Operating handbook

Flatwork ironers
IC44819 – 4821 – 4825 – 4828 – 4832
LF/FLF/R/FR

- Flatwork ironer
- Flatwork ironer folder - LF
- Feeder flatwork ironer folder - FLF
- Flatwork ironer with rear load removal - R
- Feeder flatwork ironer with rear load removal - FR
The manufacturer reserves the right to modify construction and equipment characteristics.
Precaution for use

- The machine should not be used by children.
- This ironer must be used exclusively for textiles appropriate for machine ironing, which have been previously and exclusively washed in water.
- Blankets should not be ironed.
- Be careful with synthetic linen and also with printed linen. They can melt and stick on the cylinder.
- Do not iron articles that contain plastic, foam, sponge rubber or similarly textured rubber-like materials.
- Do not iron linens coated with solvent, paint, wax, grease or any easily inflammable products.
Before any use, it is compulsory to read the instruction handbook. Users must have learnt how to the machine operates. The identification plate is situated on the left side.

This machine should be installed in conformance to the health and safety regulations, and only used in a sufficiently aerated area. Check the instructions before installing or using the machine.
The machines described in this handbook have a ironing capacity of 190, 210, 250, 280, 320 cm wide depending on the type. They are available with steam, electric, gas or thermal fluid heating.

A version of the machine with a fully automatic folding system enables one or two persons to dry, iron and fold sheets longitudinally. Another version with a mechanical system allows the washing to come out at the back of the machine.

The ironing speed is adjustable as a function of the density (weight/m²) and humidity of the washing.
The electrically heated dryers-ironers can be equipped with a temperature regulation system for the heating cylinder using circulating heat. Machines fitted with a Dubixium cylinder have a normal electric heating device.

This system provides an excellent tool to optimise the performance of the dryer-ironer for those clients who mainly carry out staggered ironing. It prevents suddenly heating cut-outs caused by partial use of the whole length of the machine (Patent No. 9608471).

The unused calories on the sides of the cylinder are redistributed towards the centre, where the demand is greatest (please see the diagram below).

In this way, it is possible to limit the rise in temperature on the sides of the cylinder and the fall in temperature in the centre of the cylinder.
We draw your attention on the following practices. they will have consequences on the quality of your finished items and can, in some cases, void the warranty of your ironer.

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<thead>
<tr>
<th>RECOMMENDATIONS AND WARNINGS REGARDING</th>
<th>DESCRIPTIONS (why and what are the consequences)</th>
<th>Type of product concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi layer Items:</td>
<td>sheets folded in two layers and more will be much longer to dry. A double layer sheet will be longer to dry than twice the time of a single layer. The several layers of a sheet may slide against one another depending on their material and quality. The consequences can be a poor ironing quality (wrinkles), will be a poor quality length folding and most probably an impossible cross-folding.</td>
<td>X X X X X X</td>
</tr>
<tr>
<td>Worn polycotton Sheets (cotton washed away):</td>
<td>Polyester-cotton blended sheets have got a limited lifetime that needs to be considered. Old sheets will have no cotton left after a certain amount of washes. The consequences of ironing them on an ironer are: - Increased electro-static unbearable by the machine even if this one is equipped with an anti-static bar. Sheets will stick to parts of the machine creating jams and disrupting the length folding. - Photocells may not detect the presence of the sheets, also disrupting length folding.</td>
<td>X X X X X X</td>
</tr>
<tr>
<td>Large items</td>
<td>Your machine cannot automatically feed items wider than its width,</td>
<td>X X X X</td>
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<tr>
<td></td>
<td>For an IC4 4819 the maximum width is: <strong>1910 mm</strong></td>
<td></td>
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<tr>
<td></td>
<td>For an IC4 4821 the maximum width is: <strong>2120 mm</strong></td>
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<tr>
<td></td>
<td>For an IC4 4825 the maximum width is: <strong>2540 mm</strong></td>
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<td></td>
<td>For an IC4 4828 the maximum width is: <strong>2750 mm</strong></td>
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<tr>
<td></td>
<td>For an IC4 4832 the maximum width is: <strong>3170 mm</strong></td>
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<tr>
<td></td>
<td><strong>Your machine cannot fold items longer than 3 meters</strong></td>
<td></td>
</tr>
<tr>
<td>Size of items in general</td>
<td>Your ironer will deliver optimum results when processing items which width is closest to the maximum acceptable width. Processing smaller items will alter the performance of your ironer. In such cases, it's preferable to operate your ironer in manual mode. Example of sheets of 1.80 x 2.80m processed on an IC44825FLF or FFS Gas or Electric heated: They will have to be fed by the 1.80m width (2.80m being wider than the machine can feed). The automatic feeding will feed in the middle of the machine leaving 37cm on either side of each sheet. This practice will quickly lead to an overheating of the sides of the cylinder and dramatically reduce the production of the ironer. You may delay the overheating of sides of the cylinder by alternating the side through which you feed the items. You should always seek to use the maximum width of your ironer.</td>
<td>X X X X X X</td>
</tr>
</tbody>
</table>
### RECOMMENDATIONS AND WARNINGS REGARDING

<table>
<thead>
<tr>
<th>DESCRIPTIONS (why and what are the consequences)</th>
<th>Type of product concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size of items for automatic feeding</strong></td>
<td><strong>Basic</strong></td>
</tr>
<tr>
<td>The minimum size of items to be automatically Length Folded is 90cm. Smaller sizes will be systematically dropped or rejected if ironed in folding mode. Note that it is highly recommended not to automatically feed items that are much smaller than the width of the ironer. See &quot;Size of items in general&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Size of items for automatic folding</strong></td>
<td></td>
</tr>
<tr>
<td>The minimum size for items to be automatically cross Folded is 110. Smaller sizes will be systematically rejected to the rear of the FFS ironer.</td>
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</tr>
<tr>
<td><strong>Thick items</strong></td>
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<tr>
<td>Thick fabrics may lead to very thick folded items depending on your choice of folding pattern. The maximum thickness acceptable by the cross folding unit is 40mm for the second cross fold and 80mm for the third cross fold. You can modify this thickness by modulating the length folding pattern and/or cancelling the third cross fold (on IC44825FFS or IC44832FFS). Please refer to the programming manual.</td>
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</tr>
<tr>
<td><strong>Thin items</strong></td>
<td></td>
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<tr>
<td>Thin and light fabrics (below 80 gr/m²) may cause disruption in the length folding and not allow optimum quality of folding. They may also jam. You can iron them with precaution.</td>
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<tr>
<td><strong>Particular items</strong></td>
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</tr>
<tr>
<td>Your ironer is designed to process flatwork only, such as sheets, duvet covers, pillow cases, table cloths and napkins. Any other items may cause malfunctions of your ironer and may void your warranty. If you are unsure, refer to your nearest Electrolux Professional distributor for advise. Your ironer is not designed for processing the following items: - <strong>Padded covers</strong>: they are too thick and of inappropriate material - <strong>Terrycloth</strong>: it must be tumble dried. Ironing them will make them very rough. - <strong>Fitted sheets</strong>: elastics may deteriorate following exposure to excessive heat and possibly melt. Depending on their shape and material, they may be ironed if fed into the ironer with elastics facing upward so that they are not in direct contact with the cylinder. In no case they must be automatically fed as the elastics will greatly disrupt the feeding. They cannot be automatically folded for the same reason. - <strong>Garments</strong>: they are of complex shape (not flat) and must be ironed with appropriate finishing equipment. - <strong>Aprons</strong>: they are often flat but feature cords and strings that will jam into moving parts of your ironer. - <strong>Shower curtains</strong>: their material will not sustain the heat and they will melt on the cylinder.</td>
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<tr>
<td><strong>Inappropriate materials</strong></td>
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<tr>
<td>Your ironer is designed to safely process cotton, polyester-cotton and flax. For any other material, please refer to your linen supplier and your nearest Electrolux Professional distributor.</td>
<td></td>
</tr>
<tr>
<td>RECOMMENDATIONS AND WARNINGS REGARDING</td>
<td>DESCRIPTIONS (why and what are the consequences)</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Ironer maintenance</td>
<td>Your ironer is designed to run 8 hours without interruption. Every 8 hours and at other set intervals there are a number of required maintenance operations to be performed by yourself or your service engineer. It is critical that you strictly follow these requirements for your ironer to run properly. Please refer to chapter &quot;Preventive maintenance&quot; of this manual. Should you run your ironer for more than one shift, you must ensure that these maintenance operations are performed between shifts. In addition to these maintenance operations, your ironer should be stopped, cooled and shut down for at least one hour every 24 hours.</td>
</tr>
<tr>
<td>Reject ratio</td>
<td>Because flatwork is only flat and rectangle the day you buy it and then rapidly changes shape and characteristics after each wash, it is normal that 4% to 5% are rejected by the machine. Note that the quality of feeding will influence the quality of folding. Items may be rejected because they have not been fed properly. Static electricity and dirty photocells will also interfere with the performance of your ironer. Refer to &quot;Preventive maintenance&quot; chapter of this manual.</td>
</tr>
<tr>
<td>Plivit™ Length Folding</td>
<td>Your ironer performs a Plivit™ Length Folding pattern. It is different from an edge to edge folding and from an accordion folding. Refer to Chapter XX for explanation and illustrations of various folding patterns. In order to obtain consistent sizes of folded items, sorting flatwork per size before ironing is paramount.</td>
</tr>
<tr>
<td>Buttons on Duvet covers</td>
<td>Some duvet covers feature various types of fasteners that can be buttons, velcro, in plastic, metal or wood etc… These duvet covers may be ironed making sure that fasteners are facing up on the feeding table. The drying in the area of the fasteners will be longer than the rest of the duvet cover. This is normal due to the multi-layer of textile in this area and its complex shape. Lying these layers flat on the feeding table will help with a more homogeneous drying. Note that if the thickness of the duvet cover plus the buttons/fasteners is greater than 8mm, it may interfere with the finger guard protection of your ironer and stop it. This finger guard is a safety device to protect operators getting their fingers caught and driven into the ironer.</td>
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</tbody>
</table>
This page is left blank on purpose.
Emergency stop

