic total machine stop is active after the cylinder has cooled to a safe temperature (below 176° F [80° C])
3	❚❚	Pause	Operation of the insert table belts was stopped by means of pedal (only for models equipped with pedal).

Table 16

4 HEATING	G	E	S	
1		*		– heating switched on to 1 section of heating elements - E
2		*		– heating switched on to 2 sections of heating elements - E
3		*		– heating switched on to all 3 sections of heating elements - E
	*			– heating switched on - G
	*			– heating switched off, the reset of gas ignition unit sent due to unsuccessful ignition attempt - G
	*			– heating switched off, the reset of ignition unit in process due to unsuccessful ignition attempt - G

Table 17

Operating Instructions

1. Turn On Main Power Source.

Main Switch

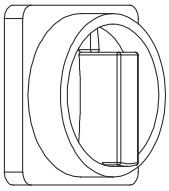


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Figure 29

2. Press Start Keypad to Start Ironer.

Keyboard

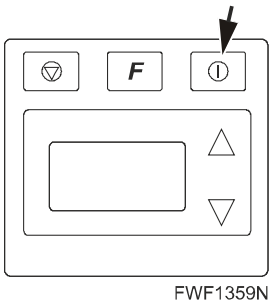

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Figure 30

3. Press Up and Down keypads to adjust desired program, temperature, and/or operating speed. For OPL models, press

Function keypad to switch between program, temperature, and operating displays operation displays.

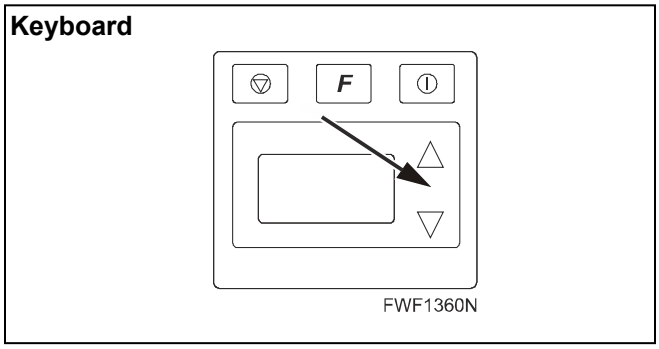
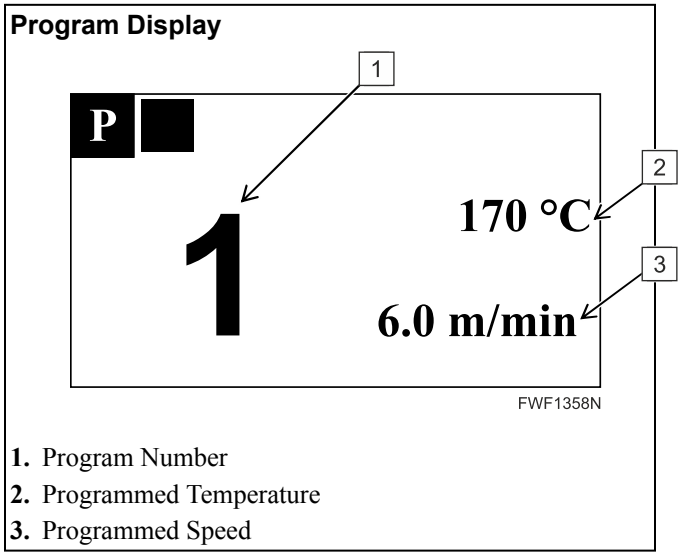
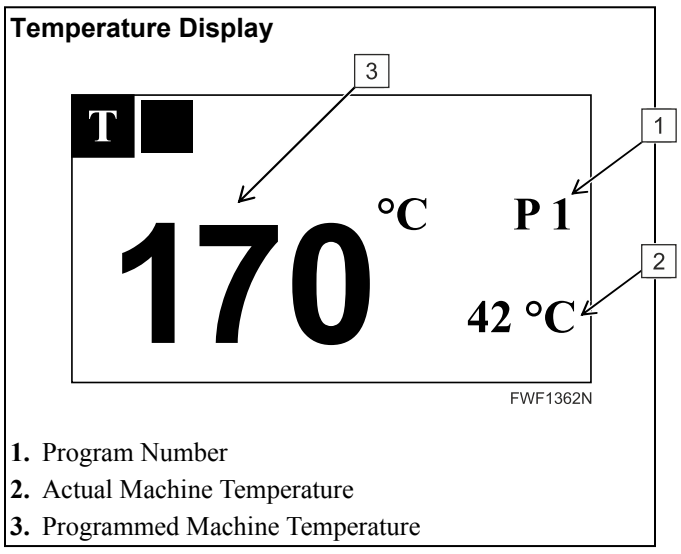


Figure 31



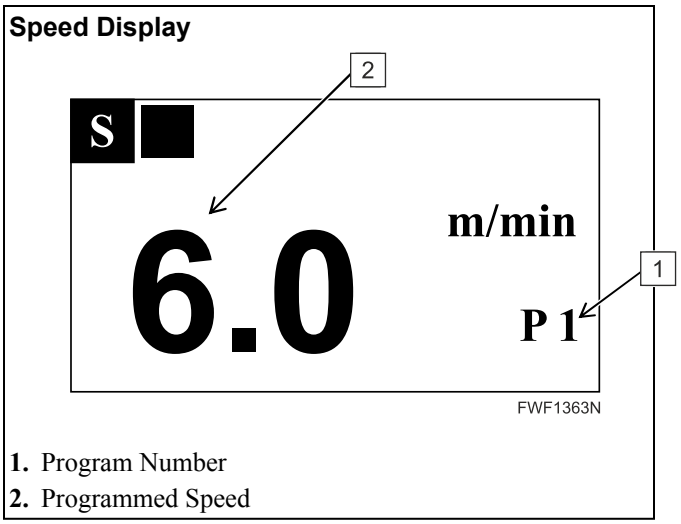
1. Program Number
2. Programmed Temperature
3. Programmed Speed

Figure 32



1. Program Number
2. Actual Machine Temperature
3. Programmed Machine Temperature

Figure 33



1. Program Number
2. Programmed Speed

Figure 34

4. Wait for ironer to reach necessary temperature.
5. Press Start keypad or press foot pedal (if equipped) to turn on feeding belts.
6. Using entire width of ironing cylinder, insert linen into input conveyor while making sure linen is flat.

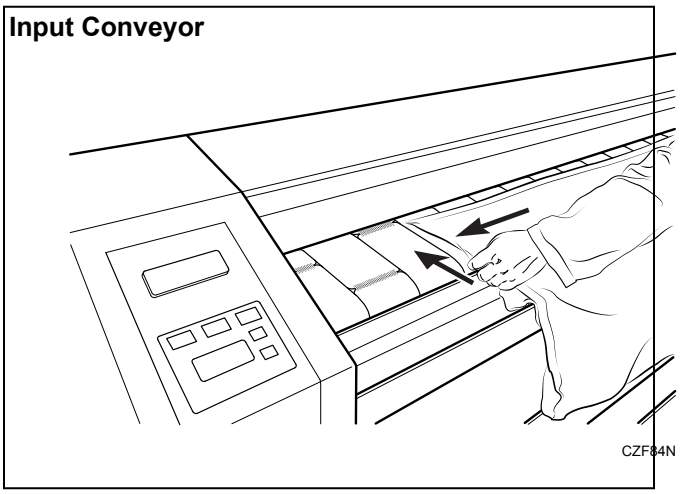


Figure 35

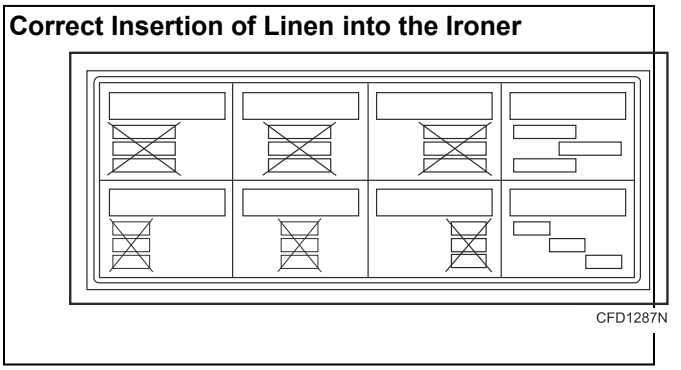


Figure 36

7. Retrieve ironed linen from output trough.

Output Trough

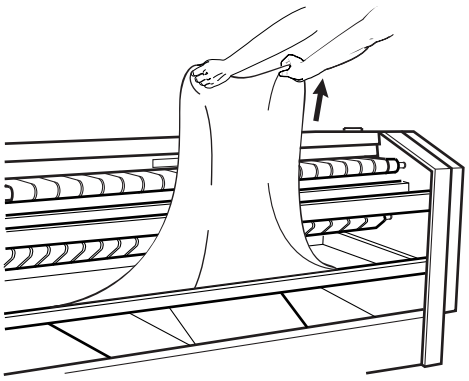


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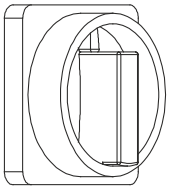
Figure 37

8. When ironing is finished, press Stop keypad. Ironer enters cool-down mode until temperature is below 176° F [80° C] .
9. Turn off main power source.

Main Switch



CFD1189N

Figure 38

Maintenance

Safety Instructions for Maintenance

WARNING

MACHINE MAINTENANCE MAY ONLY BE CARRIED OUT BY TRAINED PERSONNEL.

C117

- Before any handling of the machine apparatus occurs, it is necessary to make sure that:
  - the main switch is switched off
  - the main switch (breaker) of the laundry electrical switchboard is switched off and mechanically interlocked
  - none of the components is moving due to kinetic momentum
  - the machine has cooled down
  - the machine or its electrical switchboard are fitted with a sign “EQUIPMENT UNDER REPAIR“ (and all the other staff have been informed about the repair)
  - the gas feeding is closed (applicable to machines with gas heating)

WARNING

COMPLY WITH THE INSTRUCTIONS BELOW - CHAPTER MAINTENANCE AND SETTING.

C118

WARNING

THE USERS MUST NOT CARRY OUT ANY HANDLING OF THE EQUIPMENT WHICH IS NOT SPECIFICALLY STATED IN THE MAINTENANCE INSTRUCTIONS. SUCH HANDLING IS RESERVED TO AUTHORISED TECHNICAL SERVICING STAFF ONLY.

C119

- Immediately after the cause of a machine operation interruption has been removed, restart the machine or remove the linen stuck in the machine utilizing the hand crank – refer to Operating Supplement and then allow the ironing cylinder to cool down to a temperature of less than 176 °F [80°C] – fire hazard!
- By following the hereby specified instructions, very good operation of the machine will be achieved, the risk of faults will decrease, and the service life of the machine will increase.

Cleaning of the Machine - Inspection Intervals

WARNING

IT IS NECESSARY TO CARRY OUT (MINIMUM TWICE A YEAR) AN OVERALL CLEANING OF THE MACHINE FROM LINT AND IMPURITIES. FAILURE TO DO SO POSES RISK OF FIRE.

C120

SPECIAL MAINTENANCE

- Refer to *Ironing Cylinder*.

DAILY

- Inspection of scraper blades: remove sediments by mechanical means, vacuum away deposits, check the pre-tensioning.
- Inspection of the temperature sensor surfaces: remove sediments by mechanical means, vacuum away deposits, check the pre-tensioning.
- Inspection of the state and correct function of the upper pressure roller ribbons.
- Gas Models: cleaning / vacuum cleaning of the suction chamber screen or the suction chamber itself – *Figure 21*, pos. 6.

ONCE A MONTH

- Vacuum clean the electrical components, contactors and the frequency inverter - all situated on the panel of the electrical switchboard in the lower section of the left stand.
- Then vacuum clean:
  - the programmer board
  - the motor ventilation grill also (check the gearbox for any potential leak of fluid).
- Vacuum clean all openings through which air is brought into the machine or taken away from it.
- Clean the electromagnetic clutch.
- Vacuum clean the area inside the machine after you have removed the following:
  - side covers
  - rear covers
  - upper front cover
  - upper rear cover of the suction tunnel
- Inspect the state and tensioning of the chain.

EVERY 6 MONTHS

- Clean (vacuum clean) the suction area of the fan

NOTE: The machine must be switch off by main switch and must be at rest.

- Clean (vacuum clean) the suction area of the fan – after the disassembly of the screws (2) and the service cover (1) - refer to *Figure 42*.
  - The screws (2) are special safety screws preventing the disassembly by unauthorised persons. The special wrench forms a part of the machine accessories.
- Clean / vacuum clean the vanes or the vane wheel of the main fan.
- Clean (vacuum clean) the outlet area of the fan – after the disassembly of the outlet pipeline depending on its position at the rear or on the right - refer to *Rebuilding the Steam-Exhaust Outlet*.
- Reinstall everything after cleaning.

Servicing Lid of the Main Extraction Fan

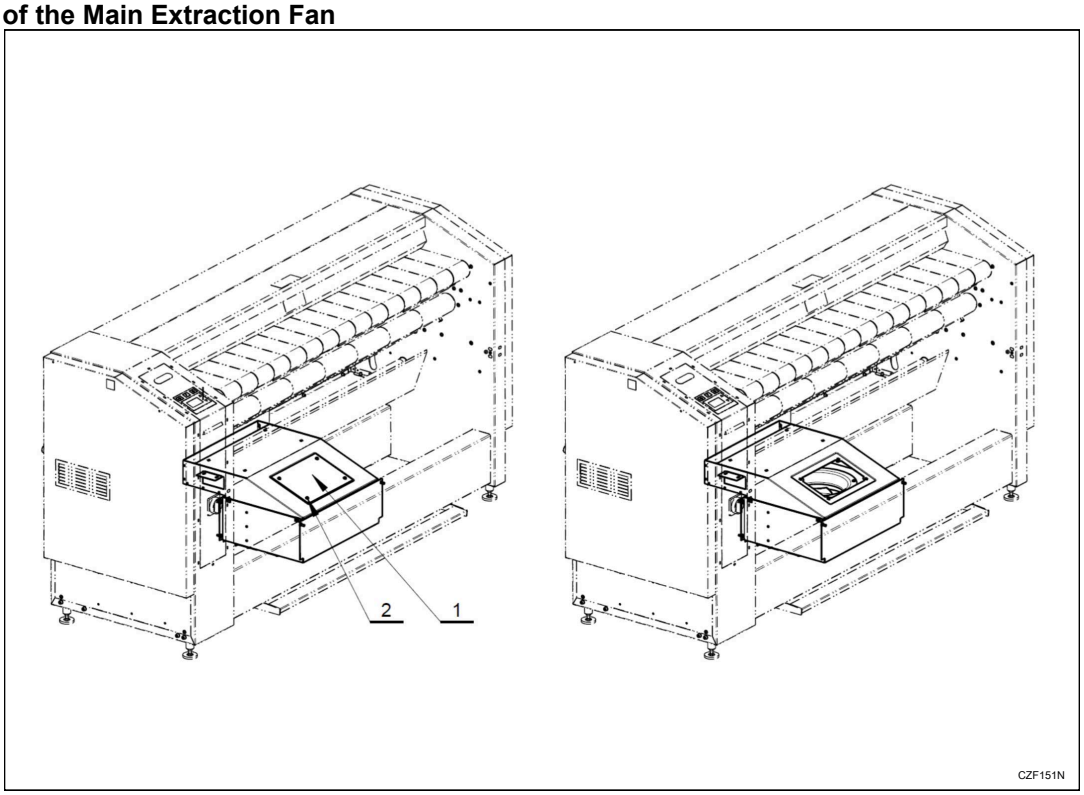


Figure 39

EVERY YEAR (12 MONTHS)

- Gas version: for cleaning / maintenance of the gas burner, refer to chapter *Cleaning the Gas Burner (Machines with Gas Heating Only)*.

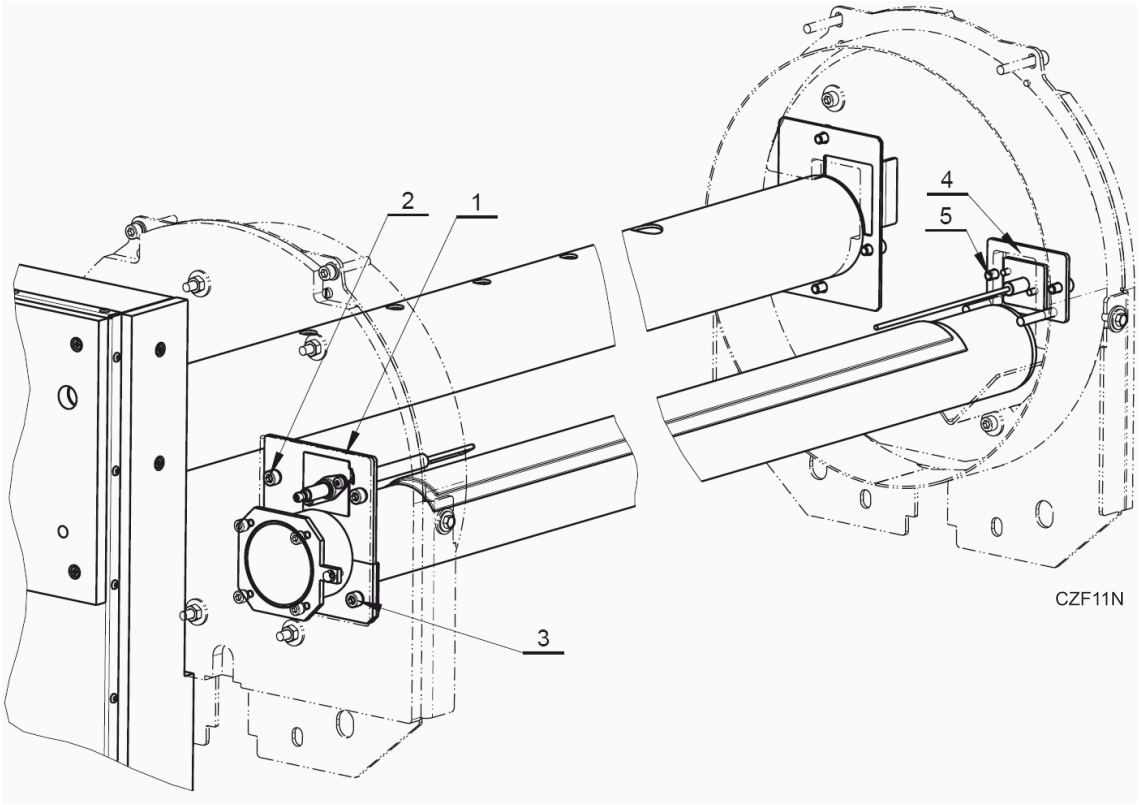
Cleaning the Gas Burner (Machines with Gas Heating Only)

- Any intervention with heating system components may only be carried out by a professionally qualified servicing company which holds the manufacturer's permission.
- Disassemble the heating system components (refer to the "Gas Heating" Section of the Parts manual). Keep disassembling until you reach the state as pictured in *Figure 40*.
- Disassemble the two screws (2) and remove the ignition electrode unit (1) – refer to *Figure 40*.
  - Some versions have a detection electrode (4) installed in the front right section of the combustion chamber, disassemble it – use the screws (5).
- Disassemble the two screws (3) – *Figure 40* which fix the entire burner to the left face of the combustion chamber.
- Pull gently and remove the burner from the machine.
- Thoroughly clean the inside of the burner and vacuum clean its outer surface (i.e. the surface made of Bekaert Bekinit ®).

	CAUTION
	Do not damage the surface!

- Reassemble the burner components back and carry out a short function test.
  - The right end of the burner must fit inside the V-shaped bracket which is a part of the right front face of the machine - inside. Check visually that it is fitting correctly!

The Gas Burner Before Removal From the Machine - Burner Left-end View



1. Ignition Electrode Unit
2. Screws
3. Screws
4. Detection Electrode
5. Screws

Figure 40

Ironing Cylinder

- In order to achieve high quality ironing, the ironing cylinder must be kept clean and shiny. The application of paraffin wax contributes to keeping the cylinder clean and shiny – treatment procedure high.
- When the machine stops automatically (after the automatic cooling mode, when the temperature of the ironing cylinder is about 176°F [80°C]):
  - Use the hand crank to apply protective wax (refer to Operating Supplement : CLEANCOAT WAX. Code: SP502348.
  - Using the wax cloth (62.99 in. [1600 mm] x 39.37 in. [1000 mm]), (code: SP372021160100), follow the following procedure:
    1. Spread about 0.026 gal [1 dcl] of the wax into the pocket of the wax cloth evenly along its length (the stated amount will last for at least 5 treatments).
    2. Insert the cloth into the machine and run it through using the crank so that the ironing cylinder is waxed along the whole working width.
    3. Insert the cloth pocket first and upwards so that the impermeable side of the cloth is in contact with the belts and the permeable side of the cloth is in contact with the ironing cylinder.
    4. If the quality of ironing drops significantly due to impurities on the cylinder surface, remove detergent sediments, starch sediments and salt from it.

NOTE: Refer to section *Cleaning the ironing cylinder* for more information.