The emergency stop must be unblocked, if not the machine will not work (to unblock, turn the red button to the right).

If the machine for some reason has to be stopped, abnormal or dangerous running, press emergency stop button.

Release the emergency stop, by turning it clockwise only after checking what motivated this stop.
## Simplified instructions for using the ironer

### 1. Switch on the main switch, open the gas stop valve or the steam valve.

Wait for displaying of the following message and press the central key.

![Stand by START](image)

When it begins operating, the machine is set to "automatic mode". You can now insert sheets.

![Dx °C 2.5m/mn 000 MANU PLI NEXT](image)

### 2. Manual Mode : Adjust the order temperature on the wished value thanks to keys (-) or (+) and push on OK.

![Set Temp : 180°C - + OK](image)

Manual Mode : Adjust the ironing speed on the wished value thanks to keys (-) and (+) and push on OK.

![Set Speed : 2.0 m/mn - + OK](image)

### 3. Folding : You should choose from the NO folding, FIX folding (manual) or PLIVIT (automatic) modes and move the reception tank upwards.

![Folding NO FIX PLIVIT](image)

### 4. Safety : The machine must stop when the mobile safety protector (hand safety) is switched on. Check operation of this protection every day.

Ignition fault on gas heating machine : This message keeps on flashing over 30 seconds if a fault occurs when igniting the gas burner.

![Error Gas Ignition](image)

### 5. Ironing : Place the washing to be ironed on the feeding table.

### 6. Stopping the machine : Push on any key to display "Select Running Mode" and push on STOP. Do not use the folding function during the cooling phase. Leave the machine cool down until the following message has disappeared. In an emergency, pressing the hand safety bar will stop the machine.

Switch the main switch off, close the gas stop valve or the steam valve.

![Cool-Down : xx°C START](image)
Feeder system control panel

- Feeder system start button and flashing fault indicator light
- Emergency stop button
- Selector button With feed, Semi-automatic feed, or Without feed.
- Feedind start push-button
- Gripper tension adjustment button.

3. Method of use
Simplified instructions for using the ironer

1. Switch on the main switch, open the gas stop valve or the steam valve. Wait for displaying of the following message and press the central key. When it begins operating, the machine is set to "automatic mode". You can now insert sheets.

2. Manual Mode: Adjust the order temperature on the wished value thanks to keys (-) or (+) and push on OK.
   
   Manual Mode: Adjust the ironing speed on the wished value thanks to keys (-) and (+) and push on OK.

3. Folding: You should choose from the NO folding, FIX folding (manual) or PLIVIT (automatic) modes and move the reception tank upwards.

4. Safety: The machine must stop when the mobile safety protector (hand safety) is switched on. Check operation of this protection every day.
   Ignition fault on gas heating machine: This message keeps on flashing over 30 seconds if a fault occurs when igniting the gas burner.

5. In Automatic mode:
   - First select the mode With feeding.
   - Pinch both edges of a sheet length in the clips.
   Feeding: Push on the button Start Feeding.

6. Stopping the machine: Push on any key to display "Select Running Mode" and push on STOP.
   Do not use the folding function during the cooling phase.
   Leave the machine cool down until the following message has disappeared.
   In an emergency, pressing the hand safety bar will stop the machine.

   Switch the main switch off, close the gas stop valve or the steam valve.
Without folding

ON

DIAMMS V xx.xx

Stand-by

START

Dx  °C  2.5m/mn  000

MANU  NEXT

Set Temp :  180°C

-  +  OK

Set Speed :  2.0m/mn

-  +  OK

Mx  160°C  2.5m/mn  000

DIAMMS  NEXT

Warm-up: T<100°C

Warm-up: T>100°C

Warm-up

STOP  RST-CNT  NEXT

Cool-Down : xx°C

START

Stand-by

START

OFF
Client mode

Starting the machine

**Start-up screen**

Turn on the power to the machine using the machine's main switch. The software version will appear on the screen for 4 seconds.

**"Emergency stop" warning message**

If the screen displays this message, check whether the emergency stop button has been operated.

Reset the emergency stop button and confirm by pressing the central key.

In all cases, you will return to the previous menu.

**Accessing the start-up menu**

The machine now asks you to press the central key to exit standby mode so as to display the pull-down menus and select the machine's operating modes.
### 3. Method of use

#### Warm-up

As soon as the machine is turned on, the "Start heating" command is given. The cylinder temperature begins to rise.

**By default, the machine is set for automatic mode.** The service screen appears as soon as the sheets have been inserted or when the required temperature is reached.

#### Cooling mode

When the STOP function is requested during operation, the machine will switch to standby and the heating system will be switched off.

The screen will remain in this mode as long as the temperature of the cylinder remains above 100°C (212°F).

The screen then displays the following message.

**Stand by**

You can now switch off the machine.

RST-CNT resets the sheet counter.

#### Automatic mode

When it starts up, the machine is set for automatic mode by default. However, you can switch over to manual mode at any time.

The "M" in the upper left-hand corner shows that you are in manual mode. To return to automatic mode, all you need to do is to press once on the "DIAMMS" button.

The "X" behind the letter "M" can take several forms:
- "F" if you have chosen the "FIX" folding mode.
- "P", if you have chosen the "PLIVIT" folding mode.
- If nothing is shown, this means that folding is deactivated.
Manual mode

Selection of Manual mode
If you press MANU, you will switch to manual mode. In this mode you use the following menus to select the temperature and the ironing speed you wish to apply to the machine.

The "X" behind the letter "D" can take several forms:
• "F", if you have chosen the "FIX" folding mode.
• "P", if you have chosen the "PLIVIT" folding mode.
• If nothing is shown, this means that folding is deactivated.

Each changeover from manual mode to automatic mode automatically resets the sheet counter.