Short-Term Standstill, Everyday Ironing Cylinder Maintenance

- Maintenance by application of wax (refer to chapter *Ironing Cylinder*) must be carried out at least once a month. Apart from this regular monthly interval, the maintenance proce-

dure must also be carried out in cases specified in chapters - *Burnished Steel Cylinder*, *Burnished cylinder with a hard-chrome layer*.

- The machines are produced with two versions of the ironing cylinders:
  - Highly burnished steel cylinder: requires everyday maintenance.
  - Highly burnished steel cylinder with a protective hard-chrome layer: requires maintenance only in case of a long-term standstill.
- If you are not sure which ironing cylinder version you have, refer to:
  - The MFG NR (Manufacturing number) of the serial plate, refer to *Serial Plate Information*, trough the dealer or producer.
  - Indirectly from the serial number of the machine stated on the serial plate of the machine through the dealer or producer.

Burnished Steel Cylinder

- The cylinder is treated during production and it is equipped with a protective paper sheet. Refer to chapter *Putting the Machine into Operation* to remove this.
- The cylinder must be treated if it does not run for at least 8 hours after the termination of the ironing cycle. Refer to chapter *Ironing Cylinder*.
- If the standstill is planned for more than 5 days, insert the protective wax paper into the machine after the wax treatment using the crank. To do so, refer to Operating Supplement.
- Do not discard the wax paper that was shipped with the machine. If the machine will not be used for five days or more, place the wax paper back onto the machine's roll.
- Before you start the machine after the treatment, iron first several pieces of “technological” linen to dispose of the impurities with the protective wax.

Burnished Cylinder with a Hard-Chrome Layer

- Once an ironing cycle is finished and the machine is not used (for ironing) for at least 5 days, it is then necessary to carry out a specified treatment procedure. Refer to chapter *Ironing Cylinder* to carry out this procedure. Do not discard the wax paper that was shipped with the machine. If the machine will not be used for five days or more, place the wax paper back onto the machine's roll.

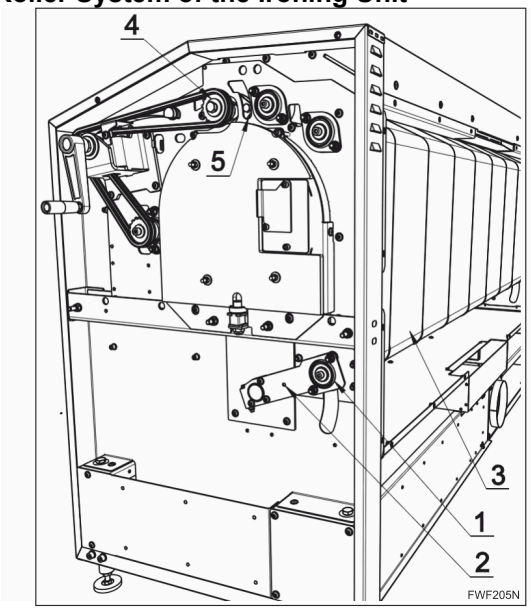
Cleaning the Ironing Cylinder

WARNING

BE SURE THAT YOU HAVE SELECTED THE CORRECT MACHINE TYPE, OTHERWISE THE MACHINE WILL NOT FUNCTION PROPERLY.

C112

The Roller System of the Ironing Unit



1. Lower Tensioning Roller
2. Screws (M6x20)
3. Ironing Belts
4. Pressure Roller
5. Pressure Roller Bearings

Figure 41

1. Stop the machine and disconnect it from the power supply.
2. Remove the rear and side covers of the machine.
3. Lift and secure the lower tensioning roller (1) in the upper position, so called technological position, by screws M6x20 (2) or longer ones.
4. Disassemble the rear suction tunnel.
5. Disconnect all the ironing belts (3) one by one from the rear side of the machine and place them freely on top of the machine.
6. Slightly lift the upper pressure roller (4) by propping up (i.e. placing a support underneath) the pressure roller bearings (5).
7. Cover the belts with clean fabric so that they are protected against being soiled.
8. Start the cleaning; it is generally advisable to use very fine sand paper (grain size no. 300) for the removal of detergent sediments and calcium sediments. Use it only in the direction in which the linen moves. The cylinder cannot be driven when the ironing belts are loosened. Therefore, the movement of the cylinder can only be achieved manually by applying tangential pressure on its surface.
9. The sediments may also be removed by a weak solution of oxalic acid or a warm solution of acetic (vinegar) acid (applies to versions with ironing cylinder with a hard chrome

layer only. Refer to chapter *Burnished Cylinder with a Hard-Chrome Layer* for more information).

10. Reassemble and set the belts. Refer to chapter *Tightening Ironing Belts* for more information.

WARNING

REMEMBER TO CLEAN ALL THE SURFACES THAT HAVE BEEN TREATED BY A WEAK SOLUTION OF ACID SO THAT NO RESIDUES OF ACID REMAIN - THUS PREVENTING THE RISK OF CORROSION. WHEN WORKING WITH ACIDS, ALWAYS WEAR PERSONAL PROTECTIVE DEVICES (GLOVES, GOGGLES).

C123

Ironing Belts

- The ironing belts are used for tensioning, finishing the drying and ironing process and transport of the ironed linen.
- They are manufactured from special, heat resistant, double layer fabric. This fabric is polyester / Meta-Aramid ®. It has temperature resistances permanently up to 374°F [190°C] , and they are fitted with the Meta-Aramid ® layer towards the cylinder.

Tightening Ironing Belts

- The ironing belts are tensioned automatically, by the gravitation force of the tensioning roller (1). Refer to *Figure 41*.
- Continuously check the correct running-in of the ironing belts between the guiding fingers of the outlet gutter. The belt edges must not bend or deform while passing around the guiding fingers.
  - If the belt running-in is incorrect, the correct position of the plate (1), guiding fingers (2), and outlet gutter (3) can be adjusted in a limited scope in directions (P) after loosening the screws (4) – refer to *Figure 42*.
  - After establishing the correct position of the plate (1), it is necessary to fix the setting by tightening the screws (4) – refer to *Figure 42*.

Adjustment of the Guiding Fingers of the Ironing Belts

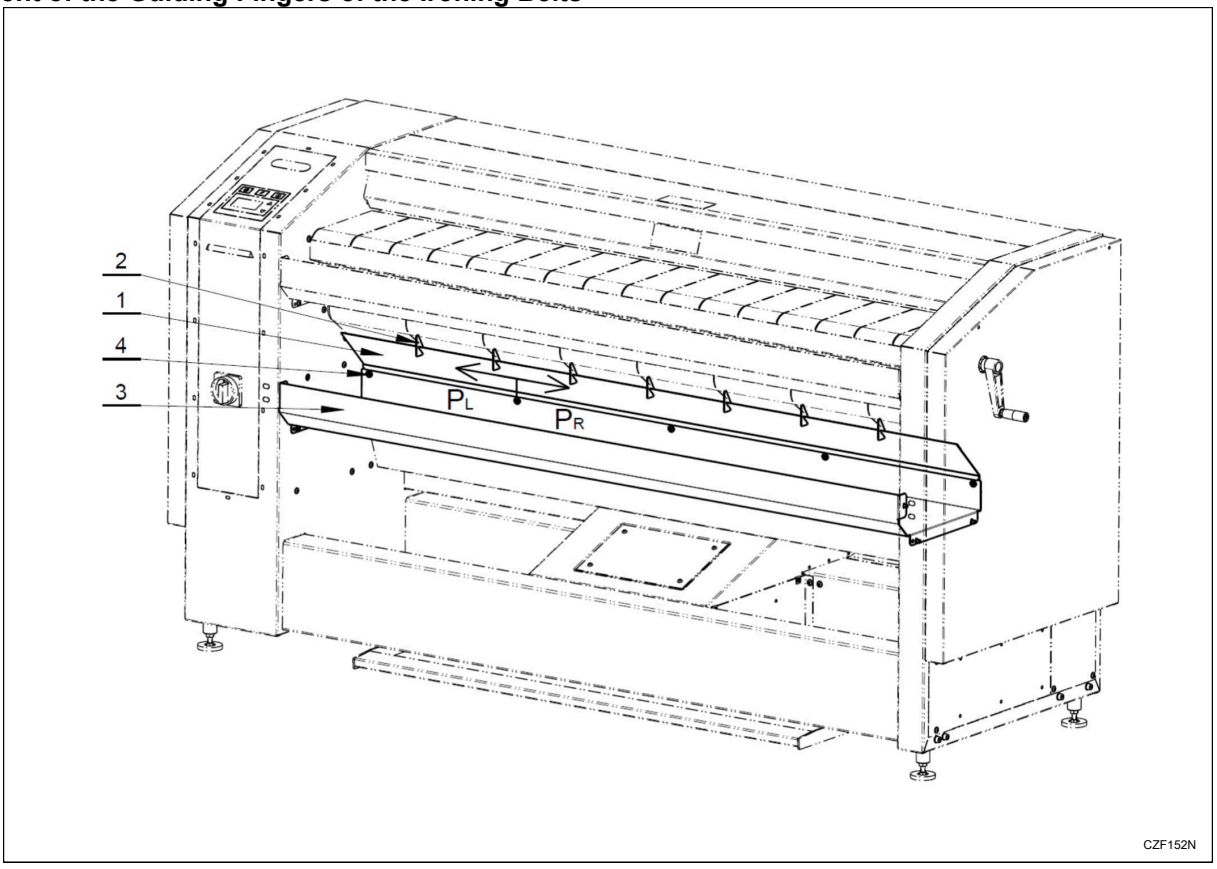
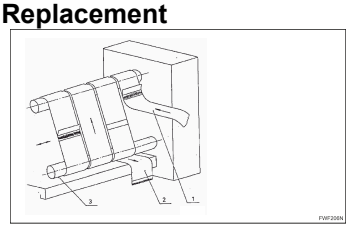


Figure 42

Replacing of Ironing Belts

- The individual ironing belts are replaced only in the case that they are damaged (torn). It is advisable to replace all the belts at one time. In the case that the belts are soiled by detergents or dust, wash them in conventional detergents. Their service life is thus prolonged and the ironing quality increases. Their service life is 2 years if operated for 40 hours a week, providing that all instructions specified in this manual are observed.
- The replacement procedure of the ironing belts is illustrated in *Figure 43*.

Ironing Belt Replacement



1. Ironing Belt (new)
2. Ironing Belt (old)
3. Lower Tensioning Roller

Figure 43

1. Switch the machine off by the main switch, secure, and wait until it has cooled down.
2. Remove the machine side and rear covers. If necessary, also remove the rear suction tunnel. Refer to chapter *Cleaning the ironing cylinder* for more information.
3. Put the hand crank refer to Operating Supplement into working position and use it to turn the ironing belt (2). Turn in a manner which assures that the fasteners connect the ends of the belts together are accessible.
4. Lift and secure the lower tensioning roller (3) in the upper position, ("technological position"), by screws M6x20 or longer ones. Refer to *Figure 41*.
5. Disconnect the old belt (2) and attach the new one (1) to the old, utilizing the fasteners.
6. Use the hand crank to wind the whole length of the new belt up onto the ironing cylinder.
7. Disconnect the old belt (2) and connect the new one (1) with the fasteners.
8. Repeat with all the belts.
9. Disengage the tensioning roller (3) from the upper ("technological") position. Then re-assemble all the disassembled components one-by-one.

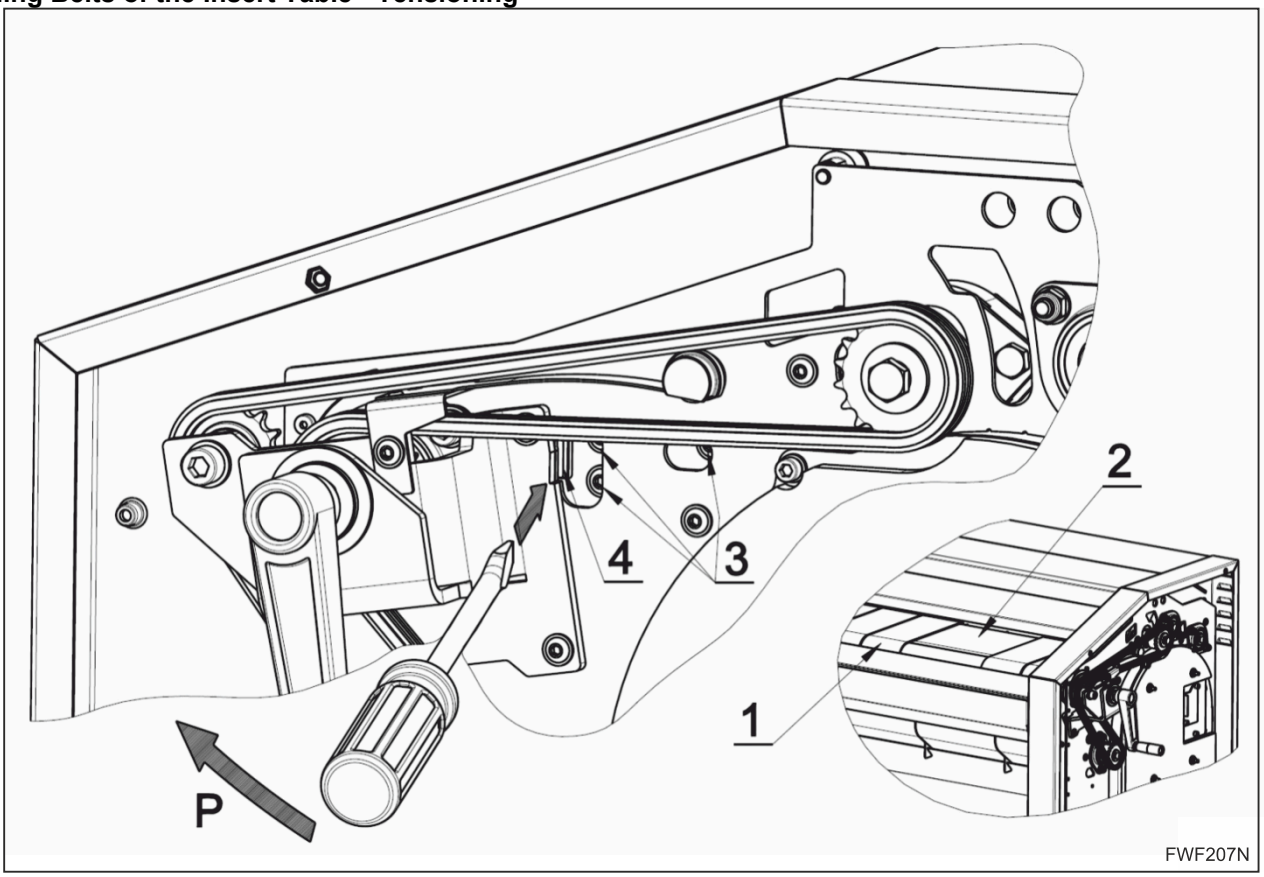
Insert Table Feeding Belts

- The feeding belts of the insert table. Refer to *Figure 44* serve as a conveyor that transports the linens to be ironed to the machine´s ironing unit.
- The feeding belts are made of a special thermally resistant fabric based on 100% Polyester. It has thermal resistance up to 356°F [180°C] (for short periods of time). They are joined by special plastic sticks.

Tensioning of the Insert Table Feeding Belts

- The feeding belts (1) must be correctly tensioned. The tensioning is carried out by a flat bladed screwdriver, after both side covers have been removed. Refer to *Figure 44*.

Feeding Belts of the Insert Table - Tensioning



1. Feeding Belts of the Insert Table
2. Insert Table
3. Screws
4. Slot

Figure 44

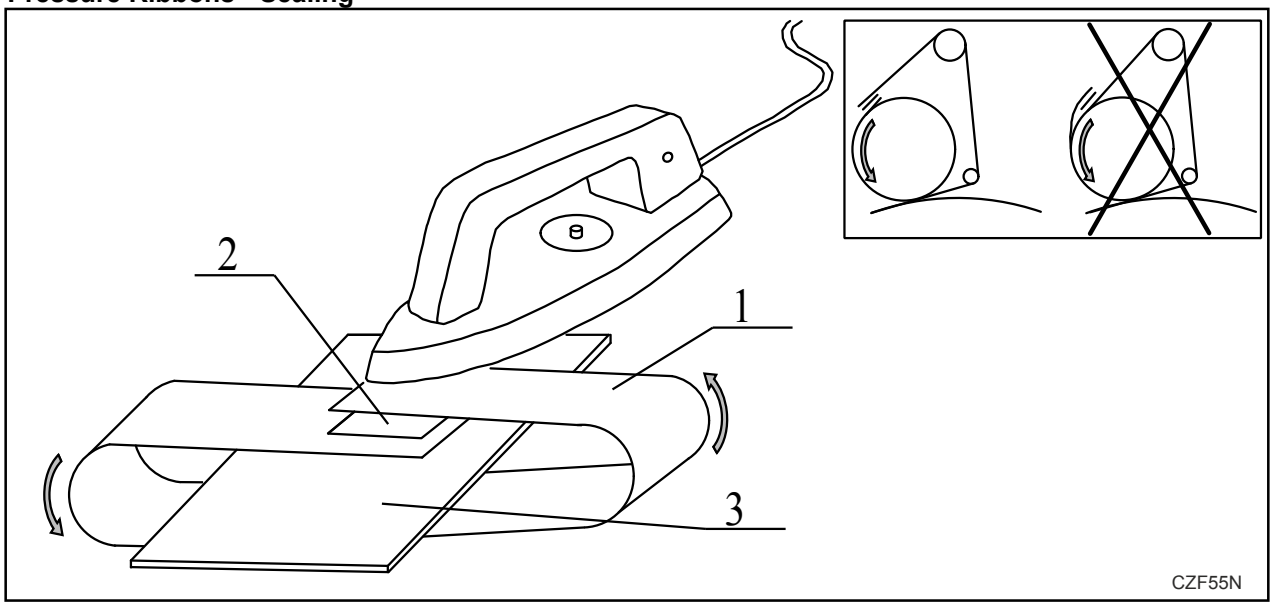
- The feeding belts are tensioned by a micro-movement of the insert table (2) and they must be tensioned to the minimum possible initial tension. This prevents them from haulting when the linen is inserted.

1. Inspect that the feeding belts stop operating when you apply slight pressure of your hand to the belt. When the belts are driven by a hand crank, the driving moment must be less than 15 Nm, without force oscillation during turning the crank. The upper branch of the incoming belts must fit closely by all its surface to the insert table.
2. Loosen the screws (3). Then carry out the tensioning by inserting a flat bladed screwdriver into the slot (4). At the same time, apply slight pressure to the table (2) in the direction P, evenly on both sides.
3. Tighten the screws (3) and check the tension is correct.

Upper Pressure Roller Ribbons

- The upper pressure roller ribbons serve the purpose of separating the linen from the pressure roller.
- The fabric ribbons are made of thermally resistant material based on NOMEX ®, or Meta-Aramid/PPS.
- The machines are equipped with two guide bars of ribbons. The ribbons are joined together by adhesive.
- The operating condition of the ribbons should be checked at intervals as specified by chapter *Cleaning of the Machine - Inspection Intervals*. Missing ribbons must be replaced. New ribbons might be, in an emergency situation, joined by a knot. However, the knots get imprinted into the padding of the upper pressure roller, and subsequently into the ironed linen. It is therefore recommended by the manufacturer to use the original method of joining the ribbons - sealing by adhesive (refer to *Figure 45*).

Upper Pressure Ribbons - Sealing



1. Upper Pressure Ribbon
2. Hot-Ironed Sticking Tape
3. Aluminium Plate

Figure 45

- The ribbon (1) is sealed by hot-ironed sticking tape (2). This tape can be ordered using code SP549369. The ends of ribbon are overlapped by approximately 0.59 in. [15 mm] .

1. Overlap: the sealed connection is made on the top of the upper pressure roller. Slide an aluminium plate (3) between the roller padding and the sealed joint.
2. The sealed joint is ironed by a hot iron (temperature 302°F [150°C] for 30 seconds).
3. The ribbon can only be stretched as much so that it runs over all three elements when the machine is running. Such ribbon might appear loose when the machine is idle, which however is not true. On the contrary, ribbon that is overstretched may lead to an undesirable operation interruption.
4. (2) – The sticking tape of the ribbons > FILM_FIT ADHESIVE (code: SP549369).

Upper Pressure Roller

- Upper pressure roller (4) – *Figure 41* ensures that the linen is fed into the ironer by pressing the linen with a great force to the surface of the ironing cylinder. It also allows most of the linen´s water content to evaporate, and it slows down the ironed linen carried by the ironing belts by stretching the linen tight.
- The surface of the upper pressure roller consists of a 0.59 in. [15 mm] heat resistant padding of Polyester / Meta-Aramid ®.
- The Meta-Aramid ® padding is helically wound and adhered to the surface of the pressure roller. It is secured by screws on the edges.

Replacement of Pressure Roller Padding

- The pressure roller is designed for a significantly long service life.
- The padding is applied to the roller by special technology. If damage to the padding occurs that requires its replacement, the manufacturer recommends replacing the whole pressure roller instead of just replacing the padding.