Temperature setting
This screen does not appear on machines equipped with a steam heating mode.

The screen will now ask you to set the ironing temperature.

The ironing temperature can be adjusted in increments of 5 degrees Celsius (or 9 degrees Fahrenheit) by pressing.

Press OK to confirm the temperature.

Note: if you request a temperature lower than 120°C (248°F), the screen will display a (-) sign to indicate that the heating has been switched off and allow the machine to operate without heating.

Ironing speed
The screen now asks you to select the ironing speed.

The ironing speed can be set between and minimum and a maximum value specified in the Settings menu. The value can be adjusted in increments of 1/10 of a metre (or 3/10 of an inch) by pressing.

Press OK to confirm the ironing speed.

It should be noted that the minimum and maximum ironing values depend on the converter adjustment settings.
With folding or without folding mode

Selection of With folding or Without folding mode

This screen will only appear if you have replied YES when setting the machine’s starting parameters.

The screen now asks you to select the with folding or without folding mode.

If you do not want to fold, press "NO".

If you wish to use the manual folding function, (in other words by adjusting the length of the desired folds), press on "FIX".

In the opposite case, press on "PLIVIT" in order to have the machine carry out automatic folding.

It should be noted that by returning to this screen and reselecting one of the two options, you can reinitialise the folding system in the event of incorrect operation.
Following screens are displayed only if your machine includes the folding option and the manual fold adjusting.

Select the length of folds

Length of fold
This screen enables to manually select the fold length while folding.
Before feeding in a sheet, choose the desired fold length according to the length of the sheet.
To calculate the length of the folds, you should measure the length of the sheet and then estimate a fold length, bearing in mind that you should always divide by an even number of folds (minimum four). As an example:
• Sample values: for a sheet of 240 cm, we obtain 6 folds of 40 cm or 8 folds of 30 cm. On the other hand, it is not possible to have 4 folds of 60 cm.
After an initial trial, you should then fine-tune the folding function by increasing or reducing the fold length: for example by increasing an initial fold value of 40 cm to 41 cm or reducing it to 39 cm.
The fold length can be adjusted from 20 to 48 cm per steps of 1 by pressing the two left keys.
Valid by pressing the key OK.

Select the offset of the first fold

Length of the first fold
This screen makes it possible to manually select the length of the first folds during the folding process in order to adjust the length of the sheet tail with the other folds.
• Sample values: with a sheet of 265 cm and 8 x 35 cm folds, you can set the first fold at 20 cm (with an edge margin of 15 cm) followed by 6 folds of 35 cm.
• Sample values: with a sheet of 265 cm and 6 x 45 cm folds, you can set the first fold at 40 cm (with an edge margin of 5 cm), followed by 4 folds of 45 cm.
Feed problems or problems concerning the shape of the sheets (which can sometimes be irregular), may lead to the last fold “overshooting”.
• Sample values: if you have selected folds of 45 cm and if after having modified the edge margin setting, the final folds exceed 10 cm, you should increase the fold length to 47 cm:
\[45 \text{ cm} + (10 \text{ cm} / \text{no. of folds}) = 45 + (10 / 5)\]
in order to adjust the tail of the sheet.
By pressing the two buttons on the left, the value for the first fold can be adjusted from 0 up to half of the “fold length” value previously set (with the value increasing by 1 each time you press the button).
Valid by pressing the key OK.
Service screen in Automatic mode

Service screen in Automatic mode

The values for the current use of the machine are shown on the first line of the screen.
• The "D" shows that you are in automatic mode (DIAMMS).
The two following values show:
• The ironing speed
• The sheet counter information
In automatic mode (DIAMMS), the cylinder temperature will not be displayed. This is managed by the machine itself. Only the flashing °C indicator is shown.
The second line displays the commands accessible from the buttons on the panel.

Service screen in Manual mode

Service screen in Manual mode

The first line of the screen displays the values for the current use of the machine.
• The "M" shows that you are in manual mode.
The following three values show:
• The current cylinder temperature
• The ironing speed
• The sheet counter information.
Various indications regarding the temperature of the ironing cylinder are displayed:
• If the temperature indicator blinks, this means the machine is preheating.
• A (-) sign indicates that the temperature of the cylinder is below 100°C (212°F).
• The current temperature is displayed when the temperature of the cylinder is between 101°C and 245°C (213°F and 470°F)).
  Note: values 101-245°C are minimum and maximum temperature that the electronic programmer can display. The maximum ironing temperature cannot reach 245°C (470°F), a safety thermostat automatically cuts off heating before reaching this value.
• A (+) sign indicates that the temperature of the cylinder is above 245°C (470°F).
At this point, press one of the three keys to return to the manual/automatic mode selection display. Use this function to change the set temperature or ironing speed.
The second-line displays the commands accessible from the buttons on the panel.
Complementary instructions for starting up a machine with gas heating.

The ignition of the burner is delayed by 30 seconds following the start command in order to allow for the pre-ventilation of the combustion chamber.

The machine will be ready to be used after the following message disappears: "Error Gas Ignition".

**NOTE:** the noise at the inter-ignition is not an explosion. It is a normal phenomenon.

Complementary instructions for starting up a machine with electrical heating.

The typical ironing temperature is 150 to 180 °C (300 °F to 356 °F). You just have to set the electronic thermostat to the required temperature.

In automatic mode, the ironing temperature is defined and managed by the machine.

Complementary instructions for starting up a machine with steam heating.

**Note that the temperature is directly related to the steam pressure (see table bellow).**

The typical ironing temperature is 150 to 180 °C (302 °F to 356 °F).

On the contrary of a gas or electric heated machine, for a steam heated machine, you just have to adjust the ironing speed regarding the linen and its water retention.

<table>
<thead>
<tr>
<th>Manometric pressure in bars</th>
<th>300 (3)</th>
<th>400 (4)</th>
<th>500 (5)</th>
<th>600 (6)</th>
<th>700 (7)</th>
<th>800 (8)</th>
<th>900 (9)</th>
<th>1000 (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature in °C</td>
<td>143</td>
<td>151</td>
<td>158</td>
<td>164</td>
<td>169</td>
<td>174</td>
<td>179</td>
<td>183</td>
</tr>
</tbody>
</table>
Additional instructions for using an ironer with rear delivery

Two emergency push buttons are located at the rear of the machine in order to ensure the safety of the employees. To underline that a sudden stop of the ironing cylinder with temperature above 120 °C (248 °F) can damage the ironing belts. After an action on the emergency push button, re-starting the ironer is only possible after pushing the ON key and then the heating ON key.
Additional instructions for using a machine with automatic folding

Even if your ironer is equipped with the automatic folding function, a "With folding/Without folding" mode makes it possible for you to use your ironer without the automatic folding function. In this case, you simply need to move the reception tank upwards in order to enable the linen to leave the machine unfolded, and then select the "Without folding" function on the command panel.

Ironing of small items of linen, without using the feeding system or the automatic folding system.

- Close the flap (A) so as to be able to stand as close as possible to the machine.
- Leave the linen collector (B) in the horizontal position to receive the small items of linen as they are ironed.

If the tank is in the wrong position to receive unfolded linen, an electronic device prevents you from using the ironer in the folding mode, even if you have selected the folding mode via the command panel. The message "Warning: tank position error" is then displayed on the command panel.

To return to the automatic folding mode, you should select the "with folding" mode and then lower the reception tank. The linen will then be released directly on to the reception table.

Ironing with the automatic feeding system and the automatic folding system

- Open the flap (A) to allow the linen to hang correctly during smoothing.
- Swing the linen collector (B) into the vertical position to form a box with the flap.

NOTE: to ensure easy handling of the reception tank, it is recommended that you operate this manually from its centre (between the two arrows inlaid on the front edge of the tank).
Folding characteristics (machine with folding function only)

- Dimension of sheets compatible with folding:
  - Min. length: 90 cm (35")
  - Max. length: 355 cm (140")

- Fold dimensions:
  - Min. length: 20 cm (8")
  - Max. length: 50 cm (24")

- Number of folds:
  - 4 folds min.
  - 10 folds max.

- Minimum feeding separation distance between two sheets: 10 cm (4")

- Dimension of the first fold before the complete sheet measurement (advance folding):
  - 25 cm (10")

- Dimension of the second fold before the complete sheet measurement (advance folding):
  - 35 cm (14")

- When a sheet is too long, folding starts before the complete sheet measurement, this is advance folding. The machine then automatically adjusts the folds as a function of the measurement made.

Automatic feed characteristics (machine with feed function only).

- Gripper movement speed
- The sheet size must be between 85% and 100% of the usable width of the dryer-ironer.
Table for adjustment of folding values

Note: Only the following values guarantee a correct folding.

<table>
<thead>
<tr>
<th>L (cm)</th>
<th>N</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>X=25</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td></td>
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<tr>
<td>95</td>
<td></td>
<td>26</td>
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<td>100</td>
<td></td>
<td>28</td>
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<td>105</td>
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<td>29</td>
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<td>115</td>
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<td>31</td>
<td>21</td>
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<td>120</td>
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<td>22</td>
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<td>125</td>
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<td>34</td>
<td>23</td>
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<td>130</td>
<td></td>
<td>35</td>
<td>23</td>
<td>-</td>
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<td>270</td>
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<td>275</td>
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<td>48</td>
<td>36</td>
<td>29</td>
<td>24</td>
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</tbody>
</table>

Diagram: L (cm) with R=5 and 20 < X (cm) < 48
Instructions for using the feeding system

The feed device includes a command panel with five buttons or indicators.

The feeder operates independently of the automatic folding system.

The ironer can be used in a variety of ways:

• ironer on its own for small items of linen,
• the ironer together with the feeding system,
• the ironer together with the automatic folding system,
• ironer together with the feeding system and the automatic folding system.

Ironing of small items of linen, without using the feeding system or the automatic folding system.

• Close the flap (A) so as to be able to stand as close as possible to the machine.
• Leave the linen collector (B) in the horizontal position to receive the small items of linen as they are ironed.

• Leave the shelf (C) in a vertical position to allow access to the container of the feeding table in order to store the linen in it.
Ironing with the automatic feeding system and the automatic folding system

• Open the flap (A) to allow the linen to hang correctly during smoothing.
• Swing the linen collector (B) into the vertical position to form a box with the flap.

• Raise the shelf (C) as shown in the diagram opposite to cover the container of the feeding table so that it rests on the stop (4).

• If you wish to lower the shelf (C), proceed as shown in the diagram opposite.
• Turn the selection button to select the mode:
  - Automatic feed
  - Semi-automatic feed

• Press the initialisation button to position the clamps in operating mode (clamps in the centre of the machine).
  **Note:** in the event of blockage or stoppage of the machine, of restarting, power failure or if this indicator begins flashing, you must press this same button again to reinitialise the feeder.

• Take a large edge of the sheet in your hands and place one corner in one clamp and the other corner in the other clamp. Do not leave over 3 to 4 cm outside the clamp.
• Press the feeder start button.

Note: If the machine is set on the semiautomatic feeding mode, you must push this start button to move the clamps in front position.

• Turn this button to adjust the sheet tension using the grippers before it is released on to the feeder table.

• In the event of a problem, press the emergency stop button.
Additional instructions to optimise a dryer-ironer.

When ironing small sheets or small washing, pass abreast the washing of the heating cylinder to provide correct regulation of the cylinder temperature.

As a general rule, the whole of the cylinder should be used (1). Either iron the linen from the front (2) or iron alternately (3), which makes maximum use of the heat units available over the surface of the cylinder. It also overcomes difficulties arising from random control values caused by partial use of the cylinder.
Precautions for use

Please respect the following usage recommendations to get the best out of your ironer:

In manual mode
- Avoid when running, too low or badly adjusted temperatures as consequence of:
  - a too high ironing speed with high moisture content in sheets: bad sliding on metallic sparts.
  - a partial use of the ironing length of the cylinder: creating overheating (be careful especially, to the risk for the polycotton sheets to loose their shape, generally stabilised at 200 °C (392 °F).
- You should begin ironing when the "Warming up" message disappears.
- Check that the washing can be ironed and check the temperature at which it is to be ironed.

The productivity and quality of ironing / folding depend on the washing quality; make sure that all these conditions are satisfied.

- We recommend as far as possible, that you should feed pieces of flat washing (towels, sheets, etc.) by their hem, with the seam facing top, to obtain maximum ironing quality.
- Carefully engage the washing to be ironed, because it is impossible to disengage a badly engaged washing.
- Allow 10 cm between washing to be ironed when using a machine with an automatic folding system
- Do not iron washing folded in four, because it will be too thick to achieve the drying/ironing/folding quality that you are entitled to expect from your machine.
- If possible, use the entire ironing width of the dryer ironer.

---

CAUTION

Do not push small pieces of laundry in front of the DIAMMS turners to avoid jamming.
Practices to avoid

- Make sure that the width of the washing does not exceed the useful width of the machine.
- Linen units under 0,90 m (machine with the automatic folding or/and feeding option).
- Sizes not fitting the cylinder working length, partial use of the cylinder.
- Draw-sheets or any other double-layer sheet or sheet pulled into the machine side by side.

Practices not recommended

- Folding of tableclothes (of poor quality).
- Folding of tableclothes (of poor quality).
- Worn polycotton sheets (cotton worn away) : uneven finish look when folded, high static electricity.
- Large cotton or flax-made sheets > 200 g/m².

Cautions

- Prepare the large sheets before feeding : ironing and longitudinal folding defects.
- Avoid the torn, worn or holed sheets, that may hook and alter the measurements and the longitudinal folding.
- Comply with the mini-maxi sizes of sheets (machine with automatic feeding).

In all cases, you should ensure that the folding characteristics are respected.
### Method of use

#### Flatwork ironer

- **Fitted-sheet**
- **Comforter cases with flap**
- **Butcher's apron**

<table>
<thead>
<tr>
<th>Flatwork ironer</th>
<th>Draw-sheets</th>
<th>Fitted-sheets</th>
<th>Comforter cases</th>
<th>Butcher's apron</th>
<th>Linen &lt; 200 g/m²</th>
<th>Linen &gt; 200 g/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Flatwork ironer + Folder</td>
<td>Yes</td>
<td>O</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Flatwork ironer featuring rear load removal</td>
<td>Yes</td>
<td>O</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Flatwork ironer with feeding + Folder</td>
<td>Yes</td>
<td>O</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Flatwork ironer with feed device featuring rear load removal</td>
<td>Yes</td>
<td>O</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

| Yes | Cautions | Practices to avoid |

- Fitted-sheet (1) : might cause folding problems, measurements altered.
- Comforter cases with flap (2) (folding problems).
- Linen other than flatwork (butcher's apron (3) : watch that the cords do not slide between the feeding strips).
- Linen < or = 80 g/m² : gravitational pull difficult at lengthwise folding.
Stopping the machine

To avoid potentially serious damage to the ironing belts and other components, follow these instructions when shutting down the machine:

- On steam heated machines, turn off the steam supply to stop the heating and slowly open the trap-bypass valve to bleed.
- Use the STOP function on control panel to begin the shut-down cooling process.
- When the screen displays "Stand by/Start", switch the main switch to the "OFF" position.
- On gas heated machines, close the gas supply valve.

You can switch the machine off at any time by pressing on the machine stop switch; but note that if the ironing cylinder is too hot (above 120 °C (248 °F), it can damage the bands.

Using the handle

The dryer ironer is fitted with a handle.

This is very useful to take out the washing if there is a power failure while you are ironing; or you can use it to feed a piece of wet washing to protect the ironing bands when the ironing temperature is too high.