Setting the Down-Thrust of the Upper Pressure Roller

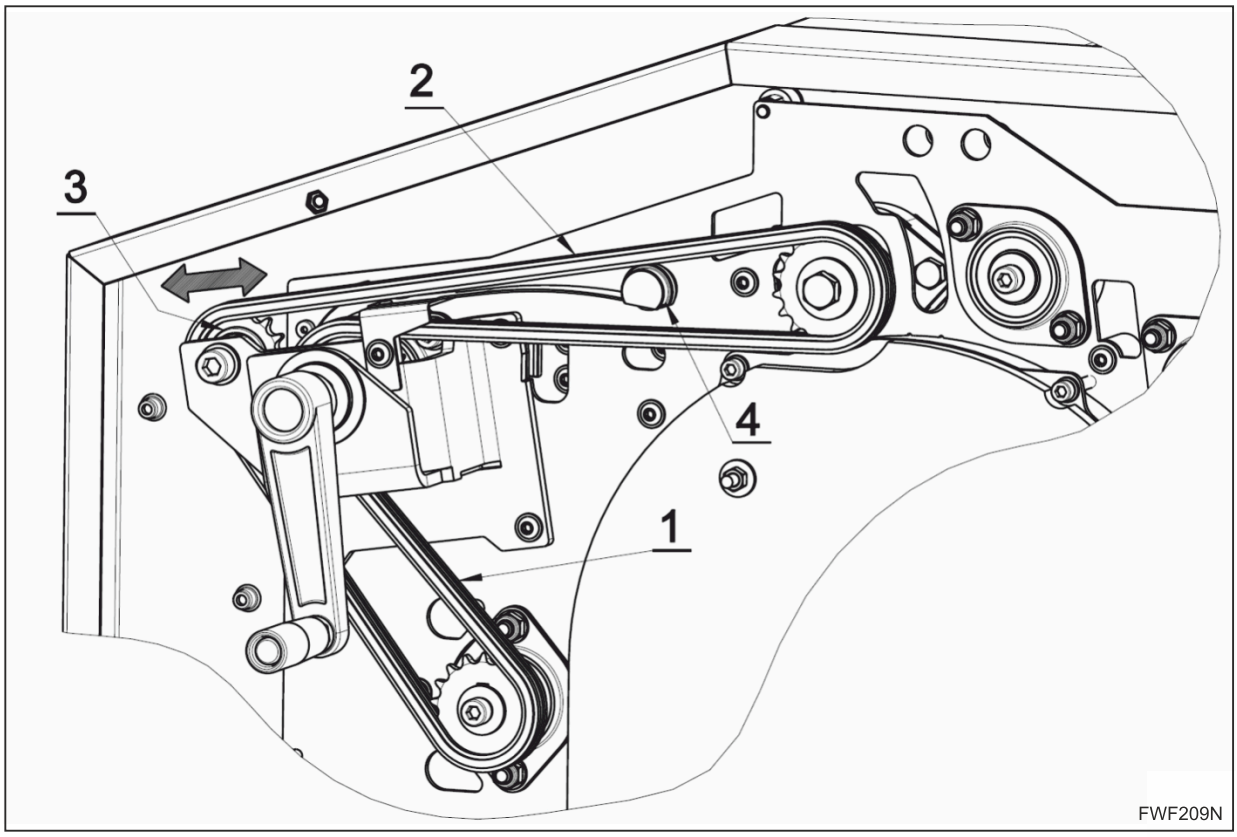
- The pressure roller is constructed so that its down-thrust is provided for by the gravitational force exclusively. There is no need to interfere with its setting in any manner.

Chain Gear

- The chain gear is accessible after the right cover of the machine has been removed. Refer to *Figure 46*. It serves as the drive of the insert table roller. At the same time, it provides braking action of the upper pressure roller, and it determines the speed ratios of the individual components of the ironing unit.
- The chain (1) must be kept tensioned. The chain is considered tensioned if none of its branches visibly sag and the upper branch (2) is visibly lifted into a slightly triangular shape by the slider (4).

- The above described desirable state is achieved by movement (tensioning) of the transmission cog wheel (3).
- The chain must be kept lubricated, but not excessively, so that no grease may drip off.
- The manufacturer recommends usage of a heavy duty lubricating fluid containing molybdenum for chain lubrication. Use it at intervals as specified in chapter *Cleaning of the Machine - Inspection Intervals*.

Chain Gear



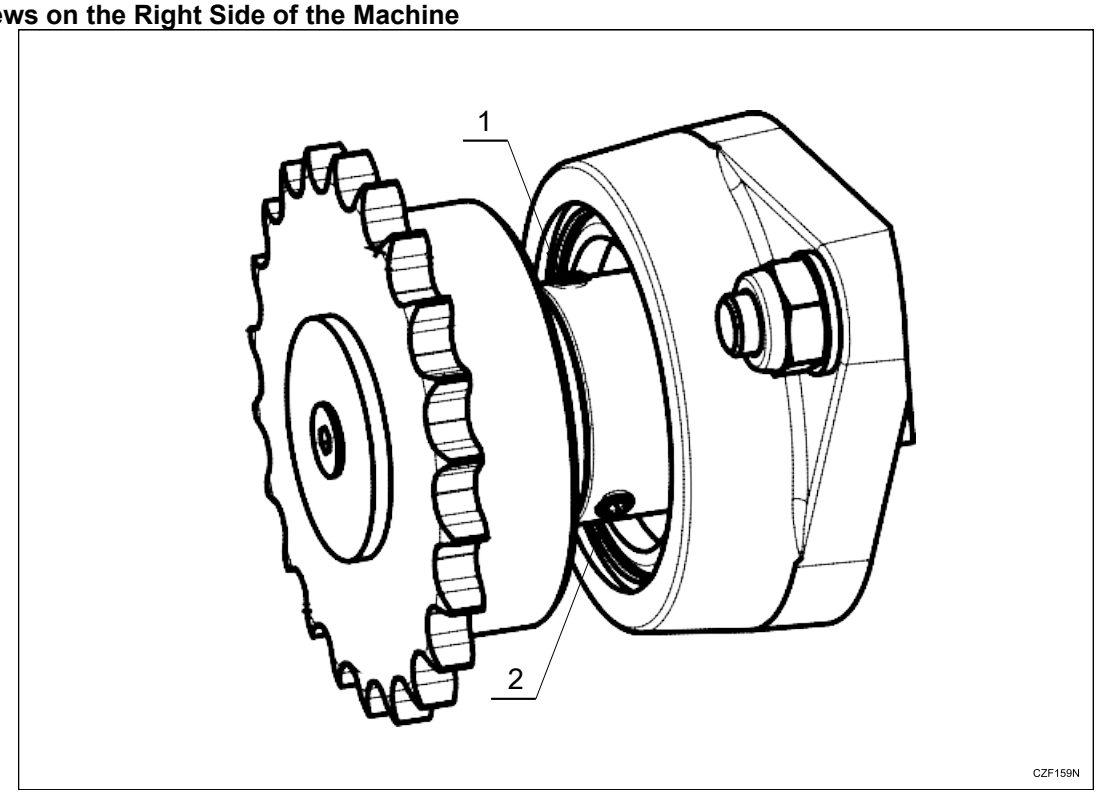
1. Chain
2. Upper Branch
3. Transmission Cog Wheel
4. Slider

Figure 46

Bearings

- All other rolling bearings of the machine have permanent lubrication filling and therefore need no maintenance.
- The sliding bearings and bearing housings in the machine do not require grease lubrication.
- All the rolling bearings are specifically designed with consideration of the thermal load which they will be subjected to. Therefore, it is not possible to replace the bearings with bearings of the same dimensional range. In case such a replacement is necessary, original spare parts must be used.
- This applies to:
  - Bearings of the bearing pulleys
  - Bearings of the guide rollers
  - Bearings of the side supporting pulleys
  - Bearings in the electromagnetic clutch set

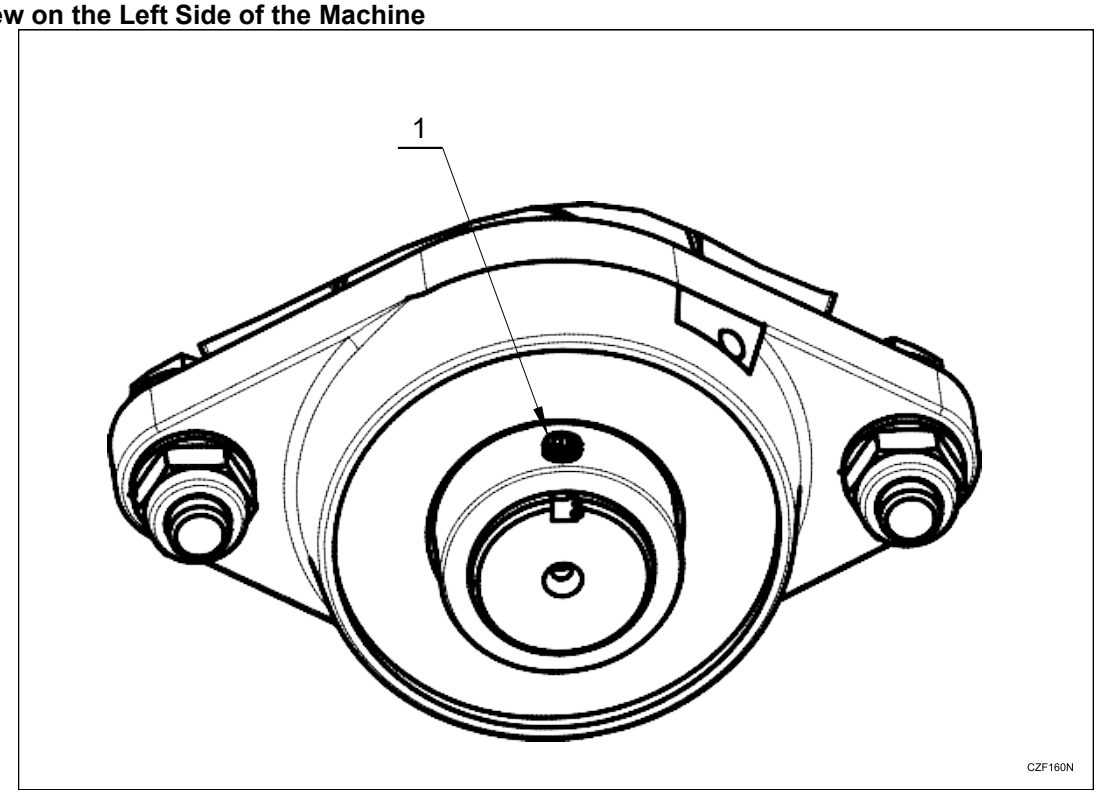
The Set Screws on the Right Side of the Machine