Lift the safety plate (1) then push (2) and turn the handle in the clockwise direction (3) to rotate the cylinder and take out the washing.
RABC option (Risks Analysis Biocontamination Control)

RABC (Risks analysis and bio contamination control) is a method used for checking hygiene in laundry shops. It records vital data to ensure processing is performed according to procedures.

Traceability for quality control:

All of the dryer-ironers are compatible with the traceability systems corresponding to the RABC method.

- CMIS software
- RABC printer
CAUTION

Disconnect the machine electrical power supply before doing any repair or servicing work.

CAUTION

Do not use the machine unless it is plugged into a correctly earthed power socket complying with standards in force.

WARNING

The presence of dangerous mechanisms inside the machine can cause serious injuries. Respect all safety instructions before doing any work on the machine. Replace protective casings after doing any work.

CAUTION

For your personal safety, never use the machine without the protective housings.

CAUTION

For your own safety, it is prohibited and dangerous to solder the ironing cylinder. If a leak occurs, never try to repair it yourself. Ask our technical departments for advice.
4. Safety

CAUTION

The temperature of the ironing cylinder after use can reach 200 °C (392 °F) and can cause serious burns if you touch it. Allow the machine to cool down before doing any repair or servicing work.

SAFETY

Never iron if the mobile safety protector (hand protection bar) is not operating.

CAUTION

Never open the Dubixium cylinder’s filling cap. This may void the guarantee.

IMPORTANT

To ensure optimal operation of the machine (gas heating, electronic boards, etc.), ensure that the ambient temperature does not fall below 15°C.

All repair and servicing work must be undertaken by a competent person.

Never wear full clothes during work (wide sleeves, ties, scarves, etc.).

Disconnect all energy sources and let the ironing cylinder cool down before doing any work on the machine.

In order to avoid any danger of fire or explosion, never use inflammable products to clean the machine.

If you smell gas, turn off the gas supply, open the windows, do not touch any switches and inform the maintenance service.

Evacuation of vapour from a dryer ironer with gas heating must never be connected to the evacuation used for a gas heating machine and a dry cleaning machine or other machine of the same type.
Locking and tagging procedure

A red insert at the beginning of this instruction handbook schematically shows the locking and tagging procedure described below. If you wish, you can detach this insert and display it close to the machine to remind maintenance personnel of the safety instructions.

1. Always respect items 2, 3 and 4 carefully before doing any repair or maintenance work on the machine.

2. Put the main switch to Off and lock the handle with a padlock in one of the three holes provided for this purpose.

3. Open the fixed protectors (casings, doors) with the key provided or a special tool. Close and carefully lock the fixed protectors.

4. Unlock the stop valves and the main switch.

Close the stop valves for the other supplies (steam, gas, thermal fluid, compressed air) to stop and lock their handle with a padlock.

Do the maintenance.
Safety devices

Feed safety device

The space between the feed safety flap and the drive bands is too small for you to enter your fingers. The machine stops automatically as soon as the flap is pushed in.

Protection of motors

The motors have overload protection:
- by thermomagnetic circuit breakers and
- by the electrical selector (for movement).

Restarting the machine

You will not be able to restart the machine after it has stopped (power failure, emergency stop, action on the feed safety device), until you have pressed one of the keys on the control panel.

Gas heating

The gas burner is ignited and the flame is controlled by an electronic box that provides integral safety, for example if the flue draft is poor or if the gas supply is cut off.

An message on the control panel shows that the system has been put in a safe condition.

A pressure switch connected to the combustion products outlet turns off the machine’s heating function should extraction problems arise.

Accessibility

All casings can be disassembled using a special tool.

Heating safety device

The control panel applies an initial safety level at the time the machine starts up. If the temperature is not reached after a given time, the heating command is deactivated.

The operation of the heating function is linked to the rotation of the cylinder. If the cylinder should stop rotating for any reason, the machine stops heating.

A safety thermostat, which is independent of all electronic systems, limits the heating temperature of the ironing cylinder in all circumstances, (except in the case of a steam heating machine).

Power supply failure

If there is a mains power supply failure, use the handle to remove any washing engaged in the machine. If the temperature is too high, use the handle to feed some wet washing and protect the ironing bands.
Complementary instructions for operation

Check daily that the hand safety bar is working correctly, the machine must stop when you press it. The screen on control panel displays "Emergency Stop/ Reset Push Button". Press any key to resume ironing.

Ironing Temperature Display

The control enclosure includes an electronic thermostat panel which shows in real time the temperature of the ironing cylinder.
A running temperature over the selected temperature is normal. This happening is not a failure of measuring devices but it is due to heating inertia.
In automatic mode, temperature and speed management are handled by the machine itself.

The use of steam heating machines.

Steam heating machines are designed to operate only using dry saturated steam at a maximum pressure of 1000 kPa (10 bar). You should take care not to exceed this limit in order to avoid premature damage to pressurised components.

Each time the machine cools down, water vapour is inevitably created. The use of dry saturated steam reduces the risk of erosion and corrosion of the tubes and pressurised components.

There is a risk of deformation, cracking and bursting if pressure levels are used which exceed the recommended 1000 kPa (10 bar). Check that the safety valve operates correctly in order to avoid the risks of excess pressure building up.

Fire-related risks.

Should a fire breakout inside the machine, it is recommended that you use a CO2 extinguisher.

Note: in the case of a machine using gas heating, it is strictly forbidden to attempt to put out the fire before having first turned off the gas inlet valve.

The client must ensure conformity with the Labour Code and his supplier of fire-fighting equipment who issues the Q4 certificate to him.

Repair and maintenance work on the machine.

All work on the machine must be carried out by qualified personnel, able to carry out the work required.

Ensure that the applicable safety conditions for the destination country are fully observed.
<table>
<thead>
<tr>
<th>Encountered problem</th>
<th>Cause of problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The washing remains stuck to the cylinder</td>
<td>Your washing is not rinsed correctly</td>
<td>Check rinsing with a 1% phenolphthalein solution diluted in alcohol. If this colorless liquid turns to pink on the washing as it comes out of the washing machine, and it still contains detergents. Increase the number of rinsings if necessary or reduce product doses.</td>
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<tr>
<td></td>
<td>if the washing is insufficiently rinsed.</td>
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<td></td>
<td>Check that ironer separating ribbons are intact.</td>
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<tr>
<td></td>
<td>Check the cylinder temperature.</td>
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<tr>
<td></td>
<td>The washing is not sufficiently spun.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Your linen is starched</td>
<td>There is a risk of starch deposits forming on the cylinder</td>
</tr>
<tr>
<td>When the linen comes off the dryer-ironer it is not dry</td>
<td>Your washer-spin dryer has a spin rating of below 300G.</td>
<td>You should plan on a short pre-drying session in a dryer (5 – 10 mins).</td>
</tr>
<tr>
<td></td>
<td>Check the drying quality of your washing machine.</td>
<td>The residual moisture content of the washing should be about 50%.</td>
</tr>
<tr>
<td></td>
<td>The ironing speed is too high.</td>
<td>Reduce the ironing speed.</td>
</tr>
<tr>
<td></td>
<td>The ironing temperature is too low.</td>
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<tr>
<td></td>
<td>The linen that you are trying to iron is too thick.</td>
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<tr>
<td></td>
<td>Check operation of the heating.</td>
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<tr>
<td></td>
<td>Check operation and cleanliness of the vacuum intake system.</td>
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<tr>
<td></td>
<td>Check the condition of ironing bands (fibers containing scale).</td>
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<tr>
<td></td>
<td>Check the pressure of the ironing roller on the ironing cylinder.</td>
<td></td>
</tr>
<tr>
<td>The folding system works without stopping</td>
<td>Check that the photoelectric cell is opposite its reflector.</td>
<td>Check that these are clean and clean them if required.</td>
</tr>
<tr>
<td></td>
<td>The cell is correctly positioned opposite its reflector.</td>
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</tr>
<tr>
<td>Encountered problem</td>
<td>Cause of problem</td>
<td>Solution</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The heating does not work, or works badly</td>
<td>Check the temperature preselection.</td>
<td>Check the panel’s sensors.</td>
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<tr>
<td></td>
<td>Check the safety thermostat.</td>
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<td></td>
<td>Check to see if the panel is showing overheating or a high temperature.</td>
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<td></td>
<td>Check the cylinder’s rotation detection system.</td>
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<tr>
<td><strong>Gas heating</strong></td>
<td>Check the gas inlet.</td>
<td>Check that the vapour intake fan is working and is turning in the right direction.</td>
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<tr>
<td></td>
<td>Clean pressure reducer filters.</td>
<td>Check that air inlets are not blocked.</td>
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<tr>
<td></td>
<td>Check electronic ignition.</td>
<td>Check the combustion products exhaust flue.</td>
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<tr>
<td></td>
<td>Check the position of the ignition electrodes and flame control.</td>
<td>Check injector calibration.</td>
</tr>
<tr>
<td></td>
<td>Check operation of the gas solenoid valve.</td>
<td>Clean machine air inlet filters.</td>
</tr>
<tr>
<td>The flame is yellow</td>
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</tr>
<tr>
<td><strong>Electrical heating</strong></td>
<td></td>
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</tr>
<tr>
<td>Check heating contacts KM6, KM7 and KM8.</td>
<td></td>
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<tr>
<td>Check heating resistances.</td>
<td></td>
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<tr>
<td>Check resistance connections.</td>
<td></td>
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<tr>
<td>Check phases.</td>
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<tr>
<td><strong>Steam heating</strong></td>
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<td></td>
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<tr>
<td>Check the steam inlet and the boiler pressure.</td>
<td></td>
<td></td>
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<tr>
<td>Check the steam quality.</td>
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<tr>
<td>Check the non-return valve and the steam purge.</td>
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</tr>
</tbody>
</table>
### 5. Operating incidents

<table>
<thead>
<tr>
<th>Encountered problem</th>
<th>Cause of problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The folding system is defective</strong></td>
<td>Check that the photoelectric cell and its reflector are clean.</td>
<td>Check that the linen is perfectly dry after being ironed.</td>
</tr>
<tr>
<td></td>
<td>Check the folding arm limit switch.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Condensation given off by the linen when still damp has affected the operation of the photoelectric cell.</td>
<td></td>
</tr>
<tr>
<td><strong>The machine temperature drops</strong></td>
<td>Check the sensor in the thermostat regulation system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check the thermostat by measuring the cylinder temperature with a thermometer.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check that the regulation shoe is in contact with the cylinder.</td>
<td></td>
</tr>
<tr>
<td><strong>The machine stops suddenly</strong></td>
<td>Check the electric power supply.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check the hand safety flap switches S5 and S6.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check the movement and ventilation fans.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check circuit breakers.</td>
<td></td>
</tr>
</tbody>
</table>

### Static electricity makes the folding difficult to achieve (machine with the folding system only)

- Synthetic textiles are used increasingly in laundry. The low rate of relative moisture on output from drying allows high ironing speeds, which leads to production of harmful static electricity when the linen is ironed in the machine.
- Use of softening and anti-static products attenuates this phenomenon.
- So, static electricity might cause important difficulties at folding, especially when ironing polyester/cotton. It is advised to add a rinsing anti-static liquid at the end of washing cycle in order to reduce the formation of static electricity when ironing.

### Static electricity

- Any friction generates static electricity. Remember the plastic ruler people rub over their pullover to attract little bits of paper. With the same causes producing the same effects, the linen being subjected to friction in the course of ironing, the rubbing of the linen against the cylinder generates static electricity. If too much static electricity builds up, friction has to be reduced, which can be done by removing the driving chain of the press-cylinder to reduce the generation of static electricity.
Linen colouring

• The brown coloring is due to detergent residues, and will disappear at the next washing.
• Colouring caused by the temperature being too high is permanent. Reduce the ironing temperature or increase the ironing speed.
• The washing should be correctly rinsed so that it does not turn yellow and does not make the cylinder dirty.
  - Check the quality of the washing water (TH/TAC).
  - Check the washing and rinsing cycles (see "phenolphthalein" operating incidents).
  - Check incrustation of the washing (ash content).

The feed bands are not turning

• This type of incident is normal when it only affects a few bands.
  When washing will not engage any more, adjust the tension of all the bands by changing the setting of the feed table bearings.
  Do not overtighten the bands.
  The band must stop turning when you press on it with your finger. It must start again when you remove your finger.

Complementary instructions for starting up a machine with gas heating.

The message "Error Gas Ignition" is flashing on display screen during 30 seconds to show that the gas burner is being ignited. If this message is still displayed after 6 seconds, there may be an ignition fault, a failure in gas valve opening or a lack of gas.
Switch the machine off and call your local repairman if this occurs regularly.

About 10 minutes is necessary to warm up.

Note:
Do not forget to open the stop valve on the gas supply line before starting to use the machine, and then close it again after use.

The noise at the inter-ignition is not an explosion. It is a normal phenomenon.

Complementary instructions for starting up a machine with steam heating.

Note: do not forget to open the by-pass or the condensate return valve for about a minute to purge the pipes so that the cylinders can warm up more quickly; do this before starting to switch on the machine. Close it afterwards.

Slowly open the steam inlet valve and check the temperature on the control display panel.
5. Operating incidents

Overheating of cylinder sides

**Overheating of cylinder sides (when feeding is carried out on the centre of the cylinder too often)**

In the event that one of the two sides of the cylinder overheats due to it being partially used, a flashing message will be displayed on the screen, alternately with the service screen.

The heating system of the machine will remain shut down while this flashing message is displayed.

To continue ironing, allow the cylinder to cool until the flashing display disappears.

Overheating of centre of cylinder

**Overheating of centre of cylinder (when small linen units are too often fed on the centre of the cylinder)**

In the event that the centre of the cylinder overheats due to it being used laterally, a flashing message will be displayed on the screen alternately with the operating screen.

The heating system of the machine will remain shut down while this message continues to be displayed.

To continue ironing, allow the cylinder to cool until the flashing display disappears.
Converter fault

"Converter failure" message

If this message appears on the screen, the converter has developed a fault. Please refer to the converter manual for information repairing the fault.

The machine will only be able to be restarted once the fault has been repaired.

To reinitialise the machine, press the central key.

If the fault remains, switch off then switch back on the power supply using the main switch.

Fault Emergency stop

Message: "Emergency stop-check button"

If the screen displays this message, one of the emergency stop buttons has been triggered. The machine enters safety mode, the heating is turned off and the cylinder stops.

Check why the button was pressed and then reset it.

The screen should now display this message:

You can now press on the central button on the panel to return to the machine operation mode.

If resetting the button does not solve the problem, you should then check the others.
5. Operating incidents

Gas burner ignition fault (only for machines using gas heating)

"Gas ignition fault" message (only on gas-heated machines).

The screen will alternately display this flashing message and the service screen. This means that the lighting of the gas burners has been requested.

If this message has been displayed over 30 seconds, the gas burner is not ignited. The heating system falls into safety state and heating is cut off. Try again and follow the starting procedure.

Press any key to display the following menu.

After an additional failure, please check the gas heating running. If the fault remains, consult your after-sales service.

Reset the igniter (only for machines using gas heating)

Message: "Reset igniter"

The message on the screen will then ask you if you wish to reset the igniter.

Press on one of the two buttons on the left to restart the gas igniter.

Press the "STOP" button to stop the machine.

Fault with the heating system

Message: "Problem - fault with the heating system"

The screen appears if, after a certain time (approximately 20 minutes) the cylinder temperature remains below 100°C.

Try to restart the machine.

If the problem continues, please consult your after-sales service department.
The following three screens will only appear if you have a machine with a folding option and manual fold adjustment.

**Error of communication with the folding option**

"Com. Error Folder" message

The screen will alternately display this flashing message and the service screen. This message means that there is a communication failure between the control panel and the folding programmable logic controller.