1. The set screw
2. The set screw

Figure 47

The Set Screw on the Left Side of the Machine



1. The set screw

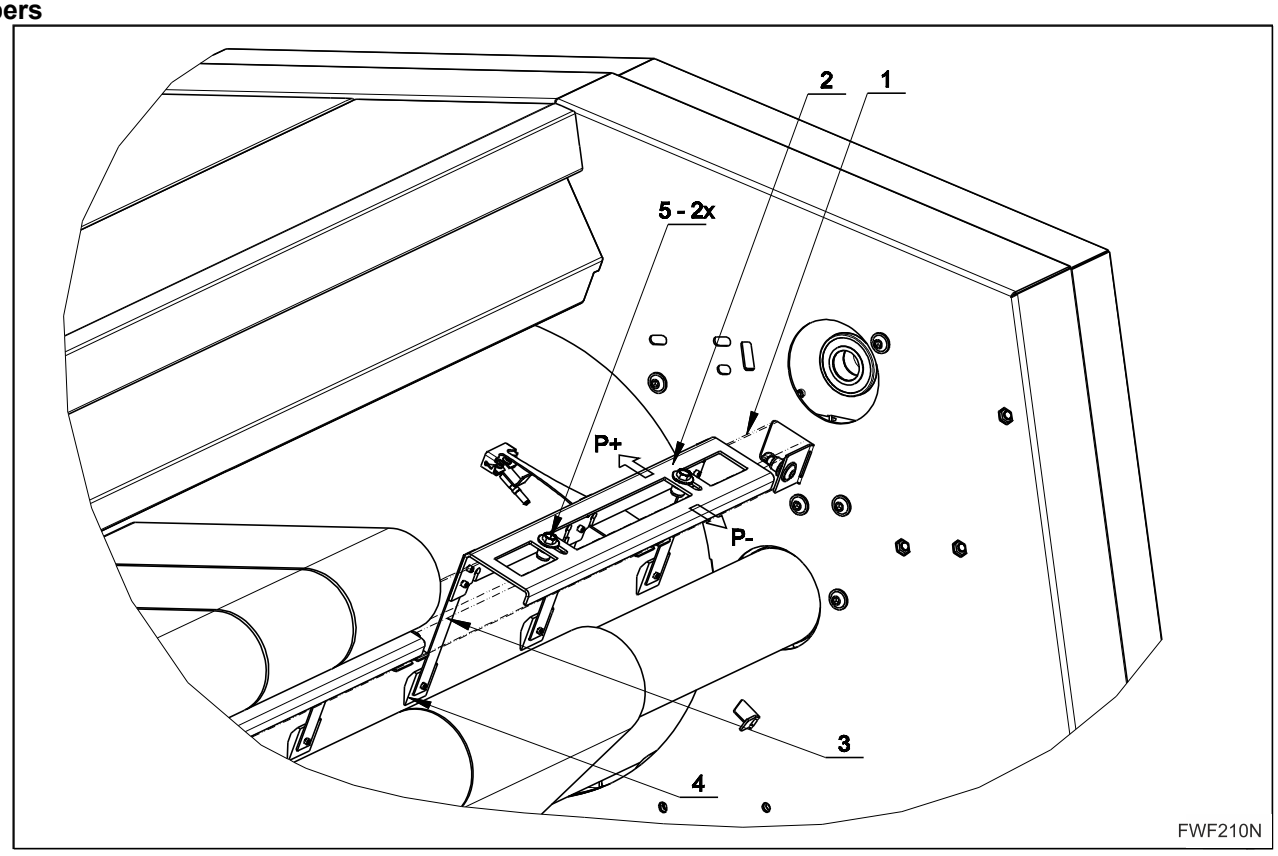
Figure 48

- Some shafts on the left side of the machine have a groove at the end and a special set screw with a dog point is fitted in the bearing ring (refer to *Figure 48*). The groove allows for the temperature dilatation of the shaft and the screw dog point prevents the spinning of the shaft in the bearing. These set screws are not tightened fully, a gap of about ½ of the screw's revolution remains between the groove and the screw end. The groove and the shaft surface in the bearing are lubricated by the manufacturer with a thermally resistant lubricant – refer to paragraph 2.
- All the set screws are secured in the threads with an adhesive putty, more torque is needed for their loosening in case of need.

Scrapers

- Scrapers are mechanical devices which serve the purpose of separating the linen from the ironing cylinder, in case it does not separate itself from the ironing cylinder into the output trough.
- The set of scrapers (refer to *Figure 49*) consists of four or five complete units, fitted to the scraper support bar (1). Each one is a unit which cannot be disassembled and consists of a bracket (2), three flexible arms (3) with blades (4) riveted to each of them. The blades are made of special, abrasion resistant and thermally durable plastic material. Each unit is attached to the scraper support bar (1) by means of a pair of screws (5). The blade is pressed towards the ironing cylinder.

Scrapers



1. Scraper Support Bar
2. Bracket
3. Flexible Arms
4. Blades
5. Screws

Figure 49

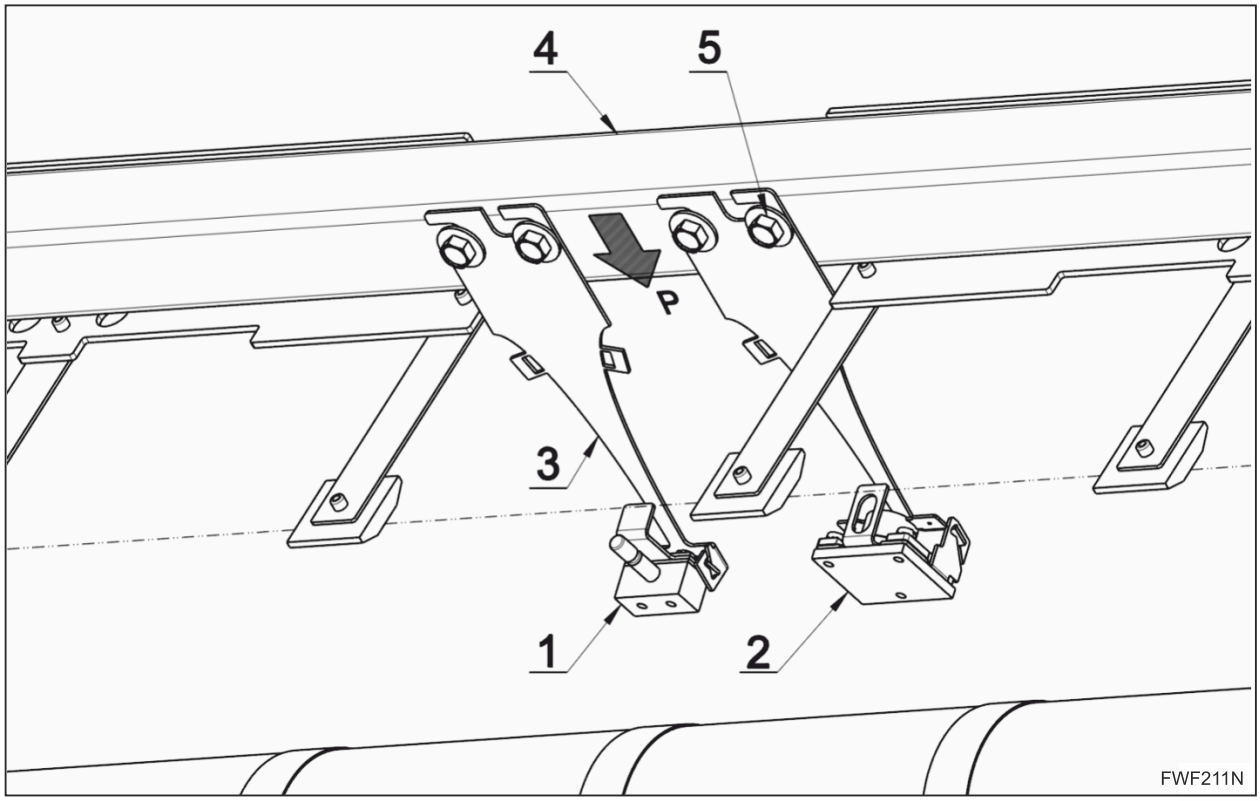
- Correct position of scrapers towards the ironing cylinder is set by the manufacturer.
- Generally speaking; correct position is such a position which ensures a minimum (but permanent) downward pressure (i.e. contact of each blade (4) with the ironing cylinder).
- At the same time, the vertical edges of the blade (4) must be parallel with the vertical edges of the arm (3).
  - The downward pressure of a blade (4) to the ironing cylinder is determined by the position of the bracket (2) secured by the screws (5) to the support bar (1).
  - In case that the down pressure of the blades is insufficient, loosen the pair of screws (5); the entire unit is to be moved in the direction P+. Then re-tighten the pair of screws (5).
  - The shape of the working edge of the blade is (4) asymmetric. The factory setting (i.e. the original position of each of the blades against the cylinder surface) is suitable for ironing standard types of linen. However, certain other types of linen it is more suitable to use the opposite edge of the blades. Each blade can therefore be turned by 356°F [180°C] around the axis of the rivet.
- Check the correct position and cleanness of the blades (4) contact edges at intervals as specified in chapter *Cleaning of the Machine - Inspection Intervals*.

Temperature Sensor - Operating and Safety Sensors

- Temperature sensors are electronic and electro-mechanical devices that serve the purpose of monitoring the temperature of the ironing cylinder surface.
- The temperature sensor system consists of operating sensors (1) and a safety sensor (2) – *Figure 50*. Each sensor is installed into the cradle of the flexible arm (3). The flexible arms (3) are fitted directly to the scraper support arm (4) by

means of screws (5). The sensors are pressed towards the surface of the ironing cylinder.

For Models Through 7/31/2019



1. Operating Sensors
2. Safety Sensor
3. Flexible Arm
4. Scraper Support Arm
5. Screws

Figure 50

- The basic temperature sensors are positioned next to each other, approximately in the middle of the machine.
- They have been put in the correct position by the manufacturer. The central operating sensor (1) serves as the main control sensor.
- The machine is also fitted with two side operating sensors (positioned on the sides). They are of the same construction as the basic operating temperature sensor (1). These sensors are parts of the OCS system. Refer to Operating Supplement for more information.
- Generally speaking, their correct position is such a position which ensures sufficient and permanent downward pressure of the sensor towards the surface of the ironing cylinder. The whole surface of the sensing area must be in contact with the surface of the ironing cylinder (idle or moving) in the whole range of operating temperatures.
  - Correct position of a sensor is achieved by correct setting of the arm (3) in the direction “P”.
  - Correct position is indicated by slight bending. The sensor must be touching the ironing cylinder with all its surface. The sensor (1) must also return back to its original position after it has been tipped to its edge.
  - Check the correct position and cleanness of contact areas and edges of the sensors (1) and (2) at intervals as specified in chapter - *Cleaning of the Machine - Inspection Intervals.*
- If the temperature sensor needs to be changed due to fault or worn seating face, follow these steps:
- **For models through 7/31/2019;** The sensor is provided with a non-detachable cable. To replace the sensor, follow instruc-

tion 7-18-238 to upgrade the sensor to the version used starting 8/1/19.