- Check the link between the control panel and the programmable logic controller.
- Check the setting of the programmable logic controller.
- In the Set 2 menu of the service program check the configuration for the control panel. The MANU parameter should be selected.

If the fault remains, consult your after-sales service.

**Error of the folder running**

"Folder Error 002" message

The screen will alternately display this flashing message and the service screen. This message followed by a number means a failure in the folder running.

Switch off then switch back on the power supply using the main switch. If the fault remains, consult your after-sales service.

**Positioning fault with the reception tank**

Message: "Problem - tank positioning error".

The screen displays the following flashing message, alternating with the service screen. This message shows that the reception tank on the machine is not in the correct position for the folding option that you have chosen:

- Raised to use the machine without folding (folding mode: WITHOUT).
- Lowered to use the machine with folding (folding mode: FIX or PLIVIT).
Preventive maintenance of the ironer

Daily (8 h) (at the beginning of each working day)

1. Check that the machine stops when you press the mobile safety protector (hand safety device).
2. Check that the "emergency stop button" works correctly.

Weekly (40 h)

3. Clean motor ventilation grills.
4. Clean the drive system of the dewrinkling strips.
5. Clean the separators.
6. Clean the detection cell and its reflector (on models with the folding function only).
7. Check and clean the fluff filter and the cover filter with suction device.

Monthly (170 h)

8. Remove dust from outside the machine.
9. Check the condition of the separating ribbons, and replace them if necessary.
10. Ensure that the thermostatic regulation and overheat safety shoes are always clean and in contact with the cylinder.
11. Lubricate the steam heater bearings (see lubrication chart in next pages).

Every six months (1000 h)

12. Check for any possible oil seepage, particularly at the filler plug (only on Dubixium cylinders).
13. Grease chains (see lubrication table on the following pages).
14. Clean and inspect the cylinder support rollers, along with the stop roller wear indicator (except on the steam machine). If there is any premature wear, see technical support, ref. 04102018.
15. Check operation of the handle.
16. Inspect tightness of electrical connections on the power supply terminal block and electrical earthing connections.
17. Clean exhaust system.
18. Inspect heating elements, cables and electrical connections (on electrical heating only).
19. Clean gas filter inside the gas valve (on gas heating only).
20. Check the condition of ironing bands and their staples.
21. Check the feed bands and their drive and ejection bands (on models with the folding function only).
22. Clean inside the machine.
Every year (2000 h)

23. Check if the cylinder is dirty and clean it if necessary.
24. Clean external pipes done by customer.
25. Check that the burner works correctly (gas machines only).
   Clean the inner gas burner with suction device.
   Check the sight of the ceramic plates joints and change them if necessary.
26. The bearings must be grease once a year, you may grease them using a grease which
   same characteristics as that originally used (grease CELTIA G2).

Every three year (6000 h)

27. Clean the ceramic plates with suction device.
28. Change the high temperature joints made of mineral wool.
29. Check the tightness of the venturis.
SAFETY
Any repairing or maintenance operation should be carried out by a specialist.

CAUTION
For an optimal service of your machine, execute this instructions at regular intervals and according to the frequency of use.
Preventive maintenance of the feeder system

Daily (8 h) (at the beginning of each working day)
1. Check that the "emergency stop button work correctly.

Weekly (40 h)
2. Clean motor ventilation grills.
3. Clean the drive system of the dewrinkling strips.

Monthly (170 h)
4. Remove dust from outside the machine.
5. Check the condition of the separating ribbons on the press roller, and replace them if necessary.

Every six months (1000 h)
6. Inspect tightness of electrical connections on the power supply terminal block and electrical earthing connections.
7. Clean exhaust system.
8. Remove dust from inside the machine.

WARNING
Carry out these instructions at regular intervals, depending on the frequency of use, to keep your machine in optimum working condition.

Note:
The drier-ironing machine textile components must be considered as wearing parts. The lifetime of these parts (ironing strips, feeding strips, clamping belts, transfer belts, etc.) is highly dependent on the usage conditions and maintenance frequencies. Consequently, their replacement may not be claimed under any guarantee.
This page is left blank on purpose.
Motors

- The fan motor is life lubricated.
- The movement reduction gear is life lubricated.

Bearings

- The bearings must be greased once a year, you may grease them using a grease which
  same characteristics as that originally used (grease CELTIA G2).
- Only the two bearings on the steam cylinder should be regreased periodically (please see
  "Preventive maintenance") using a grease which is resistant to high temperatures.

Cylinder

- The cylinder must be maintained very carefully so that ironing is easy and good quality.
- Detergent or scale deposits must be removed as soon as they reduce ironing quality (jam-
  ming, creases on the washing, etc.).
Replacing ironing bands

- Remove the feed tray to obtain easy access to the ironing bands.
- Remove staples from the two ends of the bands to be replaced and staple the end of the old band with the end of the new band.
- Rotate the cylinder using the handle.
- Unstaple the ends of the old and the new band, and staple the two ends of the new band together.
- Do the same for the other bands.
- Replace the feed tray.

CAUTION

The tension of the ironing bands was adjusted in the factory with the machine hot. Never retension the bands. Their tension must be as low as possible (just enough to drive them) since excessive tension will cause fast wear of these bands. Remember these comments if you need to make an adjustment or a replacement.
A flash of lightning with an arrow at its end displayed inside an equilateral triangle, warns the user about the presence of uninsulated "dangerous current" sufficient in intensity to cause electrocution.

An exclamation mark inside an equilateral triangle offers the user important advice about usage, servicing and hazardous conditions.

This symbol warns the user that there are mechanisms inside the machine which can be dangerous. The protective housing must be in place during use.

This symbol warns the user of the presence of high temperatures which could cause severe burns. Some surfaces can reach close to 200 °C (392 °F).
Explanation of washing symbols (ISO 3758:2005 standard)

To overcome language barriers, the following are symbols used internationally to give you guidance and recommendations when washing different textiles.

**Washing**  
The tub symbolizes washing.

<table>
<thead>
<tr>
<th>Max. washing temperature in °C</th>
<th>Mechanical action</th>
<th>Dry or water cleaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>normal</td>
<td>Normal dry cleaning with perchloroethyl, solvent of hydrocarb.</td>
</tr>
<tr>
<td>95</td>
<td>mild</td>
<td>Mild dry cleaning with perchloroethyl, solvent of hydrocarb.</td>
</tr>
<tr>
<td>70</td>
<td>normal</td>
<td>Normal dry cleaning with solvent of hydrocarbon.</td>
</tr>
<tr>
<td>60</td>
<td>normal</td>
<td>Mild dry cleaning with solvent of hydrocarbon.</td>
</tr>
<tr>
<td>60</td>
<td>mild</td>
<td>Do not dry clean.</td>
</tr>
<tr>
<td>50</td>
<td>normal</td>
<td>Normal water cleaning.</td>
</tr>
<tr>
<td>50</td>
<td>mild</td>
<td>Mild water cleaning.</td>
</tr>
<tr>
<td>40</td>
<td>normal</td>
<td>Very mild water cleaning.</td>
</tr>
<tr>
<td>40</td>
<td>mild</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>very mild</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>normal</td>
<td>Can be put in a tumble dryer. Normal temperature.</td>
</tr>
<tr>
<td>30</td>
<td>mild</td>
<td>Can be put in a tumble dryer. Lower temperature.</td>
</tr>
<tr>
<td>30</td>
<td>very mild</td>
<td>Do not put in a tumble dryer.</td>
</tr>
<tr>
<td>40</td>
<td>wash by hand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>do not wash</td>
<td>Do not wash.</td>
</tr>
</tbody>
</table>

**Drying**  
The circle in a square symbolizes tumble drying.

<table>
<thead>
<tr>
<th>Max. washing temperature in °C</th>
<th>Mechanical action</th>
<th>Dry or water cleaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>normal</td>
<td>Can be put in a tumble dryer. Normal temperature.</td>
</tr>
<tr>
<td>30</td>
<td>mild</td>
<td>Can be put in a tumble dryer. Lower temperature.</td>
</tr>
<tr>
<td>30</td>
<td>very mild</td>
<td>Do not put in a tumble dryer.</td>
</tr>
</tbody>
</table>