- **For models starting 8/1/2019;** Sensor is provided with a detachable cable and each part can be replaced individually. See the parts manual.

NOTE: It is recommended to replace all sensors at the same time to maintain uniform wear of the sensors.

For Models Starting 8/1/2019

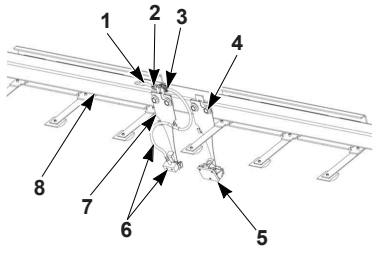


Figure 51

1. Sensor main cable
2. Connector
3. Connector
4. Screws
5. Safety Sensor
6. Operating temperature sensor
7. Flexible arm
8. Scraper support arm

- If at fault: error message 5, 6 – refer to Operating Supplement .
- Safety sensor (2) - bimetallic thermostat of the R28 range, 410°F [210°C] .
- This component can be dismantled. It contains heat-conductive mastic. If worn down, it is recommended to replace it as a whole unit.
- If at fault: without error message, during activation: error message 1 – refer to Operating Supplement.
- When error message 1 is indicated, the insert table always stops operation (valid for versions COIN / CPS and OPL with a STOP-pedal).

Electrical Installations - Maintenance

CAUTION

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.

C359

- Any repairs of the electrical installations can only be carried out by a person familiar with the technology who has suitable and valid authorization.
- In case of any kind of error (refer to Operating Supplement), check whether the respective circuit is correctly connected as specified in the scheme.
- To find out faults, always use the electrical documentation which is part of machine documentation.
- Make sure that after the repair has been finished, all the electrical installations have been put to the original state. It is particularly important to re-connect all the protective cables (if they were disconnected during the repair).
- Make sure that all the electrical devices are correctly marked in accordance with the operating scheme.
- Once the repair is finished, check all the safety devices and their settings (limit switches, safety thermostat, etc.)
- Regularly check the state of the machine's earthing (ground). Incorrect earthing (ground) may lead to occurrences of static discharges, which can cause malfunctioning of the machine and poor ironing quality.
- Check the state and tightness of the screw terminals of the main switch, contactors and in the case of a machine with electrical heating, also of the fuse disconnectors and heaters. Check after the machine has been installed, and then after every 1000 operating hours or six months.

Frequency Inverters

- Frequency inverter (FC) is an electronic device which provides variable, selectable motor revolutions which regulate the speed of the ironing cylinder.
- FC is installed in the left stand on the switchboard panel situated on the bottom right.
- The FC parameters are set by the manufacturer and any intervention may only be carried out by authorized personnel.
- An authorized person may (if necessary) load a new parameter set into the FC:
  - I33_FC_PARAMETER LIST > code: SP528333
  - by means of a special control panel - parameter copy unit - Control panel LCP1 > code : SP528334 or
  - by means of a computer with a Danfoss MC10 – set up Software installed, an RS485 cable and a USB converter
- Parameter copy unit – Control panel LCP1 > code : SP528334

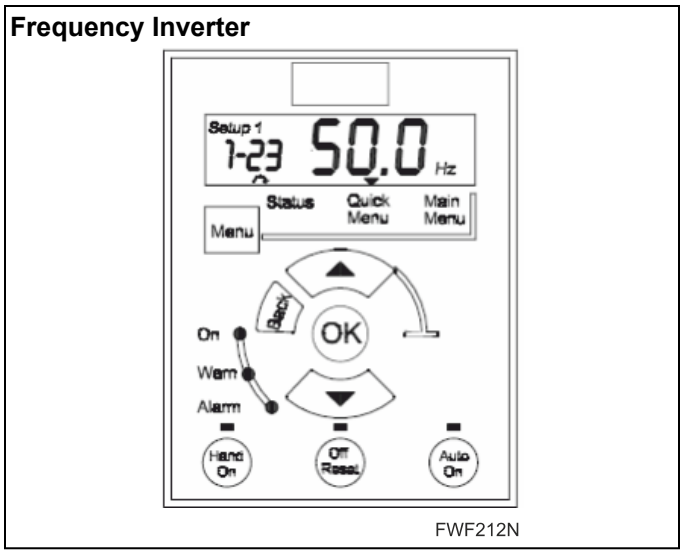


Figure 52

- The instructions for loading the SP528333 parameters from the parameter copy unit into the FC, in which the inverter parameters are loaded FI1 – main drive – (for servicing personnel only):
  1. Switch on the frequency inverter by manually switching the CFI contactor.
  2. Use the Menu button on the inverter control panel to select the option "Main Menu".

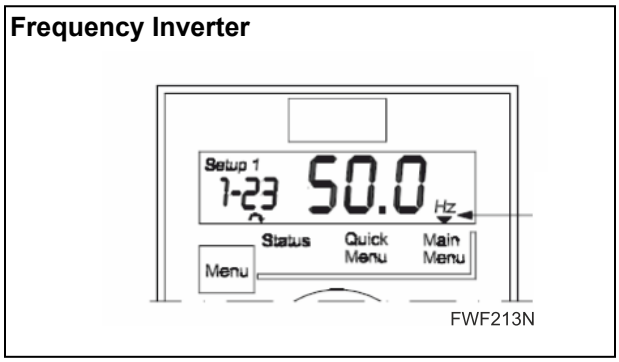


Figure 53

  3. Use the arrows to choose the parameter set group 1 – confirm with OK.
  4. Use the arrows to select the parameter 1-50 – confirm with OK.
  5. Use the arrows to set the PR1-50 to 2 - confirm with OK > it will copy the parameters into the inverter.
  6. Switch the inverter off.
- If the necessary parameters are not present in the parameter copy unit, the individual parameters can be set one by one according to the parameter sheets – (servicing personnel only).
- The main menu provides access to all the parameters.
  1. To open the Main menu, press the [MENU] button until the display indicator appears above the item Main Menu.
  2. To navigate between the parameter groups, use the up and down ▲ ▼ buttons.
  3. To select a parameter group, press the [OK] button.
  4. To navigate between the individual parameters within a certain group, use the up and down ▲ ▼ buttons.
  5. To select a parameter, press the [OK] button.
  6. To set or change the value of a parameter, use the up and down ▲ ▼ buttons.
  7. To confirm a value, press the [OK] button.
  8. If you want to quit working with the menu, either press the [Back] button twice to display a Quick menu, or press the [Menu] button once to open the Status menu.
- If at fault: error messages 7 – refer to Operating Supplement.

Main Drive Motor

- The machine is driven by
  - a three-phase induction motor of 180 W rated power. It is supplied with power from the frequency inverter (chapter *Frequency Inverters*) and it has an integrated worm-gear unit (with transmission ratio i = 70), and implemented freewheel clutch with a rated transmitted moment of 50Nm.
- The motor unit is located on
  - the driving roller in the left stand of the machine.
- There is an arrow indicating the correct direction of rotation on the gearbox housing.
  - Connection to the main switch does not influence the correct direction of rotation.
  - If power supply is to be connected to the terminal block of the motor, it is necessary to check the correct direction of rotation. In the case that the connection is carried out incorrectly, there is a risk of damage to gearbox freewheel.
- The gearbox has a permanent lubrication filling and it is maintenance-free.
- During the inspection / cleaning procedure (as specified in chapter *Cleaning of the Machine - Inspection Intervals*) it is necessary to check:
  - any potential leakage of the lubrication filling from the gearbox housing
  - cleanness of the ventilation (aspirating) grill of the motor, positioned in the lower section of the machine
  - state of both the silentblocks, which catch the moment reaction of the motor with the gearbox
  - If at fault: error messages 7 – refer to Operating Supplement.

Main Exhaust Fan

- The main exhaust fan serves the purpose of extracting the fumes created during the ironing process away from the machine. With gas heated machine versions it also serves the

purpose of extracting the waste gases arising from the burning process.

- The main exhaust fan is situated in the central fan housing, in the middle of the machine, in its lower section, between the main lower support bars. It is placed on an insulated movable bed.
- The main exhaust fan is radial with vanes bent backwards, and with an integrated single-phase induction motor. The temperature protection is integrated into the motor winding (refer to *Figure 54*).
- The rotation of the fan is clockwise (if viewed from above) and its rotational direction does not change with the interchange of phases sequence.
- The fan is maintenance-free. It only requires cleaning in compliance with the instructions in chapter *Cleaning of the Machine - Inspection Intervals.*
- If at fault: error messages 4 – refer to Operating Supplement.

Wiring Diagram of the Exhaust Fan

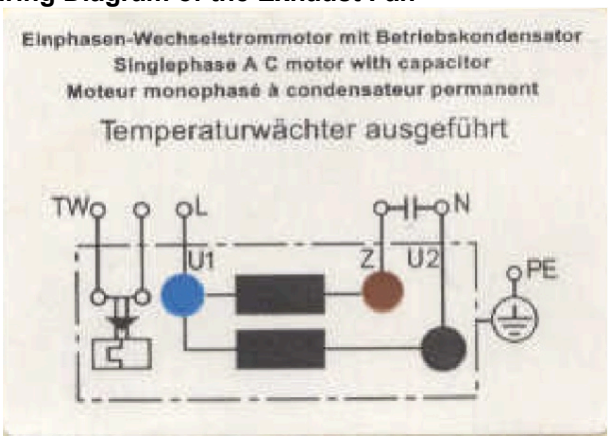


Figure 54

The Control Unit (Gas Heating Models Only)

- The ESYS control unit (3) is shown in *Figure 21*. It is described in chapters *Operating Instructions (Machines with Gas-Heating)* and *Transition to Other Gas Type*. The ESYS control unit is an electronic device designed for the control of the gas heating system.
- The ESYS control unit is situated in the gas electromagnetic valve in the left stand of the machine. It is accessible after removal of the left cover.
- The control unit is maintenance free. It is necessary to make sure that the terminal block of the control unit is at all times fitted with a lid (screwed on). This ensures a safe electrical connection with the electromagnetic valve.
- The diagnostics of the ESYS unit, monitoring of the heating parameters, and specification of errors of type E9 can be performed using a special diagnostic kit connectable to PC/NB refer to chapter *Transition to Other Gas Type* and Operating Supplement.
  - COM_SET_ESYS_IDI33_G > code: SP545156B and all higher versions.
- If at fault: error messages 9 – refer to Operating Supplement.