**Ironing**  
The iron symbolizes the domestic ironing and pressing process.

<table>
<thead>
<tr>
<th>Max. washing temperature in °C</th>
<th>Mechanical action</th>
<th>Dry or water cleaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td></td>
<td>Max. temperature 200 °C.</td>
</tr>
<tr>
<td>150</td>
<td></td>
<td>Max. temperature 150 °C.</td>
</tr>
<tr>
<td>110</td>
<td></td>
<td>Max. temp. 110 °C. The steam can cause irreversible damages.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do not iron.</td>
</tr>
</tbody>
</table>

**Bleaching**  
The triangle symbolizes bleaching.

- Bleaching allowed (chlorine or oxygen).
- Bleaching allowed (only oxygen).
- Do not bleach.
Conversion of measurement units

The following is a list of correspondences of the main frequently used units, to avoid the need to use measurement unit conversion tables.

bar:

- 1 bar = 100 000 Pa
- 1 bar = 1.019 7 kg/cm²
- 1 bar = 750.06 mm Hg
- 1 bar = 10 197 mm H2O
- 1 bar = 14.504 psi

pound:

- 1 lb = 453.592 37 g

british thermal unit:

- 1 Btu = 1 055.06 J
- 1 Btu = 0.2521 kcal

kcal:

- 1 kcal = 3.967 Btu
- 1 cal/h = 0.001 163 W
- 1 kcal/h = 1.163 W

continental horse power:

- 1 ch = 0.735 5 kW
- 1 ch = 0.987 0 HP

cubic foot:

- 1 cu ft = 28.316 8 dm³
- 1 cu ft = 1 728 cu in

cubic inch:

- 1 cu in = 16.387 1 dm³

foot:

- 1 ft = 304.8 mm
- 1 ft = 12 in

gallon (U.K.):

- 1 gal = 4.545 96 dm³ or l
- 1 gal = 277.41 cu in

gallon (U.S.A.):

- 1 gal = 3.785 33 dm³ or l
- 1 gal = 231 cu in

horse power:

- 1 HP = 0.745 7 kW
- 1 HP = 1.013 9 ch

inch:

- 1 in = 25.4 mm

joule:

- 1 J = 0.000 277 8 Wh
- 1 J = 0.238 92 cal

kilogramme:

- 1 kg = 2.205 62 lb

kg/cm²:

- 1 kg/cm² = 98 066.5 Pa
- 1 kg/cm² = 0.980 665 bar

pascal:

- 1 Pa = 1 N/m²
- 1 Pa = 0.007 500 6 mm Hg
- 1 Pa = 0.101 97 mm H2O
- 1 Pa = 0.010 197 g/cm²
- 1 Pa = 0.000 145 psi
- 1 MPa = 10 bar

thermie:

- 1 th = 1 000 kcal
- 1 th = 10⁶ cal
- 1 th = 4.185 5 x 10⁶ J
- 1 th = 1.162 6 kWh
- 1 th = 3 967 Btu

watt:

- 1 W = 1 J/s
- 1 W = 0.860 11 kcal/h

watt-hour:

- 1 Wh = 3600 J
- 1 kWh = 860 kcal

yard:

- 1 yd = 0.914 4 m
- 1 yd = 3 ft
- 1 yd = 36 in

temperature degrees:

- 0 °K = -273.16 °C
- 0 °C = 273.16 °K
- t °F = 5/9 (t °C - 32)
- t °F = 1.8 t °C + 32
# Lubricant Table

## Machine Lubrication

### Uses

<table>
<thead>
<tr>
<th>Uses</th>
<th>Lithium soap grease</th>
<th>Lithium soap paste + silicone oil</th>
<th>Lithium soap paste + mineral oil + mineral solid greases</th>
<th>Lithium soap paste with MOS2 additive</th>
<th>Graphite grease mini 60% with graphite, special leakproof</th>
<th>Extreme high pressure oil</th>
<th>Extreme high pressure oil</th>
<th>Inhibited oil SAE5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling bearings</td>
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<td>Bearings</td>
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<td>Bearings high</td>
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<td>Bare gears</td>
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<td>Chains shafts</td>
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<td>Flange joints</td>
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<td>Union pipes</td>
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<td>Steam circuits</td>
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<td>Reducers with</td>
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<td>wheels and screws</td>
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<td>Reducers with gears</td>
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<td>Circuits and pneumatic devices</td>
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</tbody>
</table>

### Temperature Limit Range

<table>
<thead>
<tr>
<th>Temperature Limit Range</th>
<th>-20°C + 140°C</th>
<th>-40°C + 200°C</th>
<th>-20°C + 150°C</th>
<th>-20°C + 135°C</th>
<th>-30°C + 700°C</th>
<th>0°C + 100°C</th>
<th>0°C + 120°C</th>
<th>+10°C + 65°C</th>
</tr>
</thead>
</table>

### Recommended Products

<table>
<thead>
<tr>
<th>Code Product</th>
<th>CIELIA G2</th>
<th>NTN SH44 M</th>
<th>ALTEMP Q NB 50</th>
<th>MI-SETRAL 43N</th>
<th>GRACO AF 309</th>
<th>REDUCTELF SP150</th>
<th>REDUCTELF SP200</th>
<th>LUBRAK ATL SAE 5W</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE</td>
<td>96 011 011</td>
<td>96 011 019</td>
<td>96 011 014</td>
<td>96 011 000</td>
<td>96 011 004</td>
<td>96 010 001</td>
<td>96 010 004</td>
<td>96 010 030</td>
</tr>
</tbody>
</table>

### Correspondence

<table>
<thead>
<tr>
<th>Correspondence</th>
<th>ANTAR</th>
<th>BP</th>
<th>CASTROL</th>
<th>ELF</th>
<th>ESSO</th>
<th>FINA</th>
<th>GBSA</th>
<th>GRAFOIL</th>
<th>KLUBER</th>
<th>MOBIL</th>
<th>KERNITE</th>
<th>SETRAL</th>
<th>SHELL</th>
<th>TOTAL</th>
<th>MOLYKOTE</th>
<th>OPAL</th>
<th>ITECMA</th>
<th>DOW CORNING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPOXA MO 2</td>
<td>ENERGOL CRXP 150</td>
<td>ALPHA SP 150</td>
<td>STATERMA MO10</td>
<td>MULTI PURPOSE</td>
<td>BELLEVILLE N</td>
<td></td>
<td></td>
<td>UNISEKOL L50Z</td>
<td>MOBILGEAR 629</td>
<td>LUBRA K MP</td>
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<td></td>
<td>EPONA Z 150</td>
<td>ENERGOL CRXP 220</td>
<td>ALPHA SP 220</td>
<td></td>
<td>GREASE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MOBILGEAR 630</td>
<td>TOP BLEN8 SAE</td>
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<td></td>
<td>EPONA Z 220</td>
<td>SHF 22</td>
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<td>DTE 24</td>
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<td>MISOLA AH</td>
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</tr>
</tbody>
</table>

### Types of Lubricants and Standardization

<table>
<thead>
<tr>
<th>Types of Lubricants and Standardization</th>
<th>Lithium soap grease</th>
<th>Lithium soap paste + silicone oil</th>
<th>Lithium soap paste + mineral oil + mineral solid greases</th>
<th>Lithium soap paste with MOS2 additive</th>
<th>Graphite grease mini 60% with graphite, special leakproof</th>
<th>Extreme high pressure oil</th>
<th>Extreme high pressure oil</th>
<th>Inhibited oil SAE5</th>
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### Temperatures

-20°C + 140°C, -40°C + 200°C, -20°C + 150°C, -20°C + 135°C, -30°C + 700°C, 0°C + 100°C, 0°C + 120°C, +10°C + 65°C