High-Voltage Cable (Gas Heating Models Only)

- The high-voltage cable is a component which serves the purpose of:
  - high-voltage power supply (~15 kV) of the electrode. For ignition of the gas burner, refer to chapter *Ignition and Ionizing Electrodes (Gas Heating Models Only).*
- For some versions of machines simultaneously serves to:
  - low current (~20nA) connection with the electrode. For information on the indication of ionisation flow over the electrode tips (and therefore the detection of flame in the gas burner), refer to chapter *Ignition and Ionizing Electrodes (Gas Heating Models Only).*
- The high-voltage cable connects the ESYS control unit (chapter *The Control Unit (Gas Heating Models Only)* with the combined ignition and ionizing electrode or with autonomous ignition electrode (chapter *Ignition and Ionizing Electrodes (Gas Heating Models Only)*).
- The insulation and the terminations must be intact and undamaged.
- If at fault: error messages 9 – refer to Operating Supplement.

Ignition and Ionizing Electrodes (Gas Heating Models Only)

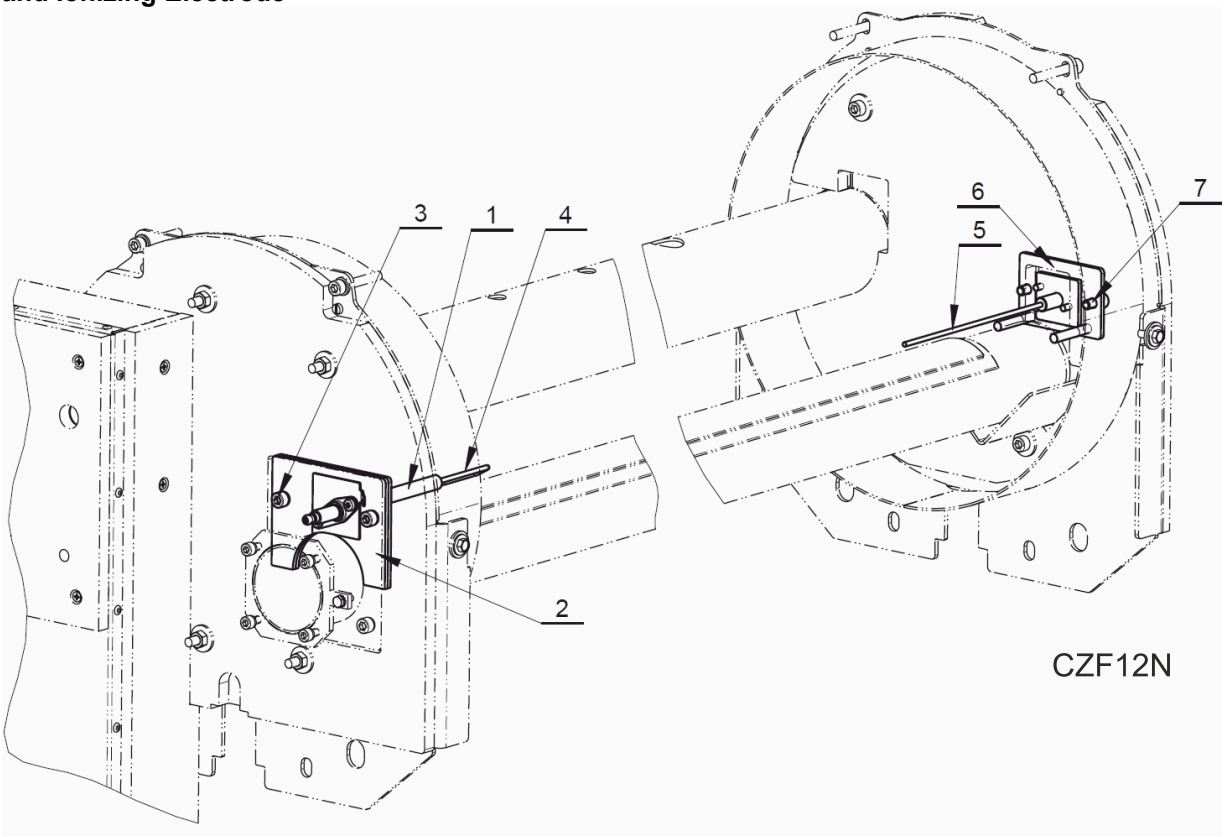
- The electrode (4) is a component which serves the purpose of (with gas heated machines):
  - Ignition of the gas burner, during which a high voltage spark discharges between the electrode tips.
- Machine versions with the combined function of electrode – the electrode (4), installed on the left side serves the purpose of flame detection during which there is electric current between the electrode tips due to ionised air.
- Machine versions with the separate functions of electrodes - the autonomous detection electrode (5), installed on the right side saves the purpose of flame detection during which there is electric current between the tip and grounded burner due to ionised air.
- The electrode (1) – *Figure 55*, is installed in the electrode bracket (2) which is, as a whole unit, fixed by means of two screws (3) to the left face of the combustion chamber. Its only entrance to the open space is through the connector termination. For inspection or replacement purposes, the entire unit must be removed after the screws (3) have been disassembled.
- Good functionality of the electrode can only be achieved if:
  - the ceramic insulator is undamaged
  - the edges of the kanthal ® electrodes are sharp enough
  - their distance in the spark gap (4) is correct.
  - The distance shall be ~ 0.12 in. [3 mm] .

NOTE: The spark discharge must occur in the spark gap (4) only.

- Autonomous detection electrode (5) - refer to *Figure 55*, if used, is installed in an electrode bracket (6), which is, as a whole, secured by two screwed (7) it the front right section of the combustion chamber. In case that it is necessary to carry out inspection or replacement, the entire unit of ignition electrode must be removed as a whole unit after the screws (7) have been removed.

NOTE: The height of the electrode (4), (5) can be adjusted in the electrode bracket. However, the height-position of the electrode must be maintained. It is only to be changed in case that the machine configuration switches to a different type of gas.

Ignition and Ionizing Electrode



1. Ignition and Ionizing Electrode
2. Electrode Bracket
3. Screws
4. Spark gap

Figure 55

- If at fault: error messages 9 – refer to Operating Supplement.

Pressure / Air Flow Switch (Gas Heating Models Only)

- The Pressure / air flow switch (4) – *Figure 21* is a safety device.
- The Pressure / air flow switch is an electro-mechanical device which serves the purpose of monitoring the correct range of under pressure value in the exhaust system. Refer to chapter *Connection to Steam Exhaust* for more information.
- The Pressure / air-flow switch is situated in the upper left section of the switchboard panel, and it is accessible after the removal of the left cover of the machine.
- The Pressure / air-flow switch is set by the manufacturer in a precise manner. Any intervention is prohibited. The setting of a new Pressure / air-flow switch (after it has been fitted) to replace an old one can only be carried out by authorized personnel following a specified procedure.
- In case that the incoming tube is disconnected from the switch, it must be reconnected to the outlet (minus).

- The switch must not be subjected to any overpressure / underpressure outside of its specified operating range – otherwise it will become damaged.
- If at fault: error messages 8 – refer to Operating Supplement .

Insert Table Drive - Clutch*

- * Only a part of certain machines.
- Machines COIN / CPS and all versions fitted with the insert table stop/start pedal (refer to Operating Supplement) have the insert table drive fitted with an electromagnetic clutch.
- The electromagnetic clutch serves the purpose of disconnecting / connecting the drive of the insert table, which is independent of the ironing cylinder movement.
- The electromagnetic clutch unit is situated in the axes of the insert table roller, in the right stand, and it is accessible after the cover of the right stand has been removed.
- The maintenance of the clutch consists of the simple application of pressurised air to the whole clutch (procedure which blows off abrasive wear particles from the clutch disk surface). Carry out at intervals as specified in chapter *Cleaning of the Machine - Inspection Intervals*.

Laundry Earth Leakage Trip (Ground) - Testing

- If the earth leakage trip (ground) is installed before the power cable supply, it is necessary to regularly check its function. The earth leakage trip (ground) is a very sensitive device which contributes to the improved safety of the machine, and it requires a regular inspection.

WARNING

AT LEAST ONCE EVERY THREE MONTHS, A QUALIFIED SERVICEMAN MUST CHECK THE EARTH LEAKAGE TRIP AND ITS FUNCTIONING. THE TEST IS CARRIED OUT UNDER VOLTAGE BY PRESSING A TEST PUSH BUTTON ON THE EARTH LEAKAGE TRIP. THE EARTH LEAKAGE TRIP MUST SWITCH OFF!

C124

Putting the Ironer Out of Operation

Refer to: *Short-Term Standstill, Everyday Ironing Cylinder Maintenance*, *Burnished Steel Cylinder*, *Burnished Cylinder with a Hard-Chrome Layer*.

Putting the Machine Out of Service

Disconnection the Machine

If the machine is still to be used, do a treatment of the ironing cylinder according to the following chapters: *Short-Term Standstill, Everyday Ironing Cylinder Maintenance* , *Burnished Steel Cylinder* , *Burnished Cylinder with a Hard-Chrome Layer*

1. Turn off the outer power supply to the machine.
2. Turn off the switch in the rear part of the machine.

WARNING

WAIT UNTIL THE MACHINE AND CONNECTIONS COOL DOWN.

C140

- Disconnect all power, steam and gas inlets.

Machine Disposal

WARNING

TAKE ALL NECESSARY ACTION AND PRECAUTIONS WHEN DOING DISASSEMBLY OF THE MACHINE TO AVOID INJURIES BY GLASS OR SHARP METAL EDGES.

C144

Machine Disposal (by a Specialized Company)

- Information concerning the WEEE-directive (Waste Electrical and Electronic Equipment; for European Unionmember 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 for more information concerning the systems for collection, reuse or recycling of disposed machines, contact the competent administration of your region or country (waste management).
  - You can also contact your manufacturer or distributor 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.
  - For distributors: Due to the diversity of the national legislations, the manufacturer can not take all the measures to be in accordance with all national legislations (of each member state). We expect that each distributor 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).

Machine Disposal (by Owner)

- 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 have 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 and gearbox	O	O	O	O	O	O
Ironing cylinder	O	O	O	O	O	O
Heating system	O	O	O	O	O	O
Gas heating control unit	O	O	O	O	O	O
Power cord	O	O	O	O	O	O
Control panel	O	O	O	O	O	O
Cabinet frame	O	O	O	O	O	O
Ironing belts	O	O	O	O	O	O
Transporting belts	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
Heat insulation	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.

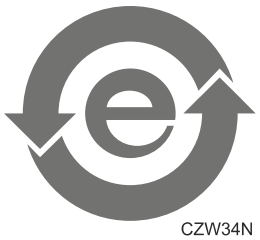
X: Indicates that the content of said hazardous substance exceeds the limits required by GB/T 26572 in at least one homogenous material in the component.

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.

continues...

China Restriction of Hazardous Substances (RoHS)

 CZW34N	